Flood Control District of Maricopa County
Contract FCD 89-79

WICKENBURG AREA DRAINAGE MASTER STUDY

TECHNICAL DOCUMENTATION REPORT

HYDROLOGIC ANALYSES

FLOODLAIN DELINEATION

Submitted to the
Federal Emergency Management Agency
on Behalf of the
Flood Control District of Maricopa County

BLACK & VEATCH
PROGRESS BY DESIGN

Project No. 17676

May 1994

COE & VAN LOO
PLANNING • ENGINEERING
LANDSCAPE ARCHITECTURE

CVL No. 1197-02

Flood Control District of Maricopa County
Contract FCD 89-79

WICKENBURG AREA DRAINAGE MASTER STUDY

TECHNICAL DOCUMENTATION REPORT

Appendix 4.5: HEC-2 Models & Cross Section Plots for Sols Wash Area Wash
UNNAMED SOLS WASH TRIBUTARY (Wash ah4)

Submitted to the
Federal Emergency Management Agency
on Behalf of the
Flood Control District of Maricopa County

N:\1197\02\ADMIN\119702RP.063

May 1994

4.4

FEDERAL EMERGENCY MANAGEMENT AGENCY **HYDROLOGIC ANALYSIS FORM**	O.M.B. Burden No. 3067-0148 Expires July 31, 1994	FEMA USE ONLY

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 3.67 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

Community Name: UNINCORPORATED MARICOPA COUNTY / TOWN OF WICKENBURG

Flooding Source: WASH AH4: UNNAMED SOLS WASH TRIBUTARY (#4)
(One form for each flooding source)

Project Name /Identifier: WICKENBURG ADMS FCD 89-79

1. HYDROLOGIC ANALYSIS IN FIS

☐ Approximate study stream (Zone A)
☐ Detailed study stream (briefly explain methodology) NA

2. REASON FOR NEW HYDROLOGIC ANALYSIS

☒ No existing analysis
☐ Improved data *(see data revision on page 3)*
☐ Changed physical conditions of watershed *(explain)*

☐ Alternative methodology *(justify why the revised model is better than model used in the effective FIS)*

☐ Evaluation of proposed conditions (CLOMRs only) (explain)

☒ Other No existing analysis or analysis being updated to reflect existing conditions

If a computer program/model was used in revising the hydrologic analysis, please provide a diskette with the input files for the 10-, 50-, 100 - and 500-year recurrence intervals.

Only the 100-year recurrence interval need be included for SFHAs designated as Zone A.

3. APPROVAL OF ANALYSIS

☒ Approval of hydrologic analysis, including the resulting peak discharge value (s) has been provided by the appropriate local, state, or Federal Agency. (i.e., Flood Control District of Maricopa County)
Attach evidence of approval.

☐ Approval of the hydrologic analysis is not required by any local, State, or Federal Agency.

Stream: _____

Comparison of 100-year Discharges

Location:	Drainage area (Sq mi.)	FIS (cfs):	Revised (cfs):
SOLS WASH CONFLUENCE	0.94	—	907

Note: When revised discharges are not significantly different than FIS discharges, FEMA may require a confidence limits analysis on attachment D at a later date to complete the review.

As is often the case with revision requests, only a portion of a stream may actually be revised or be affected by a revision. Therefore, transition to the unrevised portion is important to maintain the continuity of the study. NFIP regulations stipulate that such a transition must be assured. What is the transition from the proposed discharges to the effective discharges? Please explain how the transition was made *(attach separate sheet if necessary)*

ATTACH A COMPLETED REVIEW OF RESULTS PAGE FOR EACH FLOODING SOURCE.

Is the new hydrologic analysis being developed solely to revise the flow values presented in the FIS *(i.e. no changed hydraulic conditions)*? ☐ Yes ☒ No

If yes, does the 100-year water surface elevation change by 1.0 foot or more? ☐ Yes ☐ No

FEMA does not normally revise NFIP maps solely due to insignificant flow changes where changes in 100-year water surface elevation are less than 1.0 foot.

5. HISTORICAL FLOODING INFORMATION

Is historical data available for the flooding source? ☐ Yes ☒ No

If yes, provide the following:

Location along flooding source: _____

Maximum peak discharge: _____ cfs

Second highest peak discharge: _____ cfs

Source of information: _____

6. GAGE RECORD INFORMATION

Location of nearest gage to project site *(along flooding source or similar watershed; specify)*

NA

Gaging Station: _____

Drainage area at gage: _____ mi^2

Number of years of data: _____

7. DATA REVISION

Please use the following table to list all the data and/or parameters affected by this request and identify them as new data (*New*) or as revising existing data (*Revised*). *(If necessary, attach a separate sheet.)*

Data Parameter	New	Revised	Data Source
NA	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

- Data source can be from a Federal, State, or local government agency, or from a private source. Some State and local governments may have less strict data requirements than Federal agencies, in which case the hydrologic data may not be accepted by FEMA unless it is demonstrated that the data give a better estimate of the flood discharge.
- Attach documentation corroborating each data source *(i.e., certified statement, report, bibliographical reference to a published document)*. In the case of a published document or a government report, providing copies of the cover and pertinent pages may be helpful.

8. METHODOLOGY FOR NEW ANALYSIS

☐ Statistical Analysis of Gage Records (*use Attachment A*)

☐ Regional Regression Equations *(use Attachment B)*

☒ Precipitation/Runoff Model *(use Attachment C)*

☐ Other *(specify; attach backup computations and supporting data)* _____

Gaging Station: NA

Gage Location (latitude and longitude): _____

	FIS:	Revised:
1. Number of years of data	_____	_____
Systematic	_____	_____
Historical	_____	_____
2. Homogeneous data	☐ Yes ☐ No	☐ Yes ☐ No
3. Data adjustments	☐ Yes ☐ No	☐ Yes ☐ No
4. Number of high outliers	_____	_____
Low outliers	_____	_____
Zero events	_____	_____
5. Generalized skew	_____	_____
6. Station skew	_____	_____
7. Adopted skew	_____	_____
8. Probability distribution used (justify if log-Pearson III was not used)	_____	_____
9. Transfer equations to ungaged sites		☐ Yes ☐ No

If yes, specify method

_____

_____

_____

10. Expected probability* ☐ Yes ☐ No

11. Comparison of results with other analyses ☐ Yes ☐ No

If yes, describe comparison

_____

_____

_____

*FEMA does not accept expected probability analyses for the purpose of reflecting flood hazard information in a FIS.

If any data is not available, indicate by N/A.

Attach analysis including plot of flood frequency curve.

1. Bibliographical Reference:

NA

(Attach a copy of title page, table of contents, and pertinent pages including equations.)

2. Gaged or ungaged stream: _____

3. Hydrologic region(s): _____
Attach backup map.

4. Provide parameters, values, and source of data used to define parameters.

	FIS:		Revised:	
5. Urbanized conditions calculations	☐ Yes	☐ No	☐ Yes	☐ No
6 Percent of watershed urbanization	_____		_____	
7. Is the watershed controlled?	☐ Yes	☐ No	☐ Yes	☐ No
8. Comparison with other analyses	☐ Yes	☐ No	☐ Yes	☐ No

If the answer to 5, 7, or 8 is yes, explain methodology in Comments.

If data is not available, indicate by N/A.

Comments

Attach computation and supporting maps, delineating the watershed boundary and drainage area divides.

		FIS:	Revised
1.	Method or model used:		HEC-1
	Version:		VER 3.0
	Date:		02 AUG 88
2.	Source of rainfall depth:		NOAA ATLAS 2
3.	Source of rainfall distribution:		SCS TYPE II
4.	Rainfall duration:		24 HOURS
5.	Areal adjustment to precipitation (%):		NWS HYDRO-40
6.	Hydrograph development method:		S-GRAPH
7.	Loss rate method:		GREEN-AMPT
	Source of soils information:		SCS
	Source of land use information		TOWN of WICKENBURG
8.	Channel routing method:		NORMAL DEPTH
9.	Reservoir routing:	☐ Yes ☐ No	☐ Yes ☐ No
10.	Baseflow considerations:	☐ Yes ☐ No	☐ Yes ☒ No

If yes, explain how baseflow was determined:

11.	Snowmelt considerations:	☐ Yes ☐ No	☐ Yes ☒ No
12.	Model calibration:	☐ Yes ☐ No	☒ Yes ☐ No

If yes, explain how calibration was performed Computed discharges were compared with DISCHARGE VS DRAINAGE AREA curves and envelopes prepared by the Flood Control District of Maricopa County

13. Future land use condition: ☐ Yes ☒ No

If yes, explain why

NOTE: FEMA policy is to base flooding on existing conditions.
If data is not available, indicate by N/A.

Attach precipitation/runoff model, hydrologic model schematic, curve number calculations, time of concentration calculations, and supporting maps, delineating the watershed boundary and drainage area divides.

Stream: NA – NO FLOW RECORDS

Select one location for Confidence Limits Evaluation (*describe location*): _____

_____

Discharges for selected location:

Exceedance Probability		FIS	Revised
10%	(10-year)	_____ cfs	_____ cfs
2%	(50-year)	_____ cfs	_____ cfs
1%	(100-year)	_____ cfs	_____ cfs
0.2%	(500-year)	_____ cfs	_____ cfs

1% (100-year) Flood Confidence Intervals

90% Confidence Interval: 5% limit _____ cfs

95% limit _____ cfs

50% Confidence Interval: 25% limit _____ cfs

75% limit _____ cfs

If the value of the 100-year frequency flood in the FIS is beyond the 50% confidence interval but within the 90% confidence interval, does the 100-year water surface elevation change by 1.0 foot or more? ☐ Yes ☐ No

An example of confidence limits analysis can be found in Appendix 9 of Bulletin 17B.

Attach Confidence Limits Analysis.

FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERINE HYDRAULIC ANALYSIS FORM	O.M.B. Burden No 3067-0148 Expires July 31, 1994	FEMA USE ONLY

PUBLIC BURDEN DISCLOSURE NOTICE

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Community Name: Unincorporated Maricopa County / Town of Wickenburg

Flooding Source: WASH AH4: UNNAMED SOLS WASH TRIBUTARY (#4)
(One form for each flooding source)

Project Name/Identifier: Wickenburg ADMS FCD 89-79

1. REACH TO BE REVISED

Downstream limit: Station 0.000 (SOLS WASH CONFLUENCE)

Upstream limit: Station 1.584

2. EFFECTIVE FIS

☒ Not studied

☐ Studied by approximate methods

Downstream limit of study ____

Upstream limit of study ____

☐ Studied by detailed methods

Downstream limit of study ____

Upstream limit of study ____

☐ Floodway delineated

Downstream limit of Floodway ____

Upstream limit of Floodway ____

3. HYDRAULIC ANALYSIS

Why is the hydraulic analysis different from that used to develop the FIRM. *(Check all that apply)*

☒ Not studied in FIS

☒ Improved hydrologic data/analysis. Explain: Hydrologic Analysis procedures standardized by the Flood Control District of Maricopa County

☐ Improved hydraulic analysis. Explain: ____

☐ Flood control structure. Explain: ____

☐ Other. Explain: ____

Full input and output listings along with files on diskette *(if available)* for each of the models listed below and summary of the source of input parameters used in the models must be provided. The summary must include a complete description of any changes made from model to model *(e.g. duplicate effective model to corrected effective model)*. Only the Duplicate Effective and the Revised or Post-Project Conditions models must be submitted. See instructions for directions on when other models may be required. Only the 100-year flood profile is required for SFHAs with a Zone A designation. For areas which do not have detailed flooding, a hydraulic model is not required; however BFE's may not be added to the revised FIRM.

☐ Duplicate Effective Model — Natural ☐ Floodway ☐

Copies of the hydraulic analysis used in the effective FIS, referred to as the effective models *(10-, 50-, 100-, and 500-year multi-profile runs and the floodway run)* must be obtained and then reproduced on the requestor's equipment to produce the duplicate effective model. This is required to assure that the effective model input data has been transferred correctly to the requestor's equipment and to assure that the revised data will be integrated into the effective data to provide a continuous FIS model upstream and downstream of the revised reach.

☐ Corrected Effective Model — Natural ☐ Floodway ☐

The corrected effective model is the model that corrects any errors that occur in the duplicate effective model, adds any additional cross sections to the duplicate effective model, or incorporates more detailed topographic information than that used in the currently effective model. The corrected effective model must not reflect any man-made physical changes since the date of the effective model. An error could be a technical error in the modeling procedures, or any construction in the floodplain that occurred prior to the date of the effective model but was not incorporated into the effective model.

☐ Existing or Pre-Project Conditions Model — Natural ☐ Floodway ☐

The duplicate effective or corrected model is modified to produce the existing or pre-project conditions model to reflect any modifications that have occurred within the floodplain since the date of the effective model but prior to the construction of the project for which the revision is being requested. If no modification has occurred since the date of the effective model, then this model would be identical to the corrected effective or duplicate effective model.

☐ Revised or Post-Project Conditions Model — Natural ☐ Floodway ☐

The existing or pre-project conditions model *(or duplicate effective or corrected effective model, as appropriate)* is revised to reflect revised or post-project conditions. This model must incorporate any physical changes to the floodplain since the effective model was produced as well as the effects of the project. When the request is for proposed project this model should reflect proposed conditions.

☒ Other: Please attach a sheet describing all other models or calculations submitted. — Natural ☒ Floodway ☒

New Model
(Proposed Effective Model)

4. MODEL PARAMETERS *(from model used to revise 100-year water surface elevation)*

Discharges:	Upstream Limit	Downstream Limit
10-year		
50-year		
100-year	907	907
500-year		

Attach diagram showing changes in 100-year discharge

2. Explain how the starting water surface elevations were determined Starting water surface elevation determined by the Slope-Area Method

3. Give range of friction loss coefficients (*Manning's "N"*) Channel 0.030

Overbanks 0.045

If friction loss coefficients are different anywhere along the revised reach from those used to develop the FIRM, give location, value used in the effective FIS, and revised values and an explanation as to how the revised values were determined.

Location	FIS	Revised
NA		

Explain:

4. Describe how the cross section geometry data were determined (*e.g., field survey, topographic map, taken from previous study*) and list cross sections that were added.

Data points for cross sections are based on the photogrammetric models for the topographic maps

5. Explain how reach lengths for channel and overbanks were determined:

All reach lengths were measured from floodplain work maps.

5. RESULTS (from model used to revise 100-year water surface elevations)

1. Do the results indicate:

a. Water surface elevations higher than end points of cross sections? ..... ☐ Yes ☒ No

b. Supercritical depth? ..... ☐ Yes ☒ No

c. Critical depth? ..... ☒ Yes ☐ No

d. Other unique situations ..... ☐ Yes ☒ No

(If yes, Special Problem Report attached)

If yes to any of the above, attach an explanation that discusses the situation and how it is presented on the profiles, tables, and maps.

2. What is the maximum change in energy gradient between cross-sections? 10.00

Specify location 0.254

3. What is the distance between the cross-sections in 2 above? 560

Specify location 0.254

4. What is the maximum distance between cross-sections? 580

Specify location 0.529

5. Floodway determination

a. What is the maximum surcharge allowed by the community or State? ..... 1 foot

b. What is the maximum surcharge for the revised conditions? ..... 0 foot

Specify location ..... FP=FW

c. What is the maximum velocity? ..... 6.9 fps

Specify location 0.620

Explain:

d. Are there any negeative surcharge values at any cross-section ☐ Yes ☒ No

If yes, the floodway may need to widen. If it is not widened, please explain and indicate the maximum negative surcharge

6. Is the discharge value used to determine the floodway anywhere different from that used to determine the natural 100-year flood elevations? ..... ☐ Yes ☒ No

If Yes, explain:

7. Do 100-year water surface elevations increase at any location? ..... ☐ Yes ☒ No

If yes, please attach a list of the locations where the increases occur, state whether or not the increases are located on the requestor's property, and provide an explanation of the reason for the increases.

NA- New Model

Please attach a completed comparison table entitled: Water Surface Elevation Check (See page 6)

6. REVISED FIRM/FBFM AND FLOOD PROFILES

A. The revised water surface elevations tie into those computed by the effective FIS Model *(10-, 50-, 100-, and 500-year)*, downstream of the project at cross-section NA within _____ feet and upstream of the project at cross section _____ within _____ feet.

B. The revised floodway elevations tie into those computed by the effective FIS model, dowstream of the project at cross section NA within _____ feet and upstream of the project at cross section _____ within NA feet.

C. Attach profiles, at the same vertical and horizontal scale as the profiles in the effective FIS report, showing stream bed and profiles of all floods studied (without encroachment). Also, label all cross sections, road crossings (including low chord and top-of-road data), culverts, tributaries, corporate limits, and study limits. If channel distance has changed, the stationing should be revised for all profile sheets.

D. Attach a Floodway Data Table showing data for each cross section listed in the published Floodway Data Table in the FIS report.

Proceed to Riverine/Coastal Mapping Form

FEDERAL EMERGENCY MANAGMENT AGENCY

WATER SURFACE ELEVATION CHECK

COMMUNITY NAME	FLOODIND SOURCE	PROJECT NAME /IDENTIFIER
Unincorporated Maricopa County/ Town of Wickenburg	WASH AH4: UNNAMED SOLS WASH TRIBUTARY (#4)	Wickenburg ADMS F.D 89-79

	EFFECTIVE			DUPLICATE EFFECTIVE			CORRECTED EFFECTIVE			EXISTING/PRE-PROJECT			REVISED/PROJECT		
SECNO	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]

COMMENTS: New Model - See following Floodway Data Table

1-100-year (natural) Water Surface Elevation 2-Encroachment (floodway) Water Surface Elevation 3-Surcharge Value

Include all cross sections in the models between tie-in points. Any interpolated values should be indicated in parentheses.

Sheet 1 of 1

FLOODWAY DATA, WASH AH4: SOLS WASH TRIB
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
.044	532.	893.	1.0	2315.0	2315.0	.0
.148	106.	157.	5.8	2323.7	2323.7	.0
.254	72.	134.	6.8	2333.4	2333.4	.0
.333	118.	165.	5.5	2340.3	2340.3	.0
.419	117.	162.	5.6	2347.7	2347.7	.0
.529	158.	164.	5.5	2357.1	2357.1	.0
.620	70.	132.	6.9	2366.6	2366.6	.0
.718	178.	203.	4.5	2374.6	2374.6	.0
.815	180.	226.	4.0	2378.9	2378.9	.0
.913	184.	201.	4.5	2386.5	2386.5	.0
1.012	167.	189.	4.8	2391.9	2391.9	.0
1.103	308.	186.	4.9	2398.7	2398.7	.0
1.194	160.	182.	5.0	2404.5	2404.5	.0
1.296	147.	161.	5.6	2411.9	2411.9	.0
1.395	162.	182.	5.0	2419.5	2419.5	.0
1.493	73.	134.	6.8	2428.9	2428.9	.0
1.584	133.	170.	5.3	2436.5	2436.5	.0

Wickenburg ADMS FCD 89-79

EXPLANATORY NOTES FOR
FORM 4 SECTION 5 PARAGRAPH 1.C

This watercourse islocated in a mountainous area. It is common for this watercourse to flow in subcritical, supercritical, and transitional flow regimes. The subcritical profile has been used to delineate the 100 year floodplain and prepare maps, tables, etc.

FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERINE/COASTAL MAPPING FORM	O.M.B. Burden No. 3067-0148 Expires July 31, 1994	FEMA USE ONLY

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Community Name: Unincorporated Maricopa County/Town of Wickenburg

Flooding Source: WASH A44: UNNAMED SOLS WASH TRIBUTARY (#4)

Project Name/Identifier: Wickenburg ADMS FCD 89-79

1. MAPPING CHANGES

1. A topographic work map of suitable scale, contour interval, and planimetric definition must be submitted showing *(indicate N/A when not applicable)*:

		Included		
A.	Revised approximate 100-year floodplain boundaries (Zone A)	☐ Yes	☒ No	☐ N/A
B.	Revised detailed 100- and 500-year floodplain boundaries	☒ Yes	☐ No	☐ N/A
C.	Revised 100-year floodway boundaries	☒ Yes	☐ No	☐ N/A
D.	Location and alignment of all cross sections used in the revised hydraulic model with stationing control indicated	☒ Yes	☐ No	☐ N/A
E.	Stream alignments, road and dam alignments	☒ Yes	☐ No	☐ N/A
F.	Current community boundaries	☒ Yes	☐ No	☐ N/A
G.	Effective 100- and 500-year floodplain and 100-year floodway boundaries from the FIRM/FBFM reduced or enlarged to the scale of the topographic work map	☐ Yes	☐ No	☒ N/A
H.	Tie-ins between the effective and revised 100- and 500-year floodplains and 100-year floodway boundaries	☐ Yes	☐ No	☒ N/A
I.	The requestor's property boundaries and community easements	☐ Yes	☐ No	☒ N/A
J.	The signed certification of a registered professional engineer	☒ Yes	☐ No	☐ N/A
K.	Location and description of reference marks	☒ Yes	☐ No	☐ N/A
L.	Vertical datum (example: NGVD, NAVD etc.)	☒ Yes	☐ No	☐ N/A
M.	Coastal zone designations tie into adjacent areas not being revised	☐ Yes	☐ No	☒ N/A
N.	Location and alignment of all coastal transects used to revise the coastal analyses	☐ Yes	☐ No	☒ N/A

If any of the items above are marked no or N/A, please explain: No Zone A, 500-year, or coastal zones revised or delineated. Revised 100-year floodplains tie into effective Hassayampa River floodplain.

2. What is the source and date of the updated topographic information *(example: orthophoto maps, July 1985; field survey, May 1979, beach profiles, June 1987, etc.)*? Photo: Jan. 1991 (E), Oct 1990 (W); Maps 1992

3. What is the scale and contour interval of the following workmaps?
   a. Effective FIS unknown scale unknown Contour interval
   b. Revision Request 1" = 200' scale 4FT Contour interval

NOTE: Revised topographic information must be of equal or greater detail.

4. Attach an annotated FIRM and FBFM at the scale of the effective FIRM and FBFM showing the revised 100-year and 500-year floodplains and the 100-year floodway boundaries and how they tie into those shown on the effective FIRM and FBFM downstream and upstream of the revision or adjacent to the area of revision for coastal studies.

Attach additional pages if needed.

2. EARTH FILL PLACEMENT

1. The fill is: ☐ Existing ☐ Proposed ☒ N/A

2. Has fill been/will be placed in the regulatory floodway? ..... ☐ Yes ☒ No
   If yes, please attach completed Riverine Hydraulic Analysis Form.

3. Has fill been/will be placed in floodway fringe *(area between the floodway and 100-year floodplain boundaries)*? ..... ☐ Yes ☒ No

   If yes, then complete A, B, C, and D below.

   A. Are fill slopes for granular materials steeper than one vertical on one-and-one-half horizontal? ..... ☐ Yes ☐ No

   If yes, justify steeper slopes _____

   B. Is adequate erosion protection provided for fill slopes exposed to moving flood waters? *(Slopes exposed to flows with velocities of up to 5 feet per second (fps) during the 100-year flood must, at a minimum, be protected by a cover of grass, vines, weeds, or similar vegetation; slopes exposed to flows with velocities greater than 5 fps during the 100-year flood must, at a minimum, be protected by stone or rock riprap.)* ..... ☐ Yes ☐ No

   If no, describe erosion protection provided _____

   C. Has all fill placed in revised 100-year floodplain been compacted to 95 percent of the maximum density obtainable with the Standard Proctor Test Method or acceptable equivalent method? ☐ Yes ☐ No

   D. Can structures conceivably be constructed on the fill at any time in the future? ☐ Yes ☐ No

   If yes, provide certification of fill compaction (item C. above) by the community's NFIP permit official, a registered professional engineer, or an accredited soils engineer.

4. Has fill been/will be placed in a V-zone? ☐ Yes ☒ No

   If yes, is the fill protected from erosion by a flood control structure such as a revetment or seawall? ☐ Yes ☐ No

   If yes, attach the coastal structures form.

```
*******************************************
*  HEC-2 WATER SURFACE PROFILES           *
*                                         *
*  Version   4.6.2;  May 1991             *
*                                         *
  RUN DATE    24JUN92    TIME   14:32:42  *
*******************************************
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****************************************
*  U.S. ARMY CORPS OF ENGINEERS        *
*  HYDROLOGIC ENGINEERING CENTER       *
*  609 SECOND STREET, SUITE D          *
*  DAVIS, CALIFORNIA 95616-4687        *
*          (916) 756-1104              *
****************************************
```

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

THIS RUN EXECUTED 24JUN92 14:32:42

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

 Version   4.6.2;  May 1991
************************************


T1      WICKENBURG ADMS - CONTRACT FCD 89-79
T2      BLACK & VEATCH PN 17676; COE & VAN LOO JN 1197-02
T3      WASH AH4: SOLS WASH TRIBUTARY      (FILE AH4.DAT)

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0         2         0         0         0         0         0         0   2314.96         0

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      1                  -1                                      -1                            15


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150       200

      .045      .045      .030        .1        .3
NT      2       907       907
ET                        9.1                                                          520.50    1052.20
         CONFLUENCE OF WASH AH4 AND SOLS WASH
         BETWEEN CROSS-SECTIONS
            BR (SOLS WASH MILE 6.40)
            BS (SOLS WASH MILE 6.50)
         CROSS-SECTION DESIGNATION FROM
            SOLS WASH FLOODPLAIN DELINEATION
            HASSAYAMPA RIVER TO MARICOPA COUNTY LINE
            CELLA BARR ASSOCIATES

         SWSE DETERMINED BY SLOPE AREA METHOD

X1    0.044        77     986.5    1013.3
GR     2328       340      2326       348      2324       356      2322       364      2320       372
GR   2319.6     379.8    2319.2     387.6    2318.8     395.4    2318.4     403.2     2318       411
GR   2317.6     418.8    2317.2     426.6    2316.8     434.4    2316.4     442.2     2316       450
GR   2315.8       465    2315.6       480    2315.4     487.5    2315.2     502.5     2315     517.5
GR   2314.8     532.5    2314.6     547.5    2314.4       555    2314.2       570     2314       585
GR   2313.9     600.2    2313.8     615.3    2313.7     630.5    2313.6     645.6   2313.5     660.8
GR   2313.4       676    2313.3     691.1    2313.2     706.3    2313.1     721.4     2313       729
GR   2312.7       736    2312.3       743      2312       750    2311.8     757.3   2311.5     764.5
GR   2311.3     771.8      2311       779    2311.3     787.7    2311.7     796.3     2312       805
GR     2312       819      2312       833      2312       840    2312.2       847   2312.4       854
GR   2312.6       861    2312.8       868      2313       875    2313.2     890.6   2313.4     906.1
GR   2313.6     913.9    2313.8     929.4      2314       945      2314       959     2314       973
GR   2313.8     979.8    2313.5     986.5    2313.3     993.3      2313      1000   2313.3    1006.7
GR   2313.7    1013.3      2314      1020      2314    1036.7      2314      1045     2315    1052.5
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GR	2316	1060	2317	1067.5	2318	1075	2319	1082.5	2320	1090

	2322.7	1096.7	2325.3	1103.3						
ET			9.1						957.29	1063.17
X1	0.148	87	988.6	1017.9	470	570	550			
GR	2340	797.9	2339.7	800.9	2339.4	803.8	2339.1	806.8	2338.8	809.7
GR	2338.5	812.7	2338.1	815.7	2337.9	818.6	2337.5	821.6	2337.2	824.6
GR	2336.9	827.5	2336.6	830.5	2336.3	833.4	2336	836.4	2335.7	839.4
GR	2335.4	842.3	2335.1	845.3	2334.8	848.2	2334.5	851.2	2334.1	854.2
GR	2333.9	857.1	2333.5	860.1	2333.2	863.1	2332.9	866.0	2332.6	869.0
GR	2332.3	871.9	2332	874.9	2331.6	880.9	2331.4	883.9	2331.2	886.9
GR	2330.9	889.9	2330.5	895.9	2330.1	901.9	2329.9	904.9	2329.5	910.9
GR	2329.1	916.9	2328.8	919.9	2328.6	922.9	2328.4	925.9	2328	931.9
GR	2327.4	934.9	2326.9	937.9	2326.3	940.9	2325.7	943.9	2325.1	946.9
GR	2324.6	949.9	2324	952.9	2323.8	955.9	2323.5	958.9	2323.3	961.9
GR	2323	964.9	2322.7	970.9	2322.3	976.9	2322	982.9	2321.7	988.6
GR	2321.6	991.5	2321.4	994.3	2321.1	1000.0	2321.1	1005.9	2321.3	1011.9
GR	2321.4	1014.9	2321.6	1017.9	2321.8	1023.9	2322	1029.9	2322.1	1033.0
GR	2322.3	1036.2	2322.4	1039.3	2322.5	1042.4	2322.6	1045.5	2322.8	1048.7
GR	2322.9	1051.8	2323	1054.9	2323.3	1058.2	2323.5	1061.4	2323.8	1064.7
GR	2324	1067.9	2325	1070.8	2326	1073.7	2327	1076.7	2328	1079.6
GR	2329	1082.5	2330	1085.4	2331	1088.3	2332	1091.2	2333	1094.2
GR	2334	1097.1	2335	1100.0						
ET			9.1						948.82	1021.04
X1	0.254	91	983	1010	550	500	560			
GR	2345	858	2344.6	860	2344.1	862	2343.6	864	2343.2	866
[illegible]	2342.7	868	2342.3	870	2341.8	872	2341.4	874	2340.9	876
[illegible]	2340.4	878	2340	880	2339.8	882	2339.5	884	2339.3	886
GR	2339	888	2338.8	890	2338.5	892	2338.3	894	2338	896
GR	2337.8	898	2337.5	900	2337.3	902	2337	904	2336.8	906
GR	2336.5	908	2336.3	910	2336	912	2335.9	914	2335.7	915.9
GR	2335.6	917.9	2335.4	919.8	2335.2	923.7	2335.1	925.7	2334.9	927.6
GR	2334.8	929.6	2334.6	931.5	2334.4	935.5	2334.2	937.4	2334.1	939.4
GR	2333.9	941.3	2333.7	945.2	2333.6	947.2	2333.4	949.1	2333.3	951.1
GR	2333.1	953	2332.9	957	2332.7	959	2332.5	963	2332.3	965
GR	2332.1	969	2331.9	971	2331.7	975	2331.5	977	2331.3	981
GR	2331.1	983	2330.9	986.9	2330.8	988.8	2330.6	990.6	2330.4	994.4
GR	2330.3	996.3	2330.1	998.1	2330	1000	2330.2	1002	2330.4	1004
GR	2330.7	1006	2330.9	1008	2331.1	1010	2331.3	1012	2331.6	1014
GR	2331.8	1016	2332	1018	2333	1020.1	2334	1022.3	2335	1024.4
GR	2336	1026.5	2337	1028.6	2338	1030.8	2339	1032.9	2340	1035
GR	2340.8	1037.1	2341.7	1039.2	2342.5	1041.3	2343.3	1043.3	2344.2	1045.4
GR	2345	1047.5	2345.8	1049.6	2346.7	1051.7	2347.5	1053.8	2348.3	1055.8
GR	2349.2	1057.9								
ET			9.1						922.15	1039.80
X1	0.333	88	975.8	1002.4	410	475	420			
GR	2360	850	2359.5	852.5	2358.9	855.1	2358.4	857.6	2357.9	860.1
GR	2357.3	862.7	2356.8	865.2	2356.3	867.7	2355.7	870.3	2355.2	872.8
GR	2354.7	875.3	2354.1	877.9	2353.6	880.4	2353.1	882.9	2352.5	885.5
GR	2352	888	2351.1	890.5	2350.3	893	2349.4	895.5	2348.6	898
GR	2347.7	900.5	2346.9	903	2346	905.5	2345.1	908	2344.3	910.5
[illegible]	2343.4	913	2342.6	915.5	2341.7	918	2340.9	920.5	2340	923
[illegible]	2339.9	925.5	2339.8	927.9	2339.7	930.4	2339.6	935.3	2339.4	937.7

	2339.3	942.6	2339.2	945.1	2339.1	947.5	2339	950	2338.9	952.6
	2338.8	957.8	2338.7	960.3	2338.6	962.9	2338.5	965.5	2338.4	968.1
GR	2338.3	973.3	2338.2	975.8	2338.1	978.4	2338	981	2338	988.1
GR	2338	995.3	2338	1000	2338.2	1002.4	2338.4	1004.8	2338.6	1007.2
GR	2338.8	1009.6	2339	1012	2339.1	1014.5	2339.2	1016.9	2339.3	1019.4
GR	2339.4	1024.3	2339.6	1026.7	2339.7	1031.6	2339.8	1034.1	2339.9	1036.6
GR	2340	1039	2341	1041.6	2342	1044.2	2343	1046.8	2344	1049.4
GR	2345	1052	2346	1054.6	2347	1057.2	2348	1059.8	2349	1062.4
GR	2350	1065	2350.5	1067.5	2350.9	1069.9	2351.4	1072.4	2351.9	1074.8
GR	2352.3	1077.3	2352.8	1079.8	2353.2	1082.2	2353.7	1084.7	2354.1	1087.2
GR	2354.6	1089.6	2355.1	1092.1	2355.5	1094.5				
ET			9.1						939.48	1056.14
X1	0.419	72	985.3	1015.2	470	415	450			
GR	2365	852.1	2364	855.7	2363	859.3	2362	862.9	2361	866.4
GR	2360	870	2359.3	873.5	2358.6	876.9	2357.8	880.4	2357.1	883.8
GR	2356.4	887.3	2355.6	890.7	2354.9	894.2	2354.2	897.6	2353.4	901.1
GR	2352.7	904.5	2352	908	2351.5	911.4	2351	914.8	2350.5	918.1
GR	2350	921.5	2349.5	924.9	2349	928.3	2348.5	931.6	2348	935
GR	2347.8	938.8	2347.5	942.5	2347.3	946.3	2347	950	2346.9	953.5
GR	2346.8	957	2346.6	960.5	2346.5	964	2346.4	967.5	2346.3	971
GR	2346.1	974.5	2346	978	2345.8	981.7	2345.7	985.3	2345.5	989
GR	2345.3	992.7	2345.2	996.3	2345	1000	2345.2	1003.8	2345.4	1007.6
GR	2345.6	1011.4	2345.8	1015.2	2346	1019	2346.2	1022.3	2346.3	1025.7
GR	2346.5	1029	2346.7	1032.3	2346.8	1035.7	2347	1039	2347.1	1042.3
GR	2347.3	1045.6	2347.4	1048.9	2347.6	1052.1	2347.7	1055.4	2347.9	1058.7
GR	2348	1062	2349.7	1065.3	2351.4	1068.6	2353.1	1071.9	2354.9	1075.1
	2356.6	1078.4	2358.3	1081.7	2360	1085	2360.9	1088.4	2361.8	1091.7
GR	2362.7	1095.1	2363.6	1098.4						
ET			9.1						869.87	1027.79
X1	0.529	78	981.8	1013.5	570	580	580			
GR	2368	809	2366.4	812.2	2364.8	815.4	2363.2	818.6	2361.6	821.8
GR	2360	825	2359.6	828.4	2359.2	831.8	2358.8	835.2	2358.4	838.6
GR	2358	842	2357.8	849	2357.6	856	2357.4	863	2357.1	870
GR	2356.9	877	2356.7	884	2356.5	891	2356.3	898	2356.1	905
GR	2355.9	912	2355.6	919	2355.4	926	2355.2	933	2355	940
GR	2355.4	947.1	2355.7	950.7	2355.9	954.2	2356.1	957.8	2356.3	961.3
GR	2356.6	964.9	2357	972	2356.8	975.3	2356.5	978.5	2356.3	981.8
GR	2356	985	2355.8	988.8	2355.5	992.5	2355.3	996.3	2355	1000
GR	2355.3	1003.3	2355.7	1006.7	2356	1010	2356.3	1013.5	2356.5	1017
GR	2356.8	1020.5	2357.1	1027.6	2357.3	1034.8	2357.5	1042	2357.7	1049.2
GR	2357.9	1056.4	2358	1060	2358.3	1063.3	2358.7	1066.7	2359	1070
GR	2359.3	1073.3	2359.7	1076.7	2360	1080	2360.3	1083.5	2360.6	1086.9
GR	2360.9	1090.4	2361.2	1093.8	2361.5	1097.3	2361.9	1100.8	2362.1	1104.2
GR	2362.5	1107.7	2362.8	1111.2	2363.1	1114.6	2363.4	1118.1	2363.7	1121.5
GR	2364	1125	2364.5	1128.5	2365	1132	2365.5	1135.5	2366	1139
GR	2366.5	1142.5	2367	1146	2367.5	1149.5				

			9.1						985.75	1055.45
X1	0.620	58	991.6	1014.8	480	500	480			
GR	2384.0	720.0	2383.5	728.8	2383.1	741.2	2382.5	752.6	2382.1	761.1
GR	2381.4	767.9	2381.1	782.4	2380.4	792.7	2380.2	801.6	2380.0	809.3
GR	2379.3	820.5	2378.4	833.7	2377.6	839.6	2376.8	851.4	2376.0	862.2
GR	2374.1	871.3	2372.3	884.1	2371.0	894.6	2370.8	901.8	2372.0	905.4
GR	2373.8	912.7	2376.1	920.7	2377.5	932.8	2377.2	945.2	2375.2	950.0
GR	2372.8	962.4	2370.0	971.1	2367.4	984.2	2363.7	991.6	2363.5	1000.0
GR	2363.6	1008.9	2364.0	1014.8	2364.3	1022.5	2365.1	1032.9	2365.8	1039.7
GR	2366.4	1050.6	2367.0	1063.5	2367.6	1074.8	2368.7	1080.4	2370.3	1092.6
GR	2371.5	1104.7	2372.2	1108.7	2373.0	1120.6	2374.2	1133.4	2374.6	1142.7
GR	2374.9	1147.9	2375.2	1163.9	2376.0	1174.1	2376.4	1182.3	2376.8	1191.8
GR	2377.1	1203.4	2377.4	1218.7	2377.7	1221.9	2378.0	1234.2	2378.6	1238.9
GR	2379.0	1254.1	2379.5	1260.4	2380.0	1270.0				
ET			9.1						910.95	1089.16
X1	0.718	72	986.7	1015.2	495	500	520			
GR	2390	795	2389	798.5	2388	802	2387	805.5	2386	809
GR	2385	812.5	2384	816	2383	819.5	2382	823	2381	826.5
GR	2380	830	2379.8	833.4	2379.5	836.9	2379.3	840.3	2379	843.8
GR	2378.8	847.2	2378.5	850.6	2378.3	854.1	2378	857.5	2377.8	860.9
GR	2377.5	864.4	2377.3	867.8	2377	871.3	2376.8	874.7	2376.5	878.1
GR	2376.3	881.6	2376	885	2375.6	891.7	2375.3	898.5	2374.9	905.2
GR	2374.6	911.9	2374.2	918.6	2374	925.5	2374	932.5	2374	939.5
GR	2374	946.5	2373.9	953.3	2373.7	960	2373.4	966.7	2373.2	973.3
GR	2373	980	2372.7	986.7	2372.3	993.3	2372	1000	2372.4	1007.6
	2372.8	1015.2	2373.1	1022.6	2373.3	1029.9	2373.4	1037.2	2373.6	1044.4
GR	2373.8	1051.7	2374	1059	2374	1065.6	2374	1072.1	2374	1078.7
GR	2374	1082	2374.3	1085.3	2374.6	1088.6	2375.1	1095.1	2375.4	1098.4
GR	2375.7	1101.7	2376	1105	2376.7	1108.6	2377.4	1112.3	2378.2	1115.9
GR	2378.9	1119.6	2379.6	1123.2	2380.4	1126.8	2381.1	1130.4	2381.8	1134.1
GR	2382.6	1137.7	2383.3	1141.4						
ET			9.1						836.61	1016.48
X1	0.815	89	979.9	1010	480	480	510			
GR	2392	735	2390.8	737.9	2389.6	740.8	2388.4	743.7	2387.2	746.6
GR	2386	749.5	2384.8	752.4	2383.6	755.3	2382.4	758.2	2381.2	761.1
GR	2380	764	2380.4	766.9	2380.9	769.8	2381.3	772.7	2381.8	775.6
GR	2382.2	778.4	2382.7	781.3	2383.1	784.2	2383.6	787.1	2384	790
GR	2383.6	792.9	2383.2	795.8	2382.8	798.7	2382.4	801.6	2382	804.5
GR	2381.6	807.4	2381.2	810.3	2380.8	813.2	2380.4	816.1	2380	819
GR	2379.8	822.1	2379.6	825.2	2379.4	828.3	2379.2	831.4	2379	834.5
GR	2378.8	837.6	2378.6	840.7	2378.4	843.8	2378.2	846.9	2378	850
GR	2378	853	2377.9	856	2377.8	865	2377.8	868	2377.7	871
GR	2377.6	880	2377.5	883	2377.5	889	2377.4	892	2377.3	901
GR	2377.3	904	2377.2	907	2377.1	916	2377	919	2377	922
GR	2377.1	925	2377.1	931.1	2377.2	937.2	2377.3	940.3	2377.4	946.4
GR	2377.4	952.5	2377.5	955.5	2377.6	958.5	2377.6	964.6	2377.7	970.7
GR	2377.8	973.8	2377.9	979.9	2377.9	986	2378	989	2377.8	991.8
GR	2377.5	994.5	2377.3	997.3	2377	1000	2377.3	1003.3	2377.7	1006.7
GR	2378	1010	2378.4	1013	2378.8	1016	2379.2	1019	2379.6	1022
GR	2380	1025	2380.9	1028	2381.8	1031	2382.7	1034	2383.6	1037
	2384.4	1040	2385.3	1043	2386.2	1046	2387.1	1049		

ET			9.1						939.01	1122.99
X1	0.913	88	984.1	1019	465	510	520			
GR	2397	822	2396.8	826.5	2396.5	831	2396.3	835.5	2396	840
GR	2395.8	843.9	2395.5	847.8	2395.3	851.6	2395	855.5	2394.8	859.4
GR	2394.5	863.3	2394.3	867.1	2394	871	2393.8	874.9	2393.5	878.8
GR	2393.3	882.6	2393	886.5	2392.8	890.4	2392.5	894.3	2392.3	898.1
GR	2392	902	2391	906.5	2390	911	2389	915.5	2388	920
GR	2387.7	924.2	2387.3	928.3	2387	932.5	2386.7	936.7	2386.3	940.8
GR	2386	945	2385.8	952.8	2385.6	960.6	2385.6	964.5	2385.4	968.5
GR	2385.3	976.3	2385.1	984.1	2385	988	2384.7	992	2384.3	996
GR	2384	1000	2384.4	1007.6	2384.6	1011.4	2385	1019	2385.1	1027
GR	2385.3	1035	2385.5	1043	2385.6	1051	2385.8	1059	2385.9	1067
GR	2385.9	1074.9	2385.6	1082.6	2385.4	1090.4	2385.1	1098.1	2385	1102
GR	2385.3	1106	2385.6	1110	2385.9	1114	2386.1	1118	2386.4	1122
GR	2386.7	1126	2387	1130	2387.3	1138.3	2387.4	1142.4	2387.6	1146.6
GR	2387.9	1154.9	2388	1159	2388.3	1162.9	2388.6	1166.8	2388.9	1170.8
GR	2389.2	1174.7	2389.5	1178.6	2389.9	1182.5	2390.1	1186.5	2390.5	1190.4
GR	2390.8	1194.3	2391.1	1198.2	2391.4	1202.2	2391.7	1206.1	2392	1210
GR	2392.4	1213.9	2392.9	1217.8	2393.3	1221.7	2393.8	1225.6	2394.2	1229.4
GR	2394.7	1233.3	2395.1	1237.2	2395.6	1241.1				
ET			9.1						852.29	1019.75
X1	1.012	74	990	1015	510	440	520			
GR	2406	700	2405.3	703.8	2404.5	707.5	2403.8	711.3	2403	715
GR	2402.3	718.8	2401.5	722.5	2400.8	726.3	2400	730	2399.5	738.1
GR	2399	746.3	2398.5	754.4	2398	762.5	2397.5	770.6	2397	778.8
GR	2396.5	786.9	2396	795	2395.4	803.2	2394.8	811.3	2394.1	819.5
GR	2393.5	827.6	2392.9	835.8	2392.3	843.9	2391.9	852	2391.5	860
GR	2391.2	868	2390.9	876	2390.6	884	2390.3	892	2390	900
GR	2390.3	907.8	2390.5	915.5	2390.8	923.3	2391	931	2391.3	938.8
GR	2391.5	946.5	2391.8	954.3	2392	962	2391.4	970	2390.9	978
GR	2390.3	986	2390	990	2389.5	995	2389	1000	2389.5	1007.5
GR	2390	1015	2391.5	1018.8	2393	1022.5	2394.5	1026.3	2396	1030
GR	2396.5	1033.8	2397	1037.5	2397.5	1041.3	2398	1045	2398.5	1048.8
GR	2399	1052.5	2399.5	1056.3	2400	1060	2400.7	1064.1	2401.4	1068.1
GR	2402.1	1072.2	2402.8	1076.2	2403.5	1080.3	2404.2	1084.3	2404.9	1088.4
GR	2405.6	1092.5	2406.4	1096.5	2407.1	1100.6	2407.8	1104.7	2408.5	1108.7
GR	2409.2	1112.8	2409.9	1116.8	2410.6	1120.9	2411.3	1124.9		
ET			9.1						789.12	1097.42
X1	1.103	96	982	1015	265	540	480			
GR	2406.9	723.4	2406.3	729.1	2405.7	734.9	2405.1	740.6	2404.6	746.3
GR	2404	752	2403	758	2402	764	2401	770	2400	776
GR	2399	782	2398.8	787.6	2398.5	793.2	2398.3	798.8	2398.1	804.5
GR	2397.9	810.1	2397.6	815.7	2397.4	821.3	2397.1	826.9	2396.9	832.5
GR	2396.9	838.2	2397.2	843.8	2397.5	849.4	2397.5	855	2397.8	860.4
GR	2398	865.8	2398.2	871.2	2399	876.6	2400	882	2400.6	887.5
GR	2400.9	893	2401.4	898.5	2401.7	904	2402	909.5	2401.8	915
GR	2401.3	921	2400.8	927	2400	933	2399.8	939	2399.5	945
GR	2399.1	950.3	2398.8	955.6	2398.6	960.9	2398.4	966.1	2398.1	971.4
GR	2397.9	976.7	2397.7	982	2397.6	988	2397.5	994	2397.5	1000
GR	2397.5	1005.5	2397.6	1010	2397.7	1015	2397.7	1020.3	2397.7	1025.6
GR	2397.8	1030.9	2397.9	1036.1	2398	1041.4	2398	1046.7	2398	1052

[illegible]	2398.1	1057.6	2398.2	1063.1	2398.3	1068.6	2398.4	1074.2	2398.4	1079.7
[illegible]R	2398.6	1085.3	2398.6	1090.8	2398.7	1096.4	2398.8	1101.9	2398.9	1107.4
GR	2399	1113	2399.2	1118.4	2399.4	1123.8	2399.6	1129.2	2399.8	1134.6
GR	2400	1140	2400.2	1145.4	2400.5	1150.8	2400.7	1156.2	2400.9	1161.7
GR	2401.2	1167.1	2401.4	1172.5	2401.6	1177.9	2401.9	1183.3	2402.1	1188.7
GR	2402.4	1194.1	2402.6	1199.5	2402.8	1204.9	2403.1	1210.3	2403.3	1215.8
GR	2403.5	1221.2	2403.8	1226.6	2404	1232	2404.8	1237.6	2405.6	1243.2
GR	2406.4	1248.8								
ET			9.1						953.34	1113.77
X1	1.194	82	985	1015	510	425	480			
GR	2420	822	2418.9	827.3	2417.7	832.6	2416.6	837.9	2415.4	843.1
GR	2414.3	848.4	2413.1	853.7	2412	859	2411.4	864.1	2410.9	869.3
GR	2410.3	874.4	2409.7	879.6	2409.1	884.7	2408.6	889.9	2408	895
GR	2407.6	899.8	2407.2	904.6	2406.8	909.4	2406.4	914.2	2406	919
GR	2405.8	924.1	2405.6	929.2	2405.3	934.3	2405.1	939.4	2404.9	944.6
GR	2404.7	949.7	2404.4	954.8	2404.2	959.9	2404	965	2403.8	970
GR	2403.5	975	2403.3	980	2403	985	2402.7	990	2402.3	995
GR	2402	1000	2402.3	1005	2402.7	1010	2403	1015	2403	1024.8
GR	2403	1034.6	2403	1044.3	2403	1054.1	2403	1059	2403.2	1064
GR	2403.3	1069	2403.5	1074	2403.7	1079	2403.8	1084	2404	1089
GR	2404.2	1099.2	2404.4	1109.4	2404.6	1119.6	2404.8	1129.8	2405	1140
GR	2405.1	1150	2405.3	1160	2405.5	1170	2405.6	1180	2405.8	1190
GR	2405.9	1200	2406	1205	2406.2	1210	2406.3	1215	2406.5	1220
GR	2406.7	1225	2406.8	1230	2407	1235	2407.2	1240	2407.3	1245
GR	2407.5	1250	2407.7	1255	2407.8	1260	2408	1265	2408.8	1270
[illegible]R	2409.6	1275	2410.4	1280	2411.2	1285	2412	1290	2413	1295
[illegible]	2414	1300	2415	1305						
ET			9.1						891.57	1038.19
X1	1.296	77	985	1015	490	500	540			
GR	2424	689	2423.7	693.6	2423.3	698.1	2423	702.7	2422.7	707.2
GR	2422.3	711.8	2422	716.3	2421.7	720.9	2421.3	725.4	2421	730
GR	2421.3	738.8	2421.5	747.5	2421.8	756.3	2422	765	2421.8	769.4
GR	2421.5	773.8	2421.3	778.1	2421	782.5	2420.8	786.9	2420.5	791.3
GR	2420.3	795.6	2420	800	2419	804.4	2418	808.8	2417	813.2
GR	2416	817.6	2415	822	2414.8	826.5	2414.6	831.1	2414.4	835.6
GR	2414.2	840.1	2414	844.7	2413.6	853.7	2413.4	858.3	2413	867.3
GR	2412.8	871.9	2412.6	876.4	2412.4	880.9	2412.2	885.5	2412	890
GR	2411.8	894.8	2411.7	899.7	2411.5	904.5	2411.3	909.3	2411.2	914.2
GR	2411	919	2410.8	927.7	2410.6	936.3	2410.4	940.7	2410.2	949.3
GR	2410	958	2410.3	967	2410.7	976	2411	985	2410.7	990
GR	2410.3	995	2410	1000	2410.3	1005	2410.7	1010	2411	1015
GR	2411.3	1023.3	2411.7	1031.7	2412	1040	2412.5	1044.4	2413	1048.8
GR	2413.5	1053.1	2414	1057.5	2414.5	1061.9	2415	1066.3	2415.5	1070.6
GR	2416	1075	2416.7	1079.2	2417.3	1083.3	2418	1087.5	2418.7	1091.7
GR	2419.3	1095.8	2420	1100						
ET			9.1						899.19	1061.58
X1	1.395	77	988	1018.6	520	510	520			
GR	2432	810	2431.6	813.5	2431.3	817.1	2430.9	820.6	2430.6	824.2
GR	2430.2	827.7	2429.8	831.3	2429.4	834.8	2429.1	838.4	2428.7	841.9
[illegible]R	2428.4	845.5	2428	849	2427.1	852.4	2426.2	855.9	2425.3	859.3
[illegible]	2424.4	862.8	2423.6	866.2	2422.7	869.7	2421.8	873.1	2420.9	876.6

	2420	880	2419.8	887.1	2419.6	894.2	2419.6	897.7	2419.4	901.3
GR	2419.3	908.4	2419.1	915.5	2418.9	922.7	2418.7	930	2418.6	933.7
GR	2418.4	937.3	2418.2	944.7	2418	952	2418	959.2	2418	966.4
GR	2418	973.6	2418	980.8	2418	988	2417.7	992	2417.3	996
GR	2417	1000	2417.3	1003.8	2417.5	1007.5	2417.8	1011.3	2418.1	1018.6
GR	2418.4	1025.9	2418.6	1033.1	2418.9	1040.4	2419.1	1047.4	2419.3	1054.2
GR	2419.5	1061	2419.7	1067.8	2419.9	1074.6	2420	1078	2420.6	1081.4
GR	2421.1	1084.9	2421.6	1088.4	2422.2	1091.8	2422.7	1095.3	2423.3	1098.7
GR	2423.8	1102.2	2424.4	1105.6	2424.9	1109.1	2425.4	1112.6	2426	1116
GR	2426.5	1119.4	2426.9	1122.8	2427.4	1126.2	2427.9	1129.5	2428.3	1132.9
GR	2428.8	1136.3	2429.2	1139.7	2429.7	1143.1	2430.1	1146.5	2430.6	1149.8
GR	2431.1	1153.2	2431.5	1156.6						
ET			9.1						985.18	1058.23
X1	1.493	86	990	1012	540	530	520			
GR	2440	690	2439.7	698.3	2439.3	706.7	2439	715	2438.8	723.5
GR	2438.5	732	2438.3	740.5	2438	749	2437.8	758.3	2437.6	767.5
GR	2437.6	772.2	2437.4	776.8	2437.3	786.1	2437.1	795.4	2436.9	804.6
GR	2436.6	813.7	2436.4	818.3	2436.1	827.4	2436	832	2435.7	836.7
GR	2435.3	841.3	2435	846	2434.7	850.7	2434.3	855.3	2434	860
GR	2434	868.6	2434	877.1	2434	885.7	2434.2	894.3	2434.4	898.7
GR	2434.7	903	2434.9	907.3	2435.1	911.7	2435.3	916	2435.6	920.3
GR	2436	929	2436.3	937.6	2436.4	941.9	2436.6	946.1	2436.9	954.7
GR	2437	959	2436.7	963.7	2436.3	968.3	2436	973	2433.5	977.3
GR	2431	981.5	2428.5	985.8	2426	990	2425.5	995	2425	1000
GR	2425.3	1004	2425.7	1008	2426	1012	2426.4	1016.6	2426.8	1021.2
GR	2427.2	1025.8	2427.6	1030.4	2428	1035	2428.3	1044.2	2428.7	1053.3
	2429	1062.5	2429.3	1071.7	2429.7	1080.8	2430	1090	2430.3	1099.2
GR	2430.7	1108.3	2431	1117.5	2431.3	1126.7	2431.7	1135.8	2432	1145
GR	2432.6	1149.7	2433.1	1154.4	2433.7	1159.1	2434.3	1163.9	2434.9	1168.6
GR	2435.4	1173.3	2436	1178	2436.4	1182.7	2436.8	1187.4	2437.2	1192.1
GR	2437.6	1196.8	2438	1201.5	2438.4	1206.2	2438.8	1210.9	2439.2	1215.6
GR	2439.6	1220.3								
ET			9.1						961.96	1095.17
X1	1.584	89	985	1010	500	450	480			
GR	2448	775	2447.7	778.9	2447.4	782.7	2447.1	786.6	2446.9	790.4
GR	2446.6	794.3	2446.3	798.1	2446	802	2445.7	805.9	2445.4	809.7
GR	2445.1	813.6	2444.9	817.4	2444.6	821.3	2444.3	825.1	2444	829
GR	2443.6	833	2443.2	837	2442.8	841	2442.4	845	2442	849
GR	2441.6	853	2441.2	857	2440.8	861	2440.4	865	2440	869
GR	2439.9	873.1	2439.7	877.3	2439.6	881.4	2439.4	885.6	2439.3	889.7
GR	2439.1	893.9	2439	898	2438.9	902	2438.8	906	2438.6	910
GR	2438.5	914	2438.4	918	2438.3	922	2438.1	926	2438	930
GR	2437.8	934.2	2437.6	938.4	2437.4	942.6	2437.2	946.8	2437	951
GR	2436.8	955.2	2436.6	959.4	2436.4	963.6	2436.2	967.8	2436	972
GR	2435.7	976.3	2435.3	980.7	2435	985	2434.8	988.8	2434.5	992.5
GR	2434.3	996.3	2434	1000	2434.5	1005	2435	1010	2435	1018
GR	2435	1026	2435	1034	2435	1042	2435	1050	2435	1058
GR	2435	1062	2435.1	1066	2435.3	1070	2435.4	1074	2435.6	1078
GR	2435.7	1082	2435.9	1086	2436	1090	2436.4	1094.1	2436.7	1098.2
GR	2437.1	1102.3	2437.4	1106.4	2437.8	1110.4	2438.2	1114.6	2438.6	1118.6
GR	2438.9	1122.7	2439.3	1126.8	2439.6	1130.9	2440	1135	2441	1139.2
	2442	1143.3	2443	1147.5	2444	1151.7	2445	1155.8		

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS
0

CCHV= .100 CEHV= .300
*SECNO .044
CONFLUENCE OF WASH AH4 AND SOLS WASH
BETWEEN CROSS-SECTIONS
BR (SOLS WASH MILE 6.40)
BS (SOLS WASH MILE 6.50)
CROSS-SECTION DESIGNATION FROM
SOLS WASH FLOODPLAIN DELINEATION
HASSAYAMPA RIVER TO MARICOPA COUNTY LINE
CELLA BARR ASSOCIATES

SWSE DETERMINED BY SLOPE AREA METHOD

.044	3.96	2314.96	2313.11	2314.96	2314.98	.02	.00	.00	2313.50
907.0	830.1	56.6	20.2	813.9	44.5	34.9	.0	.0	2313.70
.00	1.02	1.27	.58	.045	.030	.045	.000	2311.00	520.50
.000336	0.	0.	0.	0	10	0	.00	531.70	1052.20

FLOW DISTRIBUTION FOR SECNO= .04 CWSEL= 2314.96

STA=	521.	615.	661.	691.	721.	736.	750.	757.	765.	772.	779.	788.	796.
PER Q=	3.8	4.8	4.2	5.2	3.1	4.7	3.1	3.5	4.0	4.5	5.4	4.5	
AREA=	63.2	59.6	47.3	53.3	29.3	36.9	22.3	23.8	26.0	27.4	33.1	29.8	
VEL=	.5	.7	.8	.9	1.0	1.2	1.3	1.3	1.4	1.5	1.5	1.4	
DEPTH=	.7	1.3	1.6	1.8	2.0	2.6	3.1	3.3	3.6	3.8	3.8	3.5	

STA=	796.	805.	819.	833.	847.	861.	875.	906.	945.	987.	1013.	1052.
PER Q=	3.8	5.7	5.7	5.5	4.5	3.4	5.3	3.6	2.9	6.2	2.2	
AREA=	27.1	41.4	41.4	40.7	35.8	30.2	54.7	47.5	42.9	44.5	34.9	
VEL=	1.3	1.2	1.2	1.2	1.1	1.0	.9	.7	.6	1.3	.6	
DEPTH=	3.1	3.0	3.0	2.9	2.6	2.2	1.8	1.2	1.0	1.7	.9	

*SECNO .148

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.148	2.56	2323.66	2323.66	.00	2324.41	.75	.48	.22	2321.70
907.0	126.1	569.3	211.5	33.7	68.9	53.7	5.9	3.6	2321.60
.02	3.75	8.26	3.94	.045	.030	.045	.000	2321.10	957.29
.008908	470.	550.	570.	0	14	0	.00	105.87	1063.17

FLOW DISTRIBUTION FOR SECNO= .15 CWSEL= 2323.66

STA=	957.	977.	983.	989.	1018.	1024.	1030.	1036.	1042.	1052.	1063.
PER Q=	4.5	4.1	5.3	62.8	6.3	5.3	4.4	3.1	3.0	1.1	
AREA=	14.3	9.1	10.3	68.9	11.8	10.6	9.7	7.8	9.0	4.9	
VEL=	2.9	4.1	4.6	8.3	4.9	4.5	4.1	3.6	3.1	2.0	
DEPTH=	.7	1.5	1.8	2.4	2.0	1.8	1.5	1.3	1.0	.4	

*SECNO .254
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.254	3.43	2333.43	2333.43	.00	2334.41	.98	4.60	.07	2331.10
907.0	150.8	684.0	72.1	39.5	77.3	17.1	7.7	4.7	2331.10
.04	3.82	8.85	4.22	.045	.030	.045	.000	2330.00	948.82
.007892	550.	560.	500.	0	11	0	.00	72.22	1021.04

FLOW DISTRIBUTION FOR SECNO= .25 CWSEL= 2333.43

STA=	949.	969.	975.	981.	983.	1010.	1014.	1020.	1021.
PER Q=	4.1	4.1	6.0	2.5	75.4	4.5	3.5	.0	
AREA=	13.9	9.4	11.8	4.5	77.3	8.4	8.5	.2	
VEL=	2.7	4.0	4.6	5.0	8.8	4.8	3.7	1.0	
DEPTH=	.7	1.6	2.0	2.2	2.9	2.1	1.4	.2	

*SECNO .333
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.333	2.31	2340.31	2340.31	.00	2341.00	.69	3.63	.03	2338.20
907.0	266.5	501.0	139.4	66.0	60.6	38.3	9.1	5.6	2338.20
.06	4.04	8.26	3.64	.045	.030	.045	.000	2338.00	922.15
.009288	410.	420.	475.	0	19	0	.00	117.65	1039.80

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= .33 CWSEL= 2340.31

STA=	922.	943.	950.	958.	963.	968.	973.	976.	1002.	1007.	1012.	1019.	1032.
PER Q=	3.8	3.3	4.9	4.0	4.9	5.6	2.9	55.2	4.9	3.3	3.3	3.0	
AREA=	13.4	8.6	11.1	8.2	9.4	10.2	5.1	60.6	9.2	7.2	8.6	9.9	
VEL=	2.6	3.5	4.0	4.4	4.7	5.0	5.1	8.3	4.9	4.2	3.5	2.8	
DEPTH=	.7	1.2	1.4	1.6	1.8	2.0	2.1	2.3	1.9	1.5	1.2	.8	

STA=	1032.	1040.
PER Q=	.7	
AREA=	3.5	
VEL=	1.9	
DEPTH=	.4	

*SECNO .419
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.419	2.74	2347.74	2347.74	.00	2348.47	.72	3.99	.01	2345.70
907.0	196.9	575.8	134.3	52.4	71.0	38.4	10.8	6.8	2345.80
.08	3.76	8.11	3.50	.045	.030	.045	.000	2345.00	939.48
.008471	470.	450.	415.	0	11	0	.00	116.65	1056.14

FLOW DISTRIBUTION FOR SECNO= .42 CWSEL= 2347.74

STA=	939.	961.	968.	975.	982.	985.	1015.	1019.	1026.	1032.	1049.	1056.
PER Q=	3.8	3.4	4.5	6.3	3.8	63.5	3.5	4.8	3.2	3.2	.1	
AREA=	13.4	8.7	10.3	12.8	7.2	71.0	7.0	10.5	8.2	11.6	1.1	
VEL=	2.6	3.5	3.9	4.5	4.8	8.1	4.6	4.1	3.5	2.5	1.0	
DEPTH=	.6	1.2	1.5	1.8	2.0	2.4	1.8	1.6	1.2	.7	.2	

*SECNO .529
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.529	2.11	2357.11	2357.11	.00	2357.67	.57	6.27	.02	2356.30
907.0	541.6	352.6	12.8	112.7	46.1	5.2	13.0	8.6	2356.30
.11	4.81	7.64	2.47	.045	.030	.045	.000	2355.00	869.87
.014501	570.	580.	580.	0	19	0	.00	157.92	1027.79

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= .53 CWSEL= 2357.11

STA=	870.	898.	912.	919.	926.	933.	940.	947.	951.	958.	982.	1014.	1028.
PER Q=	3.2	6.2	5.1	6.8	8.2	9.8	9.1	3.3	4.3	3.8	38.9	1.4	
AREA=	11.4	14.1	9.5	11.2	12.6	14.0	13.5	5.6	8.5	12.2	46.1	5.2	
VEL=	2.6	4.0	4.9	5.5	5.9	6.3	6.1	5.3	4.5	2.8	7.6	2.5	
DEPTH=	.4	1.0	1.4	1.6	1.8	2.0	1.9	1.6	1.2	.5	1.5	.4	

*SECNO .620
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.620	3.13	2366.63	2366.63	.00	2367.65	1.03	5.12	.14	2363.70
907.0	30.4	643.1	233.4	8.6	69.5	53.4	14.6	9.9	2364.00
.12	3.56	9.26	4.38	.045	.030	.045	.000	2363.50	985.75
.008106	480.	480.	500.	0	14	0	.00	69.70	1055.45

FLOW DISTRIBUTION FOR SECNO= .62 CWSEL= 2366.63

STA=	986.	992.	1015.	1023.	1033.	1040.	1051.	1055.
PER Q=	3.4	70.9	11.4	10.1	2.9	1.2	.0	
AREA=	8.6	69.5	19.1	20.0	8.0	5.7	.5	
VEL=	3.6	9.3	5.4	4.6	3.3	1.9	.7	
DEPTH=	1.5	3.0	2.5	1.9	1.2	.5	.1	

*SECNO .718
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.718	2.64	2374.64	2374.64	.00	2375.17	.53	4.01	.05	2372.70
907.0	207.1	484.9	215.0	67.8	64.9	70.1	16.6	11.3	2372.80
.15	3.06	7.47	3.07	.045	.030	.045	.000	2372.00	910.95
.007594	495.	520.	500.	0	12	0	.00	178.21	1089.16

FLOW DISTRIBUTION FOR SECNO= .72 CWSEL= 2374.64

STA=	911.	940.	960.	973.	980.	987.	1015.	1023.	1030.	1037.	1052.	1072.	1089.
PER Q=	3.1	3.8	5.9	4.4	5.6	53.5	5.6	4.3	3.6	5.0	3.4	1.9	
AREA=	14.4	14.9	16.2	10.3	12.0	64.9	12.5	10.5	9.4	15.1	13.8	8.6	
VEL=	2.0	2.3	3.3	3.8	4.2	7.5	4.1	3.7	3.4	3.0	2.2	2.0	
DEPTH=	.5	.7	1.2	1.5	1.8	2.3	1.7	1.4	1.3	1.0	.7	.5	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .815

.815	1.86	2378.86	2378.51	.00	2379.13	.27	3.93	.03	2377.90
907.0	709.1	192.3	5.6	186.5	37.0	2.8	19.0	13.3	2378.00
.18	3.80	5.20	1.98	.045	.030	.045	.000	2377.00	836.61
.008426	480.	510.	480.	4	11	0	.00	179.87	1016.48

FLOW DISTRIBUTION FOR SECNO= .81 CWSEL= 2378.86

STA=	837.	865.	880.	889.	901.	907.	916.	922.	931.	937.	946.	953.	959.
PER Q=	6.0	6.5	4.9	7.8	4.3	7.4	5.5	8.0	5.0	6.4	3.8	3.4	
AREA=	20.2	17.5	12.1	17.9	9.5	15.4	11.0	16.2	10.5	14.2	8.9	8.2	
VEL=	2.7	3.4	3.7	4.0	4.1	4.3	4.5	4.5	4.3	4.1	3.9	3.7	
DEPTH=	.7	1.2	1.3	1.5	1.6	1.7	1.8	1.8	1.7	1.5	1.5	1.4	

STA=	959.	965.	974.	980.	1010.	1016.
PER Q=	3.0	4.1	2.1	21.2	.6	
AREA=	7.7	10.9	6.2	37.0	2.8	
VEL=	3.5	3.4	3.1	5.2	2.0	
DEPTH=	1.3	1.2	1.0	1.2	.4	

ECNO .913
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.913	2.47	2386.47	2386.47	.00	2386.98	.50	4.29	.07	2385.10
907.0	115.8	482.6	308.7	38.1	66.8	96.6	21.4	15.4	2385.00
.21	3.04	7.23	3.20	.045	.030	.045	.000	2384.00	939.01
.008992	465.	520.	510.	0	11	0	.00	183.98	1122.99

FLOW DISTRIBUTION FOR SECNO= .91 CWSEL= 2386.47

STA=	939.	961.	976.	984.	1019.	1027.	1035.	1043.	1059.	1083.	1098.	1106.	1123.
PER Q=	3.1	5.7	4.0	53.2	5.0	4.1	3.1	4.2	3.9	6.3	4.6	2.8	
AREA=	12.0	16.1	9.9	66.8	11.4	10.2	8.6	13.6	15.1	17.0	10.9	9.8	
VEL=	2.3	3.2	3.7	7.2	4.0	3.7	3.3	2.8	2.3	3.4	3.9	2.5	
DEPTH=	.6	1.0	1.3	1.9	1.4	1.3	1.1	.8	.6	1.1	1.4	.6	

*SECNO 1.012

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.012	2.89	2391.89	2391.89	.00	2392.48	.59	4.28	.03	2390.00
907.0	421.1	472.5	13.4	125.2	59.6	4.5	23.6	17.3	2390.00
.23	3.36	7.92	2.99	.045	.030	.045	.000	2389.00	852.29
.008064	510.	520.	440.	0	11	0	.00	161.51	1019.75

FLOW DISTRIBUTION FOR SECNO= 1.01 CWSEL= 2391.89

STA=	852.	876.	884.	892.	900.	908.	916.	923.	939.	986.	990.	1015.	1020.
PER Q=	3.0	3.2	4.8	6.6	6.4	4.9	3.6	4.0	6.7	3.3	52.1	1.5	
AREA=	12.4	9.1	11.5	13.9	13.5	11.4	9.6	13.3	23.4	6.9	59.6	4.5	
VEL=	2.2	3.2	3.8	4.3	4.3	3.9	3.4	2.7	2.6	4.3	7.9	3.0	
DEPTH=	.5	1.1	1.4	1.7	1.7	1.5	1.2	.9	.5	1.7	2.4	.9	

*SECNO 1.103

65 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.103	1.82	2398.72	2398.72	.00	2399.16	.44	4.25	.02	2397.70
907.0	475.3	267.0	164.7	100.4	38.0	47.7	25.1	18.9	2397.70
.25	4.73	7.02	3.46	.045	.030	.045	.000	2396.90	789.12
.016621	265.	480.	540.	0	14	0	.00	225.24	1097.42

FLOW DISTRIBUTION FOR SECNO= 1.10 CWSEL= 2398.72

STA=	789.	816.	821.	827.	833.	838.	844.	849.	855.	866.	977.	982.	1015.
PER Q=	5.3	3.7	5.0	6.5	7.2	6.2	4.4	3.7	4.6	3.7	2.2	29.4	
AREA=	14.6	6.8	8.2	9.6	10.4	9.3	7.7	6.8	10.2	11.9	4.9	38.0	
VEL=	3.3	4.9	5.5	6.1	6.3	6.0	5.2	4.9	4.1	2.8	4.0	7.0	
DEPTH=	.6	1.2	1.5	1.7	1.8	1.7	1.4	1.2	.9	.1	.9	1.2	

STA=	1015.	1026.	1036.	1047.	1063.	1097.
PER Q=	5.1	4.3	3.0	3.8	1.9	
AREA=	10.8	9.6	7.9	10.7	8.7	
VEL=	4.3	4.0	3.5	3.2	2.0	
DEPTH=	1.0	.9	.7	.7	.3	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.194

1.194	2.49	2404.49	2404.48	.00	2405.05	.56	5.86	.04	2403.00
907.0	67.7	456.1	383.2	22.2	59.6	100.9	27.1	21.0	2403.00
.28	3.05	7.66	3.80	.045	.030	.045	.000	2402.00	953.34
.009604	510.	480.	425.	3	11	0	.00	160.42	1113.77

FLOW DISTRIBUTION FOR SECNO= 1.19 CWSEL= 2404.49

STA=	953.	980.	985.	1015.	1025.	1035.	1044.	1054.	1059.	1064.	1074.	1089.	1114.
PER Q=	4.6	2.9	50.3	6.8	6.8	6.7	6.8	3.4	3.1	4.6	3.3	1.0	
AREA=	15.5	6.7	59.6	14.6	14.6	14.4	14.6	7.3	6.9	11.6	11.0	6.0	
VEL=	2.7	3.9	7.7	4.2	4.2	4.2	4.2	4.2	4.0	3.6	2.7	1.5	
DEPTH=	.6	1.3	2.0	1.5	1.5	1.5	1.5	1.5	1.4	1.2	.7	.2	

*SECNO 1.296
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.296	1.93	2411.93	2411.93	.00	2412.52	.59	6.15	.01	2411.00
907.0	540.0	335.1	31.9	107.3	43.0	10.9	29.1	22.7	2411.00
.30	5.03	7.79	2.92	.045	.030	.045	.000	2410.00	891.57
.015315	490.	540.	500.	0	15	0	.00	146.62	1038.19

FLOW DISTRIBUTION FOR SECNO= 1.30 CWSEL= 2411.93

STA=	892.	919.	928.	936.	941.	949.	958.	967.	976.	985.	1015.	1032.	1038.
PER Q=	4.0	4.1	5.5	3.6	8.8	10.8	10.6	7.4	4.6	36.9	3.4	.1	
AREA=	12.7	9.0	10.6	6.3	14.1	16.0	16.1	12.9	9.8	43.0	10.2	.8	
VEL=	2.9	4.2	4.7	5.2	5.7	6.1	6.0	5.2	4.3	7.8	3.1	1.0	
DEPTH=	.5	1.0	1.2	1.4	1.6	1.8	1.8	1.4	1.1	1.4	.6	.1	

*SECNO 1.395
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.395	2.52	2419.52	2419.52	.00	2420.09	.57	6.33	.00	2418.00
907.0	362.2	457.7	87.0	93.4	59.6	28.7	31.2	24.6	2418.10
.33	3.88	7.68	3.03	.045	.030	.045	.000	2417.00	899.19
.009934	520.	520.	510.	0	11	0	.00	162.39	1061.58

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 1.39 CWSEL= 2419.52

STA=	899.	934.	945.	952.	959.	966.	974.	981.	988.	1019.	1026.	1040.	1062.
PER Q=	4.0	5.1	4.7	5.2	5.2	5.2	5.2	5.2	50.5	3.9	4.4	1.3	
AREA=	15.7	12.7	10.3	10.9	10.9	10.9	10.9	10.9	59.6	9.2	12.9	6.6	
VEL=	2.3	3.6	4.2	4.3	4.3	4.3	4.3	4.3	7.7	3.9	3.1	1.8	
DEPTH=	.5	1.2	1.4	1.5	1.5	1.5	1.5	1.5	1.9	1.3	.9	.3	

*SECNO 1.493
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.493	3.86	2428.86	2428.86	.00	2429.90	1.04	4.31	.14	2426.00
907.0	23.1	679.1	204.8	6.9	73.9	53.0	33.1	26.0	2426.00
.34	3.36	9.18	3.86	.045	.030	.045	.000	2425.00	985.18
.006868	540.	520.	530.	0	14	0	.00	73.05	1058.23

FLOW DISTRIBUTION FOR SECNO= 1.49 CWSEL= 2428.86

STA=	985.	990.	1012.	1017.	1021.	1026.	1030.	1035.	1044.	1053.	1058.
PER Q=	2.5	74.9	7.1	5.4	3.9	2.6	1.5	1.6	.5	.0	
AREA=	6.9	73.9	12.2	10.4	8.6	6.7	4.9	6.5	3.3	.4	
VEL=	3.4	9.2	5.2	4.7	4.1	3.5	2.8	2.2	1.4	.5	
DEPTH=	1.4	3.4	2.7	2.3	1.9	1.5	1.1	.7	.4	.1	

*SECNO 1.584
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.584	2.48	2436.48	2436.48	.00	2437.10	.62	4.08	.04	2435.00
907.0	49.8	404.7	452.4	15.1	49.1	105.4	34.7	27.1	2435.00
.37	3.30	8.25	4.29	.045	.030	.045	.000	2434.00	961.96
.011344	500.	480.	450.	0	14	0	.00	133.22	1095.17

FLOW DISTRIBUTION FOR SECNO= 1.58 CWSEL= 2436.48

STA=	962.	985.	1010.	1018.	1026.	1034.	1042.	1050.	1058.	1066.	1074.	1086.	1095.
PER Q=	5.5	44.6	6.0	6.0	6.0	6.0	6.0	6.0	5.8	4.2	3.4	.7	
AREA=	15.1	49.1	11.8	11.8	11.8	11.8	11.8	11.8	11.6	9.6	9.9	3.3	
VEL=	3.3	8.3	4.6	4.6	4.6	4.6	4.6	4.6	4.5	4.0	3.1	2.0	
DEPTH=	.7	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.2	.8	.4	

T1 FLOODWAY DETERMINATION
T2 1.0 FT TARGET INCREASE
T3 WASH AH4: SOLS WASH TRIBUTARY

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		3							2314.96	

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

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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*PROF 2

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS
0

CCHV=     .100 CEHV=     .300
*SECNO  .044

3470 ENCROACHMENT STATIONS=      520.5    1052.2  TYPE=      1  TARGET=      531.700
          CONFLUENCE OF WASH AH4 AND SOLS WASH
          BETWEEN CROSS-SECTIONS
             BR (SOLS WASH MILE 6.40)
             BS (SOLS WASH MILE 6.50)
          CROSS-SECTION DESIGNATION FROM
             SOLS WASH FLOODPLAIN DELINEATION
             HASSAYAMPA RIVER TO MARICOPA COUNTY LINE
             CELLA BARR ASSOCIATES

          SWSE DETERMINED BY SLOPE AREA METHOD

     .044      3.96   2314.96   2313.11   2314.96   2314.98       .02       .00       .00   2313.50
    907.0     830.1      56.6      20.2     813.9      44.5      34.9        .0        .0   2313.70
      .00      1.02      1.27       .58      .045      .030      .045      .000   2311.00    520.50
  .000336        0.        0.        0.         0        10         0       .00    531.70   1052.20


*SECNO  .148

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      957.3    1063.2  TYPE=      1  TARGET=      105.880
     .148      2.56   2323.66   2323.66   2323.66   2324.41       .75       .48       .22   2321.70
    907.0     126.3     569.0     211.7      33.8      69.0      53.9       5.9       3.6   2321.60
      .02      3.74      8.25      3.93      .045      .030      .045      .000   2321.10    957.29
 .008853      470.      550.      570.         0        14         0       .00    105.88   1063.17


*SECNO  .254
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 948.8 1021.0 TYPE= 1 TARGET= 72.220

.254	3.43	2333.43	2333.43	2333.43	2334.41	.98	4.58	.07	2331.10
907.0	150.9	683.9	72.2	39.5	77.3	17.1	7.7	4.7	2331.10
.04	3.82	8.84	4.22	.045	.030	.045	.000	2330.00	948.82
.007876	550.	560.	500.	0	11	0	.00	72.22	1021.04

*SECNO .333
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 922.2 1039.8 TYPE= 1 TARGET= 117.650

.333	2.31	2340.31	2340.31	2340.31	2341.00	.69	3.62	.03	2338.20
907.0	266.5	501.2	139.4	65.9	60.6	38.3	9.1	5.6	2338.20
.06	4.04	8.27	3.64	.045	.030	.045	.000	2338.00	922.15
.009306	410.	420.	475.	0	19	0	.00	117.65	1039.80

*SECNO .419
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 939.5 1056.1 TYPE= 1 TARGET= 116.660

.419	2.75	2347.75	2347.75	2347.74	2348.47	.72	3.98	.01	2345.70
907.0	197.1	575.5	134.4	52.5	71.1	38.5	10.8	6.8	2345.80
.08	3.75	8.10	3.49	.045	.030	.045	.000	2345.00	939.48
.008432	470.	450.	415.	0	11	0	.00	116.66	1056.14

*SECNO .529
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 869.9 1027.8 TYPE= 1 TARGET= 157.920

.529	2.10	2357.10	2357.10	2357.11	2357.67	.57	6.26	.02	2356.30
907.0	541.6	352.7	12.7	112.5	46.1	5.1	13.0	8.6	2356.30
.11	4.81	7.65	2.48	.045	.030	.045	.000	2355.00	869.90
.014546	570.	580.	580.	0	19	0	.00	157.84	1027.75

*SECNO .620
7185 MINIMUM SPECIFIC ENERGY

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 985.8 1055.4 TYPE= 1 TARGET= 69.700

.620	3.14	2366.64	2366.64	2366.63	2367.65	1.02	5.09	.13	2363.70
907.0	30.6	642.2	234.2	8.6	69.7	53.8	14.6	9.9	2364.00
.12	3.54	9.21	4.35	.045	.030	.045	.000	2363.50	985.75
.007983	480.	480.	500.	0	14	0	.00	69.70	1055.45

*SECNO .718
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 911.0 1089.2 TYPE= 1 TARGET= 178.210

.718	2.64	2374.64	2374.64	2374.64	2375.17	.53	3.99	.05	2372.70
907.0	207.0	485.2	214.9	67.7	64.9	70.0	16.6	11.3	2372.80
.15	3.06	7.48	3.07	.045	.030	.045	.000	2372.00	910.98
.007619	495.	520.	500.	0	12	0	.00	178.16	1089.14

*SECNO .815

3470 ENCROACHMENT STATIONS= 836.6 1016.5 TYPE= 1 TARGET= 179.870

.815	1.86	2378.86	2378.51	2378.86	2379.13	.26	3.93	.03	2377.90
907.0	709.1	192.4	5.6	186.6	37.0	2.8	19.0	13.3	2378.00
.18	3.80	5.20	1.98	.045	.030	.045	.000	2377.00	836.61
.008400	480.	510.	480.	4	11	0	.00	179.87	1016.48

*SECNO .913
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 939.0 1123.0 TYPE= 1 TARGET= 183.980

.913	2.47	2386.47	2386.47	2386.47	2386.98	.50	4.29	.07	2385.10
907.0	115.7	482.6	308.6	38.0	66.8	96.6	21.4	15.4	2385.00
.21	3.04	7.23	3.20	.045	.030	.045	.000	2384.00	939.02
.008998	465.	520.	510.	0	11	0	.00	183.97	1122.99

*SECNO 1.012

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 852.3 1019.8 TYPE= 1 TARGET= 167.460

1.012	2.88	2391.88	2391.88	2391.89	2392.48	.59	4.28	.03	2390.00
907.0	421.0	472.6	13.4	125.1	59.6	4.5	23.6	17.3	2390.00
.23	3.36	7.93	2.99	.045	.030	.045	.000	2389.00	852.31
.008076	510.	520.	440.	0	11	0	.00	161.45	1019.75

*SECNO 1.103

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 789.1 1097.4 TYPE= 1 TARGET= 308.300

1.103	1.82	2398.72	2398.72	2398.72	2399.16	.44	4.25	.02	2397.70
907.0	475.2	266.9	164.9	100.6	38.1	47.8	25.1	18.9	2397.70
.25	4.72	7.01	3.45	.045	.030	.045	.000	2396.90	789.12
.016542	265.	480.	540.	0	14	0	.00	225.29	1097.42

*SECNO 1.194

3470 ENCROACHMENT STATIONS= 953.3 1113.8 TYPE= 1 TARGET= 160.430

1.194	2.49	2404.49	2404.48	2404.49	2405.05	.56	5.86	.04	2403.00
907.0	67.6	456.3	383.1	22.1	59.5	100.8	27.1	21.0	2403.00
.28	3.05	7.67	3.80	.045	.030	.045	.000	2402.00	953.37
.009636	510.	480.	425.	3	11	0	.00	160.33	1113.69

*SECNO 1.296
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 891.6 1038.2 TYPE= 1 TARGET= 146.620

1.296	1.93	2411.93	2411.93	2411.93	2412.52	.59	6.17	.01	2411.00
907.0	540.0	335.1	31.8	107.2	43.0	10.9	29.1	22.7	2411.00
.30	5.04	7.80	2.93	.045	.030	.045	.000	2410.00	891.61
.015381	490.	540.	500.	0	15	0	.00	146.53	1038.14

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.395
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 899.2 1061.6 TYPE= 1 TARGET= 162.390

1.395	2.52	2419.52	2419.52	2419.52	2420.09	.57	6.34	.00	2418.00
907.0	362.3	457.7	87.1	93.4	59.6	28.8	31.2	24.6	2418.10
.33	3.88	7.68	3.03	.045	.030	.045	.000	2417.00	899.19
.009929	520.	520.	510.	0	11	0	.00	162.39	1061.58

*SECNO 1.493
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 985.2 1058.2 TYPE= 1 TARGET= 73.050

1.493	3.86	2428.86	2428.86	2428.86	2429.90	1.04	4.31	.14	2426.00
907.0	23.1	679.1	204.8	6.9	73.9	53.0	33.1	26.0	2426.00
.34	3.36	9.18	3.86	.045	.030	.045	.000	2425.00	985.18
.006868	540.	520.	530.	0	14	0	.00	73.04	1058.22

*SECNO 1.584
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 962.0 1095.2 TYPE= 1 TARGET= 133.210

1.584	2.48	2436.48	2436.48	2436.48	2437.10	.62	4.08	.04	2435.00
907.0	49.8	404.7	452.4	15.1	49.1	105.4	34.7	27.1	2435.00
.37	3.30	8.25	4.29	.045	.030	.045	.000	2434.00	961.96
.011344	500.	480.	450.	0	14	0	.00	133.21	1095.17

THIS RUN EXECUTED 24JUN92 14:33:56

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HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WASH AH4: SOLS WASH TRIB

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	.044	.00	.00	.00	2311.00	907.00	2314.96	2313.11	2314.98	3.36	1.27	893.27	494.53
	.044	.00	.00	.00	2311.00	907.00	2314.96	2313.11	2314.98	3.36	1.27	893.27	494.53
*	.148	550.00	.00	.00	2321.10	907.00	2323.66	2323.66	2324.41	89.08	8.26	156.26	96.10
*	.148	550.00	.00	.00	2321.10	907.00	2323.66	2323.66	2324.41	88.53	8.25	156.63	96.39
	.254	560.00	.00	.00	2330.00	907.00	2333.43	2333.43	2334.41	78.92	8.85	133.85	102.09
	.254	560.00	.00	.00	2330.00	907.00	2333.43	2333.43	2334.41	78.76	8.84	133.96	102.20
*	.333	420.00	.00	.00	2338.00	907.00	2340.31	2340.31	2341.00	92.88	8.26	164.93	94.11
*	.333	420.00	.00	.00	2338.00	907.00	2340.31	2340.31	2341.00	93.06	8.27	164.81	94.02
*	.419	450.00	.00	.00	2345.00	907.00	2347.74	2347.74	2348.47	84.71	8.11	161.80	98.55
*	.419	450.00	.00	.00	2345.00	907.00	2347.75	2347.75	2348.47	84.32	8.10	162.09	98.77
*	.529	580.00	.00	.00	2355.00	907.00	2357.11	2357.11	2357.67	145.01	7.64	163.98	75.32
*	.529	580.00	.00	.00	2355.00	907.00	2357.10	2357.10	2357.67	145.46	7.65	163.78	75.20
*	.620	480.00	.00	.00	2363.50	907.00	2366.63	2366.63	2367.65	81.06	9.26	131.37	100.74
*	.620	480.00	.00	.00	2363.50	907.00	2366.64	2366.64	2367.65	79.83	9.21	132.15	101.51
*	.718	520.00	.00	.00	2372.00	907.00	2374.64	2374.64	2375.17	75.94	7.47	202.81	104.08
*	.718	520.00	.00	.00	2372.00	907.00	2374.64	2374.64	2375.17	76.19	7.48	202.55	103.91
	.815	510.00	.00	.00	2377.00	907.00	2378.86	2378.51	2379.13	84.26	5.20	226.23	98.81
	.815	510.00	.00	.00	2377.00	907.00	2378.86	2378.51	2379.13	84.00	5.20	226.45	98.96
*	.913	520.00	.00	.00	2384.00	907.00	2386.47	2386.47	2386.98	89.92	7.23	201.40	95.65
*	.913	520.00	.00	.00	2384.00	907.00	2386.47	2386.47	2386.98	89.98	7.23	201.36	95.62
*	1.012	520.00	.00	.00	2389.00	907.00	2391.89	2391.89	2392.48	80.64	7.92	189.34	101.00
*	1.012	520.00	.00	.00	2389.00	907.00	2391.88	2391.88	2392.48	80.76	7.93	189.22	100.93

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	1.103	480.00	.00	.00	2396.90	907.00	2398.72	2398.72	2399.16	166.21	7.02	186.12	70.35
*	1.103	480.00	.00	.00	2396.90	907.00	2398.72	2398.72	2399.16	165.42	7.01	186.45	70.52
	1.194	480.00	.00	.00	2402.00	907.00	2404.49	2404.48	2405.05	96.04	7.66	182.70	92.55
	1.194	480.00	.00	.00	2402.00	907.00	2404.49	2404.48	2405.05	96.36	7.67	182.47	92.40
*	1.296	540.00	.00	.00	2410.00	907.00	2411.93	2411.93	2412.52	153.15	7.79	161.30	73.29
*	1.296	540.00	.00	.00	2410.00	907.00	2411.93	2411.93	2412.52	153.81	7.80	161.05	73.13
*	1.395	520.00	.00	.00	2417.00	907.00	2419.52	2419.52	2420.09	99.34	7.68	181.67	91.00
*	1.395	520.00	.00	.00	2417.00	907.00	2419.52	2419.52	2420.09	99.29	7.68	181.71	91.02
*	1.493	520.00	.00	.00	2425.00	907.00	2428.86	2428.86	2429.90	68.68	9.18	133.82	109.44
*	1.493	520.00	.00	.00	2425.00	907.00	2428.86	2428.86	2429.90	68.68	9.18	133.82	109.44
*	1.584	480.00	.00	.00	2434.00	907.00	2436.48	2436.48	2437.10	113.44	8.25	169.62	85.16
*	1.584	480.00	.00	.00	2434.00	907.00	2436.48	2436.48	2437.10	113.44	8.25	169.62	85.16

SH AH4: SOLS WASH TRIB

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	.044	907.00	2314.96	.00	.00	.00	531.70	.00
	.044	907.00	2314.96	.00	.00	.00	531.70	.00
*	.148	907.00	2323.66	.00	8.70	.00	105.87	550.00
*	.148	907.00	2323.66	.00	8.70	.00	105.88	550.00
*	.254	907.00	2333.43	.00	9.77	.00	72.22	560.00
*	.254	907.00	2333.43	.00	9.77	.00	72.22	560.00
*	.333	907.00	2340.31	.00	6.88	.00	117.65	420.00
*	.333	907.00	2340.31	.00	6.88	.00	117.65	420.00
*	.419	907.00	2347.74	.00	7.44	.00	116.65	450.00
*	.419	907.00	2347.75	.00	7.44	.00	116.66	450.00
*	.529	907.00	2357.11	.00	9.36	.00	157.92	580.00
*	.529	907.00	2357.10	.00	9.36	.00	157.84	580.00
*	.620	907.00	2366.63	.00	9.52	.00	69.70	480.00
	.620	907.00	2366.64	.01	9.53	.01	69.70	480.00
*	.718	907.00	2374.64	.00	8.02	.00	178.21	520.00
*	.718	907.00	2374.64	.00	8.00	.00	178.16	520.00
	.815	907.00	2378.86	.00	4.22	.00	179.87	510.00
	.815	907.00	2378.86	.00	4.22	.00	179.87	510.00
*	.913	907.00	2386.47	.00	7.61	.00	183.98	520.00
*	.913	907.00	2386.47	.00	7.61	.00	183.97	520.00
*	1.012	907.00	2391.89	.00	5.41	.00	161.51	520.00
*	1.012	907.00	2391.88	.00	5.41	.00	161.45	520.00
*	1.103	907.00	2398.72	.00	6.83	.00	225.24	480.00
*	1.103	907.00	2398.72	.00	6.84	.00	225.29	480.00
	1.194	907.00	2404.49	.00	5.77	.00	160.42	480.00
	1.194	907.00	2404.49	.00	5.77	.00	160.33	480.00
*	1.296	907.00	2411.93	.00	7.44	.00	146.62	540.00
*	1.296	907.00	2411.93	.00	7.44	.00	146.53	540.00
*	1.395	907.00	2419.52	.00	7.58	.00	162.39	520.00
*	1.395	907.00	2419.52	.00	7.58	.00	162.39	520.00
*	1.493	907.00	2428.86	.00	9.34	.00	73.05	520.00
	1.493	907.00	2428.86	.00	9.34	.00	73.04	520.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	1.584	907.00	2436.48	.00	7.62	.00	133.22	480.00
*	1.584	907.00	2436.48	.00	7.62	.00	133.21	480.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO=      .148  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .148  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .148  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .148  PROFILE=  2  MINIMUM SPECIFIC ENERGY

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CAUTION SECNO=      .419  PROFILE=  2  MINIMUM SPECIFIC ENERGY

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CAUTION SECNO=      .620  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .718  PROFILE=  1  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=      .718  PROFILE=  2  MINIMUM SPECIFIC ENERGY

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CAUTION SECNO=     1.103  PROFILE=  1  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=     1.103  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     1.296  PROFILE=  1  CRITICAL DEPTH ASSUMED
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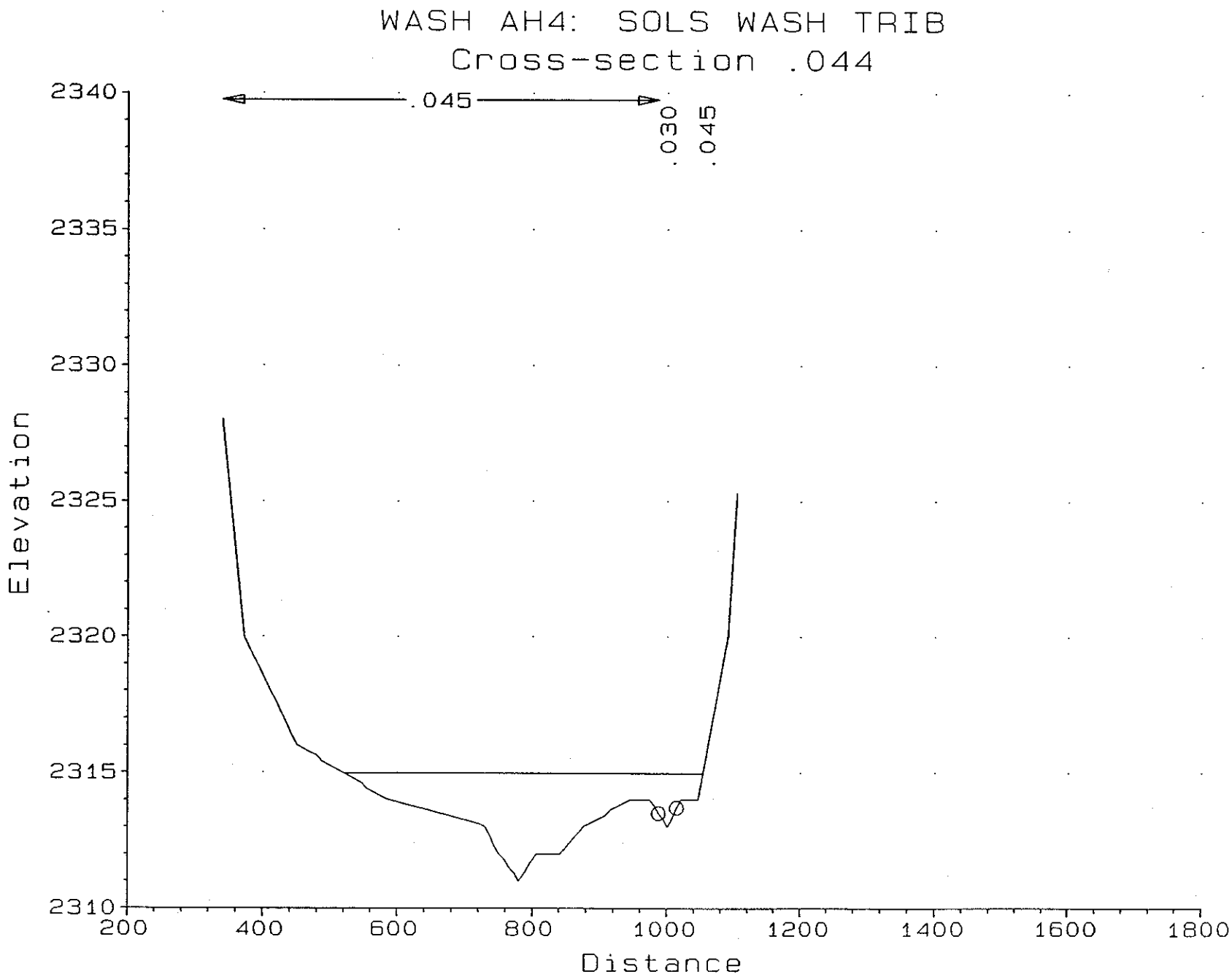
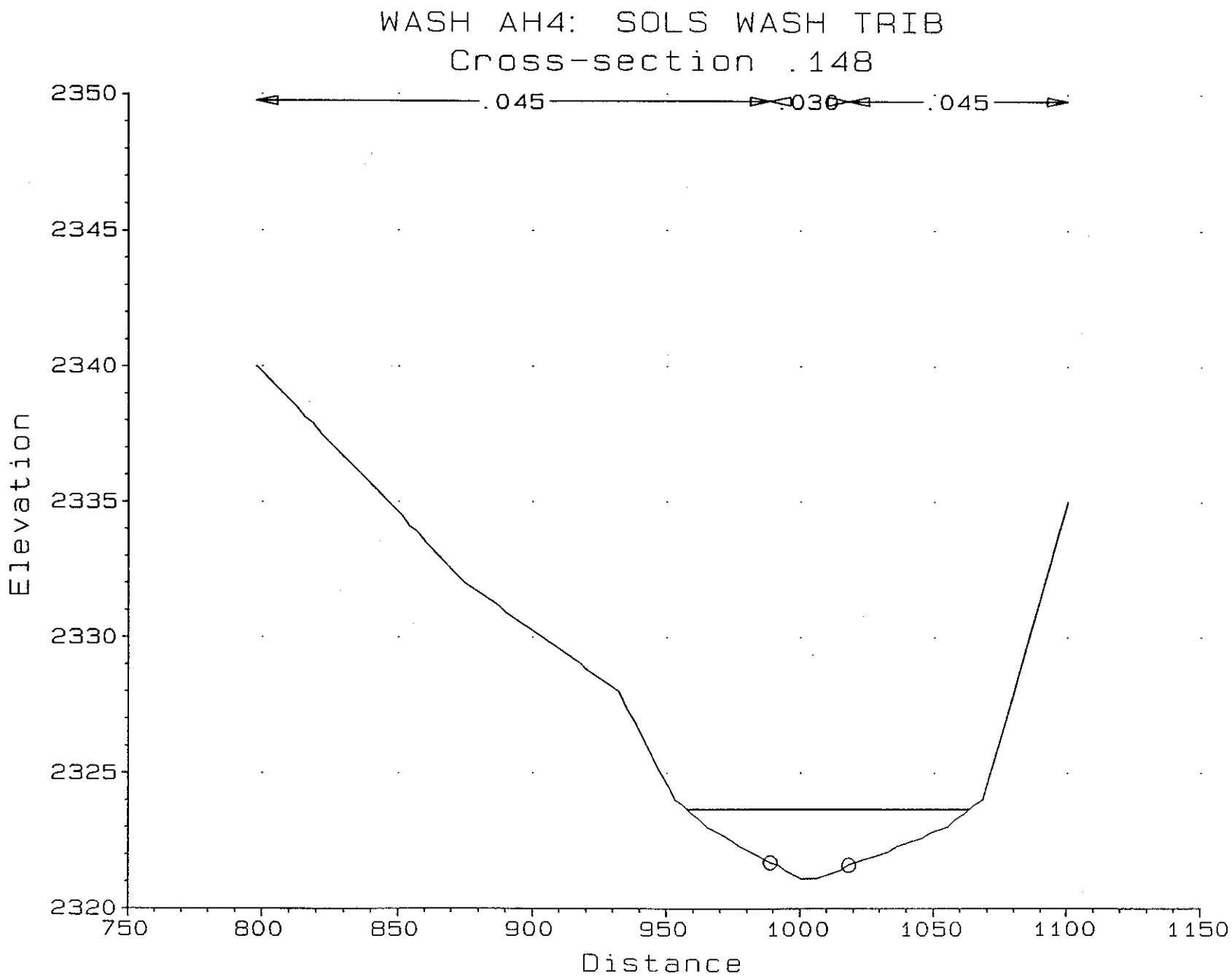
CAUTION SECNO=    1.584  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    1.584  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    1.584  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    1.584  PROFILE=  2  MINIMUM SPECIFIC ENERGY
```

FLOODWAY DATA, WASH AH4: SOLS WASH TRIB
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
.044	532.	893.	1.0	2315.0	2315.0	.0
.148	106.	157.	5.8	2323.7	2323.7	.0
.254	72.	134.	6.8	2333.4	2333.4	.0
.333	118.	165.	5.5	2340.3	2340.3	.0
.419	117.	162.	5.6	2347.7	2347.7	.0
.529	158.	164.	5.5	2357.1	2357.1	.0
.620	70.	132.	6.9	2366.6	2366.6	.0
.718	178.	203.	4.5	2374.6	2374.6	.0
.815	180.	226.	4.0	2378.9	2378.9	.0
.913	184.	201.	4.5	2386.5	2386.5	.0
1.012	167.	189.	4.8	2391.9	2391.9	.0
1.103	308.	186.	4.9	2398.7	2398.7	.0
1.194	160.	182.	5.0	2404.5	2404.5	.0
1.296	147.	161.	5.6	2411.9	2411.9	.0
1.395	162.	182.	5.0	2419.5	2419.5	.0
1.493	73.	134.	6.8	2428.9	2428.9	.0
1.584	133.	170.	5.3	2436.5	2436.5	.0


WASH AH4: SOLS WASH TRIB
Cross-section .044
.045
.030
.045
Elevation
2340
2335
2330
2325
2320
2315
2310
200
400
600
800
1000
1200
1400
1600
1800
Distance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.030
.045
2350
2345
2340
2335
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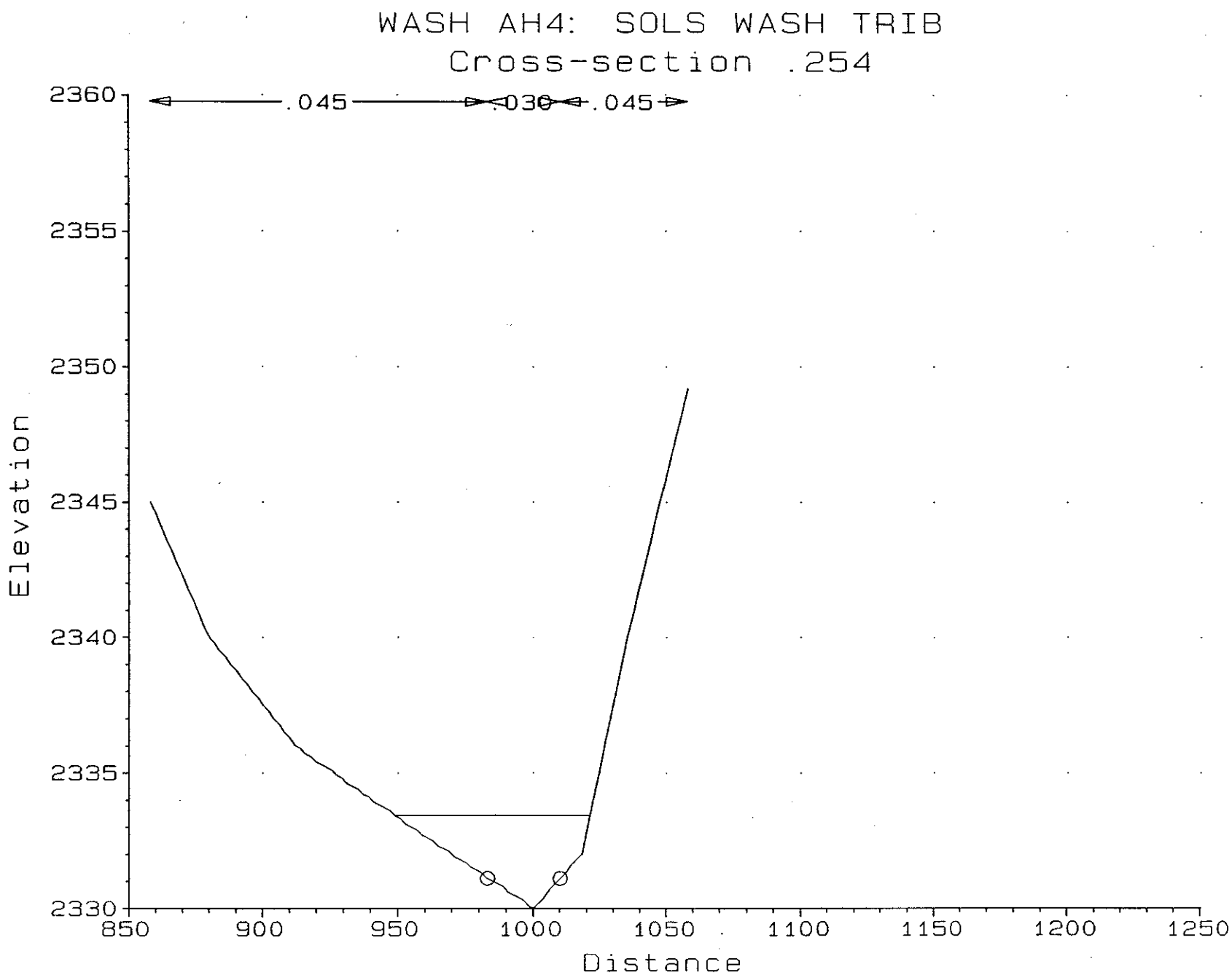
Elevation
750
800
850
900
950
1000
1050
1100
1150
Distance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Cross-section .254
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.030
.045
2360
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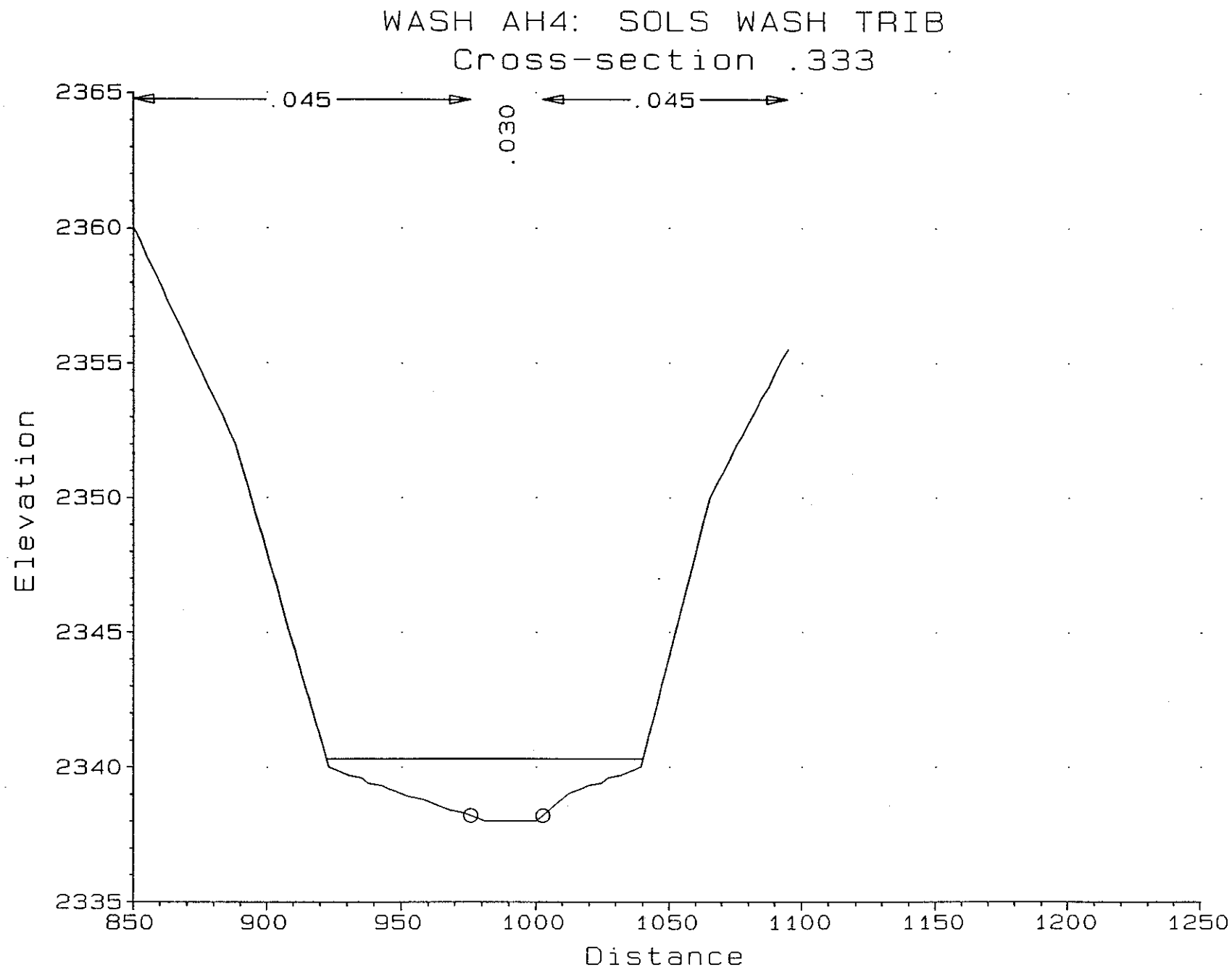
1150
1200
1250
Distance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.030
.045
2365
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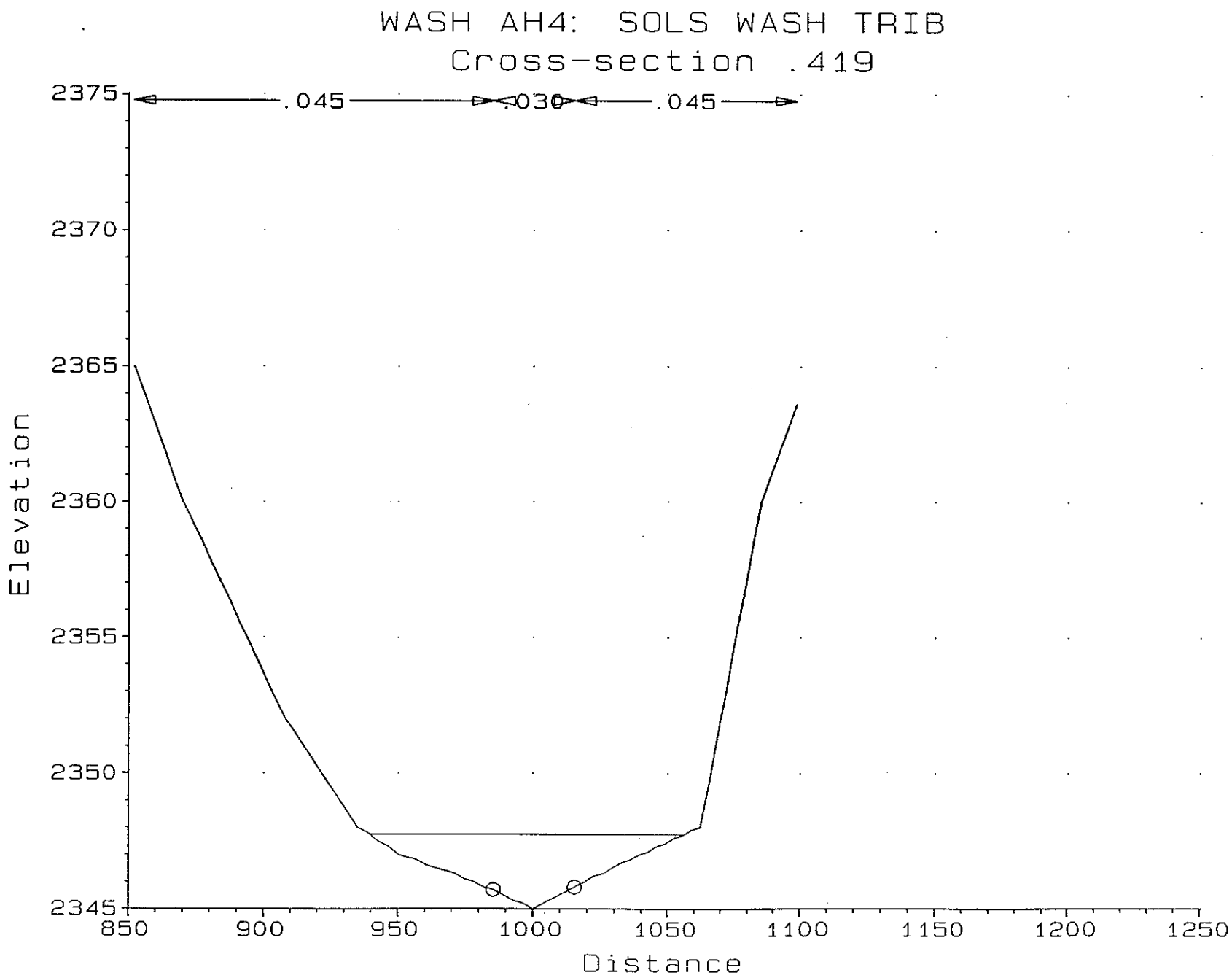
1150
1200
1250
Distance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Cross-section .419
.045
.030
.045
2375
2370
2365
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Elevation
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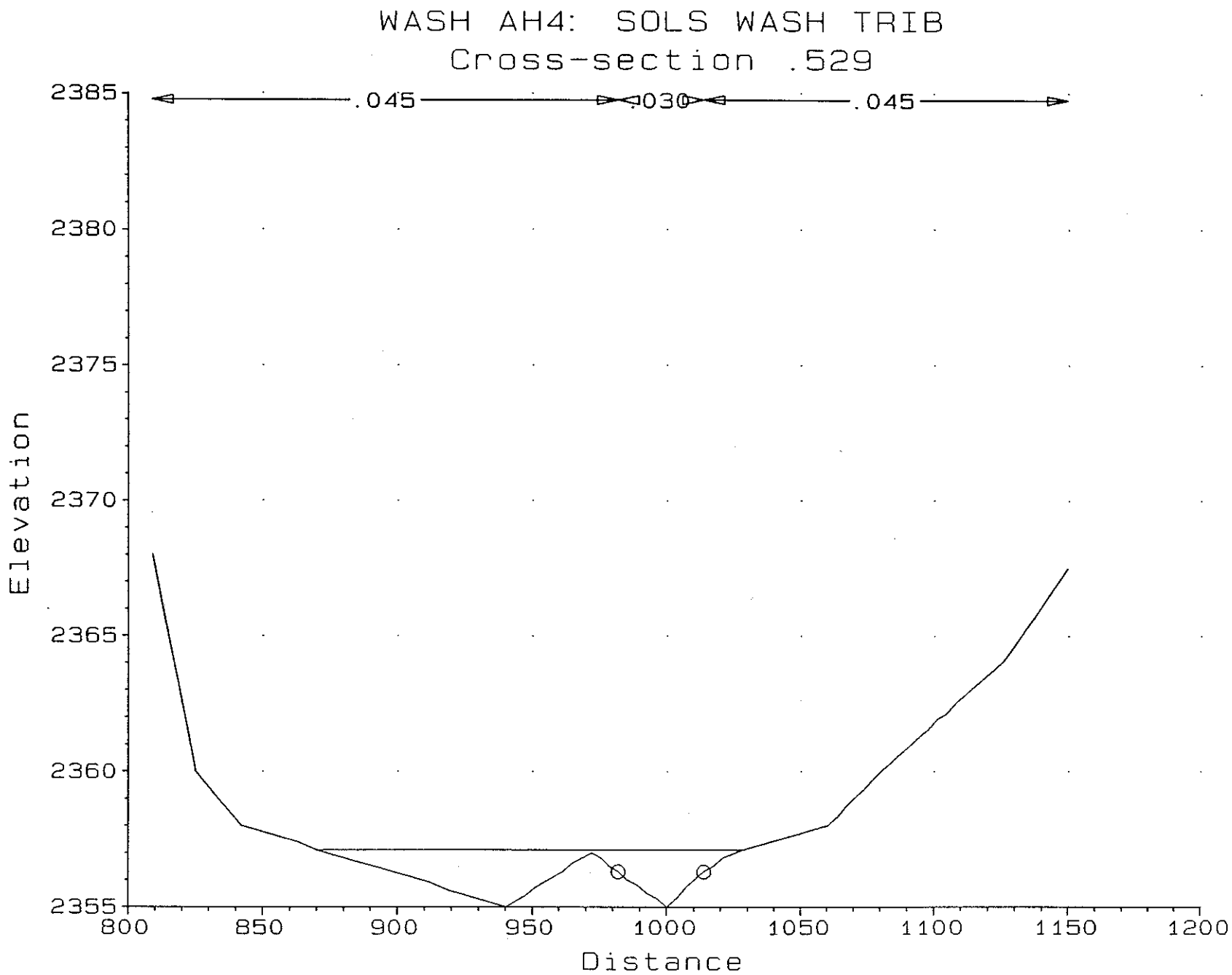
1150
1200
1250
Distance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Cross-section .529
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.030
.045
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Elevation
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900
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1100
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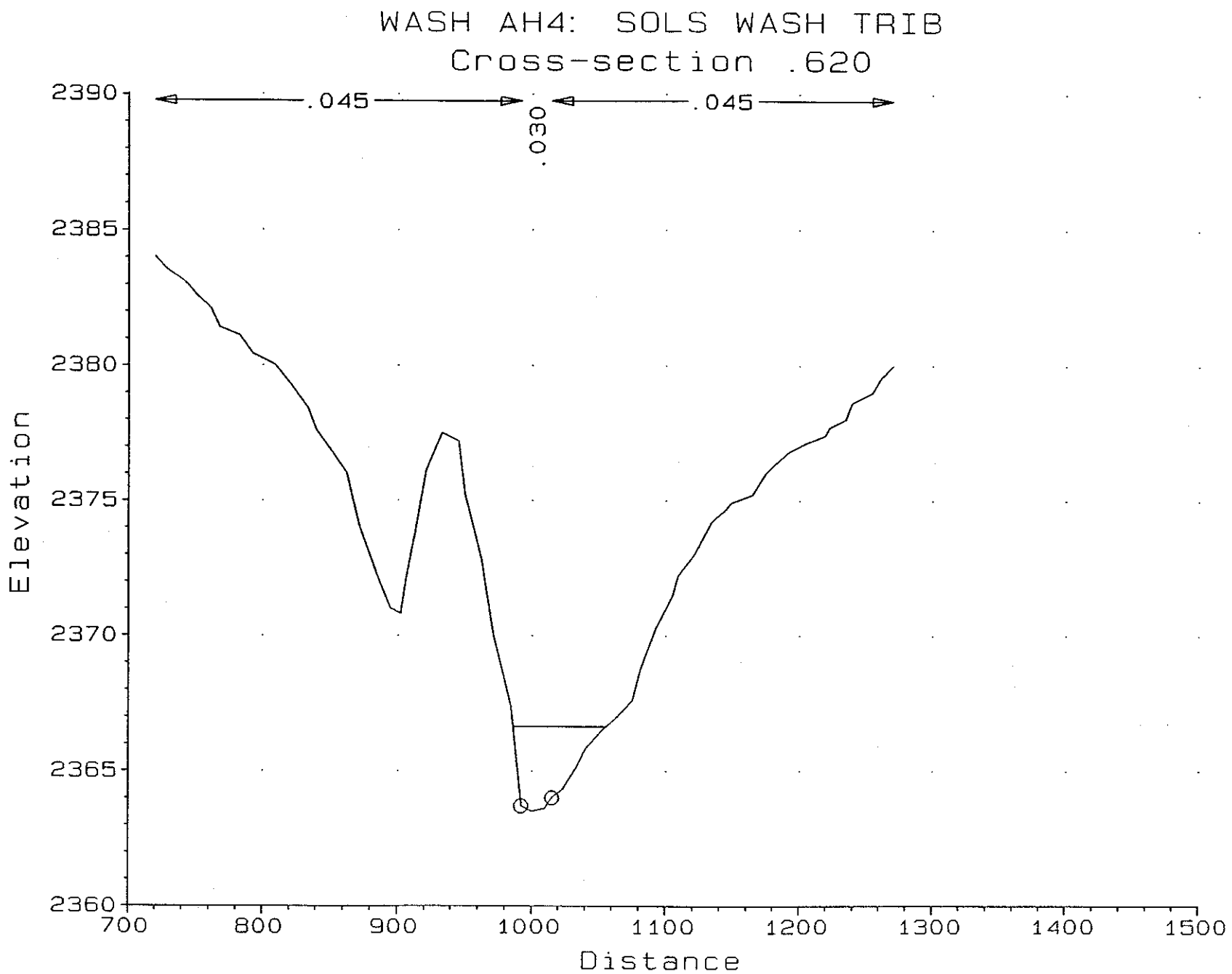
1200
Distance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Cross-section .620
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.030
.045
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Elevation
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1200
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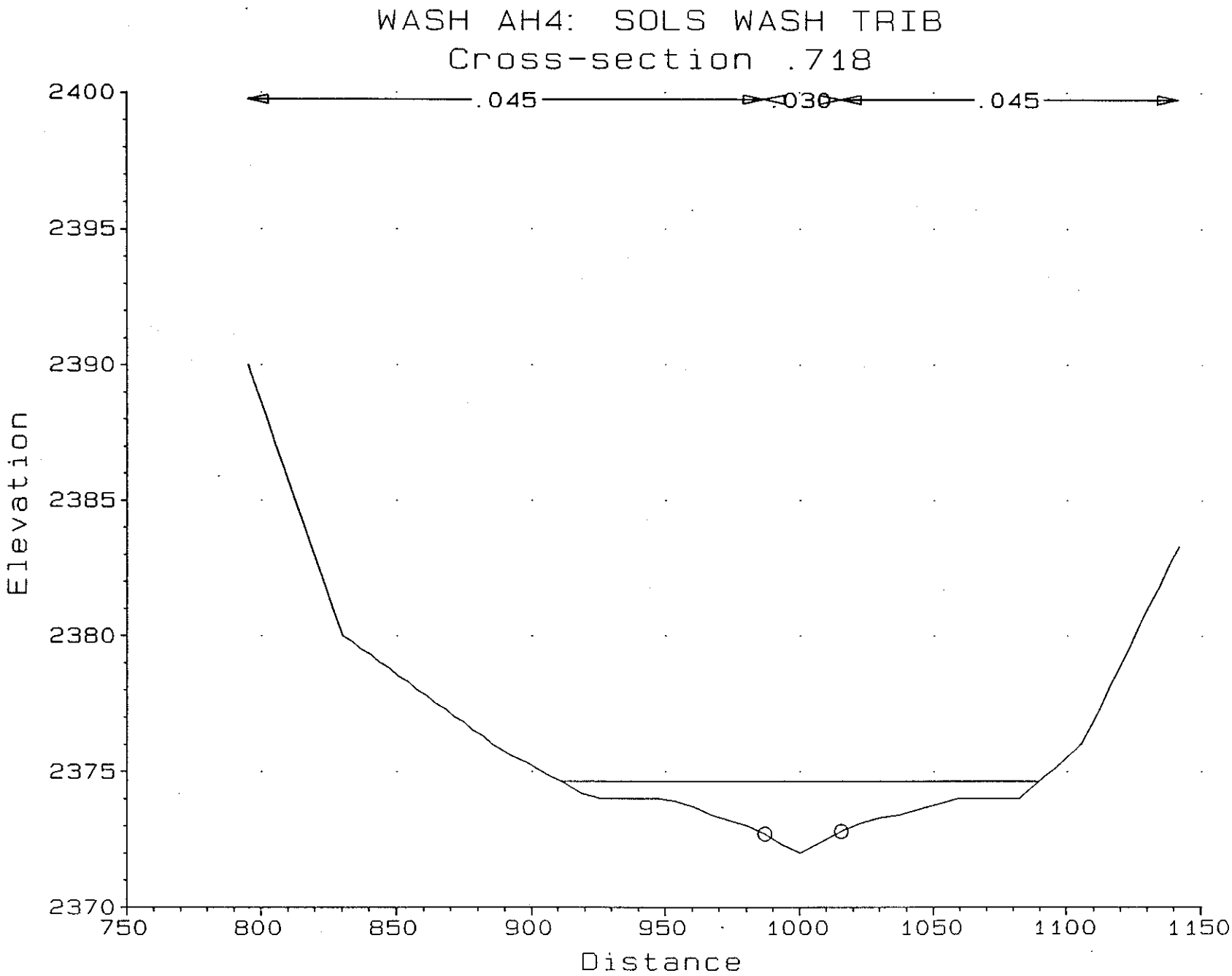
1400
1500
Distance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Cross-section .718
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.030
.045
2400
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Elevation
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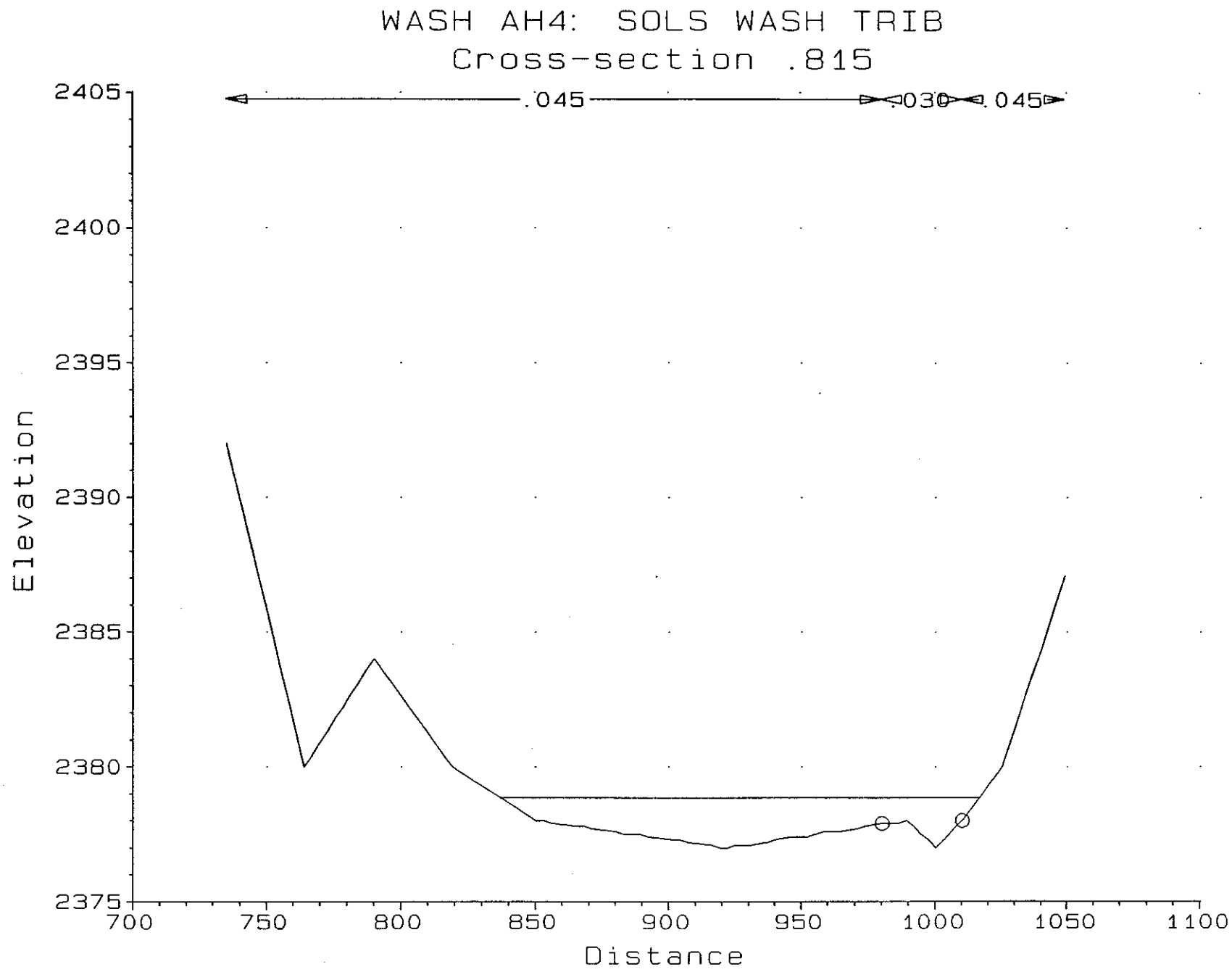
1150
Distance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Cross-section .815
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.030
.045
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2400
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2385
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Elevation
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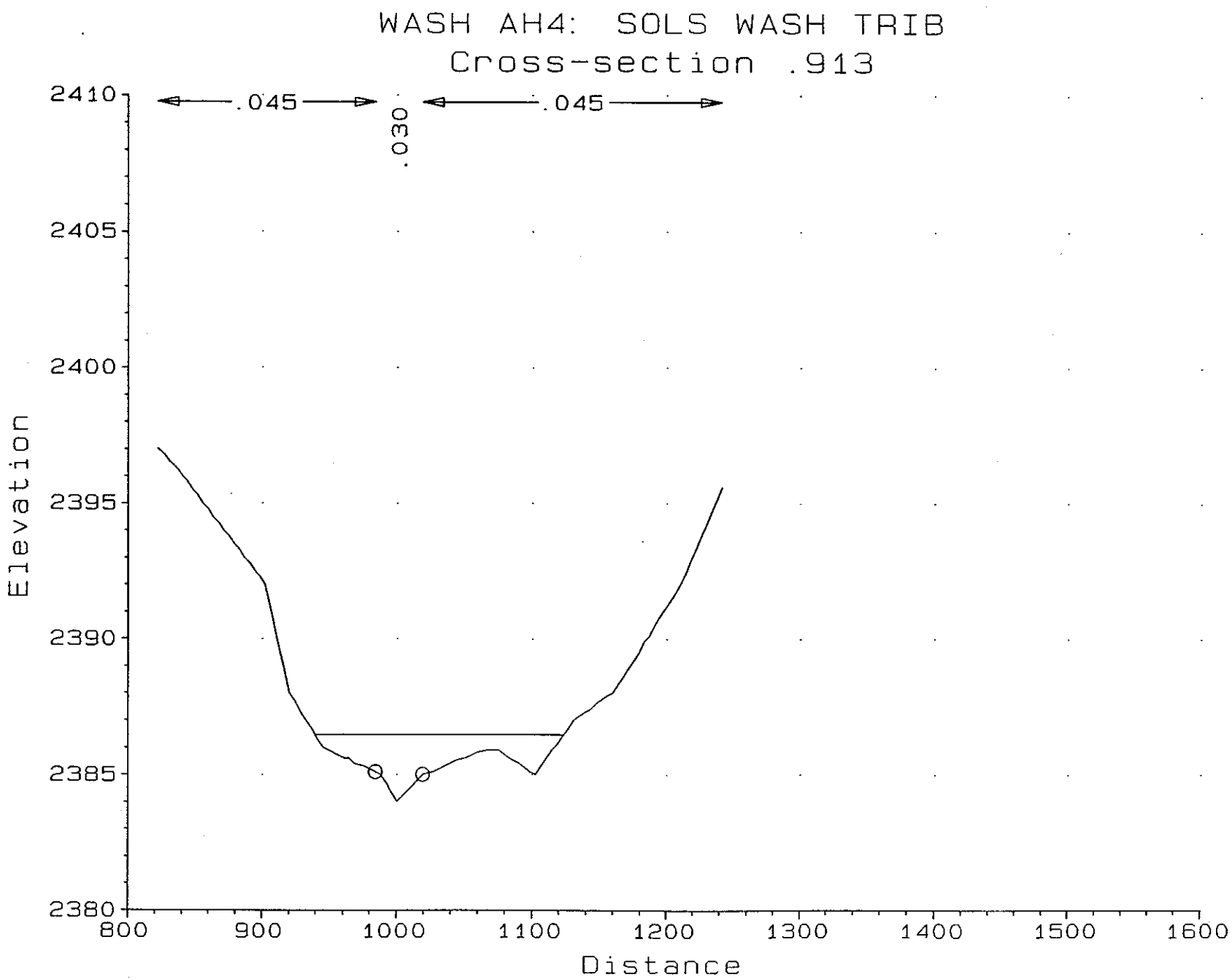
1050
1100
Distance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Cross-section .913
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.030
.045
Elevation
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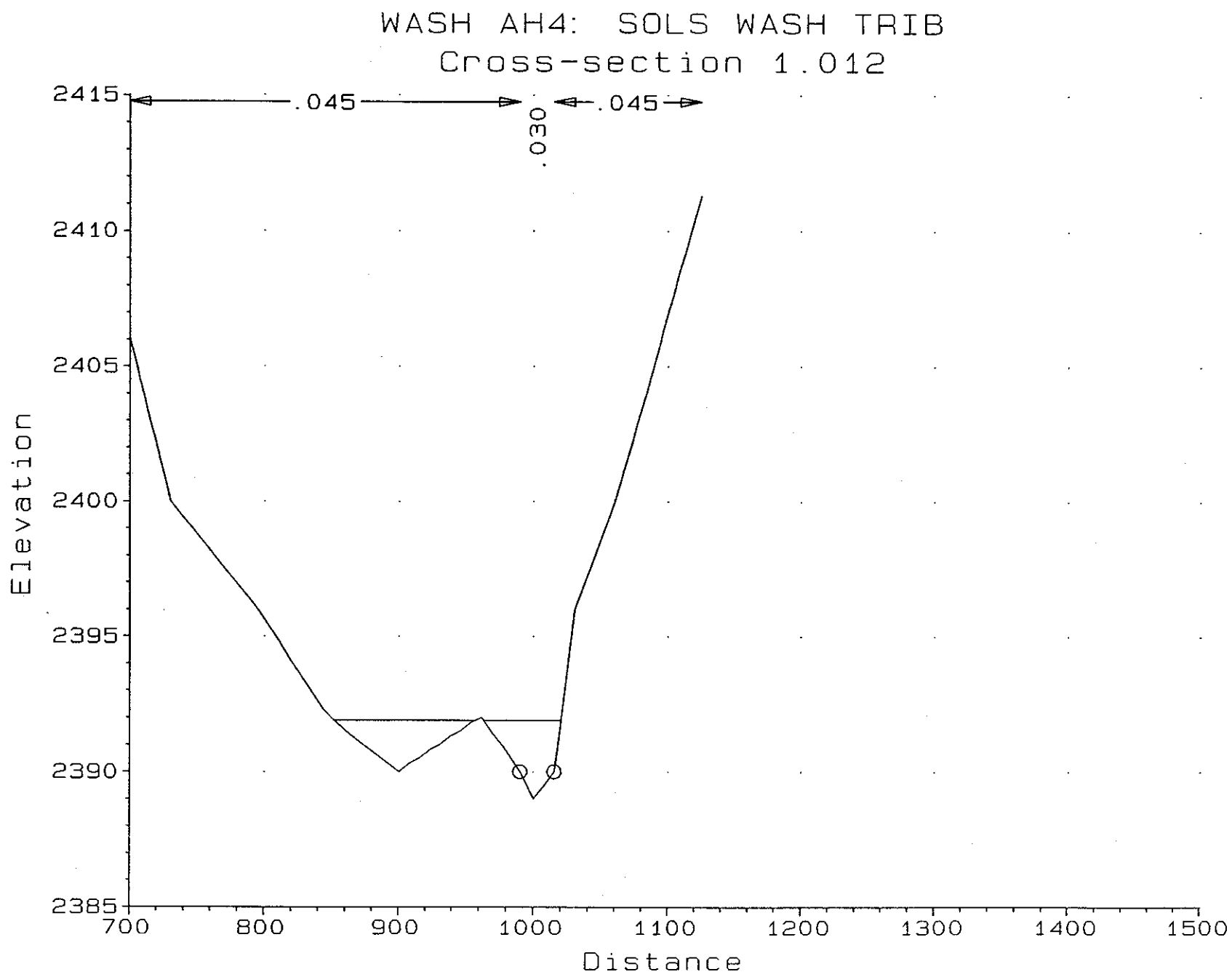
1500
1600
Distance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Cross-section 1.012
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.030
.045
2415
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2405
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Elevation
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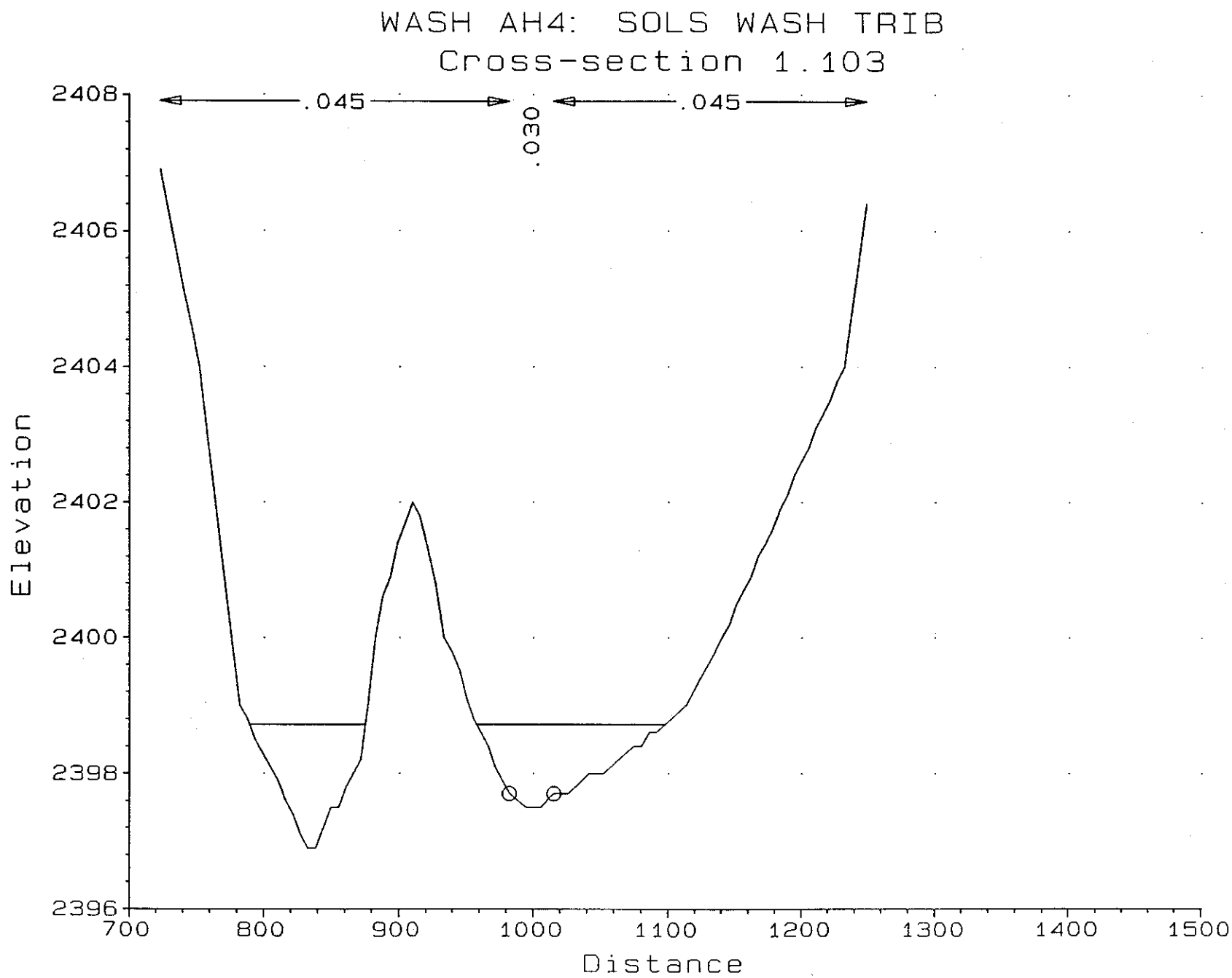
Distance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Cross-section 1.103
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.030
.045
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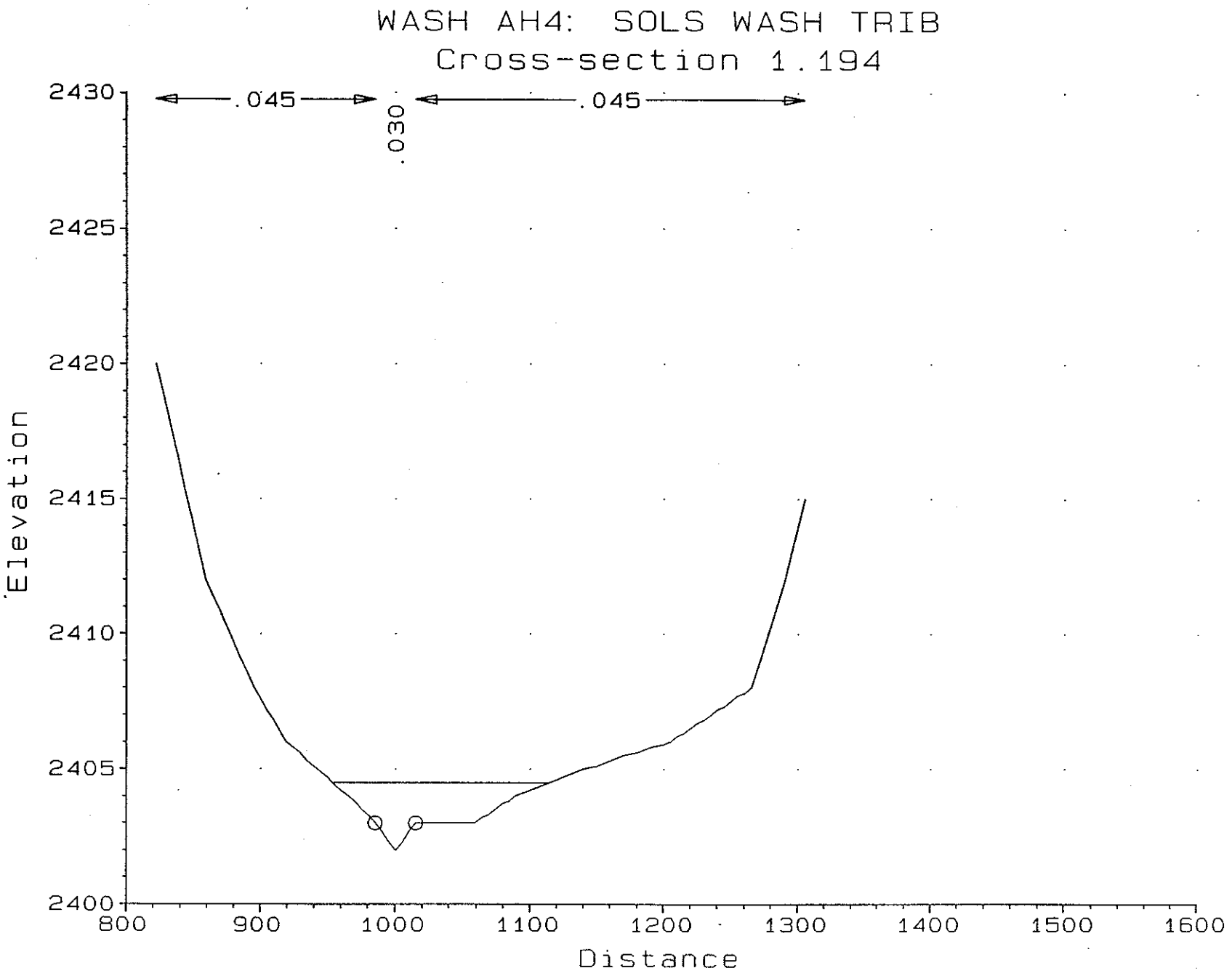
Distance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Cross-section 1.194
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.030
.045
2430
2425
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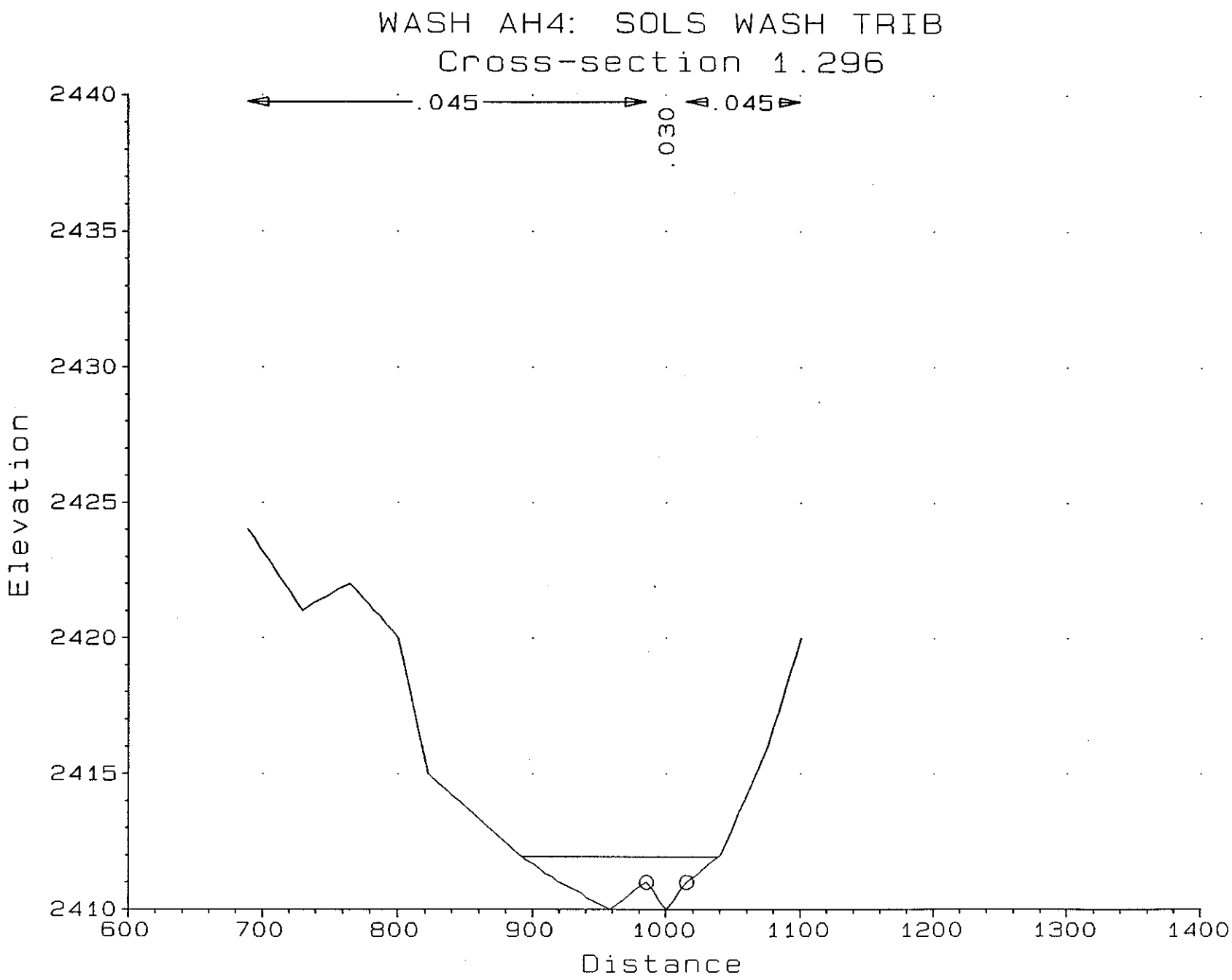
1500
1600
Distance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Cross-section 1.296
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.030
.045
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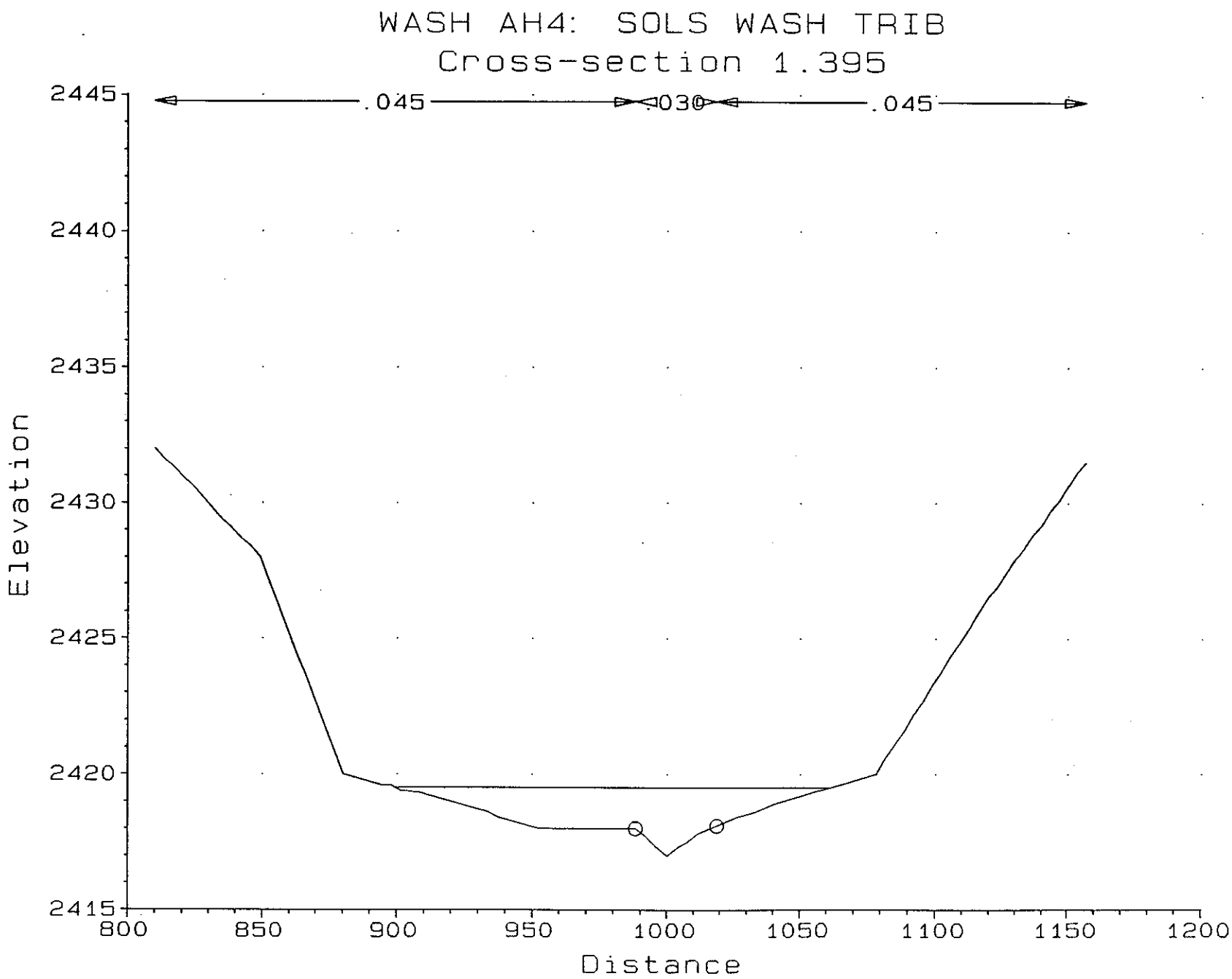
Distance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Cross-section 1.395
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.030
.045
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Elevation
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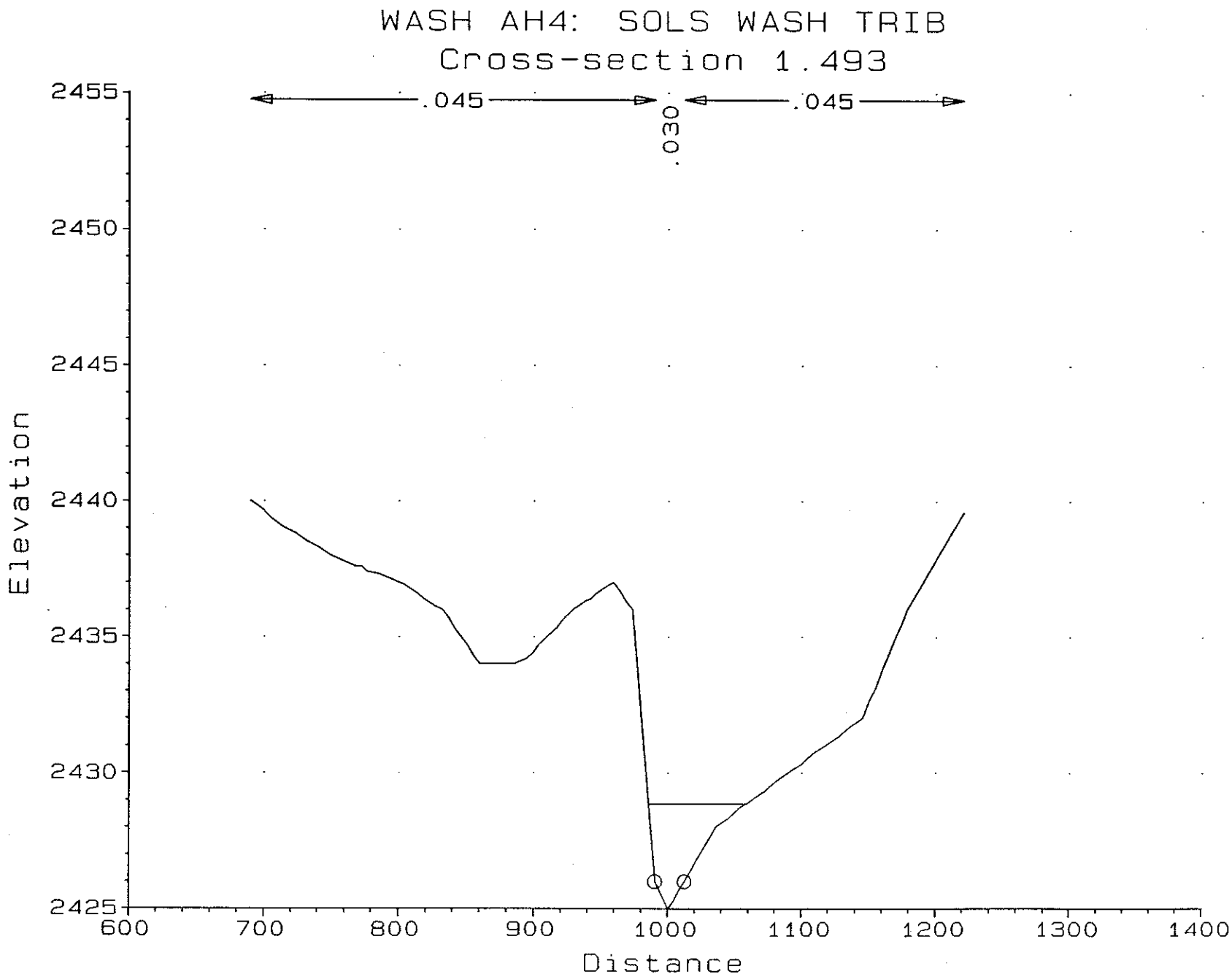
1200
Distance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Cross-section 1.493
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.045
.030
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Elevation
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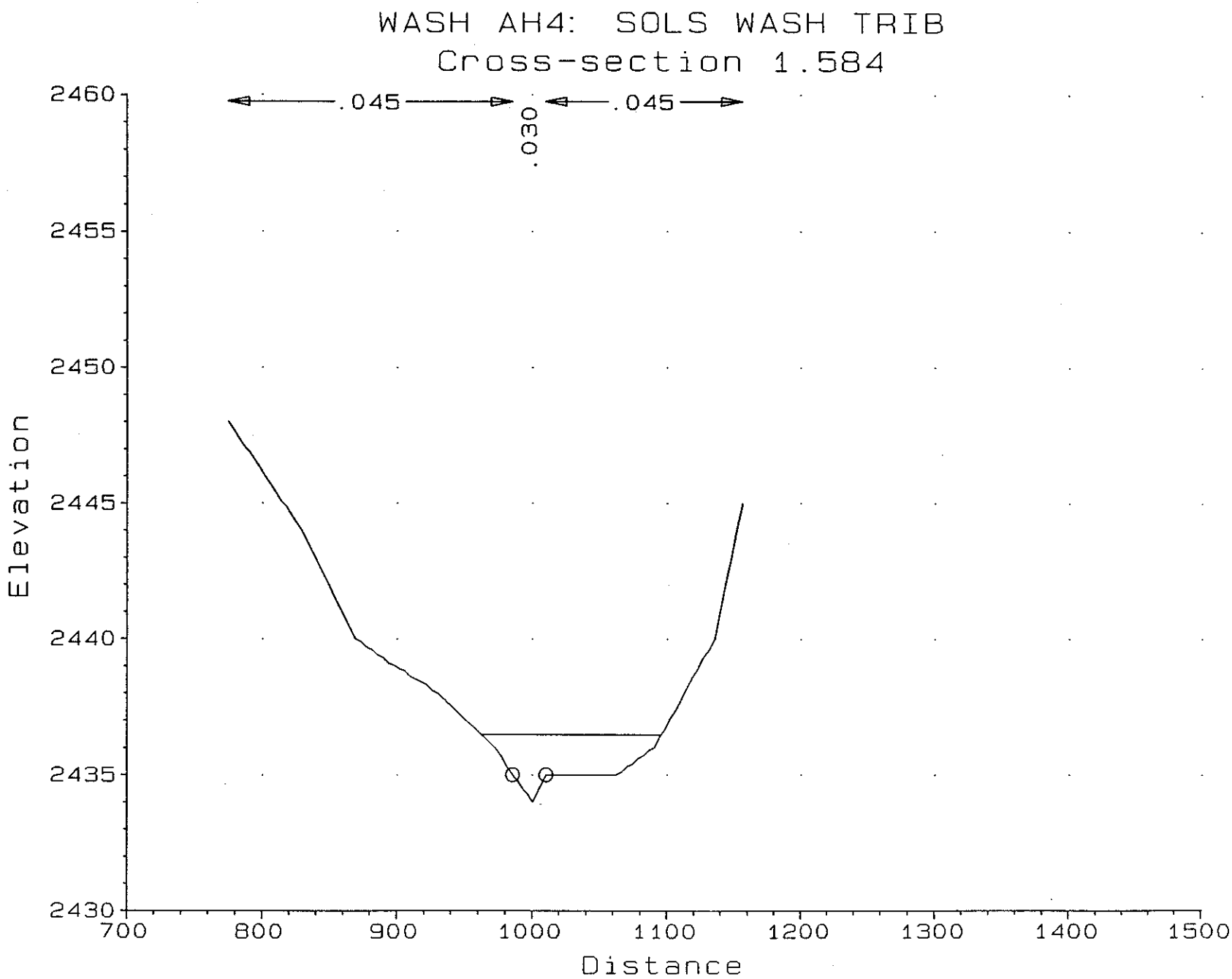
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.030
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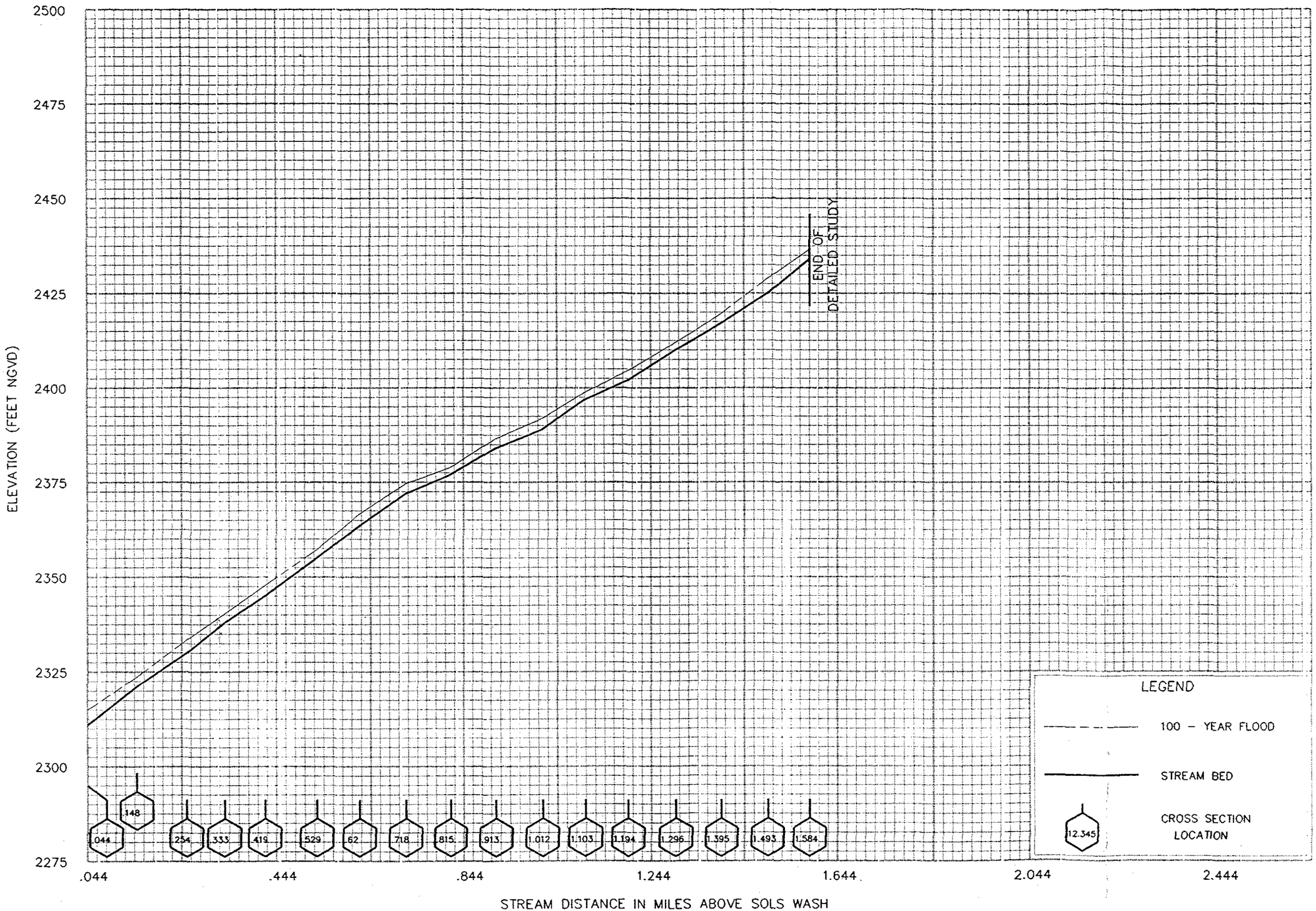


FLOOD PROFILES

UNNAMED SOLS WASH TRIBUTARY (AH4)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

02/17/94 15:58:48 ACD-12_

PC FILE:AH4.DWG

Flood Control District of Maricopa County
Contract FCD 89-79

WICKENBURG AREA DRAINAGE MASTER STUDY

TECHNICAL DOCUMENTATION REPORT

Appendix 4.6: HEC-2 Models & Cross Section Plots for Sols Wash Area Wash
UNNAMED SOLS WASH TRIBUTARY (Wash ah5)

Submitted to the
Federal Emergency Management Agency
on Behalf of the
Flood Control District of Maricopa County

N:\1197\02\ADMIN\119702RP.063

May 1994

FEDERAL EMERGENCY MANAGEMENT AGENCY **HYDROLOGIC ANALYSIS FORM**	O.M.B. Burden No. 3067-0148 Expires July 31, 1994	FEMA USE ONLY

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 3.67 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

Community Name: UNINCORPORATED MARICOPA COUNTY / TOWN OF WICKENBURG

Flooding Source: WASH AHS: UNNAMED SOLS WASH TRIBUTARY (#5)
(One form for each flooding source)

Project Name/Identifier: WICKENBURG ADMS FCD 89-79

1. HYDROLOGIC ANALYSIS IN FIS

- ☐ Approximate study stream (Zone A)
- ☐ Detailed study stream (briefly explain methodology) NA

2. REASON FOR NEW HYDROLOGIC ANALYSIS

- ☒ No existing analysis
- ☐ Improved data *(see data revision on page 3)*
- ☐ Changed physical conditions of watershed *(explain)*
- ☐ Alternative methodology *(justify why the revised model is better than model used in the effective FIS)*
- ☐ Evaluation of proposed conditions (CLOMRs only) (explain)
- ☒ Other No existing analysis or analysis being updated to reflect existing conditions

If a computer program/model was used in revising the hydrologic analysis, please provide a diskette with the input files for the 10-, 50-, 100 - and 500-year recurrence intervals.

Only the 100-year recurrence interval need be included for SFHAs designated as Zone A.

3. APPROVAL OF ANALYSIS

- ☒ Approval of hydrologic analysis, including the resulting peak discharge value (s) has been provided by the appropriate local, state, or Federal Agency. (i.e., Flood Control District of Maricopa County)
  Attach evidence of approval.
- ☐ Approval of the hydrologic analysis is not required by any local, State, or Federal Agency.

Stream: WASH AH5: UNNAMED SOLS WASH TRIBUTARY (#5)

Comparison of 100-year Discharges

Location:	Drainage area (Sq mi.)	FIS (cfs):	Revised (cfs):
SOLS WASH CONFLUENCE	2.89	—	2129

Note: When revised discharges are not significantly different than FIS discharges, FEMA may require a confidence limits analysis on attachment D at a later date to complete the review.

As is often the case with revision requests, only a portion of a stream may actually be revised or be affected by a revision. Therefore, transition to the unrevised portion is important to maintain the continuity of the study. NFIP regulations stipulate that such a transition must be assured. What is the transition from the proposed discharges to the effective discharges? Please explain how the transition was made *(attach separate sheet if necessary)*

ATTACH A COMPLETED REVIEW OF RESULTS PAGE FOR EACH FLOODING SOURCE.

Is the new hydrologic analysis being developed solely to revise the flow values presented in the FIS *(i.e. no changed hydraulic conditions)*? ☐ Yes ☒ No

If yes, does the 100-year water surface elevation change by 1.0 foot or more? ☐ Yes ☐ No

FEMA does not normally revise NFIP maps solely due to insignificant flow changes where changes in 100-year water surface elevation are less than 1.0 foot.

5. HISTORICAL FLOODING INFORMATION

Is historical data available for the flooding source? ☐ Yes ☒ No

If yes, provide the following:

Location along flooding source: _____

Maximum peak discharge: _____ cfs

Second highest peak discharge: _____ cfs

Source of information: _____

6. GAGE RECORD INFORMATION

Location of nearest gage to project site *(along flooding source or similar watershed; specify)*

NA

Gaging Station: _____

Drainage area at gage: _____ mi^2

Number of years of data: _____

7. DATA REVISION

Please use the following table to list all the data and/or parameters affected by this request and identify them as new data (*New*) or as revising existing data (*Revised*). *(If necessary, attach a separate sheet.)*

Data Parameter	New	Revised	Data Source
NA	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

- Data source can be from a Federal, State, or local government agency, or from a private source. Some State and local governments may have less strict data requirements than Federal agencies, in which case the hydrologic data may not be accepted by FEMA unless it is demonstrated that the data give a better estimate of the flood discharge.
- Attach documentation corroborating each data source *(i.e., certified statement, report, bibliographical reference to a published document)*. In the case of a published document or a government report, providing copies of the cover and pertinent pages may be helpful.

8. METHODOLOGY FOR NEW ANALYSIS

☐ Statistical Analysis of Gage Records (*use Attachment A*)

☐ Regional Regression Equations *(use Attachment B)*

☒ Precipitation/Runoff Model *(use Attachment C)*

☐ Other *(specify; attach backup computations and supporting data)* _____

Gaging Station: NA

Gage Location (latitude and longitude): _____

	FIS:	Revised:
1. Number of years of data	_____	_____
Systematic	_____	_____
Historical	_____	_____
2. Homogeneous data	☐ Yes ☐ No	☐ Yes ☐ No
3. Data adjustments	☐ Yes ☐ No	☐ Yes ☐ No
4. Number of high outliers	_____	_____
Low outliers	_____	_____
Zero events	_____	_____
5. Generalized skew	_____	_____
6. Station skew	_____	_____
7. Adopted skew	_____	_____
8. Probability distribution used (justify if log-Pearson III was not used)	_____	_____
9. Transfer equations to ungaged sites		☐ Yes ☐ No

If yes, specify method

_____

_____

_____

10. Expected probability* ☐ Yes ☐ No

11. Comparison of results with other analyses ☐ Yes ☐ No

If yes, describe comparison

_____

_____

_____

*FEMA does not accept expected probability analyses for the purpose of reflecting flood hazard information in a FIS.

If any data is not available, indicate by N/A.

Attach analysis including plot of flood frequency curve.

1. Bibliographical Reference:

NA

(Attach a copy of title page, table of contents, and pertinent pages including equations.)

2. Gaged or ungaged stream: _____

3. Hydrologic region(s): _____
Attach backup map.

4. Provide parameters, values, and source of data used to define parameters.

		FIS:		Revised:	
5.	Urbanized conditions calculations	☐ Yes	☐ No	☐ Yes	☐ No
6	Percent of watershed urbanization	_____		_____	
7.	Is the watershed controlled?	☐ Yes	☐ No	☐ Yes	☐ No
8.	Comparison with other analyses	☐ Yes	☐ No	☐ Yes	☐ No

If the answer to 5, 7, or 8 is yes, explain methodology in Comments.

If data is not available, indicate by N/A.

Comments

Attach computation and supporting maps, delineating the watershed boundary and drainage area divides.

		FIS:	Revised
1.	Method or model used:		HEC-1
	Version:		VER 3.0
	Date:		02 AUG 88
2.	Source of rainfall depth:		NOAA ATLAS 2
3.	Source of rainfall distribution:		SCS TYPE II
4.	Rainfall duration:		24 HOURS
5.	Areal adjustment to precipitation (%):		NWS HYDRO-40
6.	Hydrograph development method:		S-GRAPH
7.	Loss rate method:		GREEN-AMPT
	Source of soils information:		SCS
	Source of land use information		TOWN of WICKENBURG
8.	Channel routing method:		NORMAL DEPTH
9.	Reservoir routing:	☐ Yes ☐ No	☐ Yes ☐ No
10.	Baseflow considerations:	☐ Yes ☐ No	☐ Yes ☒ No

If yes, explain how baseflow was determined:

11.	Snowmelt considerations:	☐ Yes ☐ No	☐ Yes ☒ No
12.	Model calibration:	☐ Yes ☐ No	☒ Yes ☐ No

If yes, explain how calibration was performed Computed discharges were compared with DISCHARGE VS DRAINAGE AREA curves and envelopes prepared by the Flood Control District of Maricopa County

13. Future land use condition: ☐ Yes ☒ No

If yes, explain why

NOTE: FEMA policy is to base flooding on existing conditions.
If data is not available, indicate by N/A.

Attach precipitation/runoff model, hydrologic model schematic, curve number calculations, time of concentration calculations, and supporting maps, delineating the watershed boundary and drainage area divides.

Stream: NA – NO FLOW RECORDS

Select one location for Confidence Limits Evaluation (*describe location*): _____

_____

Discharges for selected location:

Exceedance Probability		FIS	Revised
10%	(10-year)	_____ cfs	_____ cfs
2%	(50-year)	_____ cfs	_____ cfs
1%	(100-year)	_____ cfs	_____ cfs
0.2%	(500-year)	_____ cfs	_____ cfs

1% (100-year) Flood Confidence Intervals

90% Confidence Interval: 5% limit _____ cfs

95% limit _____ cfs

50% Confidence Interval: 25% limit _____ cfs

75% limit _____ cfs

If the value of the 100-year frequency flood in the FIS is beyond the 50% confidence interval but within the 90% confidence interval, does the 100-year water surface elevation change by 1.0 foot or more? ☐ Yes ☐ No

An example of confidence limits analysis can be found in Appendix 9 of Bulletin 17B.

Attach Confidence Limits Analysis.

FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERINE HYDRAULIC ANALYSIS FORM	O.M.B. Burden No 3067-0148 Expires July 31, 1994	FEMA USE ONLY

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 2.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

Community Name: Unincorporated Maricopa County / Town of Wickenburg

Flooding Source: WASH AHS: UNNAMED SOLS WASH TRIBUTARY (#5)
(One form for each flooding source)

Project Name/Identifier: Wickenburg ADMS FCD 89-79

1. REACH TO BE REVISED

Downstream limit: Station 0.000 (Confluence w/ Sols Wash)

Upstream limit: Station 5.340

2. EFFECTIVE FIS

☒ Not studied

☐ Studied by approximate methods

Downstream limit of study _____

Upstream limit of study _____

☐ Studied by detailed methods

Downstream limit of study _____

Upstream limit of study _____

☐ Floodway delineated

Downstream limit of Floodway _____

Upstream limit of Floodway _____

3. HYDRAULIC ANALYSIS

Why is the hydraulic analysis different from that used to develop the FIRM. *(Check all that apply)*

☒ Not studied in FIS

☒ Improved hydrologic data/analysis. Explain: Hydrologic Analysis procedures standardized by the Flood Control District of Maricopa County

☐ Improved hydraulic analysis. Explain: _____

☐ Flood control structure. Explain: _____

☐ Other. Explain: _____

Full input and output listings along with files on diskette *(if available)* for each of the models listed below and summary of the source of input parameters used in the models must be provided. The summary must include a complete description of any changes made from model to model *(e.g. duplicate effective model to corrected effective model)*. Only the Duplicate Effective and the Revised or Post-Project Conditions models must be submitted. See instructions for directions on when other models may be required. Only the 100-year flood profile is required for SFHAs with a Zone A designation. For areas which do not have detailed flooding, a hydraulic model is not required; however BFE's may not be added to the revised FIRM.

☐ Duplicate Effective Model — Natural ☐ Floodway ☐

Copies of the hydraulic analysis used in the effective FIS, referred to as the effective models *(10-, 50-, 100-, and 500-year multi-profile runs and the floodway run)* must be obtained and then reproduced on the requestor's equipment to produce the duplicate effective model. This is required to assure that the effective model input data has been transferred correctly to the requestor's equipment and to assure that the revised data will be integrated into the effective data to provide a continuous FIS model upstream and downstream of the revised reach.

☐ Corrected Effective Model — Natural ☐ Floodway ☐

The corrected effective model is the model that corrects any errors that occur in the duplicate effective model, adds any additional cross sections to the duplicate effective model, or incorporates more detailed topographic information than that used in the currently effective model. The corrected effective model must not reflect any man-made physical changes since the date of the effective model. An error could be a technical error in the modeling procedures, or any construction in the floodplain that occurred prior to the date of the effective model but was not incorporated into the effective model.

☐ Existing or Pre-Project Conditions Model — Natural ☐ Floodway ☐

The duplicate effective or corrected model is modified to produce the existing or pre-project conditions model to reflect any modifications that have occurred within the floodplain since the date of the effective model but prior to the construction of the project for which the revision is being requested. If no modification has occurred since the date of the effective model, then this model would be identical to the corrected effective or duplicate effective model.

☐ Revised or Post-Project Conditions Model — Natural ☐ Floodway ☐

The existing or pre-project conditions model *(or duplicate effective or corrected effective model, as appropriate)* is revised to reflect revised or post-project conditions. This model must incorporate any physical changes to the floodplain since the effective model was produced as well as the effects of the project. When the request is for proposed project this model should reflect proposed conditions.

☒ Other: Please attach a sheet describing all other models or calculations submitted. — Natural ☒ Floodway ☒

New Model
(Proposed Effective Model)

4. MODEL PARAMETERS *(from model used to revise 100-year water surface elevation)*

Discharges:	Upstream Limit	Downstream Limit
10-year		
50-year		
100-year	199	2129
500-year		

Attach diagram showing changes in 100-year discharge

2. Explain how the starting water surface elevations were determined Starting water surface elevation determined by the Slope-Area Method

3. Give range of friction loss coefficients (*Manning's "N"*) Channel .....

Overbanks .....

If friction loss coefficients are different anywhere along the revised reach from those used to develop the FIRM, give location, value used in the effective FIS, and revised values and an explanation as to how the revised values were determined.

Location	FIS	Revised
NA		

Explain:

4. Describe how the cross section geometry data were determined (*e.g., field survey, topographic map, taken from previous study*) and list cross sections that were added.

Data points for cross sections are based on the photogrammetric models for the topographic maps

5. Explain how reach lengths for channel and overbanks were determined:

All reach lengths were measured from floodplain work maps.

5. RESULTS (from model used to revise 100-year water surface elevations)

1. Do the results indicate:

a. Water surface elevations higher than end points of cross sections? ..... ☐ Yes ☒ No

b. Supercritical depth? ..... ☐ Yes ☒ No

c. Critical depth? ..... ☒ Yes ☐ No

d. Other unique situations ..... ☒ Yes ☐ No

(If yes, Special Problem Report attached)

If yes to any of the above, attach an explanation that discusses the situation and how it is presented on the profiles, tables, and maps.

2. What is the maximum change in energy gradient between cross-sections? ..... 9.61 ft

Specify location 0.305

3. What is the distance between the cross-sections in 2 above? 610

Specify location 0.305

4. What is the maximum distance between cross-sections? 750

Specify location 1.705

5. Floodway determination

a. What is the maximum surcharge allowed by the community or State? ..... 1 foot

b. What is the maximum surcharge for the revised conditions? ..... 0.5 foot

Specify location 1.563, 2.277

c. What is the maximum velocity? ..... 11.5 fps

Specify location 4.277

Explain:

d. Are there any negeative surcharge values at any cross-section ☐ Yes ☐ No

If yes, the floodway may need to widen. If it is not widened, please explain and indicate the maximum negative surcharge

6. Is the discharge value used to determine the floodway anywhere different from that used to determine the natural 100-year flood elevations? ..... ☐ Yes ☒ No

If Yes, explain:

7. Do 100-year water surface elevations increase at any location? ..... ☐ Yes ☒ No

If yes, please attach a list of the locations where the increases occur, state whether or not the increases are located on the requestor's property, and provide an explanation of the reason for the increases.

NA- New Model

Please attach a completed comparison table entitled: Water Surface Elevation Check (See page 6)

6. REVISED FIRM/FBFM AND FLOOD PROFILES

A. The revised water surface elevations tie into those computed by the effective FIS Model *(10-, 50-, 100-, and 500-year)*, downstream of the project at cross-section NA within _____ feet and upstream of the project at cross section _____ within _____ feet.

B. The revised floodway elevations tie into those computed by the effective FIS model, dowstream of the project at cross section NA within _____ feet and upstream of the project at cross section _____ within NA feet.

C. Attach profiles, at the same vertical and horizontal scale as the profiles in the effective FIS report, showing stream bed and profiles of all floods studied (without encroachment). Also, label all cross sections, road crossings (including low chord and top-of-road data), culverts, tributaries, corporate limits, and study limits. If channel distance has changed, the stationing should be revised for all profile sheets.

D. Attach a Floodway Data Table showing data for each cross section listed in the published Floodway Data Table in the FIS report.

Proceed to Riverine /Coastal Mapping Form

FEDERAL EMERGENCY MANAGMENT AGENCY

WATER SURFACE ELEVATION CHECK

COMMUNITY NAME	FLOODIND SOURCE	PROJECT NAME /IDENTIFIER
Unincorporated Maricopa County/ Town of Wickenburg	WASH AHS: UNNAMED SOS WASH TRIB (#5)	Wickenburg ADMS FCD 89-79

	EFFECTIVE			DUPLICATE EFFECTIVE			CORRECTED EFFECTIVE			EXISTING/PRE-PROJECT			REVISED/PROJECT		
SECNO	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]

COMMENTS: New Model - See following Floodway Data Table

1-100-year (natural) Water Surface Elevation 2-Encroachment (floodway) Water Surface Elevation 3-Surcharge Value

Include all cross sections in the models between tie-in points. Any interpolated values should be indicated in parentheses.

Sheet 1 of 1

FLOODWAY DATA, WASH AH5: SOLS WASH TRIB
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
.189	577.	557.	3.8	2259.7	2259.7	.0
.305	625.	984.	2.2	2269.7	2269.7	.0
.362	236.	382.	5.6	2273.0	2273.0	.0
.393	184.	355.	6.0	2275.3	2275.3	.0
.484	316.	425.	5.0	2282.6	2282.6	.0
.554	121.	280.	6.7	2288.5	2288.5	.0
.656	125.	284.	6.6	2296.9	2296.9	.0
.753	92.	250.	7.4	2302.6	2302.7	-.1
.849	284.	388.	4.8	2309.2	2309.2	.0
.944	222.	343.	5.4	2316.0	2316.0	.0
1.039	89.	252.	7.4	2322.7	2322.8	-.1
1.137	140.	288.	6.5	2330.3	2330.3	.0
1.232	178.	322.	5.8	2336.9	2336.9	.0
1.330	167.	310.	6.0	2343.9	2343.8	.1
1.450	135.	287.	6.5	2352.1	2352.1	.0
1.563	133.	282.	6.6	2360.2	2359.7	.5
.705	340.	422.	4.4	2369.5	2369.4	.1
1.806	258.	365.	5.1	2376.5	2376.5	.0
1.899	258.	410.	4.6	2380.4	2380.4	.0
1.986	187.	325.	5.7	2386.9	2386.9	.0
2.079	300.	417.	4.5	2393.0	2393.0	.0
2.175	308.	443.	4.2	2397.0	2397.0	.0
2.277	160.	319.	5.9	2401.6	2401.1	.5
2.372	143.	297.	6.3	2409.3	2409.3	.0
2.472	133.	349.	5.3	2414.1	2413.9	.2
2.568	153.	308.	6.0	2419.7	2419.7	.0
2.669	165.	378.	4.9	2423.6	2423.4	.2
2.759	211.	319.	5.8	2429.6	2429.6	.0
2.852	111.	289.	6.4	2434.8	2434.7	.1
2.932	153.	326.	5.7	2438.4	2438.4	.0
3.044	280.	423.	4.4	2442.8	2442.8	.0
3.144	212.	407.	4.6	2446.5	2446.5	.0
3.233	290.	376.	5.0	2452.6	2452.6	.0
3.343	241.	286.	4.0	2458.6	2458.3	.3
3.443	327.	393.	2.9	2461.5	2461.4	.1
3.534	462.	296.	3.9	2468.1	2468.1	.0
3.623	111.	205.	5.6	2474.5	2474.5	.0
3.713	124.	212.	5.4	2478.4	2478.3	.1
3.810	53.	150.	7.6	2482.1	2482.1	.0
3.897	55.	145.	7.9	2487.1	2487.3	-.2
4.005	75.	170.	6.7	2494.2	2494.3	-.1
.090	92.	191.	6.0	2498.6	2498.7	-.1

FLOODWAY DATA, WASH AH5: SOLS WASH TRIB
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
4.177	73.	168.	6.8	2502.1	2502.1	.0
4.270	33.	91.	6.5	2506.5	2506.1	.4
4.277	13.	52.	11.5	2507.4	2507.4	.0
4.288	13.	81.	7.4	2510.4	2510.4	.0
4.292	60.	260.	2.3	2511.6	2511.6	.0
4.358	84.	222.	2.7	2511.9	2511.9	.0
4.428	90.	116.	5.2	2515.7	2515.7	.0
4.510	52.	72.	2.8	2520.1	2519.7	.4
4.572	51.	48.	4.2	2524.6	2524.6	.0
4.699	51.	48.	4.1	2533.1	2533.1	.0
4.796	49.	47.	4.2	2538.8	2538.7	.1
4.890	40.	44.	4.5	2543.9	2543.9	.0
4.946	6.	19.	10.3	2547.6	2547.6	.0
4.957	6.	29.	7.0	2550.1	2550.1	.0
4.959	26.	104.	1.9	2551.1	2551.1	.0
5.054	53.	48.	4.1	2554.9	2554.9	.0
5.152	48.	44.	4.5	2563.4	2563.4	.0
5.251	66.	51.	3.9	2571.2	2571.2	.0
5.340	42.	50.	3.9	2575.9	2575.8	.1

Wickenburg ADMS FCD 89-79

EXPLANATORY NOTES FOR
FORM 4 SECTION 5 PARAGRAPH 1.C

This watercourse islocated in a mountainous area. It is common for this watercourse to flow in subcritical, supercritical, and transitional flow regimes. The subcritical profile has been used to delineate the 100 year floodplain and prepare maps, tables, etc.

FEDERAL EMERGENCY MANAGEMENT AGENCY BRIDGE/CULVERT FORM	O.M.B. Burden No. 3067-0148 Expires July 31, 1994	FEMA USE ONLY

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 2 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

Community Name: Unincorporated Maricopa County / Town of Wickenburg

Flooding Source: WASH AH5: UNNAMED SOLS WASH TRIBUTARY (#5)

Project Name/Identifier: Wickenburg ADMS FCD 89-79

1. IDENTIFIER

1. Name of roadway, railroad, etc.: OLD U.S. Hwy 60 (ABANDONED)
2. Location of bridge/culvert along flooding source (in terms of stream distance or cross-section identifier): Station 4.946 to Station 4.959
3. This revision reflects *(check one of the following)*:
   - [x] New bridge/culvert not modeled in the FIS
   - [ ] Modified bridge/culvert previously modeled in the FIS
   - [ ] New analysis of bridge/culvert previously modeled in the FIS

   (Explain why new analysis was performed) _____

2. BACKGROUND

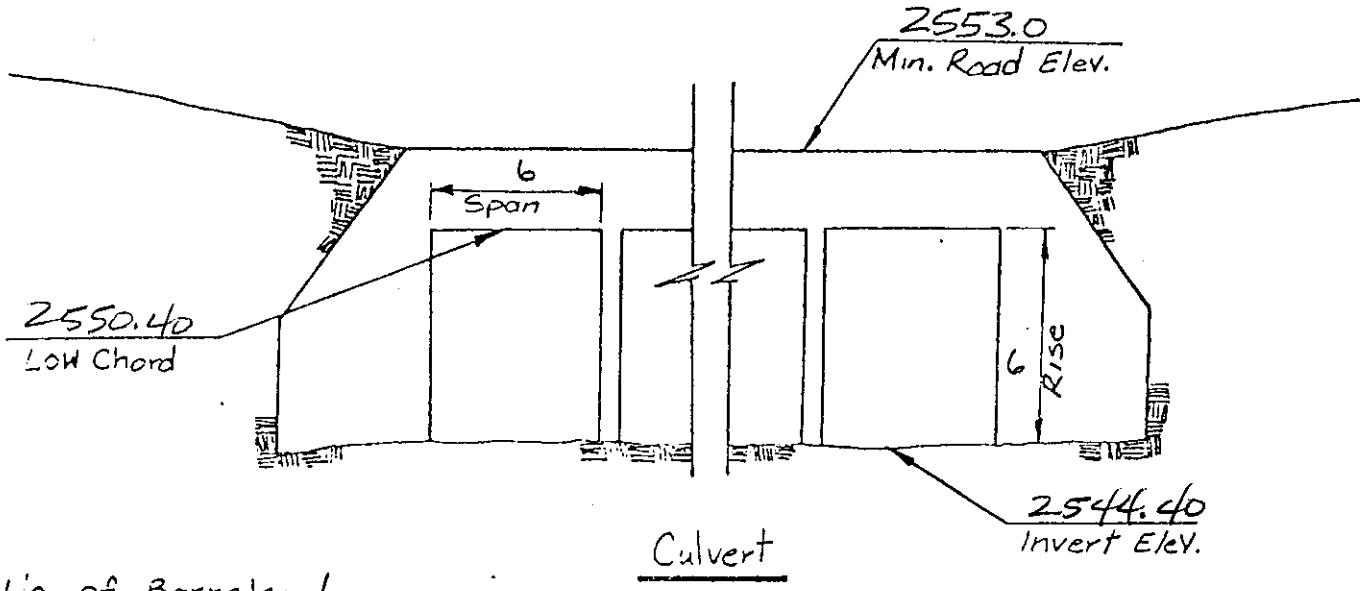
Provide the following information about the structure:

1. Dimension, material, and shape (e.g. two 10 x 5 feet reinforced concrete box culvert; three 30-foot span bridge with 2 rows of two 3- foot diameter circular piers; 40-foot wide ogee shape spillway) Single 6x6 ft reinforced concrete box culvert
2. Entrance geometry of culvert/type of bridge opening (e.g. 30° - 75° wing walls with square top edge, sloping embankments and vertical abutments) 30° - 75° wing walls with square top edge
3. Hydraulic model used to analyze the structure (*e.g., HEC-2 with special bridge routine, WSPRO, HY8*) HEC-2 with special culvert routine

   If different than hydraulic analysis for the flooding source, justify why the hydraulic analysis used for the flooding source could not analyze the structure(s). *(Attach justification)*

Note: If any items do not apply to submitted hydraulic analysis, indicate by N/A
* One form per new/revised bridge/culvert

Sketch the downstream face of the structure together with the road profile. Show, at a minimum, the maximum low chord elevation, invert elevation, minimum top of road elevation, and ineffective flow widths.

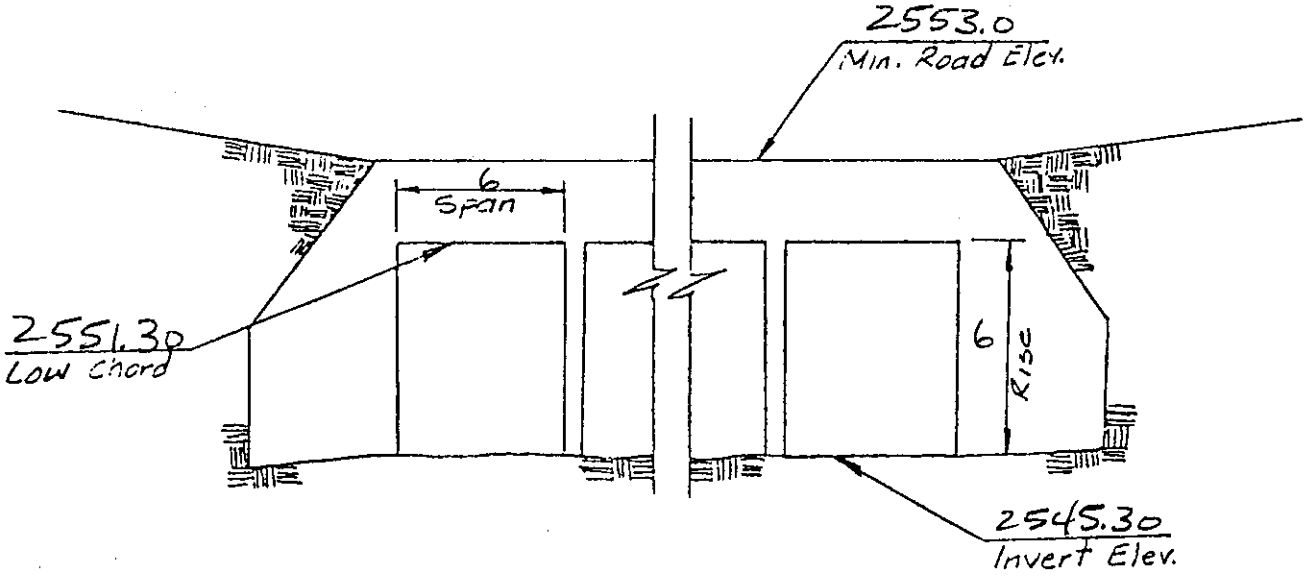


No. of Barrels: 1

Culvert Size: 6x6

Approx. Depth of Sediment in Culvert: 0 See Cross Section # 4.946

Sketch the upstream face of the structure together with the road profile. Show, at a minimum, the maximum low chord elevation, invert elevation, and minimum top of road elevation.

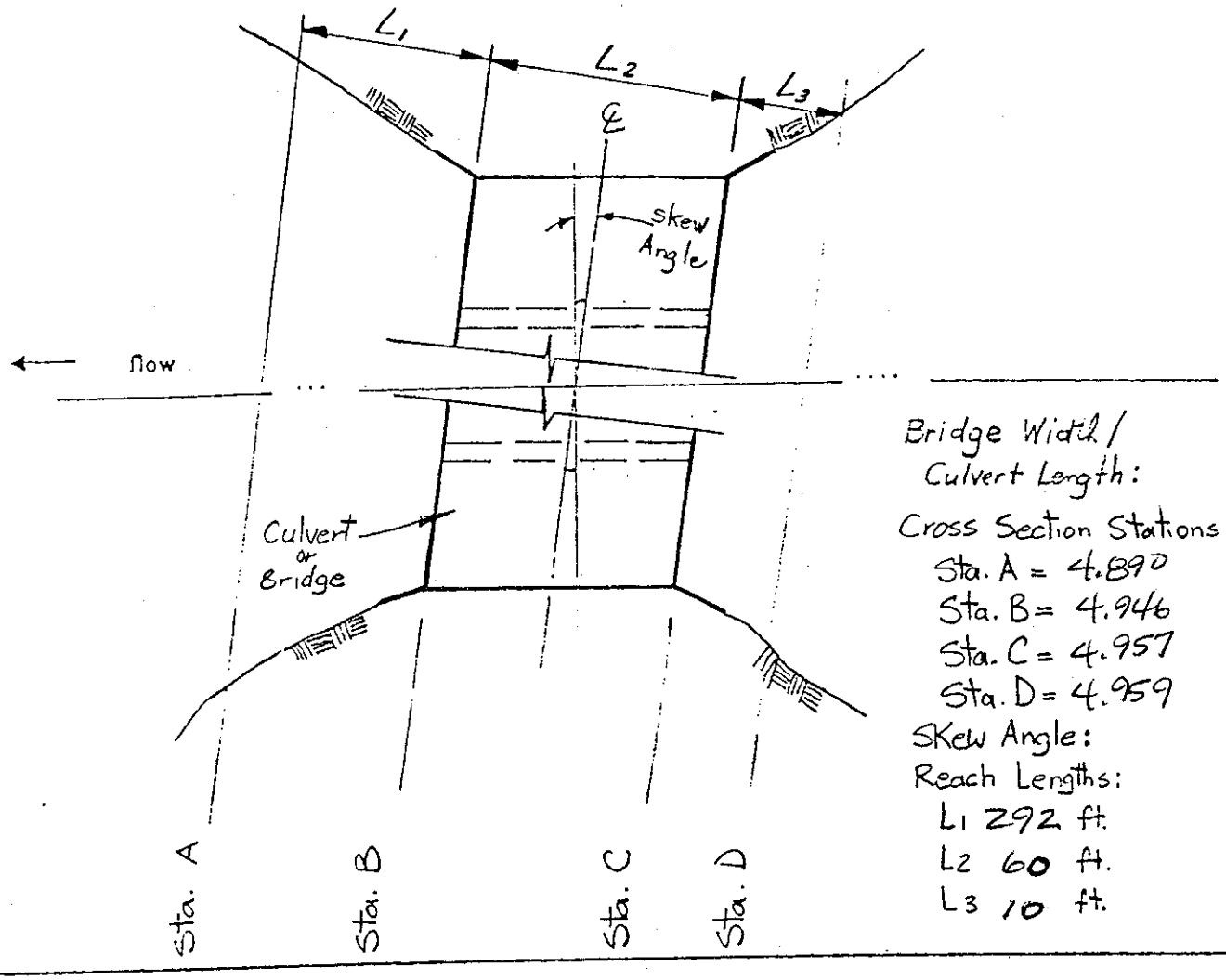


No. of Barrels: 1

Culvert Size: 6x6

Approx. Depth of Sediment in Culvert: 0 See Cross Section # 4.957

Sketch the plan view of the structure(s) Show, at a minimum, the skew angle, cross-section locations, distances between cross sections, and length of structure (s).



Bridge Width / Culvert Length:

Cross Section Stations
Sta. A = 4.890
Sta. B = 4.946
Sta. C = 4.957
Sta. D = 4.959

Skew Angle:

Reach Lengths:
L1 292 ft.
L2 60 ft.
L3 10 ft.

Attach plans of the structure (s) certified by a registered Professional Engineer.

Culvert length or bridge width (ft)	60 ft
Calculated culvert/bridge area (ft²) by the hydraulic model, if applicable	36
Total culvert/bridge area (ft²)	36

Elevations Above Which Flow is Effective for Overbanks

	Left Overbank	Right Overbank
Upstream face	2553.0	2553.1
Downstream face	2553.0	2553.1

Minimum Top of Road Elevation

	Left Overbank	Right Overbank
Upstream face	2553.0	2553.0
Downstream face	2553.0	2553.0

100-Year Elevations	Water Surface Elevations	Energy Gradient Elevations
Upstream face	2550.06	2550.82
Downstream face	2547.64	2549.27

Discharge	Low Flow	Pressure Flow	Weir Flow	Total Flow
Amount of flow through/over the structure (s) (cfs)	199	—	—	199

The maximum depth of flow over the roadway/railroad (ft.) ..... —

Weir length (ft.) ..... —

Top Widths

	Floodplain	Floodway
Upstream face	6	6
Downstream face	6	6

Top Widths

	Effective Flow	Effective and Ineffective Flow
Upstream face	6	6
Downstream face	6	6

Loss Coefficients

Entrance loss coefficient	0.40
Manning's "n" value assigned to the structure(s)	0.015
Friction loss coefficient through structure (s)	—
Other loss coefficients (e.g., bend manhole, etc.)	—
Total loss coefficient	—
Weir coefficient	NA
Pier coefficient	NA
Contraction loss coefficient	0.6
Expansion loss coefficient	0.8

4. SEDIMENT TRANSPORT CONSIDERATIONS

1. A. Is there any indication from historical records that sediment transport *(including scour and deposition)* can affect the 100-year water surface elevations? ..... ☐ Yes ☐ No

   B. Based on the conditions *(such as geomorphology, vegetative cover and development of the watershed and stream bed, and bank conditions)*, is there a potential for debris and sediment transport *(including scour and deposition)* to affect the 100-year water surface elevations and/or conveyance capacity through the bridge/culvert? ..... ☐ Yes ☐ No

.. If the answer to either 1A or 1B is yes:

A. What is the estimated sediment *(bed material)* load?
_____cfs *(attach gradation curve)*

Explain method used to estimate the sediment transport and the depth of scour and/or deposition NA - Sediment transport not considered in analysis.

B. Will sediment accumulate anywhere through the bridge/culvert? ☐ Yes ☐ No

If yes, explain the impact on the conveyance capacity through the bridge/culvert?

5. FLOODWAY ANALYSIS

Explain method of bridge encroachment (floodway run) NA

Comments *(explain any unusual situations)*:

Attach analysis.

FEDERAL EMERGENCY MANAGEMENT AGENCY BRIDGE/CULVERT FORM	O.M.B. Burden No. 3067-0148 Expires July 31, 1994	FEMA USE ONLY

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Community Name: Unincorporated Maricopa County / Town of Wickenburg

Flooding Source: WASH AHS: UNNAMED SOLS WASH TRIBUTARY

Project Name/Identifier: Wickenburg ADMS FCD 89-79

1. IDENTIFIER

1. Name of roadway, railroad, etc.: U.S. Hwy 60
2. Location of bridge/culvert along flooding source (in terms of stream distance or cross-section identifier): Station 4.277 to Station 4.288
3. This revision reflects *(check one of the following)*:
   - ☒ New bridge/culvert not modeled in the FIS
   - ☐ Modified bridge/culvert previously modeled in the FIS
   - ☐ New analysis of bridge/culvert previously modeled in the FIS

   (Explain why new analysis was performed) _____

2. BACKGROUND

Provide the following information about the structure:

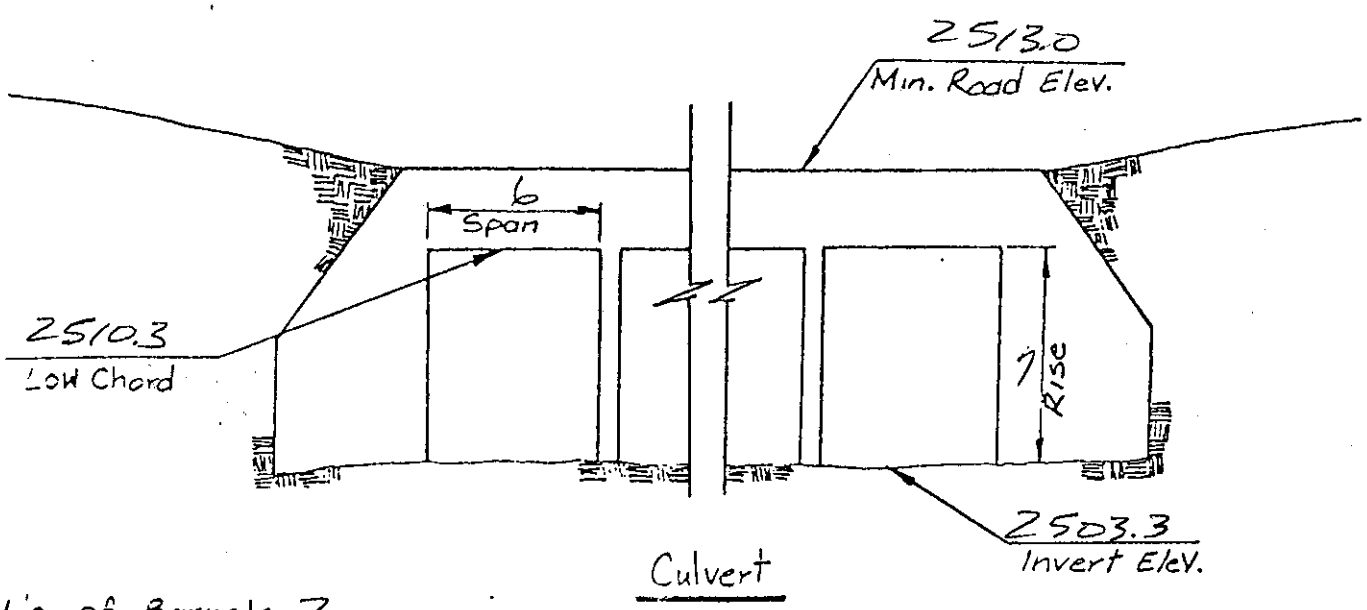
1. Dimension, material, and shape (e.g. two 10 x 5 feet reinforced concrete box culvert; three 30-foot span bridge with 2 rows of two 3- foot diameter circular piers; 40-foot wide ogee shape spillway) Two 6x7 ft reinforced box culvert
2. Entrance geometry of culvert/type of bridge opening (e.g. 30° - 75° wing walls with square top edge, sloping embankments and vertical abutments) 30°-75° wing walls with square top edge
3. Hydraulic model used to analyze the structure (*e.g., HEC-2 with special bridge routine, WSPRO, HY8*) HEC-2 with special culvert routine

If different than hydraulic analysis for the flooding source, justify why the hydraulic analysis used for the flooding source could not analyze the structure(s). *(Attach justification)*

Note: If any items do not apply to submitted hydraulic analysis, indicate by N/A

* One form per new/revised bridge/culvert

Sketch the downstream face of the structure together with the road profile. Show, at a minimum, the maximum low chord elevation, invert elevation, minimum top of road elevation, and ineffective flow widths.



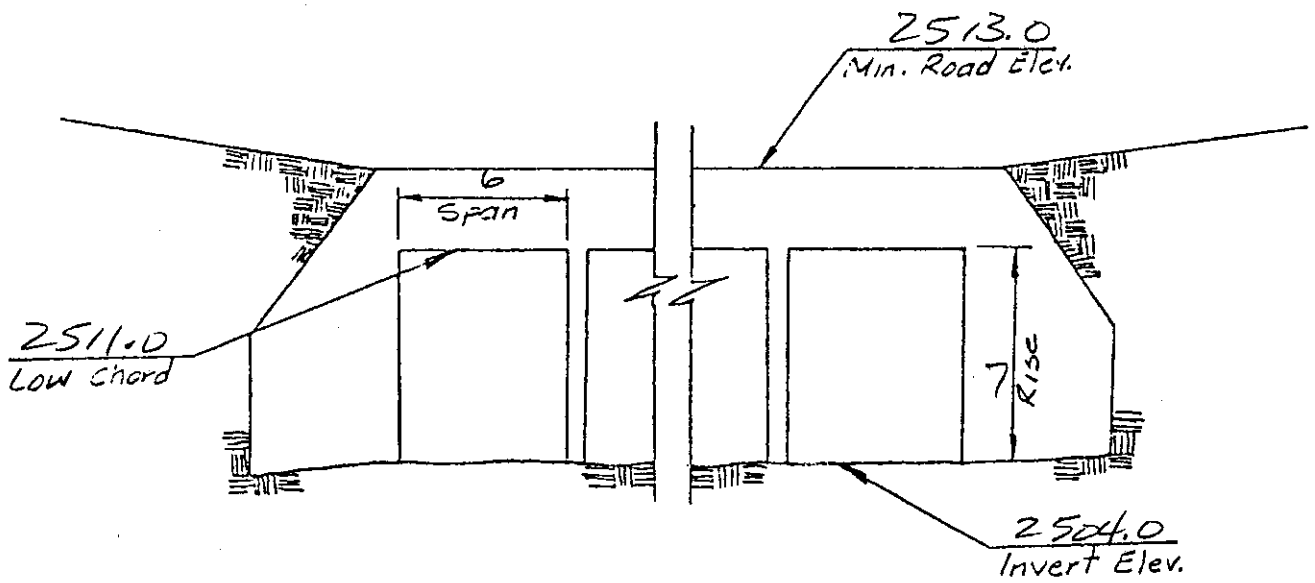
No. of Barrels: 2

Culvert Size: 6x7

Approx. Depth of Sediment in Culvert:

See Cross Section # 4.277

Sketch the upstream face of the structure together with the road profile. Show, at a minimum, the maximum low chord elevation, invert elevation, and minimum top of road elevation.



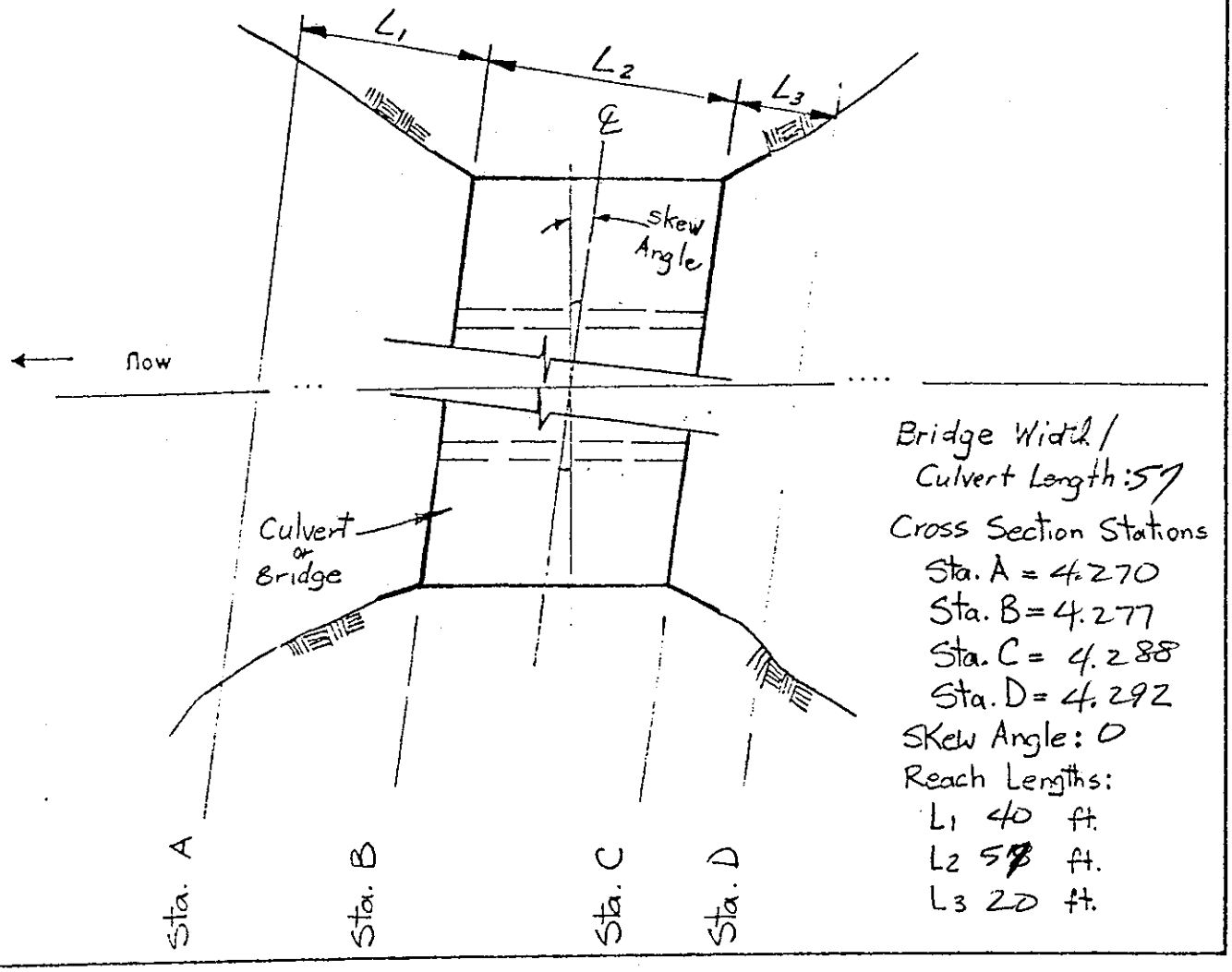
No. of Barrels: 2

Culvert Size: 6x7

Approx. Depth of Sediment in Culvert:

See Cross Section # 4.288

Sketch the plan view of the structure(s) Show, at a minimum, the skew angle, cross-section locations, distances between cross sections, and length of structure (s).



Bridge Width / Culvert Length: 57

Cross Section Stations

Sta. A = 4.270

Sta. B = 4.277

Sta. C = 4.288

Sta. D = 4.292

Skew Angle: 0

Reach Lengths:

L1 40 ft.

L2 57 ft.

L3 20 ft.

Attach plans of the structure (s) certified by a registered Professional Engineer.

Culvert length or bridge width (ft)	57
Calculated culvert/bridge area (ft²) by the hydraulic model, if applicable	84
Total culvert/bridge area (ft²)	84

Elevations Above Which Flow is Effective for Overbanks

	Left Overbank	Right Overbank
Upstream face	2516.6	2513.0
Downstream face	2516.6	2513.0

Minimum Top of Road Elevation

	Left Overbank	Right Overbank
Upstream face	2513.0	2513.0
Downstream face	2513.0	2513.0

100-Year Elevations	Water Surface Elevations	Energy Gradient Elevations
Upstream face	2510.38	2511.23
Downstream face	2507.39	2509.45

Discharge	Low Flow	Pressure Flow	Weir Flow	Total Flow
Amount of flow through/over the structure (s) (cfs)	597	—	—	597

The maximum depth of flow over the roadway/railroad (ft.) ..... —

Weir length (ft.) ..... —

Top Widths

	Floodplain	Floodway
Upstream face	12.66	12.66
Downstream face	12.66	12.66

Top Widths

	Effective Flow	Effective and Ineffective Flow
Upstream face	12.66	12.66
Downstream face	12.66	12.66

Loss Coefficients

Entrance loss coefficient	0.40
Manning's "n" value assigned to the structure(s)	0.015
Friction loss coefficient through structure (s)	—
Other loss coefficients (e.g., bend manhole, etc.)	—
Total loss coefficient	—
Weir coefficient	NA
Pier coefficient	NA
Contraction loss coefficient	0.6
Expansion loss coefficient	0.8

4. SEDIMENT TRANSPORT CONSIDERATIONS

1. A. Is there any indication from historical records that sediment transport *(including scour and deposition)* can affect the 100-year water surface elevations? ..... ☐ Yes ☐ No

B Based on the conditions *(such as geomorphology, vegetative cover and development of the watershed and stream bed, and bank conditions)*, is there a potential for debris and sediment transport *(including scour and deposition)* to affect the 100-year water surface elevations and/or conveyance capacity through the bridge/culvert? ..... ☐ Yes ☐ No

.. If the answer to either 1A or 1B is yes:

A. What is the estimated sediment *(bed material)* load?
_____ cfs *(attach gradation curve)*

Explain method used to estimate the sediment transport and the depth of scour and/or deposition NA - Sediment transport not considered in analysis.

B. Will sediment accumulate anywhere through the bridge/culvert? ☐ Yes ☐ No

If yes, explain the impact on the conveyance capacity through the bridge/culvert?

5. FLOODWAY ANALYSIS

Explain method of bridge encroachment (floodway run) NA

Comments *(explain any unusual situations)*:

Attach analysis.

FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERINE/COASTAL MAPPING FORM	O.M.B. Burden No. 3067-0148 Expires July 31, 1994	FEMA USE ONLY

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 1.5 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

Community Name: Unincorporated Maricopa County/Town of Wickenburg

Flooding Source: WASH AHS: UNNAMED SOLS WASH TRIBUTARY (#5)

Project Name/Identifier: Wickenburg ADMS FCD 89-79

1. MAPPING CHANGES

1. A topographic work map of suitable scale, contour interval, and planimetric definition must be submitted showing *(indicate N/A when not applicable):*

		Included		
A.	Revised approximate 100-year floodplain boundaries (Zone A)	☐ Yes	☒ No	☐ N/A
B.	Revised detailed 100- and 500-year floodplain boundaries	☒ Yes	☐ No	☐ N/A
C.	Revised 100-year floodway boundaries	☒ Yes	☐ No	☐ N/A
D.	Location and alignment of all cross sections used in the revised hydraulic model with stationing control indicated	☒ Yes	☐ No	☐ N/A
E.	Stream alignments, road and dam alignments	☒ Yes	☐ No	☐ N/A
F.	Current community boundaries	☒ Yes	☐ No	☐ N/A
G.	Effective 100- and 500-year floodplain and 100-year floodway boundaries from the FIRM/FBFM reduced or enlarged to the scale of the topographic work map	☐ Yes	☐ No	☒ N/A
H.	Tie-ins between the effective and revised 100- and 500-year floodplains and 100-year floodway boundaries	☐ Yes	☐ No	☒ N/A
I.	The requestor's property boundaries and community easements	☐ Yes	☐ No	☒ N/A
J.	The signed certification of a registered professional engineer	☒ Yes	☐ No	☐ N/A
K.	Location and description of reference marks	☒ Yes	☐ No	☐ N/A
L.	Vertical datum (example: NGVD, NAVD etc.)	☒ Yes	☐ No	☐ N/A
M.	Coastal zone designations tie into adjacent areas not being revised	☐ Yes	☐ No	☒ N/A
N.	Location and alignment of all coastal transects used to revise the coastal analyses	☐ Yes	☐ No	☒ N/A

If any of the items above are marked no or N/A, please explain: No Zone A, 500-year, or coastal zones revised or delineated. Revised 100-year floodplains tie into effective Hassayampa River floodplain.

2. What is the source and date of the updated topographic information *(example: orthophoto maps, July 1985; field survey, May 1979, beach profiles, June 1987, etc.)*? Photo: Jan. 1991 (E), Oct 1990 (W); Maps 1992

3. What is the scale and contour interval of the following work maps?
   a. Effective FIS unknown scale unknown Contour interval
   b. Revision Request 1" = 200' scale 4 FT Contour interval

NOTE: Revised topographic information must be of equal or greater detail.

4. Attach an annotated FIRM and FBFM at the scale of the effective FIRM and FBFM showing the revised 100-year and 500-year floodplains and the 100-year floodway boundaries and how they tie into those shown on the effective FIRM and FBFM downstream and upstream of the revision or adjacent to the area of revision for coastal studies.

Attach additional pages if needed.

5. Flood Boundaries and 100-year water surface elevations:

Has the 100-year floodplain been shifted or increased or the 100-year water surface elevation increased at any location on property other than the requestor's or community's? ☐ Yes ☒ No

If yes, please give the location of shift or increase and an explanation for the increase.

~~Revised~~ New detailed 100-year floodplain; ~~replaces~~ proposed effective zone AE floodplain.

a. Have the affected property owners been notified of this shift or increase and the effect it will have on their property? ..... ☐ Yes ☒ No

If yes, please attach letters from these property owners stating they have no objections to the revised flood boundaries if a LOMR is being requested.

b. What is the number of insurable structures that will be impacted by this shift or increase? _____

6. Have the floodway boundaries shifted or increased at any location compared to those shown on the effective FBFM or FIRM? ..... ☐ Yes ☒ No

If yes, explain:

7. If a V-zone has been designated, has it been delineated to extend landward to the heel of the primary frontal dune? ☐ Yes ☒ No

If no, explain:

NA

8. Manual or digital map submission:

☒ Manual

☐ Digital

Digital map submissions may be used to update digital FIRMs (DFIRMs). For updating DFIRMs, these submissions must be coordinated with FEMA Headquarters as far in advance of submission as possible.

2. EARTH FILL PLACEMENT

1. The fill is: ☐ Existing ☐ Proposed ☒ N/A

2. Has fill been/will be placed in the regulatory floodway? ..... ☐ Yes ☒ No
   If yes, please attach completed Riverine Hydraulic Analysis Form.

3. Has fill been/will be placed in floodway fringe *(area between the floodway and 100-year floodplain boundaries)*? ..... ☐ Yes ☒ No

   If yes, then complete A, B, C, and D below.

   A. Are fill slopes for granular materials steeper than one vertical on one-and-one-half horizontal? ..... ☐ Yes ☐ No

      If yes, justify steeper slopes _____

      _____

   B. Is adequate erosion protection provided for fill slopes exposed to moving flood waters? *(Slopes exposed to flows with velocities of up to 5 feet per second (fps) during the 100-year flood must, at a minimum, be protected by a cover of grass, vines, weeds, or similar vegetation; slopes exposed to flows with velocities greater than 5 fps during the 100-year flood must, at a minimum, be protected by stone or rock riprap.)* ..... ☐ Yes ☐ No

      If no, describe erosion protection provided _____

      _____

   C. Has all fill placed in revised 100-year floodplain been compacted to 95 percent of the maximum density obtainable with the Standard Proctor Test Method or acceptable equivalent method? ☐ Yes ☐ No

   D. Can structures conceivably be constructed on the fill at any time in the future? ☐ Yes ☐ No

   If yes, provide certification of fill compaction (item C. above) by the community's NFIP permit official, a registered professional engineer, or an accredited soils engineer.

4. Has fill been/will be placed in a V-zone? ☐ Yes ☒ No

   If yes, is the fill protected from erosion by a flood control structure such as a revetment or seawall? ☐ Yes ☐ No

   If yes, attach the coastal structures form.

```
*********************************************
*  HEC-2 WATER SURFACE PROFILES             *
*                                           *
*  Version   4.6.2;  May 1991               *
*                                           *
*  RUN DATE    03AUG92    TIME   09:58:55   *
*********************************************
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*************************************
*  U.S. ARMY CORPS OF ENGINEERS     *
*  HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D       *
*  DAVIS, CALIFORNIA 95616-4687     *
*         (916) 756-1104            *
*************************************
```

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

THIS RUN EXECUTED 03AUG92 09:58:55

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

 Version   4.6.2;  May 1991
************************************


T1      WICKENBURG ADMS - CONTRACT FCD 89-79
T2      BLACK & VEATCH PN 17676; COE & VAN LOO JN 1197-02
T3      WASH AH5: SOLS WASH TRIBUTARY      (FILE AH5.DAT)

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

                2                         0.0133                                    2260.0       0

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1                  -1                                        -1                            15


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    50        200

NC    0.050     0.050     0.030     0.1       0.3
QT        2      2129      2129
NH        8     0.065      579.     0.025      678.      0.065      720.      0.025      828.      0.055
NH     970.     0.045     1000.     0.030      1016      0.045      1458
ET                          9.1                                                          536.61    1112.18
            CONFLUENCE OF WASH AH5: SOLS WASH TRIBUTARY
            AND SOLS WASH BETWEEN CROSS-SECTIONS
                BB (SOLS WASH RIVER MILE 4.87)
                BD (SOLS WASH RIVER MILE 5.08)
            CROSS-SECTION DESIGNATION FROM
                SOLS WASH FLOODPLAIN DELINEATION
                HASSAYAMPA RIVER TO MARICOPA COUNTY LINE
                CELLA BARR ASSOCIATES

            CROSS-SECTION TAKEN FROM SOLS WASH FLOODPLAIN DELINEATION
            CROSS-SECTION IS 4.98 IN SOLS WASH FLOODPLAIN DELINEATION

            SWSE DETERMINED BY SLOPE AREA METHOD

            Q = 2129 cfs FROM HEC-1 MODEL (SAH120)

            X3 RECORD: STA 858 ELIMINATE INEFFECTIVE
                       FLOW AREA IN LEFT OVERBANK
X1    0.189        35      1000      1016         0         0         0
                                      858.    2259.1
GR   2265.6     438.0    2261.4     482.0    2259.2     554.0    2255.4     579.0    2255.4     610.0
GR   2255.5     638.0    2256.2     678.0    2255.9     720.0    2256.5     730.0    2256.0     741.0
GR   2255.7     828.0    2259.1     858.0    2258.4     894.0    2257.2     904.0    2257.9     916.0
GR   2257.9     955.0    2258.7     970.0    2258.4     987.0    2256.7    1000.0    2256.7    1016.0
```

GR	2258.5	1027.0	2259.0	1070.0	2259.7	1111.0	2261.4	1175.0	2262.1	1228.0

```
    261.5    1242.0    2262.6    1252.0    2262.6    1278.0    2262.0    1292.0    2262.7    1317.0
GR  2263.1   1339.0    2262.6    1384.0    2262.6    1399.0    2263.4    1410.0    2268.7    1458.0

NC  0.050    0.050     0.030     0.1       0.3
ET                     9.1                                                          403.03    1027.68
            X3 RECORD: STA 900 ELIMINATE INEFFECTIVE
                       FLOW AREA IN LEFT OVERBANK
X1  0.305    19        980       1010      800       560       610
X3                                900.      2268.
GR  2274.    258.      2272.     288.      2270.     388.      2268.     485.      2266.     500.
GR  2266.    510.      2268.     575.      2268.     760.      2268.     840.      2268.     980.
GR  2268.    1000.     2268.     1010.     2268.     1015.     2270.     1030.     2272.     1040.
GR  2274.    1055.     2276.     1075.     2278.     1090.     2280.     1180.

ET                     9.1                                                          772.32    1008.30
X1  0.362    13        989       1005      340       305       300
GR  2281.    100.      2280.     110.      2278.     130.      2276.     150.      2274.     170.
GR  2274.    470.      2274.     700.      2272.     844.      2270.     989.      2270.     1000.
GR  2270.    1005.     2280.     1016.     2290.     1032.

ET                     9.1                                                          837.79    1022.06
X1  0.393    20        984       1008      185       155       165
GR  2290.    440.      2288.     455.      2286.     475.      2284.     505.      2282.     530.
GR  2280.    555.      2278.     690.      2276.     810.      2274.     895.      2272.     984.
GR  2272.    1000.     2272.     1008.     2274.     1016.     2276.     1025.     2278.     1029.
    2280.    1030.     2282.     1040.     2284.     1042.     2286.     1045.     2288.     1050.

ET                     9.1                                                          778.16    1093.86
X1  0.484    12        1000      1020      385       500       480
GR  2290.    695.      2288.     710.      2286.     715.      2284.     725.      2282.     800.
GR  2280.    1000.     2280.     1020.     2282.     1040.     2284.     1225.     2286.     1235.
GR  2288.    1247.     2290.     1249.

QT     2     1864      1864
ET                     9.1                                                          953.15    1074.
            Q = 1864 cfs: DETERMINED FROM RATIO OF CONTRIBUTING
                       DRAINAGE AREA TO ENTIRE WATERSHED
X1  0.554    31        990.5     1011.1    340       390       370
GR  2292.3   925.4     2290.4    938.9     2289.2    945.1     2288.4    954.2     2288.0    961.0
GR  2286.2   973.4     2285.3    982.1     2285.0    990.5     2284.8    993.7     2284.7    998.3
GR  2284.7   1000.0    2284.8    1004.8    2285.2    1011.1    2285.7    1019.7    2286.2    1026.6
GR  2286.4   1034.5    2286.7    1049.7    2286.9    1061.3    2287.1    1073.8    2287.3    1086.4
GR  2287.4   1099.2    2287.4    1111.7    2287.5    1126.3    2287.6    1138.9    2287.9    1151.4
GR  2288.4   1159.4    2289.3    1167.8    2294.6    1181.4    2298.8    1192.5    2301.7    1200.5
GR  2302.2   1205.8

ET                     9.1                                                          888.      1012.66
X1  0.656    81        980       1006      590       510       540
GR  2306.0   690.0     2305.3    696.0     2304.7    702.0     2304.0    708.0     2303.6    713.8
GR  2303.1   719.6     2302.7    725.3     2302.2    731.1     2301.8    736.9     2301.3    742.7
GR  2300.9   748.4     2300.4    754.2     2300.0    760.0     2299.5    765.3     2299.0    770.7
    2298.5   776.0     2298.0    781.3     2297.5    786.7     2297.0    792.0     2296.9    797.7
    2296.8   803.3     2296.8    809.0     2296.7    814.7     2296.6    820.3     2296.5    826.0
GR  2296.4   831.7     2296.3    837.3     2296.3    843.0     2296.2    848.7     2296.1    854.3
```

[illegible]	296.0	860.0	2295.9	865.6	2295.8	871.3	2295.7	876.9	2295.6	882.5
[illegible]	2295.6	888.2	2295.4	893.8	2295.4	899.5	2295.3	905.1	2295.2	910.7
GR	2295.1	916.4	2295.0	922.0	2294.9	927.3	2294.8	932.5	2294.7	937.8
GR	2294.6	943.1	2294.6	948.4	2294.4	953.6	2294.4	958.9	2294.3	964.2
GR	2294.2	969.5	2294.1	974.7	2294.0	980.0	2293.8	985.0	2293.5	990.0
GR	2293.3	995.0	2293.0	1000.0	2294.5	1006.0	2296.0	1012.0	2300.0	1015.0
GR	2302.0	1020.0	2304.0	1025.0	2306.0	1029.0	2308.0	1032.0	2310.0	1036.0
GR	2311.0	1040.3	2312.0	1045.0	2313.0	1051.8	2314.0	1058.6	2315.0	1065.0
GR	2315.4	1072.4	2315.9	1079.9	2316.4	1086.4	2316.8	1088.8	2317.3	1093.3
GR	2317.7	1097.7	2318.2	1102.2	2318.6	1106.6	2319.1	1111.0	2319.6	1115.6
GR	2320.0	1120.0								
ET			9.1						942.	1034.48
X1	0.753	89	990	1015	470	520	510			
GR	2312.1	780.6	2311.8	783.8	2311.4	786.9	2311.0	790.0	2310.6	792.9
GR	2310.3	795.8	2309.8	798.7	2308.1	801.6	2307.9	804.5	2307.6	807.5
GR	2306.9	810.4	2306.2	813.3	2305.4	816.2	2304.7	819.1	2304.0	822.0
GR	2303.9	824.9	2303.7	827.8	2303.5	830.8	2303.4	833.7	2303.2	836.6
GR	2303.1	839.5	2302.9	842.5	2302.8	845.4	2302.6	848.3	2302.5	851.2
GR	2302.3	854.2	2302.1	857.1	2302.0	860.0	2302.0	863.1	2302.0	866.2
GR	2302.0	869.2	2302.0	872.3	2302.0	875.4	2302.0	878.5	2302.0	881.5
GR	2302.0	884.6	2302.0	887.7	2302.0	890.8	2302.0	893.8	2302.0	896.9
GR	2302.0	900.0	2301.9	903.0	2301.9	906.0	2301.8	909.0	2301.7	912.0
GR	2301.7	915.0	2301.6	918.0	2301.5	921.0	2301.5	924.0	2301.4	927.0
GR	2301.3	930.0	2301.3	933.0	2301.2	936.0	2301.1	939.0	2301.1	942.0
[illegible]	2301.0	945.0	2300.9	948.0	2300.8	951.0	2300.7	954.0	2300.6	957.0
[illegible]	300.4	960.0	2300.3	963.0	2300.2	966.0	2300.1	969.0	2300.0	972.0
[illegible]	2299.8	975.0	2299.7	978.0	2299.5	981.0	2299.3	984.0	2299.2	987.0
GR	2299.0	990.0	2298.7	993.3	2298.3	996.7	2298.0	1000.0	2298.2	1003.0
GR	2298.4	1006.0	2298.6	1009.0	2298.8	1012.0	2299.0	1015.0	2300.8	1023.0
GR	2301.6	1027.0	2302.4	1032.0	2303.2	1039.0	2304.0	1045.0	2310.8	1058.0
GR	2312.6	1061.0	2314.4	1064.0	2315.2	1067.0	2316.0	1070.0		
ET			9.1						801.81	1085.84
X1	0.849	87	990	1019	505	500	510			
GR	2320.0	730.0	2318.7	734.8	2317.3	739.7	2316.0	744.5	2314.7	749.3
GR	2313.3	754.2	2312.0	759.0	2311.7	763.5	2311.4	768.0	2311.1	772.5
GR	2310.9	777.0	2310.6	781.5	2310.3	786.0	2310.0	790.5	2309.7	795.0
GR	2309.4	799.5	2309.1	804.0	2308.9	808.5	2308.6	813.0	2308.3	817.5
GR	2308.0	822.0	2308.0	850.0	2308.1	854.4	2308.2	858.9	2308.3	863.3
GR	2308.4	867.8	2308.6	872.2	2308.7	876.7	2308.8	881.1	2308.9	885.6
GR	2309.0	890.0	2309.0	920.0	2308.9	924.3	2308.7	928.6	2308.6	932.9
GR	2308.4	937.1	2308.3	941.4	2308.1	945.7	2308.0	950.0	2307.9	954.3
GR	2307.7	958.6	2307.6	962.9	2307.4	967.1	2307.3	971.4	2307.1	975.7
GR	2307.0	980.0	2306.8	985.0	2306.5	990.0	2306.3	995.0	2306.0	1000.0
GR	2306.1	1004.8	2306.3	1009.5	2306.4	1014.3	2306.5	1019.0	2306.6	1023.8
GR	2306.8	1028.5	2306.9	1033.3	2307.0	1038.0	2307.1	1042.6	2307.3	1047.1
GR	2307.4	1051.7	2307.6	1056.3	2307.7	1060.9	2307.9	1065.4	2308.0	1070.0
GR	2308.4	1074.6	2308.7	1079.1	2309.1	1083.6	2309.4	1088.2	2309.8	1092.7
GR	2310.2	1097.3	2310.6	1101.8	2310.9	1106.4	2311.3	1110.9	2311.6	1115.4
GR	2312.0	1120.0	2312.6	1124.6	2313.1	1129.1	2313.6	1133.6	2314.2	1138.2
[illegible]	314.7	1142.7	2315.3	1147.3	2315.8	1151.8	2316.4	1156.4	2316.9	1160.9
[illegible]	317.4	1165.4	2318.0	1170.0						

ET			9.1						887.89	1110.12
X1	0.944	92	986	1010	485	500	500			
GR	2332.0	350.0	2330.4	358.0	2328.8	366.0	2327.2	374.0	2325.6	382.0
GR	2324.0	390.0	2323.0	399.0	2322.0	408.0	2321.0	417.0	2320.0	426.0
GR	2319.9	433.8	2319.9	441.7	2319.8	449.5	2319.8	457.4	2319.7	465.2
GR	2319.7	473.0	2319.6	480.9	2319.6	488.7	2319.5	496.6	2319.5	504.4
GR	2319.4	512.3	2319.4	520.1	2319.3	528.0	2319.3	535.8	2319.2	543.6
GR	2319.2	551.5	2319.1	559.3	2319.1	567.2	2319.0	575.0	2319.1	583.1
GR	2319.1	591.1	2319.2	599.2	2319.2	607.2	2319.3	615.3	2319.3	623.3
GR	2319.4	631.4	2319.4	639.4	2319.5	647.5	2319.6	655.6	2319.6	663.6
GR	2319.7	671.7	2319.7	679.7	2319.8	687.8	2319.8	695.8	2319.9	703.9
GR	2319.9	711.9	2320.0	720.0	2321.0	727.5	2322.0	735.0	2323.0	742.5
GR	2324.0	750.0	2325.0	757.5	2326.0	765.0	2327.0	772.5	2328.0	780.0
GR	2329.0	787.5	2330.0	795.0	2331.0	802.5	2332.0	810.0	2332.0	840.0
GR	2329.6	847.8	2327.2	855.6	2324.8	863.4	2322.4	871.2	2320.0	879.0
GR	2316.0	888.0	2315.0	897.0	2315.0	905.0	2315.0	913.0	2315.0	921.0
GR	2315.0	929.0	2315.0	937.0	2315.0	945.0	2314.7	954.0	2314.3	963.0
GR	2314.0	972.0	2313.8	979.0	2313.5	986.0	2313.3	993.0	2313.0	1000.0
GR	2314.0	1010.0	2314.0	1062.0	2314.4	1069.6	2314.8	1077.2	2315.2	1084.8
GR	2315.6	1092.4	2315.7	1100.0	2316.0	1110.0	2320.0	1120.0	2321.3	1127.0
GR	2322.7	1134.0	2324.0	1141.0						

ET			9.1						982.13	1071.
X1	1.039	81	989	1012	435	530	500			
[illegible]	2336.0	600.0	2334.7	605.8	2333.3	611.7	2332.0	617.5	2330.7	623.3
[illegible]	2329.3	629.2	2328.0	635.0	2327.8	641.3	2327.5	647.5	2327.3	653.8
GR	2327.0	660.0	2327.0	765.0	2327.1	771.1	2327.2	777.2	2327.3	783.3
GR	2327.4	789.4	2327.6	795.6	2327.7	801.7	2327.8	807.8	2327.9	813.9
GR	2328.0	820.0	2328.4	826.4	2328.8	832.8	2329.2	839.2	2329.6	845.6
GR	2330.0	852.0	2330.0	900.0	2329.7	905.7	2329.4	911.4	2329.1	917.1
GR	2328.9	922.9	2328.6	928.6	2328.3	934.3	2328.0	940.0	2327.4	945.7
GR	2326.9	951.4	2326.3	957.1	2325.7	962.9	2325.1	968.6	2324.6	974.3
GR	2324.0	980.0	2321.5	984.5	2319.0	989.0	2318.5	994.5	2318.0	1000.0
GR	2318.5	1006.0	2319.0	1012.0	2319.3	1017.7	2319.7	1023.3	2320.0	1029.0
GR	2320.2	1035.0	2320.4	1041.0	2320.6	1047.0	2320.8	1053.0	2321.0	1059.0
GR	2321.2	1065.1	2321.3	1071.2	2321.5	1077.3	2321.6	1083.4	2321.8	1089.5
GR	2321.9	1095.6	2322.1	1101.7	2322.3	1107.8	2322.4	1113.9	2322.6	1120.1
GR	2322.7	1126.2	2322.9	1132.3	2323.1	1138.4	2323.2	1144.5	2323.4	1150.6
GR	2323.5	1156.7	2323.7	1162.8	2323.8	1168.9	2324.0	1175.0	2324.6	1181.3
GR	2325.1	1187.6	2325.7	1193.9	2326.3	1200.1	2326.9	1206.4	2327.4	1212.7
GR	2328.0	1219.0								

ET			9.1						890.	1030.
X1	1.137	69	985	1010	580	450	520			
GR	2350.0	729.0	2347.2	738.2	2344.4	747.4	2341.6	756.6	2338.8	765.8
GR	2336.0	775.0	2335.0	783.8	2334.0	792.5	2333.0	801.3	2332.0	810.0
GR	2331.6	819.0	2331.2	828.0	2330.8	837.0	2330.4	846.0	2330.0	855.0
GR	2329.8	863.6	2329.6	872.3	2329.4	880.9	2329.3	889.5	2329.1	898.2
GR	2328.9	906.8	2328.7	915.5	2328.6	924.1	2328.4	932.7	2328.2	941.4
GR	2328.0	950.0	2328.0	958.8	2328.0	967.5	2328.0	976.3	2328.0	985.0
[illegible]	2327.5	992.5	2327.0	1000.0	2328.0	1010.0	2328.5	1020.0	2329.0	1030.0
[illegible]	2329.3	1038.2	2329.6	1046.4	2329.8	1054.6	2330.1	1062.7	2330.4	1070.9
GR	2330.6	1079.1	2330.9	1087.3	2331.2	1095.4	2331.4	1103.6	2331.7	1111.8

[illegible]	332.0	1120.0	2333.0	1127.5	2334.0	1135.0	2335.0	1142.5	2336.0	1150.0
GR	2336.3	1158.6	2336.6	1167.1	2336.9	1175.7	2337.1	1184.3	2337.4	1192.9
GR	2337.7	1201.4	2338.0	1210.0	2338.3	1218.6	2338.6	1227.1	2338.9	1235.7
GR	2339.1	1244.3	2339.4	1252.9	2339.7	1261.4	2340.0	1270.0	2340.1	1278.5
GR	2340.3	1287.1	2340.4	1295.6	2340.5	1304.1	2340.7	1312.7		
ET			9.1						945.	1123.
X1	1.232	93	988.8	1011.6	505	490	500			
GR	2344.0	685.0	2343.4	690.3	2342.9	695.6	2342.3	700.9	2341.7	706.1
GR	2341.1	711.4	2340.6	716.7	2340.0	722.0	2339.9	727.3	2339.8	732.6
GR	2339.7	737.9	2339.6	743.2	2339.5	748.5	2339.4	753.8	2339.3	759.1
GR	2339.2	764.4	2339.1	769.7	2339.0	775.0	2338.9	780.6	2338.8	786.1
GR	2338.7	791.7	2338.6	797.2	2338.4	802.8	2338.3	808.3	2338.2	813.9
GR	2338.1	819.4	2338.0	825.0	2337.9	830.6	2337.8	836.1	2337.7	841.7
GR	2337.6	847.2	2337.4	852.8	2337.3	858.3	2337.2	863.9	2337.1	869.4
GR	2337.0	875.0	2336.9	880.4	2336.9	885.8	2336.8	891.2	2336.7	896.5
GR	2336.6	901.9	2336.5	907.3	2336.5	912.7	2336.4	918.1	2336.3	923.5
GR	2336.2	928.8	2336.1	934.2	2336.1	939.6	2336.0	945.0	2335.8	950.4
GR	2335.6	955.8	2335.4	961.2	2335.2	966.6	2335.0	972.0	2334.8	977.6
GR	2334.6	983.2	2334.4	988.8	2334.2	994.4	2334.0	1000.0	2334.2	1005.8
GR	2334.4	1011.6	2334.6	1017.4	2334.8	1023.2	2335.0	1029.0	2335.1	1034.5
GR	2335.1	1045.5	2335.2	1051.0	2335.3	1056.5	2335.3	1062.0	2335.4	1067.5
GR	2335.4	1078.5	2335.5	1084.0	2335.6	1089.5	2335.6	1100.5	2335.7	1106.0
GR	2335.8	1111.5	2335.8	1117.0	2335.9	1122.5	2335.9	1133.5	2336.0	1139.0
GR	2336.7	1144.2	2337.3	1149.3	2338.0	1154.5	2338.7	1159.7	2339.3	1164.8
[illegible]	2340.0	1170.0	2340.6	1175.7	2341.1	1181.4	2341.7	1187.1	2342.3	1192.9
[illegible]	342.9	1198.6	2343.4	1204.3	2344.0	1210.0				
ET			9.1						890.	1057.
X1	1.330	92	986	1009	475	550	520			
GR	2356.0	472.0	2355.4	479.6	2354.9	487.1	2354.3	494.7	2353.7	502.3
GR	2353.1	509.9	2352.6	517.4	2352.0	525.0	2351.3	532.5	2350.7	540.0
GR	2350.0	547.5	2349.3	555.0	2348.7	562.5	2348.0	570.0	2348.0	610.0
GR	2347.5	617.8	2347.0	625.5	2346.5	633.3	2346.0	641.0	2345.5	648.8
GR	2345.0	656.5	2344.5	664.3	2344.0	672.0	2343.9	679.7	2343.9	687.4
GR	2343.8	695.0	2343.8	702.7	2343.7	710.4	2343.7	718.1	2343.6	725.8
GR	2343.6	733.5	2343.5	741.2	2343.5	748.8	2343.4	756.5	2343.4	764.2
GR	2343.3	771.9	2343.3	779.6	2343.2	787.3	2343.2	795.0	2343.1	802.6
GR	2343.1	810.3	2343.0	818.0	2342.9	825.3	2342.9	840.0	2342.8	847.4
GR	2342.8	854.8	2342.7	862.1	2342.6	869.5	2342.6	884.2	2342.5	891.5
GR	2342.4	898.8	2342.4	913.5	2342.3	920.9	2342.3	928.3	2342.2	935.6
GR	2342.1	943.0	2342.1	957.7	2342.0	965.0	2341.8	972.0	2341.6	979.0
GR	2341.4	986.0	2341.2	993.0	2341.0	1000.0	2341.5	1009.0	2342.0	1018.0
GR	2342.1	1025.8	2342.3	1033.5	2342.4	1041.3	2342.5	1049.0	2342.6	1056.8
GR	2342.8	1064.5	2342.9	1072.3	2343.0	1080.0	2343.1	1087.1	2343.3	1094.3
GR	2343.4	1101.4	2343.6	1108.6	2343.7	1115.7	2343.9	1122.9	2344.0	1130.0
GR	2344.6	1137.4	2345.1	1144.9	2345.7	1152.3	2346.3	1159.7	2346.9	1167.1
GR	2347.4	1174.6	2348.0	1182.0	2349.6	1189.6	2351.2	1197.2	2352.8	1204.8
GR	2354.4	1212.4	2356.0	1220.0						

ET			9.1						921.	1056.
X1	1.450	95	984.4	1007.3	600	645	630			
GR	2360.0	515.0	2359.1	547.3	2358.9	555.4	2358.6	563.5	2358.4	571.5
GR	2358.1	579.6	2357.9	587.7	2357.7	595.8	2357.5	603.8	2357.2	611.9
GR	2357.0	620.0	2357.1	628.3	2357.2	636.5	2357.3	644.8	2357.3	653.0
GR	2357.4	661.3	2357.5	669.5	2357.6	677.8	2357.7	686.0	2357.8	694.3
GR	2357.8	702.5	2357.9	710.8	2358.0	719.0	2357.8	726.9	2357.6	734.8
GR	2357.3	742.7	2357.1	750.6	2356.9	758.4	2356.7	766.3	2356.4	774.2
GR	2356.2	782.1	2356.0	790.0	2355.5	797.5	2355.0	805.0	2354.5	812.5
GR	2354.0	820.0	2353.5	827.5	2353.0	835.0	2352.5	842.5	2352.0	850.0
GR	2351.9	857.9	2351.7	865.9	2351.6	873.8	2351.4	881.7	2351.3	889.6
GR	2351.1	897.6	2351.0	905.5	2350.9	913.4	2350.7	921.4	2350.6	929.3
GR	2350.4	937.2	2350.3	945.1	2350.1	953.1	2350.0	961.0	2349.8	968.8
GR	2349.6	976.6	2349.4	984.4	2349.2	992.2	2349.0	1000.0	2349.3	1007.3
GR	2349.7	1014.7	2350.0	1022.0	2350.2	1030.6	2350.4	1039.2	2350.6	1047.8
GR	2350.8	1056.4	2351.0	1065.0	2351.1	1073.1	2351.1	1081.3	2351.2	1089.4
GR	2351.3	1097.5	2351.3	1105.6	2351.4	1113.8	2351.4	1121.9	2351.5	1130.0
GR	2351.6	1138.1	2351.6	1146.3	2351.7	1154.4	2351.8	1162.5	2351.8	1170.6
GR	2351.9	1178.8	2351.9	1186.9	2352.0	1195.0	2352.3	1202.9	2352.7	1210.8
GR	2353.0	1218.8	2353.3	1226.7	2353.7	1234.6	2354.0	1242.5	2354.3	1250.4
GR	2354.7	1258.3	2355.0	1266.3	2355.3	1274.2	2355.7	1282.1	2356.0	1290.0

ET			9.1						936.76	1070.
X1	1.563	94	989.5	1007.5	615	535	600			
GR	2368.0	906.7	2366.0	912.5	2364.0	918.3	2362.0	924.2	2360.0	930.0
GR	2359.7	936.7	2359.3	943.3	2359.0	950.0	2358.8	955.8	2358.6	961.6
GR	2358.4	967.4	2358.2	973.2	2358.0	979.0	2357.8	984.3	2357.5	989.5
GR	2357.3	994.8	2357.0	1000.0	2357.5	1007.5	2358.0	1015.0	2358.0	1070.0
GR	2358.1	1076.1	2358.1	1088.1	2358.2	1094.2	2358.2	1100.2	2358.3	1106.3
GR	2358.3	1112.3	2358.4	1118.4	2358.4	1130.4	2358.5	1136.5	2358.6	1142.6
GR	2358.6	1154.6	2358.7	1160.7	2358.7	1166.7	2358.8	1172.8	2358.8	1178.8
GR	2358.9	1184.9	2358.9	1196.9	2359.0	1203.0	2359.1	1209.2	2359.1	1215.3
GR	2359.2	1221.5	2359.3	1227.6	2359.4	1233.8	2359.5	1239.9	2359.5	1246.1
GR	2359.6	1252.2	2359.7	1258.4	2359.8	1264.5	2359.9	1270.7	2359.9	1276.8
GR	2360.0	1283.0	2360.2	1289.0	2360.4	1294.9	2360.5	1300.9	2360.7	1306.8
GR	2360.9	1312.8	2361.0	1318.7	2361.2	1324.7	2361.4	1330.7	2361.6	1336.6
GR	2361.7	1342.6	2361.9	1348.5	2362.1	1354.5	2362.3	1360.4	2362.4	1366.4
GR	2362.6	1372.3	2362.8	1378.3	2363.0	1384.3	2363.1	1390.2	2363.3	1396.2
GR	2363.5	1402.1	2363.6	1408.1	2363.8	1414.0	2364.0	1420.0	2364.1	1426.0
GR	2364.1	1432.0	2364.2	1438.0	2364.3	1444.0	2364.4	1450.0	2364.5	1456.0
GR	2364.5	1462.0	2364.6	1468.0	2364.7	1474.0	2364.8	1480.0	2364.9	1486.0
GR	2364.9	1492.0	2365.0	1498.0	2365.4	1504.0	2365.9	1510.0	2366.3	1516.0
GR	2366.7	1522.0	2367.1	1528.0	2367.6	1534.0	2368.0	1540.0		

ET			9.1						764.89	1105.04
X1	1.705	81	982	1015	680	730	750			
GR	2380.0	570.0	2379.3	576.5	2378.7	583.0	2378.0	589.5	2377.3	596.0
GR	2376.7	602.5	2376.0	609.0	2375.5	615.4	2375.0	621.8	2374.5	628.1
GR	2374.0	634.5	2373.5	640.9	2373.0	647.3	2372.5	653.6	2372.0	660.0
GR	2371.8	666.4	2371.7	672.8	2371.5	679.2	2371.4	685.6	2371.2	692.0
GR	2371.0	698.4	2370.9	704.8	2370.7	711.2	2370.6	717.6	2370.4	724.0
GR	2370.2	730.4	2370.1	736.8	2369.9	743.2	2369.8	749.6	2369.6	756.0
GR	2369.4	762.4	2369.3	768.8	2369.1	775.2	2369.0	781.6	2368.8	788.0

[illegible]	368.6	794.4	2368.5	800.8	2368.3	807.2	2368.2	813.6	2368.0	820.0
GR	2368.0	957.3	2368.0	963.5	2368.0	969.7	2368.0	975.8	2368.0	982.0
GR	2367.7	988.0	2367.3	994.0	2367.0	1000.0	2367.5	1007.5	2368.0	1015.0
GR	2368.1	1021.7	2368.2	1028.3	2368.3	1035.0	2368.3	1041.7	2368.4	1048.3
GR	2368.5	1055.0	2368.6	1061.7	2368.7	1068.3	2368.8	1075.0	2368.8	1081.7
GR	2368.9	1088.3	2369.0	1095.0	2369.2	1101.5	2369.5	1108.1	2369.7	1114.6
GR	2369.9	1121.2	2370.1	1127.7	2370.4	1134.2	2370.6	1140.8	2370.9	1147.3
GR	2371.1	1153.8	2371.3	1160.4	2371.5	1166.9	2371.8	1173.5	2372.0	1180.0
GR	2373.3	1186.7	2374.7	1193.3	2376.0	1200.0	2377.3	1207.0	2378.7	1214.0
GR	2380.0	1221.0								
ET			9.1						803.84	1062.18
X1	1.806	94	987.5	1007.5	525	515	530			
GR	2384.0	642.0	2383.2	647.6	2382.4	653.2	2381.6	658.8	2380.8	664.4
GR	2380.0	670.0	2379.5	675.3	2379.0	680.5	2378.5	685.8	2378.0	691.0
GR	2377.9	697.0	2377.8	702.9	2377.8	708.9	2377.7	714.8	2377.6	720.8
GR	2377.5	726.8	2377.4	732.7	2377.4	738.7	2377.3	744.6	2377.2	750.6
GR	2377.1	756.6	2377.0	762.5	2377.0	768.5	2376.9	774.4	2376.8	780.4
GR	2376.7	786.4	2376.6	792.3	2376.6	798.3	2376.5	804.2	2376.4	810.2
GR	2376.3	816.2	2376.2	822.1	2376.2	828.1	2376.1	834.0	2376.0	840.0
GR	2375.9	845.9	2375.8	851.8	2375.8	857.8	2375.7	863.7	2375.6	869.6
GR	2375.5	875.5	2375.4	881.4	2375.3	887.3	2375.3	893.3	2375.2	899.2
GR	2375.1	905.1	2375.0	911.0	2374.9	916.8	2374.8	922.6	2374.7	928.5
GR	2374.6	934.3	2374.6	940.1	2374.4	945.9	2374.4	951.7	2374.3	957.5
GR	2374.2	963.4	2374.1	969.2	2374.0	975.0	2373.8	981.3	2373.5	987.5
[illegible]	373.3	993.8	2373.0	1000.0	2373.5	1007.5	2374.0	1015.0	2374.7	1021.7
[illegible]	375.3	1028.3	2376.0	1035.0	2376.1	1041.0	2376.2	1047.0	2376.3	1053.0
GR	2376.4	1059.0	2376.6	1065.0	2376.7	1071.0	2376.8	1077.0	2376.9	1083.0
GR	2377.0	1089.0	2377.3	1095.0	2377.6	1101.0	2377.8	1107.0	2378.1	1113.0
GR	2378.4	1119.0	2378.6	1125.0	2378.9	1131.0	2379.2	1137.0	2379.4	1143.0
GR	2379.7	1149.0	2380.0	1155.0	2381.4	1161.1	2382.9	1167.3	2384.3	1173.4
GR	2385.7	1179.6	2387.1	1185.7	2388.6	1191.9	2390.0	1198.0		
ET			9.1						855.27	1113.09
X1	1.899	96	986.7	1013.3	460	510	490			
GR	2392.0	690.0	2391.6	696.1	2391.1	702.2	2390.7	708.3	2390.2	714.4
GR	2389.8	720.6	2389.3	726.7	2388.9	732.8	2388.4	738.9	2388.0	745.0
GR	2387.6	751.0	2387.3	757.0	2386.9	763.0	2386.6	769.0	2386.2	775.0
GR	2385.8	781.0	2385.4	787.0	2385.1	793.0	2384.7	799.0	2384.4	805.0
GR	2384.0	811.0	2383.5	817.1	2383.0	823.3	2382.5	829.4	2382.0	835.5
GR	2381.5	841.6	2381.0	847.8	2380.5	853.9	2380.0	860.0	2379.9	865.8
GR	2379.8	871.6	2379.7	877.3	2379.6	883.1	2379.4	888.9	2379.3	894.7
GR	2379.2	900.4	2379.1	906.2	2379.0	912.0	2378.9	918.2	2378.8	924.4
GR	2378.7	930.5	2378.6	936.7	2378.6	942.9	2378.4	949.1	2378.4	955.3
GR	2378.3	961.5	2378.2	967.6	2378.1	973.8	2378.0	980.0	2377.7	986.7
GR	2377.3	993.3	2377.0	1000.0	2377.3	1006.7	2377.7	1013.3	2378.0	1020.0
GR	2378.1	1025.9	2378.3	1031.7	2378.4	1037.6	2378.6	1043.4	2378.7	1049.3
GR	2378.9	1055.1	2379.0	1061.0	2379.1	1067.3	2379.3	1073.6	2379.4	1079.9
GR	2379.6	1086.1	2379.7	1092.4	2379.9	1098.7	2380.0	1105.0	2380.3	1110.6
GR	2380.5	1116.3	2380.8	1121.9	2381.0	1127.5	2381.3	1133.1	2381.5	1138.8
GR	2381.8	1144.4	2382.0	1150.0	2382.2	1155.8	2382.4	1161.6	2382.7	1167.3
[illegible]	382.9	1173.1	2383.1	1178.9	2383.3	1184.7	2383.6	1190.4	2383.8	1196.2
[illegible]	384.0	1202.0	2385.2	1208.3	2386.4	1214.6	2387.6	1220.9	2388.8	1227.2
GR	2390.0	1233.5	2391.2	1239.8	2392.4	1246.1	2393.6	1252.4	2394.8	1258.7

[illegible]	396.0	1265.0								
ET			9.1						939.43	1126.26
X1	1.986	95	990	1005	485	415	460			
GR	2397.0	830.0	2396.6	840.0	2396.2	850.0	2396.0	855.0	2395.0	866.3
GR	2394.5	871.9	2394.0	877.5	2393.5	883.1	2393.0	888.8	2392.5	894.4
GR	2392.0	900.0	2391.2	906.0	2390.4	912.0	2389.6	918.0	2388.8	924.0
GR	2388.0	930.0	2387.3	935.8	2386.7	941.7	2386.0	947.5	2385.3	953.3
GR	2384.7	959.2	2384.0	965.0	2384.0	980.0	2383.8	985.0	2383.5	990.0
GR	2383.3	995.0	2383.0	1000.0	2383.5	1005.0	2384.0	1010.0	2384.2	1015.0
GR	2384.4	1020.0	2384.6	1025.0	2384.8	1030.0	2385.0	1035.0	2385.2	1040.8
GR	2385.3	1046.7	2385.5	1052.5	2385.7	1058.3	2385.8	1064.2	2386.0	1070.0
GR	2386.1	1075.4	2386.2	1080.9	2386.3	1086.4	2386.4	1091.8	2386.4	1097.3
GR	2386.6	1102.7	2386.6	1108.2	2386.7	1113.6	2386.8	1119.1	2386.9	1124.6
GR	2387.0	1130.0	2387.1	1135.4	2387.2	1140.9	2387.3	1146.4	2387.4	1151.8
GR	2387.4	1157.3	2387.6	1162.7	2387.6	1168.2	2387.7	1173.6	2387.8	1179.1
GR	2387.9	1184.6	2388.0	1190.0	2388.2	1195.5	2388.4	1201.1	2388.6	1206.6
GR	2388.8	1212.1	2389.1	1217.6	2389.3	1223.2	2389.5	1228.7	2389.7	1234.2
GR	2389.9	1239.7	2390.1	1245.3	2390.3	1250.8	2390.5	1256.3	2390.7	1261.8
GR	2390.9	1267.4	2391.2	1272.9	2391.4	1278.4	2391.6	1283.9	2391.8	1289.5
GR	2392.0	1295.0	2392.3	1300.7	2392.5	1306.3	2392.8	1312.0	2393.1	1317.7
GR	2393.3	1323.3	2393.6	1329.0	2393.9	1334.7	2394.1	1340.3	2394.4	1346.0
GR	2394.7	1351.7	2394.9	1357.3	2395.2	1363.0	2395.5	1368.7	2396.0	1380.0
ET			9.1						766.10	1066.46
[illegible]	2.079	90	988.8	1005	475	490	490			
[illegible]	400.0	650.0	2399.7	655.9	2399.4	661.7	2399.1	667.6	2398.9	673.4
GR	2398.6	679.3	2398.3	685.1	2398.0	691.0	2397.8	696.5	2397.5	702.0
GR	2397.3	707.5	2397.0	713.0	2396.8	718.5	2396.5	724.0	2396.3	739.5
GR	2396.0	755.0	2394.7	760.0	2393.3	765.0	2392.0	770.0	2392.0	775.6
GR	2392.0	781.1	2392.0	786.7	2392.0	792.3	2392.0	797.8	2392.0	803.4
GR	2392.0	809.0	2392.0	814.5	2392.0	820.1	2392.0	825.7	2392.0	831.2
GR	2392.0	836.8	2392.0	842.3	2392.0	847.9	2392.0	853.5	2392.0	859.0
GR	2392.0	864.6	2392.0	870.2	2392.0	875.7	2392.0	881.3	2392.0	886.9
GR	2392.0	892.4	2392.0	898.0	2391.9	903.7	2391.9	909.4	2391.8	915.1
GR	2391.7	920.8	2391.6	926.5	2391.5	932.2	2391.5	937.8	2391.4	943.5
GR	2391.3	949.2	2391.2	954.9	2391.1	960.6	2391.1	966.3	2391.0	972.0
GR	2390.8	977.6	2390.6	983.2	2390.4	988.8	2390.2	994.4	2390.0	1000.0
GR	2390.3	1005.0	2390.7	1010.0	2391.0	1015.0	2391.1	1020.7	2391.3	1026.4
GR	2391.4	1032.1	2391.6	1037.9	2391.7	1043.6	2391.9	1049.3	2392.0	1055.0
GR	2392.5	1060.6	2393.0	1066.3	2393.5	1071.9	2394.0	1077.5	2394.5	1083.1
GR	2395.0	1088.8	2395.5	1094.4	2396.0	1100.0	2396.6	1105.7	2397.1	1111.4
GR	2397.7	1117.1	2398.3	1122.9	2398.9	1128.6	2399.4	1134.3	2400.0	1140.0
GR	2400.8	1146.0	2401.6	1152.0	2402.4	1158.0	2403.2	1164.0	2404.0	1180.0
ET			9.1						713.	1021.12
X1	2.175	95	988	1007.5	420	515	510			
GR	2408.0	430.0	2407.3	436.7	2406.7	443.3	2406.0	450.0	2405.3	456.7
GR	2404.7	463.3	2404.0	470.0	2403.8	476.1	2403.5	482.3	2403.3	488.4
GR	2403.0	494.5	2402.8	500.6	2402.5	506.8	2402.3	512.9	2402.0	519.0
GR	2401.9	525.5	2401.8	531.9	2401.7	538.4	2401.6	544.8	2401.6	551.3
[illegible]	401.4	557.7	2401.4	564.2	2401.3	570.6	2401.2	577.1	2400.0	583.5
[illegible]	2399.0	623.0	2398.0	628.0	2397.8	634.5	2397.6	641.1	2397.4	647.6
GR	2397.3	654.2	2397.1	660.7	2396.9	667.3	2396.7	673.8	2396.6	680.4

[illegible]	396.4	686.9	2396.2	693.5	2396.0	700.0	2395.9	706.3	2395.8	712.7
GR	2395.7	719.0	2395.6	725.3	2395.4	731.7	2395.3	738.0	2395.2	744.3
GR	2395.1	750.7	2395.0	757.0	2395.1	763.3	2395.2	769.5	2395.3	775.8
GR	2395.3	782.0	2395.4	788.3	2395.5	794.5	2395.6	800.8	2395.7	807.0
GR	2395.8	813.3	2395.8	819.5	2395.9	825.8	2396.0	832.0	2396.2	838.7
GR	2396.3	845.3	2396.5	852.0	2396.7	858.7	2396.8	865.3	2397.0	872.0
GR	2396.9	878.9	2396.7	885.7	2396.6	892.6	2396.4	899.4	2396.3	906.3
GR	2396.1	913.1	2396.0	920.0	2395.9	926.3	2395.8	932.5	2395.6	938.8
GR	2395.5	945.0	2395.4	951.3	2395.3	957.5	2395.1	963.8	2395.0	970.0
GR	2394.8	976.0	2394.6	982.0	2394.4	988.0	2394.2	994.0	2394.0	1000.0
GR	2394.5	1007.5	2395.0	1015.0	2397.5	1022.5	2400.0	1030.0	2402.0	1037.0
GR	2404.0	1044.0	2406.0	1051.0	2408.0	1054.0	2410.0	1055.0	2412.0	1058.0
ET			9.1						965.15	1125.
X1	2.277	75	990	1005.5	510	470	540			
GR	2412.0	911.0	2411.2	915.8	2410.4	920.6	2409.6	925.4	2408.8	930.2
GR	2408.0	935.0	2406.9	940.0	2405.7	945.0	2404.6	950.0	2403.4	955.0
GR	2402.3	960.0	2401.1	965.0	2400.0	970.0	2399.7	975.0	2399.3	980.0
GR	2399.0	985.0	2398.7	990.0	2398.3	995.0	2398.0	1000.0	2398.5	1005.5
GR	2399.0	1011.0	2399.1	1015.9	2399.3	1020.7	2399.4	1025.6	2399.6	1030.4
GR	2399.7	1035.3	2399.9	1040.1	2400.0	1045.0	2400.0	1112.0	2399.9	1116.9
GR	2399.9	1121.7	2399.8	1126.6	2399.7	1131.4	2399.6	1136.3	2399.6	1141.1
GR	2399.5	1146.0	2399.4	1150.9	2399.4	1155.7	2399.3	1160.6	2399.2	1165.4
GR	2399.1	1170.3	2399.1	1175.1	2399.0	1180.0	2399.1	1185.0	2399.1	1190.0
GR	2399.2	1195.0	2399.3	1200.0	2399.3	1205.0	2399.4	1210.0	2399.5	1215.0
[illegible]	2399.5	1220.0	2399.6	1225.0	2399.7	1230.0	2399.7	1235.0	2399.8	1240.0
[illegible]	399.9	1245.0	2399.9	1250.0	2400.0	1255.0	2400.4	1260.0	2400.7	1265.0
GR	2401.1	1270.0	2401.4	1275.0	2401.8	1280.0	2402.2	1285.0	2402.6	1290.0
GR	2402.9	1295.0	2403.3	1300.0	2403.6	1305.0	2404.0	1310.0	2404.7	1315.0
GR	2405.3	1320.0	2406.0	1325.0	2406.7	1330.0	2407.3	1335.0	2408.0	1340.0
ET			9.1						942.	1085.
X1	2.372	96	992.5	1013.3	500	470	500			
GR	2420.0	770.0	2419.6	776.7	2419.1	783.3	2418.7	790.0	2418.2	796.7
GR	2417.8	803.3	2417.3	810.0	2416.9	816.7	2416.4	823.3	2416.0	830.0
GR	2415.0	837.5	2414.0	845.0	2413.0	852.5	2412.0	860.0	2411.6	866.8
GR	2411.3	873.6	2410.9	880.5	2410.6	887.3	2410.2	894.1	2409.8	900.9
GR	2409.4	907.7	2409.1	914.5	2408.7	921.4	2408.4	928.2	2408.0	935.0
GR	2407.9	942.1	2407.7	949.3	2407.6	956.4	2407.4	963.6	2407.3	970.7
GR	2407.1	977.9	2407.0	985.0	2406.5	992.5	2406.0	1000.0	2406.3	1006.7
GR	2406.7	1013.3	2407.0	1020.0	2407.1	1027.2	2407.2	1034.4	2407.3	1041.7
GR	2407.4	1048.9	2407.6	1056.1	2407.7	1063.3	2407.8	1070.6	2407.9	1077.8
GR	2408.0	1085.0	2408.2	1092.2	2408.4	1099.3	2408.6	1106.5	2408.8	1113.6
GR	2409.1	1120.8	2409.3	1127.9	2409.5	1135.1	2409.7	1142.3	2409.9	1149.4
GR	2410.1	1156.6	2410.3	1163.7	2410.5	1170.9	2410.7	1178.1	2410.9	1185.2
GR	2411.2	1192.4	2411.4	1199.5	2411.6	1206.7	2411.8	1213.8	2412.0	1221.0
GR	2412.2	1228.0	2412.3	1235.1	2412.5	1242.1	2412.7	1249.2	2412.8	1256.2
GR	2413.0	1263.3	2413.2	1270.3	2413.3	1277.3	2413.5	1284.4	2413.7	1291.4
GR	2413.8	1298.5	2414.0	1305.5	2414.2	1312.5	2414.3	1319.6	2414.5	1326.6
GR	2414.7	1333.7	2414.8	1340.7	2415.0	1347.8	2415.2	1354.8	2415.3	1361.8
GR	2415.5	1368.9	2415.7	1375.9	2415.8	1383.0	2416.0	1390.0	2416.4	1397.6
[illegible]	416.8	1405.2	2417.2	1412.8	2417.6	1420.4	2418.0	1428.0	2418.7	1436.0
[illegible]	420.0	1452.0								

ET			9.1						947.78	1081.
X1	2.472	95	992.5	1007.5	510	530	525			
GR	2420.0	770.0	2419.9	775.9	2419.7	781.8	2419.6	787.7	2419.4	793.6
GR	2419.3	799.5	2419.1	805.4	2419.0	811.3	2418.9	817.1	2418.7	823.0
GR	2418.6	828.9	2418.4	834.8	2418.3	840.7	2418.1	846.6	2418.0	852.5
GR	2417.9	858.4	2417.7	864.3	2417.6	870.2	2417.4	876.1	2417.3	882.0
GR	2417.1	887.9	2417.0	893.8	2416.9	899.6	2416.7	905.5	2416.6	911.4
GR	2416.4	917.3	2416.3	923.2	2416.1	929.1	2416.0	935.0	2415.0	941.0
GR	2414.0	947.0	2413.0	953.0	2412.0	959.0	2411.8	965.5	2411.5	972.0
GR	2411.3	978.5	2411.0	985.0	2410.5	992.5	2410.0	1000.0	2410.5	1007.5
GR	2411.0	1015.0	2411.1	1021.0	2411.2	1027.0	2411.3	1033.0	2411.4	1039.0
GR	2411.5	1045.0	2411.6	1051.0	2411.7	1057.0	2411.8	1063.0	2411.9	1069.0
GR	2412.0	1075.0	2412.3	1080.9	2412.6	1086.9	2412.9	1092.8	2413.1	1098.7
GR	2413.4	1104.6	2413.7	1110.6	2414.0	1116.5	2414.3	1122.4	2414.6	1128.4
GR	2414.9	1134.3	2415.1	1140.2	2415.4	1146.1	2415.7	1152.1	2416.0	1158.0
GR	2416.2	1164.1	2416.3	1170.2	2416.5	1176.3	2416.7	1182.3	2416.8	1188.4
GR	2417.0	1194.5	2417.2	1200.6	2417.3	1206.7	2417.5	1212.8	2417.7	1218.8
GR	2417.8	1224.9	2418.0	1231.0	2418.2	1237.1	2418.3	1243.2	2418.5	1249.3
GR	2418.7	1255.3	2418.8	1261.4	2419.0	1267.5	2419.2	1273.6	2419.3	1279.7
GR	2419.5	1285.8	2419.7	1291.8	2419.8	1297.9	2420.0	1304.0	2420.7	1310.0
GR	2421.3	1316.0	2422.0	1322.0	2422.7	1328.0	2423.3	1334.0	2424.0	1340.0

ET			9.1						884.	1037.41
X1	2.568	95	989.3	1005.5	500	505	510			
GR	2428.1	615.0	2427.7	639.7	2427.3	649.7	2427.1	654.6	2427.0	659.6
GR	2426.8	664.6	2426.6	669.5	2426.4	674.5	2426.2	679.4	2426.0	684.4
GR	2425.9	689.4	2425.7	694.3	2425.5	699.3	2425.3	704.3	2425.1	709.2
GR	2424.0	715.0	2423.7	719.2	2423.6	724.1	2423.4	729.1	2423.2	734.0
GR	2423.0	739.0	2422.5	744.1	2422.0	749.3	2420.1	754.4	2420.0	759.5
GR	2419.9	764.6	2419.8	769.8	2419.8	774.9	2419.9	780.0	2419.9	789.9
GR	2419.8	794.9	2419.7	799.9	2419.7	804.8	2419.6	809.8	2419.5	814.8
GR	2419.4	819.7	2419.4	824.7	2419.3	829.7	2419.2	834.6	2419.2	839.6
GR	2419.1	844.5	2419.0	849.5	2419.0	854.5	2418.9	859.5	2418.8	864.4
GR	2418.8	869.4	2418.7	874.3	2418.6	879.3	2418.6	884.3	2418.5	889.2
GR	2418.4	894.2	2418.3	899.2	2418.3	904.1	2418.2	909.1	2418.1	914.1
GR	2418.1	919.0	2418.0	924.0	2417.9	929.0	2417.8	934.0	2417.8	939.0
GR	2417.7	944.0	2417.6	949.0	2417.5	954.0	2417.4	959.0	2417.3	964.0
GR	2417.3	969.0	2417.2	974.0	2417.1	979.0	2417.0	984.0	2416.7	989.3
GR	2416.3	994.7	2416.0	1000.0	2416.5	1005.5	2417.0	1011.0	2417.5	1015.8
GR	2418.0	1020.7	2418.5	1025.5	2419.0	1030.3	2419.5	1035.2	2420.0	1040.0
GR	2421.0	1045.0	2422.0	1050.0	2423.0	1055.0	2424.0	1060.0	2424.3	1064.9
GR	2424.6	1069.7	2424.9	1074.6	2425.1	1079.4	2425.4	1084.3	2425.7	1089.1
GR	2426.0	1094.0	2426.6	1103.7	2427.1	1113.4	2427.4	1118.3	2428.0	1128.0

ET			9.1						957.	1122.48
X1	2.669	95	989	1009	495	540	530			
GR	2432.0	505.0	2431.8	519.4	2431.6	533.9	2431.4	541.1	2431.2	555.6
GR	2431.0	570.0	2430.5	584.2	2430.0	598.3	2429.8	605.4	2429.5	612.5
GR	2429.3	619.6	2429.0	626.7	2428.8	633.8	2428.5	640.8	2428.3	647.9
GR	2428.0	655.0	2427.9	662.2	2427.9	669.5	2427.8	676.7	2427.7	683.9
GR	2427.6	691.2	2427.5	698.4	2427.5	705.6	2427.4	712.8	2427.3	720.1
GR	2427.2	727.3	2427.1	734.5	2427.1	741.8	2427.0	749.0	2426.8	755.8
GR	2426.6	762.6	2426.4	769.4	2426.3	776.3	2426.1	783.1	2425.9	789.9

[illegible]	425.7	796.7	2425.5	803.5	2425.3	810.3	2425.1	817.1	2424.9	823.9
GR	2424.8	830.8	2424.6	837.6	2424.4	844.4	2424.2	851.2	2424.0	858.0
GR	2423.9	865.1	2423.7	872.2	2423.5	879.2	2423.4	886.3	2423.2	893.4
GR	2423.1	900.5	2422.9	907.5	2422.8	914.6	2422.6	921.7	2422.5	928.8
GR	2422.3	935.8	2422.1	942.9	2422.0	950.0	2421.7	957.0	2421.3	964.0
GR	2421.0	971.0	2420.7	977.0	2420.3	983.0	2420.0	989.0	2419.5	994.5
GR	2419.0	1000.0	2420.0	1009.0	2420.5	1015.5	2421.0	1022.0	2421.1	1029.0
GR	2421.3	1036.0	2421.4	1043.0	2421.5	1050.0	2421.6	1057.0	2421.8	1064.0
GR	2421.9	1071.0	2422.0	1078.0	2422.2	1084.9	2422.4	1091.8	2422.7	1098.7
GR	2422.9	1105.6	2423.1	1112.4	2423.3	1119.3	2423.6	1126.2	2423.8	1133.1
GR	2424.0	1140.0	2425.0	1147.0	2426.0	1154.0	2427.0	1161.0	2428.0	1168.0
GR	2428.8	1174.6	2429.6	1181.2	2430.4	1187.8	2431.2	1194.4	2432.0	1201.0
ET			9.1						948.29	1160.
X1	2.759	95	986.7	1007.5	490	440	480			
GR	2436.0	650.0	2435.6	674.5	2435.2	689.0	2435.0	695.6	2434.2	708.8
GR	2433.6	715.4	2433.0	722.0	2433.1	729.1	2433.1	736.3	2433.2	743.4
GR	2433.3	750.5	2433.3	757.7	2433.4	764.8	2433.5	771.9	2433.5	779.1
GR	2433.6	786.2	2433.7	793.3	2433.7	800.5	2433.8	807.6	2433.9	814.7
GR	2433.9	821.9	2434.0	829.0	2433.8	835.9	2433.6	842.8	2433.4	849.7
GR	2433.3	856.6	2433.1	863.5	2432.9	870.5	2432.7	877.4	2432.6	884.3
GR	2432.4	891.2	2432.2	898.1	2432.0	905.0	2431.6	911.8	2431.2	918.6
GR	2430.8	925.4	2430.4	932.2	2430.0	939.0	2429.7	945.8	2429.3	952.7
GR	2429.0	959.5	2428.7	966.3	2428.3	973.2	2428.0	980.0	2427.7	986.7
GR	2427.3	993.3	2427.0	1000.0	2427.5	1007.5	2428.0	1015.0	2428.3	1021.3
[illegible]	2428.5	1027.5	2428.8	1033.8	2429.0	1040.0	2428.8	1047.3	2428.5	1054.5
[illegible]	428.3	1061.8	2428.0	1069.0	2427.8	1076.8	2427.5	1084.5	2427.3	1092.3
GR	2427.0	1100.0	2427.2	1106.7	2427.3	1113.3	2427.5	1120.0	2427.7	1126.7
GR	2427.8	1133.3	2428.0	1140.0	2428.2	1146.8	2428.4	1153.6	2428.6	1160.4
GR	2428.9	1167.1	2429.1	1173.9	2429.3	1180.7	2429.5	1187.5	2429.7	1194.3
GR	2429.9	1201.1	2430.1	1207.9	2430.4	1214.6	2430.6	1221.4	2430.8	1228.2
GR	2431.0	1235.0	2431.1	1241.8	2431.2	1248.6	2431.3	1255.3	2431.4	1262.1
GR	2431.6	1268.9	2431.7	1275.7	2431.8	1282.4	2431.9	1289.2	2432.0	1296.0
GR	2432.5	1303.4	2433.0	1310.8	2434.0	1325.5	2435.0	1340.3	2436.0	1355.0
ET			9.1						918.67	1029.66
X1	2.852	33	992.9	1013.5	500	470	490			
GR	2444.0	620.0	2442.5	652.5	2441.0	685.0	2440.0	713.0	2439.0	741.0
GR	2438.5	770.5	2438.0	800.0	2437.5	830.5	2437.0	861.0	2436.0	913.0
GR	2432.0	930.0	2431.0	940.0	2432.0	955.0	2433.0	970.0	2432.0	985.8
GR	2431.5	992.9	2431.0	1000.0	2431.0	1002.7	2431.0	1005.3	2431.0	1008.0
GR	2431.3	1010.8	2431.5	1013.5	2431.8	1016.3	2432.0	1019.0	2436.0	1035.0
GR	2437.0	1060.0	2436.0	1098.0	2437.5	1121.5	2439.0	1145.0	2439.5	1167.0
GR	2440.0	1189.0	2442.0	1222.0	2444.0	1240.0				
ET			9.1						878.82	1031.85
X1	2.932	66	986.7	1003.3	410	415	420			
GR	2448.0	375.0	2447.0	396.8	2446.0	418.5	2445.0	440.3	2444.0	462.0
GR	2444.3	482.8	2444.5	503.5	2444.8	524.3	2445.0	545.0	2445.2	565.0
GR	2445.4	585.0	2445.6	605.0	2445.8	625.0	2446.0	645.0	2445.7	655.0
GR	2445.3	685.0	2445.0	705.0	2444.0	724.0	2442.7	748.3	2441.3	766.7
[illegible]	440.0	795.0	2439.8	803.8	2439.5	822.5	2439.3	841.3	2439.0	860.0
[illegible]	2438.3	881.7	2437.7	903.3	2437.0	925.0	2436.9	928.2	2436.9	931.5
GR	2436.8	934.7	2436.8	937.9	2436.7	941.2	2436.6	944.4	2436.6	947.7

[illegible]	436.5	950.9	2436.5	954.1	2436.4	957.3	2436.4	960.6	2436.3	963.8
GR	2436.2	967.1	2436.2	970.3	2436.1	973.5	2436.0	975.0	2435.0	980.0
GR	2434.3	983.3	2433.7	986.7	2433.5	990.0	2433.3	993.3	2433.2	996.7
GR	2433.0	1000.0	2433.7	1003.3	2434.3	1006.7	2435.0	1010.0	2435.3	1013.3
GR	2435.7	1016.7	2436.0	1020.0	2436.7	1023.3	2437.3	1026.7	2438.0	1030.0
GR	2438.7	1033.3	2439.3	1036.7	2440.0	1040.0	2444.0	1061.0	2446.0	1078.0
GR	2448.0	1095.0								
ET			9.1						879.15	1162.41
X1	3.044	54	988.8	1006.7	530	520	590			
GR	2452.0	685.0	2450.0	707.5	2448.0	730.0	2447.0	738.0	2446.0	756.0
GR	2445.0	774.0	2444.0	785.0	2443.8	809.3	2443.5	826.5	2443.3	843.8
GR	2443.0	861.0	2442.8	882.0	2442.5	903.0	2442.3	924.0	2442.0	945.0
GR	2441.9	948.1	2441.8	951.3	2441.6	954.4	2441.5	957.5	2441.4	960.6
GR	2441.3	963.8	2441.1	966.9	2441.0	970.0	2441.0	973.2	2441.0	976.4
GR	2441.0	979.6	2441.0	982.8	2441.0	986.0	2440.8	988.8	2440.6	991.6
GR	2440.4	994.4	2440.2	997.2	2440.0	1000.0	2440.3	1003.3	2440.7	1006.7
GR	2441.0	1010.0	2441.0	1013.3	2441.0	1016.7	2441.0	1020.0	2441.1	1022.9
GR	2441.3	1025.7	2441.4	1028.6	2441.6	1031.4	2441.7	1034.3	2441.9	1037.1
GR	2442.0	1040.0	2440.0	1060.0	2440.0	1070.0	2440.5	1085.0	2441.0	1100.0
GR	2440.0	1120.0	2444.0	1180.0	2448.0	1245.0	2452.0	1345.0		
ET			9.1						801.49	1013.59
X1	3.144	88	990	1010	545	500	530			
GR	2456.0	280.0	2455.8	283.4	2455.5	291.9	2455.3	300.3	2455.0	308.8
[illegible]	2454.8	317.2	2454.5	325.6	2454.3	334.1	2454.0	342.5	2453.8	350.9
[illegible]	453.5	359.4	2453.3	367.8	2453.0	376.3	2452.8	384.7	2452.5	393.1
GR	2452.3	401.6	2452.0	430.0	2451.7	435.3	2451.3	440.7	2451.0	445.0
GR	2451.5	450.0	2452.0	465.0	2452.2	474.0	2452.4	483.0	2452.6	492.0
GR	2452.8	501.0	2453.0	510.0	2452.8	518.8	2452.5	527.5	2452.3	536.3
GR	2452.0	550.0	2451.8	558.4	2451.5	566.9	2451.3	575.3	2451.0	583.8
GR	2450.8	592.2	2450.5	600.6	2450.3	609.1	2450.0	617.5	2449.8	625.9
GR	2449.5	634.4	2449.3	642.8	2449.0	651.3	2448.8	659.7	2448.5	668.1
GR	2448.3	676.6	2448.0	685.0	2448.0	693.6	2448.0	702.1	2448.0	710.7
GR	2448.0	719.3	2448.0	727.9	2448.0	736.4	2448.0	745.0	2447.8	753.6
GR	2447.6	762.2	2447.3	770.8	2447.1	779.4	2446.9	788.1	2446.7	796.7
GR	2446.4	805.3	2446.2	813.9	2446.0	822.5	2445.8	831.1	2445.6	839.7
GR	2445.3	848.3	2445.1	856.9	2444.9	865.6	2444.7	874.2	2444.4	882.8
GR	2444.0	885.0	2443.5	892.5	2443.0	900.0	2443.5	910.0	2444.0	920.0
GR	2444.3	930.0	2444.7	940.0	2445.0	950.0	2444.8	958.0	2444.6	966.0
GR	2444.4	974.0	2444.2	982.0	2444.0	990.0	2443.0	1000.0	2444.0	1010.0
GR	2456.0	1027.0	2456.5	1032.5	2457.0	1040.0				
ET			9.1						761.80	1052.14
X1	3.233	74	992.7	1006.7	440	470	470			
GR	2464.0	225.0	2462.7	253.7	2461.3	282.3	2460.0	311.0	2459.6	337.0
GR	2459.2	363.0	2458.8	389.0	2458.4	415.0	2458.0	441.0	2457.7	467.3
GR	2457.3	493.7	2457.0	520.0	2457.0	548.3	2457.0	576.7	2457.0	605.0
GR	2456.8	627.5	2456.5	650.0	2456.3	672.5	2456.0	695.0	2454.7	721.3
GR	2453.3	747.7	2452.0	774.0	2451.0	795.0	2452.0	810.0	2453.0	845.0
GR	2452.0	875.0	2451.0	890.0	2451.0	919.5	2451.0	949.0	2450.9	952.4
[illegible]	450.8	955.8	2450.6	959.1	2450.5	962.5	2450.4	965.9	2450.3	969.3
[illegible]	2450.1	972.6	2450.0	976.0	2450.0	979.3	2450.0	982.5	2450.0	985.8
GR	2450.0	989.0	2449.7	992.7	2449.3	996.3	2449.0	1000.0	2449.3	1003.3

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[illegible]449.7   1006.7   2450.0   1010.0   2450.3   1014.0   2450.7   1018.0   2451.0   1022.0
[illegible] 2451.1   1025.3   2451.3   1028.6   2451.4   1031.9   2451.6   1035.1   2451.7   1038.4
GR  2451.9   1041.7   2452.0   1045.0   2452.3   1048.6   2452.6   1052.1   2452.9   1055.7
GR  2453.1   1059.3   2453.4   1062.9   2453.7   1066.4   2454.0   1070.0   2455.3   1073.6
GR  2455.6   1077.1   2456.0   1080.7   2456.1   1084.3   2457.4   1087.9   2457.7   1091.4
GR  2458.0   1095.0   2460.0   1130.0   2464.0   1140.0   2468.0   1160.0

QT      2     1142     1142
ET                     9.1                                                   779.35     1020
          Q = 1142 cfs: DETERMINED FROM RATIO OF CONTRIBUTING
                        DRAINAGE AREA TO ENTIRE WATERSHED
X1  3.343       70      988     1006      545      545      580
GR  2467.0    599.0   2465.5    622.0   2464.0    645.0   2463.0    666.3   2462.0    687.5
GR  2461.0    708.8   2460.0    715.0   2459.0    737.0   2458.7    756.7   2458.3    776.3
GR  2458.0    796.0   2458.0    815.5   2458.0    840.0   2458.0    859.5   2458.0    889.0
GR  2457.7    911.0   2457.3    933.0   2457.0    955.0   2457.0    958.0   2457.0    961.0
GR  2457.0    964.0   2457.0    967.0   2457.0    970.0   2456.8    973.0   2456.6    976.0
GR  2456.4    979.0   2456.2    982.0   2456.0    985.0   2455.8    988.0   2455.6    991.0
GR  2455.4    994.0   2455.2    997.0   2455.0   1000.0   2455.3   1003.0   2455.7   1006.0
GR  2456.0   1009.0   2456.3   1011.8   2456.5   1014.5   2456.8   1017.3   2457.0   1020.0
GR  2457.2   1022.8   2457.3   1025.7   2457.5   1028.5   2457.7   1031.3   2457.8   1034.2
GR  2458.0   1037.0   2458.0   1040.1   2458.0   1043.1   2458.0   1046.2   2458.0   1049.3
GR  2458.0   1052.4   2458.0   1055.4   2458.0   1058.5   2458.0   1061.6   2458.0   1064.6
GR  2458.0   1067.7   2458.0   1070.8   2458.0   1073.9   2458.0   1076.9   2458.0   1080.0
GR  2457.5   1102.5   2457.0   1125.0   2457.0   1147.5   2457.0   1170.0   2457.7   1188.3
[illegible] 2458.3   1206.7   2459.0   1225.0   2460.0   1230.0   2464.0   1267.5   2468.0   1285.0
[illegible]
ET                     9.1                                                   710.30   1036.95
X1  3.443       54      999     1018      540      470      530
GR  2472.0    540.0   2470.4    550.8   2468.8    559.6   2467.2    572.4   2465.6    583.2
GR  2464.0    594.0   2463.7    606.0   2463.3    618.0   2463.0    630.0   2463.0    640.5
GR  2463.0    651.0   2462.5    660.5   2462.0    670.0   2462.0    679.7   2462.0    689.0
GR  2461.7    701.0   2461.3    713.0   2461.0    725.0   2460.5    737.5   2460.0    750.0
GR  2459.7    755.0   2459.3    760.0   2459.0    770.0   2459.5    782.5   2460.0    795.0
GR  2460.0    804.5   2460.0    814.0   2460.3    824.5   2460.5    835.0   2460.8    845.5
GR  2461.0    856.0   2461.0    866.6   2461.0    877.1   2461.0    887.7   2461.0    898.3
GR  2461.0    908.9   2461.0    919.4   2461.0    930.0   2461.0    940.7   2461.0    951.3
GR  2461.0    962.0   2460.5    971.0   2460.0    980.0   2459.5    989.5   2459.0    999.0
GR  2458.0   1000.0   2458.5   1009.0   2459.0   1018.0   2460.0   1030.0   2462.0   1040.0
GR  2464.0   1045.0   2466.7   1050.0   2469.3   1054.0   2472.0   1055.0

ET                     9.1                                                   579.39   1041.17
X1  3.534       61     986.7   1007.3      330      510      480
GR  2480.0    480.0   2477.6    525.0   2475.2    546.0   2472.8    556.0   2470.4    570.0
GR  2468.0    580.0   2467.8    587.0   2467.8    595.0   2468.0    600.0   2469.0    630.0
GR  2468.0    658.0   2467.7    678.0   2467.5    695.0   2467.6    712.0   2467.8    731.3
GR  2468.0    750.7   2468.0    770.0   2468.2    788.0   2468.4    806.0   2468.5    824.0
GR  2468.4    842.0   2468.3    860.0   2467.7    880.0   2467.0    900.0   2467.0    920.0
GR  2467.0    940.0   2466.9    943.6   2466.8    947.3   2466.6    950.9   2466.5    954.5
GR  2466.4    958.1   2466.3    961.8   2466.1    965.4   2466.0    969.0   2466.0    972.7
GR  2466.0    976.3   2466.0    980.0   2465.8    983.3   2465.7    986.7   2465.5    990.0
[illegible] 2465.3    993.3   2465.2    996.7   2465.0   1000.0   2465.3   1003.7   2465.7   1007.3
[illegible] 2466.0   1011.0   2466.5   1014.3   2466.6   1017.7   2467.0   1021.0   2467.2   1024.7
GR  2467.3   1028.3   2467.5   1032.0   2467.7   1035.7   2468.0   1040.0   2469.0   1048.0
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	470.5	1064.0	2472.0	1105.0	2474.0	1120.0	2476.0	1131.0	2478.0	1133.5
GR	2480.0	1152.0								
ET			9.1						972.27	1083.
X1	3.623	69	990	1010	460	480	470			
GR	2488.0	694.0	2485.3	706.0	2482.7	718.0	2480.0	730.0	2478.0	745.0
GR	2476.0	760.0	2477.0	771.0	2476.3	785.7	2475.7	800.3	2475.0	815.0
GR	2475.5	825.0	2476.0	835.0	2477.7	849.7	2479.3	864.3	2481.0	879.0
GR	2480.5	889.5	2480.0	900.0	2480.5	910.0	2481.0	920.0	2480.5	933.5
GR	2480.0	947.0	2479.3	949.9	2478.7	952.8	2478.0	955.7	2477.3	958.6
GR	2476.7	961.4	2476.5	964.3	2476.3	967.2	2476.0	970.1	2474.0	973.0
GR	2473.7	975.8	2473.3	978.7	2473.0	981.5	2472.7	984.3	2472.3	987.2
GR	2472.0	990.0	2471.7	993.3	2471.3	996.7	2471.0	1000.0	2471.3	1003.3
GR	2471.7	1006.7	2472.0	1010.0	2472.1	1013.1	2472.3	1016.3	2472.4	1019.4
GR	2472.5	1022.5	2472.6	1025.6	2472.8	1028.8	2472.9	1031.9	2473.0	1035.0
GR	2473.0	1046.3	2473.0	1057.7	2473.0	1069.0	2473.3	1082.5	2473.7	1096.0
GR	2474.0	1109.5	2474.3	1123.0	2474.7	1136.5	2475.0	1150.0	2475.5	1160.5
GR	2476.0	1171.0	2476.8	1184.3	2477.5	1197.5	2478.3	1210.8	2479.0	1224.0
GR	2479.5	1239.5	2480.0	1255.0	2482.0	1267.5	2484.0	1280.0		
ET			9.1						906.67	1031.
X1	3.713	56	987.3	1006.7	510	430	475			
GR	2488.0	740.0	2487.5	764.0	2487.0	783.0	2485.5	805.5	2484.0	825.0
GR	2482.0	834.0	2480.0	860.0	2479.0	889.0	2478.3	907.0	2477.7	925.0
GR	2477.0	943.0	2477.0	946.0	2477.0	949.0	2477.0	952.0	2477.0	955.0
	2477.0	958.0	2477.0	961.0	2477.0	964.0	2477.0	967.0	2477.0	970.0
	476.8	972.8	2476.5	975.5	2476.3	978.3	2476.0	981.0	2475.8	984.2
GR	2475.7	987.3	2475.5	990.5	2475.3	993.7	2475.2	996.8	2475.0	1000.0
GR	2475.3	1003.3	2475.7	1006.7	2476.0	1010.0	2476.2	1013.0	2476.4	1016.0
GR	2476.6	1019.0	2476.8	1022.0	2477.0	1025.0	2477.0	1028.1	2477.0	1031.2
GR	2477.0	1034.3	2477.0	1037.4	2477.0	1040.4	2477.0	1043.6	2477.0	1046.6
GR	2477.0	1049.7	2477.0	1052.8	2477.0	1055.9	2477.0	1059.0	2477.7	1081.0
GR	2478.3	1103.0	2479.0	1125.0	2480.0	1150.0	2484.0	1220.0	2486.0	1245.0
GR	2488.0	1270.0								
ET			9.1						970.	1023.24
X1	3.810	57	990	1010	480	510	510			
GR	2492.0	435.0	2491.0	448.5	2490.0	462.0	2489.0	475.5	2488.0	489.0
GR	2487.0	507.0	2486.0	525.0	2485.5	543.5	2485.0	562.0	2483.0	580.0
GR	2485.0	600.0	2485.0	622.0	2484.7	636.3	2484.3	650.7	2484.0	665.0
GR	2483.7	678.3	2483.3	691.7	2483.0	705.0	2482.9	720.6	2482.8	736.1
GR	2482.7	751.7	2482.6	767.2	2482.4	782.8	2482.3	798.3	2482.2	813.9
GR	2482.1	829.4	2482.0	845.0	2481.8	859.0	2481.7	873.0	2481.5	887.0
GR	2481.3	901.0	2481.2	915.0	2481.0	929.0	2481.0	934.2	2481.0	939.3
GR	2481.0	944.5	2481.0	949.7	2481.0	954.8	2481.0	960.0	2480.8	965.0
GR	2480.5	970.0	2480.3	975.0	2480.0	980.0	2479.5	985.0	2479.0	990.0
GR	2478.5	995.0	2478.0	1000.0	2478.5	1005.0	2479.0	1010.0	2479.5	1015.0
GR	2480.0	1020.0	2483.3	1025.0	2486.7	1030.0	2490.0	1035.0	2493.3	1040.0
GR	2496.7	1045.0	2500.0	1050.0						

ET			9.1						971.97	1047.
X1	3.897	60	990	1005	430	440	460			
GR	2496.0	615.0	2495.4	635.8	2494.8	656.6	2494.2	677.4	2493.6	698.2
GR	2493.0	719.0	2492.7	739.3	2492.3	759.7	2492.0	780.0	2491.7	796.7
GR	2491.3	813.3	2491.0	830.0	2491.0	849.3	2491.0	868.5	2491.0	887.8
GR	2491.0	907.0	2490.8	911.8	2490.5	916.7	2490.3	921.5	2490.0	926.3
GR	2489.8	931.2	2489.5	936.0	2489.3	940.8	2489.0	945.7	2488.8	950.5
GR	2488.5	955.3	2488.3	960.2	2488.1	965.0	2488.0	970.0	2486.3	975.0
GR	2484.0	980.0	2483.8	985.0	2483.5	990.0	2483.3	995.0	2483.0	1000.0
GR	2483.5	1005.0	2484.0	1010.0	2485.0	1015.0	2486.0	1020.0	2487.0	1025.0
GR	2487.3	1030.5	2487.5	1036.0	2487.8	1041.5	2488.0	1047.0	2487.8	1051.7
GR	2487.7	1056.3	2487.5	1061.0	2487.3	1065.7	2487.2	1070.3	2487.0	1075.0
GR	2486.5	1098.0	2486.0	1121.0	2486.5	1138.0	2487.0	1155.0	2487.5	1177.5
GR	2488.0	1200.0	2490.0	1222.5	2492.0	1245.0	2494.0	1262.5	2496.0	1280.0
ET			9.1						955.	1030.
X1	4.005	55	989.4	1005.5	560	570	570			
GR	2504.0	775.0	2503.0	787.5	2502.0	800.0	2501.0	812.5	2500.0	825.0
GR	2498.0	837.5	2496.0	850.0	2495.5	865.5	2495.0	881.0	2494.7	893.3
GR	2494.3	905.7	2494.0	918.0	2493.7	930.3	2493.3	942.7	2493.0	955.0
GR	2492.8	960.0	2492.5	965.0	2492.3	970.0	2492.0	975.0	2491.8	979.8
GR	2491.6	984.6	2491.4	989.4	2491.2	994.2	2491.0	999.0	2490.0	1000.0
GR	2491.0	1005.5	2492.0	1011.0	2492.5	1016.0	2493.0	1021.0	2493.2	1025.8
GR	2493.3	1030.7	2493.5	1035.5	2493.7	1040.3	2493.8	1045.2	2494.0	1050.0
GR	2495.0	1062.5	2496.0	1075.0	2496.3	1087.9	2496.6	1100.7	2496.9	1113.6
[illegible]	2497.1	1126.4	2497.4	1139.3	2497.7	1152.1	2498.0	1165.0	2498.4	1178.0
GR	2498.8	1191.0	2499.2	1204.0	2499.6	1217.0	2500.0	1230.0	2500.3	1243.3
GR	2500.7	1256.7	2501.0	1270.0	2501.7	1283.0	2502.3	1296.0	2503.0	1309.0
ET			9.1						930.	1022.02
X1	4.090	46	990	1005	460	450	450			
GR	2508.0	600.0	2506.7	621.7	2505.3	643.3	2504.0	665.0	2503.9	686.8
GR	2502.0	708.5	2501.0	730.3	2500.0	752.0	2499.0	780.0	2498.8	805.0
GR	2498.5	830.0	2498.3	855.0	2498.0	880.0	2498.0	902.0	2498.0	924.0
GR	2497.9	929.1	2497.8	934.3	2497.6	939.4	2497.5	944.5	2497.4	949.6
GR	2497.3	954.8	2497.1	959.9	2497.0	965.0	2496.7	970.0	2496.3	975.0
GR	2496.0	980.0	2495.5	985.0	2495.0	990.0	2494.5	995.0	2494.0	1000.0
GR	2495.0	1005.0	2496.0	1010.0	2497.0	1015.0	2498.0	1020.0	2499.9	1025.7
GR	2500.3	1031.3	2500.5	1037.0	2500.7	1041.7	2501.3	1046.3	2502.0	1051.0
GR	2503.7	1055.7	2504.1	1060.3	2505.0	1065.0	2506.0	1085.0	2508.0	1105.0
GR	2509.0	1120.0								
ET			9.1						970.	1043.
X1	4.177	91	995.3	1015.3	370	470	460			
GR	2509.0	790.0	2508.8	795.2	2508.7	800.3	2508.5	805.5	2508.3	810.7
GR	2508.2	815.8	2508.0	821.0	2507.5	825.9	2507.0	830.8	2506.5	835.6
GR	2506.0	840.5	2505.5	845.4	2505.0	850.3	2504.5	855.1	2504.0	860.0
GR	2503.8	865.0	2503.5	870.0	2503.3	875.0	2503.0	880.0	2502.9	885.0
GR	2502.9	890.0	2502.8	895.0	2502.7	900.0	2502.6	905.0	2502.6	910.0
GR	2502.5	915.0	2502.4	920.0	2502.4	925.0	2502.3	930.0	2502.2	935.0
[illegible]	502.1	940.0	2502.1	945.0	2502.0	950.0	2501.7	955.0	2501.3	960.0
[illegible]	501.0	965.0	2500.7	970.3	2500.3	975.7	2500.0	981.0	2499.8	985.8
GR	2499.5	990.5	2499.3	995.3	2499.0	1000.0	2499.0	1005.0	2499.0	1010.0

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[illegible]499.3    1015.3    2499.7    1020.7    2500.0    1026.0    2500.3    1031.7    2500.7    1037.3
GR  2501.0    1043.0    2501.1    1048.1    2501.1    1053.3    2501.2    1058.4    2501.3    1063.6
GR  2501.4    1068.7    2501.4    1073.9    2501.5    1079.0    2501.6    1084.1    2501.6    1089.3
GR  2501.7    1094.4    2501.8    1099.6    2501.9    1104.7    2501.9    1109.9    2502.0    1115.0
GR  2502.1    1120.0    2502.2    1125.0    2502.4    1130.0    2502.5    1135.0    2502.6    1140.0
GR  2502.7    1145.0    2502.8    1150.0    2502.9    1155.0    2503.1    1160.0    2503.2    1165.0
GR  2503.3    1170.0    2503.4    1175.0    2503.5    1180.0    2503.6    1185.0    2503.8    1190.0
GR  2503.9    1195.0    2504.0    1200.0    2505.0    1204.8    2506.0    1209.5    2507.0    1214.3
GR  2508.0    1219.0    2508.8    1224.2    2509.6    1229.4    2510.4    1234.6    2511.2    1239.8
GR  2512.0    1245.0

QT      2      597       597
NC  0.050    0.050     0.030       0.6       0.8
ET             9.1       9.1                                                          983.67    1016.33
            Q = 597 cfs: DETERMINED FROM RATIO OF CONTRIBUTING
                         DRAINAGE AREA TO ENTIRE WATERSHED

            ET RECORD: STA 983.67 & 1016.33 MODEL 4 TO 1
                       FLOW EXPANSION DOWNSTREAM OF RCB

            MAPPED FLOODPLAIN TO CWSEL
X1  4.270       47     986.7    1006.5       530       450       490
GR  2520.0    812.0    2518.7     818.0    2517.3     824.0    2516.0     830.0    2515.4     835.7
GR  2514.9    841.4    2514.3     847.1    2513.7     852.9    2513.1     858.6    2512.6     864.3
GR  2512.0    870.0    2511.5     876.0    2511.0     882.0    2510.5     888.0    2510.0     894.0
[illegible]2509.5    900.0    2509.0     906.0    2508.5     912.0    2508.0     918.0    2507.6     924.2
[illegible]507.2    930.4    2506.8     936.6    2506.4     942.8    2506.0     949.0    2505.6     955.2
GR  2505.2    961.4    2504.8     967.6    2504.4     973.8    2504.0     980.0    2503.8     986.7
GR  2503.7    993.3    2503.5    1000.0    2503.8    1006.5    2504.0    1013.0    2504.3    1018.9
GR  2504.5   1024.8    2504.8    1030.8    2505.1    1036.7    2505.4    1042.6    2505.6    1048.5
GR  2505.9   1054.5    2506.1    1060.4    2506.4    1066.3    2506.7    1072.2    2507.0    1078.2
GR  2507.2   1084.1    2507.5    1090.0

NC  0.050    0.050     0.015       0.6       0.8
            DS FACE: 2 - 6' X 7' RCB

            NOTE: CENTERLINE SECTION OF US HWY 60
                  USED TO CREATE DS FACE SECTION
X1  4.277       64    993.67    1006.33        40        40        40
X3     10                                                            2516.6    2513.0
GR  2520.9    843.7    2520.4     861.3    2520.0     879.0    2519.5     896.3    2519.0     913.6
GR  2518.5    930.9    2518.1     948.1    2517.6     965.4    2517.1     982.7    2516.6    993.66
GR  2503.3   993.67    2503.3    1000.0    2503.3   1006.33    2516.6   1006.34    2516.5    1018.8
GR  2516.4   1037.5    2516.4    1056.3    2516.3    1075.0    2516.2    1093.8    2516.1    1112.5
GR  2516.1   1131.3    2516.0    1150.0    2515.7    1168.6    2515.4    1187.3    2515.2    1205.9
GR  2514.9   1224.6    2514.6    1243.2    2514.4    1261.8    2514.1    1280.4    2513.8    1299.1
GR  2513.6   1317.7    2513.3    1336.4    2513.0    1355.0    2513.2    1372.7    2513.4    1390.4
GR  2513.6   1408.1    2513.8    1425.9    2514.0    1443.6    2514.2    1461.3    2514.4    1479.0
GR  2514.8   1496.8    2515.2    1514.5    2515.6    1532.3    2516.0    1550.0    2516.2    1567.9
GR  2516.4   1585.8    2516.6    1603.7    2516.8    1621.6    2517.0    1639.5    2517.2    1657.4
GR  2517.4   1675.3    2517.6    1693.2    2517.8    1711.1    2518.0    1729.0    2518.1    1747.6
[illegible]518.3    1766.2    2518.4    1784.8    2518.6    1803.4    2518.8    1822.0    2518.9    1840.6
[illegible]519.1    1859.2    2519.2    1877.8    2519.4    1896.4    2519.5    1915.0
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SC     2.015      0.40       2.8                  7         6       56.8       8.1     2504.0     2503.3
            US FACE: 2 - 6' X 7' RCB

            NOTE: CENTERLINE SECTION OF US HWY 60
                  USED TO CREATE US FACE SECTION
X1     4.288       64    993.67   1006.33      56.8      56.8      56.8
X2                          2    2510.0    2513.0
X3        10                                                      2516.6     2513.0
BT       -64    843.7    2520.9             861.3    2520.4               879.0     2520.0
BT              896.3    2519.5             913.6    2519.0               930.9     2518.5
BT              948.1    2518.1             965.4    2517.6               982.7     2517.1
BT             993.66    2516.6            993.67    2516.6              1000.0     2516.6
BT            1006.33    2516.6           1006.34    2516.6              1018.8     2516.5
BT             1037.5    2516.4            1056.3    2516.4              1075.0     2516.3
BT             1093.8    2516.2            1112.5    2516.1              1131.3     2516.1
BT             1150.0    2516.0            1168.6    2515.7              1187.3     2515.4
BT             1205.9    2515.2            1224.6    2514.9              1243.2     2514.6
BT             1261.8    2514.4            1280.4    2514.1              1299.1     2513.8
BT             1317.7    2513.6            1336.4    2513.3              1355.0     2513.0
BT             1372.7    2513.2            1390.4    2513.4              1408.1     2513.6
BT             1425.9    2513.8            1443.6    2514.0              1461.3     2514.2
BT             1479.0    2514.4            1496.8    2514.8              1514.5     2515.2
BT             1532.3    2515.6            1550.0    2516.0              1567.9     2516.2
BT             1585.8    2516.4            1603.7    2516.6              1621.6     2516.8
BT             1639.5    2517.0            1657.4    2517.2              1675.3     2517.4
               1693.2    2517.6            1711.1    2517.8              1729.0     2518.0
BT             1747.6    2518.1            1766.2    2518.3              1784.8     2518.4
BT             1803.4    2518.6            1822.0    2518.8              1840.6     2518.9
BT             1859.2    2519.1            1877.8    2519.2              1896.4     2519.4
BT             1915.0    2519.5
GR    2520.9    843.7    2520.4     861.3  2520.0     879.0    2519.5     896.3     2519.0      913.6
GR    2518.5    930.9    2518.1     948.1  2517.6     965.4    2517.1     982.7     2516.6     993.66
GR    2504.0   993.67    2504.0    1000.0  2504.0   1006.33    2516.6    1006.34    2516.5     1018.8
GR    2516.4   1037.5    2516.4    1056.3  2516.3    1075.0    2516.2    1093.8     2516.1     1112.5
GR    2516.1   1131.3    2516.0    1150.0  2515.7    1168.6    2515.4    1187.3     2515.2     1205.9
GR    2514.9   1224.6    2514.6    1243.2  2514.4    1261.8    2514.1    1280.4     2513.8     1299.1
GR    2513.6   1317.7    2513.3    1336.4  2513.0    1355.0    2513.2    1372.7     2513.4     1390.4
GR    2513.6   1408.1    2513.8    1425.9  2514.0    1443.6    2514.2    1461.3     2514.4     1479.0
GR    2514.8   1496.8    2515.2    1514.5  2515.6    1532.3    2516.0    1550.0     2516.2     1567.9
GR    2516.4   1585.8    2516.6    1603.7  2516.8    1621.6    2517.0    1639.5     2517.2     1657.4
GR    2517.4   1675.3    2517.6    1693.2  2517.8    1711.1    2518.0    1729.0     2518.1     1747.6
GR    2518.3   1766.2    2518.4    1784.8  2518.6    1803.4    2518.8    1822.0     2518.9     1840.6
GR    2519.1   1859.2    2519.2    1877.8  2519.4    1896.4    2519.5    1915.0

NC     0.050    0.050     0.030       0.6     0.8
ET               9.1       9.1                                                          970.       1030.
            ET RECORD: STA 970 & 1030 MODEL 1 TO 1
                       FLOW CONTRACTION UPSTREAM OF RCB
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MAPPED FLOODPLAIN TO CWSEL

X1	4.292	87	1000	1015	20	20	20			
GR	2520.0	790.0	2519.3	797.0	2518.7	804.0	2518.0	811.0	2517.3	818.0
GR	2516.7	825.0	2516.0	832.0	2515.0	837.8	2514.0	843.5	2513.0	849.3
GR	2512.0	855.0	2511.6	861.5	2511.2	868.0	2510.8	874.5	2510.4	881.0
GR	2510.0	887.5	2509.6	894.0	2509.2	900.5	2508.8	907.0	2508.4	913.5
GR	2508.0	920.0	2507.9	926.8	2507.9	933.6	2507.9	940.4	2507.8	947.2
GR	2507.8	954.0	2507.7	960.8	2507.6	967.6	2507.6	974.4	2507.6	981.2
GR	2507.5	988.0	2507.3	994.0	2507.0	1000.0	2507.0	1007.5	2507.0	1015.0
GR	2507.1	1021.6	2507.1	1028.2	2507.1	1034.8	2507.2	1041.4	2507.3	1048.0
GR	2507.3	1054.6	2507.4	1061.2	2507.4	1067.8	2507.4	1074.4	2507.5	1081.0
GR	2507.5	1152.5	2507.5	1159.0	2507.5	1165.5	2507.5	1172.0	2507.6	1178.6
GR	2507.6	1185.3	2507.7	1191.9	2507.8	1198.5	2507.8	1205.1	2507.9	1211.8
GR	2507.9	1218.4	2508.0	1225.0	2507.9	1231.7	2507.8	1238.3	2507.8	1245.0
GR	2507.7	1251.7	2507.6	1258.3	2507.5	1265.0	2507.4	1271.7	2507.3	1278.3
GR	2507.3	1285.0	2507.2	1291.7	2507.1	1298.3	2507.0	1305.0	2507.0	1311.3
GR	2507.0	1349.3	2507.0	1355.7	2507.0	1362.0	2507.1	1368.6	2507.2	1375.3
GR	2507.3	1381.9	2507.4	1388.6	2507.4	1395.2	2507.6	1401.8	2507.6	1408.4
GR	2507.7	1415.1	2507.8	1421.7	2507.9	1428.4	2508.0	1435.0	2512.0	1450.0
GR	2516.0	1480.0	2520.0	1505.0						
NC	0.050	0.050	0.030	0.1	0.3					
ET			9.1						970.	1053.72
X1	4.358	55	993.7	1006.2	350	350	350			
GR	2528.0	605.0	2527.5	618.1	2526.6	631.2	2525.5	644.9	2523.9	661.7
GR	2520.4	677.4	2519.4	693.8	2518.3	714.0	2517.6	727.1	2516.6	742.8
GR	2515.8	758.6	2515.0	772.1	2514.2	787.6	2513.6	799.4	2512.9	814.6
GR	2512.3	831.5	2511.8	856.9	2511.6	869.3	2511.4	883.2	2511.3	897.4
GR	2511.1	913.5	2511.0	925.6	2510.7	933.7	2510.4	947.1	2509.7	962.0
GR	2509.3	974.8	2508.9	981.2	2508.6	988.7	2508.4	993.7	2508.4	998.1
GR	2508.4	1000.0	2508.4	1006.2	2508.5	1013.7	2509.0	1026.4	2509.6	1034.9
GR	2511.0	1046.5	2512.0	1054.7	2512.8	1067.9	2513.7	1080.6	2514.6	1093.7
GR	2515.2	1107.9	2515.4	1121.1	2515.7	1134.8	2515.9	1152.6	2516.5	1167.8
GR	2517.8	1184.9	2518.4	1197.5	2519.6	1209.3	2520.1	1220.7	2521.3	1234.2
GR	2522.8	1248.5	2523.9	1261.7	2525.6	1277.4	2526.7	1285.4	2528.0	1295.6
ET			9.1						965.37	1055.
X1	4.428	45	997.6	1011.7	320	370	370			
GR	2528.4	715.0	2527.4	733.2	2526.9	746.5	2526.3	761.8	2525.7	774.4
GR	2525.0	789.1	2524.1	803.8	2522.9	814.6	2522.1	822.6	2520.5	837.1
GR	2519.4	848.4	2518.7	861.7	2518.2	874.9	2517.8	885.6	2517.4	898.3
GR	2517.1	911.4	2516.7	924.8	2516.5	936.7	2516.2	951.6	2515.8	964.0
GR	2515.1	977.1	2514.5	986.4	2513.9	994.7	2513.8	997.6	2513.8	1000.0
GR	2513.8	1002.0	2513.8	1011.7	2514.1	1017.8	2514.3	1028.2	2514.5	1039.9
GR	2514.8	1054.6	2515.1	1062.8	2515.2	1077.1	2515.4	1093.0	2515.5	1110.5
GR	2515.8	1127.4	2516.1	1142.9	2516.8	1155.4	2517.9	1171.6	2519.0	1184.5
GR	2520.1	1198.7	2522.8	1213.4	2526.0	1228.3	2527.8	1241.0	2529.7	1253.7

```
QT        2       199       199
ET                          9.1                                                   978.22      1030.
          Q = 199 cfs: DETERMINED FROM RATIO OF CONTRIBUTING
                       DRAINAGE AREA TO ENTIRE WATERSHED
X1    4.510        54     995.8    1006.2       430       420       430
GR   2532.6     772.0    2532.3     784.1    2532.1     796.3    2531.9     804.5    2531.3     817.9
GR   2530.6     831.5    2530.1     845.2    2529.7     859.7    2529.2     873.4    2528.7     891.4
GR   2528.0     914.5    2527.5     928.5    2526.9     938.4    2526.5     945.8    2525.3     957.7
GR   2520.6     971.8    2519.0     982.7    2518.8     988.3    2518.5     993.3    2518.5     995.8
GR   2518.3     998.1    2518.3    1000.0    2518.4    1006.2    2518.4    1013.8    2518.6    1022.4
GR   2518.9    1030.1    2519.0    1041.8    2519.0    1055.5    2518.7    1062.0    2518.6    1068.7
GR   2519.1    1075.4    2520.4    1092.0    2521.1    1110.6    2521.4    1128.7    2521.5    1140.8
GR   2521.6    1156.7    2522.3    1169.9    2522.6    1184.7    2522.7    1202.6    2522.8    1218.6
GR   2523.0    1230.1    2523.4    1245.6    2523.7    1257.9    2524.9    1274.9    2525.8    1288.6
GR   2526.5    1301.7    2527.5    1314.0    2528.3    1326.6    2528.9    1341.2    2529.6    1354.1
GR   2530.3    1369.7    2531.0    1382.4    2532.0    1400.7    2532.4    1404.0

ET                          9.1                                                   981.71      1032.71
X1    4.572        59     995.4    1005.2       330       330       330
GR   2541.2     753.0    2540.5     767.1    2539.7     775.4    2539.2     789.6    2538.5     799.5
GR   2537.3     814.2    2535.3     827.0    2533.5     840.6    2531.9     851.6    2531.3     863.8
GR   2530.6     878.4    2530.2     888.5    2530.0     897.3    2529.5     914.7    2529.1     927.0
GR   2528.4     941.8    2527.2     956.3    2526.0     967.8    2525.0     978.2    2523.6     990.7
GR   2523.0     995.4    2522.9     998.4    2522.9    1000.0    2523.0    1005.2    2523.7    1014.1
G    2524.4    1028.9    2525.1    1041.8    2525.7    1053.7    2526.4    1070.9    2527.0    1081.3
     2527.7    1096.5    2528.2    1108.7    2528.6    1121.4    2529.0    1131.4    2529.5    1143.2
GR   2529.7    1152.7    2529.9    1161.3    2530.2    1173.0    2530.3    1182.5    2530.4    1203.0
GR   2530.4    1221.9    2530.4    1237.5    2530.5    1248.4    2530.7    1263.6    2531.1    1277.1
GR   2531.9    1288.4    2532.5    1299.4    2533.0    1311.6    2533.9    1327.2    2535.0    1341.6
GR   2536.0    1355.4    2536.7    1372.6    2537.3    1384.9    2537.8    1392.4    2538.6    1407.2
GR   2540.1    1421.5    2541.8    1434.1    2542.9    1444.7    2543.8    1450.0

ET                          9.1                                                   971.74      1023.05
          X3 RECORD: STA 910 ELIMINATE INEFFECTIVE
                       FLOW AREA IN LEFT OVERBANK
X1    4.699        42       995       1005       670       680       670
X3                                   910.0    2537.0
GR   2544.0     480.0    2542.0     500.5    2540.0     521.0    2538.7     539.0    2537.3     557.0
GR   2536.0     575.0    2535.0     591.3    2534.0     607.5    2533.0     623.8    2532.0     640.0
GR   2531.5     659.5    2531.0     679.0    2531.0     693.0    2531.5     711.5    2532.0     730.0
GR   2534.0     747.5    2536.0     765.0    2536.5     785.0    2537.0     805.0    2537.0     820.0
GR   2537.0     839.7    2537.0     859.3    2537.0     879.0    2537.0     894.5    2537.0     910.0
GR   2535.0     930.0    2534.3     944.3    2533.7     958.7    2533.0     973.0    2532.0     990.0
GR   2531.5     995.0    2531.0    1000.0    2531.5    1005.0    2532.0    1011.0    2533.0    1022.0
GR   2534.0    1039.0    2535.0    1056.0    2536.0    1073.0    2538.0    1091.5    2540.0    1110.0
GR   2542.0    1130.0    2544.0    1150.0

ET                          9.1                                                   975.        1023.69
X1    4.796        39     995.5    1005.5       510       510       510
GR   2552.0     500.0    2550.0     521.0    2548.0     542.0    2546.7     561.3    2545.3     580.7
     2544.0     600.0    2543.5     614.0    2543.0     628.0    2541.5     649.0    2540.0     670.0
G    2539.0     695.0    2540.0     711.0    2541.3     727.3    2542.7     743.7    2544.0     760.0
GR   2543.5     780.0    2543.0     800.0    2543.0     821.0    2543.5     840.5    2544.0     860.0
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[illegible]542.7    875.0    2541.3    890.0    2540.0    905.0    2539.3    923.3    2538.7    941.7
GR 2538.0    960.0    2538.0    975.0    2537.5    995.5    2537.0    1000.0    2537.5    1005.5
GR 2538.0    1011.0    2539.0    1030.0    2539.5    1045.0    2540.0    1060.0    2541.0    1081.0
GR 2542.5    1096.5    2544.0    1112.0    2548.0    1130.0    2552.0    1151.0

ET                      9.1                                                971.37    1011.82
X1 4.890    40    995    1005    500    490    500
GR 2556.0    680.0    2555.5    695.0    2555.0    710.0    2554.5    725.0    2554.0    740.0
GR 2553.8    755.0    2553.5    770.0    2553.3    785.0    2553.0    800.0    2552.5    817.5
GR 2552.0    835.0    2551.0    851.3    2550.0    867.5    2549.0    883.8    2548.0    900.0
GR 2547.3    913.8    2546.5    927.5    2545.8    941.3    2545.0    955.0    2544.0    970.0
GR 2543.0    985.0    2542.3    995.0    2542.0    1000.0    2542.5    1005.0    2543.0    1010.0
GR 2544.0    1012.0    2545.0    1040.0    2545.5    1057.5    2546.0    1075.0    2546.5    1091.5
GR 2547.0    1108.0    2547.5    1124.5    2548.0    1141.0    2548.8    1154.6    2549.6    1168.2
GR 2550.4    1181.8    2551.2    1195.4    2552.0    1209.0    2556.0    1230.0    2557.0    1250.0

NC 0.050    0.050    0.015    0.6    0.8
          DS FACE: 1 - 6' X 6' RCB

          NOTE: CENTERLINE SECTION OF OLD US HWY 60
                USED TO CREATE DS FACE SECTION OF RCB
X1 4.946    45    997    1003    292    292    292
X3 10                                                    2553.0    2553.1
GR 2564.0    560.0    2563.3    580.0    2562.7    600.0    2562.0    620.0    2561.3    640.0
GR 2560.7    660.0    2560.0    680.0    2559.3    699.2    2558.7    718.3    2558.0    737.5
[illegible]557.3    756.7    2556.7    775.8    2556.0    795.0    2555.6    814.0    2555.2    833.0
[illegible]554.8    852.0    2554.4    871.0    2554.0    890.0    2553.8    908.3    2553.7    926.7
GR 2553.5    945.0    2553.3    963.3    2553.2    981.7    2553.0    996.99    2544.4    997.0
GR 2544.4    1000.0    2544.4    1003.0    2553.1    1003.01    2554.0    1021.7    2555.0    1043.3
GR 2556.0    1065.0    2556.5    1084.8    2557.0    1104.5    2557.5    1124.3    2558.0    1144.0
GR 2558.5    1163.8    2559.0    1183.5    2559.5    1203.3    2560.0    1223.0    2560.7    1241.5
GR 2561.3    1260.0    2562.0    1278.5    2562.7    1297.0    2563.3    1315.5    2564.0    1334.0

SC 1.015    0.40    2.8    6    6    60.0    8.1    2545.3    2544.4
          US FACE: 1 6' X 6' RCB

          NOTE: CENTERLINE SECTION OF OLD US HWY 60
                USED TO CREATE US FACE SECTION OF RCB
X1 4.957    45    997    1003    60    60    60
X2                2    2551.3    2553.0
X3 10                                                    2553.0    2553.1
BT -45    560.0    2564.0    580.0    2563.3    600.0    2562.7
BT    620.0    2562.0    640.0    2561.3    660.0    2560.7
BT    680.0    2560.0    699.2    2559.3    718.3    2558.7
BT    737.5    2558.0    756.7    2557.3    775.8    2556.7
BT    795.0    2556.0    814.0    2555.6    833.0    2555.2
BT    852.0    2554.8    871.0    2554.4    890.0    2554.0
BT    908.3    2553.8    926.7    2553.7    945.0    2553.5
BT    963.3    2553.3    981.7    2553.2    996.99    2553.0
BT    997.0    2553.0    1000.0    2553.0    1003.0    2553.1
BT    1003.01    2553.1    1021.7    2554.0    1043.3    2555.0
[illegible]    1065.0    2556.0    1084.8    2556.5    1104.5    2557.0
[illegible]    1124.3    2557.5    1144.0    2558.0    1163.8    2558.5
BT    1183.5    2559.0    1203.3    2559.5    1223.0    2560.0
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                1241.5    2560.7              1260.0    2561.3              1278.5    2562.0
BT              1297.0    2562.7              1315.5    2563.3              1334.0    2564.0
GR   2564.0      560.0    2563.3     580.0    2562.7     600.0    2562.0     620.0    2561.3     640.0
GR   2560.7      660.0    2560.0     680.0    2559.3     699.2    2558.7     718.3    2558.0     737.5
GR   2557.3      756.7    2556.7     775.8    2556.0     795.0    2555.6     814.0    2555.2     833.0
GR   2554.8      852.0    2554.4     871.0    2554.0     890.0    2553.8     908.3    2553.7     926.7
GR   2553.5      945.0    2553.3     963.3    2553.2     981.7    2553.0     996.99   2545.3     997.0
GR   2545.3     1000.0    2545.3    1003.0    2553.1    1003.01   2554.0    1021.7    2555.0    1043.3
GR   2556.0     1065.0    2556.5    1084.8    2557.0    1104.5    2557.5    1124.3    2558.0    1144.0
GR   2558.5     1163.8    2559.0    1183.5    2559.5    1203.3    2560.0    1223.0    2560.7    1241.5
GR   2561.3     1260.0    2562.0    1278.5    2562.7    1297.0    2563.3    1315.5    2564.0    1334.0

NC   0.050       0.050    0.030       0.6       0.8
ET                9.1      9.1                                                         987.      1013.
             ET RECORD: STA 987 & 1013 MODEL 1 TO 1
                        FLOW CONTRACTION UPSTREAM OF RCB

             MAPPED FLOODPLAIN TO CWSEL
X1   4.959        42      996      1004        10        10        10
GR   2564.0      615.0    2563.2     634.4    2562.4     653.8    2561.6     673.2    2560.8     692.6
GR   2560.0      712.0    2558.7     728.0    2557.3     744.0    2556.0     760.0    2555.2     779.0
GR   2554.4      798.0    2553.6     817.0    2552.8     836.0    2552.0     855.0    2551.3     872.5
GR   2550.7      890.0    2550.0     907.5    2549.3     925.0    2548.7     942.5    2548.0     960.0
GR   2547.5      980.0    2547.1     996.0    2547.0    1000.0    2547.1    1004.0    2547.3    1020.0
GR   2547.5     1040.0    2547.8    1060.0    2548.0    1080.0    2548.5    1100.0    2549.0    1120.0
GR   2549.5     1140.0    2550.0    1160.0    2550.5    1180.0    2551.0    1200.0    2551.5    1220.0
GR   2552.0     1240.0    2553.3    1258.0    2554.7    1276.0    2556.0    1294.0    2560.0    1322.0
GR   2562.0     1338.5    2564.0    1355.0

NC   0.050       0.050    0.030       0.1       0.3
ET                         9.1                                                         987.96    1041.26
X1   5.054        49      996      1004       500       500       500
GR   2568.0      750.0    2567.6     761.9    2567.3     773.8    2565.9     785.6    2565.5     797.5
GR   2565.1      809.4    2564.8     821.3    2564.4     833.1    2564.0     845.0    2563.5     857.5
GR   2562.0      870.0    2561.0     882.5    2560.0     895.0    2560.0     907.5    2559.7     920.0
GR   2559.0      931.3    2558.0     942.5    2557.0     953.8    2556.0     965.0    2555.5     976.0
GR   2555.0      987.0    2553.6     996.0    2553.0    1000.0    2553.2    1004.0    2553.5    1010.0
GR   2554.0     1020.0    2554.5    1032.5    2555.0    1045.0    2555.5    1055.0    2556.0    1065.0
GR   2556.4     1075.7    2556.9    1086.4    2557.3    1097.1    2557.7    1107.9    2558.1    1118.6
GR   2558.6     1129.3    2559.0    1140.0    2559.3    1150.0    2559.7    1160.0    2560.0    1170.0
GR   2561.3     1180.0    2562.7    1190.0    2564.0    1200.0    2564.7    1211.7    2565.3    1223.3
GR   2566.0     1235.0    2566.7    1246.7    2567.3    1258.3    2568.0    1270.0

ET                         9.1                                                         970.      1018.08
X1   5.152        59      992.5      1000       510       520       520
GR   2576.0      761.0    2575.0     780.5    2574.0     790.0    2573.0     799.5    2572.0     805.0
GR   2570.7      819.3    2569.3     829.7    2568.0     850.0    2567.6     854.0    2567.2     858.0
GR   2566.8      867.0    2566.4     876.0    2566.0     885.0    2565.6     894.0    2565.2     903.0
GR   2564.8      .912.0   2564.4     921.0    2564.0     930.0    2563.5     939.0    2563.0     948.0
GR   2563.0      959.0    2563.0     970.0    2562.5     977.5    2562.0     985.0    2562.0     992.5
GR   2562.0     1000.0    2563.0    1010.0    2563.5    1021.0    2564.0    1031.0    2564.4    1041.0
GR   2564.6     1050.9    2565.1    1060.7    2565.7    1070.6    2566.3    1080.4    2566.9    1090.3
GR   2567.4     1100.1    2568.0    1110.0    2568.3    1120.0    2568.7    1130.0    2569.0    1140.0
GR   2568.7     1149.7    2568.3    1159.3    2568.0    1169.0    2568.3    1177.3    2568.7    1185.7
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[illegible]	569.0	1194.0	2568.7	1203.3	2568.3	1212.7	2568.0	1222.0	2569.0	1230.8
G[illegible]	2570.0	1239.5	2571.0	1248.3	2572.0	1257.0	2573.5	1265.5	2574.0	1274.0
GR	2574.5	1282.5	2575.0	1291.0	2576.0	1299.5	2577.0	1308.0		
ET			9.1						981.3	1047.1
X1	5.251	72	1000	1009.4	520	520	520			
GR	2584.0	662.0	2583.6	671.3	2583.1	678.6	2582.7	686.9	2582.3	699.1
GR	2581.9	702.4	2581.4	711.7	2581.0	717.0	2580.8	727.8	2580.5	736.5
GR	2580.3	746.3	2580.0	752.0	2579.2	766.0	2578.4	786.0	2577.6	796.0
GR	2576.8	806.0	2576.0	816.0	2574.7	826.3	2573.3	836.7	2572.0	847.0
GR	2571.5	854.5	2571.0	862.0	2571.3	869.5	2571.0	877.0	2571.0	884.5
GR	2571.0	892.0	2571.3	903.0	2571.0	914.0	2571.0	925.0	2571.0	934.4
GR	2571.0	943.8	2571.0	953.1	2571.0	962.5	2571.0	971.9	2571.0	981.3
GR	2570.5	990.6	2570.0	1000.0	2570.0	1009.4	2570.0	1018.9	2570.3	1028.3
GR	2570.7	1037.7	2571.0	1047.1	2571.0	1056.6	2571.0	1066.0	2571.2	1075.2
GR	2571.4	1084.4	2571.6	1093.6	2571.8	1102.8	2572.0	1112.0	2572.7	1121.2
GR	2573.3	1130.3	2574.0	1139.5	2574.7	1148.7	2575.3	1157.8	2576.0	1167.0
GR	2576.5	1176.4	2577.0	1185.8	2577.5	1195.1	2578.0	1204.5	2578.5	1213.9
GR	2579.0	1223.3	2579.5	1232.6	2580.0	1242.0	2580.0	1251.2	2580.0	1260.4
GR	2580.0	1269.6	2580.0	1278.8	2580.0	1288.0	2581.0	1298.5	2582.0	1309.0
GR	2583.0	1319.5	2584.0	1333.0						
ET			9.1						976.61	1018.49
X1	5.340	55	996	1004	450	490	470			
GR	2588.0	820.0	2587.5	826.8	2587.0	838.5	2586.5	840.3	2586.0	852.0
G[illegible]	2585.5	853.8	2585.0	865.5	2584.5	877.3	2584.0	882.0	2583.2	889.2
[illegible]	582.4	899.4	2581.6	909.6	2580.8	919.8	2580.0	935.0	2579.0	941.3
G[illegible]	2578.0	952.7	2577.0	972.0	2575.0	980.0	2574.5	990.0	2574.2	996.0
GR	2574.0	1000.0	2574.4	1004.0	2575.0	1010.0	2576.0	1020.0	2577.0	1030.0
GR	2577.0	1040.8	2577.0	1051.7	2577.0	1062.5	2577.0	1073.3	2577.0	1084.2
GR	2577.0	1095.0	2577.3	1106.3	2577.5	1117.5	2577.8	1128.8	2578.0	1140.0
GR	2578.3	1151.3	2578.5	1162.5	2578.8	1173.8	2579.0	1185.0	2579.3	1196.3
GR	2579.5	1207.5	2579.8	1218.8	2580.0	1230.0	2580.0	1240.0	2582.0	1251.0
GR	2584.0	1260.0	2584.4	1271.0	2584.8	1282.0	2585.2	1293.0	2585.6	1304.0
GR	2586.0	1315.0	2586.8	1327.5	2587.5	1340.0	2588.3	1352.5	2589.0	1365.0

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV=     .100 CEHV=     .300
1490 NH CARD USED
*SECNO  .189
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      858.0    1458.0  TYPE=      1  TARGET=     -858.000
 ELENCL=   2259.10  ELENCR= 100000.00
            CONFLUENCE OF WASH AB5: SOLS WASH TRIBUTARY
            AND SOLS WASH BETWEEN CROSS-SECTIONS
                BB (SOLS WASH RIVER MILE 4.87)
                BD (SOLS WASH RIVER MILE 5.08)
            CROSS-SECTION DESIGNATION FROM
                SOLS WASH FLOODPLAIN DELINEATION
                HASSAYAMPA RIVER TO MARICOPA COUNTY LINE
                CELLA BARR ASSOCIATES

            CROSS-SECTION TAKEN FROM SOLS WASH FLOODPLAIN DELINEATION
            CROSS-SECTION IS 4.98 IN SOLS WASH FLOODPLAIN DELINEATION

            SWSE DETERMINED BY SLOPE AREA METHOD

            Q = 2129 cfs FROM HEC-1 MODEL (SAH120)

            X3 RECORD: STA 858 ELIMINATE INEFFECTIVE
                       FLOW AREA IN LEFT OVERBANK
     .189      4.33   2259.73   2259.73   2260.00   2260.16       .43       .00       .00   2256.70
   2129.0    1412.7     453.4     262.9     417.4      48.5      81.3        .0        .0   2256.70
     .00      3.38      9.35      3.23      .043      .030      .045      .000   2255.40    536.61
  .008119       0.        0.        0.         0         9         8       .00    575.56   1112.18


FLOW DISTRIBUTION FOR SECNO=       .19          CWSEL=   2259.73
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    CNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
            QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME     VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE    XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


STA=     537.     610.     638.     678.     730.     828.     894.     904.     916.     955.     970.     987.    1000.
  PER Q=     4.8      3.3      4.7      3.1     11.4      5.6      3.4      5.0     12.2      3.1      3.1      6.6
   AREA=    38.7     17.7     25.2     32.8     61.8     54.3     19.3     26.2     71.4     21.5     20.1     28.4
    VEL=     2.6      3.9      3.9      2.0      3.9      2.2      3.8      4.1      3.6      3.1      3.3      5.0
  DEPTH=      .5       .6       .6       .6       .6       .8      1.9      2.2      1.8      1.4      1.2      2.2

STA=    1000.    1016.    1027.    1070.    1112.
  PER Q=    21.3      5.4      5.8      1.1
   AREA=    48.5     23.4     42.2     15.6
    VEL=     9.3      4.9      2.9      1.6
  DEPTH=     3.0      2.1      1.0       .4

CCHV=     .100 CEHV=     .300
*SECNO  .305
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      900.0    1180.0  TYPE=      1  TARGET=     -900.000
 ELENCL=   2268.00  ELENCR= 100000.00
          X3 RECORD: STA 900 ELIMINATE INEFFECTIVE
                     FLOW AREA IN LEFT OVERBANK
     .305      3.69   2269.69   2269.69       .00   2269.77       .08      3.24       .03   2268.00
   2129.0    1912.5     183.6      32.9     905.9      50.7      19.2      13.5      10.6   2268.00
     .09      2.11      3.62      1.72      .050      .030      .050      .000   2266.00    403.03
  .002654      800.      610.      560.         0        12         0       .00    624.65   1027.68


FLOW DISTRIBUTION FOR SECNO=       .31          CWSEL=   2269.69

STA=     403.     485.     500.     510.     575.     760.     840.     900.     980.    1010.    1015.    1028.
  PER Q=     4.5      2.6      1.7     11.2     31.9     13.8     10.3     13.8      8.6       .9       .7
   AREA=    69.3     25.4     16.9    109.9    312.7    135.2    101.4    135.2     50.7      8.5     10.7
    VEL=     1.4      2.2      2.2      2.2      2.2      2.2      2.2      2.2      3.6      2.2      1.4
  DEPTH=      .8      1.7      1.7      1.7      1.7      1.7      1.7      1.7      1.7      1.7       .8

*SECNO  .362

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
.362	3.00	2273.00	2273.00	.00	2273.77	.77	1.64	.21	2270.00
2129.0	1570.0	541.8	17.3	325.0	47.9	4.9	18.7	13.9	2270.00
.11	4.83	11.30	3.50	.050	.030	.050	.000	2270.00	772.32
.012059	340.	300.	305.	0	15	0	.00	235.98	1008.30

FLOW DISTRIBUTION FOR SECNO= .36 CWSEL= 2273.00

STA=	772.	844.	989.	1005.	1008.
PER Q=	3.4	70.3	25.4	.8	
AREA=	35.7	289.4	47.9	4.9	
VEL=	2.0	5.2	11.3	3.5	
DEPTH=	.5	2.0	3.0	1.5	

*SECNO .393
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.393	3.35	2275.35	2275.35	.00	2276.29	.94	1.90	.05	2272.00
2129.0	1156.4	869.3	103.3	247.5	80.3	22.9	20.2	14.8	2272.00
.11	4.67	10.82	4.52	.050	.030	.050	.000	2272.00	837.75
9532	185.	165.	155.	0	8	0	.00	184.32	1022.06

FLOW DISTRIBUTION FOR SECNO= .39 CWSEL= 2275.35

STA=	838.	895.	984.	1008.	1016.	1022.
PER Q=	4.0	50.3	40.8	4.4	.4	
AREA=	38.6	208.9	80.3	18.8	4.1	
VEL=	2.2	5.1	10.8	5.0	2.2	
DEPTH=	.7	2.3	3.3	2.3	.7	

*SECNO .484
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.484	2.58	2282.58	2282.58	.00	2283.22	.64	4.58	.03	2280.00
2129.0	1429.2	535.5	164.3	322.7	51.6	47.3	23.9	17.2	2280.00
.14	4.43	10.37	3.47	.050	.030	.050	.000	2280.00	778.18
.012377	385.	480.	500.	0	19	0	.00	315.63	1093.82

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= .48 CWSEL= 2282.58

STA=	778.	800.	1000.	1020.	1040.	1094.
PER Q=	.4	66.7	25.2	6.6	1.1	
AREA=	6.3	316.4	51.6	31.6	15.7	
VEL=	1.5	4.5	10.4	4.5	1.5	
DEPTH=	.3	1.6	2.6	1.6	.3	

*SECNO .554
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
Q = 1864 cfs: DETERMINED FROM RATIO OF CONTRIBUTING
DRAINAGE AREA TO ENTIRE WATERSHED

.554	3.79	2288.49	2288.49	.00	2289.28	.79	3.47	.05	2285.00
1864.0	336.6	758.4	769.1	71.2	75.1	212.5	27.1	19.4	2285.20
.15	4.73	10.10	3.62	.050	.030	.050	.000	2284.70	953.15
.007412	340.	370.	390.	0	11	0	.00	207.11	1160.26

FLOW DISTRIBUTION FOR SECNO= .55 CWSEL= 2288.49

STA=	953.	973.	982.	991.	1011.	1020.	1027.	1035.	1050.	1061.	1074.	1099.	1126.
PER Q=	3.1	6.4	8.6	40.7	7.5	4.5	4.0	6.3	3.8	3.3	4.8	4.1	
AREA=	19.2	23.9	28.1	75.1	26.2	17.5	17.3	29.5	19.6	18.6	30.9	28.9	
VEL=	3.0	5.0	5.7	10.1	5.4	4.8	4.3	4.0	3.6	3.3	2.9	2.7	
DEPTH=	1.0	2.7	3.3	3.6	3.0	2.5	2.2	1.9	1.7	1.5	1.2	1.1	

STA=	1126.	1160.
PER Q=	2.8	
AREA=	23.9	
VEL=	2.2	
DEPTH=	.7	

*SECNO .656
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.656	3.88	2296.88	2296.88	.00	2297.68	.79	4.22	.00	2294.00
1864.0	991.9	836.6	35.6	250.0	86.0	10.1	31.6	22.1	2294.50
.17	3.97	9.73	3.52	.050	.030	.050	.000	2293.00	798.60
.007917	590.	540.	510.	0	5	0	.00	214.06	1012.66

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= .66 CWSEL= 2296.88

STA=	799.	866.	888.	905.	916.	927.	938.	948.	954.	959.	964.	970.	975.
PER Q=	3.2	4.2	4.5	3.8	4.4	5.1	5.8	3.1	3.4	3.5	3.8	3.9	
AREA=	31.1	26.5	24.8	19.0	20.5	21.9	23.9	12.4	13.2	13.4	14.0	14.2	
VEL=	1.9	2.9	3.4	3.7	4.0	4.3	4.6	4.7	4.9	4.9	5.0	5.2	
DEPTH=	.5	1.2	1.5	1.7	1.9	2.1	2.3	2.4	2.5	2.5	2.6	2.7	

STA=	975.	980.	1006.	1013.
PER Q=	4.3	44.9	1.9	
AREA=	15.0	86.0	10.1	
VEL=	5.3	9.7	3.5	
DEPTH=	2.8	3.3	1.5	

*SECNO .753
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.753	4.68	2302.68	2302.68	.00	2303.61	.93	3.35	.04	2299.00
1864.0	708.7	1032.6	122.7	201.3	104.6	32.0	35.4	24.3	2299.00
.19	3.52	9.87	3.84	.050	.030	.050	.000	2298.00	847.10
5922	470.	510.	520.	0	8	0	.00	187.38	1034.48

FLOW DISTRIBUTION FOR SECNO= .75 CWSEL= 2302.68

STA=	847.	903.	927.	942.	954.	963.	969.	975.	981.	987.	990.	1015.	1023.
PER Q=	3.1	3.1	3.4	3.9	4.1	3.4	3.9	4.6	5.5	3.1	55.4	5.3	
AREA=	34.0	24.3	21.8	21.4	19.6	14.9	16.2	18.0	20.1	10.7	104.6	22.3	
VEL=	1.7	2.3	2.9	3.4	3.9	4.2	4.4	4.8	5.1	5.3	9.9	4.5	
DEPTH=	.6	1.0	1.5	1.8	2.2	2.5	2.7	3.0	3.4	3.6	4.2	2.8	

STA=	1023.	1034.
PER Q=	1.3	
AREA=	9.7	
VEL=	2.4	
DEPTH=	.8	

*SECNO .849
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.849	3.25	2309.25	2309.25	.00	2309.93	.68	3.48	.02	2306.50
1864.0	594.7	796.0	473.3	183.6	86.4	112.7	39.6	27.0	2306.50
.22	3.24	9.21	4.20	.050	.030	.050	.000	2306.00	801.81
.008072	505.	510.	500.	0	19	0	.00	284.03	1085.84

ECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= .85 CWSEL= 2309.25

STA=	802.	850.	872.	946.	963.	971.	980.	990.	1019.	1024.	1029.	1038.	1047.
PER Q=	7.2	3.1	3.2	4.3	3.3	4.3	6.5	42.7	3.6	3.2	5.6	4.6	
AREA=	46.9	21.9	32.6	23.8	15.5	18.2	24.7	86.4	12.9	12.0	22.3	19.3	
VEL=	2.9	2.7	1.8	3.3	4.0	4.4	4.9	9.2	5.2	5.0	4.7	4.4	
DEPTH=	1.0	1.0	.4	1.4	1.8	2.1	2.5	3.0	2.7	2.5	2.3	2.1	

STA=	1047.	1056.	1070.	1086.
PER Q=	3.6	3.6	1.2	
AREA=	16.8	19.8	9.7	
VEL=	4.0	3.4	2.3	
DEPTH=	1.8	1.4	.6	

*SECNO .944
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.944	3.05	2316.05	2316.05	.00	2316.79	.74	4.66	.02	2313.50
1864.0	524.3	646.5	693.1	129.0	64.3	149.6	43.7	29.8	2314.00
.24	4.06	10.05	4.63	.050	.030	.050	.000	2313.00	887.89
1083	485.	500.	500.	0	11	0	.00	222.24	1110.12

FLOW DISTRIBUTION FOR SECNO= .94 CWSEL= 2316.05

STA=	888.	913.	937.	954.	963.	972.	979.	986.	1010.	1062.	1070.	1085.	1110.
PER Q=	3.5	4.4	3.5	3.1	4.4	4.2	5.1	34.7	28.9	3.6	3.7	1.0	
AREA=	21.7	25.2	19.2	13.9	17.1	15.0	16.8	64.3	106.6	14.1	19.0	10.0	
VEL=	3.0	3.2	3.4	4.2	4.8	5.2	5.6	10.0	5.0	4.7	3.7	1.9	
DEPTH=	.9	1.0	1.1	1.5	1.9	2.1	2.4	2.7	2.0	1.8	1.2	.4	

*SECNO 1.039
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.039	4.82	2322.82	2322.82	.00	2323.90	1.09	4.19	.10	2319.00
1864.0	50.0	1048.8	765.2	13.1	99.3	189.6	47.4	32.0	2319.00
.26	3.82	10.57	4.03	.050	.030	.050	.000	2318.00	982.13
.006508	435.	500.	530.	0	14	0	.00	147.60	1129.73

[illegible]NO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
[illegible]	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 1.04 CWSEL= 2322.82

STA=	982.	989.	1012.	1018.	1023.	1029.	1035.	1041.	1047.	1059.	1071.	1090.	1130.
PER Q=	2.7	56.3	6.4	5.3	4.5	4.1	3.6	3.1	5.0	3.6	3.5	2.0	
AREA=	13.1	99.3	20.9	18.6	16.9	16.3	15.1	13.9	24.2	20.0	23.2	20.6	
VEL=	3.8	10.6	5.7	5.3	4.9	4.7	4.4	4.2	3.8	3.3	2.8	1.8	
DEPTH=	1.9	4.3	3.7	3.3	3.0	2.7	2.5	2.3	2.0	1.6	1.3	.5	

*SECNO 1.137
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.137	3.32	2330.32	2330.32	.00	2331.09	.76	4.16	.03	2328.00
1864.0	928.0	703.5	232.5	207.8	70.5	61.9	51.2	34.1	2328.00
.28	4.47	9.98	3.76	.050	.030	.050	.000	2327.00	847.79
.010226	580.	520.	450.	0	19	0	.00	220.93	1068.72

FLOW DISTRIBUTION FOR SECNO= 1.14 CWSEL= 2330.32

S[illegible]	848.	890.	907.	924.	933.	941.	950.	959.	968.	976.	985.	1010.	1020.
[illegible]=	3.3	3.9	6.1	3.8	4.5	5.2	5.8	5.7	5.8	5.7	37.7	5.4	
AREA=	25.6	21.1	27.6	15.7	17.6	19.1	20.4	20.2	20.4	20.2	70.5	20.7	
VEL=	2.4	3.4	4.1	4.5	4.8	5.1	5.3	5.3	5.3	5.3	10.0	4.9	
DEPTH=	.6	1.2	1.6	1.8	2.0	2.2	2.3	2.3	2.3	2.3	2.8	2.1	

STA=	1020.	1030.	1055.	1069.
PER Q=	3.4	3.4	.3	
AREA=	15.7	21.8	3.7	
VEL=	4.1	2.9	1.4	
DEPTH=	1.6	.9	.3	

*SECNO 1.232
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.232	2.94	2336.94	2336.94	.00	2337.61	.67	5.12	.01	2334.40
1864.0	417.2	616.1	830.7	107.8	62.6	200.6	55.2	36.9	2334.40
.30	3.87	9.85	4.14	.050	.030	.050	.000	2334.00	878.04
.010300	505.	500.	490.	0	15	0	.00	268.23	1146.27

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 1.23 CWSEL= 2336.94

STA=	878.	945.	961.	972.	983.	989.	1012.	1017.	1023.	1029.	1046.	1057.	1068.
PER Q=	3.7	3.8	4.4	6.5	4.0	33.1	4.2	3.6	3.1	7.5	4.5	4.0	
AREA=	31.1	20.1	18.8	24.0	13.7	62.6	14.2	13.0	11.9	30.7	19.2	17.8	
VEL=	2.2	3.5	4.4	5.0	5.5	9.8	5.5	5.2	4.9	4.6	4.4	4.2	
DEPTH=	.5	1.2	1.7	2.1	2.4	2.7	2.4	2.2	2.0	1.9	1.7	1.6	

STA=	1068.	1079.	1090.	1106.	1123.	1144.	1146.
PER Q=	3.7	3.3	4.3	3.3	3.1	.0	
AREA=	17.0	15.9	21.9	18.9	20.0	.3	
VEL=	4.0	3.9	3.6	3.3	2.9	.7	
DEPTH=	1.5	1.4	1.3	1.1	.9	.1	

*SECNO 1.330
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.330	2.76	2343.76	2343.76	.00	2344.27	.51	5.20	.02	2341.40
1864.0	939.1	537.7	387.3	269.4	58.4	110.2	60.0	40.9	2341.50
.33	3.49	9.20	3.51	.050	.030	.050	.000	2341.00	705.76
9964	475.	520.	550.	0	11	0	.00	412.11	1117.87

FLOW DISTRIBUTION FOR SECNO= 1.33 CWSEL= 2343.76

STA=	706.	810.	840.	862.	884.	899.	914.	928.	943.	958.	972.	979.	986.
PER Q=	3.3	3.3	3.3	4.4	3.4	3.9	4.3	4.9	5.4	6.0	3.7	4.3	
AREA=	36.1	24.0	21.2	25.3	18.4	20.0	21.2	22.9	24.4	25.5	14.4	15.8	
VEL=	1.7	2.6	2.9	3.2	3.5	3.6	3.8	4.0	4.2	4.4	4.8	5.1	
DEPTH=	.3	.8	1.0	1.1	1.3	1.4	1.4	1.6	1.7	1.8	2.1	2.3	

STA=	986.	1009.	1018.	1026.	1041.	1057.	1080.	1118.
PER Q=	28.8	4.6	3.0	4.8	3.6	3.3	1.5	
AREA=	58.4	18.1	13.3	23.0	19.5	21.5	14.7	
VEL=	9.2	4.7	4.2	3.9	3.5	2.8	1.9	
DEPTH=	2.5	2.0	1.7	1.5	1.3	.9	.4	

*SECNO 1.450
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.450	3.06	2352.06	2352.06	.00	2352.64	.58	5.77	.02	2349.40
1864.0	668.0	614.2	581.8	172.7	65.8	173.9	66.0	46.3	2349.30
.36	3.87	9.33	3.34	.050	.030	.050	.000	2349.00	849.12
.008686	600.	630.	645.	0	8	0	.00	347.42	1196.54

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 1.45 CWSEL= 2352.06

STA=	849.	906.	921.	937.	953.	961.	969.	977.	984.	1007.	1015.	1022.	1031.
PER Q=	3.6	3.1	4.5	6.2	3.8	4.2	4.8	5.5	32.9	5.3	4.1	3.9	
AREA=	31.0	18.8	23.4	28.4	15.9	16.8	18.4	20.0	65.8	18.9	16.1	16.8	
VEL=	2.2	3.1	3.6	4.1	4.4	4.6	4.9	5.2	9.3	5.2	4.7	4.3	
DEPTH=	.5	1.2	1.5	1.8	2.0	2.2	2.4	2.6	2.9	2.6	2.2	2.0	

STA=	1031.	1039.	1056.	1081.	1114.	1197.
PER Q=	3.3	4.8	4.0	3.3	2.6	
AREA=	15.1	25.1	26.0	25.9	30.0	
VEL=	4.0	3.6	2.9	2.4	1.6	
DEPTH=	1.8	1.5	1.0	.8	.4	

*SECNO 1.563
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.563	2.70	2359.70	2359.70	.00	2360.27	.57	5.95	.00	2357.50
1864.0	248.4	439.9	1175.8	59.8	43.8	286.8	71.3	50.6	2357.50
.39	4.15	10.05	4.10	.050	.030	.050	.000	2357.00	936.76
2625	615.	600.	535.	0	15	0	.00	321.41	1258.17

FLOW DISTRIBUTION FOR SECNO= 1.56 CWSEL= 2359.70

STA=	937.	967.	979.	990.	1008.	1015.	1070.	1088.	1100.	1112.	1130.	1155.	1173.
PER Q=	3.7	4.1	5.6	23.6	4.1	23.8	7.2	4.4	3.9	5.1	5.5	3.2	
AREA=	22.3	17.4	20.2	43.8	14.6	93.3	29.2	18.4	17.2	23.8	27.7	18.1	
VEL=	3.1	4.4	5.2	10.1	5.2	4.7	4.6	4.4	4.2	4.0	3.7	3.3	
DEPTH=	.7	1.5	1.9	2.4	1.9	1.7	1.6	1.5	1.4	1.3	1.1	1.0	

STA=	1173.	1197.	1258.
PER Q=	3.2	2.8	
AREA=	20.1	24.4	
VEL=	3.0	2.1	
DEPTH=	.8	.4	

*SECNO 1.705
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.705	2.36	2369.36	2369.36	.00	2369.91	.55	9.62	.00	2368.00
1864.0	1081.2	549.1	233.7	257.3	61.4	70.2	77.6	56.0	2368.00
.43	4.20	8.94	3.33	.050	.030	.050	.000	2367.00	764.89
.014268	680.	750.	730.	0	15	0	.00	340.16	1105.04

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 1.71 CWSEL= 2369.36

STA=	765.	807.	820.	957.	970.	982.	1015.	1028.	1048.	1075.	1105.
PER Q=	3.2	3.2	43.7	3.9	3.9	29.5	3.7	4.2	3.3	1.3	
AREA=	21.7	15.2	186.9	16.9	16.7	61.4	16.8	21.2	20.3	11.9	
VEL=	2.7	4.0	4.4	4.4	4.4	8.9	4.1	3.7	3.0	2.1	
DEPTH=	.5	1.2	1.4	1.4	1.4	1.9	1.3	1.1	.8	.4	

*SECNO 1.806
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.806	3.51	2376.51	2376.51	.00	2377.22	.72	5.75	.05	2373.50
1864.0	971.7	653.4	238.9	242.8	64.8	58.3	82.2	59.6	2373.50
.45	4.00	10.08	4.10	.050	.030	.050	.000	2373.00	803.84
.008659	525.	530.	515.	0	14	0	.00	258.34	1062.18

FLOW DISTRIBUTION FOR SECNO= 1.81 CWSEL= 2376.51

	804.	870.	893.	911.	923.	934.	946.	958.	963.	969.	975.	981.	988.
Q=	3.1	4.1	4.4	3.8	4.6	5.3	6.1	3.4	3.6	3.8	4.6	5.3	
AREA=	30.4	25.9	24.0	18.6	21.1	22.7	24.7	13.3	13.7	14.2	16.4	17.7	
VEL=	1.9	2.9	3.4	3.8	4.1	4.3	4.6	4.8	4.9	5.0	5.2	5.6	
DEPTH=	.5	1.1	1.4	1.6	1.8	2.0	2.1	2.3	2.4	2.5	2.6	2.9	

STA=	988.	1008.	1015.	1022.	1047.	1062.
PER Q=	35.1	6.0	3.6	3.1	.1	
AREA=	64.8	20.7	14.4	20.5	2.6	
VEL=	10.1	5.4	4.6	2.8	1.0	
DEPTH=	3.2	2.8	2.2	.8	.2	

*SECNO 1.899

1.899	3.39	2380.39	2380.24	.00	2380.95	.57	3.72	.01	2377.70
1864.0	683.0	709.4	471.6	192.4	81.5	134.9	86.4	62.4	2377.70
.47	3.55	8.70	3.50	.050	.030	.050	.000	2377.00	855.27
.006952	460.	490.	510.	3	15	0	.00	257.82	1113.09

FLOW DISTRIBUTION FOR SECNO= 1.90 CWSEL= 2380.39

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	855.	900.	918.	931.	943.	955.	968.	974.	980.	987.	1013.	1020.	1026.
PER Q=	3.7	3.9	3.5	4.2	5.0	5.6	3.2	3.4	4.2	38.1	4.2	3.2	
AREA=	32.1	23.8	19.5	21.9	24.0	25.7	13.9	14.5	17.0	81.5	17.0	13.8	
VEL=	2.2	3.0	3.4	3.6	3.9	4.0	4.2	4.4	4.6	8.7	4.6	4.4	
DEPTH=	.7	1.3	1.6	1.8	1.9	2.1	2.2	2.3	2.5	3.1	2.5	2.3	

STA=	1026.	1038.	1049.	1061.	1080.	1113.
PER Q=	5.4	4.2	3.1	3.4	1.8	
AREA=	24.7	21.2	17.7	22.4	18.0	
VEL=	4.1	3.7	3.3	2.8	1.9	
DEPTH=	2.1	1.8	1.5	1.2	.5	

*SECNO 1.986
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.986	3.93	2386.93	2386.93	.00	2387.81	.88	3.59	.09	2383.50
1864.0	606.2	613.8	644.0	112.9	55.0	152.7	90.2	64.7	2383.50
.49	5.37	11.17	4.22	.050	.030	.050	.000	2383.00	939.43
.009029	485.	460.	415.	0	11	0	.00	186.83	1126.26

FLOW DISTRIBUTION FOR SECNO= 1.99 CWSEL= 2386.93

STA=	939.	959.	965.	980.	985.	990.	1005.	1010.	1015.	1020.	1025.	1035.	1047.
PER Q=	4.4	4.2	13.6	4.8	5.5	32.9	5.2	4.3	3.8	3.3	5.3	4.5	
AREA=	22.4	15.0	44.0	15.2	16.4	55.0	15.9	14.2	13.2	12.2	21.3	20.5	
VEL=	3.6	5.3	5.8	5.9	6.2	11.2	6.1	5.6	5.4	5.1	4.7	4.1	
DEPTH=	1.1	2.6	2.9	3.0	3.3	3.7	3.2	2.8	2.6	2.4	2.1	1.8	

STA=	1047.	1058.	1081.	1126.
PER Q=	3.2	3.3	1.6	
AREA=	16.6	22.0	16.9	
VEL=	3.6	2.8	1.7	
DEPTH=	1.4	1.0	.4	

*SECNO 2.079
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.079	3.01	2393.01	2393.01	.00	2393.55	.53	4.56	.03	2390.40
1864.0	1037.8	451.0	375.2	282.8	45.8	89.8	94.3	67.4	2390.30
.52	3.67	9.84	4.18	.050	.030	.050	.000	2390.00	766.10
.009865	475.	490.	490.	0	14	0	.00	300.37	1066.46

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 2.08 CWSEL= 2393.01

STA=	766.	792.	815.	837.	859.	881.	904.	921.	932.	944.	955.	966.	978.
PER Q=	3.8	3.6	3.6	3.6	3.6	3.7	3.6	3.2	3.7	4.4	5.2	5.9	
AREA=	24.6	22.5	22.6	22.5	22.6	23.0	20.2	16.1	17.4	19.5	21.5	23.0	
VEL=	2.9	3.0	3.0	3.0	3.0	3.0	3.3	3.7	3.9	4.2	4.5	4.7	
DEPTH=	.9	1.0	1.0	1.0	1.0	1.0	1.2	1.4	1.5	1.7	1.9	2.0	

STA=	978.	983.	989.	1005.	1010.	1021.	1032.	1044.	1066.
PER Q=	3.6	4.1	24.2	3.7	5.6	4.5	3.3	2.9	
AREA=	13.0	14.1	45.8	12.6	22.0	19.8	16.6	18.8	
VEL=	5.2	5.5	9.8	5.4	4.8	4.3	3.8	2.9	
DEPTH=	2.3	2.5	2.8	2.5	2.1	1.7	1.4	.8	

*SECNO 2.175

2.175	3.03	2397.03	2396.88	.00	2397.46	.42	3.90	.01	2394.40
1864.0	1299.6	471.8	92.6	387.7	55.0	23.4	98.8	70.7	2394.50
.54	3.35	8.58	3.95	.050	.030	.050	.000	2394.00	662.67
.007531	420.	510.	515.	3	11	0	.00	358.45	1021.12

FLOW DISTRIBUTION FOR SECNO= 2.17 CWSEL= 2397.03

STA=	663.	713.	732.	744.	757.	770.	782.	795.	807.	826.	859.	926.	945.
PER Q=	4.2	4.7	4.4	5.3	5.2	4.5	3.9	3.2	3.7	3.1	4.0	4.2	
AREA=	33.5	26.7	21.9	24.6	24.3	22.1	20.5	18.0	23.3	25.5	35.7	25.1	
VEL=	2.3	3.2	3.7	4.0	4.0	3.8	3.6	3.3	3.0	2.3	2.1	3.1	
DEPTH=	.7	1.4	1.7	1.9	1.9	1.8	1.6	1.4	1.2	.8	.5	1.3	

STA=	945.	958.	970.	982.	988.	1008.	1015.	1021.
PER Q=	3.9	5.1	6.4	3.9	25.3	4.1	.8	
AREA=	20.5	23.9	26.9	15.2	55.0	17.2	6.2	
VEL=	3.6	4.0	4.4	4.8	8.6	4.5	2.5	
DEPTH=	1.6	1.9	2.2	2.5	2.8	2.3	1.0	

*SECNO 2.277

2.277	3.06	2401.06	2400.93	.00	2401.49	.43	4.03	.00	2398.70
1864.0	145.1	387.3	1331.6	37.2	42.9	369.2	104.0	74.4	2398.50
.57	3.91	9.03	3.61	.050	.030	.050	.000	2398.00	965.15
.008580	510.	540.	470.	3	10	0	.00	304.43	1269.58

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 2.28 CWSEL= 2401.06

STA=	965.	985.	990.	1006.	1011.	1021.	1030.	1045.	1112.	1131.	1146.	1156.	1165.
PER Q=	5.0	2.8	20.8	3.3	4.3	3.3	3.2	11.0	3.9	4.1	3.3	3.7	
AREA=	26.1	11.1	42.9	12.7	18.8	15.9	18.5	71.4	23.3	21.4	15.9	17.1	
VEL=	3.6	4.7	9.0	4.8	4.3	3.8	3.2	2.9	3.1	3.6	3.8	4.0	
DEPTH=	1.3	2.2	2.8	2.3	1.9	1.6	1.3	1.1	1.2	1.5	1.6	1.8	

STA=	1165.	1175.	1185.	1195.	1205.	1215.	1225.	1240.	1260.	1270.
PER Q=	4.3	4.7	4.5	3.9	3.5	3.0	3.7	3.4	.3	
AREA=	18.8	20.0	19.4	17.9	16.7	15.4	20.5	21.8	3.4	
VEL=	4.3	4.4	4.3	4.1	3.9	3.7	3.4	2.9	1.6	
DEPTH=	1.9	2.0	1.9	1.8	1.7	1.5	1.4	1.1	.4	

*SECNO 2.372
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.372	3.28	2409.28	2409.28	.00	2410.04	.76	4.49	.10	2406.50
1864.0	542.7	640.3	681.0	123.6	62.1	160.6	108.4	77.3	2406.70
.60	4.39	10.31	4.24	.050	.030	.050	.000	2406.00	910.33
0086	500.	500.	470.	0	8	0	.00	217.00	1127.33

FLOW DISTRIBUTION FOR SECNO= 2.37 CWSEL= 2409.28

STA=	910.	942.	956.	964.	971.	978.	985.	993.	1013.	1020.	1027.	1034.	1042.
PER Q=	4.0	4.8	3.0	3.4	3.9	4.3	5.6	34.3	4.7	4.4	4.1	3.8	
AREA=	24.9	22.3	12.8	13.7	15.0	15.9	19.0	62.1	16.3	16.1	15.4	14.8	
VEL=	3.0	4.0	4.4	4.6	4.9	5.1	5.5	10.3	5.4	5.1	4.9	4.8	
DEPTH=	.8	1.6	1.8	1.9	2.1	2.2	2.5	3.0	2.4	2.2	2.1	2.0	

STA=	1042.	1049.	1056.	1071.	1085.	1107.	1127.
PER Q=	3.5	3.0	5.0	4.0	3.4	.7	
AREA=	13.9	12.8	23.0	19.9	21.2	7.1	
VEL=	4.6	4.4	4.1	3.7	3.0	1.7	
DEPTH=	1.9	1.8	1.6	1.4	1.0	.3	

*SECNO 2.472

2.472	3.87	2413.87	2413.60	.00	2414.55	.68	4.50	.01	2410.50
1864.0	434.3	545.4	884.3	94.9	54.3	201.9	112.6	79.6	2410.50
.62	4.58	10.04	4.38	.050	.030	.050	.000	2410.00	947.78
.007416	510.	525.	530.	4	8	0	.00	166.17	1113.95

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 2.47 CWSEL= 2413.87

STA=	948.	966.	972.	979.	985.	993.	1008.	1015.	1021.	1027.	1033.	1039.	1045.
PER Q=	4.3	3.4	4.0	4.7	6.9	29.3	6.9	4.6	4.4	4.1	3.8	3.6	
AREA=	23.3	14.4	16.1	17.7	23.4	54.3	23.4	16.9	16.3	15.7	15.1	14.5	
VEL=	3.5	4.4	4.7	5.0	5.5	10.0	5.5	5.1	5.0	4.9	4.7	4.6	
DEPTH=	1.3	2.2	2.5	2.7	3.1	3.6	3.1	2.8	2.7	2.6	2.5	2.4	

STA=	1045.	1051.	1057.	1069.	1081.	1099.	1114.
PER Q=	3.4	3.1	5.5	4.4	3.1	.5	
AREA=	13.9	13.3	24.8	21.7	20.3	5.9	
VEL=	4.5	4.4	4.2	3.8	2.8	1.6	
DEPTH=	2.3	2.2	2.1	1.8	1.1	.4	

*SECNO 2.568
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.568	3.73	2419.73	2419.73	.00	2420.45	.72	4.04	.01	2416.70
1864.0	1042.9	582.4	238.7	256.4	55.6	52.4	116.7	81.9	2416.50
.64	4.07	10.48	4.55	.050	.030	.050	.000	2416.00	798.38
3689	500.	510.	505.	0	8	0	.00	239.04	1037.41

FLOW DISTRIBUTION FOR SECNO= 2.57 CWSEL= 2419.73

STA=	798.	864.	884.	899.	914.	924.	934.	944.	954.	964.	969.	974.	979.
PER Q=	3.1	3.1	3.4	4.3	3.4	4.1	4.5	5.2	6.1	3.3	3.4	3.6	
AREA=	29.5	20.5	19.1	22.3	16.4	18.3	19.6	21.3	23.3	12.2	12.4	12.9	
VEL=	2.0	2.8	3.3	3.6	3.9	4.1	4.3	4.6	4.9	5.0	5.1	5.2	
DEPTH=	.4	1.0	1.3	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.5	2.6	

STA=	979.	984.	989.	1006.	1011.	1016.	1026.	1037.
PER Q=	3.8	4.6	31.2	5.0	3.2	3.6	.9	
AREA=	13.4	15.3	55.6	16.4	11.9	16.8	7.3	
VEL=	5.3	5.6	10.5	5.7	5.1	4.0	2.3	
DEPTH=	2.7	2.9	3.4	3.0	2.5	1.7	.6	

*SECNO 2.669

2.669	4.44	2423.44	2423.29	.00	2424.09	.66	3.64	.01	2420.00
1864.0	495.1	738.3	630.6	141.4	78.8	178.5	121.2	84.7	2420.00
.67	3.50	9.37	3.53	.050	.030	.050	.000	2419.00	883.56
.005796	495.	530.	540.	3	11	0	.00	238.92	1122.48

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 2.67 CWSEL= 2423.44

STA=	884.	943.	957.	971.	977.	983.	989.	1009.	1016.	1022.	1029.	1036.	1050.
PER Q=	4.1	3.3	5.9	3.6	4.4	5.3	39.6	5.4	4.1	3.6	3.3	5.6	
AREA=	37.9	21.0	29.6	15.5	17.6	19.7	78.8	20.7	17.5	16.7	15.7	28.5	
VEL=	2.0	3.0	3.7	4.3	4.6	5.0	9.4	4.9	4.4	4.0	3.9	3.6	
DEPTH=	.6	1.5	2.1	2.6	2.9	3.3	3.9	3.2	2.7	2.4	2.2	2.0	

STA=	1050.	1064.	1078.	1099.	1122.
PER Q=	4.6	3.5	3.1	.7	
AREA=	25.4	21.5	23.2	9.3	
VEL=	3.4	3.0	2.5	1.4	
DEPTH=	1.8	1.5	1.1	.4	

*SECNO 2.759
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.759	2.56	2429.56	2429.56	.00	2430.23	.67	3.96	.00	2427.70
1864.0	145.2	473.5	1245.4	36.4	47.0	252.6	125.1	87.3	2427.50
.69	3.99	10.08	4.93	.050	.030	.050	.000	2427.00	948.29
4007	490.	480.	440.	0	11	0	.00	241.09	1189.38

FLOW DISTRIBUTION FOR SECNO= 2.76 CWSEL= 2429.56

STA=	948.	980.	987.	1008.	1015.	1028.	1055.	1069.	1077.	1085.	1092.	1100.	1107.
PER Q=	4.7	3.1	25.4	3.8	3.6	3.4	4.1	3.4	4.3	5.3	6.3	5.6	
AREA=	25.0	11.4	47.0	13.5	16.0	21.1	18.6	12.9	14.7	16.8	18.5	16.5	
VEL=	3.5	5.0	10.1	5.2	4.2	3.0	4.2	4.9	5.4	5.9	6.3	6.4	
DEPTH=	.8	1.7	2.3	1.8	1.3	.8	1.3	1.7	1.9	2.2	2.4	2.5	

STA=	1107.	1113.	1120.	1127.	1133.	1147.	1160.	1189.
PER Q=	5.0	4.5	3.9	3.3	5.3	3.3	1.6	
AREA=	15.2	14.4	13.1	11.9	21.0	15.7	12.7	
VEL=	6.1	5.9	5.5	5.2	4.7	3.9	2.4	
DEPTH=	2.3	2.2	2.0	1.8	1.6	1.2	.4	

*SECNO 2.852

2.852	3.66	2434.66	2434.47	.00	2435.64	.98	5.32	.09	2431.50
1864.0	953.3	773.8	136.9	181.7	72.2	30.1	128.5	89.2	2431.50
.71	5.25	10.71	4.55	.050	.030	.050	.000	2431.00	918.67
.008797	500.	490.	470.	3	11	0	.00	110.99	1029.66

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 2.85 CWSEL= 2434.66

STA=	919.	930.	940.	955.	970.	986.	993.	1014.	1016.	1019.	1030.
PER Q=	2.7	10.2	15.3	8.1	8.6	6.3	41.5	2.6	2.2	2.5	
AREA=	15.1	31.7	47.5	32.5	34.2	20.7	72.2	8.4	7.5	14.2	
VEL=	3.3	6.0	6.0	4.7	4.7	5.7	10.7	5.8	5.5	3.3	
DEPTH=	1.3	3.2	3.2	2.2	2.2	2.9	3.5	3.0	2.8	1.3	

*SECNO 2.932
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.932	5.39	2438.39	2438.39	.00	2439.47	1.08	2.93	.03	2433.70
1864.0	604.0	928.4	331.6	165.6	83.9	70.5	131.4	90.5	2433.70
.72	3.65	11.07	4.70	.050	.030	.050	.000	2433.00	878.82
.005798	410.	420.	415.	0	14	0	.00	153.04	1031.85

FLOW DISTRIBUTION FOR SECNO= 2.93 CWSEL= 2438.39

	879.	925.	938.	951.	961.	970.	980.	983.	987.	1003.	1007.	1010.	1017.
Q=	3.4	3.1	4.0	3.6	4.1	5.8	3.6	4.8	49.8	4.8	3.6	5.3	
AREA=	31.3	19.6	22.8	18.9	20.6	25.2	12.4	14.9	83.9	14.9	12.4	20.5	
VEL=	2.0	3.0	3.3	3.5	3.7	4.3	5.4	6.0	11.1	6.0	5.4	4.8	
DEPTH=	.7	1.5	1.8	1.9	2.1	2.6	3.7	4.4	5.1	4.4	3.7	3.1	

STA=	1017.	1023.	1032.
PER Q=	3.2	1.0	
AREA=	15.1	7.6	
VEL=	3.9	2.4	
DEPTH=	2.3	.9	

*SECNO 3.044

3301 HV CHANGED MORE THAN HVINS

3.044	2.83	2442.83	2442.43	.00	2443.22	.39	3.68	.07	2440.80
1864.0	290.3	351.6	1222.0	94.4	43.9	292.5	136.0	93.1	2440.70
.75	3.07	8.00	4.18	.050	.030	.050	.000	2440.00	879.15
.007926	530.	590.	520.	3	14	0	.00	283.25	1162.41

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 3.04 CWSEL= 2442.83

STA=	879.	951.	967.	976.	986.	989.	1007.	1017.	1026.	1060.	1070.	1085.	1100.
PER Q=	3.2	3.8	3.6	3.7	1.2	18.9	4.1	3.2	10.4	8.0	10.3	7.2	
AREA=	32.8	21.5	17.2	17.5	5.4	43.9	18.8	15.7	53.4	28.3	38.7	31.2	
VEL=	1.8	3.3	3.9	4.0	4.1	8.0	4.0	3.8	3.6	5.3	5.0	4.3	
DEPTH=	.5	1.4	1.8	1.8	1.9	2.5	1.9	1.7	1.6	2.8	2.6	2.1	

STA=	1100.	1120.	1162.
PER Q=	11.6	10.7	
AREA=	46.5	59.9	
VEL=	4.6	3.3	
DEPTH=	2.3	1.4	

*SECNO 3.144

3.144	3.53	2446.53	2446.09	.00	2446.99	.47	3.75	.02	2444.00
1864.0	1349.4	503.5	11.1	338.3	60.7	4.5	141.1	96.1	2444.00
.78	3.99	8.30	2.44	.050	.030	.050	.000	2443.00	801.49
.006438	545.	530.	500.	2	8	0	.00	212.10	1013.59

FLOW DISTRIBUTION FOR SECNO= 3.14 CWSEL= 2446.53

STA=	801.	857.	874.	883.	893.	900.	910.	920.	930.	940.	950.	966.	974.
PER Q=	4.7	5.0	3.4	6.4	6.9	9.3	7.0	5.4	4.2	3.0	5.1	3.3	
AREA=	39.4	28.2	17.1	26.0	24.6	32.8	27.8	23.8	20.3	16.8	27.7	16.3	
VEL=	2.2	3.3	3.8	4.6	5.3	5.3	4.7	4.3	3.8	3.4	3.4	3.8	
DEPTH=	.7	1.6	2.0	2.7	3.3	3.3	2.8	2.4	2.0	1.7	1.7	2.0	

STA=	974.	982.	990.	1010.	1014.
PER Q=	3.9	4.5	27.0	.6	
AREA=	17.9	19.5	60.7	4.5	
VEL=	4.1	4.3	8.3	2.4	
DEPTH=	2.2	2.4	3.0	1.3	

*SECNO 3.233

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3.233	3.60	2452.60	2452.60	.00	2453.29	.68	3.55	.06	2449.70
1864.0	1104.3	497.1	262.6	266.8	45.9	61.9	145.1	98.6	2449.70
.80	4.14	10.83	4.24	.050	.030	.050	.000	2449.00	761.80
.009887	440.	470.	470.	0	8	0	.00	264.53	1052.14

FLOW DISTRIBUTION FOR SECNO= 3.23 CWSEL= 2452.60

STA=	762.	795.	831.	890.	920.	949.	959.	966.	973.	979.	986.	993.	1007.
PER Q=	4.2	3.2	3.2	10.3	10.3	4.1	3.7	4.3	5.1	5.1	5.7	26.7	
AREA=	26.8	22.9	22.0	47.3	47.3	17.9	14.3	15.6	17.3	16.9	18.5	45.9	
VEL=	2.9	2.6	2.7	4.0	4.0	4.3	4.9	5.2	5.6	5.6	5.7	10.8	
DEPTH=	.8	.6	.4	1.6	1.6	1.8	2.1	2.3	2.6	2.6	2.7	3.3	

STA=	1007.	1014.	1022.	1035.	1052.
PER Q=	5.6	3.8	3.4	1.3	
AREA=	18.9	15.4	17.4	10.1	
VEL=	5.6	4.6	3.6	2.4	
DEPTH=	2.6	1.9	1.3	.6	

3.343
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
Q = 1142 cfs: DETERMINED FROM RATIO OF CONTRIBUTING
DRAINAGE AREA TO ENTIRE WATERSHED

3.343	3.25	2458.25	2458.25	.00	2458.70	.44	4.69	.02	2455.80
1142.0	309.2	422.5	410.3	127.6	51.8	161.5	149.6	102.9	2455.70
.84	2.42	8.15	2.54	.050	.030	.050	.000	2455.00	779.35
.006650	545.	580.	545.	0	9	0	.00	425.93	1205.28

FLOW DISTRIBUTION FOR SECNO= 3.34 CWSEL= 2458.25

STA=	779.	911.	955.	967.	976.	982.	988.	1006.	1012.	1020.	1065.	1125.	1148.
PER Q=	3.1	8.4	3.7	3.3	3.6	4.9	37.0	4.8	3.8	3.0	6.7	7.0	
AREA=	34.6	40.9	15.0	12.5	11.1	13.5	51.8	13.1	13.1	19.8	37.8	28.2	
VEL=	1.0	2.4	2.8	3.0	3.7	4.2	8.2	4.2	3.3	1.7	2.0	2.8	
DEPTH=	.3	.9	1.3	1.4	1.9	2.3	2.9	2.3	1.6	.4	.6	1.3	

STA=	1148.	1170.	1188.	1205.
PER Q=	7.0	3.3	.4	
AREA=	28.2	16.5	4.7	
VEL=	2.8	2.3	1.0	
DEPTH=	1.3	.9	.3	

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 3.443

3.443	3.39	2461.39	2461.23	.00	2461.72	.33	3.01	.01	2459.00
1142.0	674.5	386.5	81.0	268.0	54.9	27.5	153.7	107.4	2459.00
.87	2.52	7.04	2.94	.050	.030	.050	.000	2458.00	710.30
.005057	540.	530.	470.	3	6	0	.00	326.65	1036.95

FLOW DISTRIBUTION FOR SECNO= 3.44 CWSEL= 2461.39

STA=	710.	750.	760.	770.	783.	795.	805.	814.	835.	898.	971.	990.	999.
PER Q=	4.2	4.6	7.1	8.2	5.3	3.0	3.0	4.7	3.4	3.2	6.1	6.2	
AREA=	25.2	17.1	22.4	26.7	20.5	13.2	13.2	23.4	29.4	30.6	25.8	20.3	
VEL=	1.9	3.0	3.6	3.5	2.9	2.6	2.6	2.3	1.3	1.2	2.7	3.5	
DEPTH=	.6	1.7	2.2	2.1	1.6	1.4	1.4	1.1	.5	.4	1.4	2.1	

STA=	999.	1018.	1030.	1037.
PER Q=	33.8	6.4	.7	
AREA=	54.9	22.7	4.8	
VEL=	7.0	3.2	1.6	
DEPTH=	2.9	1.9	.7	

*SECNO 3.534

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.534	3.15	2468.15	2468.15	.00	2468.64	.50	2.35	.05	2465.70
1142.0	552.0	471.6	118.3	200.6	58.0	37.9	156.5	110.0	2465.70
.89	2.75	8.13	3.12	.050	.030	.050	.000	2465.00	579.39
.006809	330.	480.	510.	0	15	0	.00	330.35	1041.17

FLOW DISTRIBUTION FOR SECNO= 3.53 CWSEL= 2468.15

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	579.	712.	900.	920.	940.	951.	958.	965.	973.	980.	987.	1007.	1011.
PER Q=	4.0	4.9	5.4	5.4	3.7	3.6	4.5	5.5	5.6	5.9	41.3	3.2	
AREA=	31.7	36.4	22.9	22.9	14.3	11.9	13.7	15.5	15.7	15.6	58.0	8.5	
VEL=	1.4	1.5	2.7	2.7	2.9	3.4	3.7	4.0	4.1	4.3	8.1	4.3	
DEPTH=	.2	.2	1.1	1.1	1.3	1.6	1.9	2.1	2.1	2.3	2.8	2.3	

STA=	1011.	1018.	1032.	1041.
PER Q=	3.6	3.1	.4	
AREA=	11.7	14.3	3.4	
VEL=	3.6	2.5	1.4	
DEPTH=	1.7	1.0	.4	

*SECNO 3.623
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.623	3.51	2474.51	2474.51	.00	2475.21	.70	3.41	.06	2472.00
1142.0	94.9	543.9	503.2	25.8	60.1	147.3	159.3	112.7	2472.00
.92	3.68	9.05	3.42	.050	.030	.050	.000	2471.00	972.27
.007742	460.	470.	480.	0	8	0	.00	157.68	1129.95

FLOW DISTRIBUTION FOR SECNO= 3.62 CWSEL= 2474.51

STA=	972.	984.	990.	1010.	1013.	1019.	1026.	1032.	1046.	1058.	1069.	1083.	1096.
PER Q=	3.5	4.8	47.6	3.2	5.5	4.5	3.6	6.6	5.2	5.1	5.1	3.1	
AREA=	13.4	12.4	60.1	7.6	14.1	12.4	10.9	21.8	17.2	17.0	18.3	13.6	
VEL=	3.0	4.4	9.0	4.8	4.5	4.2	3.8	3.5	3.4	3.4	3.2	2.6	
DEPTH=	1.1	2.2	3.0	2.5	2.2	2.0	1.7	1.5	1.5	1.5	1.4	1.0	

STA=	1096.	1130.
PER Q=	2.1	
AREA=	14.4	
VEL=	1.7	
DEPTH=	.4	

*SECNO 3.713
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.713	3.31	2478.31	2478.31	.00	2478.92	.61	3.47	.01	2475.70
1142.0	303.1	502.8	336.2	93.7	57.8	108.0	161.9	114.5	2475.70
.94	3.23	8.70	3.11	.050	.030	.050	.000	2475.00	906.67
.007230	510.	475.	430.	0	12	0	.00	196.73	1103.40

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 3.71 CWSEL= 2478.31

STA=	907.	943.	952.	961.	970.	978.	984.	987.	1007.	1010.	1016.	1022.	1031.
PER Q=	4.3	3.1	3.1	3.1	4.3	5.2	3.3	44.0	3.3	4.6	3.3	3.3	
AREA=	23.0	11.8	11.8	11.8	13.8	13.6	7.9	57.8	8.1	12.7	10.3	12.4	
VEL=	2.1	3.0	3.0	3.0	3.6	4.4	4.7	8.7	4.6	4.2	3.6	3.1	
DEPTH=	.6	1.3	1.3	1.3	1.7	2.3	2.6	3.0	2.5	2.1	1.7	1.3	

STA=	1031.	1040.	1050.	1059.	1081.	1103.
PER Q=	3.2	3.2	3.2	4.6	.7	
AREA=	12.1	12.2	12.2	21.2	6.9	
VEL=	3.0	3.0	3.0	2.5	1.2	
DEPTH=	1.3	1.3	1.3	1.0	.3	

*SECNO 3.810
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.810	4.14	2482.14	2482.14	.00	2482.84	.70	3.14	.03	2479.00
1142.0	393.8	629.9	118.3	149.6	72.8	29.9	164.8	116.8	2479.00
.96	2.63	8.65	3.96	.050	.030	.050	.000	2478.00	823.00
6478	480.	510.	510.	0	11	0	.00	200.25	1023.24

FLOW DISTRIBUTION FOR SECNO= 3.81 CWSEL= 2482.14

STA=	823.	901.	929.	945.	960.	970.	980.	985.	990.	1010.	1015.	1020.	1023.
PER Q=	3.5	5.1	3.7	3.7	3.3	5.5	4.1	5.6	55.2	5.6	4.1	.6	
AREA=	28.4	27.1	17.7	17.7	13.7	18.7	12.0	14.5	72.8	14.5	12.0	3.5	
VEL=	1.4	2.2	2.4	2.4	2.7	3.3	3.9	4.4	8.6	4.4	3.9	2.0	
DEPTH=	.4	1.0	1.1	1.1	1.4	1.9	2.4	2.9	3.6	2.9	2.4	1.1	

*SECNO 3.897

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.897	4.33	2487.33	2487.33	.00	2488.15	.82	2.50	.03	2483.50
1142.0	226.4	579.0	336.6	48.0	61.0	116.9	167.3	118.6	2483.50
.98	4.71	9.50	2.88	.050	.030	.050	.000	2483.00	971.97
.005684	430.	460.	440.	0	8	0	.00	164.36	1169.92

[illegible]CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
[illegible]	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 3.90 CWSEL= 2487.33

STA=	972.	980.	985.	990.	1005.	1010.	1015.	1025.	1121.	1138.	1170.
PER Q=	3.6	7.7	8.6	50.7	8.2	5.5	3.4	7.1	3.8	1.5	
AREA=	12.5	17.2	18.4	61.0	17.9	14.2	13.3	40.7	18.4	12.4	
VEL=	3.3	5.1	5.3	9.5	5.2	4.4	2.9	2.0	2.4	1.4	
DEPTH=	1.6	3.4	3.7	4.1	3.6	2.8	1.3	.4	1.1	.4	

*SECNO 4.005
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

4.005	4.34	2494.34	2494.34	.00	2495.10	.76	3.67	.01	2491.40
1142.0	405.9	524.8	211.3	108.1	55.2	59.3	170.2	120.6	2491.00
1.00	3.75	9.51	3.56	.050	.030	.050	.000	2490.00	904.32
.007440	560.	570.	570.	0	5	0	.00	149.98	1054.31

FLOW DISTRIBUTION FOR SECNO= 4.01 CWSEL= 2494.34

S[illegible]	904.	943.	955.	965.	970.	975.	980.	985.	989.	1006.	1011.	1016.	1026.
[illegible]=	3.1	3.7	4.8	3.4	4.2	4.8	5.4	6.1	46.0	7.0	3.8	4.0	
AREA=	18.9	14.7	15.7	9.7	11.0	11.7	12.7	13.7	55.2	15.6	10.5	13.9	
VEL=	1.9	2.9	3.5	4.0	4.3	4.6	4.9	5.1	9.5	5.1	4.2	3.3	
DEPTH=	.5	1.2	1.6	1.9	2.2	2.4	2.6	2.8	3.4	2.8	2.1	1.4	

STA=	1026.	1045.	1054.
PER Q=	3.4	.3	
AREA=	16.4	2.9	
VEL=	2.4	1.3	
DEPTH=	.8	.3	

*SECNO 4.090
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

4.090	4.67	2498.67	2498.67	.00	2499.38	.71	2.76	.01	2495.00
1142.0	449.4	568.7	123.9	162.6	62.6	33.3	172.7	122.5	2495.00
1.03	2.76	9.09	3.73	.050	.030	.050	.000	2494.00	815.62
.005075	460.	450.	450.	0	8	0	.00	206.40	1022.02

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.09 CWSEL= 2498.67

STA=	816.	902.	934.	950.	960.	970.	975.	980.	985.	990.	1005.	1010.	1015.
PER Q=	4.3	3.4	3.4	3.3	4.6	3.4	4.3	5.5	7.2	49.8	6.3	3.3	
AREA=	35.9	22.8	16.9	14.4	17.4	10.9	12.6	14.6	17.1	62.6	15.9	10.9	
VEL=	1.4	1.7	2.3	2.6	3.0	3.5	3.9	4.3	4.8	9.1	4.5	3.5	
DEPTH=	.4	.7	1.1	1.4	1.7	2.2	2.5	2.9	3.4	4.2	3.2	2.2	

STA=	1015.	1022.
PER Q=	1.3	
AREA=	6.5	
VEL=	2.2	
DEPTH=	.9	

*SECNO 4.177
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

4.177	3.14	2502.14	2502.14	.00	2502.82	.69	2.61	.00	2499.30
1142.0	279.6	544.8	317.6	72.0	61.2	100.5	175.1	124.3	2499.30
1.05	3.88	8.90	3.16	.050	.030	.050	.000	2499.00	938.14
7261	370.	460.	470.	0	14	0	.00	183.72	1121.86

FLOW DISTRIBUTION FOR SECNO= 4.18 CWSEL= 2502.14

STA=	938.	970.	981.	986.	991.	995.	1015.	1021.	1026.	1032.	1043.	1058.	1079.
PER Q=	3.6	6.4	4.1	4.8	5.7	47.7	6.0	4.7	4.0	4.7	3.6	3.0	
AREA=	17.0	19.4	10.7	11.7	13.1	61.2	14.2	12.1	11.3	16.5	16.0	16.0	
VEL=	2.4	3.8	4.3	4.6	5.0	8.9	4.8	4.4	4.0	3.3	2.6	2.1	
DEPTH=	.5	1.8	2.2	2.5	2.7	3.1	2.6	2.3	2.0	1.5	1.0	.8	

STA=	1079.	1122.
PER Q=	1.8	
AREA=	14.4	
VEL=	1.4	
DEPTH=	.3	

CCHV= .600 CEHV= .800
*SECNO 4.270

NO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .42

3470 ENCROACHMENT STATIONS= 983.7 1016.3 TYPE= 1 TARGET= 32.660
Q = 597 cfs: DETERMINED FROM RATIO OF CONTRIBUTING
DRAINAGE AREA TO ENTIRE WATERSHED

ET RECORD: STA 983.67 & 1016.33 MODEL 4 TO 1
FLOW EXPANSION DOWNSTREAM OF RCB

MAPPED FLOODPLAIN TO CWSEL

4.270	2.62	2506.12	2506.11	.00	2507.32	1.20	4.08	.41	2503.80
597.0	26.2	467.5	103.3	6.9	48.5	21.2	176.8	125.5	2503.80
1.06	3.80	9.63	4.88	.050	.030	.050	.000	2503.50	983.67
.011436	530.	490.	450.	2	15	0	.00	32.66	1016.33

FLOW DISTRIBUTION FOR SECNO= 4.27 CWSEL= 2506.12

STA=	984.	987.	1007.	1013.	1016.
PER Q=	4.4	78.3	13.1	4.3	
AREA=	6.9	48.5	14.4	6.8	
VEL=	3.8	9.6	5.4	3.8	
DEPTH=	2.3	2.5	2.2	2.0	

CCHV= .600 CEHV= .800
*SECNO 4.277

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 2516.60 ELREA= 2513.00

DS FACE: 2 - 6' X 7' RCB

NOTE: CENTERLINE SECTION OF US HWY 60

USED TO CREATE DS FACE SECTION

4.277	4.09	2507.39	2507.39	.00	2509.45	2.07	.16	.69	2503.30
597.0	.0	597.0	.0	.0	51.8	.0	176.9	125.6	2503.30
1.06	.00	11.53	.00	.000	.015	.000	.000	2503.30	993.67
.002074	40.	40.	40.	0	14	0	.00	12.66	1006.33

FLOW DISTRIBUTION FOR SECNO= 4.28 CWSEL= 2507.39

STA= 994. 1006.
PER Q= 100.0
AREA= 51.8
VEL= 11.5
DEPTH= 4.1

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	2	.015	.40	2.80	.00	7.00	6.00	56.80	8	1	2504.00	2503.30

CHART 8 - BOX CULVERT WITH FLARED WINGWALLS; NO INLET TOP EDGE BEVEL
SCALE 1 - WINGWALLS FLARED 30 TO 75 DEGREES

*SECNO 4.288

L CULVERT OUTLET CONTROL
EGIC = 2510.823 EGOC = 2511.228 PCWSE= 2507.388 ELTRD= 2513.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.10

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
2510.82	2511.23	1.77	0.	597.	7.391	84.0	2513.00	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 2516.60 ELREA= 2513.00

US FACE: 2 - 6' X 7' RCB

NOTE: CENTERLINE SECTION OF US HWY 60
USED TO CREATE US FACE SECTION

4.288	6.38	2510.38	.00	.00	2511.23	.85	1.77	.00	2504.00
597.0	.0	597.0	.0	.0	80.8	.0	176.9	125.6	2504.00
1.06	.00	7.39	.00	.000	.015	.000	.000	2504.00	993.67
0470	57.	57.	57.	3	0	0	.00	12.66	1006.33

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    CNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    L-BANK ELEV
    Q       QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA      R-BANK ELEV
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN    SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID   ENDST


FLOW DISTRIBUTION FOR SECNO=      4.29          CWSEL=   2510.38

STA=     994.    1006.
  PER Q=    100.0
   AREA=     80.8
    VEL=      7.4
  DEPTH=      6.4

CCHV=     .600 CEHV=     .800
*SECNO 4.292

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      970.0    1030.0  TYPE=      1  TARGET=       60.000
            ET RECORD: STA 970 & 1030 MODEL 1 TO 1
                       FLOW CONTRACTION UPSTREAM OF RCB

            MAPPED FLOODPLAIN TO CWSEL
    4.292      4.58   2511.58   2508.88      .00   2511.68      .11      .01      .44   2507.00
    97.0     228.7     238.6     129.7    123.5     68.6     67.4    177.0    125.6   2507.00
     1.07      1.85      3.48      1.92     .050     .030     .050     .000  2507.00    970.00
  .000649       20.       20.       20.        3       17        0      .00    60.00   1030.00


FLOW DISTRIBUTION FOR SECNO=      4.29          CWSEL=   2511.58

STA=     970.     974.     981.     988.     994.    1000.    1015.    1022.    1028.    1030.
  PER Q=      3.6      8.6      8.8      8.2      9.1     40.0     10.4     10.2      1.2
   AREA=     17.5     27.0     27.4     25.0     26.5     68.6     29.9     29.5      8.0
    VEL=      1.2      1.9      1.9      2.0      2.0      3.5      2.1      2.1       .9
  DEPTH=      4.0      4.0      4.0      4.2      4.4      4.6      4.5      4.5      4.5

CCHV=     .100 CEHV=     .300
*SECNO 4.358
    4.358      3.48   2511.88   2510.35      .00   2511.96      .08      .27      .00   2508.40
    597.0     251.2     152.4     193.4    178.4     43.5    109.0    179.4    126.6   2508.40
     1.11      1.41      3.50      1.78     .050     .030     .050     .000  2508.40    852.78
  .000948      350.      350.      350.        2       18        0      .00   200.94   1053.72
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.36 CWSEL= 2511.88

STA=	853.	926.	947.	962.	975.	981.	989.	994.	1006.	1014.	1026.	1035.	1047.
PER Q=	4.0	4.6	6.3	8.3	5.4	7.7	5.8	25.5	9.0	13.0	6.3	3.8	
AREA=	36.3	26.2	27.3	30.5	17.8	23.5	16.9	43.5	25.7	39.8	21.9	18.3	
VEL=	.7	1.1	1.4	1.6	1.8	2.0	2.1	3.5	2.1	2.0	1.7	1.2	
DEPTH=	.5	1.2	1.8	2.4	2.8	3.1	3.4	3.5	3.4	3.1	2.6	1.6	

STA=	1047.	1054.
PER Q=	.3	
AREA=	3.2	
VEL=	.5	
DEPTH=	.4	

*SECNO 4.428
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

4.428	1.93	2515.73	2515.73	.00	2516.19	.46	.80	.11	2513.80
597.0	107.1	215.0	274.9	30.4	27.2	85.8	181.3	128.1	2513.80
1.13	3.52	7.91	3.20	.050	.030	.050	.000	2513.80	965.37
0639	320.	370.	370.	0	11	0	.00	157.92	1123.29

FLOW DISTRIBUTION FOR SECNO= 4.43 CWSEL= 2515.73

STA=	965.	986.	995.	998.	1012.	1018.	1028.	1040.	1055.	1077.	1111.	1123.
PER Q=	5.1	8.6	4.3	36.0	8.2	10.8	9.6	8.5	5.7	3.0	.2	
AREA=	12.3	12.7	5.4	27.2	10.8	15.9	15.5	15.8	14.6	11.6	1.5	
VEL=	2.5	4.1	4.7	7.9	4.5	4.1	3.7	3.2	2.3	1.6	.7	
DEPTH=	.6	1.5	1.9	1.9	1.8	1.5	1.3	1.1	.6	.3	.1	

*SECNO 4.510

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .50

Q = 199 cfs: DETERMINED FROM RATIO OF CONTRIBUTING
DRAINAGE AREA TO ENTIRE WATERSHED

4.510	1.36	2519.66	2519.35	.00	2519.77	.11	3.55	.03	2518.50
199.0	25.2	54.7	119.1	13.6	13.6	63.2	182.4	129.3	2518.40
1.18	1.85	4.03	1.89	.050	.030	.050	.000	2518.30	978.22
.004637	430.	430.	420.	4	11	0	.00	104.29	1082.52

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.51 CWSEL= 2519.66

STA=	978.	988.	993.	996.	1006.	1014.	1022.	1030.	1042.	1056.	1062.	1069.	1075.
PER Q=	4.3	5.1	3.2	27.5	11.3	11.2	6.7	6.7	6.9	4.6	6.9	4.8	
AREA=	5.7	5.0	2.9	13.6	9.6	10.0	7.0	8.3	9.0	5.2	6.7	5.4	
VEL=	1.5	2.0	2.2	4.0	2.4	2.2	1.9	1.6	1.5	1.8	2.0	1.8	
DEPTH=	.6	1.0	1.2	1.3	1.3	1.2	.9	.7	.7	.8	1.0	.8	

STA=	1075.	1083.
PER Q=	.9	
AREA=	2.0	
VEL=	.9	
DEPTH=	.3	

*SECNO 4.572
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

4.572	1.71	2524.61	2524.61	.00	2525.09	.48	2.17	.11	2523.00
199.0	30.1	113.4	55.4	10.7	16.3	19.8	182.9	129.9	2523.00
1.20	2.83	6.95	2.80	.050	.030	.050	.000	2522.90	981.71
9993	330.	330.	330.	0	11	0	.00	50.99	1032.71

FLOW DISTRIBUTION FOR SECNO= 4.57 CWSEL= 2524.61

STA=	982.	991.	995.	1005.	1014.	1029.	1033.
PER Q=	4.3	10.9	57.0	19.4	8.3	.1	
AREA=	4.5	6.1	16.3	11.2	8.2	.4	
VEL=	1.9	3.5	7.0	3.5	2.0	.7	
DEPTH=	.5	1.3	1.7	1.3	.6	.1	

*SECNO 4.699
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 910.0 1150.0 TYPE= 1 TARGET= -910.000
ELENCL= 2537.00 ELENCR= 100000.00
X3 RECORD: STA 910 ELIMINATE INEFFECTIVE
FLOW AREA IN LEFT OVERBANK

4.699	2.06	2533.06	2533.06	.00	2533.54	.48	6.18	.00	2531.50
199.0	39.2	122.5	37.3	16.1	18.1	14.1	183.7	130.7	2531.50
1.24	2.43	6.76	2.65	.050	.030	.050	.000	2531.00	971.74
.008491	670.	670.	680.	0	11	0	.00	51.31	1023.05

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.70 CWSEL= 2533.06

STA=	972.	990.	995.	1005.	1011.	1022.	1023.
PER Q=	8.9	10.8	61.6	12.9	5.8	.0	
AREA=	9.6	6.6	18.1	7.9	6.2	.0	
VEL=	1.9	3.3	6.8	3.3	1.9	.0	
DEPTH=	.5	1.3	1.8	1.3	.6	.0	

*SECNO 4.796
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

4.796	1.67	2538.67	2538.67	.00	2539.01	.35	4.85	.01	2537.50
199.0	86.8	91.4	20.9	34.7	14.2	9.3	184.3	131.5	2537.50
1.27	2.50	6.44	2.25	.050	.030	.050	.000	2537.00	942.54
.010701	510.	510.	510.	0	15	0	.00	81.14	1023.69

FLOW DISTRIBUTION FOR SECNO= 4.80 CWSEL= 2538.67

STA=	943.	960.	975.	996.	1006.	1011.	1024.
PER Q=	4.3	11.8	27.4	45.9	7.3	3.1	
AREA=	5.8	10.0	18.8	14.2	5.0	4.2	
VEL=	1.5	2.3	2.9	6.4	2.9	1.5	
DEPTH=	.3	.7	.9	1.4	.9	.3	

*SECNO 4.890
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

4.890	1.91	2543.91	2543.91	.00	2544.46	.55	5.26	.06	2542.30
199.0	55.4	122.9	20.7	18.8	17.1	6.6	184.9	132.2	2542.50
1.29	2.95	7.19	3.12	.050	.030	.050	.000	2542.00	971.37
.010375	500.	500.	490.	0	8	0	.00	40.45	1011.82

FLOW DISTRIBUTION FOR SECNO= 4.89 CWSEL= 2543.91

STA=	971.	985.	995.	1005.	1010.	1012.
PER Q=	5.6	22.3	61.8	9.7	.7	
AREA=	6.2	12.6	17.1	5.8	.8	
VEL=	1.8	3.5	7.2	3.3	1.7	
DEPTH=	.5	1.3	1.7	1.2	.5	

NO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .600 CEHV= .800
*SECNO 4.946

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 2553.00 ELREA= 2553.10

DS FACE: 1 - 6' X 6' RCB

NOTE: CENTERLINE SECTION OF OLD US HWY 60
USED TO CREATE DS FACE SECTION OF RCB

4.946	3.24	2547.64	2547.64	.00	2549.27	1.63	1.22	.87	2544.40
199.0	.0	199.0	.0	.0	19.4	.0	185.1	132.3	2544.40
1.30	.00	10.25	.00	.000	.015	.000	.000	2544.40	997.00
.002238	292.	292.	292.	0	14	0	.00	6.00	1003.00

STRIBUTION FOR SECNO= 4.95 CWSEL= 2547.64

STA= 997. 1003.
PER Q= 100.0
AREA= 19.4
VEL= 10.3
DEPTH= 3.2

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	1	.015	.40	2.80	.00	6.00	6.00	60.00	8	1	2545.30	2544.40

CHART 8 - BOX CULVERT WITH FLARED WINGWALLS; NO INLET TOP EDGE BEVEL
SCALE 1 - WINGWALLS FLARED 30 TO 75 DEGREES

*SECNO 4.957

SPECIAL CULVERT OUTLET CONTROL
EGIC = 2550.474 EGOC = 2550.816 PCWSE= 2547.635 ELTRD= 2553.000

3301 HV CHANGED MORE THAN HVINS

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.91

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
2550.47	2550.82	1.55	0.	199.	6.960	36.0	2553.00	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 2553.00 ELREA= 2553.10

US FACE: 1 6' X 6' RCB

NOTE: CENTERLINE SECTION OF OLD US HWY 60
USED TO CREATE US FACE SECTION OF RCB

4.957	4.76	2550.06	.00	.00	2550.82	.75	1.55	.00	2545.30
199.0	.0	199.0	.0	.0	28.6	.0	185.1	132.3	2545.30
1.30	.00	6.96	.00	.000	.015	.000	.000	2545.30	997.00
00616	60.	60.	60.	3	0	0	.00	6.00	1003.00

FLOW DISTRIBUTION FOR SECNO= 4.96 CWSEL= 2550.06

STA= 997. 1003.
PER Q= 100.0
AREA= 28.6
VEL= 7.0
DEPTH= 4.8

CCHV= .600 CEHV= .800
*SECNO 4.959

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 987.0 1013.0 TYPE= 1 TARGET= 26.000
ET RECORD: STA 987 & 1013 MODEL 1 TO 1
FLOW CONTRACTION UPSTREAM OF RCB

MAPPED FLOODPLAIN TO CWSEL

4.959	4.13	2551.13	2548.49	.00	2551.22	.09	.01	.40	2547.10
199.0	49.5	99.2	50.3	35.3	32.7	35.8	185.1	132.4	2547.10
1.31	1.40	3.04	1.41	.050	.030	.050	.000	2547.00	987.00
.000575	10.	10.	10.	3	17	0	.00	26.00	1013.00

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.96 CWSEL= 2551.13

STA=	987.	996.	1004.	1013.
PER Q=	24.9	49.8	25.3	
AREA=	35.3	32.7	35.8	
VEL=	1.4	3.0	1.4	
DEPTH=	3.9	4.1	4.0	

CCHV= .100 CEHV= .300
*SECNO 5.054
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

5.054	1.85	2554.85	2554.85	.00	2555.32	.47	.76	.11	2553.60
199.0	11.4	95.8	91.8	5.0	13.2	29.1	186.0	132.8	2553.20
1.33	2.27	7.25	3.16	.050	.030	.050	.000	2553.00	987.96
.011086	500.	500.	500.	0	14	0	.00	53.30	1041.26

FLOW DISTRIBUTION FOR SECNO= 5.05 CWSEL= 2554.85

	988.	996.	1004.	1010.	1020.	1033.	1041.
Q=	5.7	48.1	18.5	18.4	8.4	.8	
AREA=	5.0	13.2	9.0	11.0	7.5	1.5	
VEL=	2.3	7.3	4.1	3.3	2.2	1.0	
DEPTH=	.6	1.7	1.5	1.1	.6	.2	

*SECNO 5.152
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

5.152	1.37	2563.37	2563.37	.00	2563.72	.36	6.18	.01	2562.00
199.0	99.7	71.1	28.2	32.6	10.3	10.2	186.6	133.6	2562.00
1.37	3.06	6.93	2.77	.050	.030	.050	.000	2562.00	941.39
.012906	510.	520.	520.	0	19	0	.00	76.70	1018.08

FLOW DISTRIBUTION FOR SECNO= 5.15 CWSEL= 2563.37

STA=	941.	948.	959.	970.	978.	985.	993.	1000.	1010.	1018.
PER Q=	.7	3.5	3.5	5.7	15.3	21.4	35.7	13.3	.8	
AREA=	1.2	4.0	4.0	4.6	8.4	10.3	10.3	8.7	1.5	
VEL=	1.1	1.7	1.7	2.4	3.6	4.2	6.9	3.1	1.1	
DEPTH=	.2	.4	.4	.6	1.1	1.4	1.4	.9	.2	

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 5.251

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

5.251	1.18	2571.18	2571.18	.00	2571.39	.21	5.99	.01	2570.00
199.0	46.8	62.1	90.1	29.3	11.1	34.3	187.4	135.2	2570.00
1.41	1.60	5.62	2.63	.050	.030	.050	.000	2570.00	859.36
.010359	520.	520.	520.	0	15	0	.00	199.45	1074.10

FLOW DISTRIBUTION FOR SECNO= 5.25 CWSEL= 2571.18

STA=	859.	934.	972.	991.	1000.	1009.	1019.	1028.	1038.	1057.	1074.
PER Q=	3.6	3.2	4.2	12.6	31.2	18.9	14.9	7.4	3.0	1.0	
AREA=	8.4	6.6	5.6	8.7	11.1	11.2	9.6	6.4	4.7	2.4	
VEL=	.9	1.0	1.5	2.9	5.6	3.4	3.1	2.3	1.3	.8	
DEPTH=	.1	.2	.3	.9	1.2	1.2	1.0	.7	.3	.1	

5.340

.340	1.85	2575.85	2575.78	.00	2576.32	.47	4.85	.08	2574.20
199.0	73.1	97.0	28.8	21.4	13.6	10.5	188.0	136.5	2574.40
1.43	3.41	7.14	2.75	.050	.030	.050	.000	2574.00	976.61
.010296	450.	470.	490.	3	14	0	.00	41.88	1018.49

FLOW DISTRIBUTION FOR SECNO= 5.34 CWSEL= 2575.85

STA=	977.	980.	990.	996.	1004.	1010.	1018.
PER Q=	1.2	17.7	17.8	48.8	11.4	3.1	
AREA=	1.4	11.0	9.0	13.6	6.9	3.6	
VEL=	1.7	3.2	3.9	7.1	3.3	1.7	
DEPTH=	.4	1.1	1.5	1.7	1.1	.4	

T1 FLOODWAY DETERMINATION
T2 1.0 FT TARGET INCREASE
T3 WASH AH5: SOLS WASH TRIBUTARY

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		3							2259.73	

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

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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*PROF 2

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS
0

CCHV=     .100 CEHV=     .300
1490 NH CARD USED
*SECNO  .189
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      858.0    1458.0  TYPE=      1  TARGET=     -858.000
 ELENCL=   2259.10  ELENCR= 100000.00
            CONFLUENCE OF WASH AB5: SOLS WASH TRIBUTARY
            AND SOLS WASH BETWEEN CROSS-SECTIONS
                BB (SOLS WASH RIVER MILE 4.87)
                BD (SOLS WASH RIVER MILE 5.08)
            CROSS-SECTION DESIGNATION FROM
                SOLS WASH FLOODPLAIN DELINEATION
                HASSAYAMPA RIVER TO MARICOPA COUNTY LINE
                CELLA BARR ASSOCIATES

            CROSS-SECTION TAKEN FROM SOLS WASH FLOODPLAIN DELINEATION
            CROSS-SECTION IS 4.98 IN SOLS WASH FLOODPLAIN DELINEATION

            SWSE DETERMINED BY SLOPE AREA METHOD

            Q = 2129 cfs FROM HEC-1 MODEL (SAH120)

            X3 RECORD: STA 858 ELIMINATE INEFFECTIVE
                       FLOW AREA IN LEFT OVERBANK
     .189      4.35   2259.75   2259.75   2259.73   2260.16       .41       .00       .00   2256.70
   2129.0    1419.1     446.6     263.3     425.2      48.8      82.9        .0        .0   2256.70
     .00      3.34      9.16      3.18      .043      .030      .045      .000   2255.40    536.06
  .007733       0.        0.        0.         0         4         0       .00    576.75   1112.81


CCHV=     .100 CEHV=     .300
*SECNO  .305
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      900.0    1180.0  TYPE=      1  TARGET=     -900.000
 ELENCL=   2268.00  ELENCR= 100000.00
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        X3 RECORD: STA 900 ELIMINATE INEFFECTIVE
                   FLOW AREA IN LEFT OVERBANK
     .305      3.70   2269.70   2269.70   2269.69   2269.78       .08      3.13       .03   2268.00
   2129.0    1912.4     183.5      33.0     914.0      51.1      19.4      13.7      10.6   2268.00
     .09      2.09      3.59      1.70      .050      .030      .050      .000   2266.00    402.35
  .002580      800.      610.      560.         0        12         0       .00    625.43   1027.78


*SECNO  .362

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      772.3    1008.3  TYPE=      1  TARGET=      235.980
     .362      3.01   2273.01   2273.01   2273.00   2273.77       .76      1.59       .20   2270.00
   2129.0    1572.5     539.2      17.3     328.5      48.2       5.0      18.9      14.0   2270.00
     .11      4.79     11.19      3.46      .050      .030      .050      .000   2270.00    772.32
  .011733      340.      300.      305.         0        15         0       .00    235.98   1008.30


*SECNO  .393
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      837.8    1022.1  TYPE=      1  TARGET=      184.270
     .393      3.37   2275.37   2275.37   2275.35   2276.29       .92      1.84       .05   2272.00
   2129.0    1160.1     865.3     103.6     250.9      80.9      23.2      20.5      14.8   2272.00
     .12      4.62     10.70      4.47      .050      .030      .050      .000   2272.00    837.79
  .009228      185.      165.      155.         0         8         0       .00    184.27   1022.06


*SECNO  .484
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      778.2    1093.9  TYPE=      1  TARGET=      315.700
     .484      2.59   2282.59   2282.59   2282.58   2283.22       .63      4.46       .03   2280.00
   2129.0    1430.1     533.4     165.4     325.0      51.8      48.1      24.1      17.2   2280.00
     .14      4.40     10.29      3.44      .050      .030      .050      .000   2280.00    778.16
  .012115      385.      480.      500.         0        19         0       .00    315.70   1093.86


*SECNO  .554
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      953.2    1074.0  TYPE=      1  TARGET=      120.850
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Q = 1864 cfs: DETERMINED FROM RATIO OF CONTRIBUTING
DRAINAGE AREA TO ENTIRE WATERSHED

.554	3.83	2288.53	2288.53	2288.49	2289.64	1.11	3.81	.14	2285.00
1864.0	382.4	854.5	627.1	72.6	75.9	131.4	27.0	19.0	2285.20
.15	5.27	11.26	4.77	.050	.030	.050	.000	2284.70	953.15
.009098	340.	370.	390.	0	14	0	.00	120.85	1074.00

*SECNO .656
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 888.0 1012.7 TYPE= 1 TARGET= 124.660

.656	3.84	2296.84	2296.84	2296.88	2297.89	1.05	5.19	.01	2294.00
1864.0	917.5	908.7	37.8	188.9	84.9	9.8	30.6	20.6	2294.50
.17	4.86	10.70	3.85	.050	.030	.050	.000	2293.00	888.00
.009735	590.	540.	510.	0	5	0	.00	124.63	1012.63

*SECNO .753
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 942.0 1034.5 TYPE= 1 TARGET= 92.480

.753	4.60	2302.60	2302.60	2302.68	2303.96	1.36	4.32	.09	2299.00
1864.0	576.3	1154.7	133.1	117.3	102.6	30.4	33.6	21.8	2299.00
.18	4.91	11.26	4.37	.050	.030	.050	.000	2298.00	942.00
007902	470.	510.	520.	0	11	0	.00	91.77	1033.77

*SECNO .849

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 801.8 1085.8 TYPE= 1 TARGET= 284.030

.849	3.26	2309.26	2309.26	2309.25	2309.93	.67	3.99	.07	2306.50
1864.0	599.1	791.7	473.2	186.8	86.9	113.9	37.3	24.0	2306.50
.21	3.21	9.11	4.16	.050	.030	.050	.000	2306.00	801.81
.007838	505.	510.	500.	0	16	0	.00	284.03	1085.84

*SECNO .944
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 887.9 1110.1 TYPE= 1 TARGET= 222.230

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 CNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    L-BANK ELEV
         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA      R-BANK ELEV
 TIME    VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN    SSTA
 SLOPE   XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID   ENDST

    .944     3.05  2316.05  2316.05  2316.05  2316.79      .74     4.58      .02  2313.50
  1864.0    524.4    646.4    693.2    129.1     64.4    149.7     41.5     26.8  2314.00
     .23     4.06    10.04     4.63     .050     .030     .050     .000  2313.00   887.89
 .011069     485.     500.     500.        0       11        0      .00   222.23  1110.12


*SECNO 1.039

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      982.1    1071.0  TYPE=      1  TARGET=      88.870
    1.039     4.75  2322.75  2322.75  2322.82  2324.12     1.37     4.63      .19  2319.00
  1864.0     52.3   1121.4    690.3     12.6     97.7    141.6     44.9     28.6  2319.00
     .25     4.13    11.48     4.88     .050     .030     .050     .000  2318.00   982.25
 .007838     435.     500.     530.        0       14        0      .00    88.75  1071.00


  1.137
7  MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      890.0    1030.0  TYPE=      1  TARGET=     140.000
    1.137     3.32  2330.32  2330.32  2330.32  2331.29      .97     4.98      .04  2328.00
  1864.0    931.2    760.3    172.4    181.5     70.4     36.4     48.1     29.9  2328.00
     .27     5.13    10.79     4.74     .050     .030     .050     .000  2327.00   890.00
 .011981     580.     520.     450.        0       19        0      .00   140.00  1030.00


*SECNO 1.232
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      945.0    1123.0  TYPE=      1  TARGET=     178.000
    1.232     2.95  2336.95  2336.95  2336.94  2337.78      .82     5.90      .01  2334.40
  1864.0    372.8    660.1    831.1     77.1     62.8    182.0     51.6     31.8  2334.40
     .29     4.83    10.51     4.57     .050     .030     .050     .000  2334.00   945.00
 .011683     505.     500.     490.        0       15        0      .00   178.00  1123.00
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CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.330
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 890.0 1057.0 TYPE= 1 TARGET= 167.000

1.330	2.89	2343.89	2343.89	2343.76	2344.75	.86	6.25	.01	2341.40
1864.0	823.7	656.9	383.4	168.3	61.4	80.5	55.3	33.8	2341.50
.31	4.89	10.69	4.76	.050	.030	.050	.000	2341.00	890.00
.012588	475.	520.	550.	0	5	0	.00	167.00	1057.00

*SECNO 1.450
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 921.0 1056.0 TYPE= 1 TARGET= 135.000

1.450	3.10	2352.10	2352.10	2352.06	2353.09	.99	7.58	.04	2349.40
1864.0	655.5	734.2	474.3	126.1	66.8	93.7	59.6	36.0	2349.30
.33	5.20	10.99	5.06	.050	.030	.050	.000	2349.00	921.00
.011810	600.	630.	645.	0	8	0	.00	135.00	1056.00

*SECNO 1.563
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 936.8 1070.0 TYPE= 1 TARGET= 133.240

1.563	3.23	2360.23	2360.23	2359.70	2361.23	1.00	7.18	.00	2357.50
1864.0	443.4	618.4	802.2	87.9	53.3	141.2	63.3	37.7	2357.50
.35	5.05	11.59	5.68	.050	.030	.050	.000	2357.00	936.76
.012899	615.	600.	535.	0	8	0	.00	133.24	1070.00

*SECNO 1.705

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 764.9 1105.0 TYPE= 1 TARGET= 340.150

1.705	2.46	2369.46	2369.36	2369.36	2369.91	.46	8.63	.05	2368.00
1864.0	1085.8	531.2	247.0	278.1	64.6	78.8	69.1	41.6	2368.00
.39	3.90	8.23	3.13	.050	.030	.050	.000	2367.00	764.89
.011295	680.	750.	730.	3	19	0	.00	340.15	1105.04

NO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.806
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 803.8 1062.2 TYPE= 1 TARGET= 258.340

1.806	3.50	2376.50	2376.50	2376.51	2377.22	.72	5.19	.08	2373.50
1864.0	971.1	654.1	238.8	242.1	64.7	58.1	73.8	45.2	2373.50
.41	4.01	10.11	4.11	.050	.030	.050	.000	2373.00	804.06
.008712	525.	530.	515.	0	14	0	.00	258.01	1062.07

*SECNO 1.899

3470 ENCROACHMENT STATIONS= 855.3 1113.1 TYPE= 1 TARGET= 257.820

1.899	3.39	2380.39	2380.26	2380.39	2380.96	.56	3.72	.02	2377.70
1864.0	683.4	708.7	471.9	192.8	81.6	135.2	78.0	48.0	2377.70
.44	3.54	8.69	3.49	.050	.030	.050	.000	2377.00	855.27
.006915	460.	490.	510.	3	12	0	.00	257.82	1113.09

*[illegible]1.986
7[illegible]INIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 939.4 1126.3 TYPE= 1 TARGET= 186.830

1.986	3.95	2386.95	2386.95	2386.93	2387.81	.86	3.53	.09	2383.50
1864.0	605.6	610.6	647.8	114.0	55.3	155.3	81.9	50.3	2383.50
.46	5.31	11.04	4.17	.050	.030	.050	.000	2383.00	939.43
.008761	485.	460.	415.	0	8	0	.00	186.83	1126.26

*SECNO 2.079
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 766.1 1066.5 TYPE= 1 TARGET= 300.360

2.079	3.01	2393.01	2393.01	2393.01	2393.55	.54	4.51	.03	2390.40
1864.0	1036.9	451.8	375.2	281.9	45.8	89.5	86.0	53.0	2390.30
.48	3.68	9.87	4.19	.050	.030	.050	.000	2390.00	766.11
.009950	475.	490.	490.	0	14	0	.00	300.30	1066.42

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.175

3470 ENCROACHMENT STATIONS= 713.0 1021.1 TYPE= 1 TARGET= 308.120

2.175	3.07	2397.07	2396.90	2397.03	2397.52	.46	3.96	.01	2394.40
1864.0	1280.4	487.1	96.5	363.6	55.7	23.9	90.3	56.0	2394.50
.51	3.52	8.75	4.04	.050	.030	.050	.000	2394.00	713.00
.007703	420.	510.	515.	3	11	0	.00	308.12	1021.12

*SECNO 2.277
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 965.2 1125.0 TYPE= 1 TARGET= 159.850

2.277	3.60	2401.60	2401.60	2401.06	2402.49	.89	4.61	.13	2398.70
1864.0	261.8	587.3	1014.9	50.5	51.2	216.8	94.7	58.7	2398.50
.53	5.18	11.46	4.68	.050	.030	.050	.000	2398.00	965.15
.010909	510.	540.	470.	0	11	0	.00	159.85	1125.00

2.372
MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 942.0 1085.0 TYPE= 1 TARGET= 143.000

2.372	3.31	2409.31	2409.31	2409.28	2410.26	.95	5.44	.02	2406.50
1864.0	512.1	693.9	657.9	100.3	62.7	134.3	98.1	60.4	2406.70
.55	5.10	11.06	4.90	.050	.030	.050	.000	2406.00	942.00
.011475	500.	500.	470.	0	15	0	.00	143.00	1085.00

*SECNO 2.472

3470 ENCROACHMENT STATIONS= 947.8 1081.0 TYPE= 1 TARGET= 133.220

2.472	4.05	2414.05	2413.58	2413.87	2414.70	.65	4.41	.03	2410.50
1864.0	457.0	550.5	856.5	102.8	57.0	189.0	102.0	62.0	2410.50
.57	4.45	9.66	4.53	.050	.030	.050	.000	2410.00	947.78
.006443	510.	525.	530.	4	8	0	.00	133.22	1081.00

*SECNO 2.568
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

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 NO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    L-BANK ELEV
        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA      R-BANK ELEV
 TIME   VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN    SSTA
 SLOPE  XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID   ENDST


3470 ENCROACHMENT STATIONS=      884.0    1037.4  TYPE=      1  TARGET=      153.410
    2.568     3.69  2419.69  2419.69  2419.73  2420.61      .93     4.09      .08  2416.70
   1864.0    984.1    626.6    253.3    202.4     54.9     51.1    105.8     63.7  2416.50
      .59     4.86    11.41     4.96     .050     .030     .050     .000  2416.00   884.00
  .010474     500.     510.     505.        0       15        0      .00   153.01  1037.01


*SECNO 2.669

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.43


3470 ENCROACHMENT STATIONS=      957.0    1122.5  TYPE=      1  TARGET=      165.480
    2.669     4.67  2423.67  2423.32  2423.44  2424.33      .66     3.69      .03  2420.00
   1864.0    378.5    764.1    721.4     89.9     83.4    204.9    109.9     65.6  2420.00
      .62     4.21     9.16     3.52     .050     .030     .050     .000  2419.00   957.00
  .005128     495.     530.     540.        3       11        0      .00   165.48  1122.48


*SECNO 2.759
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      948.3    1160.0  TYPE=      1  TARGET=      211.710
    2.759     2.54  2429.54  2429.54  2429.56  2430.27      .73     3.77      .02  2427.70
   1864.0    146.6    484.2   1233.2     35.7     46.6    236.8    113.5     67.5  2427.50
      .64     4.11    10.39     5.21     .050     .030     .050     .000  2427.00   948.61
  .015048     490.     480.     440.        0       11        0      .00   211.39  1160.00


*SECNO 2.852

3470 ENCROACHMENT STATIONS=      918.7    1029.7  TYPE=      1  TARGET=      110.990
    2.852     3.71  2434.71  2434.47  2434.66  2435.66      .95     5.32      .06  2431.50
   1864.0    955.9    769.9    138.2    185.1     73.2     30.9    116.9     69.3  2431.50
      .65     5.16    10.52     4.48     .050     .030     .050     .000  2431.00   918.67
  .008338     500.     490.     470.        4       11        0      .00   110.99  1029.66


*SECNO 2.932
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 878.8 1031.8 TYPE= 1 TARGET= 153.030

2.932	5.43	2438.43	2438.43	2438.39	2439.47	1.03	2.80	.03	2433.70
1864.0	611.4	920.7	331.9	169.8	84.5	71.6	119.9	70.6	2433.70
.67	3.60	10.89	4.63	.050	.030	.050	.000	2433.00	878.82
.005556	410.	420.	415.	0	11	0	.00	153.03	1031.85

*SECNO 3.044

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 879.2 1162.4 TYPE= 1 TARGET= 283.260

3.044	2.80	2442.80	2442.43	2442.83	2443.20	.40	3.67	.06	2440.80
1864.0	286.3	353.5	1224.2	91.6	43.5	288.4	124.5	73.2	2440.70
.70	3.13	8.13	4.25	.050	.030	.050	.000	2440.00	881.90
.008300	530.	590.	520.	3	14	0	.00	280.12	1162.01

3.144

3470 ENCROACHMENT STATIONS= 801.5 1013.6 TYPE= 1 TARGET= 212.100

3.144	3.54	2446.54	2446.09	2446.53	2447.00	.46	3.78	.02	2444.00
1864.0	1351.0	501.9	11.2	341.7	61.0	4.6	129.5	76.2	2444.00
.73	3.95	8.22	2.42	.050	.030	.050	.000	2443.00	801.49
.006271	545.	530.	500.	2	8	0	.00	212.10	1013.59

*SECNO 3.233

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 761.8 1052.1 TYPE= 1 TARGET= 290.340

3.233	3.61	2452.61	2452.61	2452.60	2453.29	.68	3.49	.07	2449.70
1864.0	1105.1	496.2	262.7	267.7	46.0	62.1	133.5	78.6	2449.70
.75	4.13	10.80	4.23	.050	.030	.050	.000	2449.00	761.80
.009806	440.	470.	470.	0	8	0	.00	264.84	1052.14

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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
           QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 3.343
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      779.3    1020.0  TYPE=      1  TARGET=      240.650
            Q = 1142 cfs: DETERMINED FROM RATIO OF CONTRIBUTING
                          DRAINAGE AREA TO ENTIRE WATERSHED
   3.343      3.59   2458.59   2458.59   2458.25   2459.16       .57      4.59       .01   2455.80
  1142.0     523.9     496.3     121.9     197.0      57.8      30.9     137.7      81.8   2455.70
     .78      2.66      8.59      3.94      .050      .030      .050      .000   2455.00    779.35
 .006374      545.      580.      545.         0         5         0       .00    240.65   1020.00


*SECNO 3.443

3470 ENCROACHMENT STATIONS=      710.3    1036.9  TYPE=      1  TARGET=      326.650
   3.443      3.52   2461.52   2461.22   2461.39   2461.77       .25      2.58       .03   2459.00
  1142.0     698.9     362.7      80.4     306.0      57.4      30.0     141.8      85.3   2459.00
     .82      2.28      6.32      2.68      .050      .030      .050      .000   2458.00    710.30
 .003841      540.      530.      470.         3        12         0       .00    326.65   1036.95


*SECNO 3.534

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      579.4    1041.2  TYPE=      1  TARGET=      461.780
   3.534      3.14   2468.14   2468.14   2468.15   2468.64       .50      2.01       .07   2465.70
  1142.0     551.6     472.1     118.3     200.1      57.9      37.8     144.8      88.0   2465.70
     .84      2.76      8.15      3.13      .050      .030      .050      .000   2465.00    579.40
 .006835      330.      480.      510.         0        15         0       .00    330.02   1041.16


*SECNO 3.623
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      972.3    1083.0  TYPE=      1  TARGET=      110.730
   3.623      3.50   2474.50   2474.50   2474.51   2475.33       .83      3.61       .10   2472.00
  1142.0      99.9     574.3     467.7      25.7      60.0     119.5     147.5      90.3   2472.00
     .86      3.89      9.57      3.91      .050      .030      .050      .000   2471.00    972.28
 .008691      460.      470.      480.         0         8         0       .00    110.72   1083.00
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CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 3.713

3470 ENCROACHMENT STATIONS= 906.7 1031.0 TYPE= 1 TARGET= 124.330

3.713	3.45	2478.45	2478.43	2478.31	2479.26	.81	3.93	.00	2475.70
1142.0	375.8	573.2	193.0	105.0	60.5	46.6	149.7	91.6	2475.70
.88	3.58	9.48	4.14	.050	.030	.050	.000	2475.00	906.67
.008066	510.	475.	430.	2	5	0	.00	124.33	1031.00

*SECNO 3.810

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 970.0 1023.2 TYPE= 1 TARGET= 53.240

3.810	4.18	2482.18	2482.11	2482.14	2483.49	1.31	4.07	.15	2479.00
1142.0	211.6	782.3	148.1	45.9	73.6	30.4	151.8	92.6	2479.00
.90	4.61	10.63	4.87	.050	.030	.050	.000	2478.00	970.00
.008156	480.	510.	510.	2	11	0	.00	53.24	1023.24

*SECNO 3.897
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 972.0 1047.0 TYPE= 1 TARGET= 75.030

3.897	4.15	2487.15	2487.15	2487.33	2488.55	1.39	3.82	.02	2483.50
1142.0	255.9	670.0	216.1	44.9	58.3	42.0	153.3	93.2	2483.50
.91	5.70	11.49	5.14	.050	.030	.050	.000	2483.00	972.49
.008834	430.	460.	440.	0	5	0	.00	55.33	1027.82

*SECNO 4.005
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 955.0 1030.0 TYPE= 1 TARGET= 75.000

4.005	4.29	2494.29	2494.29	2494.34	2495.40	1.10	5.27	.03	2491.40
1142.0	357.8	586.8	197.4	72.7	54.3	43.4	155.3	94.0	2491.00
.93	4.92	10.80	4.55	.050	.030	.050	.000	2490.00	955.00
.009787	560.	570.	570.	0	8	0	.00	75.00	1030.00

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 CNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    L-BANK ELEV
         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA      R-BANK ELEV
 TIME    VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN    SSTA
 SLOPE   XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID   ENDST


*SECNO 4.090
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      930.0    1022.0  TYPE=      1  TARGET=      92.020
   4.090      4.53   2498.53   2498.53   2498.67   2499.56      1.03      3.70       .01   2495.00
  1142.0     382.9     628.2     130.9      99.2      60.5      30.9     157.2      94.9   2495.00
     .95      3.86     10.38      4.23      .050      .030      .050      .000   2494.00    930.00
 .006929      460.      450.      450.         0         8         0       .00     91.60   1021.60


*SECNO 4.177

3470 ENCROACHMENT STATIONS=      970.0    1043.0  TYPE=      1  TARGET=      73.000
   4.177      3.09   2502.09   2502.07   2502.14   2503.15      1.06      3.58       .01   2499.30
  1142.0     271.6     622.7     247.7      54.4      60.5      53.2     159.0      95.7   2499.30
     .96      4.99     10.29      4.66      .050      .030      .050      .000   2499.00    970.00
 .009884      370.      460.      470.         0        19         0       .00     73.00   1043.00


      .600 CEHV=      .800
*SECNO 4.270

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .64


3470 ENCROACHMENT STATIONS=      983.7    1016.3  TYPE=      1  TARGET=      32.660
            Q = 597 cfs: DETERMINED FROM RATIO OF CONTRIBUTING
                         DRAINAGE AREA TO ENTIRE WATERSHED

            ET RECORD: STA 983.67 & 1016.33 MODEL 4 TO 1
                       FLOW EXPANSION DOWNSTREAM OF RCB

            MAPPED FLOODPLAIN TO CWSEL
   4.270      3.06   2506.56   2506.11   2506.12   2507.42       .85      4.14       .12   2503.80
   597.0      25.3     466.6     105.2       8.2      57.4      25.6     160.4      96.2   2503.80
     .98      3.07      8.13      4.11      .050      .030      .050      .000   2503.50    983.67
 .006529      530.      490.      450.         2        15         0       .00     32.66   1016.33


CCHV=     .600 CEHV=      .800
*SECNO 4.277
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CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 2516.60 ELREA= 2513.00

DS FACE: 2 - 6' X 7' RCB

NOTE: CENTERLINE SECTION OF US HWY 60
USED TO CREATE DS FACE SECTION

4.277	4.09	2507.39	2507.39	2507.39	2509.45	2.06	.14	.97	2503.30
597.0	.0	597.0	.0	.0	51.8	.0	160.5	96.3	2503.30
.98	.00	11.53	.00	.000	.015	.000	.000	2503.30	993.67
.002071	40.	40.	40.	0	11	0	.00	12.66	1006.33

SPECIAL CULVERT

CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
2	.015	.40	2.80	.00	7.00	6.00	56.80	8	1	2504.00	2503.30

CHART 8 - BOX CULVERT WITH FLARED WINGWALLS; NO INLET TOP EDGE BEVEL
SCALE 1 - WINGWALLS FLARED 30 TO 75 DEGREES

*SECNO 4.288

SPECIAL CULVERT OUTLET CONTROL
EGIC = 2510.823 EGOC = 2511.228 PCWSE= 2507.390 ELTRD= 2513.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.10

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
2510.82	2511.23	1.77	0.	597.	7.391	84.0	2513.00	0.

OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 2516.60 ELREA= 2513.00

US FACE: 2 - 6' X 7' RCB

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          NOTE: CENTERLINE SECTION OF US HWY 60
                USED TO CREATE US FACE SECTION
    4.288     6.38  2510.38      .00  2510.38  2511.23      .85     1.77      .00  2504.00
    597.0       .0    597.0       .0       .0     80.8       .0    160.6     96.3  2504.00
      .99      .00     7.39      .00     .000     .015     .000     .000  2504.00   993.67
  .000470      57.      57.      57.        3        0        0      .00    12.66  1006.33


CCHV=     .600 CEHV=     .800
*SECNO 4.292

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      970.0    1030.0  TYPE=      1  TARGET=       60.000
          ET RECORD: STA 970 & 1030 MODEL 1 TO 1
                     FLOW CONTRACTION UPSTREAM OF RCB

          MAPPED FLOODPLAIN TO CWSEL
    4.292     4.58  2511.58  2508.88  2511.58  2511.68      .11      .01      .44  2507.00
    597.0    228.7    238.6    129.7    123.5     68.6     67.4    160.7     96.3  2507.00
      .99     1.85     3.48     1.92     .050     .030     .050     .000  2507.00   970.00
  .000649      20.      20.      20.        3       17        0      .00    60.00  1030.00


C[illegible]     .100 CEHV=     .300
*S[illegible] 4.358

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .66


3470 ENCROACHMENT STATIONS=      970.0    1053.7  TYPE=      1  TARGET=       83.720
    4.358     3.48  2511.88  2510.34  2511.88  2512.03      .15      .33      .01  2508.40
    597.0    161.6    191.9    243.4     70.1     43.5    108.7    162.6     96.9  2508.40
     1.02     2.31     4.42     2.24     .050     .030     .050     .000  2508.40   970.00
  .001510     350.     350.     350.        2       18        0      .00    83.68  1053.68


*SECNO 4.428
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      965.4    1055.0  TYPE=      1  TARGET=       89.630
    4.428     1.93  2515.73  2515.73  2515.73  2516.34      .62     1.20      .14  2513.80
    597.0    117.4    235.9    243.7     30.4     27.1     58.4    164.0     97.6  2513.80
     1.04     3.87     8.69     4.18     .050     .030     .050     .000  2513.80   965.40
  .012855     320.     370.     370.        0       11        0      .00    89.60  1055.00
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 SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    L-BANK ELEV
          QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA      R-BANK ELEV
  TIME    VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN    SSTA
  SLOPE   XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID   ENDST


*SECNO 4.510

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .60


3470 ENCROACHMENT STATIONS=      978.2    1030.0  TYPE=      1  TARGET=      51.780
            Q = 199 cfs: DETERMINED FROM RATIO OF CONTRIBUTING
                         DRAINAGE AREA TO ENTIRE WATERSHED
    4.510      1.71   2520.01   2519.48   2519.66   2520.17      .16      3.78      .05   2518.50
    199.0      41.5      75.1      82.4      19.9      17.3     34.9     164.9     98.3   2518.40
     1.08      2.08      4.35      2.36      .050      .030     .050      .000  2518.30    978.22
  .003918      430.      430.      420.         4        14        0       .00    51.78   1030.00


*SECNO 4.572
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      981.7    1032.7  TYPE=      1  TARGET=      51.000
    4.572      1.72   2524.62   2524.62   2524.61   2525.09      .47      1.93      .09   2523.00
    199.0      30.3     112.8      55.8      10.9      16.5     20.2     165.3     98.7   2523.00
     1.09      2.79      6.86      2.76      .050      .030     .050      .000  2522.90    981.71
  .009607      330.      330.      330.         0         5        0       .00    51.00   1032.71


*SECNO 4.699
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      910.0    1150.0  TYPE=      1  TARGET=     -910.000
 ELENCL=   2537.00  ELENCR= 100000.00
            X3 RECORD: STA 910 ELIMINATE INEFFECTIVE
                       FLOW AREA IN LEFT OVERBANK
    4.699      2.06   2533.06   2533.06   2533.06   2533.54      .48      6.08      .00   2531.50
    199.0      39.2     122.6      37.2      16.1      18.1     14.1     166.1     99.5   2531.50
     1.13      2.43      6.77      2.65      .050      .030     .050      .000  2531.00    971.76
  .008519      670.      670.      680.         0        11        0       .00    51.27   1023.03


*SECNO 4.796
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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NO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
        QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME    VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE   XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=      975.0    1023.7  TYPE=      1  TARGET=      48.690
    4.796      1.76   2538.76   2538.76   2538.67   2539.23       .47      5.03       .00   2537.50
    199.0      65.4     105.9      27.8      20.8      15.1      11.0     166.6     100.0   2537.50
     1.16      3.14      6.99      2.52      .050      .030      .050      .000   2537.00    975.00
  .011541      510.      510.      510.         0        15         0       .00     48.69   1023.69


*SECNO 4.890

3470 ENCROACHMENT STATIONS=      971.4    1011.8  TYPE=      1  TARGET=      40.450
    4.890      1.94   2543.94   2543.92   2543.91   2544.46       .51      5.21       .01   2542.30
    199.0      56.4     121.7      20.9      19.6      17.4       6.9     167.2     100.5   2542.50
     1.18      2.88      6.98      3.04      .050      .030      .050      .000   2542.00    971.37
  .009504      500.      500.      490.         1         8         0       .00     40.45   1011.82


CCHV=     .600 CEHV=     .800
*SECNO 4.946

 CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      2553.00 ELREA=      2553.10

            DS FACE: 1 - 6' X 6' RCB

            NOTE: CENTERLINE SECTION OF OLD US HWY 60
                  USED TO CREATE DS FACE SECTION OF RCB
    4.946      3.23   2547.63   2547.63   2547.64   2549.27      1.63      1.19       .90   2544.40
    199.0        .0     199.0        .0        .0      19.4        .0     167.4     100.7   2544.40
     1.19       .00     10.26       .00      .000      .015      .000      .000   2544.40    997.00
  .002243      292.      292.      292.         0        14         0       .00      6.00   1003.00


SPECIAL CULVERT
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    CNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    L-BANK ELEV
            QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA      R-BANK ELEV
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN    SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID   ENDST


SC  CUNO     CUNV     ENTLC    COFQ     RDLEN    RISE     SPAN     CULVLN   CHRT     SCL      ELCHU    ELCHD
     1        .015     .40     2.80      .00     6.00     6.00     60.00     8        1     2545.30  2544.40

CHART  8 - BOX CULVERT WITH FLARED WINGWALLS; NO INLET TOP EDGE BEVEL
SCALE  1 - WINGWALLS FLARED 30 TO 75 DEGREES

*SECNO 4.957

SPECIAL CULVERT OUTLET CONTROL
EGIC =   2550.474  EGOC =   2550.816  PCWSE=   2547.633  ELTRD=   2553.000


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.91

SPECIAL CULVERT

    EGIC     EGOC      H4     QWEIR    QCULV     VCH     ACULV    ELTRD   WEIRLN
    0.47   2550.82    1.55     0.      199.    6.960     36.0   2553.00     0.


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     2553.00 ELREA=     2553.10

            US FACE: 1 6' X 6' RCB

            NOTE: CENTERLINE SECTION OF OLD US HWY 60
                  USED TO CREATE US FACE SECTION OF RCB
    4.957     4.76   2550.06     .00   2550.06   2550.82     .75     1.55     .00   2545.30
    199.0      .0     199.0      .0       .0      28.6      .0     167.4    100.7   2545.30
     1.19     .00      6.96     .00     .000      .015    .000      .000   2545.30   997.00
  .000616     60.      60.      60.        3         0       0       .00     6.00   1003.00


CCHV=     .600 CEHV=     .800
*SECNO 4.959

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     987.0    1013.0  TYPE=      1  TARGET=      26.000
            ET RECORD: STA 987 & 1013 MODEL 1 TO 1
                       FLOW CONTRACTION UPSTREAM OF RCB

            MAPPED FLOODPLAIN TO CWSEL
    4.959     4.13   2551.13  2548.49   2551.13   2551.22     .09      .01      .40   2547.10
    199.0     49.5     99.2     50.3      35.3      32.7    35.8     167.4    100.7   2547.10
     1.20     1.40     3.04     1.41      .050      .030    .050      .000   2547.00   987.00
```

.000575	10.	10.	10.	3	17	0	.00	26.00	1013.00

CNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO 5.054
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 988.0 1041.3 TYPE= 1 TARGET= 53.300

5.054	1.87	2554.87	2554.87	2554.85	2555.32	.45	.76	.11	2553.60
199.0	11.6	95.1	92.2	5.2	13.3	29.7	168.3	101.2	2553.20
1.22	2.25	7.13	3.11	.050	.030	.050	.000	2553.00	987.96
.010570	500.	500.	500.	0	18	0	.00	53.30	1041.26

*SECNO 5.152
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 970.0 1018.1 TYPE= 1 TARGET= 48.080

5.152	1.38	2563.38	2563.38	2563.37	2563.84	.46	6.43	.00	2562.00
199.0	91.2	77.0	30.8	23.5	10.3	10.3	168.8	101.8	2562.00
1.25	3.89	7.46	2.99	.050	.030	.050	.000	2562.00	970.00
820	510.	520.	520.	0	19	0	.00	48.08	1018.08

*SECNO 5.251

3470 ENCROACHMENT STATIONS= 981.3 1047.1 TYPE= 1 TARGET= 65.800

5.251	1.15	2571.15	2571.10	2571.18	2571.48	.33	7.63	.01	2570.00
199.0	34.3	69.5	95.1	11.9	10.7	28.8	169.4	102.5	2570.00
1.29	2.87	6.50	3.31	.050	.030	.050	.000	2570.00	981.30
.014511	520.	520.	520.	3	15	0	.00	65.80	1047.10

*SECNO 5.340

3470 ENCROACHMENT STATIONS= 976.6 1018.5 TYPE= 1 TARGET= 41.880

5.340	1.97	2575.97	2575.79	2575.85	2576.34	.38	4.85	.01	2574.20
199.0	74.1	93.9	31.0	23.7	14.5	12.2	170.0	103.0	2574.40
1.31	3.12	6.46	2.54	.050	.030	.050	.000	2574.00	976.61
.007694	450.	470.	490.	4	14	0	.00	41.88	1018.49

THIS RUN EXECUTED 03AUG92 10:00:20

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

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

WASH AH5: SOLS WASH TRIB

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	.189	.00	.00	.00	2255.40	2129.00	2259.73	2259.73	2260.16	81.19	9.35	547.15	236.27
*	.189	.00	.00	.00	2255.40	2129.00	2259.75	2259.75	2260.16	77.33	9.16	556.85	242.10
*	.305	610.00	.00	.00	2266.00	2129.00	2269.69	2269.69	2269.77	26.54	3.62	975.79	413.25
*	.305	610.00	.00	.00	2266.00	2129.00	2269.70	2269.70	2269.78	25.80	3.59	984.48	419.11
	.362	300.00	.00	.00	2270.00	2129.00	2273.00	2273.00	2273.77	120.59	11.30	377.91	193.88
*	.362	300.00	.00	.00	2270.00	2129.00	2273.01	2273.01	2273.77	117.33	11.19	381.71	196.55
*	.393	165.00	.00	.00	2272.00	2129.00	2275.35	2275.35	2276.29	95.32	10.82	350.66	218.06
*	.393	165.00	.00	.00	2272.00	2129.00	2275.37	2275.37	2276.29	92.28	10.70	354.93	221.62
*	.484	480.00	.00	.00	2280.00	2129.00	2282.58	2282.58	2283.22	123.77	10.37	421.63	191.37
*	.484	480.00	.00	.00	2280.00	2129.00	2282.59	2282.59	2283.22	121.15	10.29	424.94	193.42
*	.554	370.00	.00	.00	2284.70	1864.00	2288.49	2288.49	2289.28	74.12	10.10	358.82	216.51
*	.554	370.00	.00	.00	2284.70	1864.00	2288.53	2288.53	2289.64	90.98	11.26	279.91	195.42
*	.656	540.00	.00	.00	2293.00	1864.00	2296.88	2296.88	2297.68	79.17	9.73	346.04	209.50
*	.656	540.00	.00	.00	2293.00	1864.00	2296.84	2296.84	2297.89	97.35	10.70	283.61	188.92
*	.753	510.00	.00	.00	2298.00	1864.00	2302.68	2302.68	2303.61	59.22	9.87	337.82	242.21
*	.753	510.00	.00	.00	2298.00	1864.00	2302.60	2302.60	2303.96	79.02	11.26	250.24	209.69
*	.849	510.00	.00	.00	2306.00	1864.00	2309.25	2309.25	2309.93	80.72	9.21	382.76	207.46
*	.849	510.00	.00	.00	2306.00	1864.00	2309.26	2309.26	2309.93	78.38	9.11	387.54	210.55
*	.944	500.00	.00	.00	2313.00	1864.00	2316.05	2316.05	2316.79	110.83	10.05	343.00	177.06
*	.944	500.00	.00	.00	2313.00	1864.00	2316.05	2316.05	2316.79	110.69	10.04	343.17	177.17
*	1.039	500.00	.00	.00	2318.00	1864.00	2322.82	2322.82	2323.90	65.08	10.57	302.01	231.06
*	1.039	500.00	.00	.00	2318.00	1864.00	2322.75	2322.75	2324.12	78.38	11.48	251.97	210.54

	ECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	1.137	520.00	.00	.00	2327.00	1864.00	2330.32	2330.32	2331.09	102.26	9.98	340.19	184.32
*	1.137	520.00	.00	.00	2327.00	1864.00	2330.32	2330.32	2331.29	119.81	10.79	288.29	170.30
*	1.232	500.00	.00	.00	2334.00	1864.00	2336.94	2336.94	2337.61	103.00	9.85	370.99	183.66
*	1.232	500.00	.00	.00	2334.00	1864.00	2336.95	2336.95	2337.78	116.83	10.51	321.87	172.45
*	1.330	520.00	.00	.00	2341.00	1864.00	2343.76	2343.76	2344.27	99.64	9.20	437.99	186.74
*	1.330	520.00	.00	.00	2341.00	1864.00	2343.89	2343.89	2344.75	125.88	10.69	310.19	166.14
*	1.450	630.00	.00	.00	2349.00	1864.00	2352.06	2352.06	2352.64	86.86	9.33	412.49	200.00
*	1.450	630.00	.00	.00	2349.00	1864.00	2352.10	2352.10	2353.09	118.10	10.99	286.67	171.52
*	1.563	600.00	.00	.00	2357.00	1864.00	2359.70	2359.70	2360.27	126.25	10.05	390.36	165.89
*	1.563	600.00	.00	.00	2357.00	1864.00	2360.23	2360.23	2361.23	128.99	11.59	282.37	164.12
*	1.705	750.00	.00	.00	2367.00	1864.00	2369.36	2369.36	2369.91	142.68	8.94	388.96	156.05
	1.705	750.00	.00	.00	2367.00	1864.00	2369.46	2369.36	2369.91	112.95	8.23	421.51	175.39
*	1.806	530.00	.00	.00	2373.00	1864.00	2376.51	2376.51	2377.22	86.59	10.08	365.91	200.32
*	1.806	530.00	.00	.00	2373.00	1864.00	2376.50	2376.50	2377.22	87.12	10.11	364.97	199.71
	1.899	490.00	.00	.00	2377.00	1864.00	2380.39	2380.24	2380.95	69.52	8.70	408.78	223.56
	1.899	490.00	.00	.00	2377.00	1864.00	2380.39	2380.26	2380.96	69.15	8.69	409.60	224.15
	1.986	460.00	.00	.00	2383.00	1864.00	2386.93	2386.93	2387.81	90.29	11.17	320.61	196.17
*	1.986	460.00	.00	.00	2383.00	1864.00	2386.95	2386.95	2387.81	87.61	11.04	324.66	199.14
*	2.079	490.00	.00	.00	2390.00	1864.00	2393.01	2393.01	2393.55	98.65	9.84	418.45	187.67
*	2.079	490.00	.00	.00	2390.00	1864.00	2393.01	2393.01	2393.55	99.50	9.87	417.20	186.87
	2.175	510.00	.00	.00	2394.00	1864.00	2397.03	2396.88	2397.46	75.31	8.58	466.16	214.79
	2.175	510.00	.00	.00	2394.00	1864.00	2397.07	2396.90	2397.52	77.03	8.75	443.15	212.38
	2.277	540.00	.00	.00	2398.00	1864.00	2401.06	2400.93	2401.49	85.80	9.03	449.26	201.24
*	2.277	540.00	.00	.00	2398.00	1864.00	2401.60	2401.60	2402.49	109.09	11.46	318.59	178.46
*	2.372	500.00	.00	.00	2406.00	1864.00	2409.28	2409.28	2410.04	100.86	10.31	346.29	185.60
*	2.372	500.00	.00	.00	2406.00	1864.00	2409.31	2409.31	2410.26	114.75	11.06	297.38	174.01
	2.472	525.00	.00	.00	2410.00	1864.00	2413.87	2413.60	2414.55	74.16	10.04	351.09	216.45
	2.472	525.00	.00	.00	2410.00	1864.00	2414.05	2413.58	2414.70	64.43	9.66	348.72	232.22
*	2.568	510.00	.00	.00	2416.00	1864.00	2419.73	2419.73	2420.45	86.89	10.48	364.42	199.97
*	2.568	510.00	.00	.00	2416.00	1864.00	2419.69	2419.69	2420.61	104.74	11.41	308.36	182.14
	2.669	530.00	.00	.00	2419.00	1864.00	2423.44	2423.29	2424.09	57.96	9.37	398.70	244.85
*	2.669	530.00	.00	.00	2419.00	1864.00	2423.67	2423.32	2424.33	51.28	9.16	378.20	260.29
*	2.759	480.00	.00	.00	2427.00	1864.00	2429.56	2429.56	2430.23	140.07	10.08	335.98	157.50
*	2.759	480.00	.00	.00	2427.00	1864.00	2429.54	2429.54	2430.27	150.48	10.39	319.07	151.95

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	2.852	490.00	.00	.00	2431.00	1864.00	2434.66	2434.47	2435.64	87.97	10.71	284.04	198.73
	2.852	490.00	.00	.00	2431.00	1864.00	2434.71	2434.47	2435.66	83.38	10.52	289.16	204.13
*	2.932	420.00	.00	.00	2433.00	1864.00	2438.39	2438.39	2439.47	57.98	11.07	319.99	244.79
*	2.932	420.00	.00	.00	2433.00	1864.00	2438.43	2438.43	2439.47	55.56	10.89	326.04	250.07
	3.044	590.00	.00	.00	2440.00	1864.00	2442.83	2442.43	2443.22	79.26	8.00	430.81	209.38
	3.044	590.00	.00	.00	2440.00	1864.00	2442.80	2442.43	2443.20	83.00	8.13	423.45	204.60
	3.144	530.00	.00	.00	2443.00	1864.00	2446.53	2446.09	2446.99	64.38	8.30	403.46	232.31
	3.144	530.00	.00	.00	2443.00	1864.00	2446.54	2446.09	2447.00	62.71	8.22	407.29	235.38
*	3.233	470.00	.00	.00	2449.00	1864.00	2452.60	2452.60	2453.29	98.87	10.83	374.54	187.47
*	3.233	470.00	.00	.00	2449.00	1864.00	2452.61	2452.61	2453.29	98.06	10.80	375.76	188.24
*	3.343	580.00	.00	.00	2455.00	1142.00	2458.25	2458.25	2458.70	66.50	8.15	340.97	140.04
*	3.343	580.00	.00	.00	2455.00	1142.00	2458.59	2458.59	2459.16	63.74	8.59	285.70	143.05
	3.443	530.00	.00	.00	2458.00	1142.00	2461.39	2461.23	2461.72	50.57	7.04	350.45	160.59
	3.443	530.00	.00	.00	2458.00	1142.00	2461.52	2461.22	2461.77	38.41	6.32	393.43	184.26
*	3.534	480.00	.00	.00	2465.00	1142.00	2468.15	2468.15	2468.64	68.09	8.13	296.45	138.40
*	3.534	480.00	.00	.00	2465.00	1142.00	2468.14	2468.14	2468.64	68.35	8.15	295.89	138.14
	3.623	470.00	.00	.00	2471.00	1142.00	2474.51	2474.51	2475.21	77.42	9.05	233.20	129.79
*	3.623	470.00	.00	.00	2471.00	1142.00	2474.50	2474.50	2475.33	86.91	9.57	205.17	122.50
*	3.713	475.00	.00	.00	2475.00	1142.00	2478.31	2478.31	2478.92	72.30	8.70	259.50	134.30
	3.713	475.00	.00	.00	2475.00	1142.00	2478.45	2478.43	2479.26	80.66	9.48	212.04	127.16
*	3.810	510.00	.00	.00	2478.00	1142.00	2482.14	2482.14	2482.84	54.78	8.65	252.27	154.29
	3.810	510.00	.00	.00	2478.00	1142.00	2482.18	2482.11	2483.49	81.56	10.63	149.86	126.45
*	3.897	460.00	.00	.00	2483.00	1142.00	2487.33	2487.33	2488.15	56.84	9.50	225.88	151.48
*	3.897	460.00	.00	.00	2483.00	1142.00	2487.15	2487.15	2488.55	88.34	11.49	145.23	121.50
*	4.005	570.00	.00	.00	2490.00	1142.00	2494.34	2494.34	2495.10	74.40	9.51	222.64	132.40
*	4.005	570.00	.00	.00	2490.00	1142.00	2494.29	2494.29	2495.40	97.87	10.80	170.43	115.43
*	4.090	450.00	.00	.00	2494.00	1142.00	2498.67	2498.67	2499.38	50.75	9.09	258.43	160.31
*	4.090	450.00	.00	.00	2494.00	1142.00	2498.53	2498.53	2499.56	69.29	10.38	190.64	137.19
*	4.177	460.00	.00	.00	2499.00	1142.00	2502.14	2502.14	2502.82	72.61	8.90	233.76	134.02
	4.177	460.00	.00	.00	2499.00	1142.00	2502.09	2502.07	2503.15	98.84	10.29	168.06	114.87
*	4.270	490.00	.00	.00	2503.50	597.00	2506.12	2506.11	2507.32	114.36	9.63	76.63	55.83
*	4.270	490.00	.00	.00	2503.50	597.00	2506.56	2506.11	2507.42	65.29	8.13	91.18	73.88
*	4.277	40.00	.00	.00	2503.30	597.00	2507.39	2507.39	2509.45	20.74	11.53	51.76	131.10
*	4.277	40.00	.00	.00	2503.30	597.00	2507.39	2507.39	2509.45	20.71	11.53	51.77	131.18

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	4.288	56.80	2513.00	2510.00	2504.00	597.00	2510.38	.00	2511.23	4.70	7.39	80.78	275.31
*	4.288	56.80	2513.00	2510.00	2504.00	597.00	2510.38	.00	2511.23	4.70	7.39	80.78	275.31
	4.292	20.00	.00	.00	2507.00	597.00	2511.58	2508.88	2511.68	6.49	3.48	259.50	234.32
	4.292	20.00	.00	.00	2507.00	597.00	2511.58	2508.88	2511.68	6.49	3.48	259.50	234.32
	4.358	350.00	.00	.00	2508.40	597.00	2511.88	2510.35	2511.96	9.48	3.50	330.89	193.94
*	4.358	350.00	.00	.00	2508.40	597.00	2511.88	2510.34	2512.03	15.10	4.42	222.28	153.64
*	4.428	370.00	.00	.00	2513.80	597.00	2515.73	2515.73	2516.19	106.39	7.91	143.38	57.88
*	4.428	370.00	.00	.00	2513.80	597.00	2515.73	2515.73	2516.34	128.55	8.69	115.86	52.65
*	4.510	430.00	.00	.00	2518.30	199.00	2519.66	2519.35	2519.77	46.37	4.03	90.37	29.22
*	4.510	430.00	.00	.00	2518.30	199.00	2520.01	2519.48	2520.17	39.18	4.35	72.08	31.79
*	4.572	330.00	.00	.00	2522.90	199.00	2524.61	2524.61	2525.09	99.93	6.95	46.79	19.91
*	4.572	330.00	.00	.00	2522.90	199.00	2524.62	2524.62	2525.09	96.07	6.86	47.52	20.30
*	4.699	670.00	.00	.00	2531.00	199.00	2533.06	2533.06	2533.54	84.91	6.76	48.35	21.60
*	4.699	670.00	.00	.00	2531.00	199.00	2533.06	2533.06	2533.54	85.19	6.77	48.29	21.56
*	4.796	510.00	.00	.00	2537.00	199.00	2538.67	2538.67	2539.01	107.01	6.44	58.12	19.24
*	4.796	510.00	.00	.00	2537.00	199.00	2538.76	2538.76	2539.23	115.41	6.99	46.96	18.52
	4.890	500.00	.00	.00	2542.00	199.00	2543.91	2543.91	2544.46	103.75	7.19	42.49	19.54
	4.890	500.00	.00	.00	2542.00	199.00	2543.94	2543.92	2544.46	95.04	6.98	43.91	20.41
*	4.946	292.00	.00	.00	2544.40	199.00	2547.64	2547.64	2549.27	22.38	10.25	19.41	42.07
*	4.946	292.00	.00	.00	2544.40	199.00	2547.63	2547.63	2549.27	22.43	10.26	19.40	42.02
*	4.957	60.00	2553.00	2551.30	2545.30	199.00	2550.06	.00	2550.82	6.16	6.96	28.59	80.21
*	4.957	60.00	2553.00	2551.30	2545.30	199.00	2550.06	.00	2550.82	6.16	6.96	28.59	80.21
	4.959	10.00	.00	.00	2547.00	199.00	2551.13	2548.49	2551.22	5.75	3.04	103.77	82.96
	4.959	10.00	.00	.00	2547.00	199.00	2551.13	2548.49	2551.22	5.75	3.04	103.77	82.96
*	5.054	500.00	.00	.00	2553.00	199.00	2554.85	2554.85	2555.32	110.86	7.25	47.28	18.90
*	5.054	500.00	.00	.00	2553.00	199.00	2554.87	2554.87	2555.32	105.70	7.13	48.18	19.36
*	5.152	520.00	.00	.00	2562.00	199.00	2563.37	2563.37	2563.72	129.06	6.93	52.98	17.52
*	5.152	520.00	.00	.00	2562.00	199.00	2563.38	2563.38	2563.84	148.20	7.46	44.09	16.35
*	5.251	520.00	.00	.00	2570.00	199.00	2571.18	2571.18	2571.39	103.59	5.62	74.63	19.55
	5.251	520.00	.00	.00	2570.00	199.00	2571.15	2571.10	2571.48	145.11	6.50	51.42	16.52
	5.340	470.00	.00	.00	2574.00	199.00	2575.85	2575.78	2576.32	102.96	7.14	45.50	19.61
	5.340	470.00	.00	.00	2574.00	199.00	2575.97	2575.79	2576.34	76.94	6.46	50.48	22.69

5: SOLS WASH TRIB

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	.189	2129.00	2259.73	.00	.00	-.27	575.56	.00
*	.189	2129.00	2259.75	.02	.00	.02	576.75	.00
*	.305	2129.00	2269.69	.00	9.96	.00	624.65	610.00
*	.305	2129.00	2269.70	.01	9.96	.01	625.43	610.00
*	.362	2129.00	2273.00	.00	3.31	.00	235.98	300.00
*	.362	2129.00	2273.01	.02	3.31	.02	235.98	300.00
*	.393	2129.00	2275.35	.00	2.35	.00	184.32	165.00
*	.393	2129.00	2275.37	.02	2.36	.02	184.27	165.00
*	.484	2129.00	2282.58	.00	7.23	.00	315.63	480.00
*	.484	2129.00	2282.59	.01	7.22	.01	315.70	480.00
*	.554	1864.00	2288.49	.00	5.91	.00	207.11	370.00
*	.554	1864.00	2288.53	.04	5.94	.04	120.85	370.00
*	.656	1864.00	2296.88	.00	8.39	.00	214.06	540.00
*	.656	1864.00	2296.84	-.04	8.31	-.04	124.63	540.00
*	.753	1864.00	2302.68	.00	5.80	.00	187.38	510.00
*	.753	1864.00	2302.60	-.08	5.76	-.08	91.77	510.00
*	.849	1864.00	2309.25	.00	6.56	.00	284.03	510.00
*	.849	1864.00	2309.26	.02	6.66	.02	284.03	510.00
*	.944	1864.00	2316.05	.00	6.80	.00	222.24	500.00
*	.944	1864.00	2316.05	.00	6.79	.00	222.23	500.00
*	1.039	1864.00	2322.82	.00	6.77	.00	147.60	500.00
*	1.039	1864.00	2322.75	-.07	6.70	-.07	88.75	500.00
*	1.137	1864.00	2330.32	.00	7.50	.00	220.93	520.00
*	1.137	1864.00	2330.32	.00	7.57	.00	140.00	520.00
*	1.232	1864.00	2336.94	.00	6.62	.00	268.23	500.00
*	1.232	1864.00	2336.95	.01	6.64	.01	178.00	500.00
*	1.330	1864.00	2343.76	.00	6.82	.00	412.11	520.00
*	1.330	1864.00	2343.89	.13	6.94	.13	167.00	520.00
*	1.450	1864.00	2352.06	.00	8.30	.00	347.42	630.00
*	1.450	1864.00	2352.10	.04	8.21	.04	135.00	630.00
*	1.563	1864.00	2359.70	.00	7.64	.00	321.41	600.00
*	1.563	1864.00	2360.23	.53	8.13	.53	133.24	600.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	1.705	1864.00	2369.36	.00	9.66	.00	340.16	750.00
	1.705	1864.00	2369.46	.10	9.23	.10	340.15	750.00
*	1.806	1864.00	2376.51	.00	7.15	.00	258.34	530.00
*	1.806	1864.00	2376.50	.00	7.05	.00	258.01	530.00
	1.899	1864.00	2380.39	.00	3.88	.00	257.82	490.00
	1.899	1864.00	2380.39	.00	3.89	.00	257.82	490.00
*	1.986	1864.00	2386.93	.00	6.54	.00	186.83	460.00
*	1.986	1864.00	2386.95	.02	6.56	.02	186.83	460.00
*	2.079	1864.00	2393.01	.00	6.08	.00	300.37	490.00
*	2.079	1864.00	2393.01	.00	6.06	.00	300.30	490.00
	2.175	1864.00	2397.03	.00	4.02	.00	358.45	510.00
	2.175	1864.00	2397.07	.03	4.06	.03	308.12	510.00
	2.277	1864.00	2401.06	.00	4.03	.00	304.43	540.00
*	2.277	1864.00	2401.60	.54	4.54	.54	159.85	540.00
*	2.372	1864.00	2409.28	.00	8.22	.00	217.00	500.00
*	2.372	1864.00	2409.31	.03	7.71	.03	143.00	500.00
	2.472	1864.00	2413.87	.00	4.59	.00	166.17	525.00
	2.472	1864.00	2414.05	.18	4.74	.18	133.22	525.00
*	2.568	1864.00	2419.73	.00	5.86	.00	239.04	510.00
*	2.568	1864.00	2419.69	-.04	5.64	-.04	153.01	510.00
	2.669	1864.00	2423.44	.00	3.71	.00	238.92	530.00
*	2.669	1864.00	2423.67	.23	3.98	.23	165.48	530.00
*	2.759	1864.00	2429.56	.00	6.12	.00	241.09	480.00
*	2.759	1864.00	2429.54	-.02	5.87	-.02	211.39	480.00
	2.852	1864.00	2434.66	.00	5.10	.00	110.99	490.00
	2.852	1864.00	2434.71	.06	5.18	.06	110.99	490.00
*	2.932	1864.00	2438.39	.00	3.74	.00	153.04	420.00
*	2.932	1864.00	2438.43	.04	3.72	.04	153.03	420.00
	3.044	1864.00	2442.83	.00	4.44	.00	283.25	590.00
	3.044	1864.00	2442.80	-.03	4.37	-.03	280.12	590.00
	3.144	1864.00	2446.53	.00	3.70	.00	212.10	530.00
	3.144	1864.00	2446.54	.02	3.74	.02	212.10	530.00
*	3.233	1864.00	2452.60	.00	6.08	.00	264.53	470.00
*	3.233	1864.00	2452.61	.00	6.06	.00	264.84	470.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	3.343	1142.00	2458.25	.00	5.65	.00	425.93	580.00
*	3.343	1142.00	2458.59	.33	5.98	.33	240.65	580.00
	3.443	1142.00	2461.39	.00	3.14	.00	326.65	530.00
	3.443	1142.00	2461.52	.13	2.93	.13	326.65	530.00
*	3.534	1142.00	2468.15	.00	6.76	.00	330.35	480.00
*	3.534	1142.00	2468.14	.00	6.63	.00	330.02	480.00
*	3.623	1142.00	2474.51	.00	6.36	.00	157.68	470.00
*	3.623	1142.00	2474.50	-.01	6.35	-.01	110.72	470.00
*	3.713	1142.00	2478.31	.00	3.81	.00	196.73	475.00
	3.713	1142.00	2478.45	.14	3.95	.14	124.33	475.00
*	3.810	1142.00	2482.14	.00	3.83	.00	200.25	510.00
	3.810	1142.00	2482.18	.04	3.72	.04	53.24	510.00
*	3.897	1142.00	2487.33	.00	5.19	.00	164.36	460.00
*	3.897	1142.00	2487.15	-.18	4.98	-.18	55.33	460.00
*	4.005	1142.00	2494.34	.00	7.01	.00	149.98	570.00
*	4.005	1142.00	2494.29	-.05	7.14	-.05	75.00	570.00
	4.090	1142.00	2498.67	.00	4.33	.00	206.40	450.00
*	4.090	1142.00	2498.53	-.14	4.24	-.14	91.60	450.00
*	4.177	1142.00	2502.14	.00	3.46	.00	183.72	460.00
	4.177	1142.00	2502.09	-.05	3.56	-.05	73.00	460.00
*	4.270	597.00	2506.12	.00	3.98	.00	32.66	490.00
*	4.270	597.00	2506.56	.44	4.47	.44	32.66	490.00
*	4.277	597.00	2507.39	.00	1.27	.00	12.66	40.00
*	4.277	597.00	2507.39	.00	.83	.00	12.66	40.00
*	4.288	597.00	2510.38	.00	2.99	.00	12.66	56.80
*	4.288	597.00	2510.38	.00	2.99	.00	12.66	56.80
	4.292	597.00	2511.58	.00	1.20	.00	60.00	20.00
	4.292	597.00	2511.58	.00	1.20	.00	60.00	20.00
	4.358	597.00	2511.88	.00	.31	.00	200.94	350.00
*	4.358	597.00	2511.88	.00	.30	.00	83.68	350.00
*	4.428	597.00	2515.73	.00	3.85	.00	157.92	370.00
*	4.428	597.00	2515.73	.00	3.85	.00	89.60	370.00
*	4.510	199.00	2519.66	.00	3.93	.00	104.29	430.00
*	4.510	199.00	2520.01	.36	4.29	.36	51.78	430.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	4.572	199.00	2524.61	.00	4.95	.00	50.99	330.00
*	4.572	199.00	2524.62	.01	4.61	.01	51.00	330.00
*	4.699	199.00	2533.06	.00	8.46	.00	51.31	670.00
*	4.699	199.00	2533.06	.00	8.44	.00	51.27	670.00
*	4.796	199.00	2538.67	.00	5.61	.00	81.14	510.00
*	4.796	199.00	2538.76	.10	5.70	.10	48.69	510.00
*	4.890	199.00	2543.91	.00	5.24	.00	40.45	500.00
	4.890	199.00	2543.94	.03	5.18	.03	40.45	500.00
*	4.946	199.00	2547.64	.00	3.73	.00	6.00	292.00
*	4.946	199.00	2547.63	.00	3.69	.00	6.00	292.00
*	4.957	199.00	2550.06	.00	2.43	.00	6.00	60.00
*	4.957	199.00	2550.06	.00	2.43	.00	6.00	60.00
	4.959	199.00	2551.13	.00	1.07	.00	26.00	10.00
	4.959	199.00	2551.13	.00	1.07	.00	26.00	10.00
*	5.054	199.00	2554.85	.00	3.72	.00	53.30	500.00
*	5.054	199.00	2554.87	.02	3.73	.02	53.30	500.00
	5.152	199.00	2563.37	.00	8.52	.00	76.70	520.00
*	5.152	199.00	2563.38	.01	8.51	.01	48.08	520.00
*	5.251	199.00	2571.18	.00	7.81	.00	199.45	520.00
	5.251	199.00	2571.15	-.03	7.77	-.03	65.80	520.00
	5.340	199.00	2575.85	.00	4.67	.00	41.88	470.00
	5.340	199.00	2575.97	.12	4.82	.12	41.88	470.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO=      .189  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .189  PROFILE=  2  CRITICAL DEPTH ASSUMED

CAUTION SECNO=      .305  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .305  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .305  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .305  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .362  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .362  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .362  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .362  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .393  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .393  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .393  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .393  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .484  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .484  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .484  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .484  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .554  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .554  PROFILE=  1  MINIMUM SPECIFIC ENERGY
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CAUTION SECNO=          3.343  PROFILE=  1  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=          4.005  PROFILE=  1  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=          4.277  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=          4.277  PROFILE=  1  MINIMUM SPECIFIC ENERGY
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CAUTION SECNO=          4.277  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=          4.288  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=          4.288  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=          4.358  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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WARNING SECNO=          4.510  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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CAUTION SECNO=          4.890  PROFILE=  1  CRITICAL DEPTH ASSUMED
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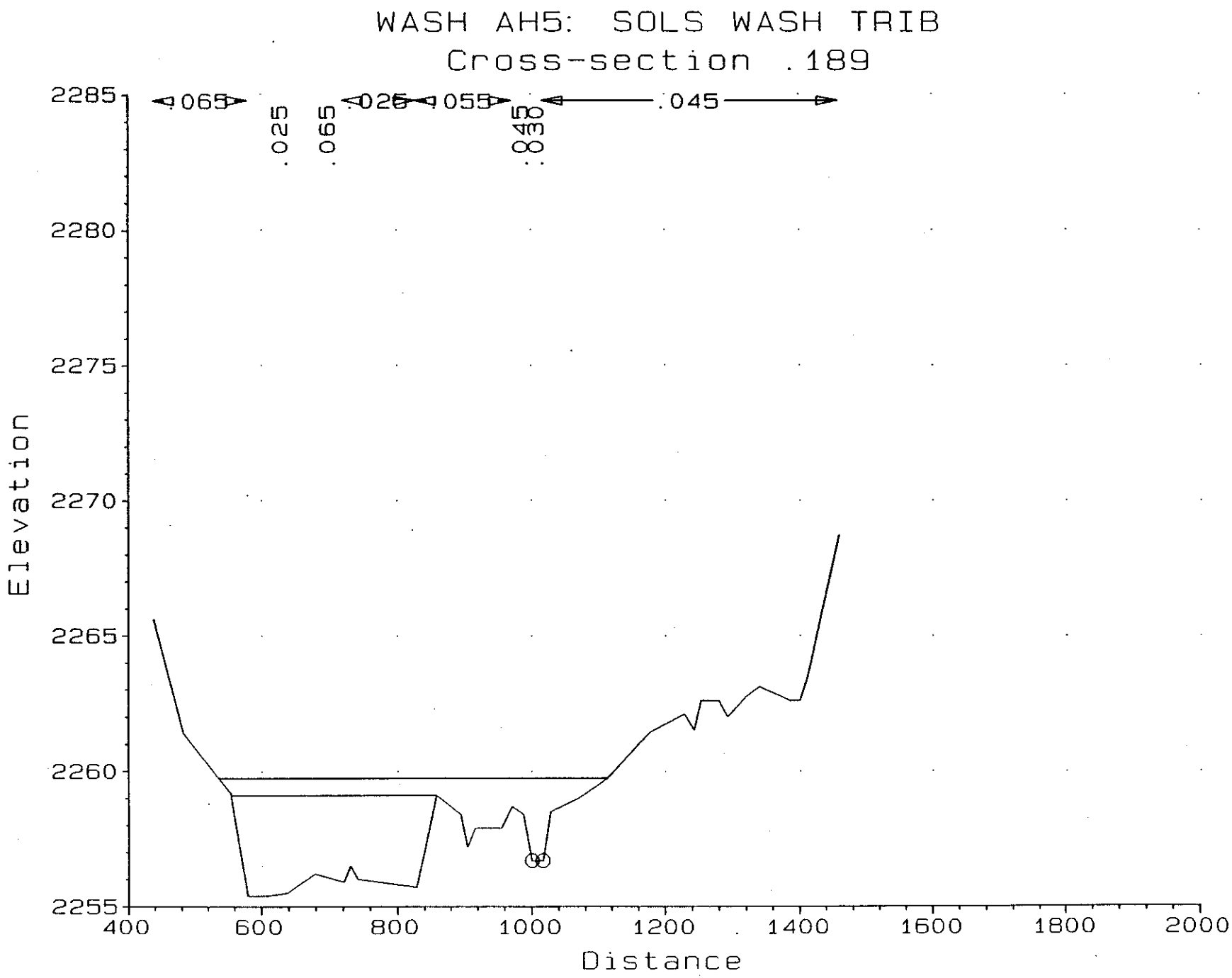
FLOODWAY DATA, WASH AH5: SOLS WASH TRIB
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
.189	577.	557.	3.8	2259.7	2259.7	.0
.305	625.	984.	2.2	2269.7	2269.7	.0
.362	236.	382.	5.6	2273.0	2273.0	.0
.393	184.	355.	6.0	2275.3	2275.3	.0
.484	316.	425.	5.0	2282.6	2282.6	.0
.554	121.	280.	6.7	2288.5	2288.5	.0
.656	125.	284.	6.6	2296.9	2296.9	.0
.753	92.	250.	7.4	2302.6	2302.7	-.1
.849	284.	388.	4.8	2309.2	2309.2	.0
.944	222.	343.	5.4	2316.0	2316.0	.0
1.039	89.	252.	7.4	2322.7	2322.8	-.1
1.137	140.	288.	6.5	2330.3	2330.3	.0
1.232	178.	322.	5.8	2336.9	2336.9	.0
1.330	167.	310.	6.0	2343.9	2343.8	.1
1.450	135.	287.	6.5	2352.1	2352.1	.0
1.563	133.	282.	6.6	2360.2	2359.7	.5
[illegible].705	340.	422.	4.4	2369.5	2369.4	.1
[illegible].806	258.	365.	5.1	2376.5	2376.5	.0
1.899	258.	410.	4.6	2380.4	2380.4	.0
1.986	187.	325.	5.7	2386.9	2386.9	.0
2.079	300.	417.	4.5	2393.0	2393.0	.0
2.175	308.	443.	4.2	2397.0	2397.0	.0
2.277	160.	319.	5.9	2401.6	2401.1	.5
2.372	143.	297.	6.3	2409.3	2409.3	.0
2.472	133.	349.	5.3	2414.1	2413.9	.2
2.568	153.	308.	6.0	2419.7	2419.7	.0
2.669	165.	378.	4.9	2423.6	2423.4	.2
2.759	211.	319.	5.8	2429.6	2429.6	.0
2.852	111.	289.	6.4	2434.8	2434.7	.1
2.932	153.	326.	5.7	2438.4	2438.4	.0
3.044	280.	423.	4.4	2442.8	2442.8	.0
3.144	212.	407.	4.6	2446.5	2446.5	.0
3.233	290.	376.	5.0	2452.6	2452.6	.0
3.343	241.	286.	4.0	2458.6	2458.3	.3
3.443	327.	393.	2.9	2461.5	2461.4	.1
3.534	462.	296.	3.9	2468.1	2468.1	.0
3.623	111.	205.	5.6	2474.5	2474.5	.0
3.713	124.	212.	5.4	2478.4	2478.3	.1
3.810	53.	150.	7.6	2482.1	2482.1	.0
3.897	55.	145.	7.9	2487.1	2487.3	-.2
4.005	75.	170.	6.7	2494.2	2494.3	-.1
[illegible].090	92.	191.	6.0	2498.6	2498.7	-.1

FLOODWAY DATA, WASH AH5: SOLS WASH TRIB
PROFILE NO. 2

STATION	------- FLOODWAY ------- WIDTH	SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
4.177	73.	168.	6.8	2502.1	2502.1	.0
4.270	33.	91.	6.5	2506.5	2506.1	.4
4.277	13.	52.	11.5	2507.4	2507.4	.0
4.288	13.	81.	7.4	2510.4	2510.4	.0
4.292	60.	260.	2.3	2511.6	2511.6	.0
4.358	84.	222.	2.7	2511.9	2511.9	.0
4.428	90.	116.	5.2	2515.7	2515.7	.0
4.510	52.	72.	2.8	2520.1	2519.7	.4
4.572	51.	48.	4.2	2524.6	2524.6	.0
4.699	51.	48.	4.1	2533.1	2533.1	.0
4.796	49.	47.	4.2	2538.8	2538.7	.1
4.890	40.	44.	4.5	2543.9	2543.9	.0
4.946	6.	19.	10.3	2547.6	2547.6	.0
4.957	6.	29.	7.0	2550.1	2550.1	.0
4.959	26.	104.	1.9	2551.1	2551.1	.0
5.054	53.	48.	4.1	2554.9	2554.9	.0
[illegible].152	48.	44.	4.5	2563.4	2563.4	.0
[illegible].251	66.	51.	3.9	2571.2	2571.2	.0
5.340	42.	50.	3.9	2575.9	2575.8	.1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.025
.065
.025
.055
.045
.030
.045
Elevation
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2270
2265
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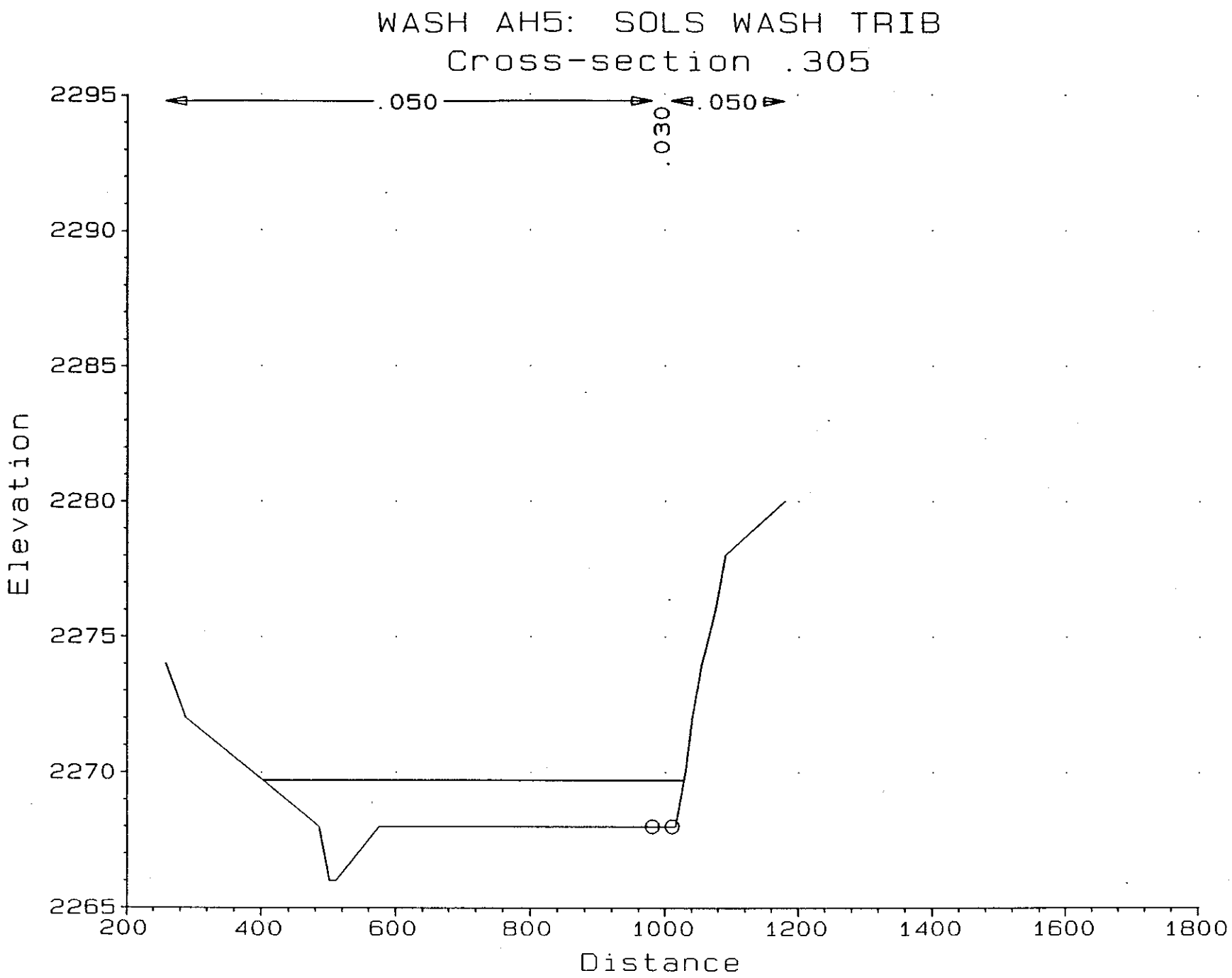
2255
400
600
800
1000
1200
1400
1600
1800
2000
Distance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Cross-section .305
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.050
.030
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1000
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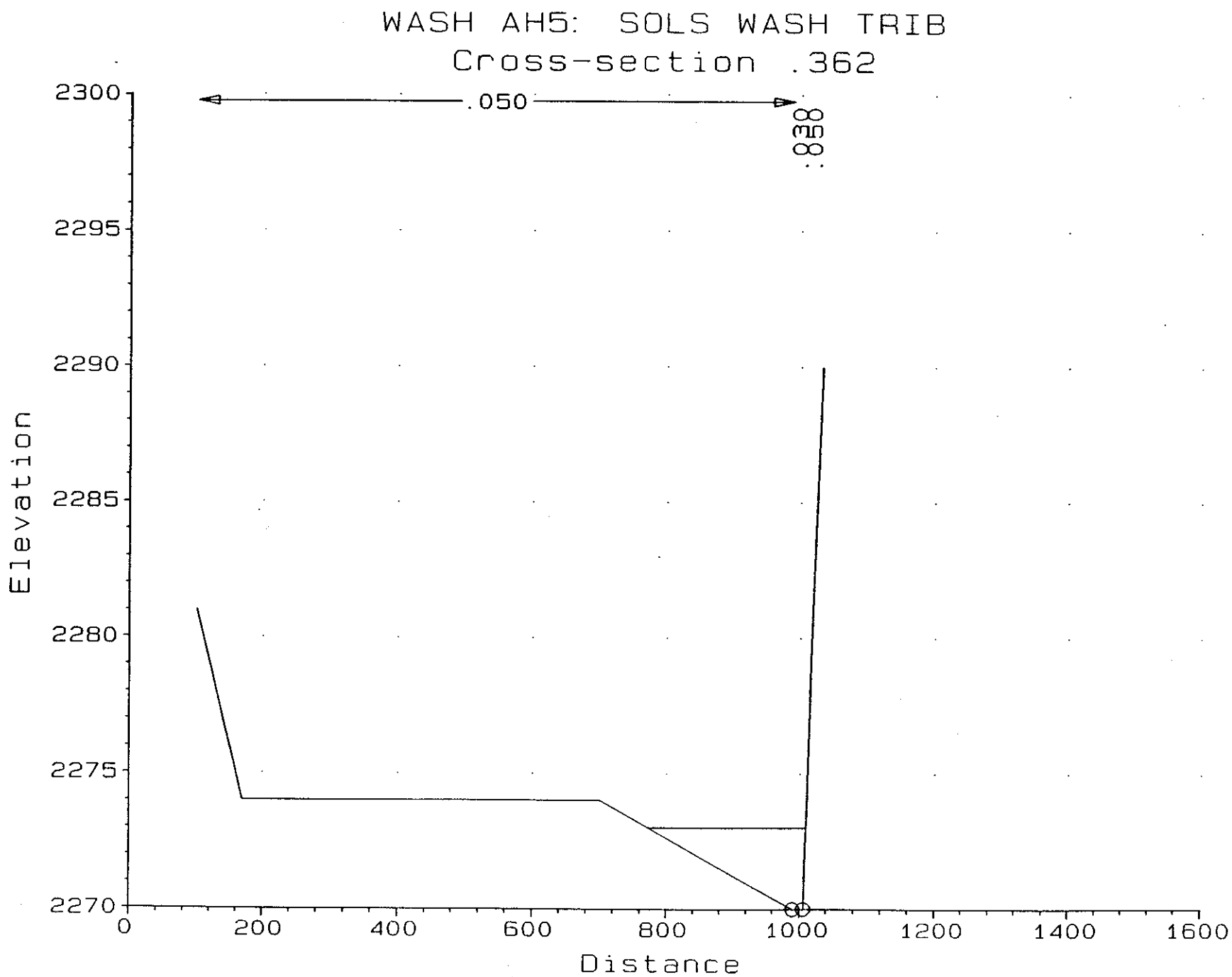
1800
Distance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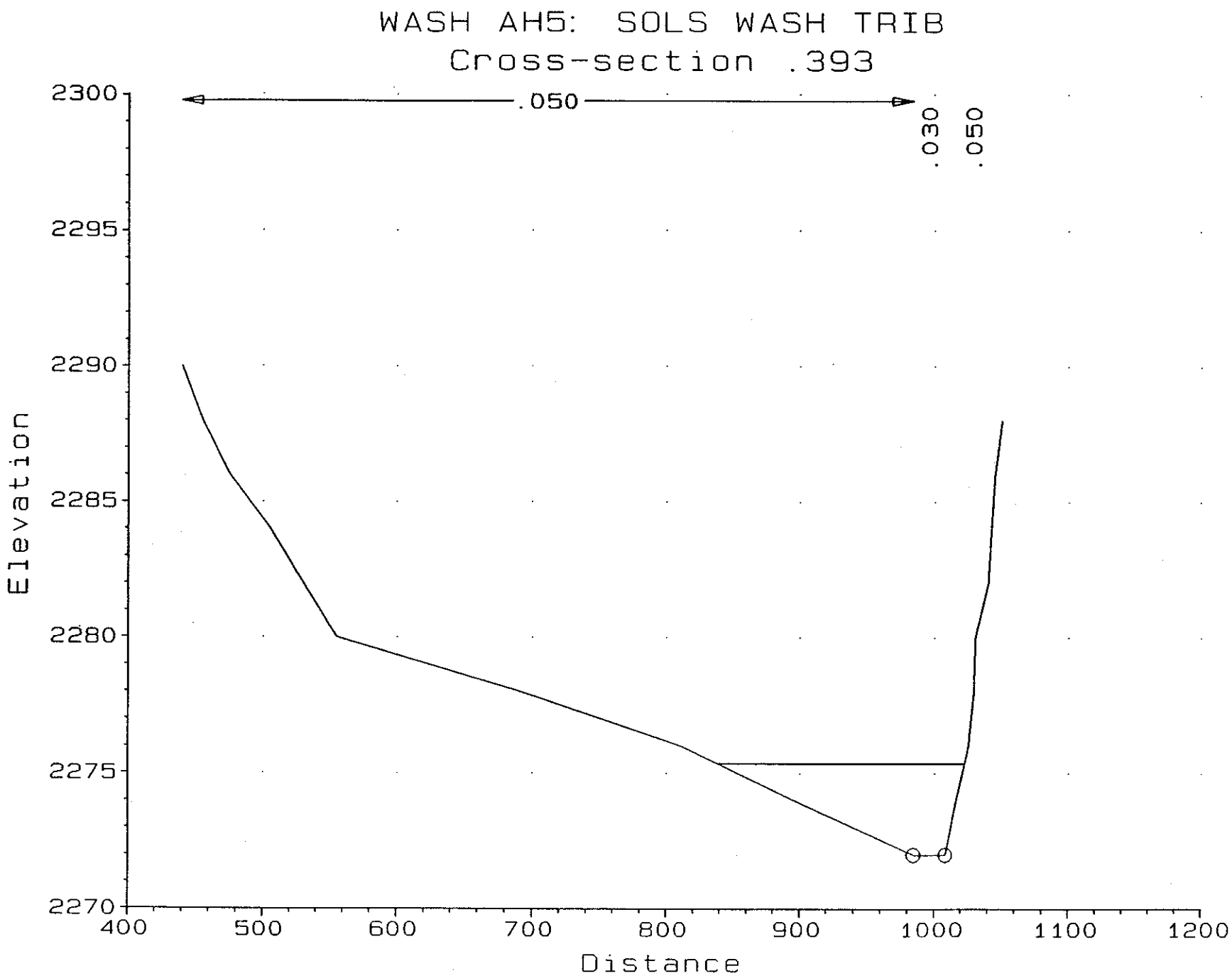
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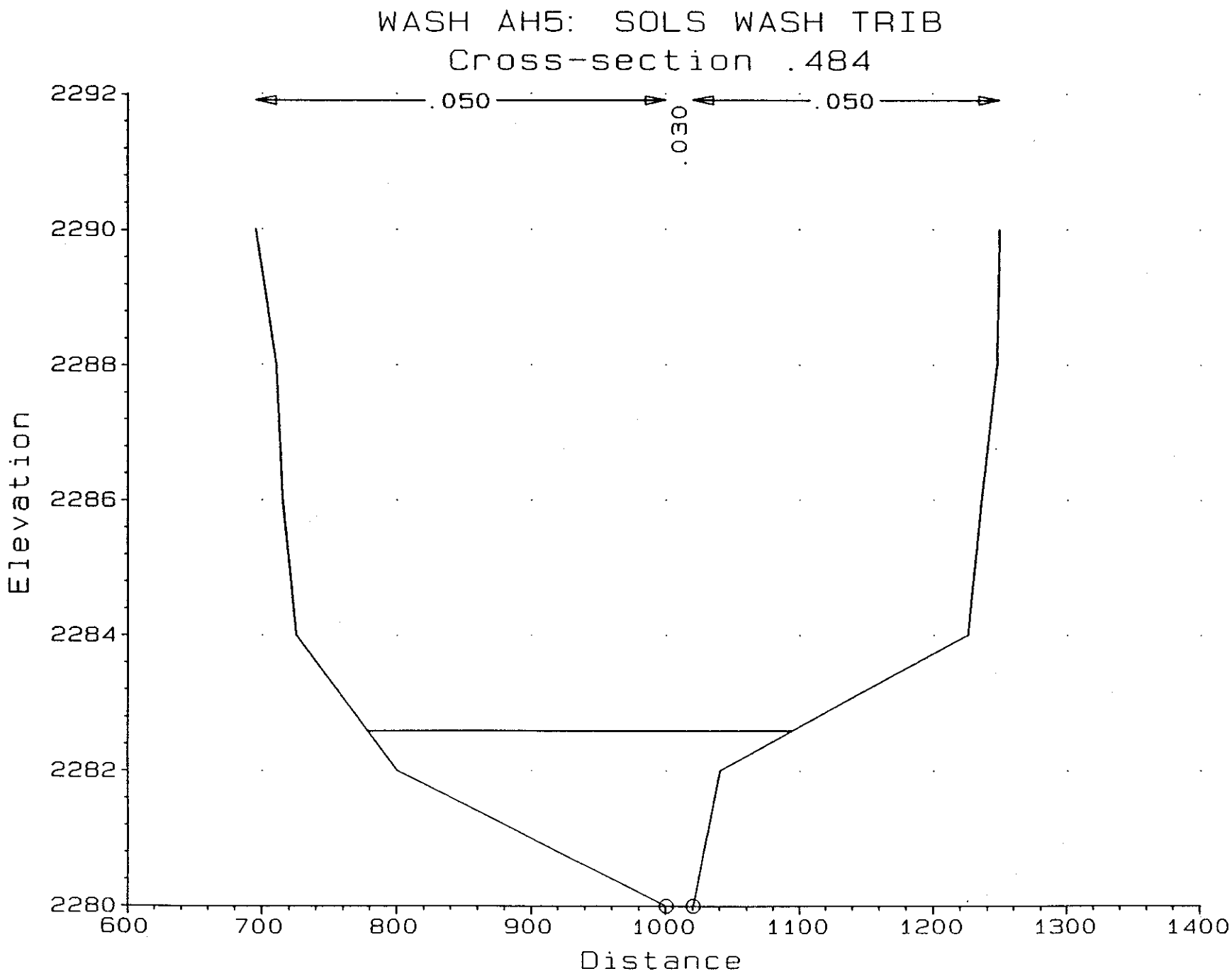
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.050
.030
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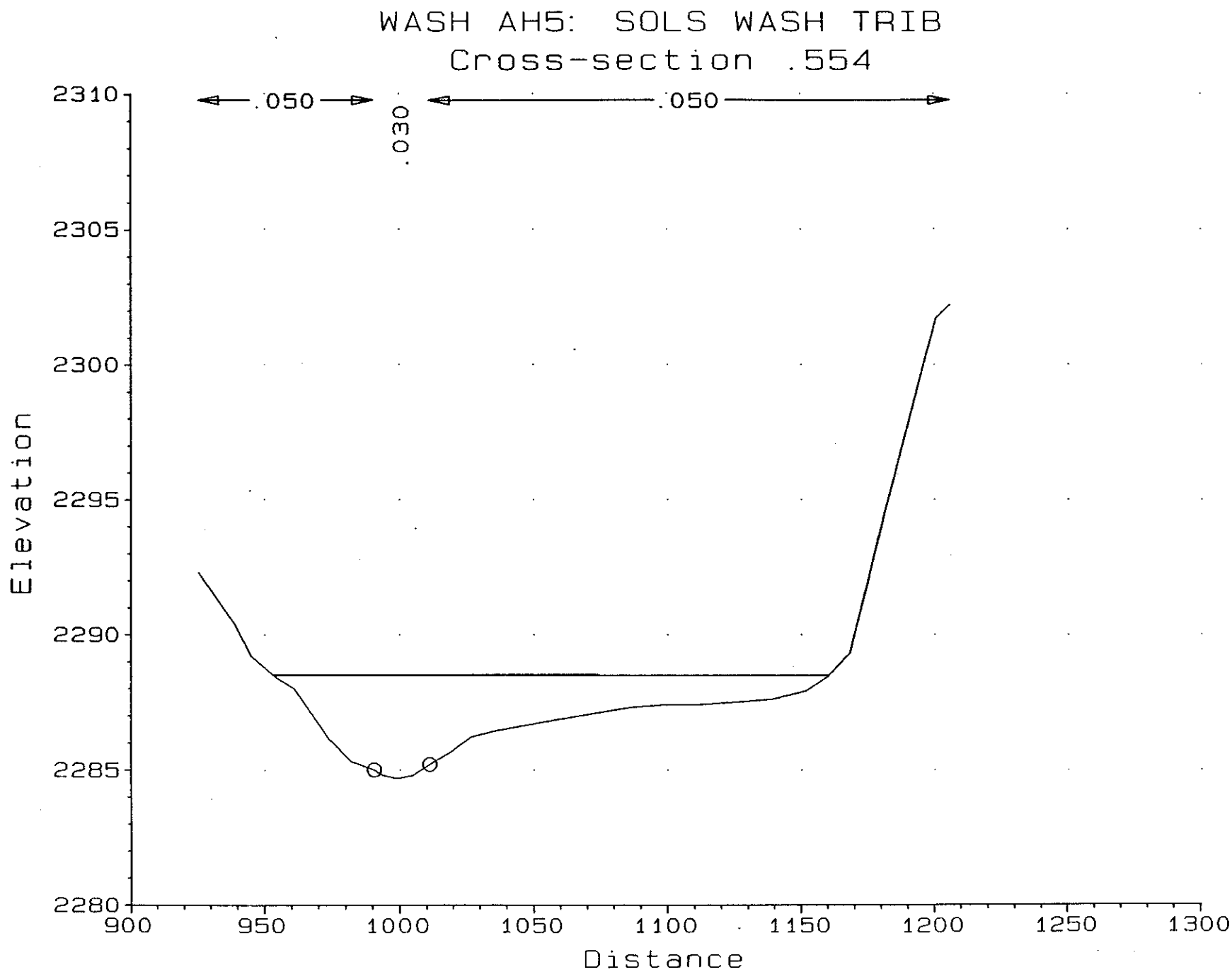
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Cross-section .554
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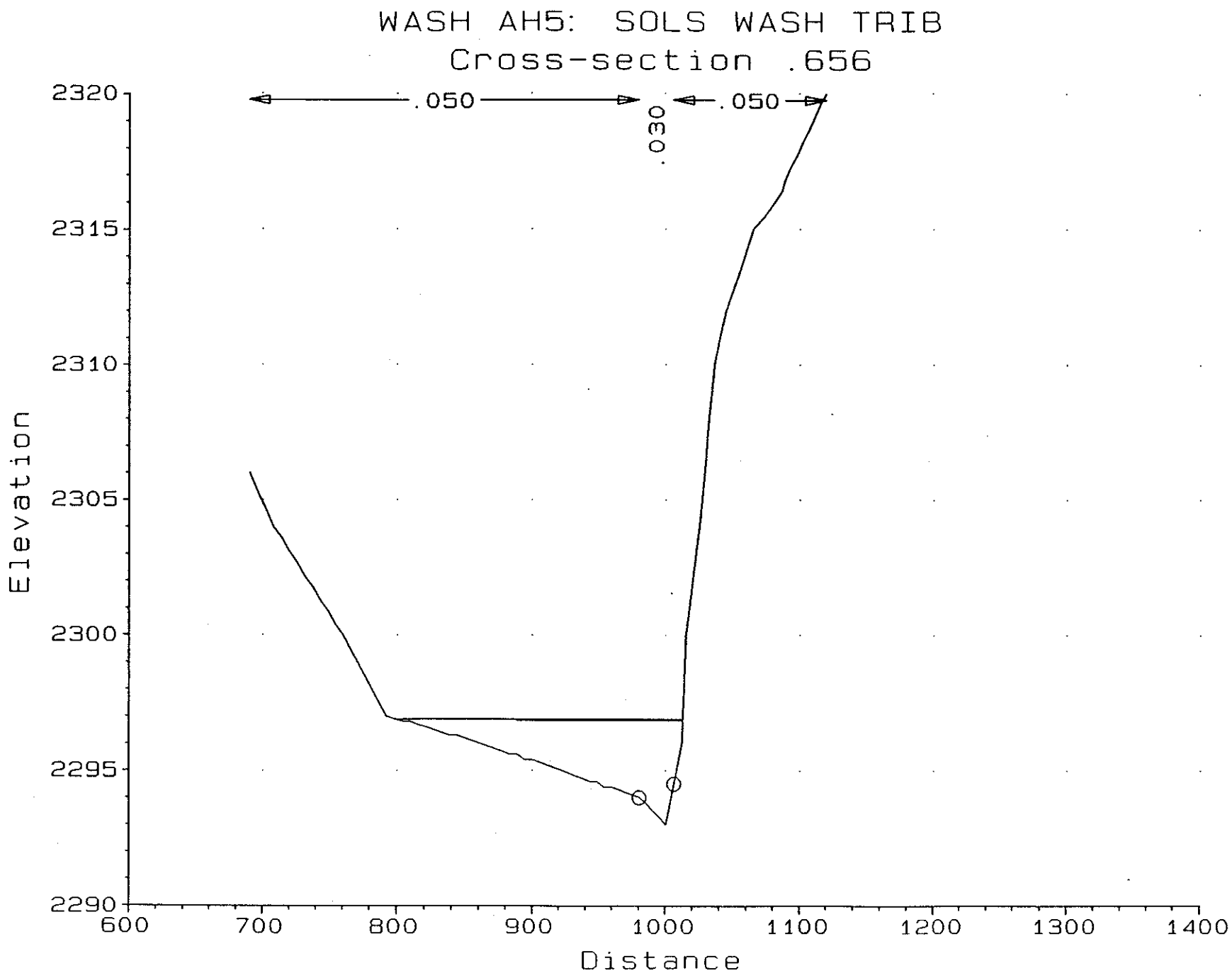
Distance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Cross-section .656
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.030
.050
Elevation
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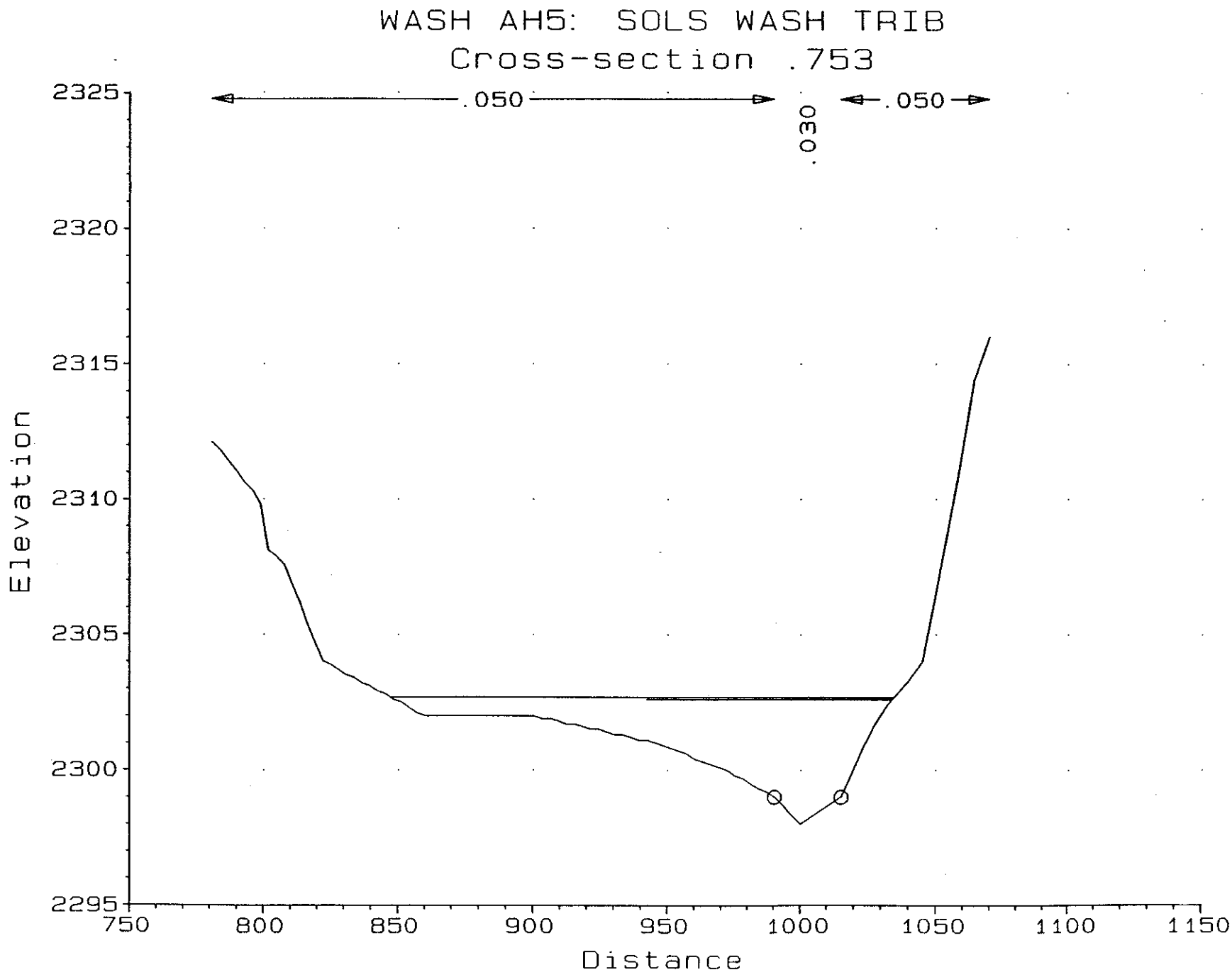
1300
1400
Distance


WASH AH5: SOLS WASH TRIB
Cross-section .753
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.030
.050
2325
2320
2315
2310
2305
2300
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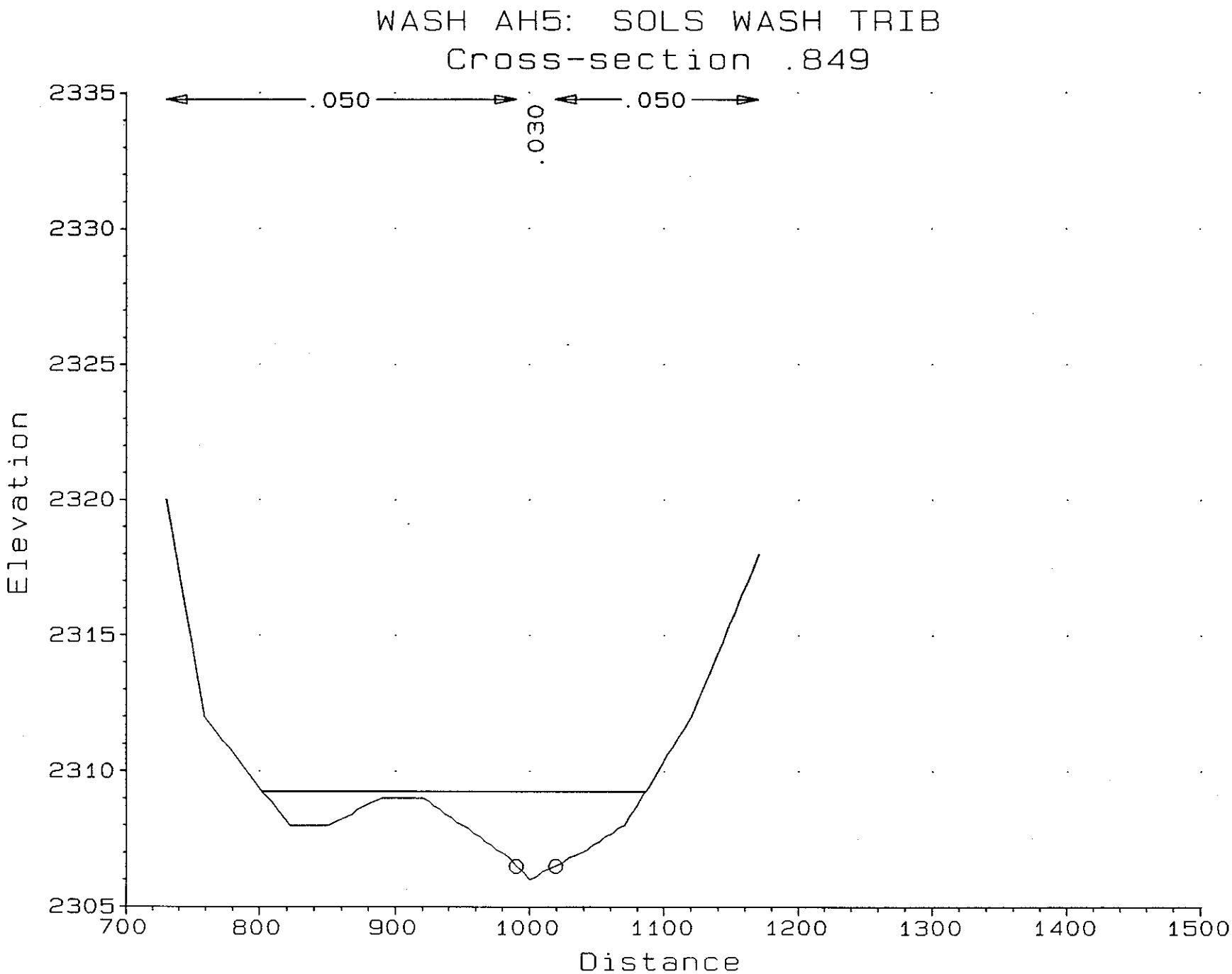
950
1000
1050
1100
1150
Distance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Cross-section .849
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Elevation
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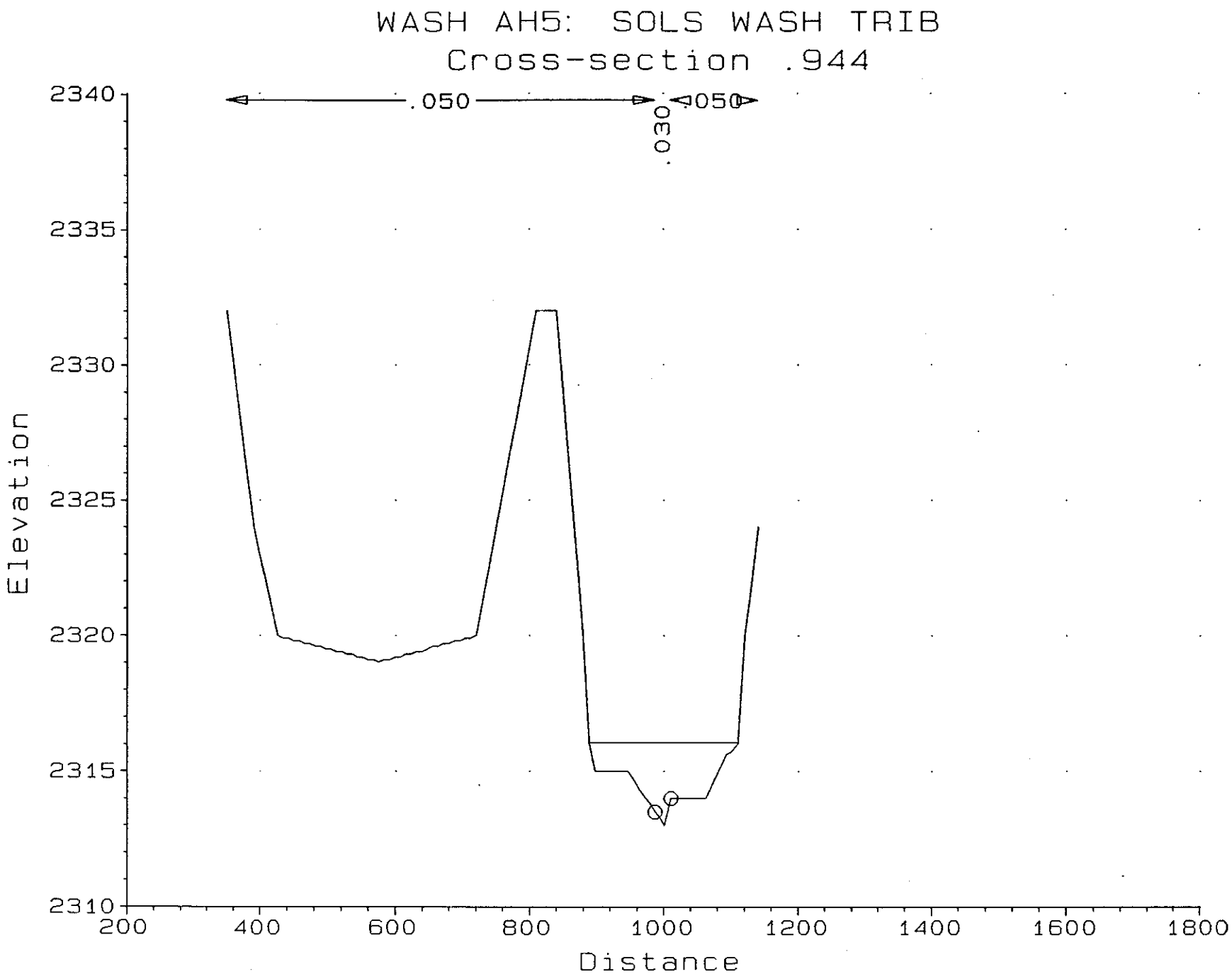
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Cross-section .944
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.050
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Elevation
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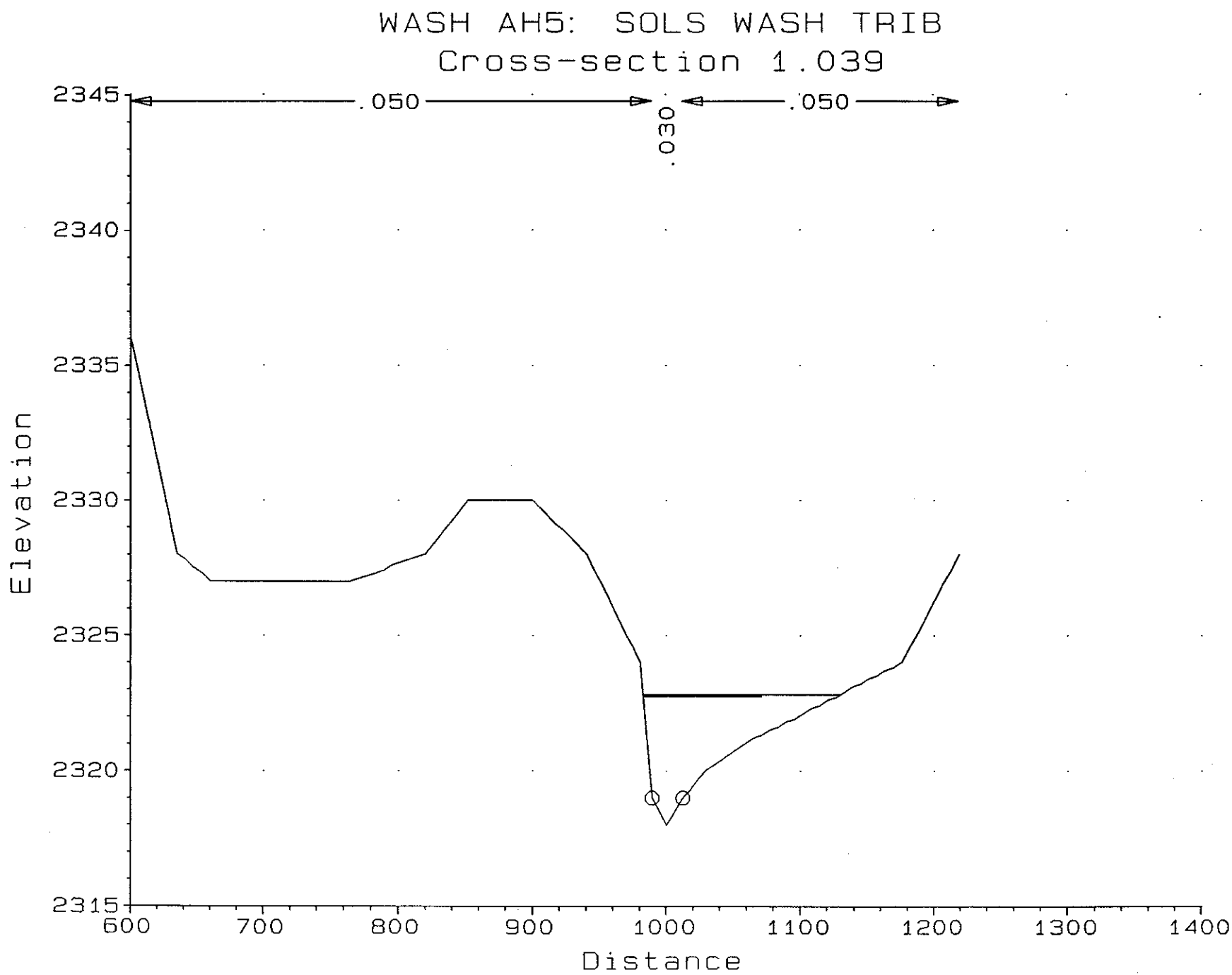
WASH AH5: SOLS WASH TRIB
Cross-section 1.039
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Elevation
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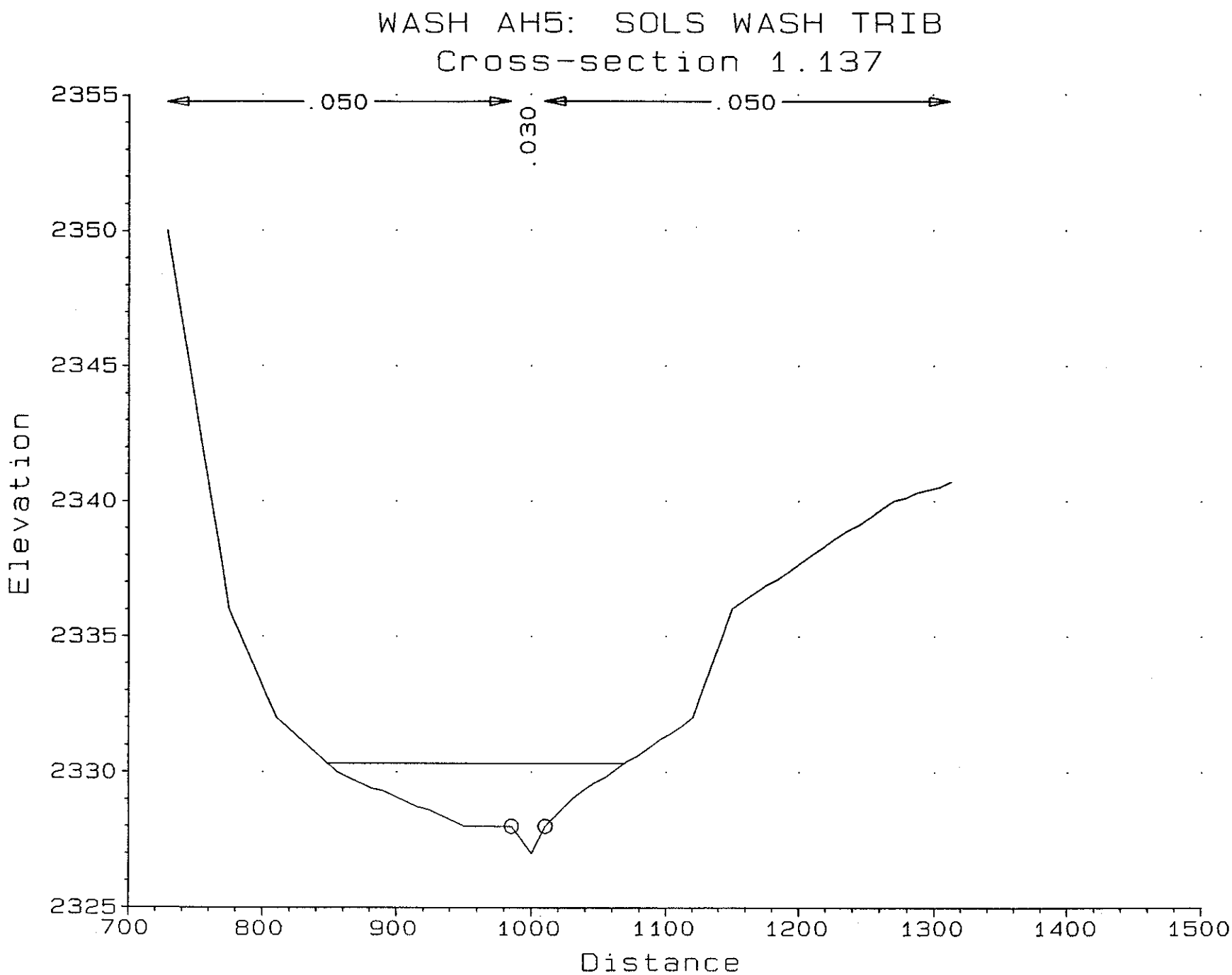
WASH AH5: SOLS WASH TRIB
Cross-section 1.137
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.030
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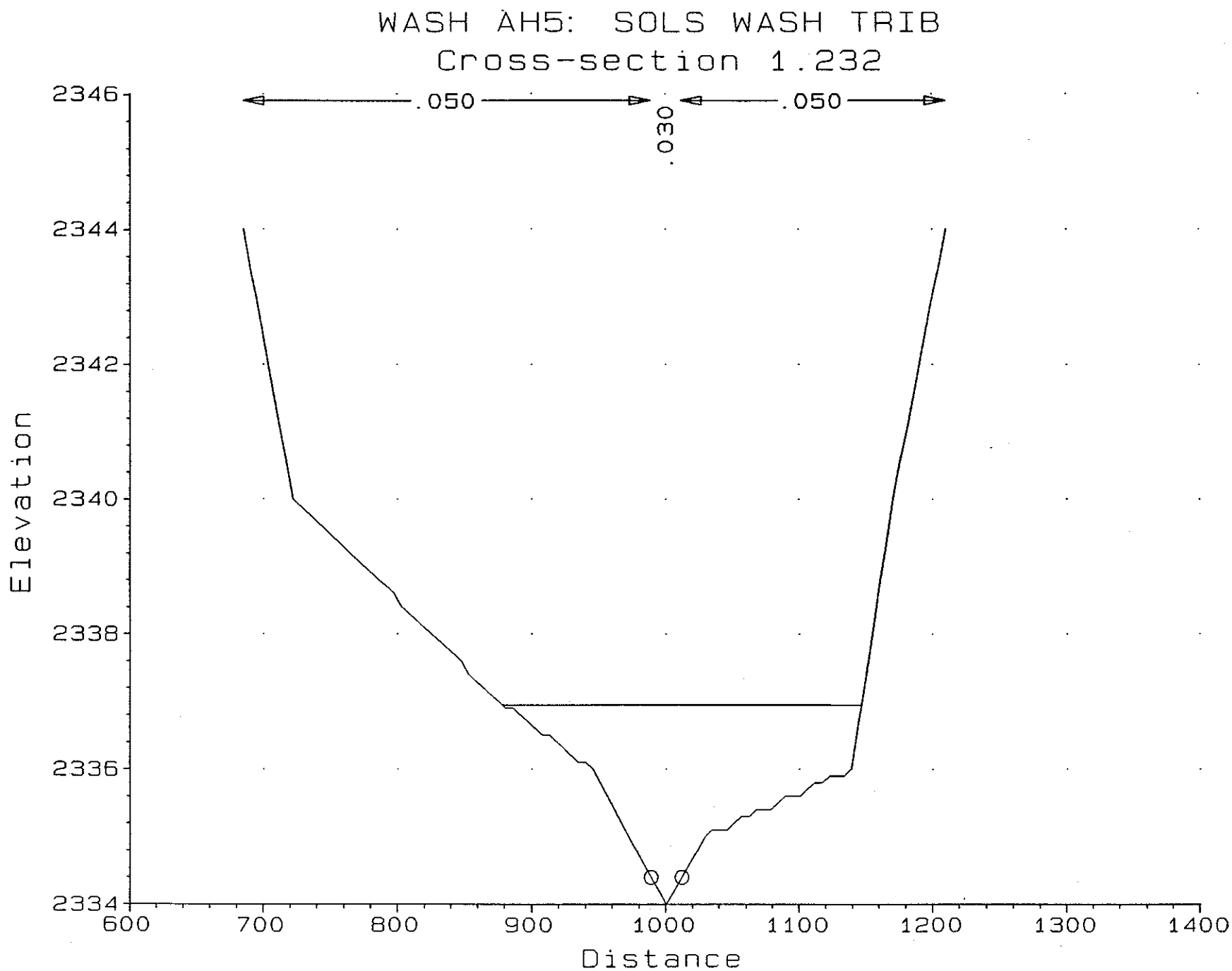
WASH AH5: SOLS WASH TRIB
Cross-section 1.232
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.050
2346
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Elevation
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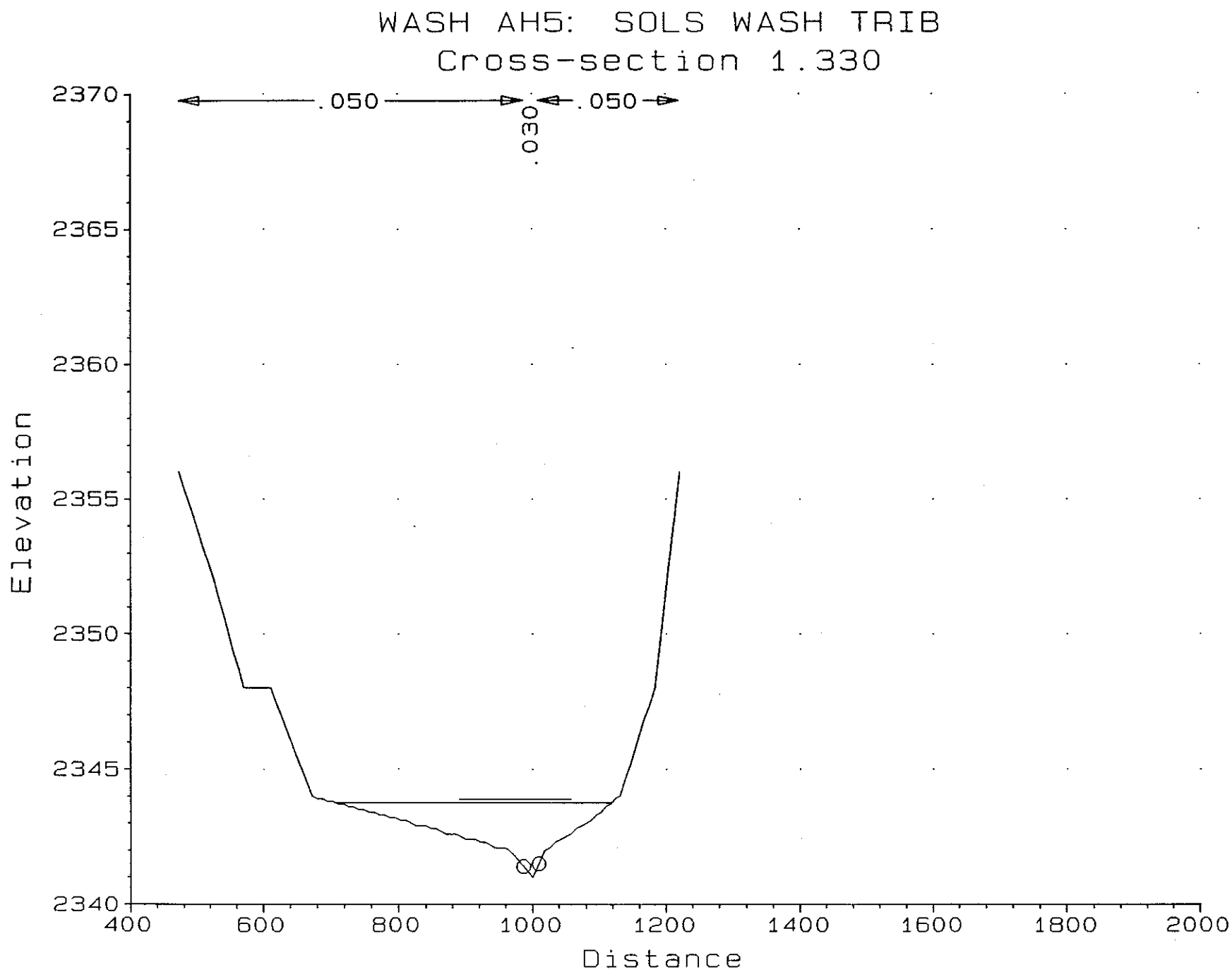
Distance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Cross-section 1.330
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.050
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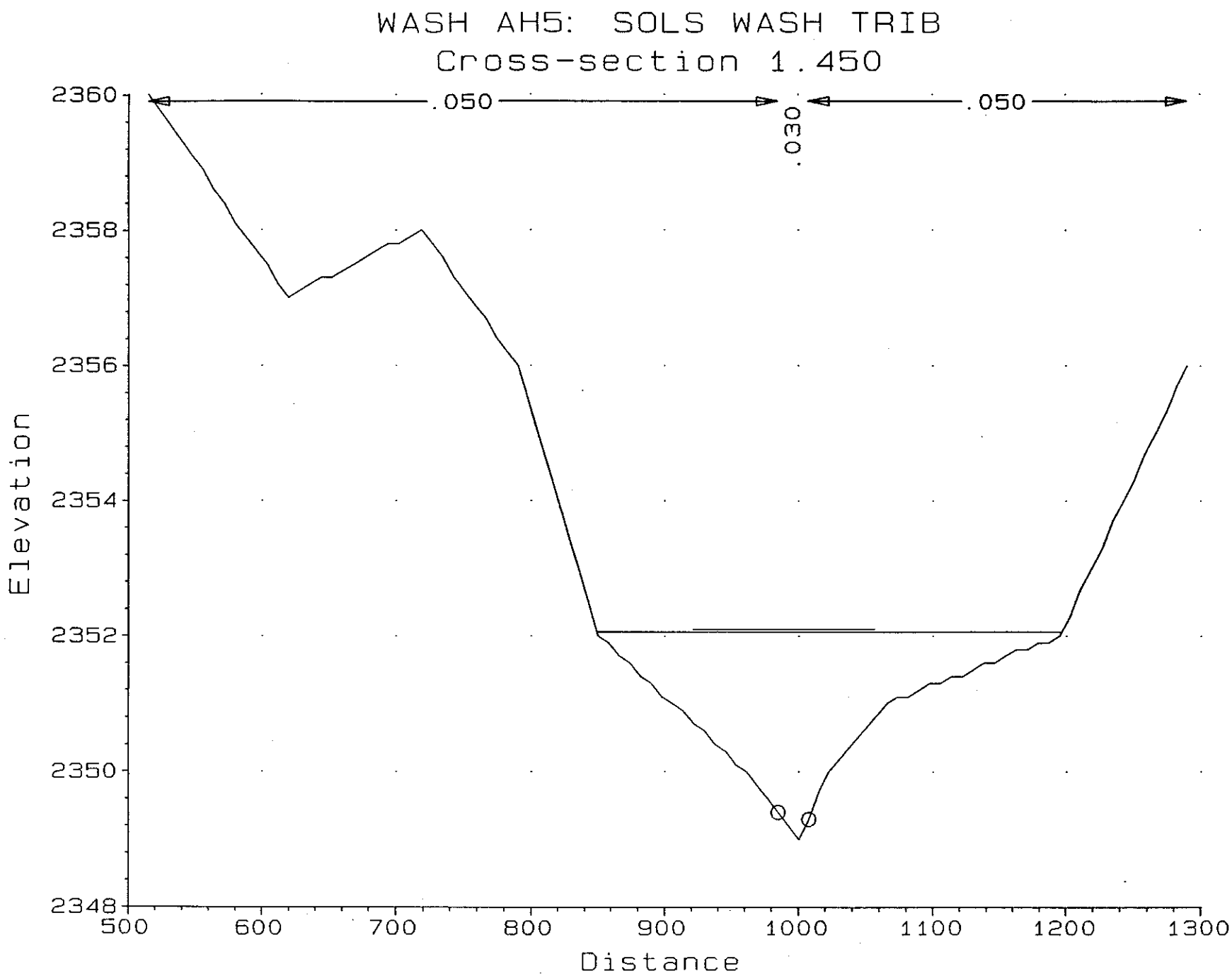
WASH AH5: SOLS WASH TRIB
Cross-section 1.450
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.030
.050
Elevation
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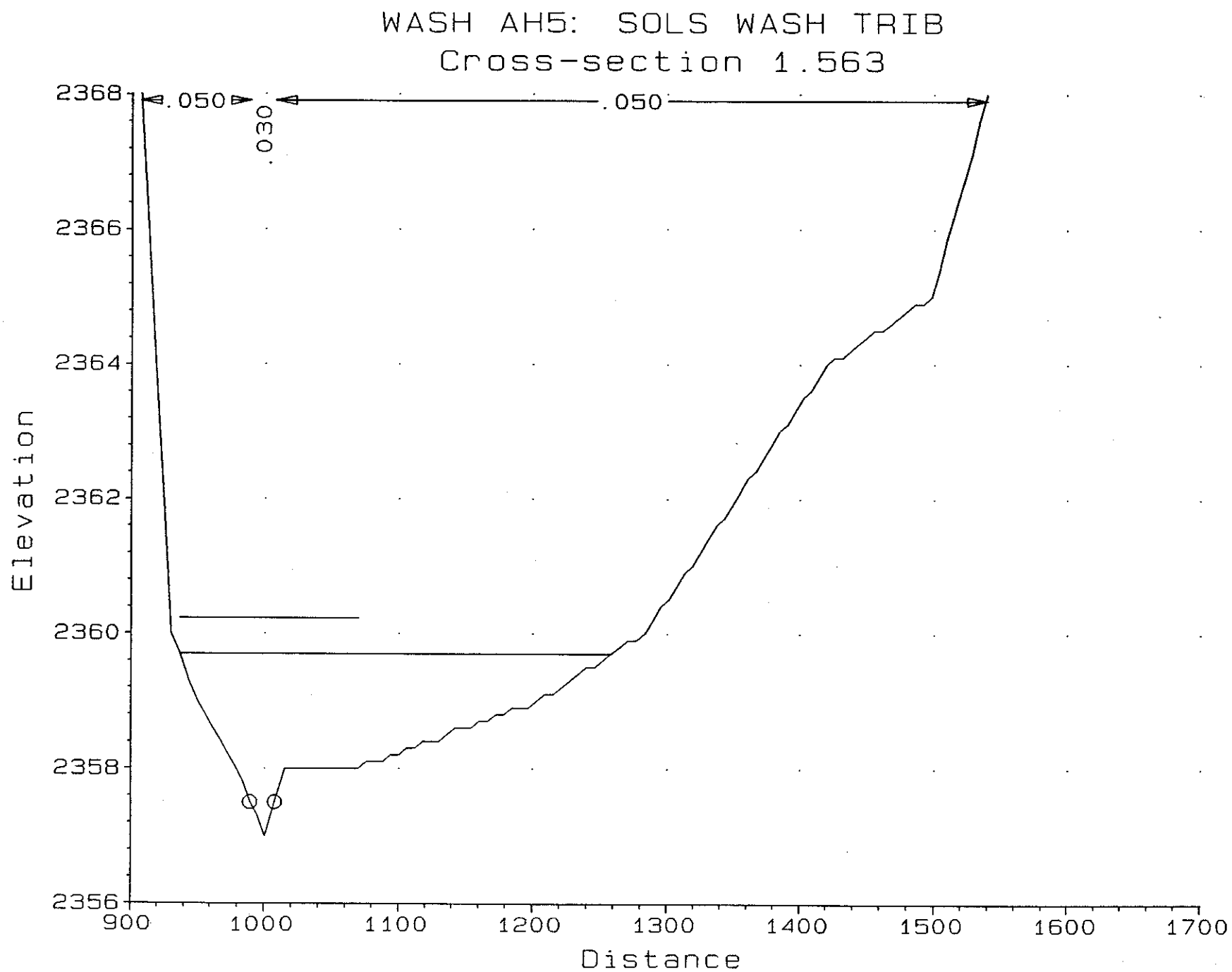
WASH AH5: SOLS WASH TRIB
Cross-section 1.563
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.030
.050
2368
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Elevation
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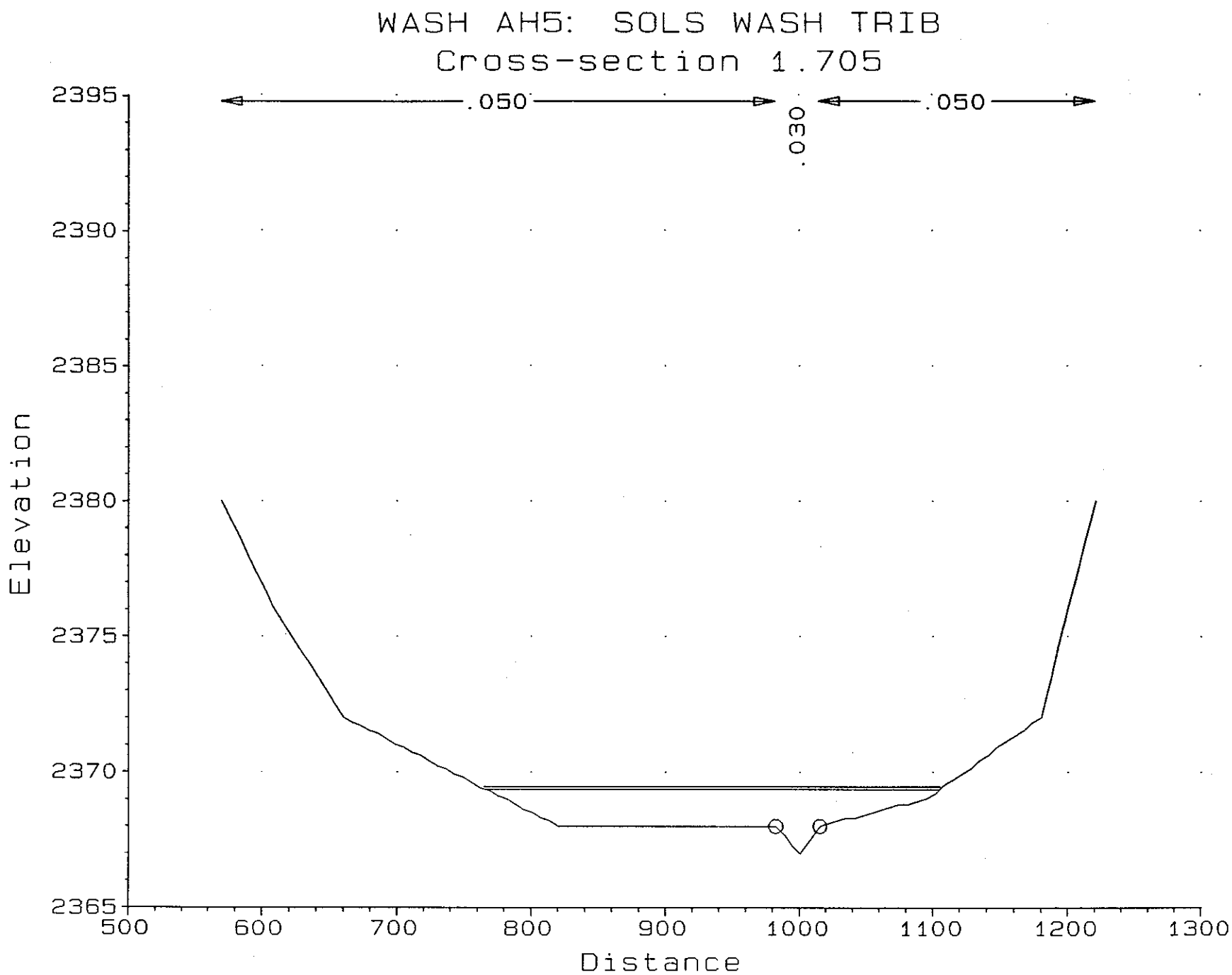
WASH AH5: SOLS WASH TRIB
Cross-section 1.705
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.030
.050
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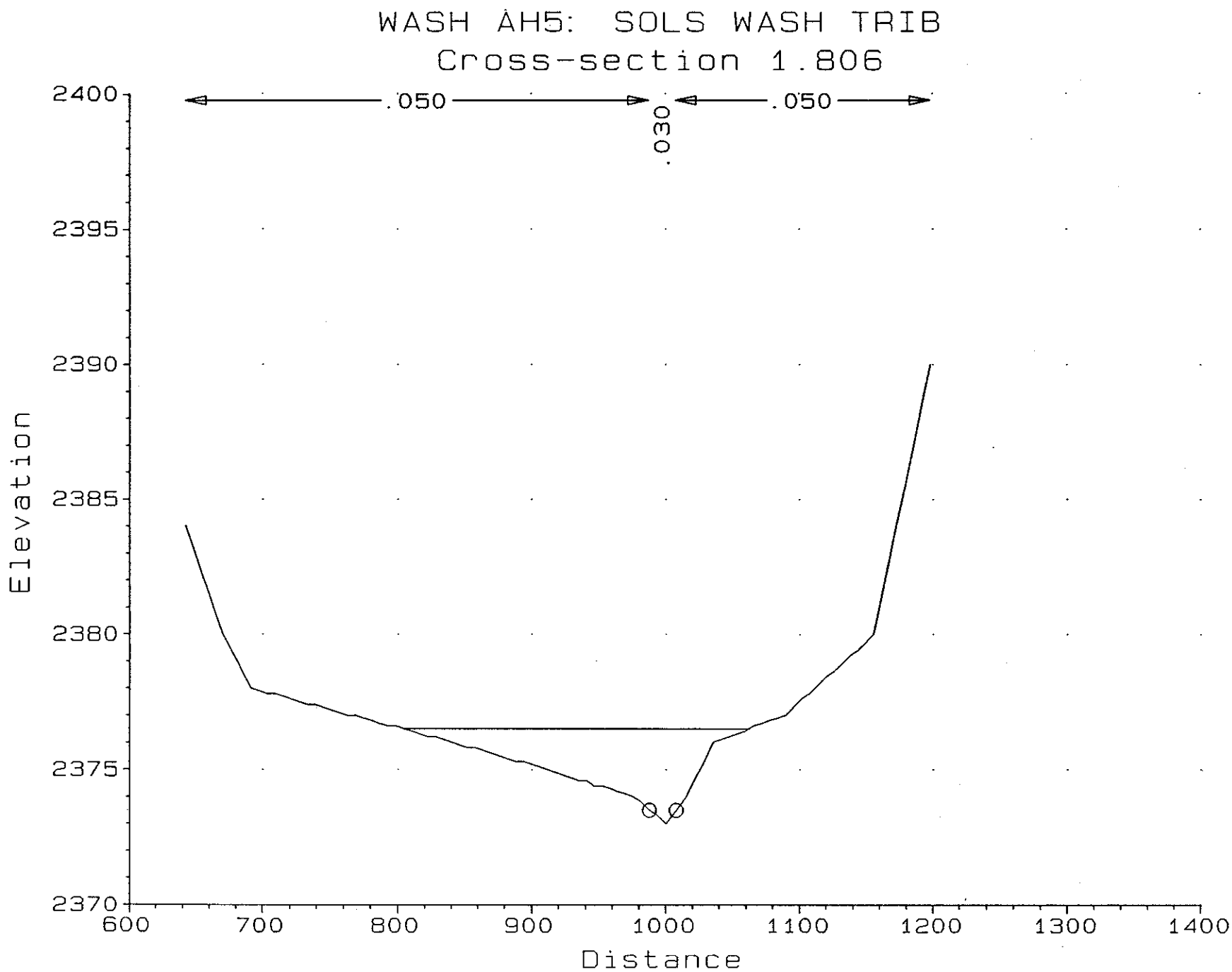
WASH AH5: SOLS WASH TRIB
Cross-section 1.806
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Elevation
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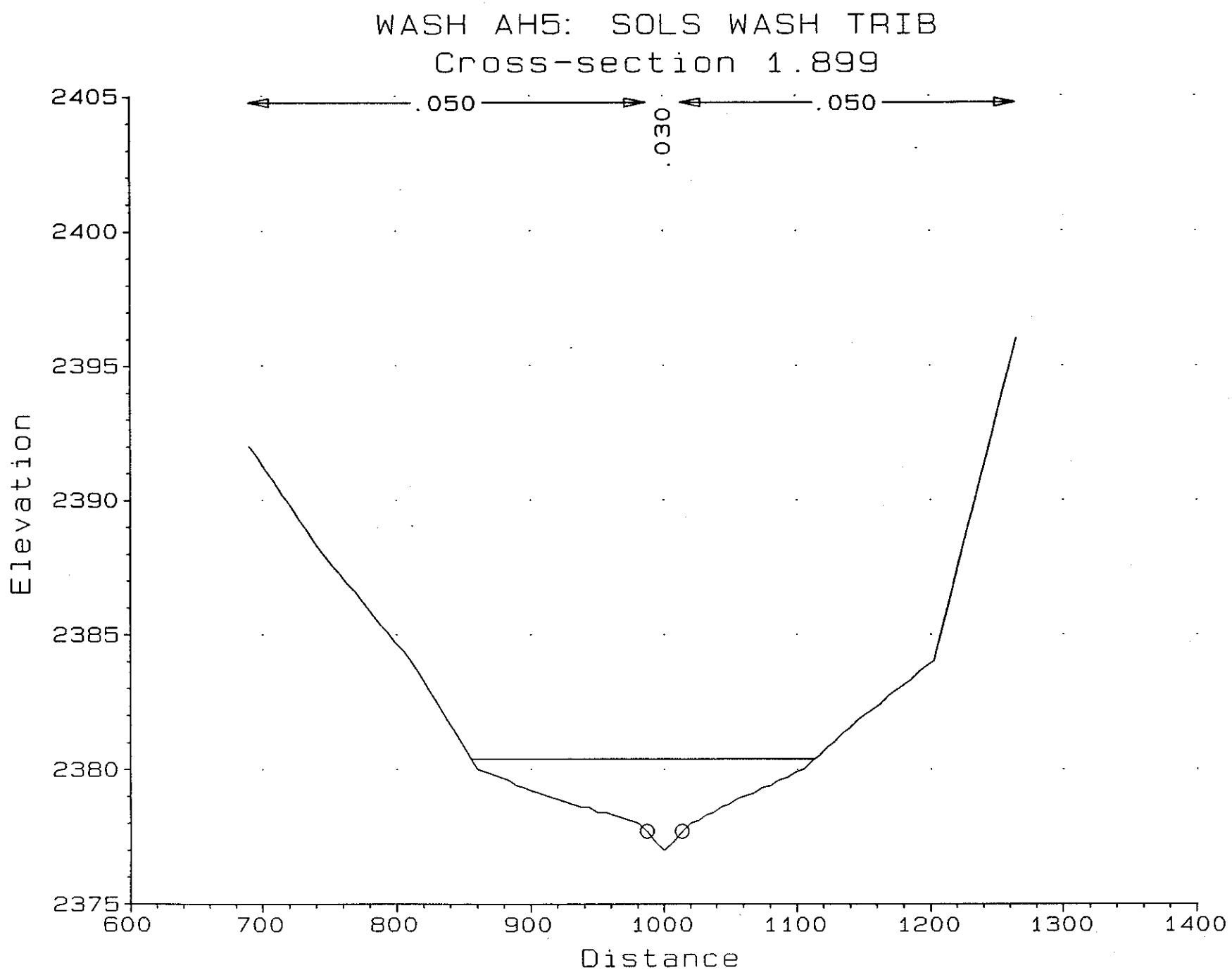
WASH AH5: SOLS WASH TRIB
Cross-section 1.899
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.030
.050
Elevation
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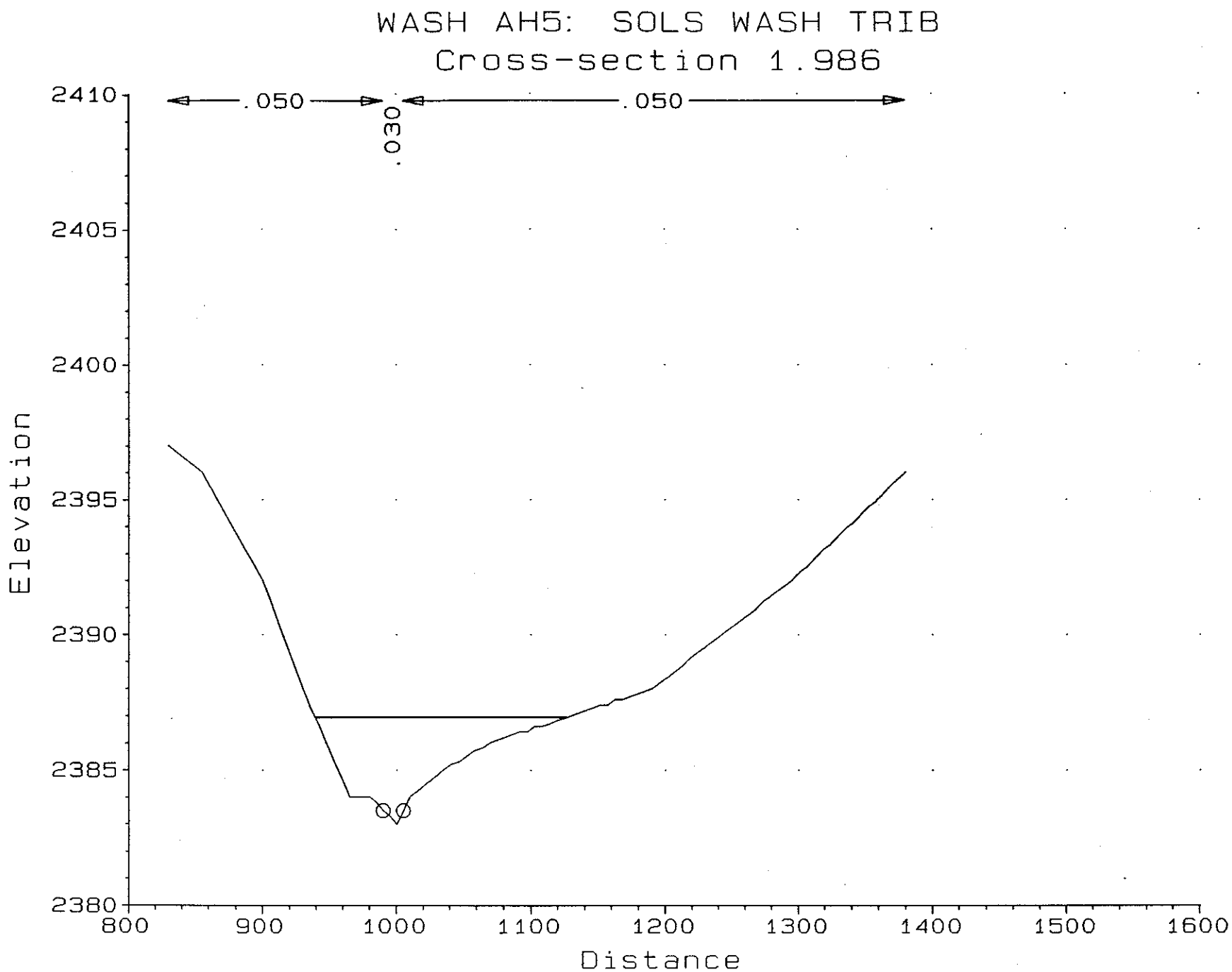
WASH AH5: SOLS WASH TRIB
Cross-section 1.986
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.030
.050
2410
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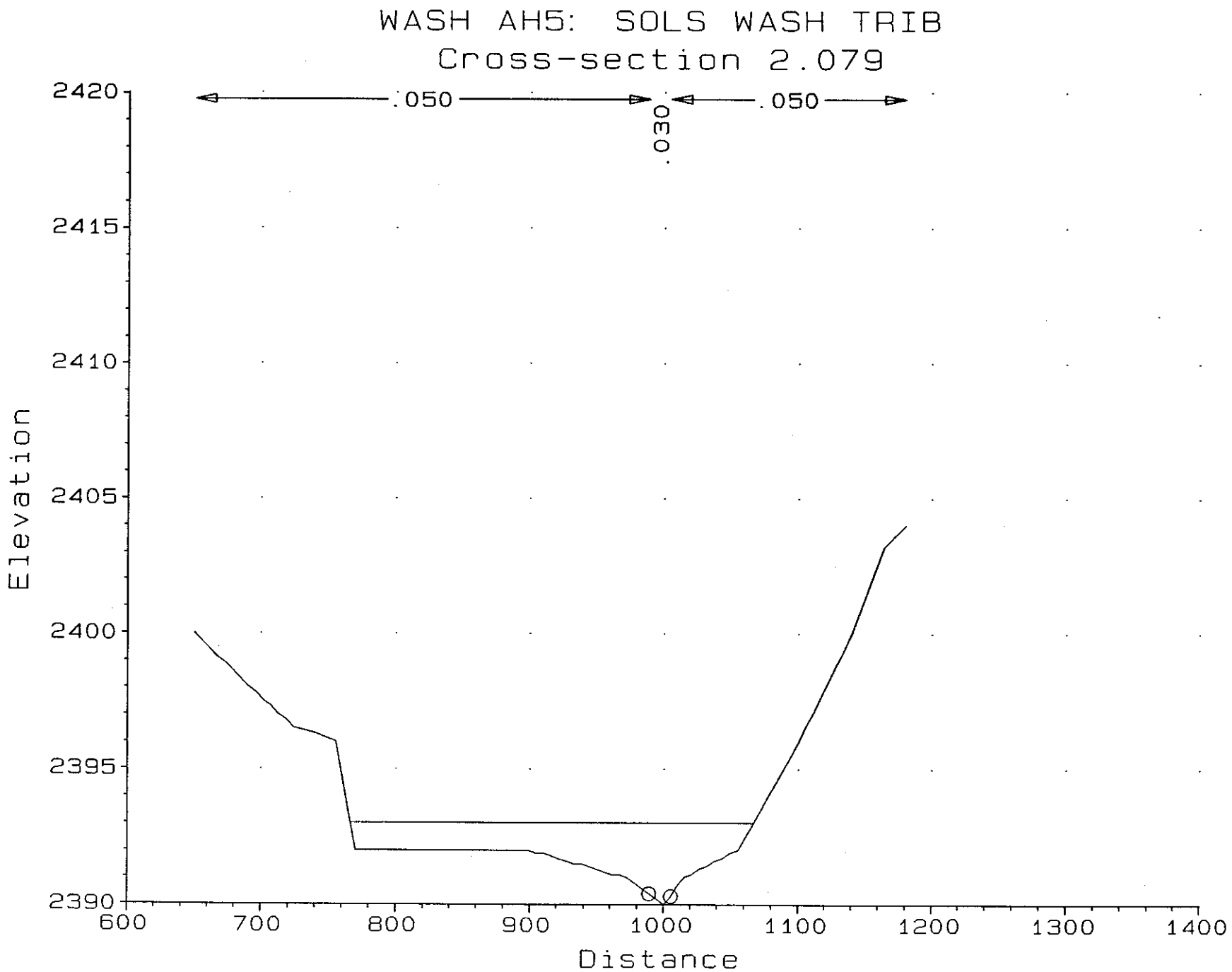
WASH AH5: SOLS WASH TRIB
Cross-section 2.079
.050
.050
.030
2420
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Elevation
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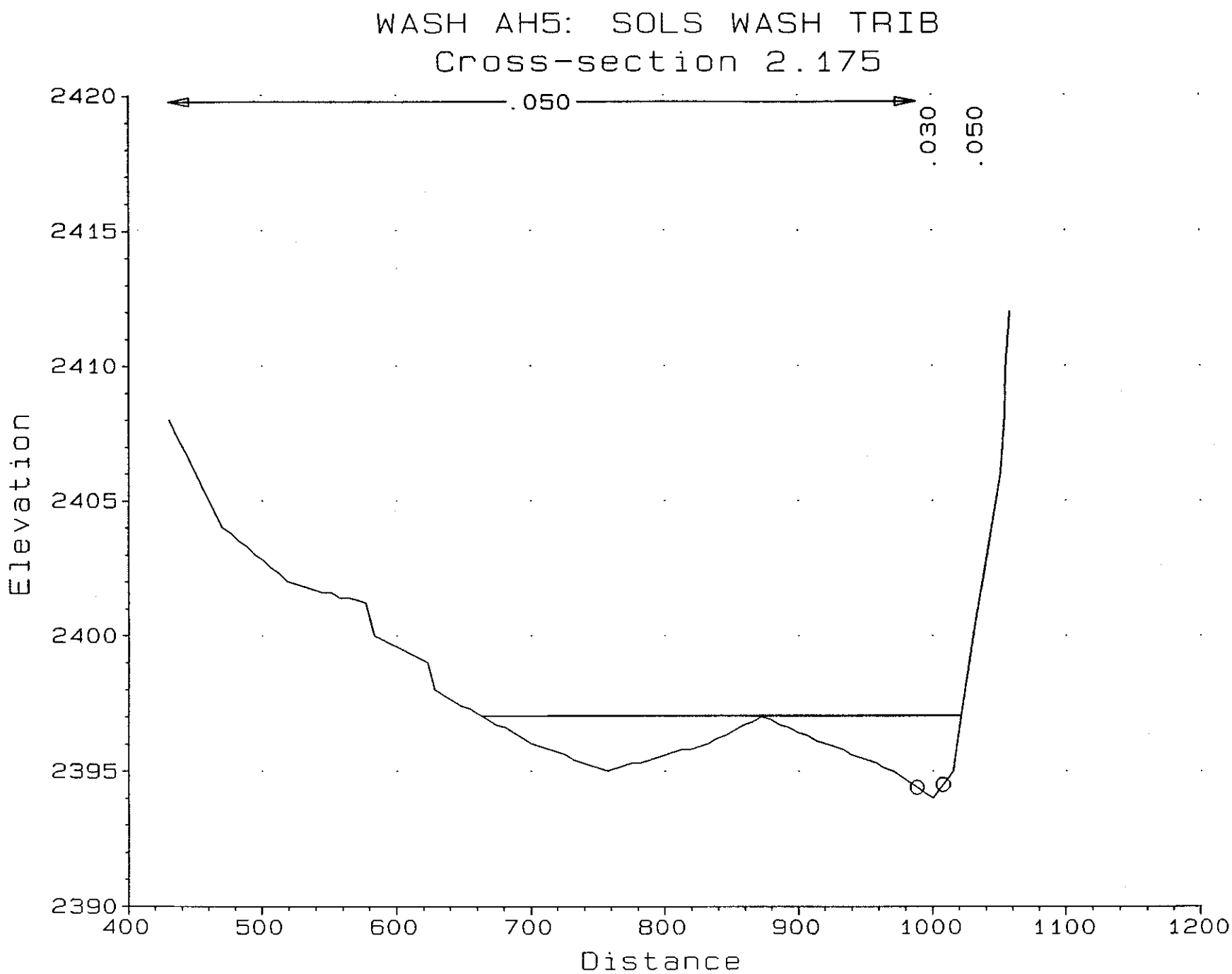
WASH AH5: SOLS WASH TRIB
Cross-section 2.175
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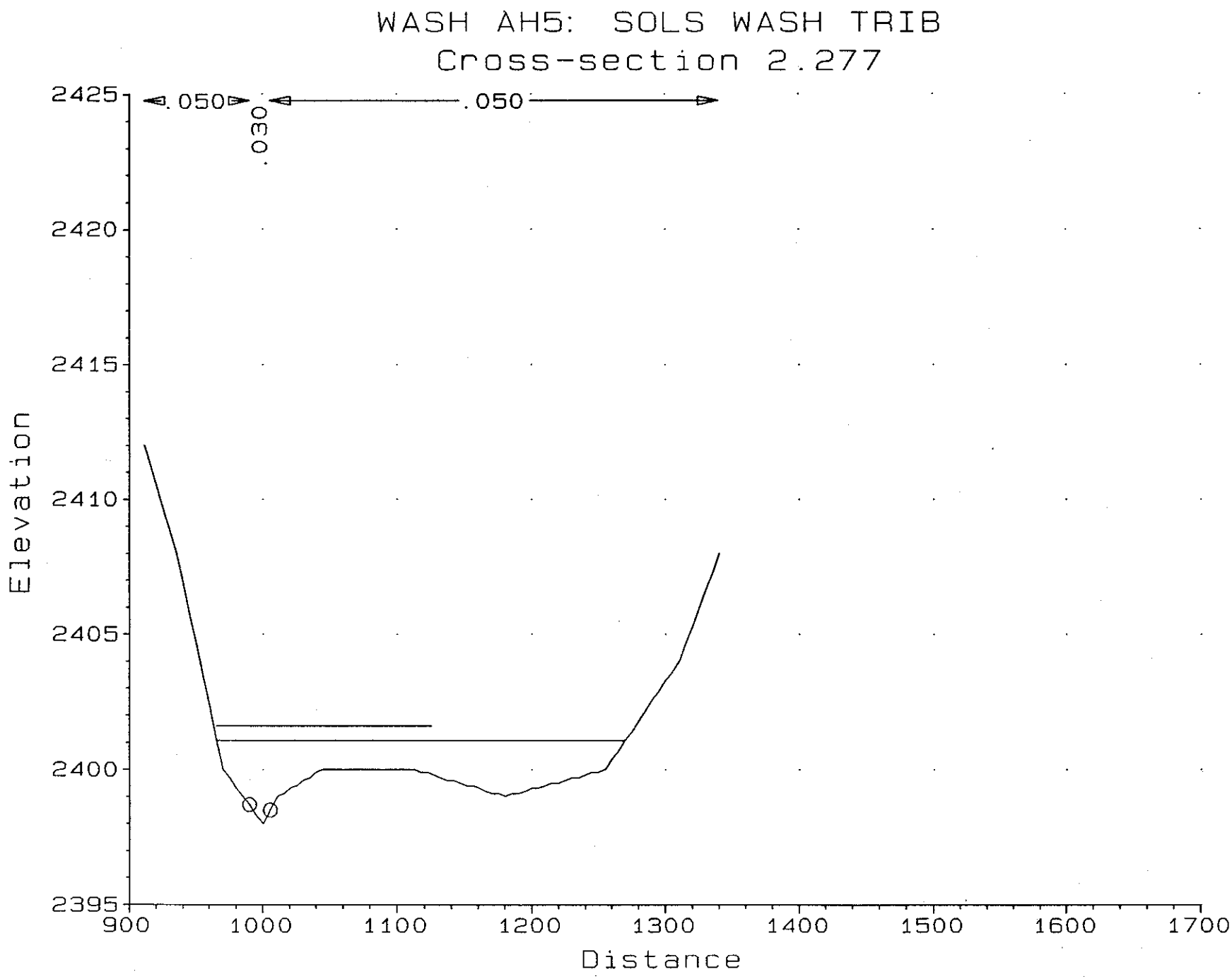
WASH AH5: SOLS WASH TRIB
Cross-section 2.277
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.030
.050
2425
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Elevation
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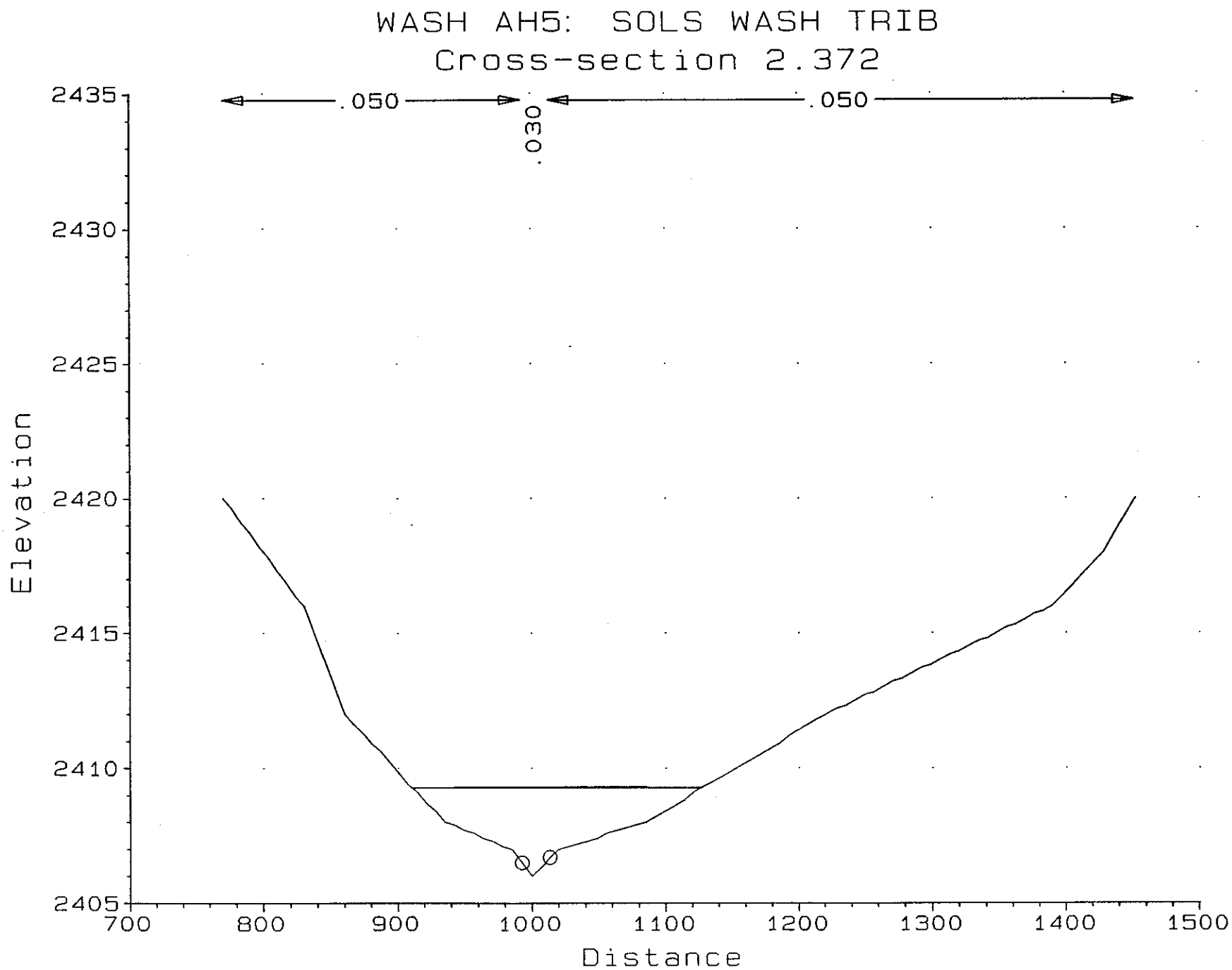
WASH AH5: SOLS WASH TRIB
Cross-section 2.372
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.030
.050
Elevation
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2430
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2420
2415
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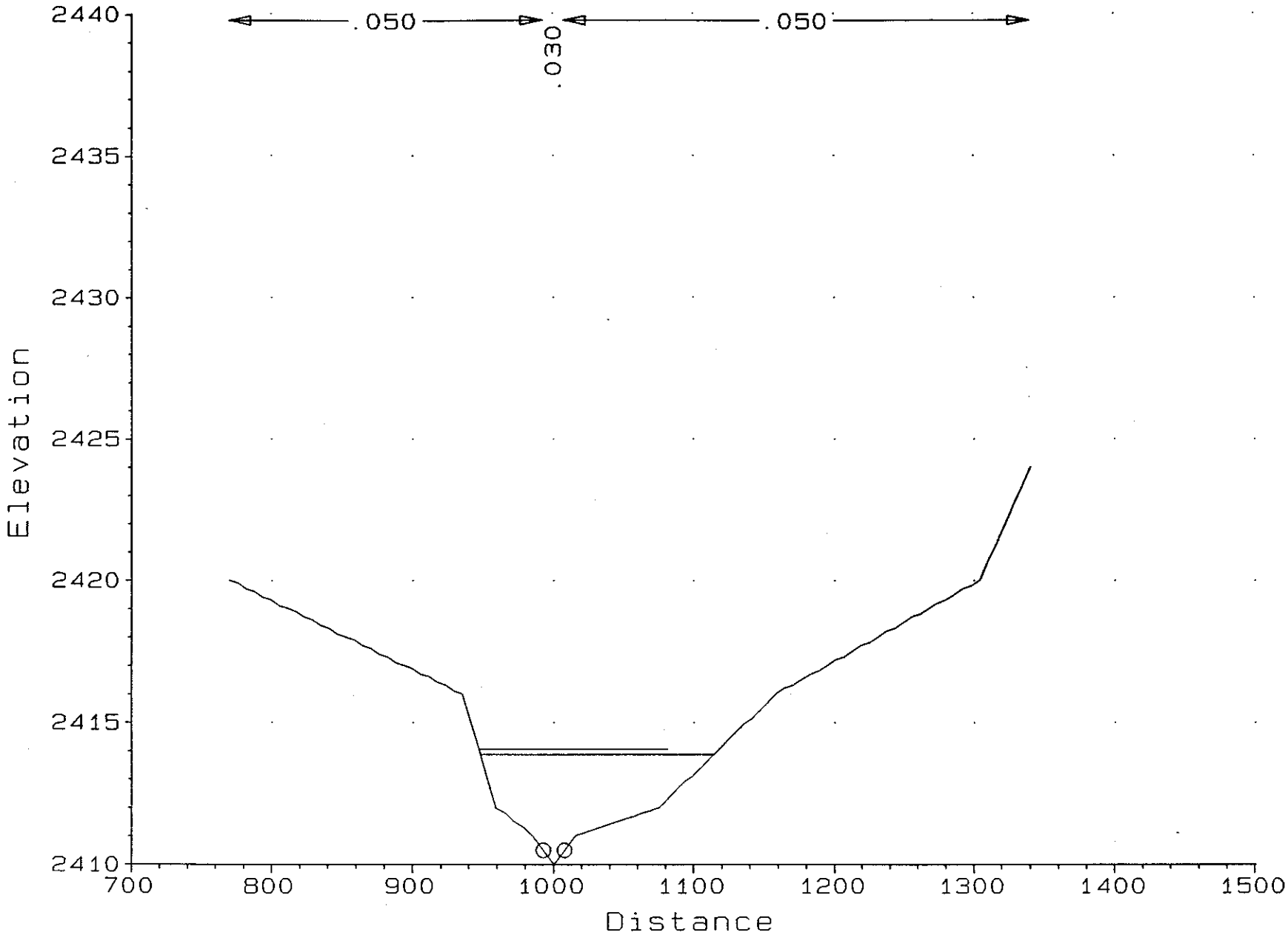
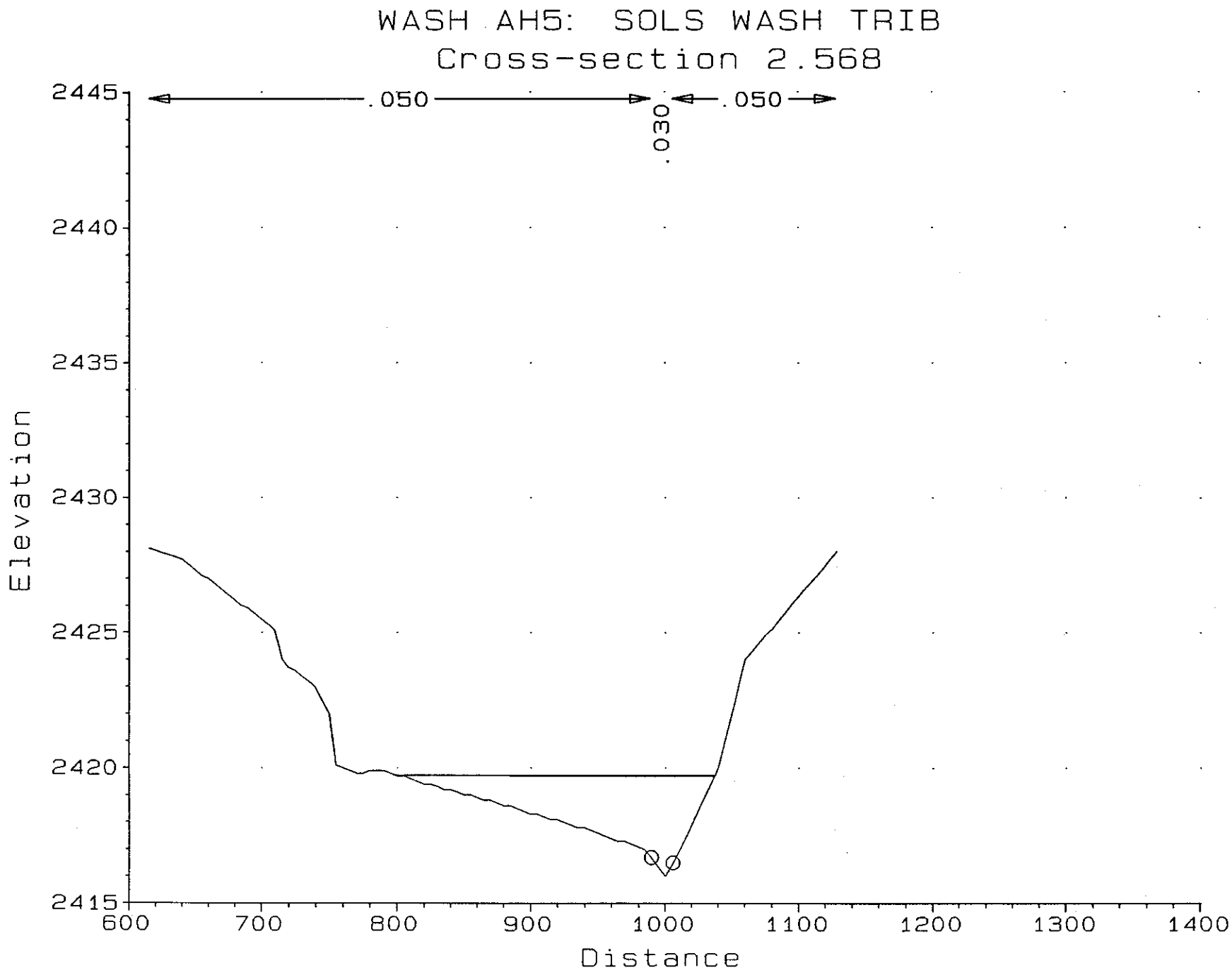
1300
1400
1500
Distance

WASH AH5: SOLS WASH TRIB
Cross-section 2.472




WASH AH5: SOLS WASH TRIB
Cross-section 2.568
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.030
.050
2445
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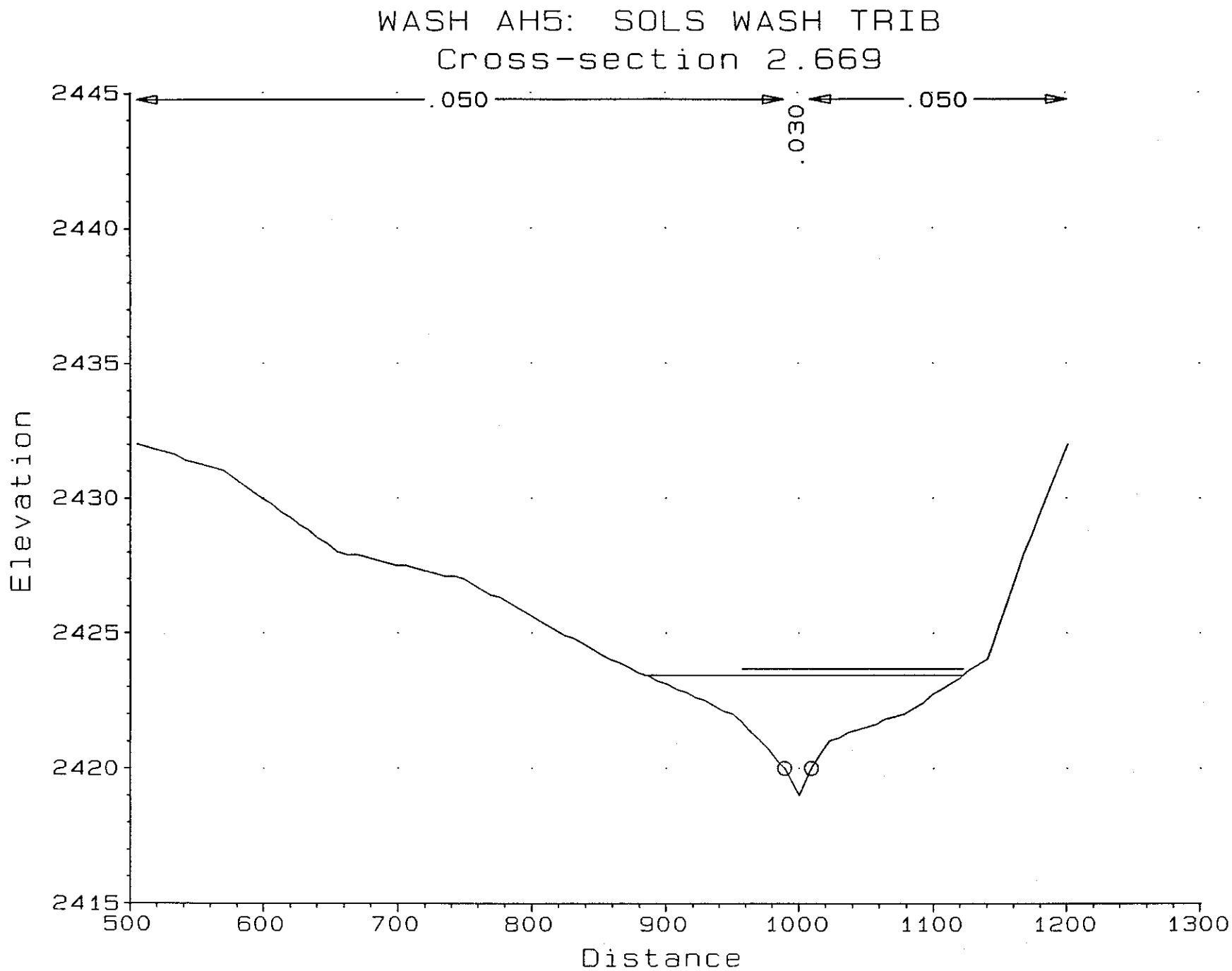
Distance


WASH AH5: SOLS WASH TRIB
Cross-section 2.669
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.030
.050
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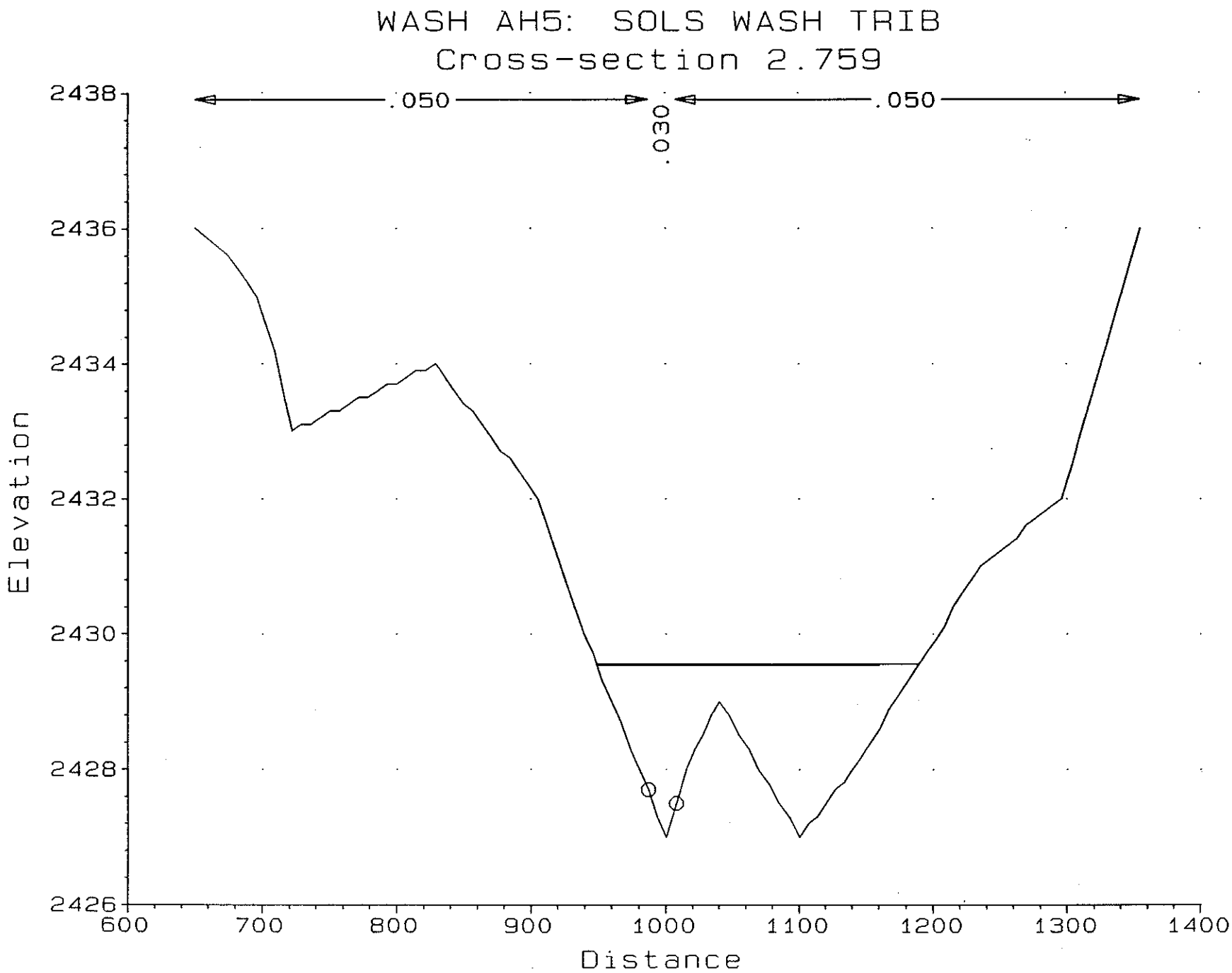
Distance


WASH AH5: SOLS WASH TRIB
Cross-section 2.759
.050
.030
.050
2438
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Elevation
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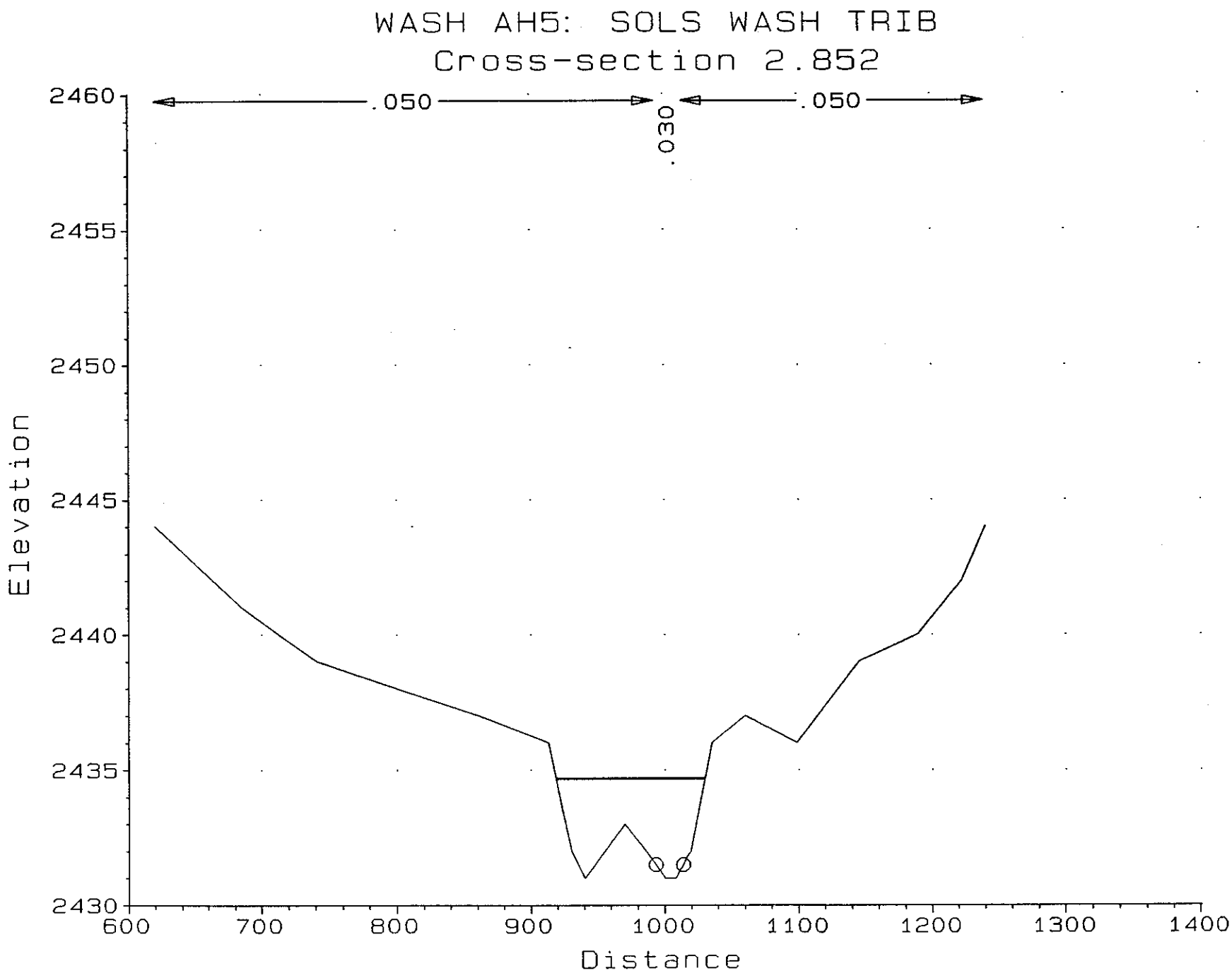
Distance


WASH AH5: SOLS WASH TRIB
Cross-section 2.852
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.030
.050
2460
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Elevation
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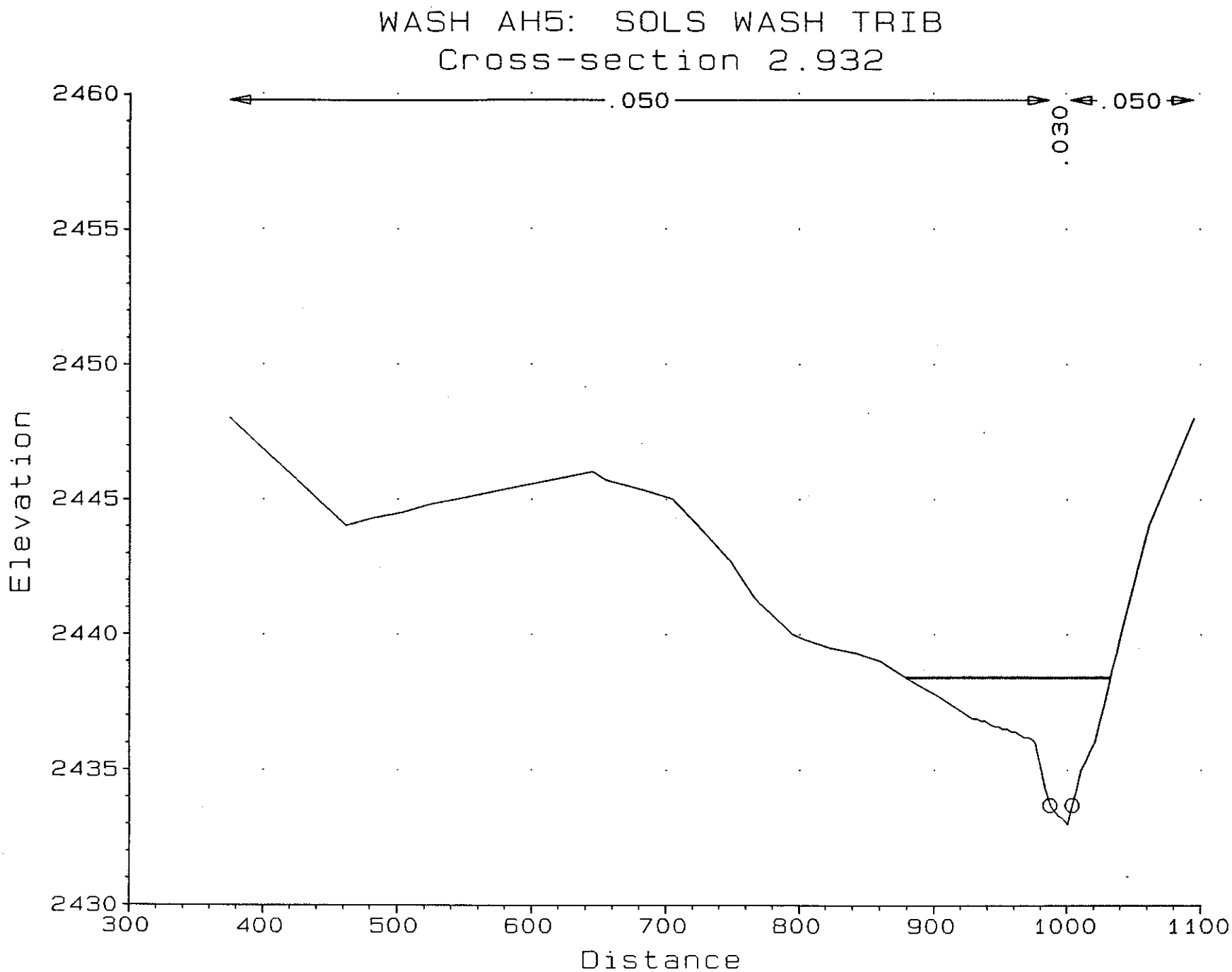
Distance


WASH AH5: SOLS WASH TRIB
Cross-section 2.932
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.050
.030
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Elevation
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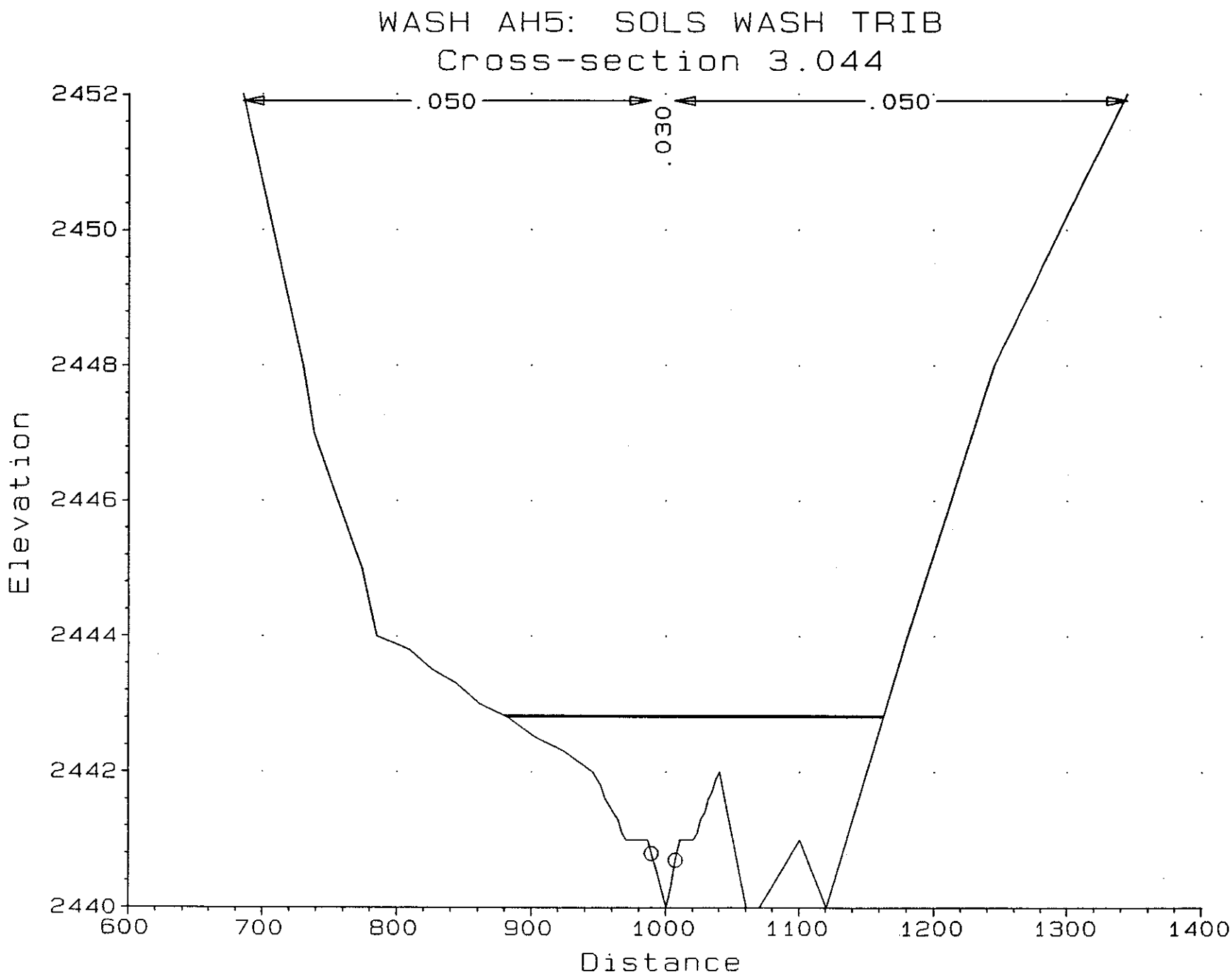
Distance


WASH AH5: SOLS WASH TRIB
Cross-section 3.044
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.030
.050
2452
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Elevation
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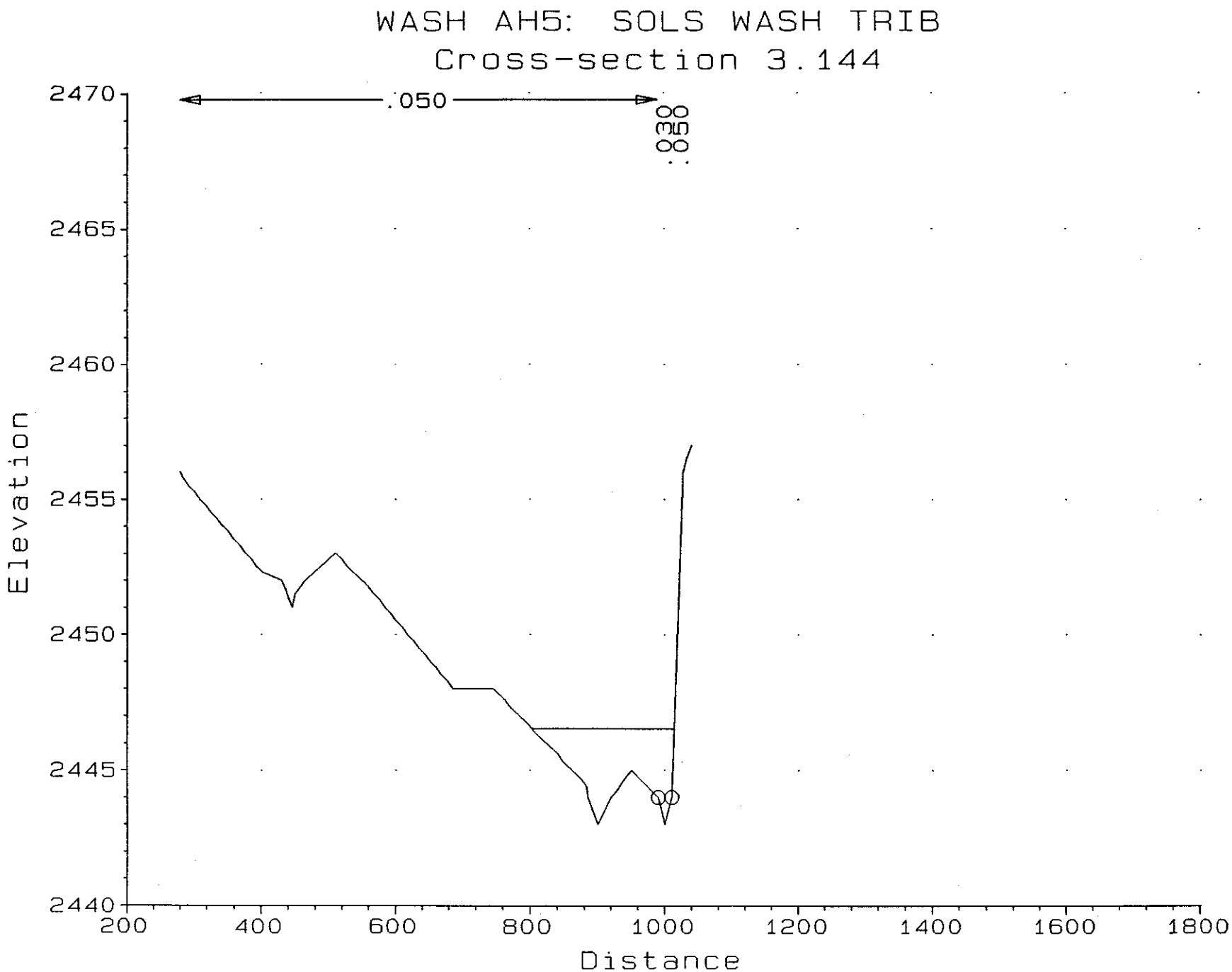
WASH AH5: SOLS WASH TRIB
Cross-section 3.144
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.030
.050
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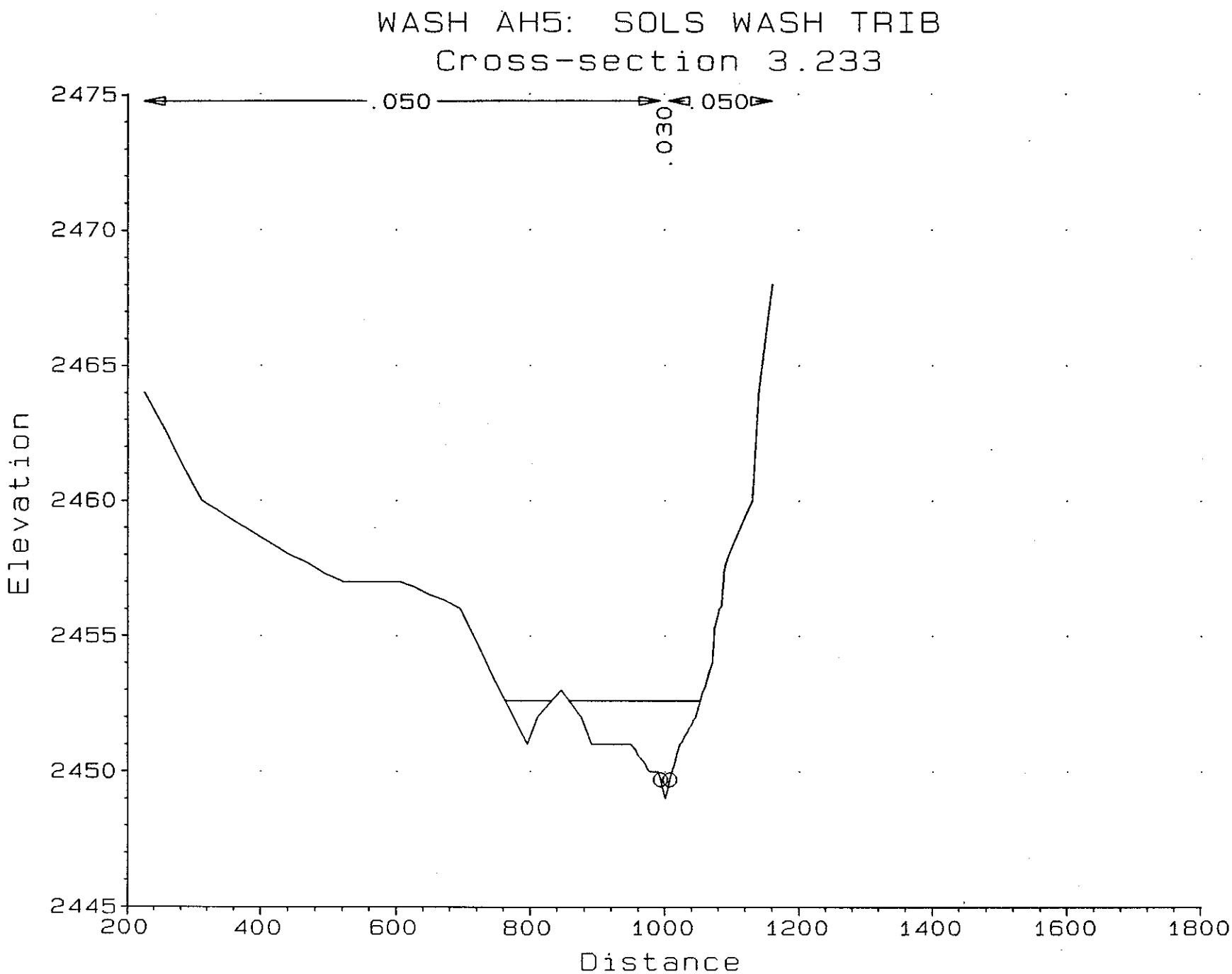
WASH AH5: SOLS WASH TRIB
Cross-section 3.233
.050
.050
.030
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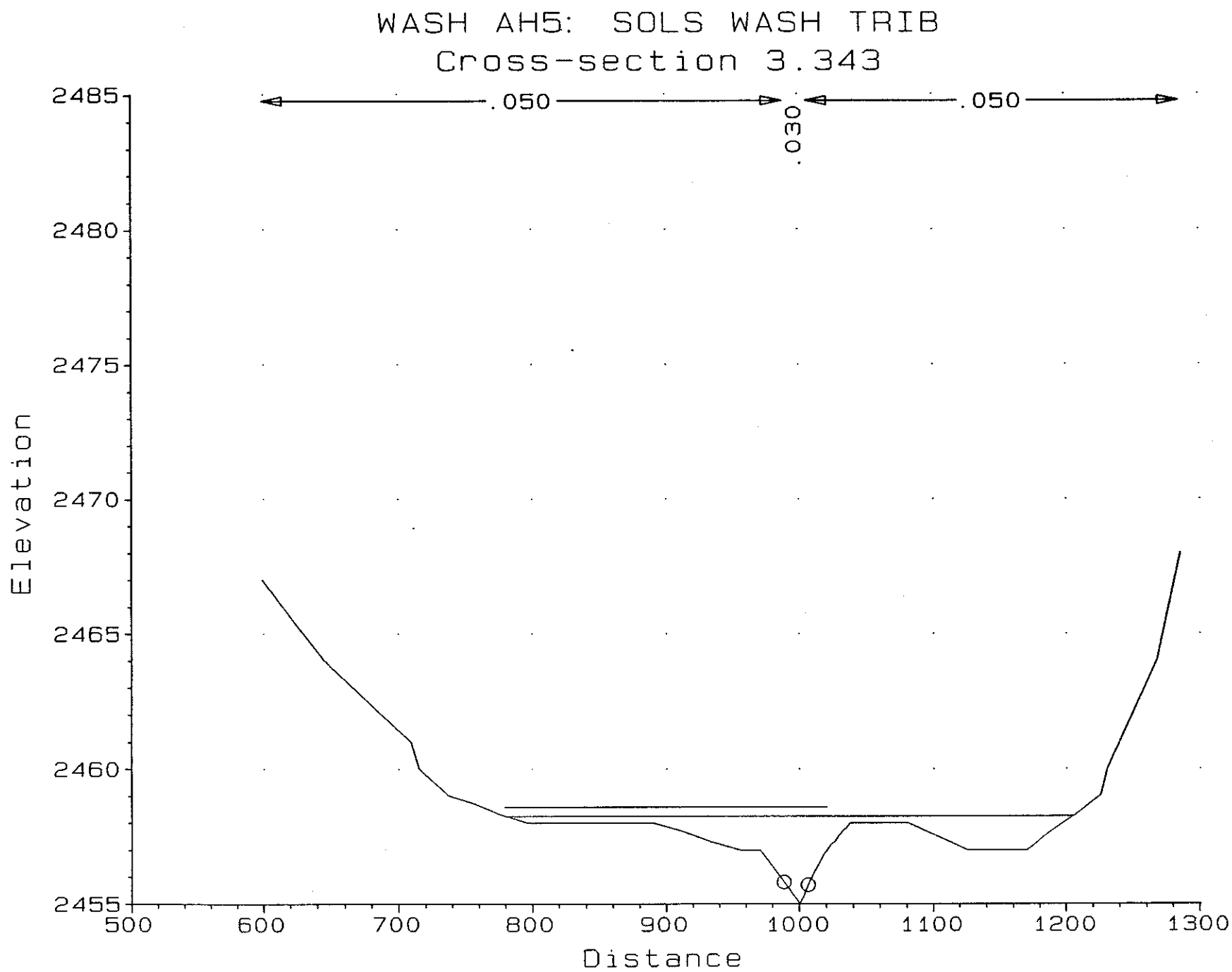
WASH AH5: SOLS WASH TRIB
Cross-section 3.343
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.030
.050
Elevation
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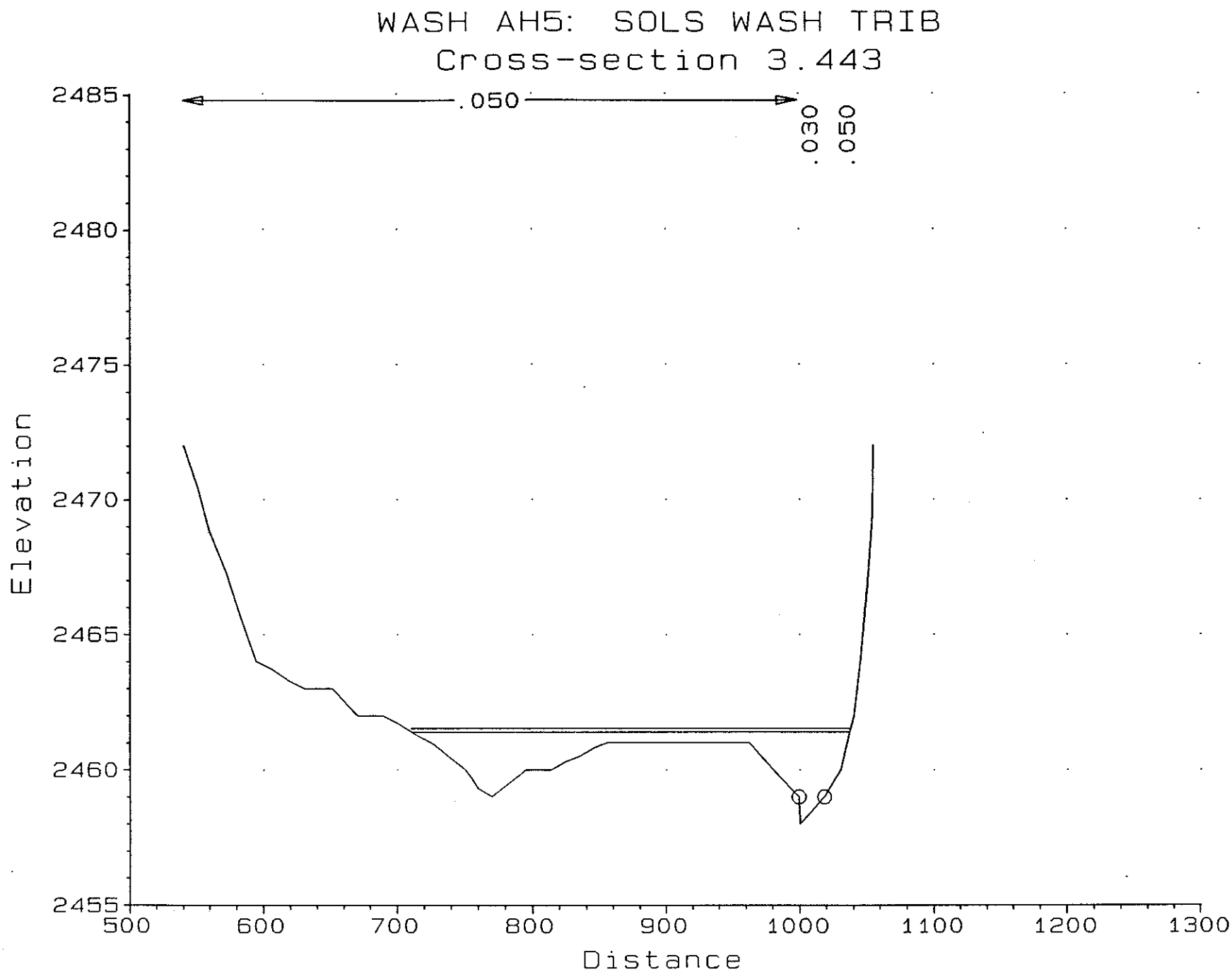
WASH AH5: SOLS WASH TRIB
Cross-section 3.443
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.030
.050
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Elevation
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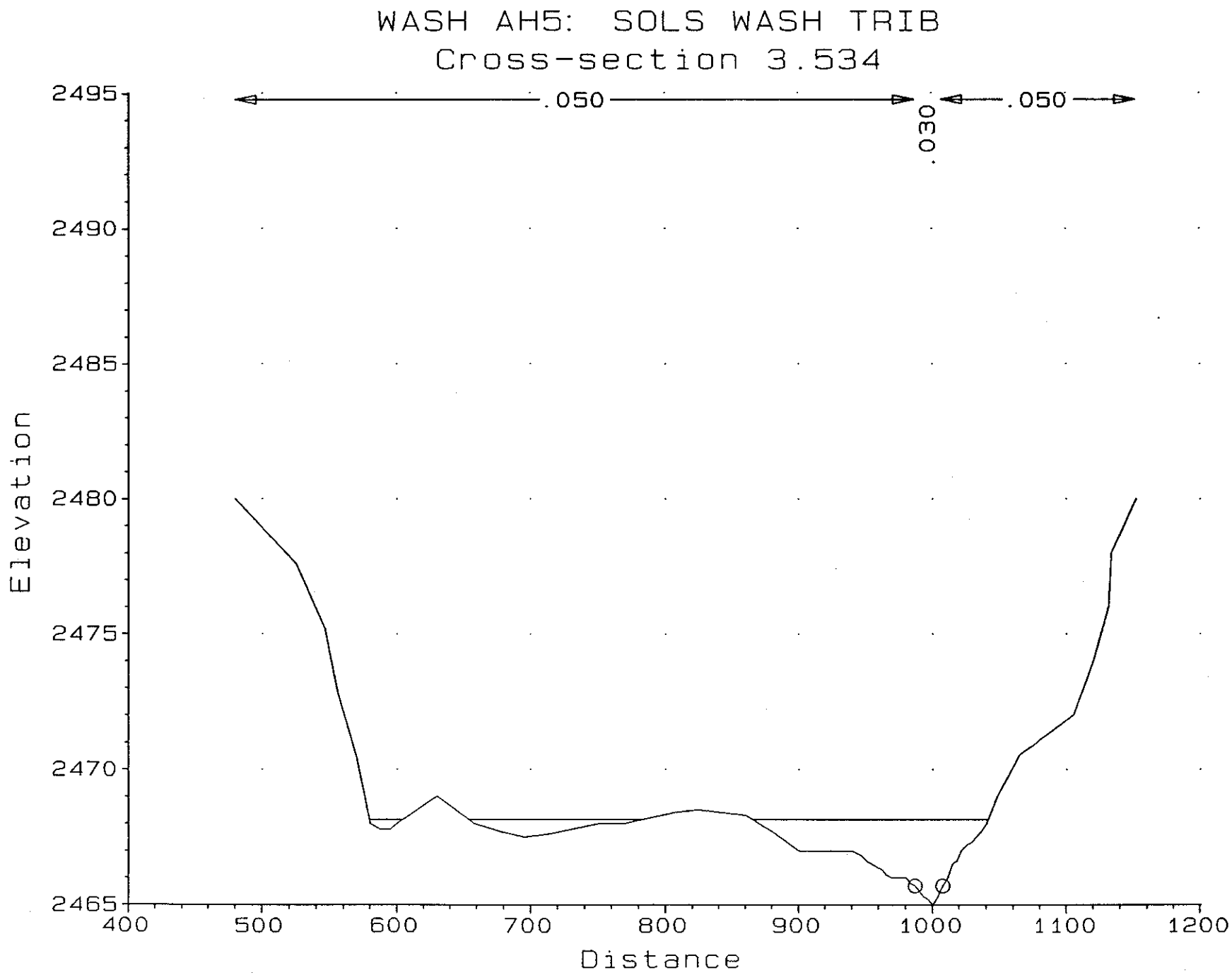
WASH AH5: SOLS WASH TRIB
Cross-section 3.534
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.030
.050
Elevation
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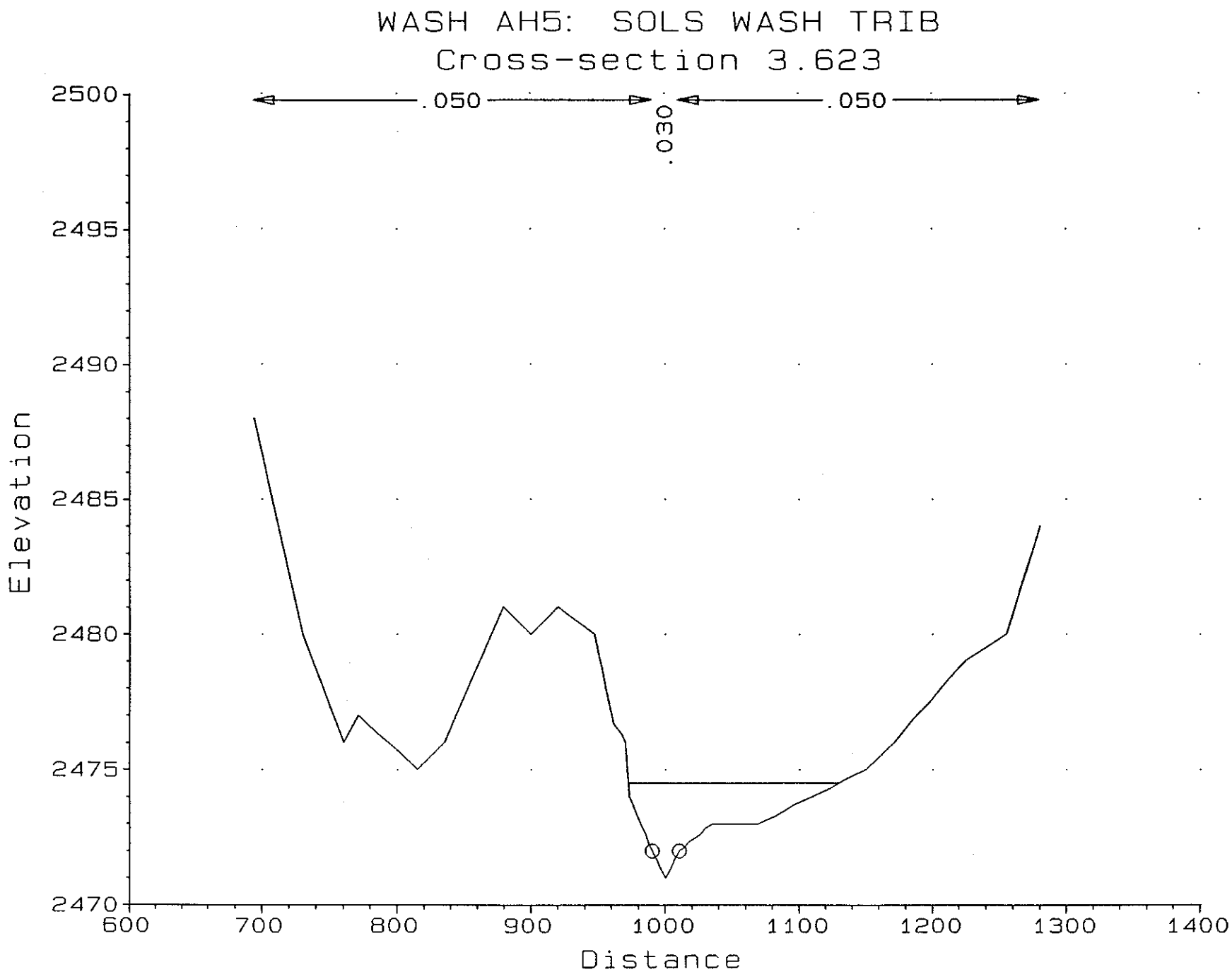
WASH AH5: SOLS WASH TRIB
Cross-section 3.623
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.030
.050
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Elevation
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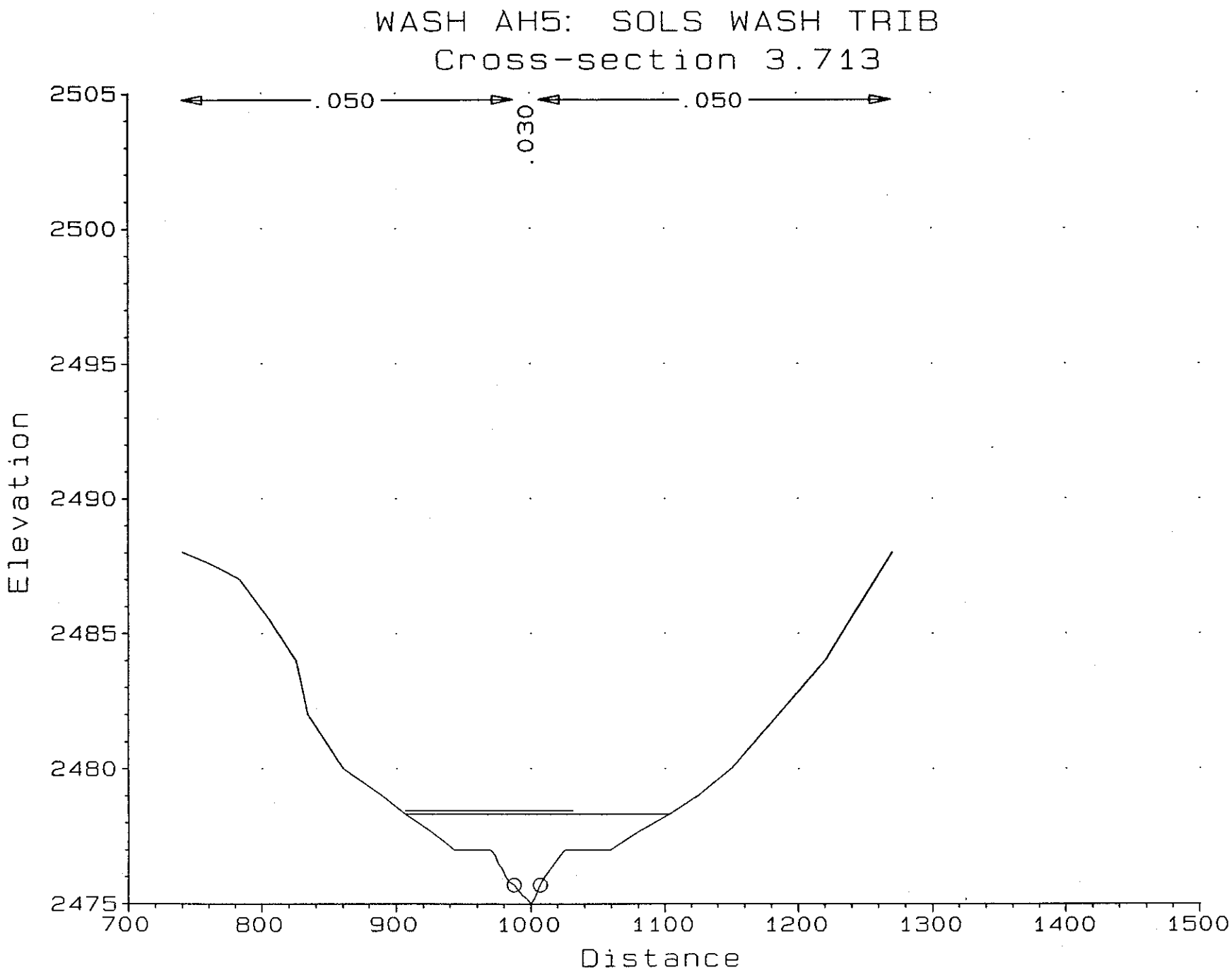
WASH AH5: SOLS WASH TRIB
Cross-section 3.713
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.050
.030
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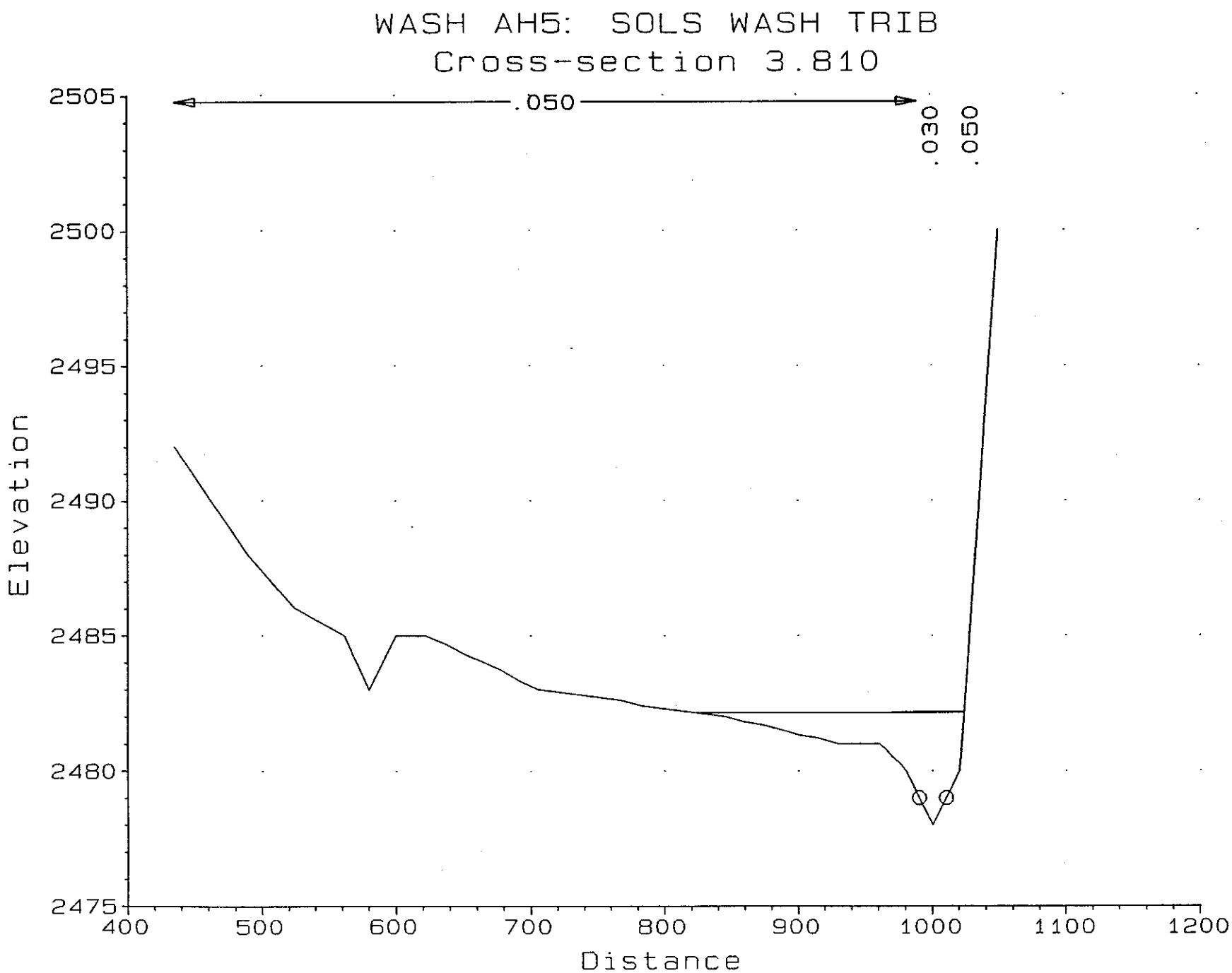
WASH AH5: SOLS WASH TRIB
Cross-section 3.810
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.050
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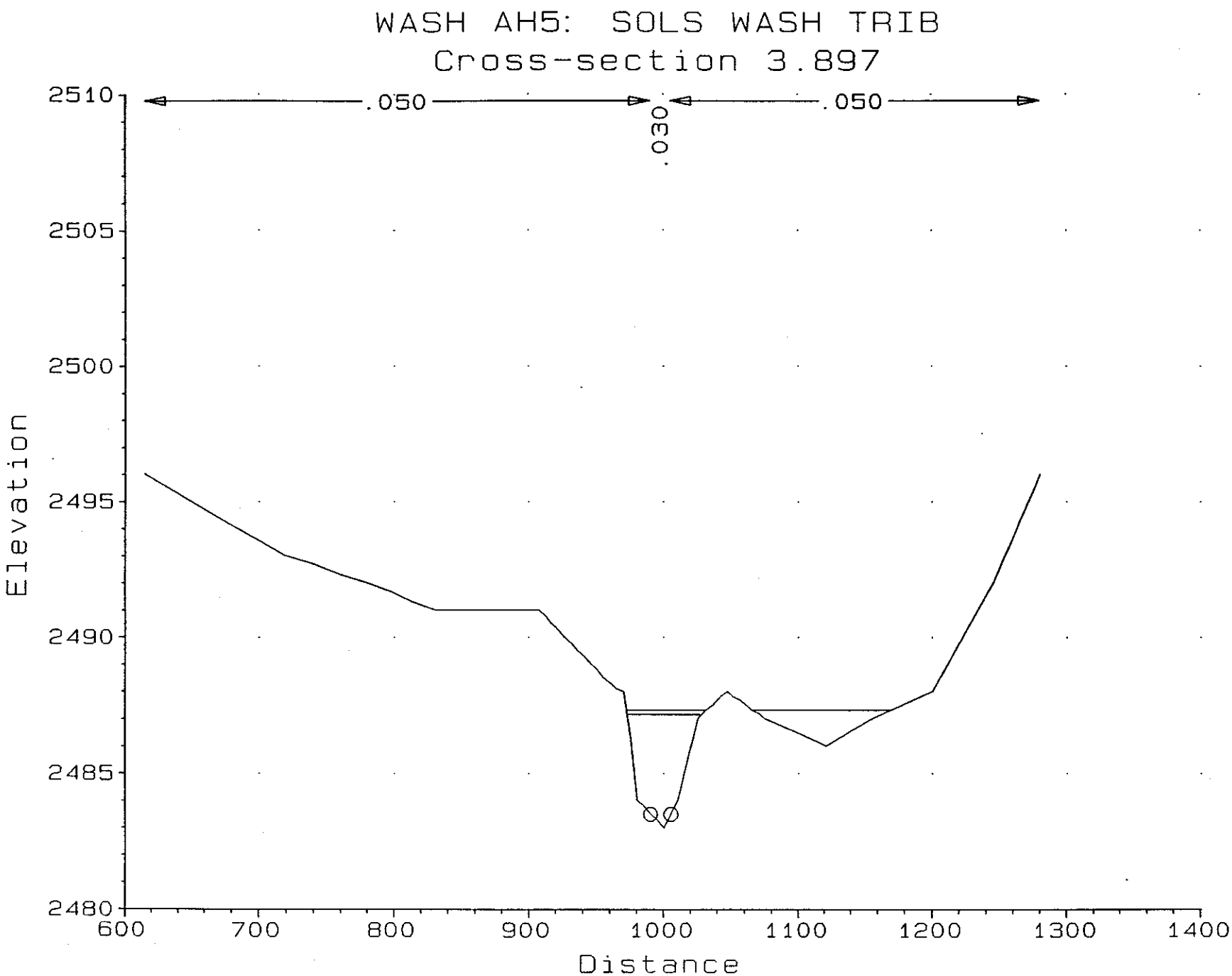
WASH AH5: SOLS WASH TRIB
Cross-section 3.897
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.050
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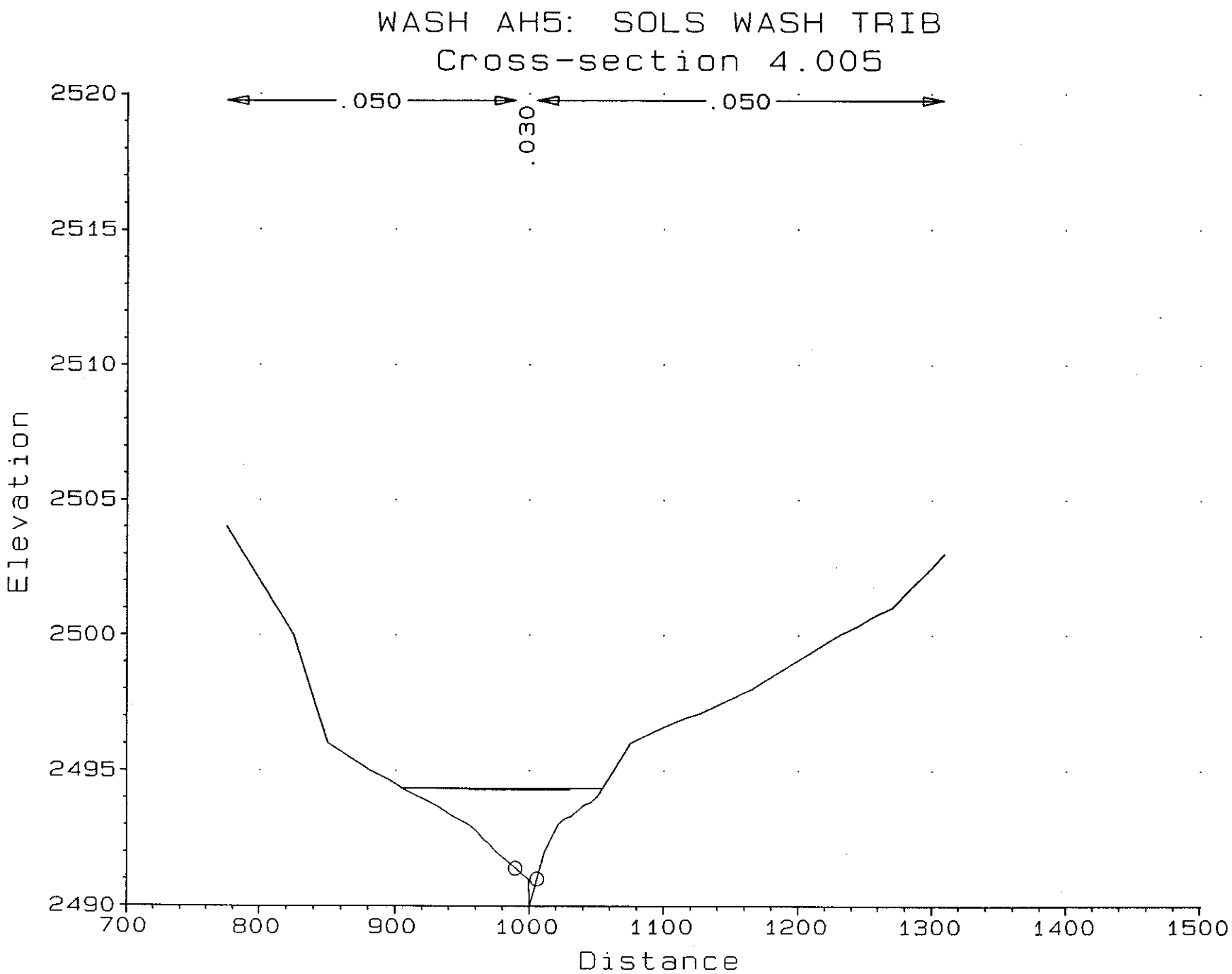
WASH AH5: SOLS WASH TRIB
Cross-section 4.005
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.030
.050
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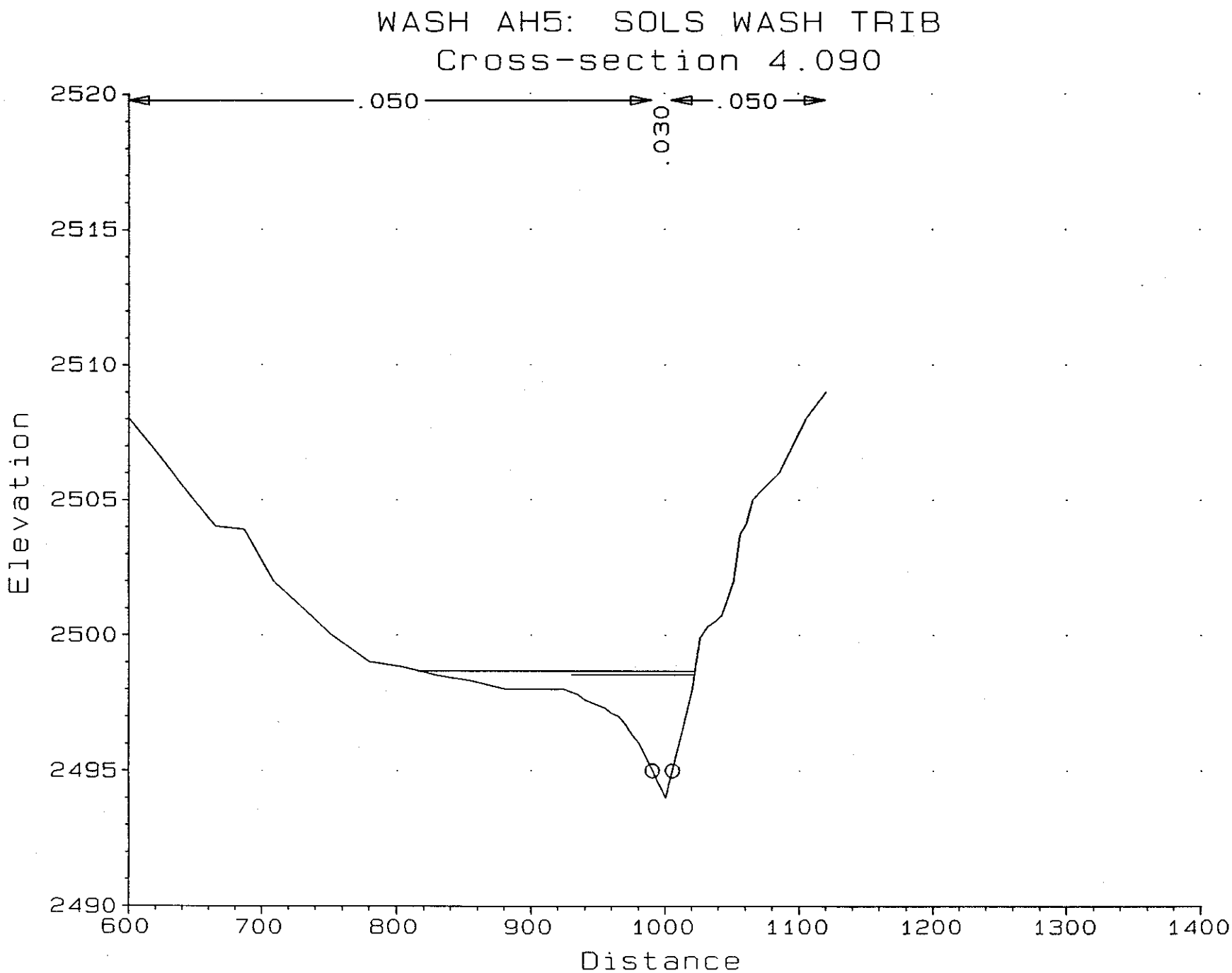
WASH AH5: SOLS WASH TRIB
Cross-section 4.090
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.050
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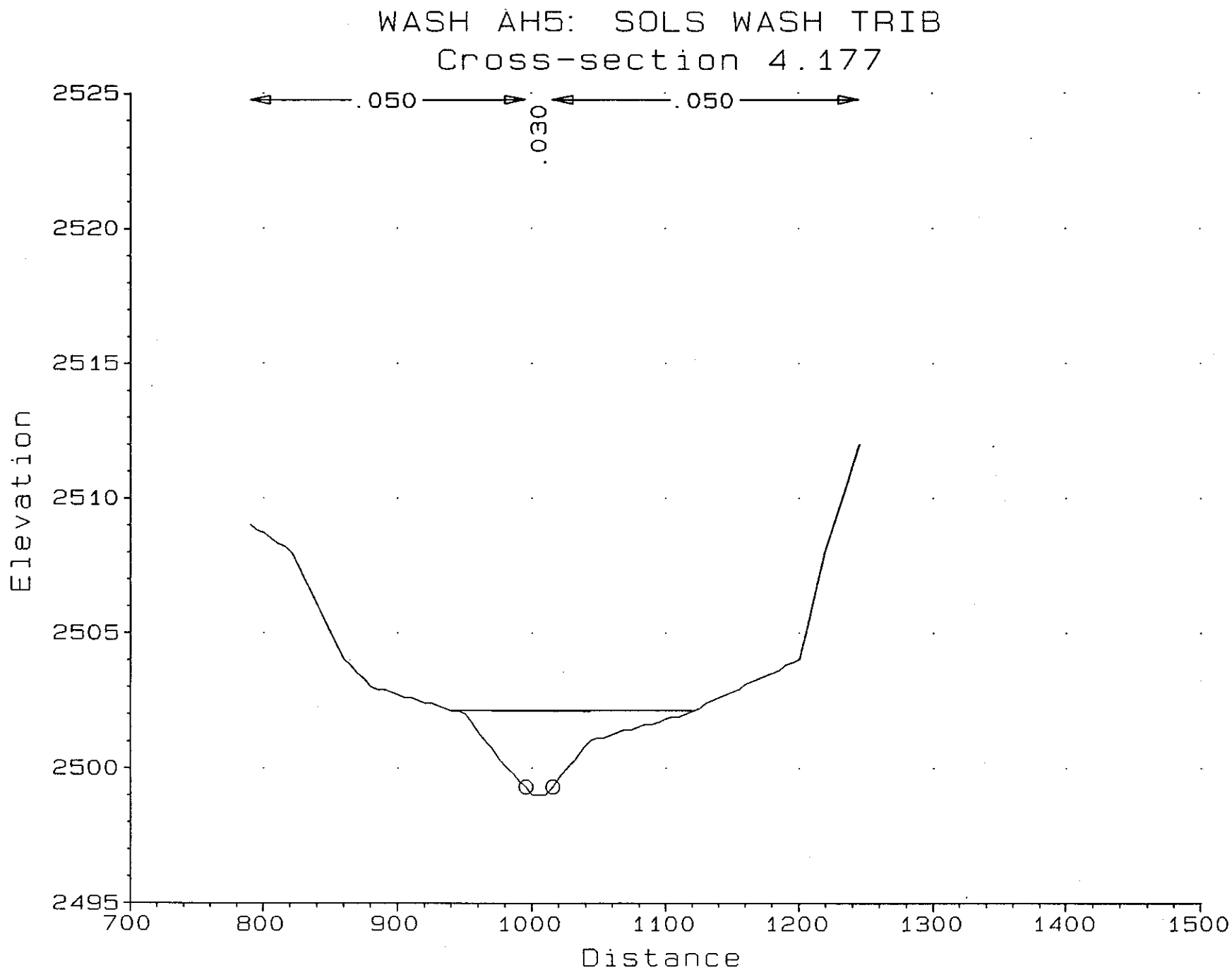
WASH AH5: SOLS WASH TRIB
Cross-section 4.177
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.050
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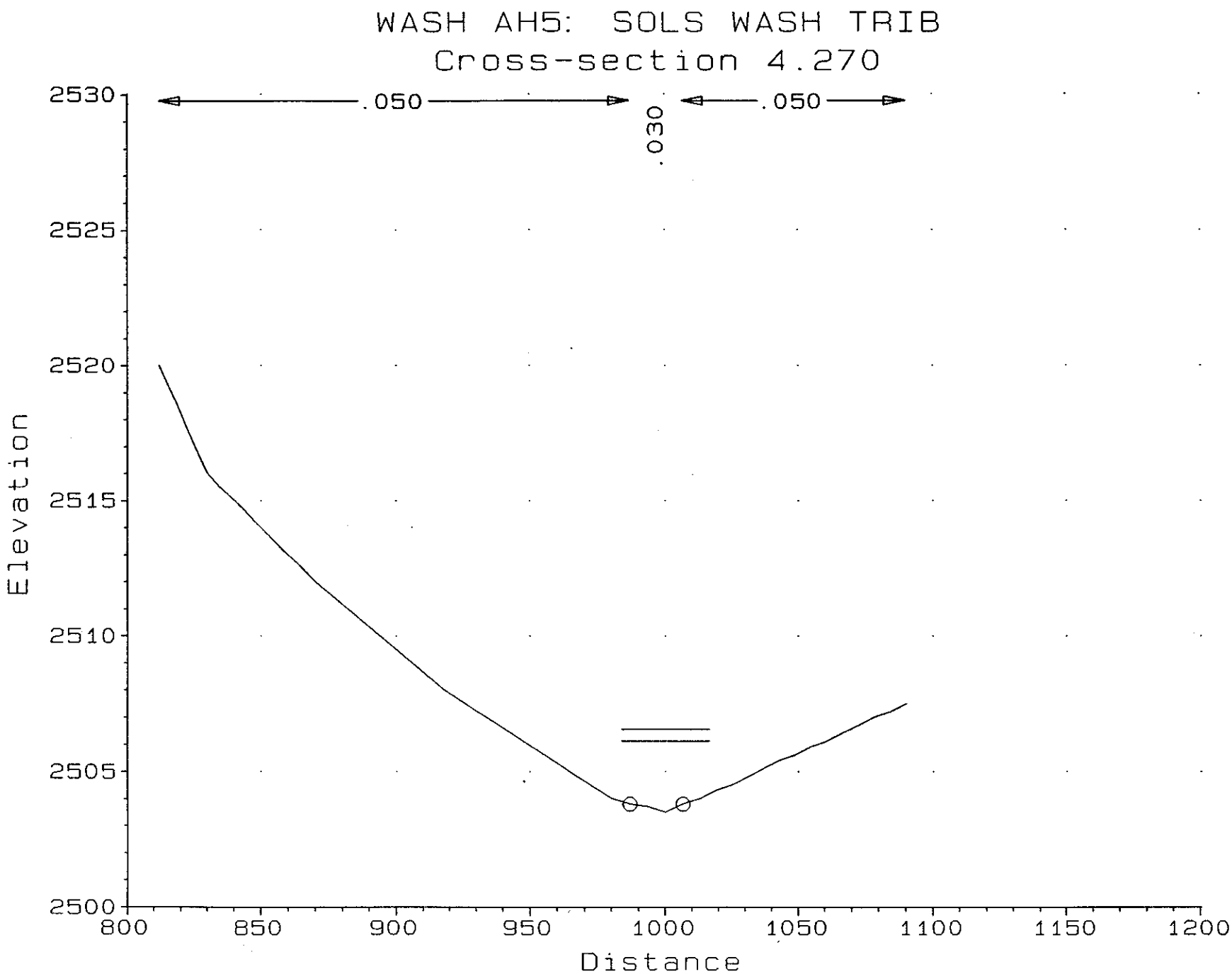
WASH AH5: SOLS WASH TRIB
Cross-section 4.270
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.030
.050
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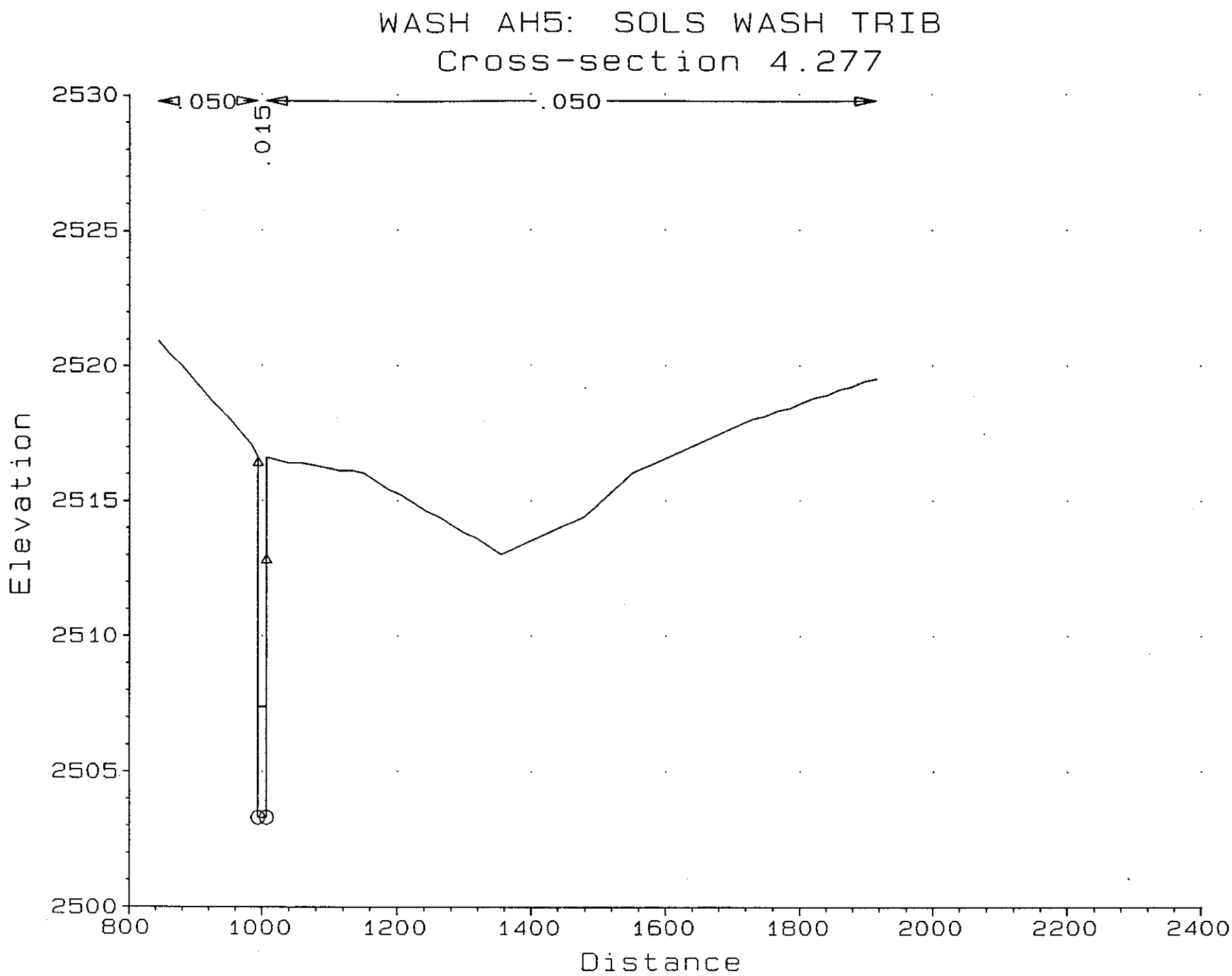
WASH AH5: SOLS WASH TRIB
Cross-section 4.277
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.050
.015
2530
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Elevation
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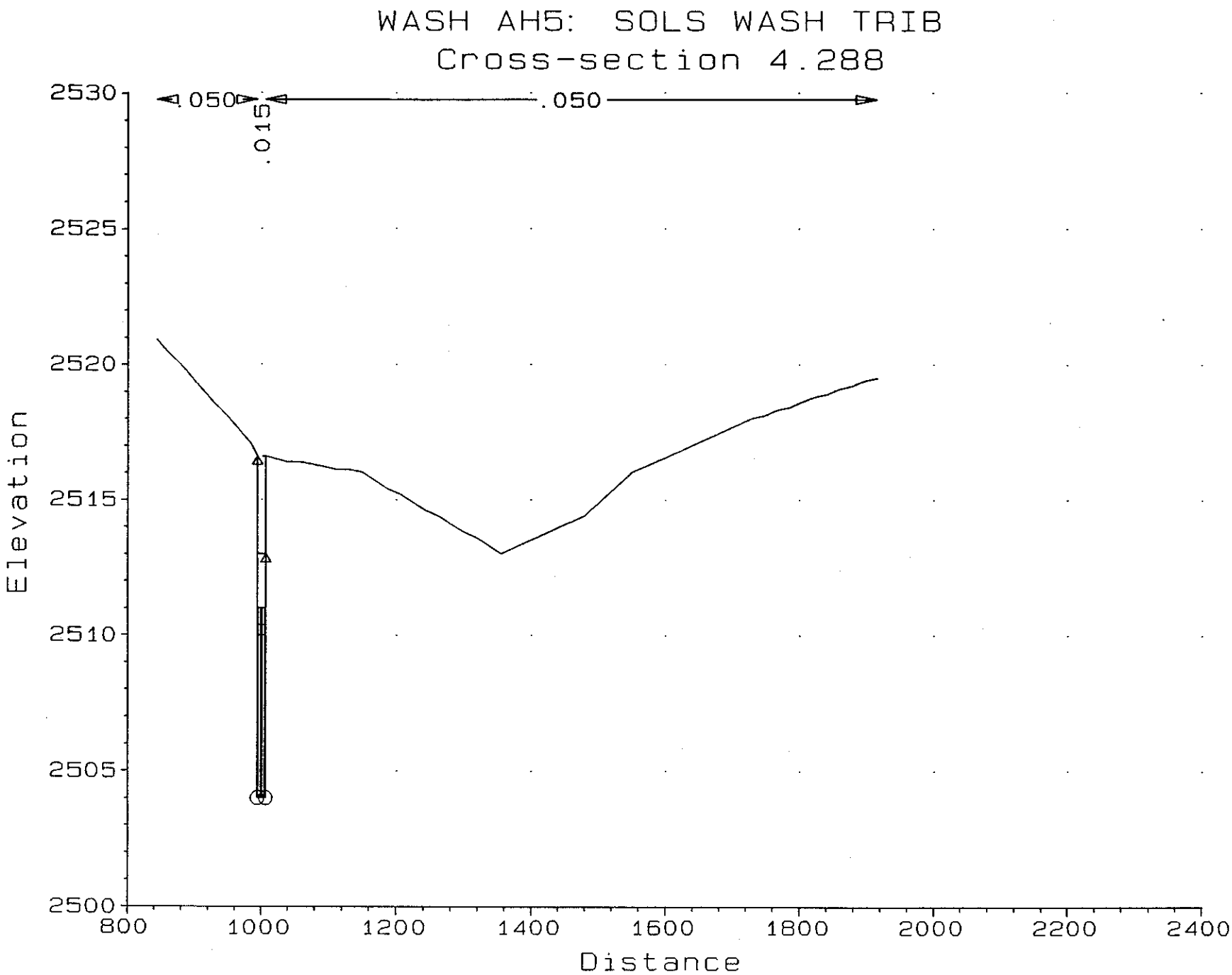
2400
Distance


WASH AH5: SOLS WASH TRIB
Cross-section 4.288
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2530
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Elevation
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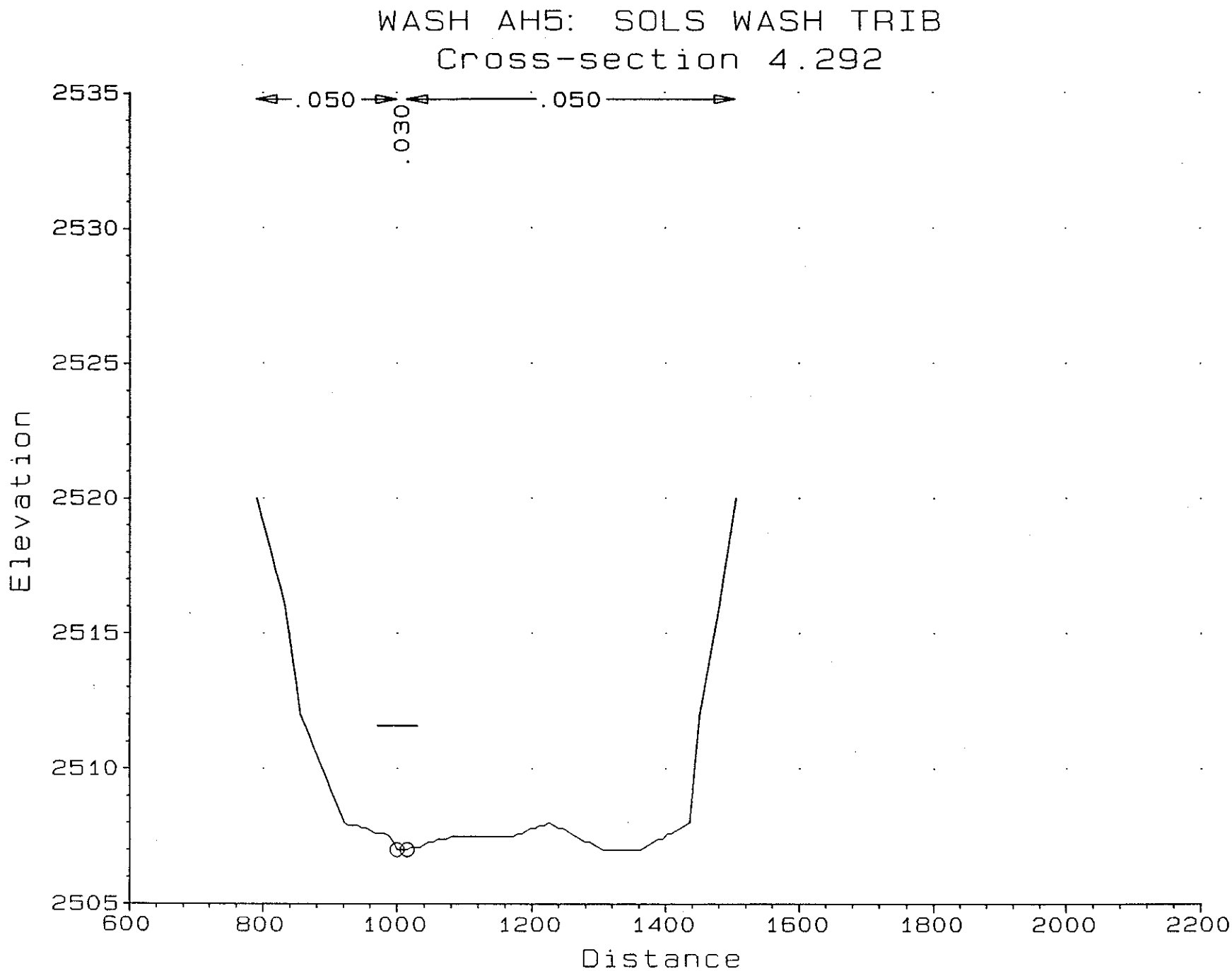
WASH AH5: SOLS WASH TRIB
Cross-section 4.292
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.030
2535
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Elevation
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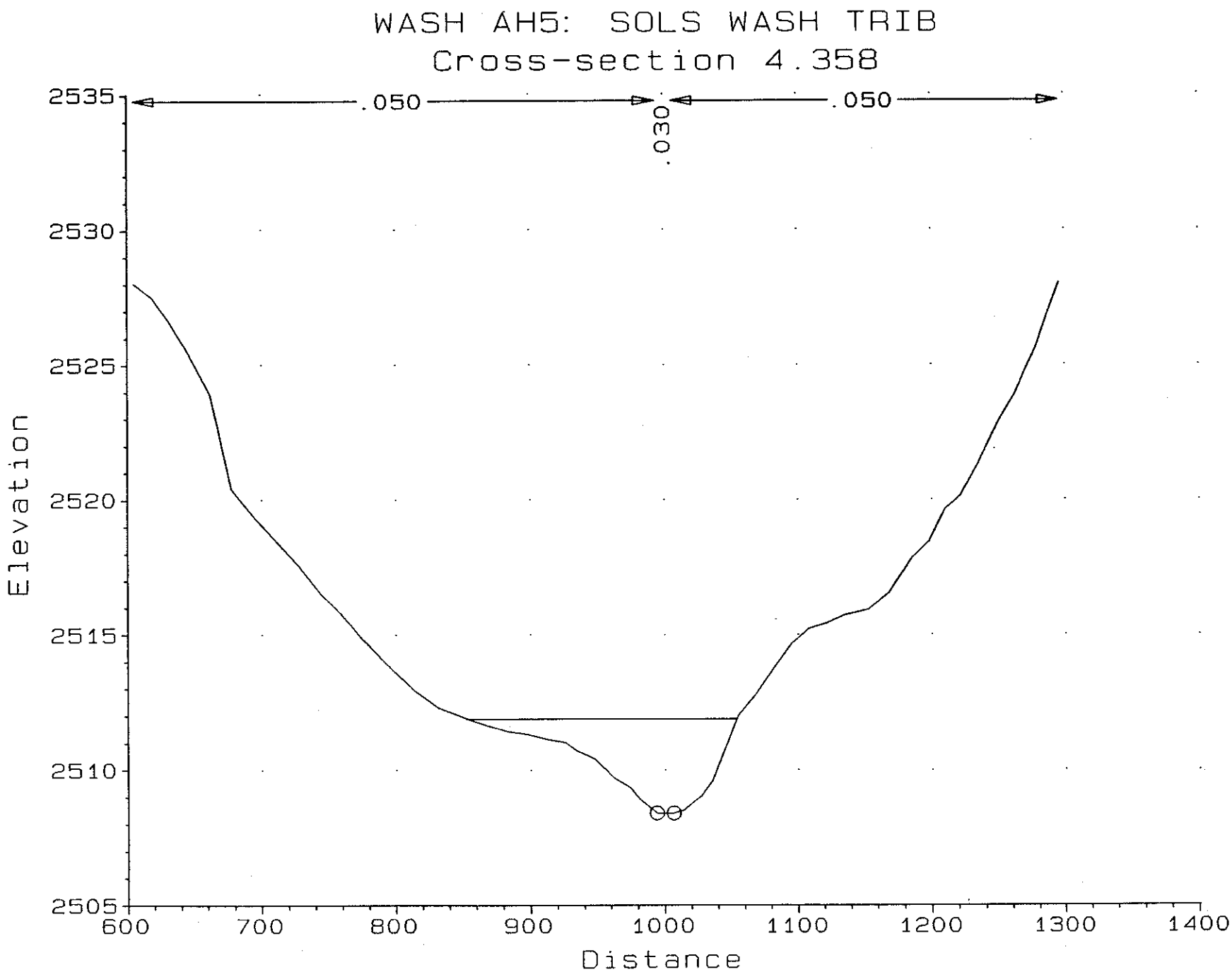
Distance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Cross-section 4.358
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.050
2535
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Elevation
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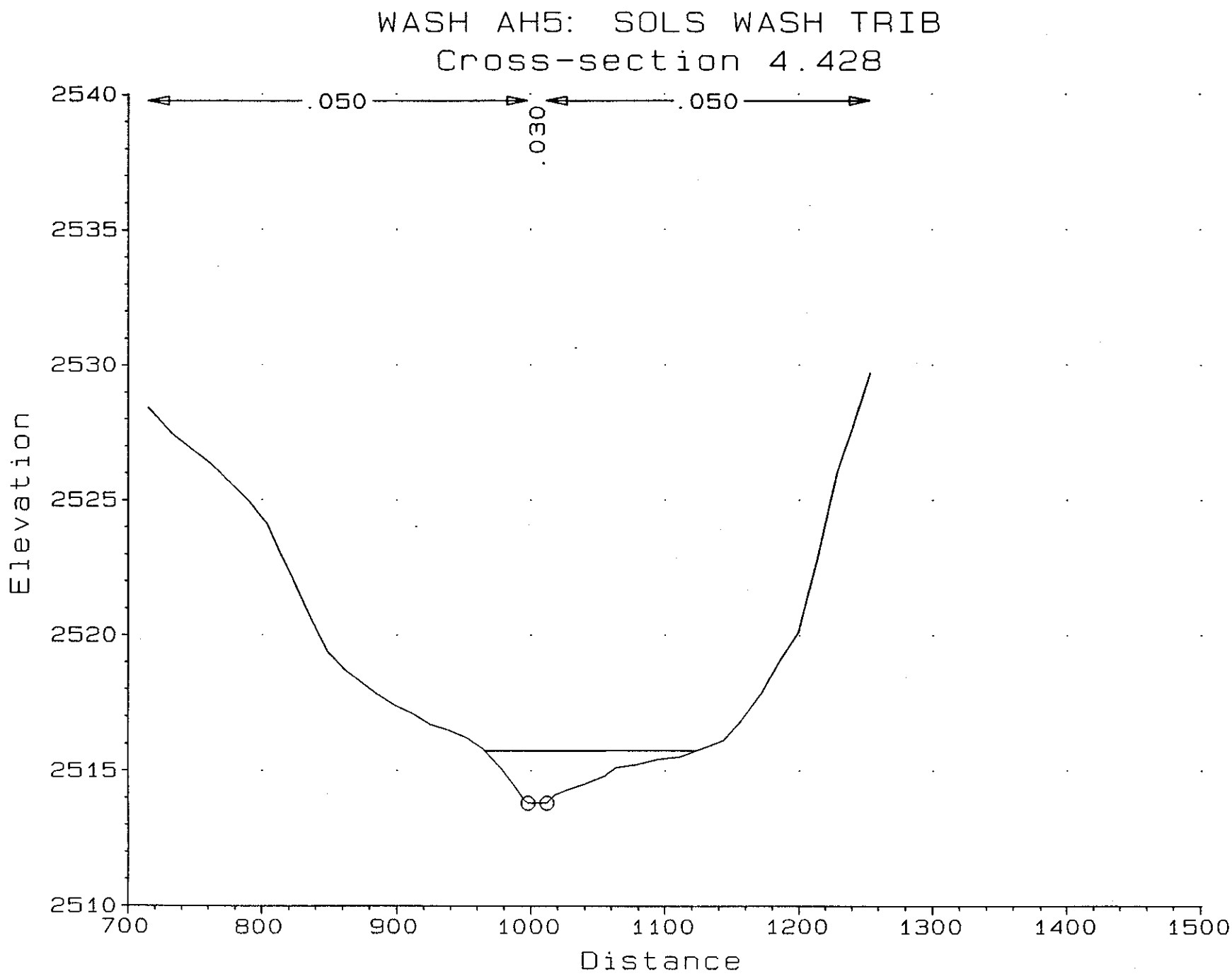
WASH AH5: SOLS WASH TRIB
Cross-section 4.428
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.030
.050
2540
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Elevation
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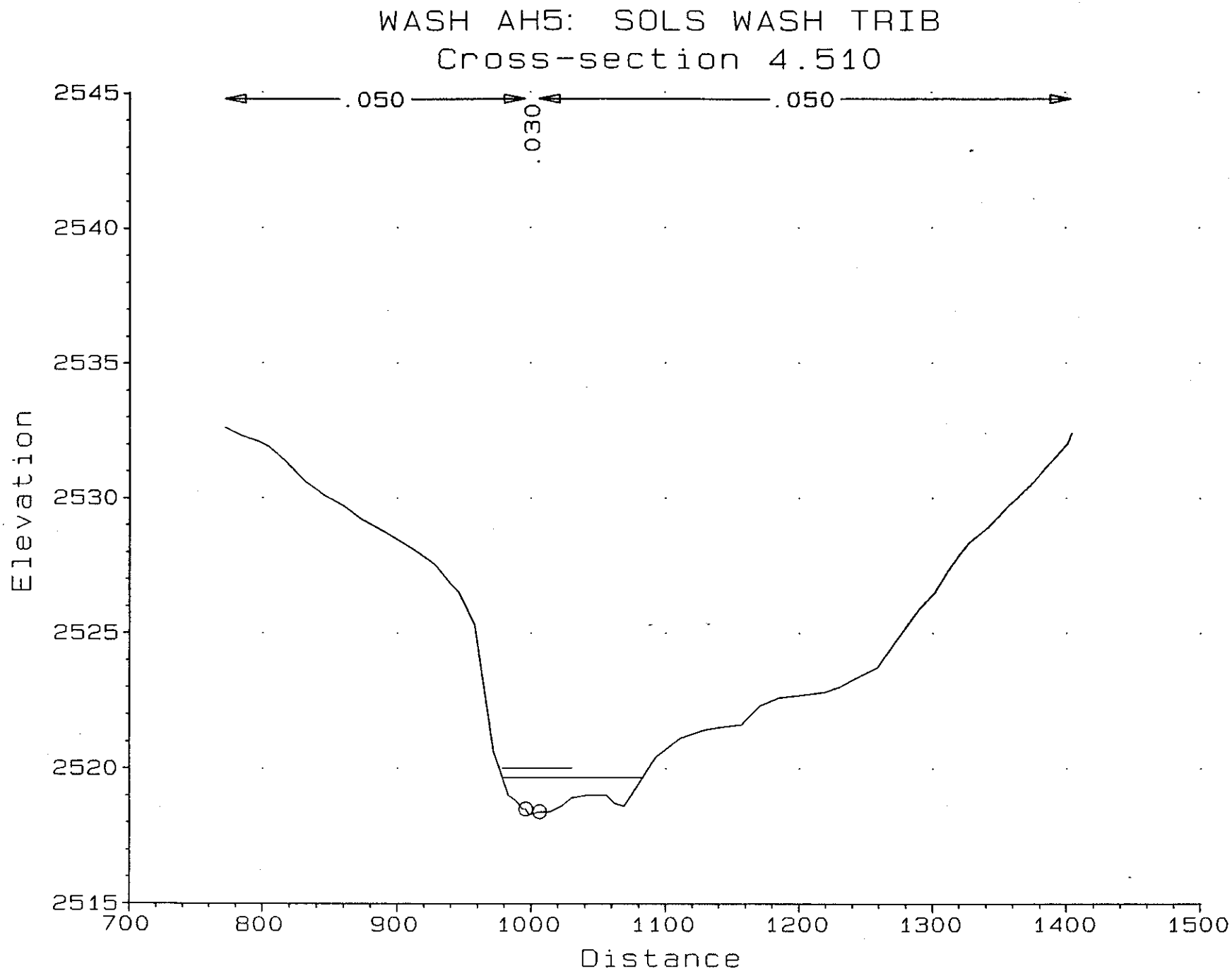
Distance


WASH AH5: SOLS WASH TRIB
Cross-section 4.510
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.050
.030
2545
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Elevation
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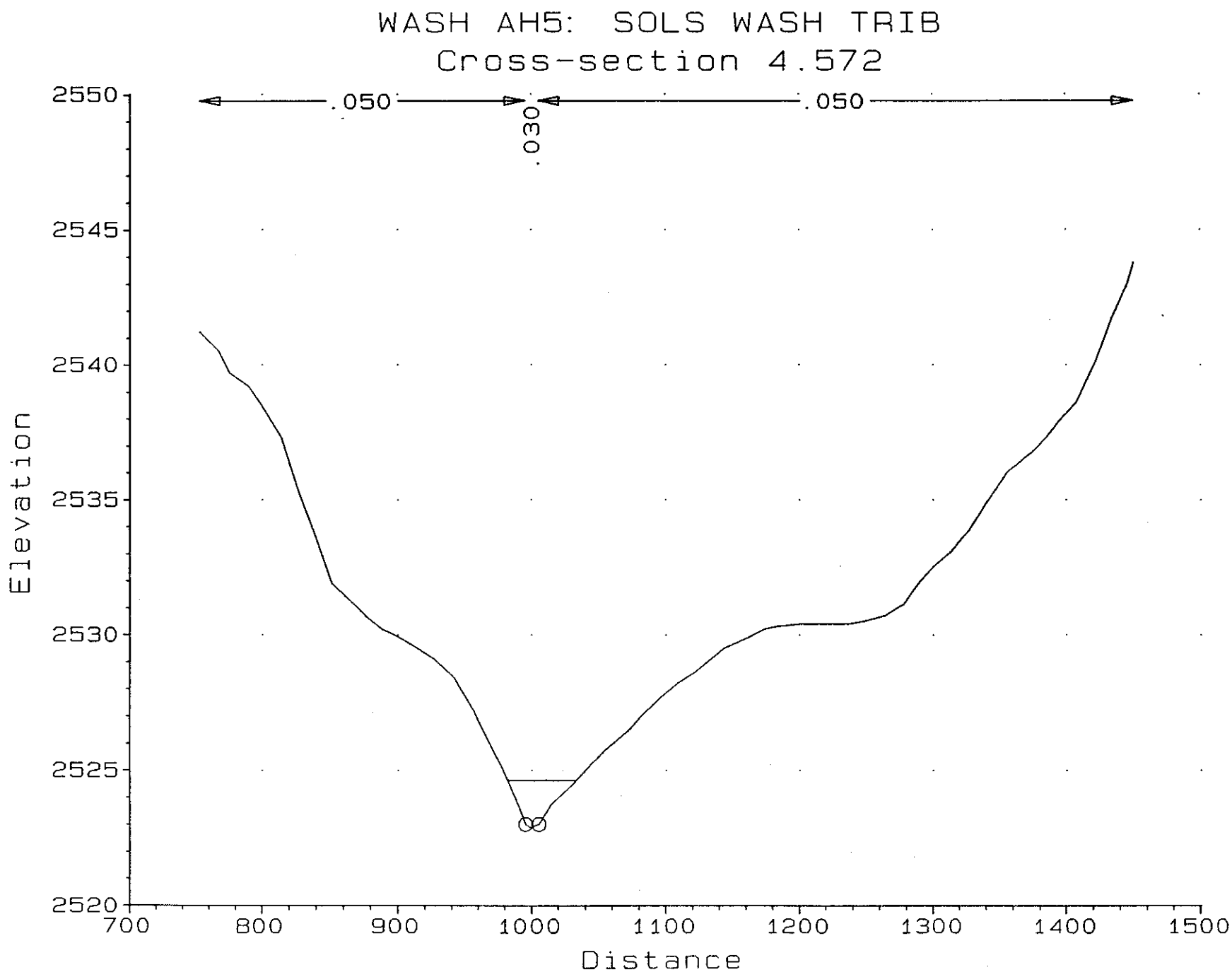
1500
Distance


WASH AH5: SOLS WASH TRIB
Cross-section 4.572
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.030
.050
2550
2545
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Elevation
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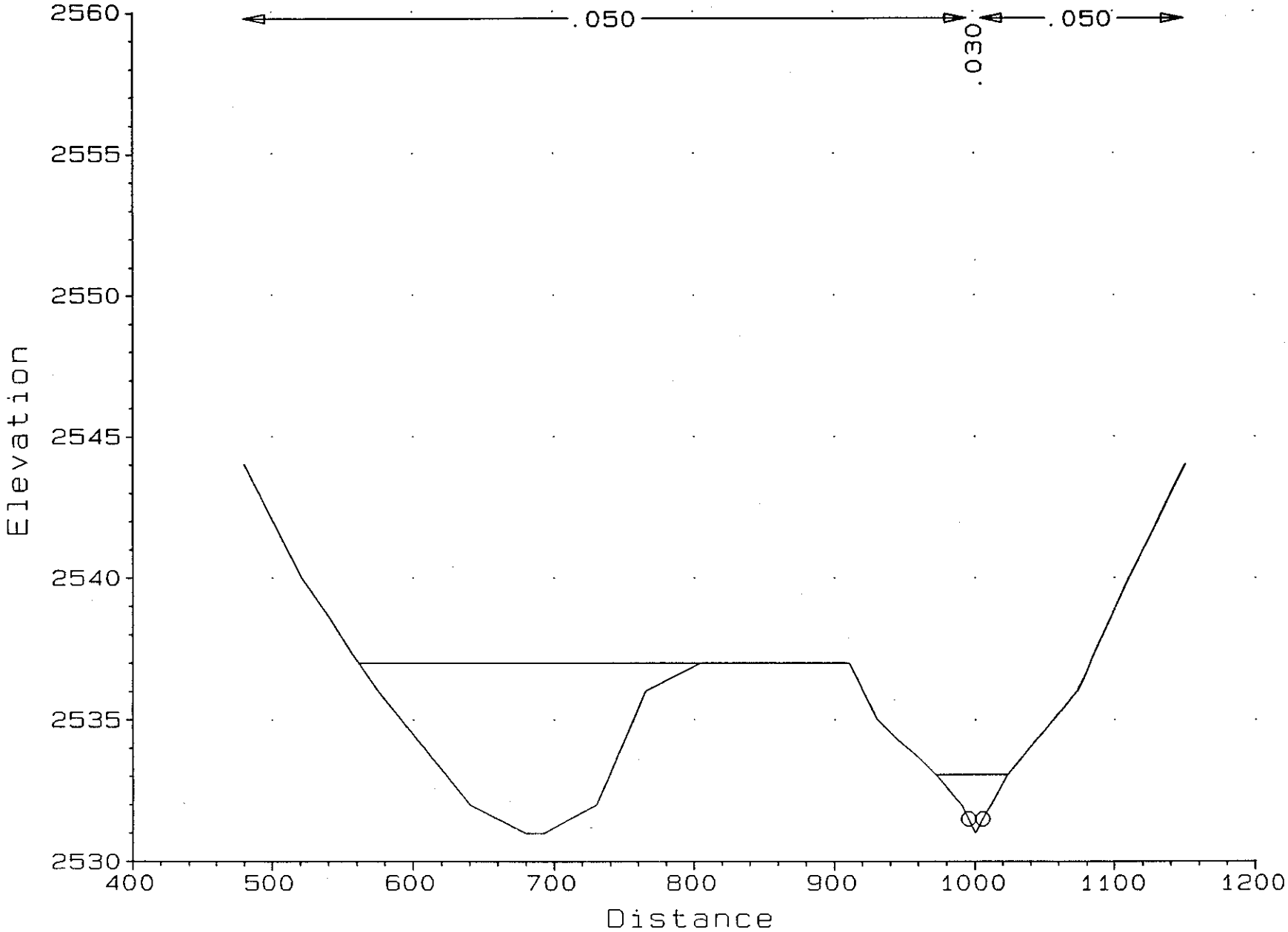
1000
1100
1200
1300
1400
1500
Distance

WASH AH5: SOLS WASH TRIB
Cross-section 4.699



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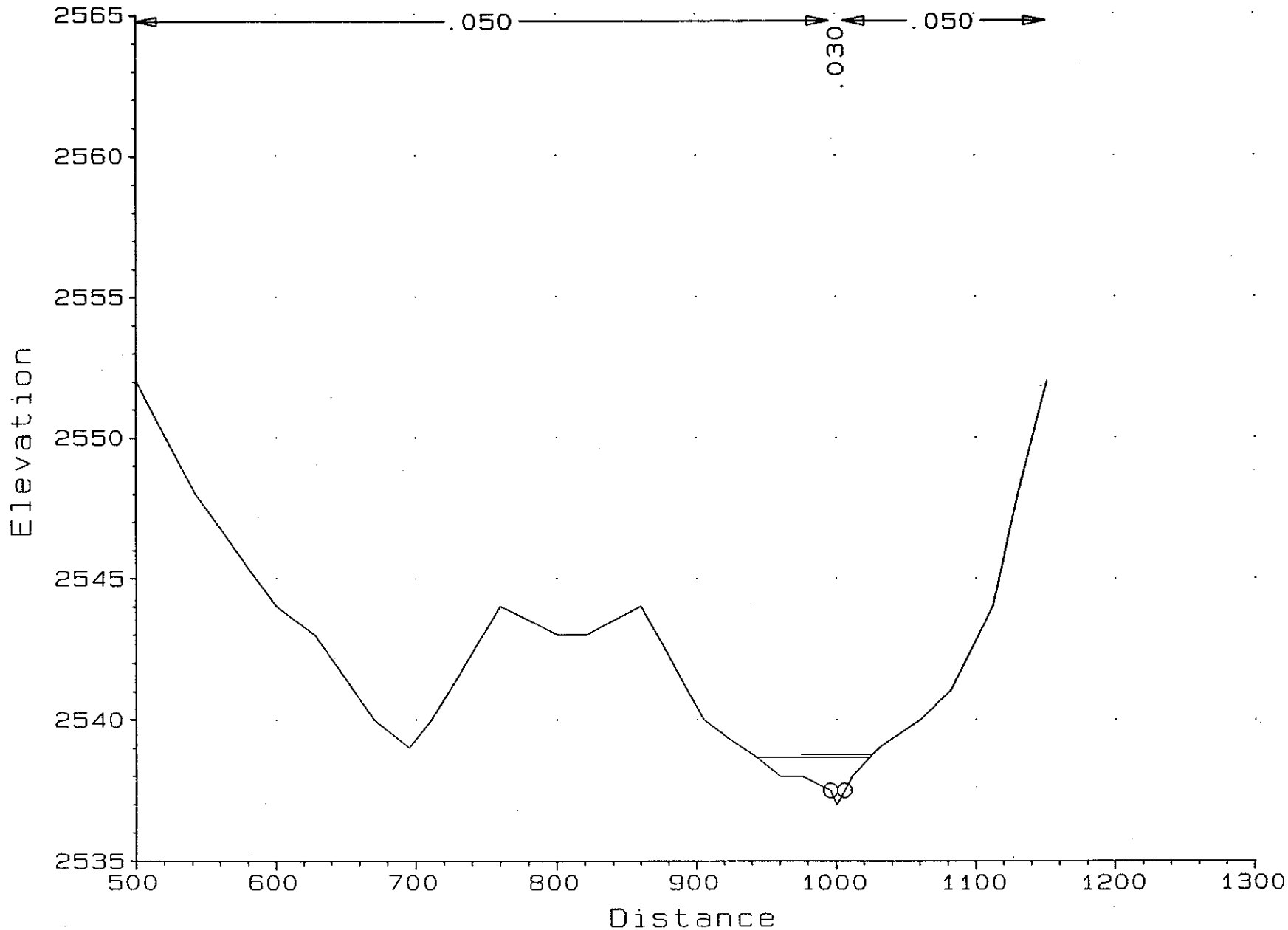
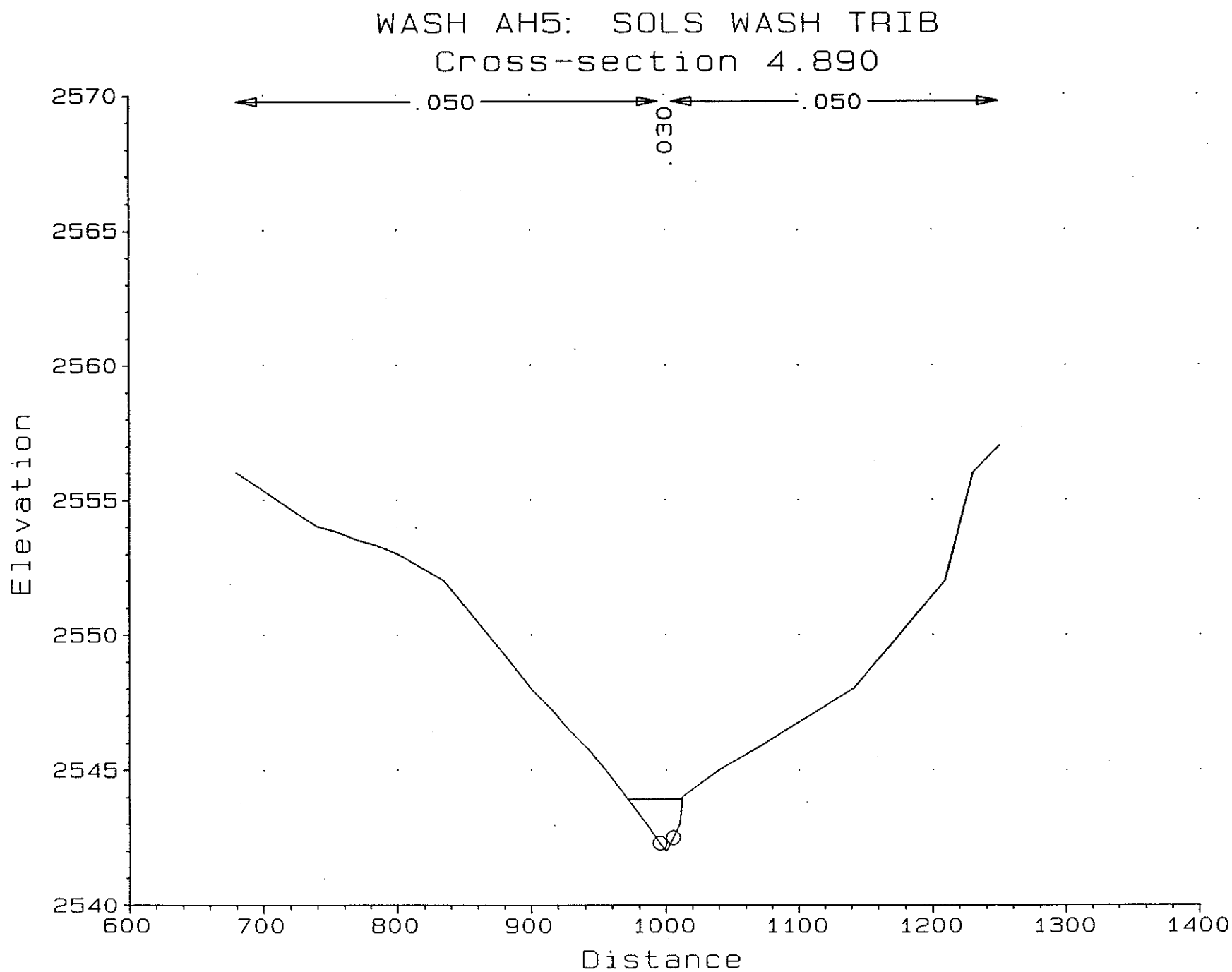
Cross-section 4.796




WASH AH5: SOLS WASH TRIB
Cross-section 4.890
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.030
.050
Elevation
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2555
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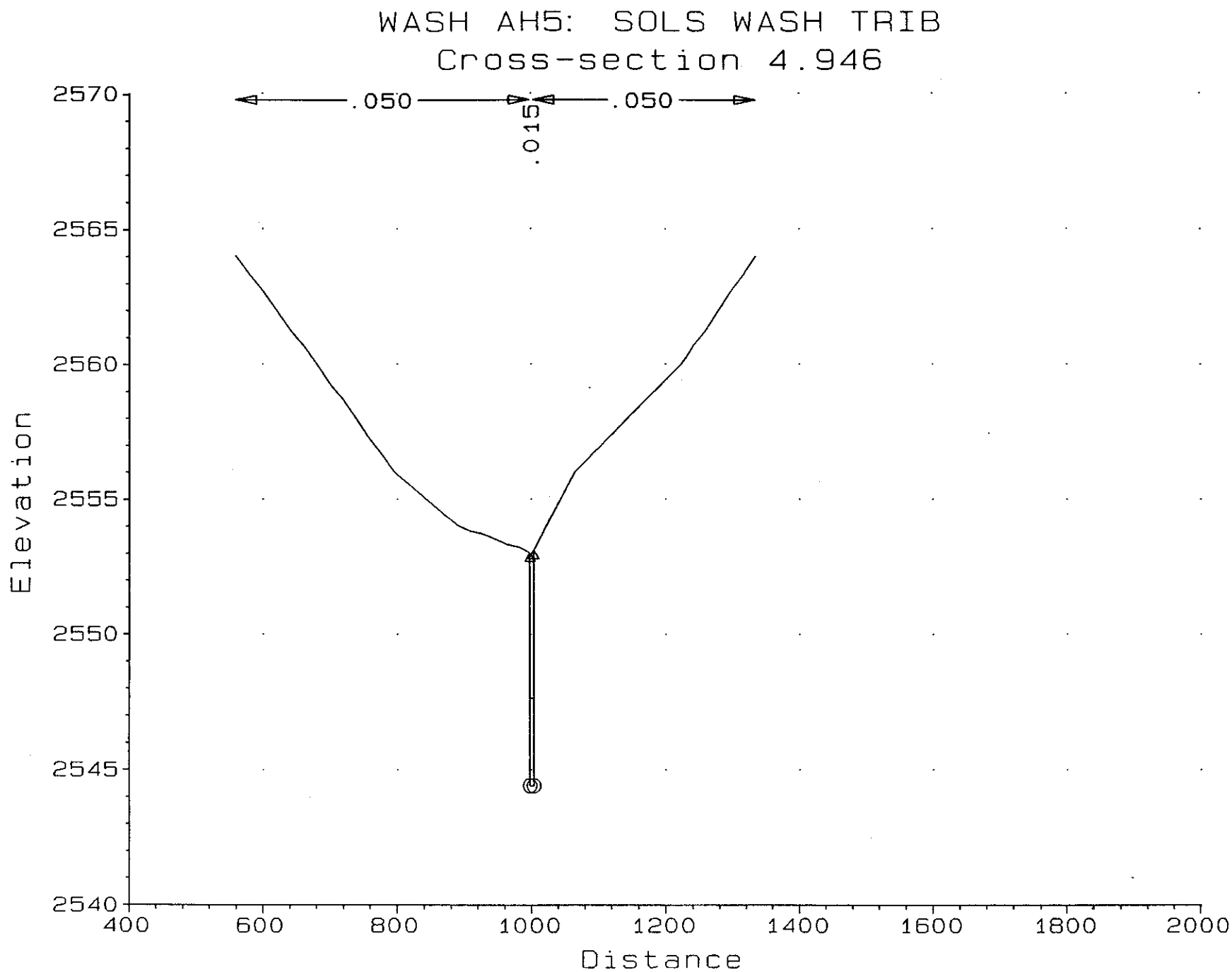
Distance


WASH AH5: SOLS WASH TRIB
Cross-section 4.946
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.015
.050
2570
2565
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2550
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Elevation
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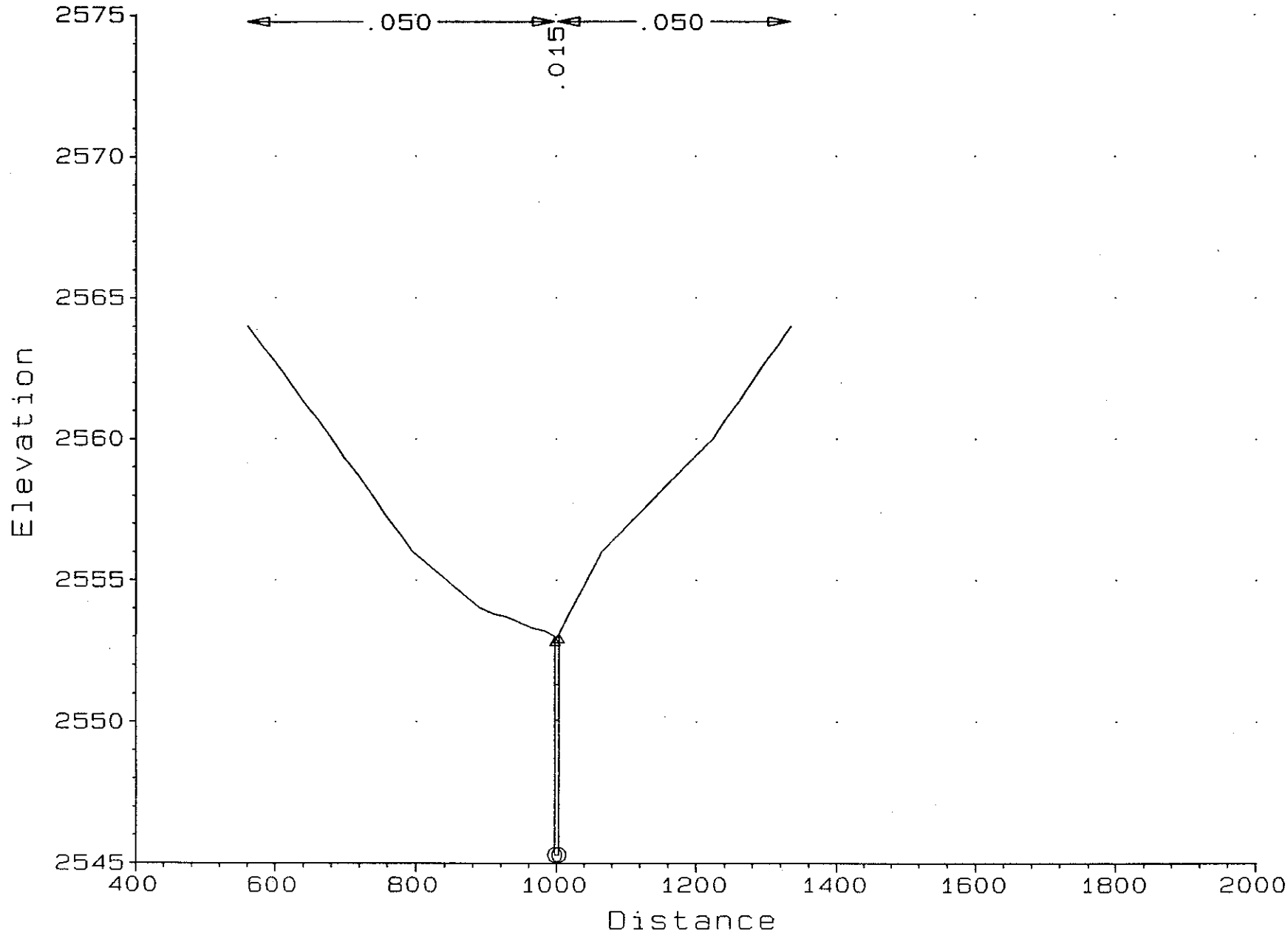
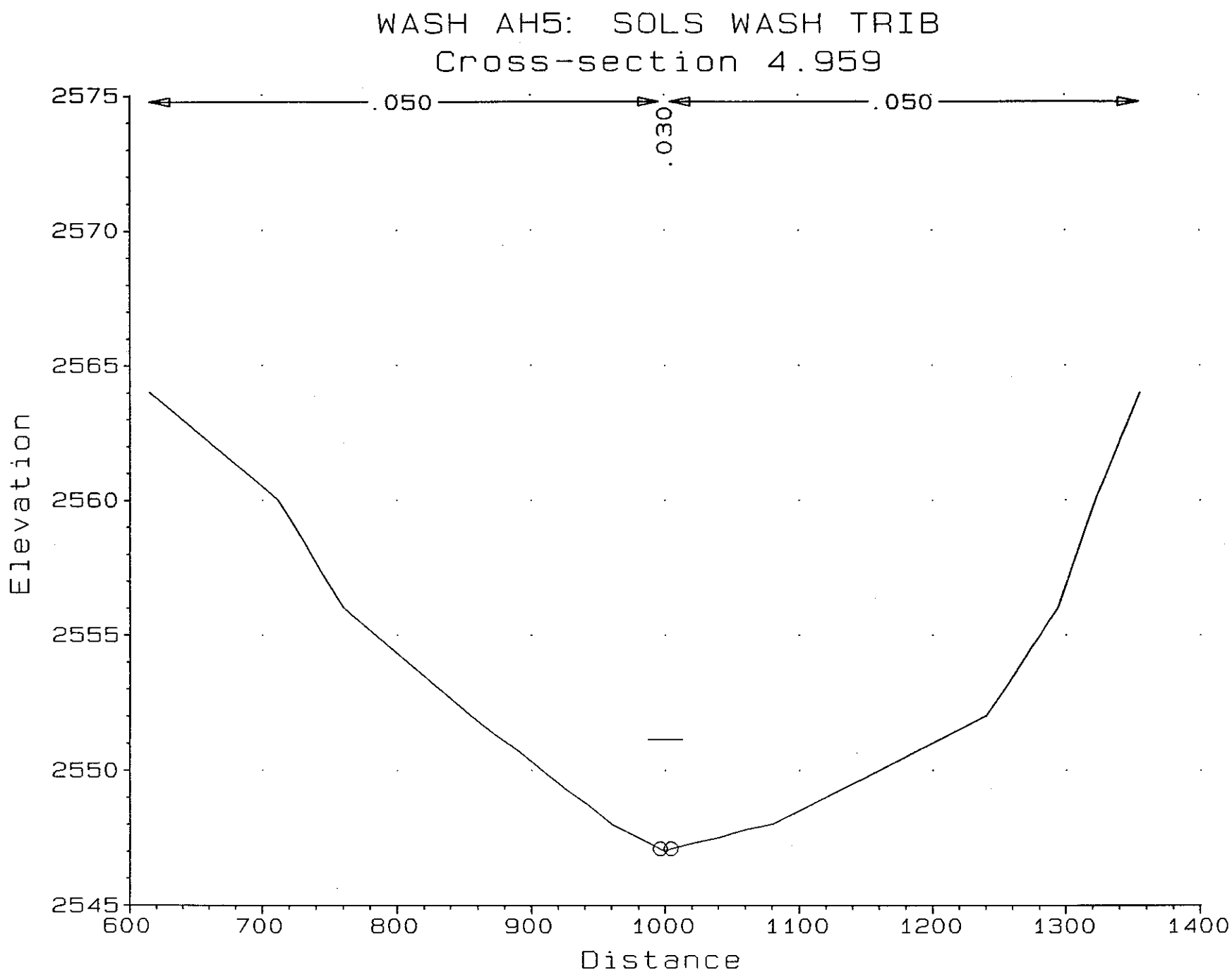
800
1000
1200
1400
1600
1800
2000
Distance

WASH AH5: SOLS WASH TRIB
Cross-section 4.957




WASH AH5: SOLS WASH TRIB
Cross-section 4.959
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.030
.050
2575
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Elevation
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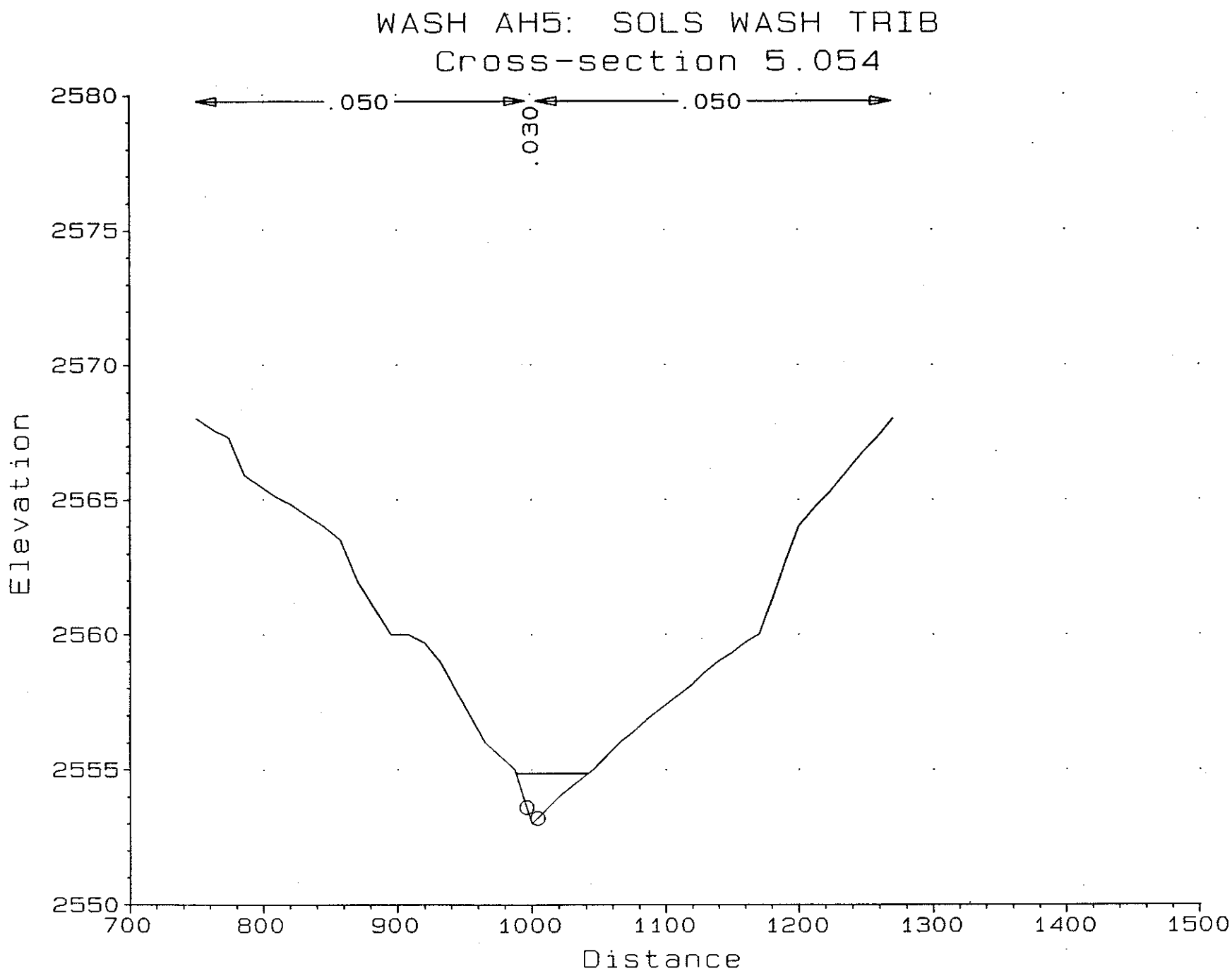
WASH AH5: SOLS WASH TRIB
Cross-section 5.054
.050
.050
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2580
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Elevation
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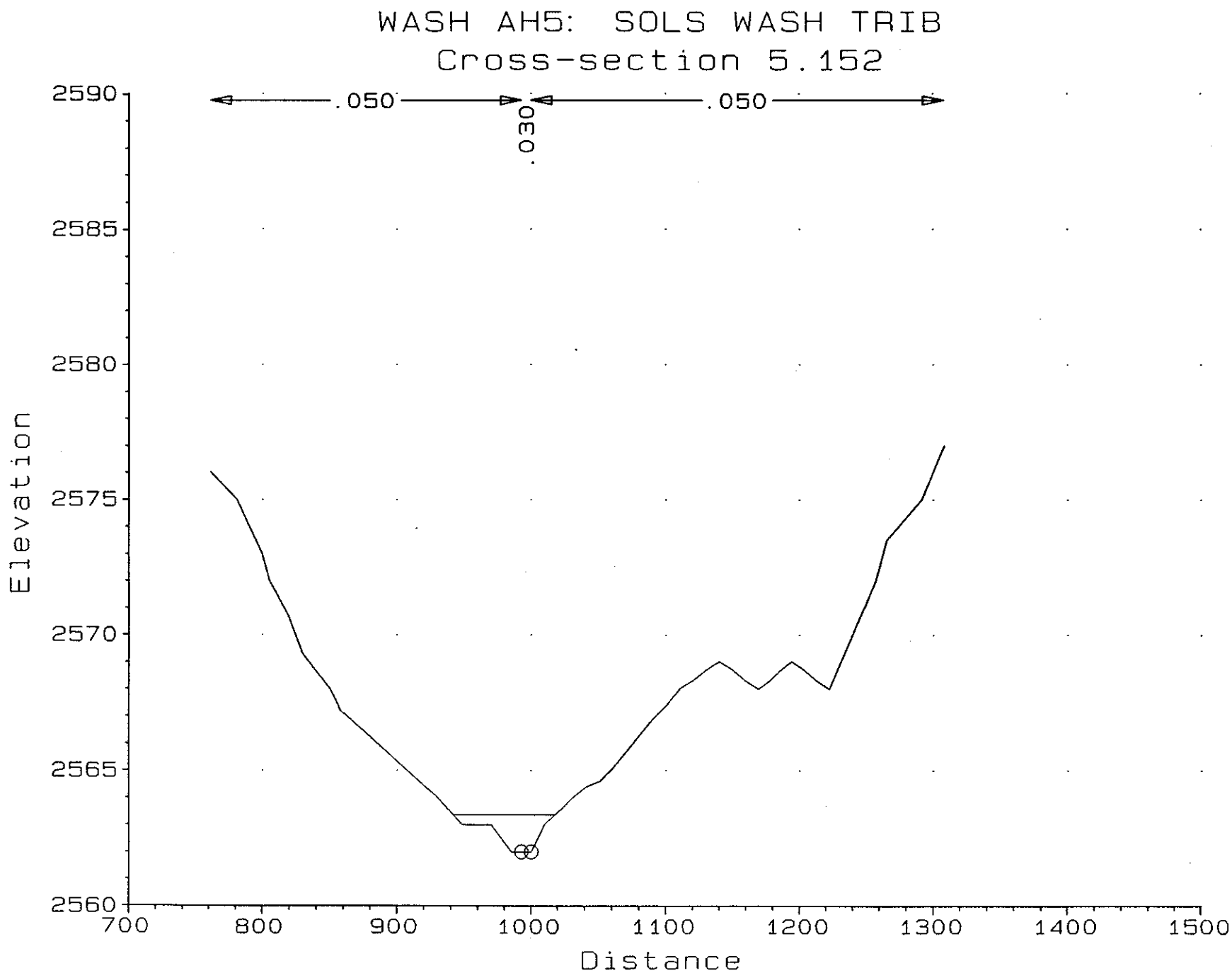
WASH AH5: SOLS WASH TRIB
Cross-section 5.152
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.030
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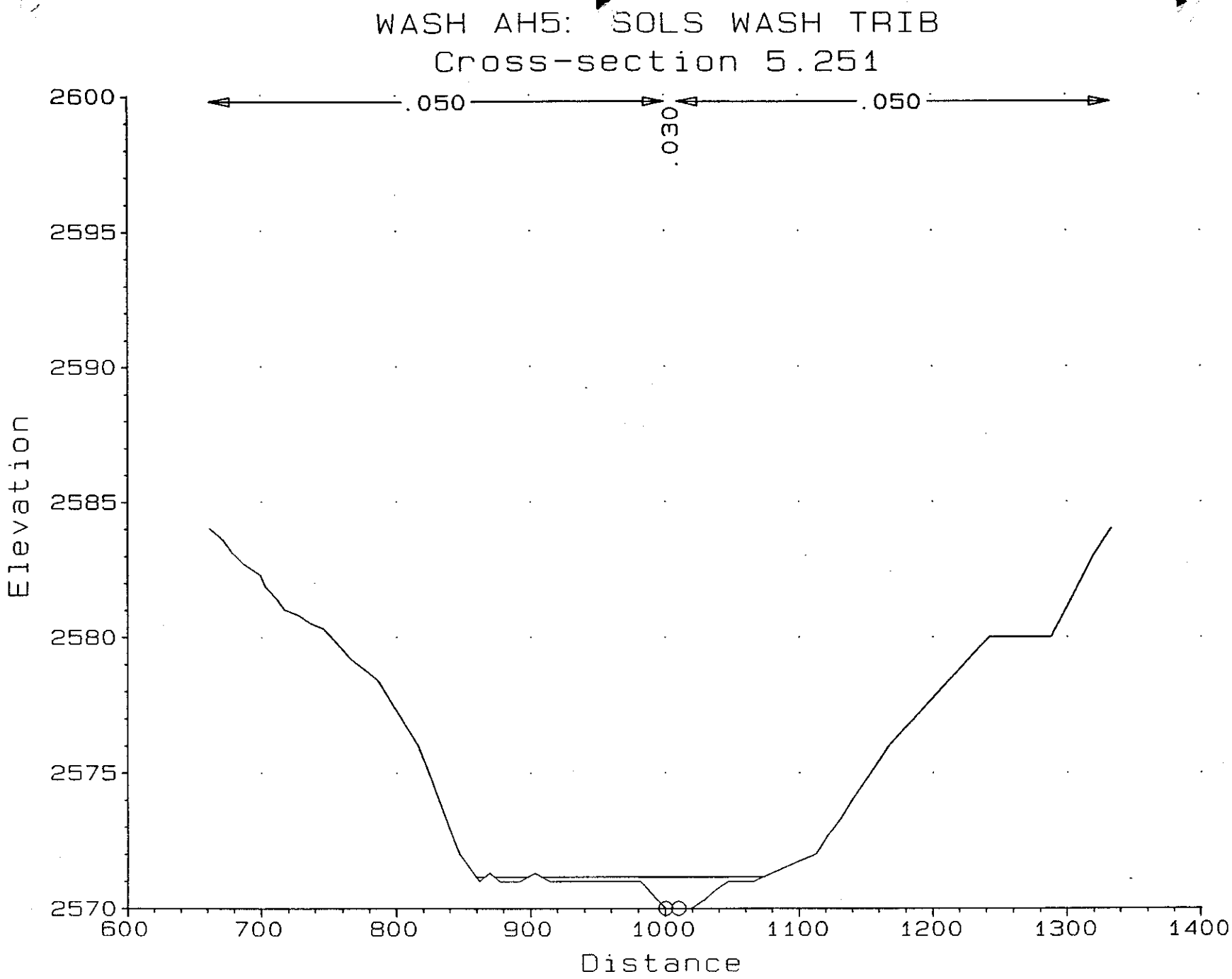
Distance


WASH AH5: SOLS WASH TRIB
Cross-section 5.251
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.030
.050
2600
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Elevation
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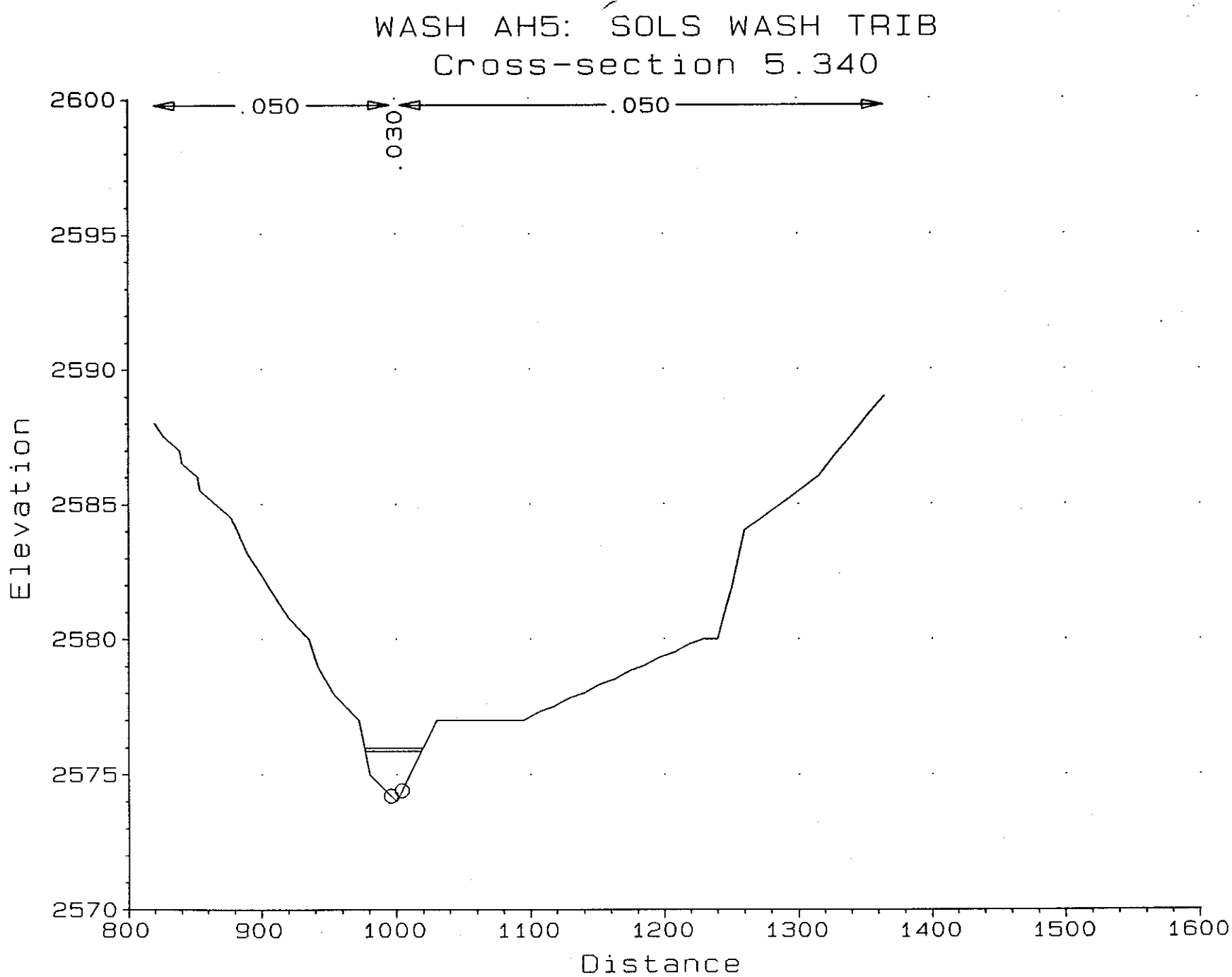
1300
1400
Distance


WASH AH5: SOLS WASH TRIB
Cross-section 5.340
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.030
.050
2600
2595
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2575
2570
Elevation
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1200
1300
1400
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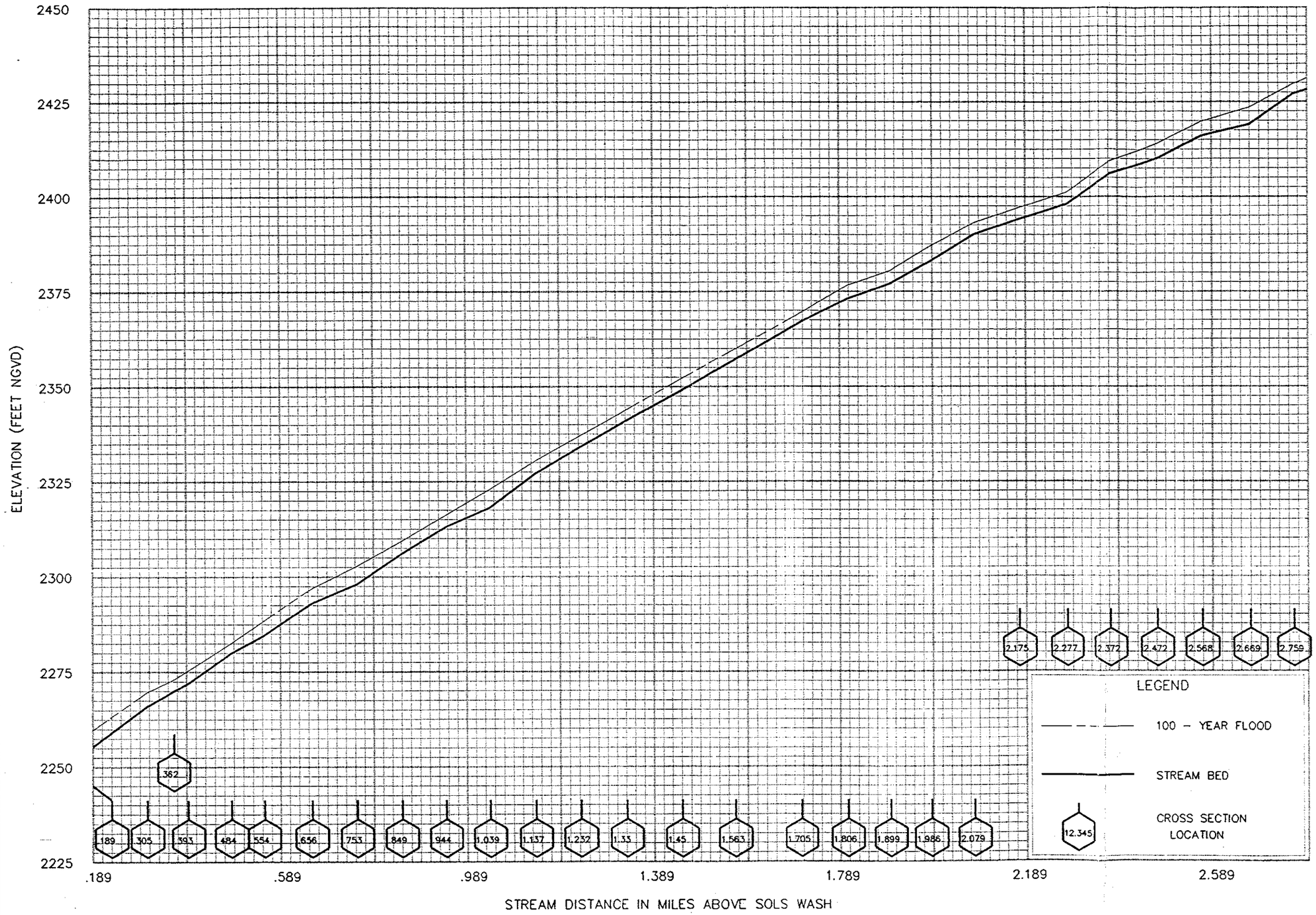
1600
Distance



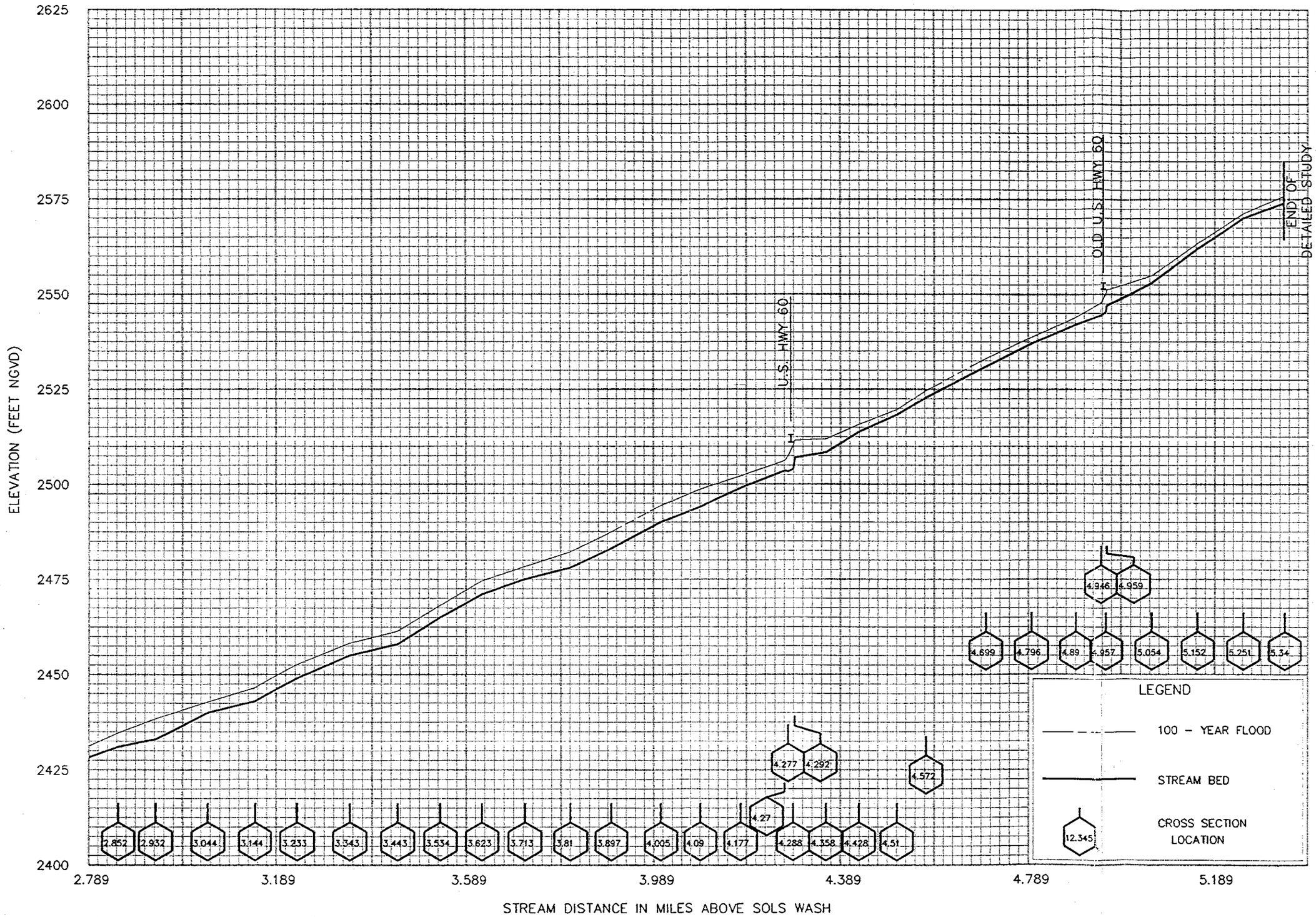
FLOOD PROFILES

UNNAMED SOLS WASH TRIBUTARY (AH5)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

PC FILE:AH5.DWG



FLOOD PROFILES

UNNAMED SOLS WASH TRIBUTARY (AH5)

FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

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