REVISED

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Flood Control District of Maricopa County

Skunk Creek Floodplain Delineation Study

Technical Data Notebook

Section 4: Hydraulic Analysis

June 1997

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4.0 INTRODUCTION

4.0.1 Scope of Study

Montgomery Watson Americas, Inc., (Montgomery Watson) was retained by the Flood Control District of Maricopa County (District) to perform a floodplain delineation re-study of a portion of Skunk Creek located in north-central Maricopa County, Arizona (**Figure 1**).

The project consists of topographic mapping and floodplain delineation of approximately 10 river miles of Skunk Creek from the Central Arizona Project (CAP) Aqueduct to the New River Mountains. Approximately 2.6 miles of existing floodplain mapping performed by another consultant for a developer was incorporated into the HEC-2 computer model with minimal modification.

Montgomery Watson developed revised hydrology for the entire Skunk Creek watershed tributary to the CAP Aqueduct (approximately 43 square miles) using the U.S. Army Corps of Engineer's (Corps) HEC-1 computer model. Backwater analysis was performed for the mainstream Skunk Creek using the Corps HEC-2 computer model to determine floodplain and floodway delineations based on the 100-year peak discharges estimated by the revised hydrology.

4.0.2 Description of Study Area

The study area consists of a portion of Skunk Creek beginning about 13.0 miles upstream of its confluence with New River. Specifically, the study area is bound on the south by the CAP Aqueduct, on the north by the New River Mountains, on the west by Daisy Mountain, and on the east by Apache Peak (**Figure 1**). The terrain generally slopes from north to south and the watershed parallels Interstate 17 to the west. The tributaries of Skunk Creek, including Cline Creek and Rodger Creek, were considered for hydrologic analysis but were not evaluated for the 100-year floodplain re-delineation.

Portions of the study area contain light development and there are significant drainage features, including bridge crossings at New River Road and Carefree Highway and several dip road crossings. The upper portions of the study area consist of mountainous terrain, steep slopes, and sparse vegetation; whereas, the lower portions slope more gradually and vegetation is consistent with desert rangeland.

At the southern boundary of the study area, flow in Skunk Creek ponds behind the CAP Aqueduct. When ponding reaches a critical elevation, it weir flows over the CAP Aqueduct via two overchutes and progresses out of the study area. Results from this study also indicate that the 100-year flow weir flows over Interstate 17 to the west and into the CAP Aqueduct essentially leaving the Skunk Creek flow path.

4.0.3 Mapping

Topographic mapping was prepared from photographs taken in December 1995 by Kenney Aerial Mapping Company, Inc. (Kenney Aerial). The horizontal datum for this project is the State Plane Coordinate System 1983 NAD. Vertical elevations are based on the National Geodetic Vertical

Datum of 1929 (NGVD). Horizontal and vertical control tabulations are provided in the Survey Data Report under separate cover. Cross sections were located by Montgomery Watson, reviewed by the District, and digitized by Kenney Aerial.

4.0.4 Other Studies

Harris-Toups Associates performed the current (effective) Skunk Creek FIS (circa 1976). Baker Engineers performed floodplain delineation studies for Cline Creek and Rodger Creek for the District in 1989. In addition, Coe & Van Loo Consultants, Inc., prepared a floodplain delineation study for Skunk Creek downstream of the CAP Aqueduct for the District in 1990.

This study incorporated approximately 2.6 miles of existing floodplain delineation for a portion of Skunk Creek, which was performed by Erie and Associates, Inc., for Del Webb (see sub-section 4.5.7).

4.0.5 Coordination and Acknowledgments

Montgomery Watson coordinated with several agencies/firms throughout this floodplain re-delineation study, including: (1) District; (2) Hoskin Engineering Consultants (HEC); (3) Castro, Fleet, Fisher Engineering, Inc.; and (4) Erie and Associates, Inc. Coordination with the District was through frequent meetings and telephone conversations, and the District reviewed all technical work products developed for this project.

HEC performed the initial 100-year floodplain delineation for the lower 4.9 river miles of the study area. Castro, Fleet, Fisher Engineering, Inc., performed surveying and Erie and Associates, Inc., prepared the floodplain delineation for the Del Webb Company's 2.6-mile portion of the study area. Del Webb's consultants were contacted in order to gain information about mapping criteria for their study area.

4.0.6 Location of Data

Survey, hydrologic, hydraulic, Manning's "n" value, and all other pertinent data developed for this study may be obtained from:

Flood Control District of Maricopa County
2801 West Durango Street
Phoenix, Arizona 85009
(FCD 95-16)

4.1 ENGINEERING METHODS

4.1.1 Hydrologic Analysis

Revised hydrology for the Skunk Creek watershed was determined using the Corps HEC-1 Flood Hydrograph Package program, version 4.0.1 (May 1991). Analyses were conducted in accordance with the Hydrologic Design Manual for Maricopa County, Arizona (Hydrology Manual) (FCDMC, 1995).

A rainfall/runoff model was developed and peak discharges for the 100-year, 6-hour local storm and the 100-year, 24-hour general storm were determined. The highest peak discharges were produced by the 100-year, 24-hour simulation, and, therefore, adopted as the design storm for all further analyses (**Table 1**). It is important to note that a Hydrology Report Addendum was prepared which addresses modifications in the hydrology that have resulted since that report was completed. This addendum is included as Appendix E in Section 3 of the Technical Data Notebook (TDN), under separate cover.

The hydrologic model development criteria, assumptions, and parameters used in the preparation of the HEC-1 model for the Skunk Creek watershed are documented in Section 3 of TDN. Results of revised hydrologic analyses for the Skunk Creek watershed indicate a reduction in peak discharges in comparison to the current (effective) Skunk Creek FIS (Harris-Toups Associates, circa 1976). A detailed discussion of hydrologic results is included in Section 3 of the TDN.

Table 1
100-Year Peak Discharges Used for the
Skunk Creek Floodplain Delineation Study

Wash Name	Cross Sections	HEC-1 Combination Point	*100-year Peak Discharge (cfs)
Skunk Creek	13.00 thru 13.28	N/A	15700**
	13.40 thru 16.68	CAP	23300**
	16.87 thru 17.40	S22C	23700**
	17.48 thru 17.95	N/A	27300
	18.09 thru 18.57	S21C2	27700
	18.74 thru 22.84	S16C	27300
	22.91 thru 23.69	S14C	24400
	23.79 thru 24.26	S13C	11800
	24.39 thru 24.88	S10C	9700
	25.02 thru 26.31	S6C	7800

* All peak discharges are for the 100-year, 24-hour storm.
** Peak discharge values represent a 3,600 cfs reduction due to split flow upstream of Carefree Highway.

4.1.2 Hydraulic Analysis

The project consists of approximately 10 river miles of floodplain delineations for portions of Skunk Creek from the CAP Aqueduct (south) to the New River Mountains (north). Approximately 2.6 miles of existing floodplain mapping, which was prepared by another consultant, was incorporated into this study. The 100-year floodplain and floodway were modeled using the Corps HEC-2 Water Surface Profiles computer program, version 4.6.2 (May 1991) and peak discharges developed for the 100-year, 24-hour general storm.

The study area is divided into two separate reaches due to incorporation of existing floodplain mapping. From downstream to upstream, these reaches include: (1) from the CAP Aqueduct to the southern boundary of the Del Webb property (approximately 7.5 miles) and (2) from the northern boundary of the Del Webb property to approximately 0.45 river miles north of New River Road bridge (approximately 3.0 miles). The HEC-2 model for the Del Webb portion was inserted into Montgomery Watson's model and cross section identification numbers were modified for consistency with Montgomery Watson modeling. The 100-year discharge at the upstream end of the Del Webb model was also modified. No other adjustments were made to the Del Webb model.

The aforementioned study reaches were modeled as fixed-bed, sub-critical profiles, and an estimate of the starting water surface elevation was derived from the current (effective) FIS (Harris-Toups Associates, circa 1976). The 100-year floodplain was determined initially and encroachment records (ET records) were subsequently used at certain cross sections to restrict flow from entering noneffective flow areas. The bridge crossings at Carefree Highway and New River Road were modeled using the special bridge method in HEC-2.

During delineation of the 100-year floodplain, it was determined that split flow and divided flow occur both upstream of Carefree Highway and at the CAP Aqueduct overchutes. Separate HEC-2 models were developed in order to estimate the amount of flow diverted from the study area upstream of Carefree Highway and the distribution of flow between the two CAP Aqueduct overchutes. A more detailed discussion of these areas and the modeling methodologies utilized is provided in the Special Problem section of this report (Section 4.5).

Once the 100-year floodplain was reviewed by the District and revised, the floodway was initially delineated using the equal conveyance encroachment method (i.e., Method 4). Results from the Method 4 floodway analysis were then used to develop the final, Method 1 floodway model. For a more detailed discussion of floodway modeling, refer to Section 4.6 later in this report.

The primary Skunk Creek HEC-2 model (SKUNKCK.DAT) contains two runs for the main Skunk Creek Channel: (1) 100-year floodplain (run 1); and (2) Method 1 floodway (run 2). The HEC-2 input and output data files and cross section plots for this model, which contain the floodplain and floodway delineations, are included as **Appendix A**. The HEC-2 input and output data files and cross section plots associated with the Split Flow Analysis near New River Bridge (Cross Sections 25.26 through 26.31) (SK-TRIB.DAT), the Split Flow Analysis Upstream of Carefree Highway (ROBHWY.H2I), and Divided Flow Analysis Upstream of the CAP Aqueduct (TRIBCAP.H2I) are included as **Appendices B, C,** and **CA**, respectively.

The proposed boundaries of the 100-year floodplain and floodway were delineated from the flood elevations computed at each cross section. Boundaries were interpolated between cross sections using topographic maps at a scale of 1 inch = 200 feet with a 2-foot contour interval (**Appendix E**). The District used Montgomery Watson's modeling to tie into floodplain modeling for Cline Creek (Baker Engineers, 1989), and results were used to delineate floodplain boundaries at the confluence of Skunk Creek and Cline Creek.

4.2 PARAMETER ESTIMATION

4.2.1 Manning's "n" Values

Roughness factors (Manning's "n" values) for Skunk Creek were determined based on field investigations and photographs of the study area (**Table 2**). The methodology and results of the Manning's "n" value determination were submitted as a technical memorandum and reviewed by the District. For a detailed discussion of the methodology used and results of the Manning's "n" value determination, refer to Technical Memorandum No. 3 for the Skunk Creek Floodplain Delineation Study (FDS) dated July 1996.

4.2.2 Expansion and Contraction Coefficients

The expansion and contraction coefficients used for energy loss at most Skunk Creek cross sections were 0.1 and 0.3, respectively. However, at locations where effective cross section area decreases abruptly such as at Carefree Highway bridge, New River Road bridge, and the CAP Aqueduct overchutes, expansion and contraction coefficients were changed to 0.3 and 0.5, respectively.

4.2.3 Hydraulic Jump/Drop Analysis

No significant hydraulic jumps or drops occur within the Skunk Creek study area. Thus, hydraulic jump/drop analyses were not performed.

Table 2
Manning's "n" Values Used for the
Skunk Creek Floodplain Delineation Study

Reach	Cross Sections	Left Overbank	Right Overbank	Channel
	13.00	.025	.025	.025
	13.02	.025	.025	.025
	13.04	.040	.040	.040
A	13.09	.069	.044	.050
B	13.17 thru 14.54	.038	.042	.052
C	14.75 thru 16.49	.059	.042	.039
D	16.68	N/A	.057	.043

Table 2 (continued)
Manning's "n" Values Used for the
Skunk Creek Floodplain Delineation Study

Reach	Cross Sections	Left Overbank	Right Overbank	Channel
E	16.86 thru 17.07	.059	.042	.033
F	17.18 thru 17.40	.048	.048	.046
G	17.48 thru 18.09	.060	.060	.042
H	18.16 thru 18.29	.055	.055	.030
I	18.49	.055	.055	.042
J	18.57 thru 18.96	.040	.040	.030
K	19.07 thru 19.26	.031	.031	.045
L	19.41 thru 19.83	.050	.055	.032
M	19.92 thru 20.16	.060	.060	.042
N	20.26 thru 20.62	.060	.060	.032
	23.11 thru 24.39			
O	24.53 thru 25.77	.060	.060	.030
P	25.85 thru 25.86	.060	.060	.020
Q	25.98 thru 26.31	.055	.055	.032

4.3 CROSS SECTION DESCRIPTION

4.3.1 Channel and Overbank

All cross sections of Skunk Creek developed for this study are stationed from left to right looking downstream with the thalweg located at station 10000. Cross section identification numbers represent river miles upstream from the confluence of Skunk Creek and New River (approximately 13 miles downstream of the CAP Aqueduct crossing). In general, cross sections are oriented perpendicular to flow, extend the full width of the 100-year floodplain, and are spaced at approximately 500-foot intervals unless geographic or structural constraints dictated otherwise. Where possible, cross section locations are consistent with the locations of those used in the current (effective) Skunk Creek FIS (Harris-Toups Associates, circa 1976).

Channel bank stations were defined based on field investigation and topographic mapping (1 inch = 200 feet scale). Where possible, bank stations were set at locations characterized by abrupt vegetation, channel configuration, and /or topographic changes.

4.3.2 Bridges and Constrictions

Two bridge crossings exist within the study area, including the Carefree Highway and New River Road bridges. Both bridges have piers, are flat (i.e., constant slope), and are skewed to flow. Therefore, both bridge crossings were modeled using the special bridge method in HEC-2.

As specified by the special bridge method, a series of four cross-sections were used to model each bridge crossing. The second and third cross sections are located at the upstream and downstream faces of each bridge, respectively. As-built drawings were used to develop bridge data for the HEC-2 model, and the area of the bridge piers was excluded from the area of the bridge opening in order to determine effective flow area. Bridge modeling techniques were coordinated with and reviewed by the District.

4.3.3 Grade Control Structures

Currently, no grade control structures exist within the study area of the Skunk Creek FDS.

4.4 CALIBRATION

No calibration techniques were used for the Skunk Creek FDS. However, the District verified the estimated discharge for the split flow analysis upstream of Carefree Highway.

4.5 SPECIAL PROBLEMS

4.5.1 Split, Weir, and Divided Flow Upstream of Central Arizona Project (CAP) Aqueduct (Cross Sections 13.00 through 13.28)

Cross sections 13.00 through 13.28 are located at the downstream limit of the Skunk Creek study area. In this region, Skunk Creek passes over the CAP Aqueduct at two overchutes, located approximately 2,080 feet apart. Also in this area, Interstate Highway 17 (I-17) intersects the western edge of the proposed 100-year floodplain.

Due to the existence of the CAP Aqueduct and I-17 in this portion of the study area, special analyses were required to develop the 100-year floodplain. The 100-year Skunk Creek flow in this area was found to occur along three separate paths. Due to low topography along the western floodplain boundary, some Skunk Creek flow will be lost as split (weir) flow into the CAP Aqueduct and westward over I-17. Additionally, flow that remains in the Skunk Creek channel will be divided into two other pathways: (1) that going over the 244-foot wide western overchute and (2) that going over the 160-foot wide eastern overchute.

The 100-year peak discharge entering cross section 13.40 is estimated to be 23,300 cfs. This represents the total Skunk Creek flow before flow division occurs upstream of the two overchutes. At cross-section 13.28, a divided flow analysis was performed to separate the flow into that to be conveyed over the western overchute and that over the eastern overchute. The main flow, as modeled in the primary HEC-2 analysis (i.e., SKUNKCK.DAT), is that conveyed over the western overchute. The flow that will go over the eastern overchute is modeled in a separate HEC-2 analysis (i.e., TRIBCAP.H2I). Additionally, a split flow analysis by weir flow is performed for the western

overchute flow, as it is lost to Skunk Creek across I-17 and into the CAP Aqueduct. This analysis is included as part of the primary HEC-2 model.

4.5.2 Floodway Analysis Upstream of CAP Aqueduct (Cross Sections 13.00 through 13.28)

As stated above in sub-section 4.5.1, this lowermost reach of the floodplain delineation is immediately upstream of the CAP Aqueduct, where two overchutes convey Skunk Creek flow over the CAP Aqueduct. Additionally, in this reach, Skunk Creek flow is lost to the west as water enters the CAP Aqueduct and also weir flows over I-17. This reach requires a complex model, incorporating subdivision of flow between the two overchutes in addition to a weir flow analysis to evaluate flow lost to the west. As a result of this complexity and the fact that water is ponded behind the CAP Aqueduct, it is not appropriate to apply the floodway concept to this reach; and the 100-year floodplain boundary is taken as the floodway boundary between these cross sections.

4.5.3 Split Flow Upstream of Carefree Highway (Cross Sections 16.87 through 17.48)

The topography of the Skunk Creek floodplain from cross section 17.48 to the Carefree Highway bridge (i.e., at the upstream bridge cross section 16.87) is such that the 100-year flood flow is split into that occurring in the main floodplain and a smaller amount in a side channel to the west. Flow in the smaller, western side channel does not converge with Skunk Creek downstream of the bridge. As a result, a split flow analysis was conducted to determine the amounts of flow that would be conveyed in the side and main channels. The flow in the main channel is modeled as part of the primary HEC-2 model (i.e., SKUNKCK.DAT), whereas that in the side channel is modeled in a separate file (ROBHWY.H2I).

4.5.4 Different Flows for Floodplain and Floodway Delineations Upstream of Carefree Highway (Cross Sections 16.87 through 17.48)

Per direction from the District, the floodplain and floodway delineations in this reach were modeled with different flows. Due to the split flow upstream of the Carefree Highway bridge (see sub-section 4.5.3), some flow is lost from Skunk Creek. The floodplain delineation was performed in combination with the split flow analysis, using a reduced flow of 23,700 cfs in the main channel and 3,600 cfs in the western side channel. The floodway delineation was performed using the total flow of 27,300 cfs in the main channel, and a floodway was not delineated for the side channel.

4.5.5 Cross Section Extended Messages for 16.86, 16.87, and 17.39

These messages reflect the fact that one or both endpoints of the overbanks for these sections lie below the computed water surface elevations. These messages are insignificant because flow would not occur in these portions of the overbanks due to upstream topography preventing water from entering these areas. Encroachment stations were used to restrict flow to within the area that would contain realistically Skunk Creek flow.

4.5.6 Cloud Road Crossing (Cross-Section 18.23 Added)

Cloud Road is located on an embankment between sections 18.16 and 18.29. To account for the impact on flow due to the embankment between these two sections, a new cross section, 18.23, was

added. The skew for the elevated portion of the road embankment was modeled by converting the skewed length to a corresponding length perpendicular to the Skunk Creek flow direction. The three, 60-inch CMP culverts were ignored at this location due to the insignificant capacity compared to the total flow in Skunk Creek.

4.5.7 Del Webb Model (Cross Sections 20.65 through 23.10)

The Skunk Creek study area covered by the Montgomery Watson contract does not include this reach, which was studied by another consultant for the Del Webb Company. This reach is located within the stream length covered by Montgomery Watson. The work performed by the other consultant was directly incorporated into the Montgomery Watson model. Cross section identification numbers were adjusted and a QT record was re-located in order to be consistent with Montgomery Watson modeling.

4.5.8 Split Flow and Flow Break Out (Cross Sections 25.26 and 26.31)

The floodplain analysis of the Skunk Creek Wash indicated that there is potential of a flow break out on the left over-bank area between cross sections 25.77 and 25.98. Based upon available mapping, it seemed that this break out flow would be returning to the main wash at a location downstream of cross section 25.26. Therefore, a split flow analysis was performed (SK-SPLIT.DAT) between cross sections 25.02 and 26.31 to determine the amount of potential split flow. The flow break out in this reach varies from 2800 cfs at cross section 25.26 to 45 cfs at cross section 26.09. After the amount of split flow was determined, a separate HEC-2 analysis (SK-TRIB.DAT) was performed on the tributary between cross sections 25.09 and 26.31. The floodplain boundaries were plotted according to the HEC-2 analysis results. However, after discussion with FEMA technical evaluator, it was decided that a floodway analysis is not warranted for this tributary.

4.5.9 Zone A0 (Depth 1) between Cross Sections 25.77 and 26.09

The floodplain analysis of the Skunk Creek Wash also indicated that there is a possibility of floodwater overflowing the right over-bank area between cross sections 25.77 and 26.09. Further investigation into the situation, through field trips and analysis of topographic mapping, confirmed that the floodwater would be sheet flowing over the New River Road alignment, which extends from the southeast to the northwest direction. However, the amount of overflow is insignificant and warrants only a Zone A0 (Depth 1) designation for this area instead of a Zone AE.

4.6 *FLOODWAY MODELING*

The floodway for the Skunk Creek study area was initially delineated using the equal conveyance encroachment method (i.e., Method 4). For cross sections that already required encroachments for the 100-year floodplain analysis, floodway encroachment stations were developed by analyzing flow distribution data and reducing conveyance in proportion to the distribution of natural overbank conveyance.

A floodway delineation is not considered appropriate and was not performed for the lower 0.28 miles of the study area since this area is characterized by ponding behind the CAP Aqueduct (see sub-section 4.5.2). The floodplain and floodway delineation between cross-sections 13.00 and 13.28 are

proposed to be coincident. Therefore, a smooth transition of the floodway boundary from cross section 13.41 and 13.28 was performed according to FEMA technical evaluator. Conflicts between the equal conveyance floodway method (Method 4) and the split (weir) flow analysis at the downstream portion of the study area (see sub-section 4.5.1) required that the weir flow records be removed for development of the initial floodway delineation. In addition, the floodway delineation was performed using the total flow of 27,300 cfs in the main Skunk Creek channel upstream of Carefree Highway; and a floodway was not delineated for the side channel which diverts approximately 3,600 cfs out of the Skunk Creek study area (see sub-section 4.5.3).

The Method 4 floodway model was reviewed by the District, revised, and used to develop encroachment station information for the Method 1 floodway analysis. In general, the boundaries of the floodway delineated in the Method 4 floodway analysis (i.e., SSTA and ENDST) were used to develop the ET record data for the Method 1 analysis. The weir flow records were re-inserted into the Method 1 floodway model since no conflicts exist between these HEC-2 modeling techniques. Once completed, the Method 1 floodway delineation was adjusted in certain areas so that the floodway width remains generally consistent.

4.7 FLOOD HAZARD ZONES

Per direction by the District, no flood hazard zones were determined for the Skunk Creek FDS.

4.8 FINAL RESULTS

4.8.1 Computer Runs

Results of the primary HEC-2 computer model (i.e., SKUNKCK.DAT) were used to delineate the 100-year floodplain and floodway boundaries for the Skunk Creek FDS. The HEC-2 input and output data files for the 100-year floodplain and floodway are included in **Appendix A** along with the cross section plots associated with this model. The HEC-2 input and output data files for the split flow analysis upstream of the New River Bridge are included in **Appendix B** along with the cross section plots. In addition, the HEC-2 input and output data files and cross section plots for the split flow analysis upstream of Carefree Highway and upstream of the CAP Aqueduct are included in **Appendices C** and **CA**, respectively.

The 100-year flood profile plots and floodplain delineation maps are included as **Appendix D** and **E**, respectively. Lastly, the proposed 100-year floodplain Flood Insurance Rate Map (FIRM) for the Skunk Creek study area is presented as **Appendix F**.

4.9 DISKETTES OF RUNS

The enclosed diskettes contain the following HEC-2 computer files:

Description	Input File Name	Output File Name
Skunk Creek 100-year Floodplain (run 1) and Floodway (run 2)	SKUNKCK.DAT	SKUNKCK.OUT

Description	Input File Name	Output File Name
Divided Flow Analysis for Eastern Overchute of CAP Aqueduct	TRIBCAP.H2I	TRIBCAP.OUT
Split Flow Analysis Upstream of Carefree Highway	ROBHWY.H2I	ROBHWY.OUT
Split Flow Analysis near New River Bridge (Cross Sections 25.12 through 26.17)	SK-SPLIT.DAT SK-TRIB.DAT	SK-SPLIT.OUT SK-TRIB.OUT

4.10 REFERENCES

Arizona Department of Water Resources, Engineering Division, Flood Management Section, Instructions for Organizing and Submitting Technical Documentation for Flood Studies, September 1991.

Baker Engineers, Floodplain Delineation of Cline Creek, 1989.

Castro, Fleet, Fisher Engineering, Inc., Skunk Creek Floodplain Delineation: The Villages At Desert Hills, December 1996.

Coe & Van Loo Consultants, Inc., Luke Wash Flood Insurance Study Between the Gila River Floodplain and the Southern Pacific Railroad, Technical Data Notebook Section 4, Hydraulic Analysis, March, 1993.

Flood Control District of Maricopa County, Special Projects Branch, Hydrology Division, Hydrologic Design Manual for Maricopa County, Arizona, 1995.

Harris-Toups Associates, Skunk Creek Flood Insurance Study, circa 1976.

U. S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Profiles Users Manual, September 1990.

U. S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Profiles Version 4.6.0, February 1991.

U. S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-1 Flood Hydrograph Package Version 4.0.1, May 1991.

U. S. Federal Emergency Management Agency, Flood Insurance Study, Maricopa County, Arizona and Incorporated Areas, September 1993.

Appendix A

MONTGOMERY WATSON

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1*****************************************
 *  HEC-2 WATER SURFACE PROFILES          *
 *                                        *
 *  Version   4.6.2;  May 1991            *
 *                                        *
 *  RUN DATE    26JUN98    TIME   11:17:35 *
 *****************************************
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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
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1
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                                                                                THIS RUN EXECUTED 26JUN98     11:17:35
 *************************************
  HEC-2 WATER SURFACE PROFILES

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


        FILE NAME:  SKUNKCK.DAT

        COMPLETE HEC-2 MODEL FOR ENTIRE SKUNK CREEK FLOODPLAIN DELINEATION STUDY
        HEC ANALYSIS INCLUDES SECTIONS 13.00 TO 17.95 (FLOODPLAIN ANALYSIS ONLY)
        MONTGOMERY WATSON ANALYSIS INCLUDES SECTIONS 18.09 TO 20.62 AND 22.96 TO
        CASTRO FLEET ANALYSIS (DEL WEBB) INCLUDES SECTIONS 20.64 TO 22.95


 SPLIT FLOW BEING PERFORMED


 SF       SPLIT FLOW FROM SECTIONS 13.02 TO 13.28


 TW       I-17 SPLIT FLOW
          WEIR FLOW OCCURS ALONG I-17 BETWEEN CROSS-SECTIONS 13.02 & 13.28
          FLOW WEIRS OVER THE NORTH BOUND LANES OF I-17 AND ALSO OVER THE
          EMBANKMENT INTO THE CENTRAL ARIZONA PROJECT CANAL
 WS    11   13.02   13.28      -1      2.6
 WC     0  1527.2     490  1526.1     725    1526     780  1524.5     830    1526
 WC   855  1526.7     995    1528    1230    1530    1515    1532    1750    1534
 WC  1840  1534.5
1
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 T1       SKUNK CREEK FLOODPLAIN AND FLOODWAY DELINEATION (METHOD 1)
 T2       100-YEAR FREQUENCY            DATE:  FEBRUARY 1998
 T2       RUN INCORPORATING FCDMC'S AND FEMA'S REVISIONS AT NEW RIVER ROAD BRIDGE
 T3       MONT. WAT. AND HEC

 J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

                 2                                                                  1522.96

 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

       1                  -1


 J3  VARIABLE CODES FOR SUMMARY PRINTOUT

      38        43         1         8        42         3         2        26         5        39
      53         4        54       110       115       150       200
          SPLIT FLOW ANALYSES AT CAP CANAL & CAREFREE HWY
          NO FLOODWAY ANALYSIS PERFORMED FOR CROSS SECTIONS 13.00 TO 13.28
          DUE TO WEIR FLOW AND PONDING OF WATER UPSTREAM OF THE CAP CANAL BERM.
          THE FLOODWAY CONCEPT IS NOT APPLICABLE FOR THIS REACH.

 QT        2     15700     15700
 NC     .025      .025      .025        .3        .5
 ET                 9.1       9.1                                                                   9820     10065
          DOWNSTREAM OF BRINK OF CAP OVERCHUTE NO.1 (BOR STA 470+80)
          OVERFLOW DISCHARGE HAS BEEN ADJUSTED TO ACCOUNT FOR SPLIT FLOW TO CAP
          OVERCHUTE NO.2 (BOR STA 492+04)
 X1    13.00         8      9820     10065
 GR   1527.0      7780    1518.5    7780.5    1518.5    7939.5    1527.0      7940    1527.0      9820
 GR   1518.5    9820.5    1518.5   10064.5    1527.0     10065

 ET                 9.1       9.1                                                                   9820     10065
          UPSTREAM ENTRANCE TO CAP OVERCUTE NO.1
 X1    13.02         8      9820     10065       120       120       120
 GR   1527.0      7780      1519    7780.5      1519    7939.5    1527.0      7940    1527.0      9820
 GR     1519    9820.5      1519   10064.5    1527.0     10065

 NC      .04       .04       .04        .3        .5
 ET                 9.1       9.1                                                                   9537     10350
 X1    13.04        77      9721     10130       100       100       100
 GR   1531.2      7311    1526.9      7365    1526.6      7377    1527.8      7428      1527      7475
 GR   1526.6      7516    1520.1      7540    1519.5      7577    1519.3      7631    1519.6      7648
 GR   1518.7      7682      1519      7704    1518.1      7758    1518.4      7790    1520.6      7803
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GR   1526.7      7829     1527.1      7840     1526.9      7898     1526.2      7917      1531      7961
GR   1532.2      7999       1532      8035     1532.1      8067     1532.4      8106    1537.1      8125
GR   1532.3      8139     1533.8      8206     1533.4      8257     1532.9      8297    1532.3      8355
GR   1532.9      8404     1533.1      8450     1533.5      8518     1533.5      8547    1533.9      8592
GR   1534.2      8649     1533.7      8711     1532.6      8807     1532.4      8944    1532.6      8993
GR     1533      9051     1532.4      9144     1533.9      9163     1536.3      9206    1537.1      9230
GR   1536.6      9261     1535.6      9288     1533.9      9315     1532.8      9358    1532.3      9408
GR   1532.3      9438     1532.1      9481     1529.4      9537     1527.9      9567    1527.1      9596
1
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GR   1527.1      9632     1527.7      9669     1527.5      9710       1528      9721    1522.3      9749
GR   1520.2      9797     1519.6      9890     1520.1      9931     1521.2      9949    1520.1      9966
GR   1518.8      9976     1519.8     10027     1520.7     10082     1521.2     10108    1527.1     10130
GR   1526.8     10162     1526.5     10210       1527     10249     1527.4     10274    1527.5     10325
GR   1528.4     10355     1528.1     10398

NC     .069      .044       .050        .1        .3
ET                9.1        9.1                                                          9550     10679
X1    13.08        57       9615     10182       230       230       230
GR     1532      7732       1530      7863      1528      7933      1526      8065      1525      8114
GR   1524.5      8264       1524      8409    1522.2      8469    1522.5      8605    1522.2      8621
GR   1522.8      8775     1522.9      8828      1523      8862    1522.5      8926    1521.9      8955
GR   1520.4      8966     1522.5      9024    1524.4      9127      1524      9197    1524.1      9265
GR   1524.4      9305       1524      9386    1524.3      9436    1523.7      9447    1523.6      9533
GR   1524.2      9615     1523.4      9651    1522.6      9720    1520.4      9740    1522.2      9755
GR   1522.9      9781     1524.6      9805    1520.9      9821      1521      9836    1522.2      9847
GR     1523      9886     1522.2      9978    1518.5      9992    1518.2     10002    1518.8     10008
GR   1522.4     10023       1522     10070    1521.1     10078      1522     10090      1522     10106
GR     1520     10131     1521.5     10160    1523.5     10182    1523.9     10210    1524.3     10274
GR   1524.7     10346       1526     10460    1525.8     10512    1524.4     10555    1524.5     10575
GR     1526     10616       1528     10679

NC     .038      .042       .052        .1        .3
ET                9.1        9.1                                                          9421     10816
        NEW CROSS SECTION:  GR CARD DATA DEVELOPED FROM TOPOGRAPHIC MAPS
X1    13.16        53       9953     10288       420       425       421
GR     1534      7863       1532      8128      1530      8316      1528      8551    1526.5      8641
GR     1528      8791     1528.3      8868      1528      8888      1526      8946      1525      9139
GR     1526      9169     1526.2      9219      1526      9255    1525.3      9389      1526      9405
GR   1526.5      9421       1526      9442    1525.5      9459      1526      9481    1526.4      9632
GR     1526      9721       1525      9736      1526      9751      1528      9929    1528.3      9936
GR     1528      9943       1526      9953      1524      9963      1522      9981    1521.5      9991
GR     1522     10001       1524     10043    1524.5     10093      1524     10148      1523     10163
GR     1524     10215       1523     10220      1524     10225      1525     10235      1524     10245
GR   1523.2     10250       1524     10255      1526     10273    1526.2     10288      1526     10303
GR   1525.8     10323       1526     10349      1528     10689    1528.4     10744      1528     10774
GR   1527.5     10784       1528     10793    1529.8     10816
        CROSS-SECTION AT WHICH FLOWS TO CAP OVERCHUTES 1 AND 2 RECOMBINE.
        WSEL MATCHES AT THIS CROSS-SECTION

ET                9.1        9.1                                                          9537     10802
X1    13.28        65       9671     10110       390       610       600
GR     1536      8217     1534.9      8297    1534.2      8552    1534.3      8677      1534      8812
GR     1532      8979       1530      9107    1529.3      9165      1530      9205      1532      9255
GR   1532.2      9337     1531.5      9390    1531.5      9439    1530.1      9484    1525.7      9507
GR   1526.0      9523     1529.8      9537    1530.1      9605    1530.9      9671    1530.2      9682
GR   1530.4      9709     1531.2      9726    1531.3      9776    1530.4      9840    1529.7      9851
GR   1530.9      9901     1531.6      9962    1530.6      9975    1522.9      9991    1522.6     10000
GR   1522.9     10034     1530.4     10052    1530.6     10083    1527.4     10097    1531.2     10110
GR   1531.0     10143     1531.2     10169    1532.3     10193    1532.9     10222    1532.2     10250
GR   1532.2     10302     1532.2     10347    1531.6     10363    1532.0     10389    1531.1     10421
GR   1531.1     10475     1531.1     10529    1529.7     10581    1530.3     10594    1530.6     10634
GR   1530.0     10654     1530.5     10667    1529.9     10697    1531.7     10727    1532.2     10771
GR   1532.9     10840     1533.5     10884    1533.9     10956    1533.3     10961    1534.6     10969
1
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GR   1534.9     10995     1534.0     11002    1533.5     11019    1534.9     11025    1535.4     11065

QT       2     23300      23300
ET                          7.1                                   9670     10602
X1    13.40        73       9670     10319       650       590     678.6
GR     1540      8520       1538      8940      1536      9105      1535      9155      1536      9197
GR   1536.2      9202       1536      9212    1535.9    9214.5      1536      9217    1536.5      9287
GR     1536      9359     1535.5      9414      1536      9474    1537.5      9641    1537.6      9670
GR   1536.4      9692     1534.6      9719    1527.4      9732    1530.8      9748    1532.1      9770
GR   1530.0      9782     1534.1      9800    1533.9      9820    1535.3      9840    1534.9      9849
GR   1535.8      9866     1536.5      9908    1537.1      9939    1536.9      9968    1535.2      9980
GR   1529.0      9994     1528.7     10000    1529.7     10010    1534.5     10033    1534.1     10063
GR   1534.3     10084     1534.3     10102    1536.0     10133    1536.4     10164    1535.0     10177
GR   1535.9     10194     1535.2     10209    1526.8     10246    1528.5     10252    1529.1     10269
GR   1537.1     10289     1537.5     10319    1536.6     10361    1535.1     10379    1535.3     10395
GR   1536.0     10422     1535.1     10447    1535.7     10465    1535.8     10514    1535.1     10539
GR   1535.0     10600     1535.4     10653    1535.5     10687    1535.0     10726    1534.3     10744
GR   1534.4     10772     1535.1     10797    1534.7     10833    1535.5     10874    1535.5     10910
GR   1535.1     10944     1534.7     11001    1535.1     11027    1539.0     11043    1538.8     11070
GR   1537.4     11080     1540.1     11101    1539.6     11142

ET                          7.1                                   9236     10494
X1    13.55        79       9688     10494       740       850     787.3
GR   1544.6      8416     1544.5      8496    1543.9      8598    1543.5      8689    1542.8      8797
GR   1542.2      8877     1541.9      8929    1541.3      8950    1540.3      8963    1539.6      8985
GR   1540.1      8993     1540.1      9040    1539.8      9081    1540.4      9104    1540.0      9157
GR   1540.8      9241     1541.2      9311    1540.5      9346    1541.0      9443    1540.2      9451
GR   1541.2      9464     1541.0      9477    1541.9      9510    1542.7      9558    1543.1      9592
GR   1543.3      9645     1543.1      9688    1541.9      9715    1539.8      9736    1540.1      9742
GR   1538.2      9757     1537.4      9776    1532.2      9787    1535.6      9804    1540.7      9828
GR   1539.7      9836     1541.7      9855    1541.6      9877    1542.0      9897    1541.4      9930
GR   1541.8      9965     1535.8      9988    1535.2     10000    1538.4     10010    1540.8     10031
GR   1540.9     10045     1540.5     10054    1541.3     10065    1541.2     10098    1541.8     10123
GR   1541.3     10132     1542.7     10150    1541.1     10176    1539.5     10191    1538.7     10208
GR   1537.7     10219     1539.2     10233    1541.4     10262    1541.1     10270    1542.0     10283
GR   1542.3     10307     1541.4     10349    1537.3     10370    1537.9     10380    1537.0     10394
GR   1538.6     10403     1541.0     10432    1542.6     10456    1543.0     10494    1544.4     10550
GR   1544.5     10623     1545.0     10680    1545.2     10743    1544.8     10802    1544.6     10856
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GR	1544.2	10907	1544.1	10973	1545.1	10985	1545.3	10993		
ET		9.1	7.1				9055	10482	8335	10646
X1	13.66	92	9477	10486	500	540	549.1			
GR	1548.4	8244	1548.9	8287	1549.0	8335	1548.3	8352	1548.2	8399
GR	1548.3	8462	1548.0	8514	1547.5	8594	1546.9	8663	1546.0	8720
GR	1545.8	8738	1544.9	8780	1544.1	8828	1543.6	8914	1543.1	8917
GR	1543.7	8921	1544.0	8985	1544.6	9048	1545.1	9086	1545.3	9138
GR	1546.1	9173	1546.5	9234	1546.3	9275	1546.0	9318	1545.7	9360
GR	1545.3	9383	1545.1	9436	1544.5	9449	1545.0	9457	1544.1	9467
GR	1545.4	9477	1544.9	9492	1543.5	9512	1540.2	9528	1540.5	9540
GR	1542.2	9550	1546.6	9572	1546.4	9585	1542.7	9600	1542.8	9619
GR	1543.3	9627	1542.4	9643	1543.1	9655	1546.0	9667	1546.6	9689
GR	1546.7	9709	1546.1	9717	1546.0	9736	1544.6	9744	1546.0	9753
GR	1545.3	9775	1546.1	9791	1546.1	9829	1547.5	9852	1547.5	9878
GR	1546.7	9894	1546.7	9941	1545.9	9956	1544.6	9988	1542.1	10000

GR	1542.3	10006	1543.9	10015	1543.0	10055	1543.5	10063	1546.5	10083
GR	1546.6	10108	1546.0	10119	1547.2	10133	1546.3	10145	1547.2	10160
GR	1546.2	10177	1546.6	10193	1546.1	10207	1546.4	10246	1546.8	10280
GR	1547.3	10324	1547.3	10357	1546.7	10379	1545.6	10392	1543.2	10408
GR	1543.9	10430	1542.9	10442	1542.6	10465	1548.6	10486	1549.3	10509
GR	1549.5	10557	1549.8	10592	1549.9	10646	1549.4	10686	1549.5	10727
GR	1549.4	10784	1549.5	10846						
ET		9.1	7.1				8708	10232	8212	10433

CROSS-SECTION PROVIDED BY AERIAL MAPPER SKEWED TO CONTAIN FLOW

X1	13.86	90	9330	10042	1060	1050	1049.1			
GR	1556.0	8212	1554.0	8550	1553.0	8600	1553.4	8617	1552.4	8685
GR	1551.6	8708	1551.5	8749	1550.6	8759	1551.7	8767	1552.1	8788
GR	1551.5	8817	1554.3	8863	1555.1	8895	1555.4	8908	1555.1	8935
GR	1555.0	8975	1555.5	9022	1556.1	9072	1556.9	9125	1557.1	9165
GR	1557.3	9223	1556.6	9242	1557.3	9263	1557.4	9298	1557.0	9319
GR	1556.1	9330	1553.5	9344	1552.5	9379	1551.4	9393	1552.9	9404
GR	1552.7	9416	1551.9	9420	1553.3	9429	1553.2	9446	1549.8	9464
GR	1549.3	9472	1549.8	9494	1553.0	9513	1553.6	9535	1553.4	9596
GR	1552.9	9605	1553.3	9613	1553.5	9634	1553.4	9666	1553.2	9716
GR	1552.5	9727	1553.4	9739	1552.6	9770	1553.6	9784	1553.4	9803
GR	1551.8	9819	1551.2	9831	1552.5	9842	1551.1	9855	1553.3	9864
GR	1553.3	9885	1551.8	9919	1549.0	9936	1549.0	9948	1551.6	9970
GR	1550.4	9983	1547.6	9991	1546.3	10000	1551.6	10009	1554.6	10023
GR	1555.7	10042	1555.6	10083	1554.3	10149	1550.9	10159	1552.6	10171
GR	1554.4	10197	1554.7	10232	1556.0	10271	1557.0	10327	1557.5	10379
GR	1557.7	10433	1557.5	10477	1557.5	10546	1557.7	10596	1557.6	10656
GR	1557.4	10695	1557.1	10752	1556.8	10820	1556.5	10873	1556.1	10945
GR	1555.9	10962	1555.7	11006	1558.1	11035	1561.0	11054	1561.7	11092
ET		9.1	7.1				8805	10529	8530	10608

CROSS-SECTION PROVIDED BY AERIAL MAPPER SKEWED TO CONTAIN FLOW

X1	14.07	65	9879	10059	1050	1100	1134.1			
GR	1565.4	8530	1564	8652	1562	8685	1560.7	8705	1560.7	8805
GR	1562	8920	1562.4	9043	1562.8	9116	1563.1	9185	1562.8	9201
GR	1562.8	9250	1563.3	9286	1563.7	9321	1563.4	9353	1562.5	9394
GR	1561.5	9417	1561.4	9462	1562.3	9530	1562.4	9554	1562.0	9566
GR	1562.0	9614	1562.3	9680	1563.1	9746	1563.6	9814	1564.0	9855
GR	1564.3	9879	1560.9	9898	1561.4	9904	1558.5	9924	1558.9	9938
GR	1558.9	9959	1557.5	9972	1557.5	9978	1558.5	10000	1562.0	10020
GR	1562.6	10040	1564.5	10059	1564.0	10077	1563.5	10125	1563.1	10151
GR	1562.6	10166	1562.7	10176	1562.2	10201	1563.1	10217	1563.0	10249
GR	1563.1	10300	1563.0	10338	1563.2	10381	1563.1	10396	1562.3	10404
GR	1563.1	10408	1563.1	10454	1563.1	10499	1564.1	10516	1565.5	10571
GR	1566.0	10608	1565.9	10656	1565.8	10710	1565.6	10758	1564.7	10813
GR	1564.3	10848	1564.8	10873	1565.1	10923	1570.0	10950	1570.8	10989

The following GR record has been modified as per discussion with the FEMA technical evaluator. From station 8450 to station 9500, the elevations are read from the topographic map. From station 9563 to station 11361, the elevations remain the same as provided by the Aerial Mapping Company, Inc (AMCI) (March 17, 1998).

ET			7.1				9210	10160		
X1	14.30	73	9923	10027	1010	1210	1213.6			
GR	1576.2	8450	1575.9	8550	1574.1	8650	1573.7	8750	1573.5	8850
GR	1573.4	8950	1573.3	9050	1572.5	9150	1572.5	9250	1571.9	9350
GR	1571.9	9450	1573.5	9500	1573.8	9563	1574.2	9626	1573.5	9652
GR	1573.1	9672	1573.8	9707	1573.7	9731	1573.8	9769	1573.2	9788
GR	1573.2	9836	1572.9	9878	1572.4	9906	1571.6	9923	1570.4	9941
GR	1565.1	9961	1565.2	9967	1560.0	9973	1560.3	9983	1559.6	10000
GR	1566.5	10011	1570.0	10027	1570.1	10045	1569.4	10052	1570.1	10062
GR	1571.0	10097	1571.2	10131	1571.1	10157	1572.5	10191	1572.9	10211
GR	1572.6	10251	1572.3	10297	1572.5	10351	1572.2	10386	1571.8	10410
GR	1572.1	10417	1571.7	10437	1571.7	10448	1571.5	10480	1571.6	10515
GR	1572.7	10552	1572.9	10571	1572.7	10608	1572.4	10642	1571.4	10681
GR	1571.6	10735	1571.9	10765	1572.0	10792	1571.2	10804	1571.8	10811
GR	1573.2	10852	1575.9	10899	1577.1	10931	1577.9	10967	1578.4	10992
GR	1578.7	11034	1578.6	11096	1578.4	11179	1578.2	11233	1577.7	11273
GR	1582.1	11295	1582.8	11336	1577.8	11361				
ET		9.1	7.1				9950	10480	9283	10588
X1	14.54	65	9950	10480	1410	1150	1273.2			
GR	1584.8	8984	1584.8	9072	1584.7	9160	1584.7	9220	1584.9	9283
GR	1584.7	9355	1584.5	9421	1584.2	9499	1583.8	9525	1583.4	9546
GR	1583.7	9563	1583.4	9621	1583.8	9683	1583.0	9715	1583.4	9741
GR	1582.9	9767	1583.5	9798	1583.9	9818	1584.2	9845	1584.0	9892
GR	1583.2	9926	1581.9	9950	1574.4	9970	1574.0	9986	1571.6	10000
GR	1576.7	10045	1574.9	10066	1577.8	10080	1579.5	10110	1577.7	10136
GR	1578.5	10153	1578.1	10177	1576.3	10199	1576.9	10222	1576.6	10259
GR	1577.7	10273	1577.7	10287	1578.9	10306	1578.4	10354	1578.1	10384
GR	1577.0	10410	1578.1	10416	1578.3	10428	1577.7	10437	1580.1	10458
GR	1583.0	10480	1583.8	10495	1584.2	10523	1584.8	10556	1585.0	10588

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GR   1584.4     10623    1583.5    10669    1583.4    10695    1583.4    10738    1583.8    10762
GR   1584.1     10808    1583.9    10821    1583.9    10881    1584.2    10936    1584.2    10999
GR   1584.2     11072    1584.3    11131    1584.1    11205    1584.2    11269    1584.9    11381

NC     .059      .042      .039       .1        .3
        CROSS-SECTION PROVIDED BY AERIAL MAPPER SKEWED TO CONTAIN FLOW
ET                          7.1                                  9720     10076
X1    14.74        37     9976    10076     1180      970    1070.9
GR   1594.6      9253    1594.6     9384    1593.5     9435    1592.2     9495    1591.7     9526
GR   1590.5      9540    1589.6     9564    1589.3     9615    1589.0     9650    1587.4     9663
GR   1587.4      9705    1587.0     9720    1588.5     9769    1588.3     9791    1587.1     9809
GR   1586.1      9837    1585.5     9853    1585.1     9871    1585.5     9891    1584.9     9917
GR   1585.0      9952    1587.3     9976    1581.8     9988    1581.8    10000    1582.1    10024
GR   1581.7     10057    1588.3    10076    1588.3    10095    1590.2    10125    1591.0    10145
GR   1591.6     10172    1591.5    10203    1591.5    10225    1591.6    10248    1591.7    10375
GR     1592     10635    1592.6    10690

ET                          7.1                                  9620     10059
X1    14.89        49     9938    10059      700      760     756.4
GR   1601.5      9234    1601.3     9270    1599.7     9318    1598.4     9337    1597.4     9377
GR   1597.0      9406    1596.9     9434    1597.5     9460    1598.4     9477    1598.5     9494
GR   1597.0      9511    1595.3     9549    1593.2     9572    1593.5     9577    1590.8     9587
GR   1591.2      9606    1591.0     9626    1592.0     9633    1593.0     9659    1592.7     9671
1
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GR   1593.5      9683    1593.6     9702    1592.4     9714    1592.5     9741    1592.4     9775
GR   1592.7      9804    1591.3     9817    1591.4     9847    1591.8     9869    1592.2     9890
GR   1593.0      9906    1592.5     9927    1591.9     9938    1589.9     9949    1589.9     9956
GR   1587.2      9979    1583.3     9995    1583.2    10000    1583.3    10013    1583.8    10032
GR   1588.0     10042    1596.4    10059    1597.2    10087    1598.2    10101    1599.3    10141
GR   1599.6     10186    1600.2    10236    1600.4    10284    1600.5    10319

ET                          7.1                                  9972     10390
X1    15.06        62     9972    10390      670      950     930.3
GR   1603.3      9119    1603.9     9192    1604.4     9267    1604.9     9349    1605.9     9431
GR   1606.0      9497    1606.1     9575    1606.3     9620    1606.6     9663    1606.5     9685
GR   1605.7      9707    1603.0     9733    1599.7     9751    1599.0     9759    1599.5     9764
GR   1600.1      9782    1600.6     9800    1600.6     9836    1601.4     9872    1602.1     9917
GR   1602.2      9972    1597.9     9988    1593.0    10000    1591.5    10010    1591.3    10020
GR   1594.5     10043    1593.9    10060    1595.3    10070    1597.5    10089    1598.0    10109
GR   1597.8     10126    1595.7    10138    1596.7    10152    1600.2    10174    1600.1    10205
GR   1593.4     10229    1593.7    10246    1596.4    10268    1596.6    10283    1597.3    10298
GR   1597.8     10314    1597.1    10323    1598.4    10337    1597.4    10350    1600.0    10367
GR   1601.4     10390    1601.3    10411    1599.6    10441    1595.7    10453    1600.3    10470
GR   1600.7     10480    1602.7    10495    1603.6    10517    1605.1    10549    1606.0    10581
GR   1606.6     10621    1606.9    10667    1607.1    10713    1607.2    10776    1607.4    10855
GR   1607.4     10916    1607.6    10950

ET                  9.1     7.1                                  9975     10351     9503     10546
X1    15.12        61     9975    10351      255      330     283.6
GR   1604.6      9081    1604.5     9136    1604.6     9184    1605.2     9236    1605.8     9313
GR   1606.1      9379    1606.4     9423    1606.8     9503    1606.7     9545    1606.5     9620
GR   1606.2      9665    1605.5     9703    1604.5     9754    1603.8     9762    1604.4     9792
GR   1603.5      9836    1603.5     9865    1602.9     9886    1603.3     9903    1603.9     9928
GR   1604.1      9975    1596.3    10000    1596.9    10009    1596.4    10015    1596.7    10032
GR   1595.8     10059    1600.2    10070    1601.3    10087    1601.7    10109    1602.2    10130
GR   1602.4     10144    1601.5    10156    1602.1    10176    1602.1    10205    1601.7    10213
GR   1602.2     10230    1602.8    10258    1595.4    10282    1596.7    10302    1597.2    10319
GR   1601.5     10351    1600.3    10370    1601.1    10378    1601.1    10387    1603.1    10417
GR   1603.4     10441    1603.1    10480    1602.9    10493    1603.8    10513    1604.1    10532
GR   1606.5     10546    1606.1    10564    1607.2    10587    1608.2    10621    1609.1    10657
GR   1609.8     10716    1610.4    10769    1610.7    10822    1611.1    10863    1611.2    10909
GR     1611     10955

ET                  9.1     7.1                                  9977     10348     9749     10672
X1    15.22        54     9977    10348      535      600     553.1
GR   1609.2      9347    1609.6     9393    1610.2     9448    1610.9     9497    1611.3     9548
GR   1611.8      9619    1612.0     9694    1612.0     9749    1611.9     9816    1611.1     9893
GR   1610.5      9937    1609.1     9977    1599.9     9996    1599.4    10000    1599.2    10022
GR   1598.9     10041    1602.7    10057    1605.6    10077    1606.6    10091    1606.1    10113
GR   1606.8     10126    1607.7    10151    1607.9    10166    1606.7    10191    1606.0    10210
GR   1606.8     10234    1605.9    10242    1606.2    10249    1604.1    10260    1605.4    10269
GR   1605.1     10282    1602.0    10301    1601.5    10310    1601.9    10327    1607.8    10348
GR   1608.2     10374    1608.0    10413    1607.9    10439    1604.5    10461    1607.3    10480
GR   1607.9     10507    1609.1    10527    1611.0    10570    1612.3    10605    1613.6    10657
GR   1613.8     10672    1613.4    10708    1613.6    10752    1614.3    10797    1615.1    10850
GR   1615.6     10891    1616.3    10934    1616.8    10987    1617.2    11062
1
    26JUN98      11:17:35                                                                      PAGE     8

ET                          7.1                                  9979     10353
X1    15.41        57     9979    10353      980      950     968.9
GR   1618.0      9542    1618.6     9643    1618.9     9676    1620.7     9683    1619.0     9694
GR   1619.4      9751    1619.7     9787    1620.0     9830    1619.2     9867    1619.4     9907
GR   1619.7      9940    1618.7     9968    1615.1     9979    1609.8     9993    1609.2    10000
GR   1608.3     10009    1607.6    10021    1609.7    10027    1610.4    10043    1610.4    10053
GR   1611.1     10058    1612.8    10070    1613.1    10077    1611.8    10085    1612.0    10096
GR   1610.1     10106    1611.9    10113    1613.0    10124    1613.0    10135    1612.5    10157
GR   1611.8     10178    1612.0    10194    1610.2    10212    1610.9    10221    1610.4    10245
GR   1609.6     10257    1609.4    10282    1608.7    10297    1610.1    10310    1611.0    10324
GR   1611.0     10333    1614.7    10353    1618.6    10383    1620.1    10403    1620.5    10426
GR   1621.2     10440    1619.6    10464    1617.9    10479    1618.1    10496    1619.3    10517
GR   1620.0     10534    1621.0    10569    1622.0    10607    1622.6    10642    1622.9    10678
GR   1623.0     10732    1623.1    10769

ET                          7.1                                  9935     10182
X1    15.55        46     9935    10147      730      550     755.3
GR   1625.7      9335    1625.5     9408    1625.7     9486    1625.9     9510    1625.7     9532
GR   1626.2      9567    1627.0     9622    1628.0     9645    1627.1     9680    1626.7     9703
GR   1626.5      9731    1626.1     9761    1625.3     9790    1623.7     9822    1622.3     9835
GR   1618.7      9858    1619.5     9869    1619.7     9906    1619.5     9935    1618.8     9954
GR   1615.4      9972    1615.3     9982    1613.8     9991    1613.9    10000    1614.7    10030
GR   1615.2     10057    1614.9    10078    1613.4    10093    1614.5    10104    1617.5    10126
GR   1619.4     10147    1620.5    10184    1620.7    10222    1620.5    10247    1620.2    10266
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GR   1619.4     10278    1618.9     10314     1619.4     10326     1620.0     10343     1624.2     10368
GR   1625.0     10381    1625.1     10410     1625.3     10453     1625.2     10483     1625.1     10525
GR   1625.0     10531

ET                         7.1                                     9477      10116
X1     15.75        50     9977     10102       880      1030     1048.4
GR   1633.1      9040    1633.1      9098    1632.7      9146     1632.0      9185     1632.0      9268
GR   1631.5      9319    1630.5      9364    1630.7      9404     1629.9      9431     1626.7      9467
GR   1626.1      9481    1624.3      9500    1624.3      9515     1623.4      9534     1619.5      9549
GR   1619.5      9557    1622.4      9566    1624.1      9580     1624.8      9602     1625.6      9637
GR   1626.1      9689    1626.0      9712    1625.0      9736     1625.4      9751     1627.1      9769
GR   1628.7      9816    1628.8      9835    1627.8      9850     1628.0      9875     1628.6      9933
GR   1627.2      9944    1626.9      9963    1626.1      9967     1625.7      9977     1619.8     10000
GR   1620.1     10015    1621.2     10027    1621.5     10050     1616.7     10070     1616.3     10079
GR   1627.5     10102    1627.9     10116    1627.5     10121     1628.4     10138     1629.3     10174
GR   1630.3     10210    1631.2     10259    1631.4     10307     1631.7     10370     1631.7     10411

ET                         7.1                                     9817      10210
X1     15.89        58     9969     10210       700       730      738.4
GR   1636.6      9095    1637.0      9172    1636.9      9243     1637.2      9312     1637.1      9359
GR   1637.6      9398    1638.1      9428    1637.5      9460     1634.0      9490     1630.6      9517
GR   1631.6      9522    1631.8      9539    1631.4      9550     1631.6      9571     1632.6      9626
GR   1633.3      9676    1633.4      9714    1632.5      9744     1631.7      9775     1630.9      9809
GR   1629.2      9818    1629.2      9822    1630.6      9831     1631.6      9850     1632.4      9866
GR   1632.6      9887    1632.1      9901    1636.5      9919     1635.9      9934     1633.3      9949
GR   1633.2      9969    1632.2      9981    1626.9     10000     1627.0     10011     1628.2     10018
GR   1627.9     10035    1626.8     10056    1626.8     10068     1630.8     10096     1630.7     10121
GR   1631.1     10172    1630.2     10182    1630.1     10194     1633.5     10210     1635.6     10224
GR   1636.1     10243    1636.9     10296    1637.0     10337     1637.2     10370     1637.1     10414
1
   26JUN98      11:17:35                                                                              PAGE    9

GR   1636.4     10440    1636.4     10469    1635.7     10477     1636.7     10492     1636.9     10535
GR   1637.6     10578    1637.2     10598    1637.2     10621

ET                         7.1                                     9830      10130
X1     16.07        42     9948     10130       980       840      950.3
GR   1648.3      9258    1648.3      9327    1648.3      9384     1648.1      9446     1648.0      9494
GR   1647.3      9536    1646.8      9578    1645.7      9614     1644.4      9631     1641.8      9648
GR   1641.5      9701    1641.1      9720    1638.4      9734     1637.8      9750     1639.7      9760
GR   1637.5      9781    1639.3      9791    1639.5      9822     1638.8      9854     1638.8      9877
GR   1639.4      9884    1640.1      9902    1640.1      9948     1638.8      9974     1634.8      9986
GR   1634.3     10000    1634.7     10037    1635.4     10044     1636.2     10071     1636.3     10089
GR   1635.5     10105    1635.5     10113    1643.3     10130     1644.3     10166     1645.7     10196
GR   1646.5     10222    1646.6     10267    1646.7     10315     1646.2     10350     1645.8     10392
GR   1645.6     10433    1645.5     10494

ET                         7.1                                     9600      10068
X1     16.19        54     9934     10077       540       660      645.6
GR   1652.0      9011    1652.5      9072    1652.6      9131     1652.8      9193     1652.7      9235
GR   1651.8      9260    1649.9      9281    1647.9      9326     1645.6      9377     1644.7      9385
GR   1645.2      9392    1646.1      9431    1646.6      9457     1646.3      9500     1645.4      9506
GR   1646.3      9515    1646.3      9539    1645.2      9548     1645.8      9556     1645.2      9574
GR   1643.7      9600    1641.7      9613    1640.9      9624     1641.8      9639     1641.7      9652
GR   1642.7      9664    1642.9      9687    1642.4      9695     1642.5      9709     1644.9      9730
GR   1646.3      9760    1646.9      9781    1647.2      9807     1646.2      9817     1645.8      9833
GR   1646.5      9855    1646.9      9881    1644.9      9907     1644.4      9934     1643.9      9950
GR   1638.9      9966    1639.7      9981    1637.5     10000     1637.8     10018     1637.9     10034
GR   1639.1     10048    1652.0     10077    1652.8     10101     1653.2     10139     1653.3     10192
GR   1653.0     10245    1652.7     10291    1652.4     10341     1652.2     10389

ET                         7.1                                     9760      10042
X1     16.27        50     9760     10045       400       425      422.1
GR   1655.1      9044    1655.3      9106    1655.6      9139     1655.9      9198     1656.1      9247
GR   1656.3      9283    1655.9      9326    1654.9      9357     1652.7      9394     1650.9      9404
GR   1650.4      9443    1650.5      9466    1650.7      9508     1648.7      9529     1648.6      9539
GR   1646.7      9553    1648.2      9572    1647.6      9588     1648.6      9600     1647.5      9623
GR   1649.0      9643    1650.5      9667    1650.2      9682     1650.3      9700     1649.6      9724
GR   1650.2      9760    1648.3      9771    1647.7      9798     1646.1      9816     1647.3      9835
GR   1647.9      9853    1649.6      9872    1649.9      9892     1648.8      9905     1648.9      9915
GR   1648.4      9923    1648.9      9947    1643.5      9967     1642.4      9990     1639.4     10000
GR   1639.8     10009    1640.0     10032    1654.9     10045     1655.9     10052     1656.0     10111
GR   1656.2     10158    1656.4     10207    1656.4     10255     1656.5     10316     1656.1     10391

ET                         7.1                                     9906      10320
X1     16.49        46     9906     10130      1190      1150     1153.6
GR   1667.1      9520    1667.6      9583    1667.4      9619     1665.7      9661     1665.1      9708
GR   1664.9      9776    1664.1      9808    1661.9      9841     1661.5      9871     1659.1      9888
GR   1659.2      9906    1653.7      9925    1653.9      9933     1653.8      9961     1653.3     10000
GR   1654.5     10018    1658.6     10040    1658.9     10066     1658.1     10073     1657.8     10095
GR   1659.1     10104    1659.5     10130    1653.7     10147     1654.0     10168     1653.7     10211
GR   1655.7     10224    1655.2     10234    1655.3     10246     1656.7     10253     1657.7     10285
GR   1658.8     10316    1659.1     10335    1658.9     10371     1657.8     10413     1656.7     10420
GR   1657.4     10428    1657.6     10438    1656.8     10446     1657.6     10465     1659.8     10485
GR   1662.4     10512    1663.3     10532    1664.0     10582     1664.5     10619     1664.7     10669
GR   1664.8     10742
1
   26JUN98      11:17:35                                                                              PAGE   10

NC      .043      .057     .043        .1        .3
ET                         7.1                                     9940      10590
X1     16.68        51     9928     10590       940      1160     997.5
GR   1682.1      9880    1676.2      9916    1673.5      9928     1662.9      9950     1662.6      9956
GR   1666.6      9964    1666.2      9989    1662.3     10000     1662.8     10009     1662.7     10020
GR   1664.5     10025    1665.2     10043    1665.3     10076     1664.9     10100     1662.9     10107
GR   1662.9     10120    1661.5     10135    1665.1     10142     1665.4     10161     1664.6     10168
GR   1664.2     10183    1664.5     10192    1663.7     10218     1662.3     10230     1661.7     10247
GR   1662.9     10262    1664.5     10302    1664.0     10308     1663.9     10353     1664.0     10390
GR   1663.6     10437    1663.5     10463    1662.9     10470     1663.5     10479     1662.7     10511
GR   1661.8     10530    1661.3     10540    1661.3     10553     1662.3     10569     1666.8     10590
GR   1675.2     10612    1674.8     10641    1675.2     10677     1675.4     10718     1675.4     10765
GR   1675.3     10821    1675.4     10870    1675.6     10900     1675.6     10938     1676.0     10964
GR   1676.0     11005

QT        2     23700    23700
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NC     .059       .042       .033        .3         .5
       DOWNSTREAM SIDE OF CAREFREE HIGHWAY
       BRIDGE OPENING ADJUSTED BY FACTOR OF 0.83 TO ACCOUNT FOR 34 DEG. SKEW
ET                          7.11                                   9788      10101
X1    16.86         44      9895      10315       990       880    980.9       .83
X3       10                                                                 1683.3    1679.75
GR   1686.9       9161    1685.4       9257    1684.6      9343    1684.1       9411    1683.3       9501
GR   1683.3       9588    1683.5       9655    1684.2      9706    1684.9       9777    1685.7       9837
GR   1686.0       9895    1673.2       9932    1673.1     10000    1674.4      10014    1673.8      10071
GR   1673.9      10138    1673.5      10177    1671.2     10272    1685.9      10315    1685.3      10391
GR   1684.3      10464    1683.2      10545    1681.8     10628    1681.4      10650    1679.7      10725
GR   1679.5      10798    1679.4      10872    1679.4     10935    1679.5      11012    1679.7      11087
GR   1679.9      11151    1680.3      11222    1679.8     11287    1680.0      11349    1679.7      11442
GR   1679.4      11522    1679.3      11595    1679.0     11664    1678.7      11742    1678.4      11818
GR   1678.3      11891    1678.1      11973    1678.4     12038    1678.2      12141

SB     1.05       1.56       2.7          0       285      10.5      4102          2    1671.2      1671.2
       UPSTREAM FACE OF CAREFREE HIGHWAY
       APPROXIMATELY 3,600 CFS DIVERTS OUT OF THE SKUNK CREEK WASH APPROX.
       1,500 FEET WEST OF THE MAIN HIGHWAY BRIDGE
       REFER TO SPLIT FLOW MODEL FROM CROSS-SECTION 16.87 TO CROSS-SECTION 17.4
       CROSS-SECTION 17.48 IS THE POINT OF FLOW MATCHING
       BT BASED UPON "AS-BUILT" PLANS ADJUSTED TO ACCOUNT FOR MAPPED CONDITIONS
ET                          7.11                                   9806      10117
X1    16.87         43      9918      10337      44.2       44.2    44.2       .83
X2        0          0         1     1684.1   1688.08          0       0      1.33        .83
X3       10                                                                 1683.3    1679.75
BT       13       9175      1687                9373     1684.7                9701    1683.3
BT     9885     1685.6                 9918    1685.7                  10102    1686.0                10337
BT   1685.8                10365     1685.6                10561    1682.3                 10745     1679.9
BT               10831     1679.7                10902    1679.5                 10966    1679.9
GR     1687       9175    1685.7       9256    1685.5      9279    1684.7       9373    1683.5       9468
GR   1683.4       9554    1683.2       9635    1683.3      9701    1684.5       9777    1685.6       9885
GR   1685.7       9918    1673.2       9948    1673.5     10000    1673.5      10014    1674.4      10028
GR   1674.3      10102    1674.2      10171    1672.6     10243    1671.2      10280    1685.8      10337
GR   1685.6      10365    1685.2      10454    1683.1     10561    1681.7      10662    1679.9      10745
1
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GR   1679.7      10831    1679.7      10902    1679.5     10966    1679.9      11058    1679.6      11136
GR   1679.9      11267    1680.1      11338    1679.7     11402    1679.2      11503    1678.8      11575
GR   1678.6      11644    1678.1      11715    1678.0     11798    1677.7      11859    1677.8      11957
GR   1678.2      12043    1678.4      12099    1678.3     12177

QT       2      23700     27300
NC     .059       .042       .033        .1         .3
ET                 9.1        7.1                                   9893      10534       9506      11080
X1    16.96         91      9932      10342       410       600    456.2        1.0
GR   1685.3       9506    1684.9       9512    1684.9      9562    1683.3       9581    1679.9       9590
GR   1679.2       9614    1679.1       9652    1678.4      9689    1677.8       9727    1678.5       9746
GR   1678.3       9775    1677.8       9799    1676.9      9881    1678.1       9893    1684.2       9914
GR   1684.0       9932    1677.1       9949    1677.7      9972    1676.7       9985    1675.3       9992
GR   1675.3      10000    1675.7      10014    1675.4     10051    1677.6      10074    1678.1      10092
GR   1679.4      10108    1679.2      10136    1679.5     10173    1679.0      10202    1679.4      10220
GR   1679.0      10234    1679.5      10238    1684.2     10250    1684.6      10288    1685.3      10342
GR   1685.9      10384    1685.8      10428    1685.2     10463    1684.5      10482    1682.3      10514
GR   1681.4      10534    1682.1      10545    1682.5     10560    1684.2      10582    1684.8      10622
GR   1684.7      10649    1685.1      10672    1685.5     10706    1685.5      10737    1685.8      10779
GR   1686.3      10814    1686.5      10834    1688.1     10878    1688.8      10903    1688.8      10928
GR   1688.2      10985    1688.3      11016    1688.3     11054    1687.8      11117    1687.6      11181
GR   1687.7      11237    1687.6      11314    1687.4     11379    1687.5      11452    1687.3      11512
GR   1686.8      11591    1685.9      11650    1685.6     11686    1684.9      11712    1683.0      11765
GR   1682.4      11798    1682.4      11834    1682.7     11878    1683.4      11896    1683.6      11949
GR   1680.0      11976    1680.7      11994    1679.2     12001    1679.1      12011    1682.1      12028
GR   1683.5      12050    1682.9      12083    1683.6     12101    1682.7      12165    1683.5      12199
GR   1684.9      12244    1685.0      12310    1685.1     12378    1685.7      12455    1686.0      12564
GR     1686      12588

ET                 9.1        7.1                                   9650      10550       9451      10899
X1    17.06         93      9947      10090       630       440    566.0
GR   1693.1       9396    1693.1       9429    1694.6      9451     1694       9469    1692.7       9483
GR   1690.1       9500    1688.3       9528      1688      9575   1686.9       9591    1683.2       9614
GR     1682       9646    1686.4       9662    1685.8      9683   1686.6       9692      1686       9722
GR   1684.7       9734    1685.9       9754      1686      9791   1685.3       9818    1683.1       9830
GR   1682.1       9868    1683.2       9889    1682.9      9898   1684.9       9923    1685.2       9947
GR   1683.5       9956    1681.7       9985    1679.9      9992   1679.7      10008    1682.3      10014
GR   1681.8      10034    1677.9      10052    1677.6     10069   1679.1      10076    1685.3      10090
GR   1687.6      10108    1689.1      10133    1689.8     10173   1689.2      10243    1688.5      10314
GR   1687.9      10337    1688.6      10365    1687.9     10412   1687.8      10470      1687      10492
GR   1688.5      10529    1687.5      10540    1688.1     10559   1688.4      10598    1688.7      10647
GR   1689.7      10671    1690.4      10732    1690.6     10787   1690.7      10842      1691      10899
GR     1691      10962    1690.8      11019      1691     11074     1691      11123    1691.2      11172
GR   1690.8      11226    1690.6      11287    1690.5     11327   1690.2      11411    1689.7      11476
GR   1689.5      11519    1688.3      11564    1686.9     11573   1688.2      11581    1688.8      11596
GR   1688.2      11658    1686.5      11695    1689.2     11753   1689.8      11799    1690.1      11858
GR   1690.9      11909    1691.5      11940    1691.7     11977   1691.2      12023    1690.3      12065
GR   1690.1      12087    1689.3      12097    1689.9     12114     1688      12120      1690      12131
GR   1686.6      12148    1686.5      12160    1690.5     12185   1690.5      12215    1688.7      12241
GR   1690.5      12265    1690.9      12303    1691.6     12342
1
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NC     .048       .048       .046        .1         .3
ET                 9.1        7.1                                   9697      10650       9590      10839
X1    17.18         93      9978      10254       610       510    600.8
GR     1696       9490    1697.3       9502    1697.3      9524   1696.7       9540    1697.5       9548
GR     1697       9590    1695.8       9637    1694.2      9670     1695       9680    1694.7       9691
GR   1693.9       9697    1694.6       9712    1694.2      9740   1693.4       9789    1692.3       9814
GR   1691.1       9826    1692.1       9838    1692.4      9859   1691.5       9904    1690.9       9962
GR   1690.9       9978    1685.7      10000    1685.6     10019   1686.6      10034    1689.1      10044
GR   1690.8      10065    1690.9      10082    1689.9     10128   1689.1      10138    1685.8      10148
GR   1685.8      10175    1684.6      10185    1686.3     10200   1685.1      10212    1689.4      10231
GR   1691.9      10254      1694      10284    1695.2     10319   1695.6      10362    1695.6      10400
GR   1695.2      10432    1694.1      10449    1693.9     10505   1693.6      10552    1693.7      10569
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GR   1693.3     10602    1692.4    10634    1692.9    10656    1692.9    10706    1694.1    10761
GR     1695     10775    1695.7    10808    1695.8    10839    1695.6    10896    1695.6    10955
GR   1696.1     11003    1695.4    11058    1696.1    11085    1696.6    11116    1696.2    11167
GR     1696     11215    1695.8    11248    1695.3    11280    1694.9    11328    1694.4    11371
GR   1694.1     11424    1692.8    11469     1693     11486    1692.7    11520    1693.1    11534
GR   1693.3     11566    1693.5    11608    1693.4    11655    1693.5    11702    1693.7    11737
GR     1694     11780    1694.7    11819    1694.5    11858    1694.5    11904    1694.6    11941
GR   1695.7     11977     1696     12031    1696.1    12074    1696.5    12131    1696.8    12186
GR   1696.2     12231    1696.2    12258    1696.3    12297    1693.7    12312    1692.8    12326
GR   1693.9     12340    1692.6    12349    1695.5    12374

ET               9.1       7.1                                   9670     10450     9451     11686
X1    17.30       94      9970    10156      630      580     644.4
GR   1709.9     9242    1708.2     9260    1706.5     9300    1705.2     9338    1703.1     9381
GR   1704.5     9413    1704.5     9451    1703.3     9493    1702.3     9521    1701.2     9570
GR     1700     9618      1699     9627    1699.2     9648      1698     9679      1699     9686
GR   1698.3     9717    1697.4     9761    1696.8     9765    1697.6     9773    1697.4     9803
GR   1697.5     9836    1699.4     9861    1699.4     9871    1697.6     9893    1697.6     9934
GR   1697.2     9970    1690.8     9995    1690.9    10000    1691.2    10028    1692.5    10058
GR   1692.2    10084    1695.8    10098    1697.2    10124    1697.9    10156    1696.5    10170
GR   1695.9    10182    1698.3    10199    1699.2    10229      1699    10247    1697.6    10259
GR   1697.2    10277    1697.9    10288      1697    10310    1694.3    10328    1697.2    10341
GR   1698.4    10367    1697.1    10374    1698.2    10390    1697.1    10454    1698.2    10462
GR   1698.5    10490    1699.1    10524    1700.2    10537    1700.1    10572      1701    10604
GR   1701.2    10633    1700.8    10688    1701.1    10722    1700.3    10800    1699.5    10880
GR   1699.2    10927    1699.5    10968    1699.4    11021    1699.9    11080    1699.9    11127
GR   1699.6    11158    1699.8    11178    1699.8    11210    1699.9    11261    1700.4    11306
GR   1700.7    11368    1700.6    11425    1700.8    11471    1700.7    11527    1700.6    11577
GR   1701.4    11617    1702.2    11650    1703.1    11686    1702.3    11714    1701.4    11754
GR   1700.3    11798    1699.6    11825    1696.6    11836    1697.3    11844    1697.8    11862
GR   1700.9    11875    1700.9    11915    1700.5    11939    1701.3    11973    1701.8    11995
GR     1702    12038    1702.2    12089    1702.2    12143    1702.3    12204

ET               9.1       7.1                                   9785     10550     9731     11369
X1    17.39       73      9893    10179      465      530     500.0
GR   1713.9     9128    1709.7     9156    1709.2     9177    1709.5     9183    1708.9     9207
GR   1709.6     9217    1709.1     9253    1709.2     9281    1708.9     9312    1707.8     9371
GR   1706.6     9394    1707.1     9403    1707.1     9424    1706.6     9439    1705.2     9458
GR   1704.7     9481    1704.3     9504    1704.6     9537    1704.4     9578    1705.3     9611
GR   1705.5     9640    1704.7     9662    1705.2     9687    1705.8     9731    1705.7     9758
GR   1704.4     9791    1704.0     9825    1703.4     9873    1703.0     9893    1702.2     9912
1
   26JUN98      11:17:35                                                                      PAGE   13

GR   1696.7     9927    1697.4     9941    1701.3     9968    1695.7     9985    1695.7    10000
GR   1699.4    10030    1699.2    10067    1699.9    10079    1701.7    10104    1700.9    10123
GR   1697.4    10136    1697.2    10157    1702.3    10179    1701.4    10210    1699.4    10221
GR   1700.4    10228    1701.9    10252    1702.1    10263    1702.8    10284    1702.9    10310
GR   1702.3    10333    1702.9    10359    1702.3    10415    1702.8    10453    1703.2    10499
GR   1702.8    10542    1703.4    10591    1702.6    10629    1702.8    10673    1703.0    10746
GR   1703.3    10809    1703.2    10867    1703.0    10927     1704    11130     1704    11150
GR     1704    11175     1705    11360     1704    11595     1704    11640     1706    11780
GR     1706    12000     1706    12035     1704    12095

NC      .06     .060     .042       .1       .3
QT        2    27300    27300
ET               9.1       7.1                                   9850     10605     9404     11597
        APPROX. 3,600 CFS DIVERTS INTO RIGHT OVERBANK FROM THIS CROSS-SECTION
        DOWNSTREAM.  REFER TO SPLIT FLOW MODEL FOR RIGHT OVERBANK
        FLOODWAY ANALYSIS USES ENTIRE FLOW AND IS STRICTLY FOR MAINSTREAM
X1    17.48       56      9893    10073      429      429     429.4
GR   1716.9     9386    1716.7     9404    1714.5     9422    1711.8     9441    1710.3     9466
GR   1709.4     9486    1708.4     9505    1707.0     9520    1706.7     9530    1708.4     9538
GR   1707.3     9595    1706.9     9625    1707.5     9651    1707.3     9687    1706.4     9717
GR   1705.7     9748    1706.2     9766    1705.9     9814    1706.6     9836    1706.6     9893
GR   1703.6     9922    1702.6     9943    1701.1     9949    1700.4    10000    1701.5    10011
GR   1701.4    10022    1702.2    10030    1702.1    10044    1701.3    10056    1705.4    10073
GR   1707.3    10092    1706.4    10110    1706.5    10150    1706.8    10158    1706.7    10199
GR   1704.8    10215    1706.2    10239    1706.5    10304    1706.7    10350    1707.2    10403
GR   1707.2    10454    1707.5    10492    1707.4    10526    1706.5    10574    1706.5    10605
GR     1708    10855     1708    11020     1708    11110     1708    11120     1706    11160
GR     1704    11175     1704    11190     1706    11200     1708    11265     1710    11505
GR     1712    11700

ET                       7.1                                   9879     10640
X1    17.57       71      9923    10040      365      500     474.4
GR   1723.7     9217    1721.8     9244    1720.8     9285    1719.2     9332    1717.5     9346
GR   1719.0     9366    1717.9     9383    1718.3     9406    1717.3     9428    1718.0     9472
GR   1716.2     9501    1713.6     9517    1710.4     9529    1709.4     9546    1711.3     9563
GR   1712.0     9584    1713.0     9599    1713.4     9620    1712.5     9674    1711.6     9740
GR   1711.4     9766    1709.7     9812    1710.1     9821    1709.6     9843    1708.4     9870
GR   1710.3     9882    1705.2     9906    1708.0     9923    1706.7     9948    1702.4     9958
GR   1702.4     9977    1702.4    10000    1702.4    10003    1704.7    10010    1705.0    10025
GR   1708.9    10040    1710.6    10064    1709.3    10088    1709.9    10098    1710.0    10113
GR   1708.3    10138    1708.0    10148    1708.6    10153    1712.4    10185    1713.1    10220
GR   1712.8    10268    1712.0    10329    1712.7    10373    1711.9    10411    1711.8    10496
GR   1711.7    10502    1711.8    10546    1711.7    10618    1711.7    10659    1708.5    10678
GR   1708.2    10689    1708.8    10703    1711.7    10723    1711.7    10771    1710.7    10781
GR   1710.8    10823    1710.9    10851    1711.6    10902    1712.7    10957    1713.9    11014
GR   1714.2    11086    1714.3    11138    1715.0    11179    1715.0    11246    1715.4    11301
GR   1716.0    11343

ET                       7.1                                   9629     10386
X1    17.65       52      9924    10021      370      500     460.8
GR   1736.9     9339    1729.9     9372    1724.2     9403    1716.1     9427    1714.8     9450
GR   1714.6     9483    1711.7     9494    1711.7     9502    1714.4     9513    1713.6     9534
GR   1713.6     9569    1713.2     9597    1714.4     9610    1714.5     9626    1713.4     9648
GR   1714.2     9675    1714.1     9725    1714.2     9774    1714.7     9823    1714.3     9864
1
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GR   1713.7     9889    1713.6     9908    1709.3     9924    1705.8     9956    1704.4     9979
GR   1703.2    10000    1709.6    10021    1711.2    10042    1712.8    10070    1714.6    10118
GR   1714.7    10154    1715.8    10167    1716.5    10195    1716.2    10222    1716.1    10240
GR   1715.6    10292    1715.8    10335    1713.9    10368    1710.9    10380    1711.8    10406
GR   1714.2    10451    1715.2    10483    1715.6    10517    1715.9    10564    1716.5    10610
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GR   1716.8     10648    1716.7     10691    1716.9     10742    1717.1     10797    1718.0     10850
GR   1718.4     10896    1718.6     10921

ET                9.1       7.1                                    9654     10591      9628     10607
X1    17.78        63      9931     10026       490       720     661.3
GR   1740.7      9566    1733.7      9596    1727.1      9628    1717.5      9654    1716.8      9677
GR   1715.1      9683    1714.8      9689    1719.1      9706    1718.9      9719    1719.2      9748
GR   1720.0      9788    1719.0      9794    1719.6      9812    1718.3      9826    1720.3      9841
GR   1720.9      9860    1720.7      9887    1720.3      9931    1713.2      9946    1712.8      9967
GR   1713.4      9972    1713.4     10000    1713.6     10008    1715.9     10026    1716.6     10040
GR   1716.8     10088    1717.1     10101    1717.6     10145    1717.6     10170    1717.3     10180
GR   1716.9     10205    1715.0     10216    1715.3     10230    1716.6     10243    1717.7     10275
GR   1717.6     10292    1719.6     10309    1720.8     10347    1720.3     10379    1720.1     10397
GR   1715.3     10423    1715.5     10440    1714.9     10455    1718.8     10473    1719.1     10486
GR   1717.3     10499    1720.4     10519    1721.1     10537    1720.5     10551    1721.4     10591
GR   1722.2     10607    1721.4     10679    1722.3     10711    1722.6     10725    1722.5     10751
GR   1721.6     10777    1722.3     10814    1723.0     10858    1723.2     10902    1723.7     10930
GR   1723.9     10969    1724.0     11000    1724.3     11030

ET                          7.1                                    9770     10670
X1    17.84        63      9925     10217       310       310     341.7
GR   1733.9      9667    1732.9      9669    1733.0      9685    1731.0      9704    1726.2      9726
GR   1726.1      9740    1719.2      9768    1718.8      9779    1723.3      9805    1723.6      9844
GR   1724.2      9853    1723.9      9871    1722.8      9886    1723.8      9900    1722.7      9925
GR   1718.3      9940    1719.1      9952    1717.8      9966    1717.7      9978    1718.0      9991
GR   1717.1      9997    1717.2     10000    1719.2     10019    1719.3     10077    1718.0     10098
GR   1717.9     10126    1718.6     10145    1719.3     10168    1718.4     10178    1718.6     10187
GR   1722.3     10205    1722.7     10217    1722.9     10230    1722.0     10265    1720.9     10318
GR   1721.3     10342    1722.8     10368    1723.2     10400    1724.2     10435    1724.1     10450
GR   1723.2     10469    1721.8     10507    1720.4     10515    1720.0     10529    1720.9     10537
GR   1719.5     10554    1718.4     10569    1720.7     10581    1720.9     10596    1722.8     10617
GR   1722.9     10632    1721.0     10645    1721.0     10651    1722.4     10661    1723.6     10695
GR   1724.5     10727    1725.0     10776    1725.0     10833    1725.0     10878    1725.2     10927
GR   1725.7     10977    1726.0     11006    1726.0     11048
       CLOUD ROAD CROSSES THROUGH THIS CROSS-SECTION 3-60" CMPS:CAPACITY IGNORE

ET                          7.1                                    9845     10595
X1    17.95        59      9867     10047       500       520     563.8
GR   1739.2      9761    1734.6      9787    1728.5      9827    1727.1      9844    1726.5      9867
GR   1723.0      9881    1722.9      9894    1723.8      9912    1723.8      9930    1722.8      9946
GR   1722.2      9961    1722.7      9976    1720.1     10000    1719.8     10007    1719.5     10031
GR   1727.4     10047    1726.6     10071    1727.1     10088    1724.0     10107    1724.4     10120
GR   1725.8     10135    1726.2     10156    1727.0     10188    1726.5     10217    1726.9     10249
GR   1727.8     10286    1728.6     10318    1728.5     10334    1725.8     10347    1723.8     10386
GR   1722.3     10394    1722.3     10401    1726.5     10426    1727.2     10437    1727.7     10469
GR   1727.1     10497    1725.6     10517    1726.1     10522    1729.1     10543    1728.9     10557
GR   1728.5     10593    1728.3     10604    1729.6     10628    1730.2     10652    1730.2     10697
GR   1730.2     10720    1730.4     10762    1730.3     10813    1730.0     10869    1729.4     10914
GR   1728.8     10939    1728.9     10983    1729.1     11024    1729.1     11080    1730.2     11109
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GR   1732.4     11145    1733.2     11176    1733.4     11238    1733.1     11244
       ENCROACHMENT INSERTED AT SECTION 18.09 TO CONTAIN FLOODPLAIN

QT        2     27700     27700
ET                          7.1                                    9895     10610
X1    18.09        60      9936     10310     712.5       375     705.8
GR   1788.5      9672    1784.1      9713    1776.9      9762    1771.6      9792    1748.2      9828
GR   1733.9      9855    1732.7      9862    1729.9      9872    1729.7      9880    1731.3      9885
GR   1730.9      9900    1727.3      9919    1730.5      9936    1727.5      9951    1728.2      9971
GR   1728.2      9991    1727.4     10000    1727.8     10006    1728.8     10065    1729.6     10076
GR   1731.3     10090    1731.8     10119    1731.7     10178    1730.9     10226    1729.9     10264
GR   1726.2     10280    1725.9     10290    1733.0     10310    1732.9     10333    1731.3     10380
GR   1730.4     10407    1729.1     10447    1728.6     10497    1729.1     10522    1723.5     10540
GR   1723.7     10556    1728.6     10573    1731.4     10597    1733.6     10633    1734.3     10663
GR   1734.2     10717    1733.5     10772    1732.5     10799    1732.3     10847    1732.4     10899
GR   1732.3     10935    1733.1     10974    1733.0     11013    1732.8     11076    1733.3     11132
GR   1733.7     11210    1734.0     11263    1734.7     11349    1735.8     11423    1736.6     11479
GR   1737.7     11538    1738.0     11570    1738.6     11595    1739.1     11632    1739.7     11661

NC     .055      .055      .030
ET                          7.1                                    9752     10425
X1    18.16        34      9836     10075       345       360     377.6
X2                                                                                                15
GR   1755.1      9687    1739.9      9711    1736.1      9724    1734.0      9754    1730.7      9768
GR   1730.5      9775    1733.9      9788    1735.2      9810    1735.2      9836    1734.7      9860
GR   1733.3      9877    1732.7      9892    1732.9      9911    1732.5      9951    1732.5      9981
GR   1729.6      9996    1729.6     10000    1729.6     10020    1728.8     10050    1739.0     10075
GR   1737.8     10078    1737.2     10095    1735.8     10124    1734.7     10139    1734.0     10155
GR   1733.5     10199      1730     10330      1730     10380      1734     10430      1736     10650
GR   1736.9     10750      1738     10930      1738     11040      1740     11130
       NEW CROSS SECTION: GR CARD DATA FOR 18.20 DEVELOPED FROM TOPOGRAPHIC MAP
       CROSS SECTION ADDED TO MODEL FLOW OVER CLOUD ROAD
       CAPACITY OF 3-60" CMPS IGNORED

ET                          7.1                                    9630     10195
X1    18.23        19      9800     10010       370       400       370
GR     1750      9510      1740      9550      1736      9640      1734      9650      1736      9660
GR     1736      9690      1735      9700      1736      9710      1738      9780      1738      9800
GR     1736      9930      1734      9950      1732      9965      1730     10000    1738.8     10010
GR     1740     10240      1740     10480      1740     10730      1742     10870

ET                          7.1                                    9630     10170
X1    18.29        57      9914     10049       200       310       300
GR   1750.9      9535    1741.6      9583    1737.2      9597    1739.5      9608    1739.1      9634
GR   1737.5      9647    1732.6      9660    1737.5      9678    1739.3      9712    1740.2      9758
GR   1740.1      9788    1739.1      9800    1739.7      9812    1738.7      9832    1735.8      9852
GR   1737.4      9872    1738.3      9914    1737.0      9932    1735.5      9949    1735.0      9968
GR   1734.0      9976    1734.6      9984    1734.3     10000    1735.5     10009    1735.3     10020
GR   1733.5     10029    1739.9     10049    1740.5     10076    1740.0     10115    1736.1     10130
GR   1734.7     10144    1736.9     10160    1738.4     10185    1742.0     10213    1742.5     10244
GR   1742.8     10266    1742.2     10270    1742.8     10286    1742.8     10318    1742.7     10349
GR   1742.8     10388    1742.5     10395    1742.5     10429    1742.2     10468    1742.6     10472
GR   1742.5     10553    1741.1     10565    1742.8     10574    1743.2     10607    1743.0     10634
GR   1743.3     10693    1744.6     10746    1744.9     10795    1745.6     10858    1746.0     10899
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GR	1747.1	10970	1747.8	11035						
NC	.055	.055	.042							
ET			7.1				9832	10515		
X1	18.49	63	9832	10037	1162.5	850	1099.7			
GR	1762.2	9699	1754.7	9727	1746.3	9755	1747.1	9766	1747.4	9792
GR	1747.4	9832	1745.9	9853	1742.7	9867	1743.3	9895	1744.9	9909
GR	1744.8	9930	1744.6	9965	1741.7	9985	1741.9	10000	1745.2	10015
GR	1746.9	10037	1746.9	10052	1746.2	10060	1745.8	10072	1747.3	10082
GR	1747.8	10111	1748.7	10142	1748.9	10167	1749.0	10202	1748.9	10243
GR	1748.7	10282	1748.2	10327	1748.0	10379	1747.8	10394	1746.5	10406
GR	1747.4	10417	1743.7	10434	1744.0	10445	1746.9	10464	1742.3	10481
GR	1746.3	10497	1748.9	10522	1750.3	10562	1751.2	10602	1751.4	10637
GR	1751.9	10676	1752.2	10727	1752.5	10780	1752.7	10817	1753.1	10834
GR	1753.7	10873	1754.2	10897	1754.5	10951	1754.9	10998	1755.3	11036
GR	1755.7	11087	1757.1	11131	1757.6	11137	1757.6	11163	1759.2	11194
GR	1759.0	11230	1759.4	11254	1760.4	11285	1761.5	11316	1763.0	11352
GR	1766.6	11387	1769.6	11411	1778.1	11458				
NC	.040	.040	.030							
ET			7.1				9700	10480		
X1	18.57	62	9947	10041	275	675	389.0			
GR	1785.6	9578	1759.3	9624	1751.3	9644	1748.8	9663	1748.5	9671
GR	1746.0	9703	1743.7	9714	1743.5	9735	1746.6	9747	1749.2	9772
GR	1750.4	9819	1750.1	9829	1750.3	9832	1751.1	9879	1752.5	9926
GR	1752.5	9947	1745.1	9969	1744.4	10000	1744.4	10001	1745.5	10006
GR	1745.9	10014	1751.5	10041	1749.2	10062	1751.5	10076	1751.5	10102
GR	1750.9	10116	1751.2	10146	1752.4	10170	1752.3	10224	1751.4	10247
GR	1752.2	10263	1753.1	10302	1753.6	10332	1753.3	10360	1753.7	10386
GR	1751.0	10400	1753.4	10416	1752.6	10452	1752.5	10474	1751.8	10490
GR	1752.7	10507	1752.8	10528	1754.2	10560	1755.2	10585	1756.5	10600
GR	1757.0	10645	1757.7	10678	1757.9	10717	1758.1	10766	1758.8	10820
GR	1759.2	10862	1760.1	10915	1760.2	10941	1760.5	10950	1760.8	10964
GR	1760.4	10993	1760.2	11007	1761.1	11021	1761.8	11048	1765.7	11082
GR	1770.4	11111	1776.8	11148						
QT	2	27300	27300							
ET		9.1	7.1				9380	10125	9321	10244
X1	18.74	69	9975	10142	750	650	917.8			
GR	1770.0	9245	1770.1	9249	1763.2	9269	1763.1	9291	1762.2	9321
GR	1760.3	9332	1758.0	9362	1757.6	9377	1752.0	9388	1754.6	9404
GR	1753.8	9417	1750.4	9437	1750.7	9454	1754.9	9479	1756.6	9493
GR	1756.7	9528	1756.7	9552	1757.1	9583	1757.8	9616	1758.2	9656
GR	1758.9	9692	1760.0	9729	1759.4	9750	1759.8	9767	1758.1	9791
GR	1758.5	9814	1759.2	9851	1759.0	9883	1758.5	9908	1757.0	9924
GR	1757.7	9938	1757.7	9975	1755.1	9986	1755.0	10000	1755.2	10018
GR	1755.3	10042	1757.7	10056	1758.5	10111	1758.7	10142	1759.6	10163
GR	1760.5	10198	1760.9	10244	1760.1	10281	1759.2	10318	1759.3	10336
GR	1759.6	10361	1759.5	10381	1759.2	10434	1761.4	10471	1763.1	10502
GR	1763.6	10533	1763.5	10581	1763.1	10628	1763.7	10660	1763.7	10706
GR	1763.6	10752	1763.6	10796	1763.9	10855	1763.8	10889	1761.9	10896
GR	1763.9	10910	1764.0	10932	1766.7	10947	1766.0	10962	1764.0	10991
GR	1762.8	11003	1766.7	11018	1768.5	11036	1779.0	11093		

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ET		9.1	7.1				9576	10140	9470	10165
X1	18.84	46	9915	10036	500	325	497.1			
GR	1772.3	9380	1771.7	9419	1770.8	9450	1764.5	9475	1756.9	9503
GR	1757.6	9512	1758.4	9522	1758.5	9531	1757.4	9538	1759.8	9557
GR	1759.9	9576	1758.7	9586	1759.6	9597	1759.6	9604	1758.6	9612
GR	1760.0	9620	1760.6	9649	1760.6	9679	1761.0	9702	1759.8	9721
GR	1760.5	9732	1760.6	9768	1759.8	9784	1759.8	9797	1761.3	9818
GR	1763.1	9848	1763.4	9888	1763.2	9915	1759.9	9942	1758.0	9987
GR	1755.9	10000	1755.7	10008	1762.6	10036	1763.3	10051	1762.5	10101
GR	1760.8	10107	1762.3	10115	1764.2	10145	1765.5	10182	1766.0	10209
GR	1765.0	10231	1765.0	10258	1765.5	10308	1764.9	10357	1765.4	10413
GR	1765.4	10417								
ET			7.1				9639	10480		
X1	18.96	70	9924	10021	525	600	631.7			
GR	1779.1	9326	1778.7	9377	1776.0	9418	1774.9	9427	1773.9	9442
GR	1769.0	9458	1767.7	9482	1766.0	9489	1767.1	9496	1767.3	9514
GR	1767.0	9536	1768.0	9545	1768.8	9570	1768.6	9607	1768.1	9640
GR	1767.9	9649	1767.8	9687	1767.3	9714	1767.7	9726	1767.9	9764
GR	1767.6	9796	1768.2	9809	1768.3	9837	1768.6	9862	1768.2	9894
GR	1768.0	9924	1762.2	9931	1762.6	9938	1762.6	9959	1762.9	10000
GR	1763.3	10007	1766.3	10021	1767.2	10035	1767.2	10043	1766.0	10055
GR	1766.9	10069	1765.7	10100	1766.7	10107	1766.3	10125	1764.5	10137
GR	1769.4	10159	1771.0	10193	1770.9	10235	1770.5	10281	1769.0	10317
GR	1768.7	10347	1767.5	10358	1768.8	10370	1768.8	10401	1767.4	10408
GR	1768.5	10414	1769.0	10436	1769.7	10455	1770.2	10515	1770.5	10574
GR	1770.6	10644	1770.7	10686	1770.9	10731	1771.0	10781	1771.3	10818
GR	1771.2	10877	1772.4	10930	1773.1	10975	1773.1	11027	1773.4	11087
GR	1773.8	11135	1773.9	11195	1774.3	11217	1774.5	11277	1774.6	11298
NC	.031	.031	.045							
ET			7.1				9485	10315		
X1	19.07	67	9928	10068	680	500	601.0			
GR	1782.6	9213	1779.1	9244	1776.5	9266	1775.1	9296	1775.1	9326
GR	1775.0	9352	1775.0	9406	1774.8	9426	1773.3	9467	1772.0	9515
GR	1770.3	9537	1769.6	9556	1768.1	9569	1770.4	9586	1771.6	9614
GR	1772.0	9641	1773.6	9656	1773.2	9691	1772.0	9711	1769.5	9724
GR	1771.8	9748	1772.9	9783	1772.1	9806	1772.2	9842	1772.3	9876
GR	1772.6	9909	1771.9	9928	1770.5	9952	1771.6	9969	1768.0	9985
GR	1764.8	10000	1764.8	10007	1766.5	10022	1767.0	10047	1773.1	10068
GR	1773.7	10092	1773.3	10141	1772.6	10157	1773.2	10164	1773.6	10198
GR	1773.9	10246	1775.1	10274	1775.3	10315	1775.0	10361	1774.5	10402
GR	1774.0	10441	1773.4	10485	1773.6	10509	1773.5	10558	1773.8	10573
GR	1774.1	10632	1774.4	10679	1775.2	10711	1775.1	10731	1775.4	10750
GR	1775.7	10774	1775.7	10827	1776.0	10882	1777.1	10923	1777.8	10971
GR	1778.3	11014	1779.1	11069	1779.6	11099	1779.4	11110	1780.0	11128
GR	1780.4	11163	1781.1	11196						

From Cross section 19.18 to Cross section 20.62, the floodplain and the floodway boundaries are made coincident on the right overbank only. As per discussion with the FEMA technical evaluator, this is done to include, the low flow channel on the right overbank of the Skunk Creek Wash, within the floodway boundary. (March 17, 1998)

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ET                          7.1                                   9330     10076
X1    19.18        68      9874     10080      460       720     598.7
GR   1795.7      8834    1795.3      8905   1794.5      8989    1793.6      9042    1792.7      9078
GR   1791.3      9114    1788.0      9152   1782.9      9213    1780.0      9246    1778.8      9281
GR   1778.2      9312    1777.6      9367   1776.3      9382    1775.6      9399    1773.5      9415
GR   1778.7      9430    1776.1      9442   1776.5      9452    1778.7      9465    1778.8      9479
GR   1774.7      9493    1775.1      9514   1777.0      9534    1777.6      9568    1778.0      9625
GR   1776.9      9638    1777.0      9649   1779.0      9672    1779.1      9722    1779.0      9764
GR   1778.2      9774    1778.8      9813   1778.5      9834    1779.4      9854    1779.4      9874
GR   1777.1      9906    1777.0      9918   1774.7      9926    1775.9      9943    1773.9      9980
GR   1771.2     10000    1770.0     10006   1770.1     10025    1775.5     10040    1775.8     10055
GR   1781.1     10080    1781.4     10135   1782.1     10202    1782.2     10254    1781.8     10305
GR   1781.8     10344    1781.6     10403   1781.1     10410    1781.3     10438    1781.4     10534
GR   1781.9     10600    1783.0     10659   1783.1     10688    1783.2     10727    1783.6     10758
GR   1784.1     10796    1784.4     10857   1785.3     10925    1786.0     10969    1787.5     11042
GR   1788.4     11098    1788.4     11158   1788.6     11224

ET                   9.1     7.1                                   9430     10065     9391     10110
X1    19.26        63      9981     10061      500       300     416.4
GR   1802.4      8946    1802.1      9041   1801.9      9101    1801.3      9177    1800.7      9213
GR   1798.0      9258    1793.5      9307   1787.2      9361    1785.3      9382    1783.0      9425
GR   1781.7      9434    1783.4      9446   1783.2      9458    1780.8      9466    1781.0      9478
GR   1783.2      9490    1784.1      9541   1782.4      9573    1782.3      9594    1783.1      9602
GR   1782.2      9634    1782.9      9645   1782.2      9675    1781.9      9708    1779.9      9715
GR   1780.1      9723    1779.1      9740   1780.5      9759    1780.0      9812    1780.5      9819
GR   1780.3      9849    1779.9      9900   1777.9      9923    1779.6      9934    1779.5      9955
GR   1778.2      9981    1775.4     10000   1773.0     10018    1780.7     10024    1782.0     10035
GR   1782.7     10061    1781.9     10070   1783.4     10085    1784.6     10129    1785.5     10176
GR   1785.6     10243    1785.1     10331   1785.2     10394    1784.9     10452    1784.7     10511
GR   1784.7     10595    1784.5     10657   1784.8     10707    1785.4     10777    1786.0     10836
GR   1785.9     10871    1785.3     10904   1785.7     10948    1786.9     10995    1788.1     11037
GR   1789.0     11072    1789.7     11162   1790.1     11215

NC     .050      .055     .032
ET                          7.1                                   9660     10610
X1    19.41        75      9928     10072      600       790     769.4
GR   1806.6      9245    1806.7      9277   1807.3      9288    1807.7      9349    1807.6      9395
GR   1807.2      9410    1804.4      9447   1802.7      9475    1794.3      9548    1789.7      9613
GR   1787.9      9658    1786.2      9675   1787.1      9681    1788.2      9715    1788.1      9764
GR   1787.7      9796    1788.3      9830   1790.3      9859    1791.0      9880    1790.6      9908
GR   1789.4      9928    1786.8      9948   1787.6      9965    1783.9      9979    1784.0     10000
GR   1784.6     10039    1785.0     10052   1788.6     10072    1788.5     10110    1788.6     10139
GR   1787.5     10171    1786.6     10183   1783.2     10193    1783.3     10209    1786.1     10225
GR   1786.6     10246    1785.9     10263   1786.5     10284    1787.3     10328    1785.2     10353
GR   1783.2     10365    1782.6     10374   1783.1     10383    1785.8     10403    1785.7     10415
GR   1784.0     10425    1787.3     10446   1786.7     10480    1787.3     10495    1787.0     10521
GR   1783.5     10545    1783.8     10561   1783.0     10587    1790.3     10616    1791.8     10654
GR   1792.3     10698    1792.8     10763   1793.2     10803    1792.6     10811    1793.2     10823
GR   1793.3     10878    1793.4     10925   1793.3     10979    1793.4     11038    1793.5     11100
GR   1793.0     11160    1793.2     11213   1793.8     11254    1794.0     11307    1794.5     11380
GR   1795.1     11443    1795.9     11509   1796.6     11572    1798.4     11647    1800.1     11735
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ET                   9.1     7.1                                   9901     10581     9795     10814
X1    19.52        67      9972     10055      700       485     606.3
GR   1812.8      8989    1810.6      9047   1806.8      9099    1802.6      9147    1800.0      9196
GR   1799.2      9242    1798.6      9307   1797.5      9367    1797.0      9417    1796.1      9474
GR   1794.8      9482    1795.5      9489   1795.5      9517    1796.3      9524    1795.4      9528
GR   1795.8      9590    1796.2      9657   1796.5      9718    1796.5      9795    1795.5      9871
GR   1794.5      9916    1788.8      9936   1791.3      9952    1790.6      9972    1788.7      9983
GR   1787.0     10000    1786.4     10005   1786.2     10022    1793.0     10038    1793.4     10055
GR   1793.6     10095    1792.6     10134   1788.1     10156    1788.2     10164    1789.7     10177
GR   1788.7     10189    1791.3     10215   1790.4     10222    1791.5     10238    1790.6     10251
GR   1791.5     10265    1791.3     10294   1790.4     10300    1791.2     10325    1791.4     10345
GR   1790.3     10354    1791.8     10387   1791.6     10411    1791.2     10436    1790.4     10472
GR   1787.7     10488    1791.0     10502   1790.8     10518    1787.9     10539    1786.8     10559
GR   1795.2     10582    1796.4     10617   1797.0     10679    1797.5     10746    1797.8     10814
GR   1797.8     10893    1796.5     10903   1797.5     10910    1797.7     11010    1797.3     11097
GR   1797.8     11187    1798.4     11237

ET                   9.1     7.1                                   9984  10730.51     9966     10788
X1    19.62        67      9966     10120      515       530     528.0
GR   1819.8      8806    1819.0      8856   1816.9      8894    1813.9      8937    1808.0      9000
GR   1806.3      9035    1805.0      9083   1804.4      9143    1804.3      9224    1803.1      9276
GR   1802.8      9354    1802.3      9437   1802.2      9491    1802.1      9563    1801.6      9653
GR   1801.3      9716    1800.7      9737   1800.7      9753    1801.4      9783    1801.1      9834
GR   1801.3      9879    1802.7      9924   1803.9      9966    1802.5      9981    1791.1     10000
GR   1790.3     10025    1792.4     10036   1796.0     10046    1797.5     10077    1798.2     10120
GR   1797.8     10180    1796.4     10221   1795.6     10241    1795.0     10293    1793.1     10309
GR   1793.9     10317    1792.4     10323   1793.3     10343    1795.7     10361    1796.4     10375
GR   1794.9     10398    1797.1     10417   1797.6     10448    1797.1     10494    1796.2     10535
GR   1795.1     10581    1795.3     10609   1794.6     10632    1795.2     10650    1798.6     10677
GR   1799.9     10708    1801.3     10742   1802.6     10788    1803.7     10840    1804.6     10901
GR   1805.9     10961    1806.4     11026   1807.4     11080    1808.6     11145    1810.0     11200
GR   1811.0     11254    1811.5     11295   1812.3     11357    1812.9     11404    1813.0     11456
GR   1813.4     11503    1813.6     11537

ET                          7.1                                   9825     10550
X1    19.72        67      9948     10043      500       500     509.9
GR   1820.7      8821    1819.2      8851   1815.6      8885    1812.3      8917    1810.8      8958
GR   1809.5      9008    1809.2      9064   1808.4      9129    1808.3      9196    1807.8      9243
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GR   1807.2      9298   1806.8      9350   1806.7      9423   1806.8      9474   1807.4      9534
GR   1807.5      9576   1807.2      9623   1808.0      9677   1808.6      9715   1808.4      9793
GR   1801.9      9812   1800.9      9822   1801.3      9847   1802.0      9871   1797.2      9884
GR   1796.5      9893   1799.8      9905   1801.6      9926   1800.7      9948   1798.3      9961
GR   1798.4      9973   1797.8      9989   1796.5     10000   1795.1     10018   1796.9     10030
GR   1801.8     10043   1803.5     10064   1802.9     10089   1802.3     10108   1802.7     10129
GR   1801.7     10160   1801.7     10187   1800.4     10225   1797.4     10241   1797.5     10261
GR   1799.5     10275   1802.1     10300   1803.1     10326   1802.7     10359   1801.2     10408
GR   1799.9     10465   1798.3     10483   1798.4     10498   1799.1     10513   1803.1     10533
GR   1805.0     10563   1806.4     10592   1808.2     10641   1809.5     10680   1810.8     10739
GR   1811.8     10811   1812.5     10850   1813.4     10907   1813.9     10953   1814.5     11005
GR   1815.1     11071   1816.1     11150
1
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ET                          7.1                                     9742     10420
X1     19.83        56     9960     10074       500       600     567.8
GR   1830.0      8668   1827.6      8712   1824.6      8723   1824.8      8739   1824.3      8769
GR   1823.8      8781   1824.4      8788   1821.0      8799   1818.3      8829   1815.8      8883
GR   1814.6      8943   1814.0      8997   1813.4      9054   1812.8      9125   1811.8      9179
GR   1811.7      9223   1811.4      9270   1811.3      9332   1811.2      9390   1811.4      9457
GR   1811.3      9547   1811.4      9602   1811.6      9651   1812.0      9681   1811.8      9711
GR   1810.3      9736   1807.2      9751   1806.9      9761   1807.3      9770   1807.1      9804
GR   1806.0      9826   1807.0      9836   1806.3      9862   1807.6      9881   1807.7      9908
GR   1805.3      9929   1805.5      9943   1805.8      9960   1802.8      9974   1801.2     10000
GR   1800.7     10018   1799.3     10035   1801.9     10045   1806.6     10074   1806.2     10121
GR   1808.3     10150   1807.5     10184   1803.9     10206   1804.5     10222   1805.7     10263
GR   1806.9     10301   1807.9     10333   1808.1     10372   1808.7     10398   1810.5     10429
GR   1812.0     10487

NC      .060       .060      .042
         CROSS SECTION 19.92 LENGTHENED 865 FEET
         AT LEFT OVERBANK USING TOPOGRAPHIC MAP
ET                    9.1       7.1                                     9710  10393.31      9220  10393.31
X1     19.92         59      9974     10097       250       660     492.0
GR     1820      8928   1818      8966   1816      8991   1816      9091   1814      9241
GR   1813.1      9365   1814      9529   1814      9617   1814      9667   1812      9705
GR     1810      9718   1810.2      9793   1811.6      9827   1813.4      9863   1813.8      9879
GR   1813.7      9909   1812.6      9948   1814.2      9959   1809.7      9974   1810.5      9985
GR   1803.6     10000   1802.0     10014   1802.0     10024   1805.4     10044   1808.1     10057
GR   1806.0     10066   1809.4     10082   1810.4     10097   1811.0     10133   1811.4     10180
GR   1809.0     10199   1808.9     10220   1809.0     10230   1809.9     10241   1809.5     10268
GR   1809.7     10283   1812.0     10305   1811.8     10320   1811.7     10343   1811.0     10358
GR   1808.8     10373   1816.5     10399   1817.6     10413   1818.3     10433   1819.8     10462
GR   1820.5     10505   1820.8     10531   1821.4     10576   1822.7     10630   1823.4     10666
GR   1823.8     10698   1823.9     10751   1824.1     10814   1825.4     10888   1825.8     10922
GR   1826.0     10953   1826.3     10986   1827.2     11006   1825.9     11024

ET                          7.1                                     9420  10473.72
X1     20.05         82      9954     10032       815       770     700.0
GR   1837.4      8864   1837.6      8907   1836.8      8931   1834.6      8968   1831.8      9005
GR   1828.0      9039   1825.1      9079   1823.7      9125   1823.8      9157   1823.6      9204
GR   1822.6      9253   1821.4      9335   1820.6      9358   1821.5      9370   1820.6      9394
GR   1819.6      9416   1820.6      9455   1815.6      9477   1815.4      9503   1813.8      9517
GR   1818.4      9541   1817.8      9582   1817.2      9602   1819.1      9625   1814.9      9637
GR   1815.6      9646   1815.7      9655   1815.9      9688   1815.5      9702   1820.9      9716
GR   1819.4      9721   1818.7      9750   1814.4      9760   1813.5      9772   1813.8      9786
GR   1816.1      9802   1814.9      9837   1815.8      9849   1815.7      9857   1814.1      9864
GR   1816.0      9878   1816.9      9903   1816.5      9916   1812.5      9935   1812.6      9942
GR   1814.4      9954   1813.0      9967   1813.9      9974   1813.9      9980   1810.7      9996
GR   1811.1     10000   1814.9     10011   1816.0     10032   1816.4     10064   1815.2     10113
GR   1813.6     10133   1813.6     10143   1816.9     10156   1816.8     10212   1815.5     10230
GR   1816.3     10241   1817.1     10307   1817.5     10334   1815.2     10363   1815.1     10382
GR   1811.9     10416   1811.2     10447   1821.5     10476   1823.1     10491   1824.4     10529
GR   1825.4     10579   1825.5     10625   1826.7     10672   1827.6     10715   1828.4     10774
GR   1828.2     10838   1828.7     10872   1829.8     10922   1830.9     10960   1832.5     11023
GR   1833.6     11102   1834.7     11161
         THE PRESENCE OF INNER-CHANNEL ISLANDS AT THIS CROSS-SECTION CAUSE
1
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         FLOODWAY TOPWID TO EXCEED FLOODPLAIN TOPWID
         HOWEVER, FLOODWAY IS WITHIN BOUNDARIES OF FLOODPLAIN

ET                          7.1                                     9202  10489.70
X1     20.16         84      9953     10071       450       635     555.7
GR   1839.8      8766   1839.7      8868   1839.0      8906   1837.5      8936   1835.4      8966
GR   1830.2      9031   1826.4      9108   1826.0      9139   1823.8      9167   1822.0      9194
GR   1820.4      9200   1822.2      9212   1824.2      9232   1825.0      9258   1825.2      9304
GR   1825.0      9319   1825.2      9350   1824.4      9361   1825.6      9371   1825.3      9392
GR   1821.1      9406   1821.4      9412   1822.9      9419   1823.0      9425   1825.8      9445
GR   1825.2      9480   1824.7      9525   1823.3      9578   1820.9      9589   1821.7      9606
GR   1821.1      9622   1819.3      9642   1822.4      9654   1823.6      9666   1823.3      9722
GR   1823.1      9744   1822.0      9757   1822.7      9772   1821.3      9783   1821.3      9792
GR   1822.8      9801   1822.3      9815   1823.3      9843   1823.6      9868   1821.8      9878
GR   1821.9      9915   1821.2      9922   1821.6      9937   1821.5      9953   1818.5      9966
GR   1818.4      9969   1817.7     10000   1823.9     10015   1823.6     10071   1822.5     10096
GR   1818.7     10118   1819.0     10139   1818.8     10178   1818.4     10195   1822.0     10208
GR   1822.0     10255   1823.5     10284   1823.1     10336   1818.5     10362   1816.2     10374
GR   1815.5     10399   1821.2     10419   1823.5     10433   1821.4     10460   1821.3     10473
GR   1827.1     10501   1828.7     10517   1831.0     10565   1832.9     10629   1834.3     10701
GR   1835.5     10772   1836.6     10833   1838.1     10896   1839.4     10960   1840.2     11027
GR   1841.8     11070   1843.2     11118   1843.3     11140   1844.3     11213

NC      .060       .060      .032
ET                          7.1                                     9190     10395
X1     20.26         75      9920     10054       460       585     531.6
GR   1841.1      9079   1837.6      9115   1832.2      9151   1823.3      9182   1825.3      9191
GR   1825.4      9208   1824.1      9218   1825.7      9224   1825.2      9253   1826.0      9307
GR   1826.8      9342   1828.1      9363   1828.4      9404   1829.1      9465   1829.6      9507
GR   1829.5      9540   1830.4      9622   1824.8      9632   1825.0      9639   1826.2      9650
GR   1826.5      9664   1828.9      9675   1829.6      9699   1828.5      9705   1830.4      9715
GR   1831.4      9758   1830.1      9814   1829.7      9837   1828.3      9846   1829.5      9865
GR   1830.1      9879   1828.2      9920   1828.4      9945   1827.2      9956   1827.2      9972
GR   1826.1      9988   1825.2     10000   1827.3     10010   1827.9     10026   1828.2     10054
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GR   1825.5    10064    1825.1    10080    1825.8    10088    1828.7    10096    1828.6    10154
GR   1828.6    10194    1828.5    10234    1828.5    10252    1827.7    10286    1825.4    10319
GR   1822.4    10332    1821.9    10351    1822.0    10362    1823.4    10376    1831.1    10399
GR   1831.8    10430    1832.0    10506    1833.5    10517    1830.7    10529    1831.7    10537
GR   1832.9    10569    1833.5    10610    1834.2    10643    1834.9    10700    1835.9    10737
GR   1837.7    10781    1838.8    10819    1839.9    10856    1840.6    10898    1841.0    10931
GR   1842.2    10974    1842.9    11026    1843.6    11058    1844.6    11090    1847.1    11174

ET                        7.1                                 9209      10415
X1     20.38       73    9951    10043      475       650     622.3
GR   1849.9     8509    1849.2     8596    1848.3     8668    1847.3     8765    1848.6     8773
GR   1848.1     8863    1846.3     8872    1846.0     8903    1845.5     8963    1845.4     9003
GR   1844.6     9025    1843.4     9077    1842.6     9104    1840.6     9126    1836.4     9160
GR   1834.0     9184    1832.5     9192    1830.6     9230    1829.9     9246    1830.6     9254
GR   1830.9     9288    1831.8     9338    1832.3     9368    1832.4     9434    1831.3     9490
GR   1826.9     9519    1827.2     9537    1829.2     9545    1830.0     9576    1831.6     9589
GR   1831.4     9612    1830.9     9643    1832.2     9666    1833.5     9709    1834.1     9741
GR   1834.7     9771    1835.2     9813    1835.5     9881    1834.7     9895    1835.0     9900
GR   1834.2     9927    1837.5     9951    1832.6     9968    1830.2     9990    1829.6    10000
GR   1829.6    10026    1835.9    10043    1835.6    10087    1835.6    10133    1834.5    10164
1
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GR   1833.5    10195    1832.2    10216    1830.5    10229    1828.9    10256    1833.1    10293
GR   1833.2    10312    1832.1    10335    1828.9    10376    1826.6    10386    1825.9    10405
GR   1835.3    10419    1836.4    10447    1838.3    10512    1840.2    10570    1841.9    10634
GR   1842.9    10686    1843.6    10739    1844.7    10806    1845.4    10855    1846.3    10909
GR   1847.7    10988    1848.6    11055    1850.5    11170

ET                        7.1                                 9424      10330
X1     20.48       56    9972    10065      600       520     526.7
GR   1851.3     9087    1849.1     9145    1846.5     9183    1842.4     9221    1839.1     9262
GR   1838.0     9283    1837.3     9345    1836.5     9355    1837.5     9361    1837.6     9412
GR   1837.7     9460    1838.6     9516    1839.0     9572    1839.4     9640    1839.7     9704
GR   1838.6     9740    1834.9     9768    1836.7     9779    1838.1     9799    1838.7     9823
GR   1837.9     9831    1839.3     9847    1838.7     9864    1838.4     9896    1839.8     9916
GR   1840.7     9931    1840.6     9972    1833.9     9986    1834.0    10000    1833.9    10014
GR   1832.8    10023    1833.0    10050    1838.6    10065    1838.2    10087    1839.0    10112
GR   1839.5    10139    1838.8    10187    1838.7    10195    1839.2    10224    1838.6    10238
GR   1835.2    10261    1832.4    10282    1833.4    10309    1838.4    10327    1839.0    10350
GR   1838.5    10390    1838.9    10422    1840.0    10485    1841.4    10529    1842.6    10561
GR   1843.7    10597    1844.6    10655    1845.6    10697    1847.1    10752    1848.1    10812
GR   1849.4    10880

ET                        7.1                                 9485      10370
X1     20.62       70    9969    10074      915       580     788.9
GR   1862.9     8837    1863.2     8931    1863.6     9003    1863.2     9090    1863.4     9138
GR   1862.6     9153    1859.6     9182    1854.0     9218    1848.4     9257    1846.4     9269
GR   1845.8     9297    1844.7     9324    1845.8     9340    1846.0     9381    1846.6     9417
GR   1845.7     9438    1845.2     9464    1844.5     9486    1843.9     9511    1842.5     9518
GR   1844.1     9526    1844.7     9552    1845.3     9592    1845.8     9629    1846.0     9687
GR   1846.1     9735    1846.1     9789    1846.5     9840    1847.1     9863    1846.5     9868
GR   1846.9     9913    1846.8     9953    1845.6     9969    1839.7     9996    1839.8    10000
GR   1840.0    10019    1839.3    10042    1843.3    10053    1844.3    10074    1844.0    10092
GR   1845.1    10110    1846.7    10134    1847.1    10182    1846.7    10229    1846.6    10275
GR   1845.6    10310    1844.5    10333    1842.9    10344    1844.2    10354    1844.0    10366
GR   1840.3    10373    1843.4    10384    1844.1    10407    1844.2    10429    1848.4    10479
GR   1849.6    10531    1850.8    10591    1851.3    10631    1851.9    10692    1853.1    10742
GR   1853.8    10786    1854.5    10840    1855.5    10898    1856.4    10969    1857.3    11016
GR   1858.1    11070    1858.6    11103    1858.2    11111    1858.6    11127    1858.9    11144
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Beginning of Castro Fleet's Analysis (Del Webb Area)
Cross Section Identification Numbers Were Increased
By A Factor ranging from 0.25 to 0.14 miles For Consistency
With Montgomery Watson Modeling
For Example, Castro Fleet Cross Section 20.39 becomes
Montgomery Watson Cross Section 20.64

```
NC     0.045    0.045    0.043      0.3      0.5
ET                        9.1                                                     9500      10350
X1     20.64       23    9500    10340    112.5     137.5     135
GR      1864     8950    1860     9140     1848      9220  1846.5     9300     1847      9430
GR      1845     9500    1847     9660     1847      9940    1844     9950     1842      9970
GR      1842    10000    1842    10020     1844     10030    1848    10110     1848     10210
GR      1844    10310    1844    10340     1843     10360    1844    10370     1848     10420
GR      1852    10600    1856    10830     1860     11100
1
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NC     0.06     0.06    0.038      0.3      0.5
ET                        7.1                                 4500      5310
X1     20.71       36    4910     5170      475       320     369.6
GR      1855     4055    1854     4060     1853      4095  1852.9     4122     1852      4212
GR      1851     4265  1850.8     4290     1851      4350    1851     4430     1850      4455
GR      1849     4460    1848     4480     1848      4490    1849     4550     1850      4625
GR      1850     4720    1850     4750     1851      4810    1852     4910     1851      4960
GR      1844     4990    1843     4995     1844      5020    1846     5040     1847      5075
GR      1850     5085    1850     5140     1851      5160    1852     5170     1852      5230
GR      1851     5270    1850     5370     1849      5390    1850     5470     1854      5534
GR      1856     5610

ET                  9.1     7.1                                 4500      5160     4240      5500
X1     20.79       32    4907     5160      460       575     422.4
GR      1859     3860    1858     3895   1857.4      3925  1857.2     3980     1857      4030
GR      1856     4070    1855     4240     1854      4300    1854     4350     1853      4385
GR      1852     4415    1851     4440     1852      4450    1853     4585     1855      4907
GR      1854     4937    1852     4950     1850      4980    1848     4990   1847.5      5000
GR      1848     5027    1850     5070     1852      5083    1854     5118   1855.3      5160
GR    1854.3     5205    1855     5300     1854      5350    1853     5385     1854      5465
GR      1856     5530    1860     5645
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ET		9.1	7.1				4550	5220	4090	5475
X1	20.90	33	4810	5090	570	480	580.8			
GR	1864	3740	1862.7	3790	1863.2	3845	1862	3915	1861.5	3950
GR	1862	3965	1863.2	4090	1862	4200	1862	4360	1862	4425
GR	1858	4560	1858	4625	1860.7	4810	1860	4830	1858	4850
GR	1857.5	4865	1858	4875	1858.2	4885	1858	4900	1856	4950
GR	1854	4965	1852.6	5000	1854	5030	1858	5042	1860	5050
GR	1860.9	5090	1860.5	5210	1860	5275	1858.5	5330	1860	5385
GR	1861	5475	1864	5520	1866	5545				

ET		9.1	7.1				4390	5060	3955	5605
X1	20.98	41	4695	5060	400	430.5	422.4			
GR	1870	3490	1868	3540	1866.2	3580	1866.7	3660	1866.2	3800
GR	1868	3955	1866	4145	1864	4330	1862.8	4380	1863.2	4390
GR	1862	4425	1861	4440	1862	4465	1861.3	4500	1862	4520
GR	1863.6	4580	1863.3	4615	1864	4645	1864.2	4695	1864	4730
GR	1862	4870	1861	4880	1860	4920	1858	4945	1856	4965
GR	1854	4995	1853.2	5000	1854	5005	1860	5020	1864.7	5060
GR	1866	5125	1866.2	5165	1866	5220	1864	5280	1864	5315
GR	1866	5390	1870	5470	1872	5480	1874	5505	1876	5565
GR	1878	5605								

ET		9.1	7.1				4380	5075	3875	5475
X1	21.05	36	4892	5045	340	380	369.6			
GR	1870	3540	1869.5	3560	1870	3605	1870	3670	1869.5	3730
GR	1870	3750	1872	3825	1872.3	3875	1872	3975	1870	4080
GR	1868	4220	1866	4345	1864.8	4400	1866	4430	1866.4	4475
GR	1866	4520	1865.5	4545	1866	4560	1867	4610	1866.3	4670
GR	1867.4	4775	1866	4830	1866	4892	1864	4920	1862	4930
GR	1860	4960	1858	4990	1857.6	5000	1858	5012	1860	5022
GR	1866	5045	1868	5075	1869.2	5095	1868.3	5145	1870	5375
GR	1872	5475								

ET		9.1	7.1				4350	5125	3950	5580
X1	21.11	31	4850	5125	260	370	316.8			
GR	1880	3410	1876	3480	1874	3535	1872.3	3595	1872	3735
GR	1874	3910	1874	4025	1872	4160	1870	4280	1868	4325
GR	1866.5	4365	1868	4410	1869.7	4450	1868	4555	1869.3	4675
GR	1869.1	4715	1870	4770	1870	4850	1868	4910	1866	4930
GR	1864	4945	1862	4960	1860.5	4990	1862	5020	1864	5035
GR	1866	5055	1868	5080	1870	5125	1872	5185	1874	5420
GR	1876	5580								

ET		9.1	7.1				4200	5100	4050	5700
X1	21.18	31	4950	5100	360	355.5	369.6			
GR	1876	3690	1875.2	3800	1875	3940	1876	4050	1874	4155
GR	1872	4225	1870	4240	1869.7	4250	1870	4260	1872	4300
GR	1874	4330	1874.4	4420	1874	4490	1872.5	4650	1872.9	4845
GR	1872	4950	1870	4970	1868	4980	1866	4988	1865	5000
GR	1866	5010	1868	5080	1870	5090	1872	5100	1874	5120
GR	1876	5200	1878	5270	1878	5365	1877.3	5480	1878	5535
GR	1880	5700								

ET		9.1	7.1				4310	5055	4025	5600
X1	21.25	38	4910	5055	420	370	369.6			
GR	1887	3610	1886	3650	1885.2	3723	1884	3857	1883.2	3890
GR	1884	4025	1882	4125	1880	4220	1878	4225	1875.3	4260
GR	1876	4275	1878	4310	1879	4365	1878.4	4410	1879.8	4500
GR	1879.8	4515	1878	4655	1877	4685	1877.6	4730	1876.5	4820
GR	1876.6	4860	1876	4880	1875	4910	1874	4935	1870	4965
GR	1868.7	5000	1870	5045	1878	5055	1880	5090	1880	5120
GR	1880	5365	1878.3	5400	1878.4	5430	1879.5	5490	1880	5540
GR	1880.7	5600	1882	5715	1884	5850				

ET		9.1	7.1				4450	5100	4035	5485
X1	21.31	33	4825	5050	230	310	316.8			
GR	1887.3	3660	1886	3740	1884.3	3930	1885	4040	1884	4125
GR	1882	4200	1880	4275	1878	4280	1876.4	4290	1878	4310
GR	1880	4410	1880.7	4500	1880	4570	1878.8	4640	1879.8	4700
GR	1878	4825	1872	4855	1871.2	4870	1872	4880	1874	4890
GR	1876	4900	1876.5	4920	1876	4940	1874	4950	1872	4965

GR	1870.7	5000	1872	5015	1878	5050	1880	5065	1882	5105
GR	1883.5	5190	1883.9	5230	1884	5585				

ET		9.1	7.1				4400	5105	4070	5425
X1	21.35	28	4895	5025	205	220	211.2			
GR	1888	3755	1886	4110	1884	4225	1882	4320	1880	4330
GR	1879.2	4350	1880	4400	1881.5	4490	1881	4620	1880	4750
GR	1878	4755	1876	4760	1874.2	4770	1876	4800	1878	4810
GR	1878	4895	1876	4915	1874	4970	1872	4980	1871.5	5000
GR	1872	5015	1878	5025	1880	5030	1882	5040	1884	5105
GR	1886	5310	1886.8	5430	1887	5500				

ET		9.1	7.1				4500	5100	4110	5290
X1	21.41	28	4910	5010	422	422	422			
GR	1890	4110	1888	4250	1886	4330	1885	4510	1884	4575
GR	1880	4590	1879	4600	1880	4620	1882	4630	1882.5	4670
GR	1882	4720	1880	4765	1877.5	4795	1880	4805	1881	4830
GR	1880	4845	1879	4855	1880	4865	1882	4910	1880	4930
GR	1878	4980	1874.2	5000	1880	5010	1882	5020	1884	5030
GR	1886	5060	1888	5165	1889	5290				

ET		9.1	7.1				4617	5317	4585	5515
X1	21.49	37	4900	5080	475	475	475			
GR	1892.5	4565	1892	4585	1890	4640	1888	4690	1884	4695
GR	1882	4710	1884	4715	1884.5	4730	1884	4755	1883.3	4770
GR	1886	4780	1887	4840	1887.7	4900	1886	4925	1885.3	4940
GR	1886	4950	1886	4990	1884	4995	1883	5000	1884	5010
GR	1885	5035	1884	5040	1882	5060	1884	5070	1888	5080
GR	1889.4	5130	1888	5155	1884	5175	1882.5	5195	1884	5210
GR	1884	5220	1886	5240	1888	5270	1890	5295	1892	5345
GR	1891.5	5390	1894.1	5515						

ET		9.1	7.1				4415	5255	4220	5630
X1	21.58	39	4815	5255	525	250	475.2			
GR	1906	4220	1904	4250	1900	4320	1886.8	4365	1886.8	4395
GR	1888	4400	1890	4415	1892	4430	1892	4465	1894	4510
GR	1894	4565	1892	4590	1888	4615	1892	4640	1894	4670
GR	1894.7	4725	1894	4750	1893.3	4780	1894	4815	1892	4890
GR	1890.1	4910	1892	4940	1890	4965	1888	5000	1890	5025
GR	1892	5050	1893.8	5090	1890	5155	1888	5170	1890	5185
GR	1892	5235	1894	5255	1894.3	5310	1894	5355	1892.2	5425
GR	1894	5482	1894.8	5525	1895.5	5630	1897	5800		

ET			7.1				4265	5320		
X1	21.63	55	4980	5300	280	370	264			
GR	1910	4060	1908	4130	1906	4140	1900	4180	1900	4212
GR	1888	4220	1888	4230	1890	4250	1892	4260	1894	4290
GR	1896	4320	1894.9	4375	1897.6	4435	1898	4480	1898	4560
GR	1896	4585	1894	4605	1892	4625	1898.6	4633	1892	4645

GR	1894	4660	1896	4695	1896	4725	1894	4785	1892.6	4800
GR	1894	4805	1896	4830	1898	4930	1896	4980	1890	4990
GR	1888.5	5000	1890	5007	1892	5025	1894	5085	1895.3	5140
GR	1894	5185	1892	5190	1892	5205	1894	5220	1894.8	5240
GR	1894	5255	1893.8	5270	1894	5275	1896	5300	1897.7	5400
GR	1898	5530	1898.3	5565	1898	5585	1898	5600	1900	5705
GR	1902	5840	1904	5950	1906	6015	1908	6085	1910	6175

ET			7.1				3970	5300		
X1	21.69	41	4780	5085	408	320	422.4			
GR	1910	3860	1900	3900	1898	3970	1900	4020	1900.9	4060
GR	1900	4070	1899.3	4080	1900	4110	1900	4145	1900.8	4180
GR	1900.8	4230	1900	4290	1898	4310	1896	4365	1894	4380
GR	1896	4390	1898	4415	1899.9	4480	1898	4505	1897.3	4510
GR	1898	4515	1900	4575	1901.6	4660	1901.8	4685	1900.8	4755
GR	1900	4780	1898	4815	1896.1	4907	1898	4940	1896	4982
GR	1895.1	5000	1896	5015	1898	5025	1900	5085	1898	5157
GR	1897.1	5160	1898	5175	1900	5265	1902	5280	1902.2	5300
GR	1904	5615								

ET			7.1				3694	5165		
X1	21.77	50	4795	5045	442.2	422.4	422.4			
GR	1915	3630	1910	3652	1909	3680	1905	3697	1900	3705
GR	1895	3720	1899	3745	1900	3815	1904	3837	1905	3850
GR	1905	3876	1905	3952	1906	4005	1906	4075	1906	4115
GR	1904	4180	1902	4205	1902	4240	1900	4255	1902	4270
GR	1904	4290	1904	4320	1902	4325	1902	4340	1906	4355
GR	1906	4395	1906	4445	1906	4535	1905.3	4565	1906	4620
GR	1906.5	4740	1906	4785	1904	4795	1902	4830	1900	4850
GR	1900	4885	1900	4910	1902	4955	1900	4965	1898	4970
GR	1898	4975	1897.3	5000	1898	5005	1900	5015	1902	5030
GR	1904	5045	1904	5115	1903.1	5130	1904	5150	1906	5205

ET			7.1				3750	5200		
X1	21.82	49	4950	5070	240.7	297.2	264			
GR	1920	3655	1906	3700	1906	3720	1904	3740	1903	3750
GR	1902	3760	1901	3790	1900	3805	1901	3830	1905	3850
GR	1907	3860	1908	3935	1908	3970	1908.7	4025	1908.2	4080
GR	1908.9	4110	1908	4135	1906	4185	1905	4195	1906	4210
GR	1905.2	4240	1906	4250	1906.5	4260	1906	4285	1904	4300
GR	1902.3	4310	1904	4340	1906	4355	1908	4375	1909.4	4475
GR	1909.3	4605	1909.6	4805	1908	4830	1906	4855	1904.3	4865
GR	1905.8	4885	1906	4915	1906	4950	1904	4965	1902	4970
GR	1900.5	4980	1900.5	5000	1902	5015	1904.5	5040	1906	5070
GR	1906.7	5150	1908	5180	1910	5250	1911	5350		

ET			7.1				3900	5040		
X1	21.91	44	4878	5040	450.3	450.3	475.2			
GR	1925	3740	1920	3780	1915	3805	1910	3826	1907	3835
GR	1906	3850	1906	3863	1906	3883	1905	3895	1902	3915
GR	1905	3935	1909	3945	1910	3990	1912	4030	1912.5	4070
GR	1912	4125	1910	4190	1911.1	4250	1910	4320	1908	4370
GR	1910	4380	1908	4410	1910	4425	1912	4460	1910	4490
GR	1912	4500	1914	4525	1914.6	4730	1914	4830	1912	4878
GR	1910	4940	1908	4975	1906	4990	1906	5000	1910	5020
GR	1912	5040	1912.5	5060	1912	5080	1912.5	5120	1912	5150
GR	1910.6	5180	1912	5210	1914	5250	1916	5370		

ET			7.1				3765	5090		
X1	21.99	46	4960	5090	400	470	422.4			
GR	1925	3660	1910	3675	1915	3740	1916	3765	1918	3835
GR	1914	3895	1918	4025	1917	4095	1912	4105	1910	4130
GR	1911	4147	1912	4175	1913	4218	1916	4272	1916	4320
GR	1914	4390	1914	4445	1916	4485	1916	4500	1914	4518

GR	1916	4550	1916	4603	1917.8	4700	1916.6	4740	1918	4800
GR	1919	4850	1918	4960	1912	4975	1910	4985	1909.9	5000
GR	1910	5008	1912	5022	1916	5090	1918	5160	1918	5185
GR	1916	5195	1916	5210	1917.2	5235	1916	5255	1914	5260
GR	1913.4	5270	1914	5275	1916	5285	1918	5320	1920	5362
GR	1922	5435								

ET			7.1				4050	5175		
X1	22.08	64	4930	5055	450.7	300	475.2			
GR	1930	3620	1925	3660	1930	3700	1919	3720	1920	3765
GR	1920	3785	1915	3835	1919	3850	1919	3875	1916	3895
GR	1919	3910	1921	3950	1921	4090	1920	4120	1918	4150
GR	1918	4170	1916	4180	1915	4200	1913	4210	1915	4235
GR	1918	4250	1918	4260	1917	4270	1916	4280	1915.8	4290
GR	1918	4315	1920	4345	1918	4360	1916.2	4390	1918	4450
GR	1920	4465	1921.2	4480	1920	4515	1918.5	4525	1920	4555
GR	1920.3	4565	1920	4575	1918.6	4585	1920	4605	1922	4635
GR	1922.7	4655	1922	4770	1921	4870	1922	4905	1922.2	4915
GR	1922	4930	1920	4950	1917	4970	1916	4975	1915	4990
GR	1915	5010	1916	5020	1918	5040	1922	5055	1922	5080
GR	1920	5110	1920	5130	1918.3	5155	1920	5175	1922	5220
GR	1920	5270	1922	5305	1924	5420	1926	5545		

ET			7.1				3700	5070		
X1	22.15	65	4960	5050	330.7	378.9	369.6			
GR	1926	3312	1925	3385	1923	3520	1918	3540	1916	3550
GR	1918	3560	1920	3565	1923	3579	1923.3	3585	1923	3615
GR	1922	3680	1921	3705	1922	3722	1922.8	3756	1922	3822
GR	1921	3840	1920	3853	1918	3867	1916	3885	1915	3895
GR	1916	3905	1920	3915	1922	4030	1924	4045	1925	4075
GR	1926	4105	1927	4170	1926	4308	1924	4325	1922	4350
GR	1920	4360	1918.4	4385	1920	4410	1922	4430	1924	4445

GR	1926	4456	1926	4515	1923	4535	1926	4550	1927.2	4575
GR	1926	4662	1924	4786	1924	4800	1925.3	4815	1924	4825
GR	1924	4853	1923.3	4870	1926	4917	1924	4960	1922	4972
GR	1920	4985	1919	4990	1919	5010	1920	5015	1922	5022
GR	1924	5050	1926	5075	1927.4	5135	1926	5160	1925.8	5185
GR	1926	5210	1926.4	5265	1926	5295	1926	5325	1928	5376

ET			7.1				3918	5067		
X1	22.22	49	4955	5067	312.4	473.3	369.6			
GR	1930	3685	1928	3800	1925	3895	1924	3907	1923	3920
GR	1920	3935	1918	3970	1923	3990	1924	4058	1924	4105
GR	1925	4125	1927	4138	1929	4210	1929.8	4410	1928	4510
GR	1922	4530	1920	4533	1919.6	4552	1920	4565	1922	4577
GR	1924	4585	1926	4590	1928	4600	1928	4648	1926	4657
GR	1925.6	4662	1926	4670	1928	4680	1930	4712	1929.5	4795
GR	1930	4915	1930.2	4935	1930	4955	1928	4975	1922	4985
GR	1921.5	5000	1921.5	5020	1928	5055	1930	5067	1930.2	5080
GR	1930	5097	1930	5117	1930.2	5145	1930	5170	1928	5205
GR	1930	5240	1932	5305	1932.5	5455	1933	5555		

ET			7.1				4000	5100		
X1	22.29	57	4972	5040	358.9	280	369.6			
GR	1935	3908	1930	3955	1925	3960	1924.5	3965	1924	3985
GR	1923.5	4005	1924	4015	1923	4050	1923.5	4055	1924	4065
GR	1924.5	4085	1926.5	4100	1927	4110	1927.2	4120	1927.8	4140
GR	1928.5	4175	1929.5	4250	1931	4300	1932.5	4350	1933.2	4400
GR	1934	4465	1934	4491	1932	4630	1930	4640	1925	4652
GR	1926	4672	1928	4710	1930	4740	1932	4770	1932	4860
GR	1931	4880	1932	4890	1934	4908	1934	4930	1932	4972
GR	1930	4980	1928	4982	1926	4984	1925.5	4990	1925.5	5010
GR	1926	5020	1930	5030	1932	5040	1934	5060	1934	5072
GR	1932	5100	1931.9	5110	1932	5115	1932.4	5155	1932	5205
GR	1931.6	5240	1932	5273	1932.4	5320	1931.7	5380	1932	5410
GR	1934	5534	1936	5678						

ET			7.1				4100	5080		
X1	22.36	59	4940	5070	435.7	370	369.6			
GR	1940	4050	1930	4110	1928	4150	1927	4172	1926	4185
GR	1929	4200	1925	4210	1926	4220	1930	4236	1932	4250
GR	1933	4305	1934	4333	1935	4365	1936	4402	1937	4460
GR	1937.8	4525	1937	4605	1936	4630	1934	4632	1934	4635
GR	1933.3	4650	1934	4660	1934.7	4675	1936	4735	1937	4750
GR	1936	4765	1934	4787	1932.5	4800	1936	4822	1935	4850
GR	1936	4860	1938	4890	1938	4940	1930	4975	1929	4985
GR	1929	5000	1930	5010	1934	5025	1936	5040	1938	5070
GR	1938	5110	1936	5140	1934	5155	1932.2	5180	1934	5195
GR	1936	5202	1938	5232	1938.8	5285	1938	5345	1937.3	5420
GR	1936	5485	1935	5490	1936	5525	1936	5650	1935	5655
GR	1936	5670	1938	5710	1940	5805	1940.7	5845		

ET		9.1	7.1				4192	5110	4098	5825
X1	22.43	54	4880	5110	410	340	369.6			
GR	1944	3745	1942	3955	1936	4000	1934	4020	1935	4060
GR	1933.4	4070	1935	4080	1936.8	4098	1936	4140	1935	4163
GR	1934	4173	1935	4180	1936	4185	1938	4287	1939	4295
GR	1939	4340	1938	4367	1937	4375	1936	4400	1935	4415
GR	1935	4425	1937	4440	1935	4452	1940	4535	1937.5	4570
GR	1939.3	4630	1939	4665	1939	4690	1940	4745	1940	4827
GR	1941.5	4880	1940	4915	1940	4950	1938	4960	1934	4970
GR	1936.2	4980	1936.2	5000	1934	5010	1938	5025	1940	5050
GR	1939.8	5065	1940	5080	1941.5	5110	1940	5135	1940	5165
GR	1936	5175	1936	5190	1934	5210	1936	5223	1938	5225

GR	1940	5240	1942	5310	1942	5825	1944	5965		
ET		9.1	7.1				4372	5095	4230	5330
X1	22.48	59	4932	5095	210.7	220	264			
GR	1946	3700	1944	3780	1942	3990	1938	4025	1937	4040
GR	1936	4070	1935	4080	1937	4095	1938	4115	1940	4133
GR	1945	4178	1945	4230	1943	4268	1940	4310	1938	4338
GR	1937.5	4350	1938	4395	1939	4415	1940	4440	1940	4460
GR	1940	4485	1940	4503	1940.7	4515	1940	4565	1939.6	4578
GR	1940	4583	1941	4645	1942	4670	1942.6	4690	1942	4705
GR	1941	4720	1940.4	4730	1942	4745	1942	4765	1943	4805
GR	1944	4900	1944	4932	1942	4952	1940	4967	1936	4980
GR	1936	5013	1940	5045	1942	5055	1942	5072	1942	5085
GR	1944	5095	1944	5113	1942	5140	1942	5155	1942.5	5172
GR	1942	5185	1940	5212	1938	5225	1938	5237	1940	5245
GR	1942	5255	1944	5330	1944.8	5420	1946	5650		
ET			7.1				4470	5105		
X1	22.56	32	4970	5095	335.4	390	422.4			
GR	1952	4125	1950	4340	1945	4420	1940	4455	1940	4525
GR	1938.5	4530	1940	4550	1942	4565	1944	4610	1945	4660
GR	1946.0	4750	1946	4770	1946.0	4790	1946.5	4905	1946.0	4970
GR	1940	4980	1938.6	4990	1938.6	5010	1940	5020	1942	5055
GR	1944	5060	1946	5095	1946	5180	1944	5190	1944	5200
GR	1946	5240	1948	5255	1947.5	5300	1948	5400	1948.4	5475
GR	1950	5600	1952	5740						
ET			7.1				4475	5050		
X1	22.67	32	4950	5050	620	450	528			
GR	1960	4165	1957	4230	1956	4290	1954	4400	1952	4430
GR	1950	4440	1948	4450	1945	4460	1948	4480	1949	4540
GR	1950	4560	1950.7	4610	1950	4665	1949	4680	1949	4690
GR	1950	4700	1951.0	4730	1951	4785	1950.3	4800	1952	4850
GR	1952	4930	1950	4950	1946	4980	1944.5	5000	1944.5	5020
GR	1946	5040	1950	5050	1950	5070	1952	5087	1954	5120
GR	1954.6	5195	1956	5275						

ET			7.1				4499	5025		
X1	22.73	41	4880	5025	330	310	316.8			
GR	1960	4200	1955.5	4300	1955	4310	1954	4357	1953	4390
GR	1953	4410	1954	4435	1954.2	4450	1954.0	4460	1953	4480
GR	1952	4510	1952.5	4520	1952	4530	1954	4540	1953	4570
GR	1952	4580	1953	4580.5	1953	4590	1954	4600	1954	4620
GR	1954	4670	1956	4690	1957	4720	1956	4750	1954.8	4780
GR	1956	4810	1956.2	4840	1956	4870	1954	4880	1952	4900
GR	1950	4965	1948	4980	1947	4985	1947	5010	1948	5010
GR	1950	5020	1954	5025	1956	5030	1957.5	5085	1958	5125
GR	1960	5450								
ET			7.1				4490	5150		
X1	22.79	33	4930	5060	295	310	316.8			
GR	1962	4140	1961	4195	1960	4240	1959	4270	1958	4310
GR	1957	4380	1956	4390	1955.5	4410	1956	4420	1957	4440
GR	1958	4510	1957	4550	1956.7	4590	1956	4660	1956	4690
GR	1958	4700	1958.2	4720	1959.8	4785	1958	4830	1959	4880
GR	1958	4900	1956	4930	1954	4940	1952	4965	1950	4985
GR	1950	5000	1952	5010	1954	5040	1956	5060	1958	5100
GR	1960	5125	1961	5165	1962	5295				
QT	2	24400	24400							
ET			7.1				4450	5192		
X1	22.86	39	4912	5192	370	370	370			
GR	1970	3772	1969	3806	1968	3932	1966	4108	1964	4274
GR	1962	4360	1960	4434	1959.5	4442	1960	4452	1961	4480
GR	1962	4530	1962.5	4585	1962	4636	1960	4646	1961	4651
GR	1960	4660	1960.5	4672	1960	4686	1958	4690	1958	4702
GR	1960	4718	1962	4834	1962.5	4888	1962	4912	1960	4968
GR	1958	4976	1953.5	5000	1954	5024	1956	5030	1958	5034
GR	1960	5078	1960.5	5108	1960	5124	1962	5192	1964	5202
GR	1966	5232	1968	5262	1970	5300	1972	5440		
NC	0.050	0.050	0.048	0.300	0.500					
ET			9.1						9450	10050
X1	22.95	25	9450	10050	1000	1000	1003			
GR	1996	8260	1980	8430	1978	8470	1978	8680	1976	8820
GR	1972	9090	1969.5	9320	1969.5	9380	1970	9450	1969	9500
GR	1969	9600	1969	9900	1968	9950	1964	9980	1962	9985
GR	1962	10000	1962	10030	1964	10040	1972	10050	1976	10130
GR	1980	10200	1984	10210	1988	10250	1992	10300	1996	10380

Beginning of Montgomery Watson's Analysis
Cross Section 22.96 Lengthened 339 feet
At Left Overbank Using Topographic Maps

NC	.060	.060	.032							
ET			7.1				9500	10014		
X1	22.96	30	9951	10016	25	31.3	30			
GR	1976	8982	1974	9119	1972	9307	1972.6	9320	1972.3	9386
GR	1971.4	9440	1970.3	9470	1970.0	9513	1970.3	9589	1970.5	9618
GR	1969.4	9642	1968.0	9660	1968.3	9669	1969.4	9686	1970.0	9718
GR	1970.9	9775	1970.6	9827	1969.3	9844	1969.6	9876	1968.6	9900
GR	1966.0	9951	1962.9	9963	1960.8	9977	1959.6	10000	1975.7	10016

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GR   1976.9      10023     1976.7      10050      1978.0      10090      1979.7      10124      1979.9      10128
        Cross Section 23.12 Lengthened 138 feet
        At Left Overbank Using Topographic Maps

ET                            7.1                                        9595       10156
X1    23.13         33      9895       10011       730         900       880.2
GR     1982       9370      1980.4      9508       1979.3      9530      1978.8      9541      1976.9      9554
GR   1975.8       9580      1976.1      9638       1978.0      9690      1979.4      9720      1979.7      9787
GR   1980.0       9868      1978.3      9895       1976.9      9917      1970.6      9932      1970.6      9945
GR   1972.0       9951      1972.1      9965       1971.0      9979      1969.8     10000      1977.2     10011
GR   1976.9      10035      1978.0     10067       1977.4     10101      1976.4     10129      1976.3     10151
GR   1974.6      10162      1975.4     10170       1974.1     10183      1979.6     10212      1984.6     10262
GR   1987.7      10301      1989.9     10311       1990.6     10332

ET                            7.1                                        9874       10208
X1    23.25         43      9874       10025       675         550       619.4
GR   1995.4       9293      1994.8      9364       1994.0      9421      1993.5      9518      1992.6      9602
GR   1991.5       9609      1991.8      9613       1991.8      9632      1991.3      9639      1989.2      9660
GR   1985.0       9694      1984.5      9713       1983.9      9766      1985.6      9801      1985.9      9827
GR   1983.8       9861      1983.5      9874       1984.0      9900      1983.4      9928      1980.3      9945
GR   1977.5       9954      1977.8      9973       1977.3     10000      1981.3     10025      1981.3     10054
GR   1981.9      10078      1982.1     10105       1982.9     10118      1983.4     10150      1982.6     10165
GR   1984.1      10181      1983.0     10208       1984.4     10226      1984.9     10257      1984.8     10299
GR   1983.0      10332      1983.0     10353       1981.5     10361      1982.6     10374      1980.9     10385
GR   1983.0      10400      1983.2     10408       1988.6     10424

ET                            7.1                                        9963       10294
X1    23.33         42      9963       10017       490         375       432.6
GR   1997.8       9541      1998.0      9565       1997.1      9582      1995.9      9646      1994.4      9703
GR   1992.7       9741      1990.4      9769       1989.2      9809      1988.3      9819      1989.6      9835
GR   1990.8       9858      1990.9      9896       1989.9      9924      1990.4      9942      1989.0      9963
GR   1981.3       9981      1981.1     10000       1981.1     10004      1985.3     10017      1985.4     10026
GR   1981.8      10038      1979.5     10048       1979.9     10057      1982.0     10065      1983.8     10082
GR   1983.9      10100      1985.4     10111       1985.6     10129      1987.8     10146      1988.1     10164
GR   1986.2      10182      1986.4     10202       1988.2     10222      1988.1     10253      1987.4     10269
GR   1985.8      10289      1986.7     10314       1985.1     10333      1984.6     10339      1988.4     10352
GR   1997.3      10368      2000.4     10386
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ET                            7.1                                        9867       10332
X1    23.45         39      9979       10058       530         630       623.5
GR     2004       9460      2001.8      9576       2001.7      9590      2000.8      9623      1999.9      9662
GR   1999.2       9712      1998.8      9731       1998.0      9753      1997.6      9787      1998.1      9817
GR   1997.8       9850      1993.1      9874       1991.8      9888      1991.4      9909      1993.8      9927
GR   1994.2       9951      1995.1      9959       1994.8      9979      1991.5      9985      1991.5      9991
GR   1991.8      10000      1992.0     10005       1993.9     10020      1993.4     10039      1994.5     10058
GR   1995.7      10103      1994.5     10137       1994.5     10151      1993.7     10157      1994.8     10172
GR   1994.3      10236      1989.9     10252       1991.7     10260      1991.5     10270      1988.5     10279
GR   1988.4      10305      1989.5     10314       1989.5     10328      2000.1     10352
        Cross Section 23.55 Lengthened 44 feet
        At Right Overbank Using Topographic Maps

ET                   9.1      7.1                                        9766       10233       9559       10289
X1    23.55         60      9916       10102       325         595       545.1
GR   2010.3       9015      2009.9      9102       2010.1      9149      2009.4      9207      2009.9      9212
GR   2009.4       9263      2008.5      9315       2008.3      9335      2007.2      9375      2006.5      9405
GR   2005.9       9440      2005.3      9466       2004.5      9486      2003.7      9531      2003.9      9555
GR   2004.9       9559      2003.2      9569       2003.1      9588      2003.9      9594      2003.2      9603
GR   2002.1       9647      2001.6      9661       2002.5      9696      2001.9      9730      1996.9      9743
GR   1996.7       9766      1999.4      9781       1999.0      9791      1999.7      9801      1999.5      9809
GR   2000.3       9835      1999.1      9840       1999.5      9849      1999.2      9869      2000.3      9882
GR   2000.6       9905      2001.2      9916       2000.5      9945      1997.4      9959      1997.0      9976
GR   1997.7      10000      1997.9     10014       1999.2     10028      1999.6     10062      1999.4     10069
GR   1997.9      10076      1997.7     10081       1998.5     10091      2001.1     10102      2001.7     10131
GR   2001.3      10157      2000.2     10184       1998.8     10202      1999.1     10213      1998.6     10233
GR   1997.8      10242      1997.9     10248       2003.1     10264        2006     10289        2010     10308

QT        2      11800      11800
ET                   9.1      7.1                                        9435       10097       9421       10114
X1    23.64         56      9941       10019       525         460       500.2
GR   2012.0       9081      2009.1      9109       2010.9      9138      2010.6      9200      2010.6      9231
GR   2010.0       9271      2008.5      9295       2009.8      9317      2009.9      9349      2008.2      9387
GR   2009.2       9404      2009.5      9421       2008.6      9435      2008.8      9458      2007.8      9510
GR   2007.1       9517      2007.0      9528       2007.6      9537      2007.1      9556      2008.1      9572
GR   2007.9       9599      2007.7      9630       2006.6      9658      2006.6      9671      2005.6      9677
GR   2005.5       9691      2007.7      9701       2007.4      9715      2008.3      9720      2008.1      9732
GR   2006.4       9747      2007.3      9767       2006.7      9799      2004.9      9846      2003.6      9855
GR   2002.8       9863      2004.4      9877       2003.0      9889      2002.9      9912      2004.6      9925
GR   2003.7       9941      2003.6      9970       2000.1      9978      2000.0     10000      2000.5     10005
GR   2005.1      10019      2004.9     10032       2003.1     10039      2006.0     10054      2006.1     10071
GR   2005.8      10078      2007.0     10097       2009.5     10114      2012.2     10136      2015.7     10155
GR   2023.6      10203

ET                            7.1                                        9668       10021
X1    23.87         37      9934       10021       1125        1200      1179.6
GR   2023.3       9487      2022.3      9499       2020.6      9550      2020.9      9575      2019.9      9594
GR   2018.0       9628      2013.9      9648       2013.6      9662      2013.8      9669      2013.5      9681
GR   2015.5       9700      2016.7      9728       2017.0      9769      2016.9      9804      2016.1      9825
GR   2017.0       9842      2017.1      9875       2017.7      9907      2016.7      9934      2010.1      9951
GR   2009.9       9969      2009.2      9975       2008.8     10000      2009.0     10006      2016.7     10021
GR   2017.0      10039      2016.6     10054       2016.7     10083      2017.3     10098      2018.0     10134
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GR   2018.8      10166      2020.4     10207       2020.9      10234      2023.6      10273      2025.8      10306
GR   2032.1      10345      2040.5     10396
        THE PRESENCE OF INNER-CHANNEL ISLANDS AT THIS CROSS-SECTION CAUSE
        FLOODWAY TOPWID TO EXCEED FLOODPLAIN TOPWID
        HOWEVER, FLOODWAY IS WITHIN BOUNDARIES OF FLOODPLAIN
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ET                          7.1                                   9542      10042
X1    23.94        40      9880     10020      340       435     403.2
GR   2031.2      9457    2030.7      9474   2029.6      9483    2027.1      9516    2017.8      9533
GR   2016.0      9551    2015.9      9572   2019.4      9596    2019.8      9626    2020.8      9671
GR   2021.0      9700    2021.4      9725   2021.0      9769    2020.7      9789    2021.5      9809
GR   2020.9      9827    2021.0      9848   2020.6      9880    2017.4      9894    2016.4      9919
GR   2015.4      9946    2013.2      9968   2011.7      9979    2010.6     10000    2010.4     10002
GR   2020.1     10020    2020.1     10036   2015.1     10042    2020.1     10055    2020.4     10073
GR   2020.9     10100    2020.8     10118   2021.6     10131    2021.9     10153    2023.1     10190
GR   2025.2     10226    2026.9     10261   2029.9     10293    2034.7     10332    2041.6     10375

ET                          7.1                                   9900      10123
X1    24.03        54      9932     10023      585       300     457.8
GR   2044.9      9452    2044.9      9469   2045.3      9474    2044.9      9481    2044.1      9515
GR   2043.3      9557    2043.0      9579   2042.2      9620    2041.6      9655    2040.6      9682
GR   2038.9      9711    2036.2      9729   2028.0      9750    2019.6      9768    2023.4      9783
GR   2023.5      9793    2021.3      9806   2018.8      9819    2018.8      9824    2022.7      9838
GR   2024.3      9872    2024.4      9889   2023.6      9903    2022.7      9917    2025.1      9932
GR   2021.5      9958    2017.5      9976   2017.6     10000    2017.8     10003    2022.1     10023
GR   2021.0     10063    2021.8     10077   2021.2     10095    2017.8     10109    2017.9     10123
GR   2019.5     10134    2019.9     10146   2018.6     10165    2023.3     10194    2024.0     10218
GR   2022.9     10256    2023.4     10289   2024.1     10362    2023.3     10370    2024.5     10375
GR   2024.9     10405    2026.5     10435   2026.3     10485    2027.5     10501    2029.8     10536
GR   2031.9     10570    2035.0     10601   2038.6     10635    2040.2     10662

ET                          7.1                                   9860      10067
X1    24.12        36      9911     10067      450       440     451.7
GR   2040.0      9627    2033.7      9648   2033.1      9664    2033.6      9693    2033.9      9726
GR   2028.6      9737    2028.2      9750   2028.8      9778    2028.5      9813    2028.0      9838
GR   2027.8      9859    2026.6      9911   2024.1      9920    2023.5      9941    2020.6      9944
GR   2020.7      9956    2021.2      9961   2021.6      9986    2021.8     10000    2022.2     10027
GR   2023.4     10043    2027.2     10067   2028.1     10094    2027.9     10126    2028.3     10153
GR   2029.3     10187    2029.8     10228   2030.5     10272    2032.1     10330    2033.3     10374
GR   2034.3     10393    2035.9     10430   2036.7     10455    2038.0     10506    2039.2     10545
GR   2040.1     10570

QT        2      9700     9700
ET                9.1      7.1                                   9953      10199      9798      10247
X1    24.25        36      9951     10018      765       665     708.6
GR   2057.6      9699    2047.9      9735   2040.4      9770    2037.4      9798    2035.3      9809
GR   2034.2      9832    2033.9      9842   2034.4      9867    2033.8      9901    2034.6      9951
GR   2025.5      9968    2024.8      9981   2024.2     10000    2024.0     10004    2034.5     10018
GR   2032.8     10045    2033.1     10052   2031.6     10070    2032.0     10114    2031.0     10129
GR   2031.0     10144    2027.1     10162   2027.4     10175    2027.2     10199    2035.8     10247
GR   2034.3     10261    2033.5     10281   2034.3     10295    2033.9     10311    2035.0     10361
GR   2035.5     10407    2036.0     10444   2037.1     10491    2038.2     10532    2038.8     10565
1
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GR   2040.1     10589

NC     .060      .060      .030

ET                9.1      7.1                                   9811      10077      9743      10160
X1    24.38        35      9811     10077      640       450     708.8
GR   2051.6      9708    2042.0      9743   2037.7      9780    2036.0      9794    2035.7      9811
GR   2035.6      9834    2035.8      9863   2033.7      9875    2033.6      9888    2031.6      9897
GR   2032.7      9911    2032.8      9930   2031.5      9944    2033.6      9954    2034.0      9974
GR   2032.9      9981    2032.7     10000   2034.0     10004    2035.1     10038    2036.3     10077
GR   2035.5     10089    2036.1     10095   2037.2     10138    2043.0     10160    2037.4     10176
GR   2038.0     10193    2037.8     10210   2039.4     10223    2039.9     10290    2039.4     10329
GR   2039.7     10377    2041.0     10388   2041.6     10437    2044.0     10478    2045.1     10503

ET                          7.1                                   9834      10048
X1    24.48        36      9951     10048      385       550     501.7
GR   2061.1      9511    2053.5      9553   2047.0      9589    2043.8      9620    2042.3      9644
GR   2042.4      9664    2039.1      9675   2039.4      9685    2039.2      9706    2038.5      9717
GR   2040.8      9726    2042.6      9753   2043.3      9785    2040.4      9802    2040.4      9842
GR   2041.8      9882    2041.7      9921   2041.5      9951    2037.2      9962    2036.8     10000
GR   2038.7     10008    2037.8     10037   2042.9     10048    2042.5     10072    2044.3     10105
GR   2046.9     10138    2048.9     10176   2051.1     10202    2053.2     10263    2054.6     10306
GR   2056.1     10364    2057.1     10410   2057.5     10438    2057.9     10448    2058.4     10465
GR   2060.5     10492

ET                          7.1                                   9944      10023
X1    24.61        50      9944     10023      730       725     668.9
GR   2050.1      9369    2051.1      9378   2052.3      9403    2052.0      9416    2052.5      9419
GR   2050.4      9428    2049.9      9460   2049.7      9502    2049.3      9538    2049.2      9575
GR   2048.9      9619    2048.8      9675   2048.7      9704    2048.4      9738    2044.8      9755
GR   2044.9      9775    2046.7      9782   2047.7      9798    2048.5      9821    2048.6      9858
GR   2048.0      9893    2046.0      9915   2046.2      9921    2045.9      9934    2046.1      9944
GR   2042.9      9959    2040.7      9984   2040.2     10000    2045.3     10012    2046.5     10023
GR   2045.5     10037    2047.0     10050   2048.1     10074    2049.2     10086    2049.8     10096
GR   2050.2     10130    2050.7     10157   2051.0     10182    2051.4     10196    2051.6     10219
GR   2051.8     10244    2052.4     10250   2052.8     10264    2054.9     10291    2056.3     10312
GR   2057.2     10332    2057.8     10361   2058.5     10384    2060.0     10407    2060.8     10420

ET                          7.1                                   9961      10086
X1    24.74        56      9961     10086      615       615     668.8
GR   2081.5      9294    2080.2      9308   2078.8      9338    2076.9      9349    2076.0      9369
GR   2075.7      9380    2068.8      9410   2065.3      9431    2062.9      9450    2060.4      9482
GR   2058.1      9498    2057.8      9511   2057.0      9536    2056.2      9547    2055.2      9561
GR   2054.7      9579    2055.9      9591   2055.8      9620    2055.4      9659    2055.4      9701
GR   2055.2      9721    2055.4      9748   2055.3      9770    2055.6      9802    2054.7      9824
GR   2055.2      9841    2055.4      9891   2055.2      9906    2055.1      9937    2055.0      9961
GR   2045.8      9981    2046.1     10000   2048.3     10011    2049.5     10036    2051.2     10065
GR   2053.8     10086    2053.9     10124   2054.1     10146    2053.1     10180    2052.0     10189
GR   2052.0     10200    2055.6     10217   2055.5     10239    2057.7     10273    2062.1     10328
GR   2063.9     10369    2065.4     10394   2065.9     10436    2067.2     10468    2067.8     10500
GR   2068.8     10535    2070.1     10564   2073.7     10606    2074.7     10622    2076.2     10637
1
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GR	2079.0	10674								
QT	2	7800	7800							
ET			7.1				9929	10080		
X1	24.87	27	9962	10071	775	685	732.8			
GR	2071.9	9592	2067.9	9602	2064.5	9634	2061.1	9659	2071	9690
GR	2071	9750	2061.7	9754	2061.3	9770	2061.2	9816	2061.7	9870
GR	2061.6	9911	2059.7	9917	2061.1	9929	2060.7	9962	2055.0	9978
GR	2054.6	10000	2056.3	10012	2056.4	10042	2057.8	10057	2059.1	10071
GR	2058.6	10100	2057.2	10124	2060.1	10135	2060.8	10157	2061.5	10172
GR	2062.8	10198	2071.0	10237						
ET			7.1				9920	10100		
X1	24.95	42	9920	10097	485	285	405.6			
GR	2090.8	9562	2088.9	9594	2087.3	9620	2084.3	9641	2085.1	9653
GR	2084.2	9681	2083.1	9695	2083.8	9703	2083.6	9718	2081.7	9745
GR	2079.0	9774	2076.8	9810	2075.2	9846	2073.3	9874	2070.0	9901
GR	2064.7	9920	2064.6	9939	2064.3	9953	2063.7	9975	2057.4	9989
GR	2057.7	10000	2059.4	10007	2059.9	10018	2059.3	10024	2060.4	10033
GR	2060.5	10069	2059.2	10086	2060.5	10097	2060.3	10121	2061.5	10135
GR	2062.9	10159	2062.7	10173	2062.2	10185	2060.8	10201	2061.1	10204
GR	2060.5	10226	2061.2	10236	2061.2	10248	2060.2	10258	2060.0	10266
GR	2063.2	10275	2070.9	10296						
ET		9.1	7.1				9952	10105	9928	10113
X1	25.12	46	9949	10053	900	800	867.7			
GR	2078.3	9560	2077.5	9570	2077.5	9586	2076.9	9612	2076.2	9632
GR	2077.3	9637	2074.7	9654	2074.1	9667	2075.1	9676	2074.3	9703
GR	2072.5	9721	2071.6	9740	2069.4	9774	2066.9	9798	2069.4	9819
GR	2068.6	9826	2069.9	9836	2071.0	9855	2071.7	9872	2074.9	9903
GR	2074.9	9928	2073.5	9949	2066.7	9976	2066.2	9985	2064.7	10000
GR	2065.2	10008	2065.0	10033	2070.6	10053	2072.1	10079	2071.5	10092
GR	2072.4	10104	2075.3	10113	2075.0	10125	2071.2	10138	2073.0	10173
GR	2072.5	10184	2072.0	10211	2072.3	10240	2077.9	10242	2072.5	10253
GR	2072.4	10267	2075.6	10289	2082.4	10312	2087.7	10348	2090.5	10372
GR	2094.9	10396								
ET		9.1	7.1				9849	10037	9552	10052
X1	25.28	57	9965	10024	950	715	867.5			
GR	2089.8	8848	2088.3	8893	2087.1	8943	2086.2	8997	2085.0	9033
GR	2083.4	9077	2081.8	9099	2081.2	9134	2080.2	9154	2078.5	9166
GR	2078.0	9174	2080.2	9181	2080.4	9199	2081.1	9222	2082.1	9234
GR	2082.8	9269	2084.1	9292	2085.0	9320	2084.5	9323	2084.8	9330
GR	2085.5	9337	2085.8	9360	2085.7	9378	2084.3	9386	2084.0	9409
GR	2083.4	9433	2082.5	9450	2082.0	9487	2082.2	9498	2082.7	9523
GR	2082.6	9552	2082.3	9577	2081.3	9606	2079.8	9632	2079.1	9648
GR	2079.9	9657	2080.1	9675	2078.5	9687	2079.9	9707	2079.3	9725
GR	2079.4	9767	2079.5	9791	2079.0	9807	2079.3	9838	2078.9	9849
GR	2078.6	9887	2077.3	9899	2078.7	9919	2078.7	9954	2077.8	9965
GR	2075.1	9978	2072.6	9995	2072.3	10000	2071.5	10014	2074.0	10024

GR	2089.4	10052	2090.5	10060						
ET		9.1	7.1				9650	10296	9287	10336
X1	25.38	77	9865	10140	255	760	538.7			
GR	2090.3	8816	2088.6	8849	2087.3	8903	2085.3	8954	2083.9	9005
GR	2082.6	9032	2082.1	9045	2082.7	9053	2082.1	9066	2080.1	9076
GR	2080.0	9083	2081.8	9098	2081.8	9126	2083.8	9174	2084.9	9211
GR	2085.4	9235	2085.7	9244	2084.8	9247	2085.9	9262	2086.0	9276
GR	2085.7	9287	2085.0	9308	2084.6	9333	2084.1	9379	2083.9	9415
GR	2083.6	9447	2082.2	9487	2081.2	9510	2081.6	9523	2082.0	9549
GR	2081.8	9565	2082.4	9571	2082.5	9601	2082.8	9624	2083.3	9672
GR	2083.3	9697	2082.4	9725	2083.4	9760	2084.1	9775	2084.0	9795
GR	2083.4	9810	2084.8	9830	2084.7	9865	2081.6	9873	2081.7	9883
GR	2082.7	9892	2083.3	9910	2082.8	9940	2080.6	9952	2082.1	9967
GR	2080.3	9984	2079.8	10000	2083.8	10012	2083.2	10026	2083.3	10037
GR	2081.7	10071	2081.5	10085	2084.0	10094	2084.6	10109	2084.3	10140
GR	2082.2	10152	2084.6	10162	2084.0	10174	2080.9	10194	2084.5	10203
GR	2084.5	10236	2078.2	10262	2078.9	10281	2084.1	10296	2085.8	10336
GR	2087.0	10404	2089.1	10466	2089.3	10498	2090.7	10528	2091.2	10546
GR	2095.2	10571	2101.2	10610						
ET		9.1	7.1				9968	10598	9861	10705
X1	25.45	70	9966	10072	375	375	362.2			
GR	2093.6	9071	2092.6	9124	2091.0	9188	2089.7	9236	2088.1	9290
GR	2086.9	9314	2085.1	9329	2084.6	9367	2081.0	9383	2081.0	9394
GR	2083.6	9412	2085.2	9434	2086.6	9464	2087.6	9517	2088.1	9557
GR	2088.0	9570	2088.4	9600	2089.3	9633	2088.7	9650	2088.5	9679
GR	2088.2	9715	2088.9	9731	2089.3	9761	2089.8	9775	2090.2	9813
GR	2090.2	9861	2089.6	9909	2088.8	9941	2088.8	9966	2085.1	9975
GR	2084.8	10000	2086.9	10010	2086.9	10026	2088.5	10038	2086.9	10053
GR	2087.9	10072	2088.3	10093	2088.1	10113	2084.7	10127	2084.6	10132
GR	2087.4	10148	2088.0	10182	2088.5	10230	2088.2	10266	2087.8	10301
GR	2085.6	10312	2087.2	10322	2087.7	10347	2087.3	10374	2086.2	10388
GR	2086.2	10394	2087.9	10414	2088.5	10440	2089.0	10488	2088.4	10513
GR	2086.7	10533	2086.8	10551	2085.6	10575	2082.0	10598	2081.7	10615
GR	2082.7	10641	2087.7	10653	2089.2	10679	2089.8	10705	2090.3	10742
GR	2091.5	10771	2090.5	10780	2092.7	10793	2097.1	10823	2101.2	10867
ET		9.1	7.1				9686	10511	9608	10564
X1	25.56	91	9927	10048	535	600	583.5			
GR	2110.3	8666	2108.6	8716	2107.3	8774	2105.7	8825	2104.5	8861
GR	2102.2	8927	2100.4	8984	2098.8	9019	2098.0	9059	2096.0	9098
GR	2094.0	9131	2093.0	9168	2092.3	9193	2089.6	9224	2086.1	9237
GR	2085.5	9256	2087.2	9268	2092.9	9288	2094.5	9307	2095.3	9336
GR	2095.4	9368	2095.2	9413	2095.0	9460	2095.0	9487	2094.8	9519

```
GR   2094.4      9538    2098.2      9554    2098.6      9566    2098.5      9595    2097.9      9608
GR   2095.0      9624    2094.1      9642    2095.3      9652    2096.3      9680    2095.9      9687
GR   2096.2      9706    2095.4      9716    2095.2      9745    2094.6      9777    2094.9      9800
GR   2094.6      9817    2093.7      9823    2094.9      9842    2094.8      9883    2095.2      9898
GR   2095.2      9927    2094.7      9952    2092.3      9968    2091.6      9977    2091.8      9996
GR   2091.9     10000    2095.6     10010    2095.6     10048    2095.1     10094    2093.8     10121
1
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GR   2094.6     10134    2094.8     10169    2094.0     10215    2093.5     10221    2094.1     10231
GR   2094.3     10277    2094.6     10298    2094.0     10305    2094.7     10315    2094.9     10348
GR   2094.8     10375    2092.6     10390    2086.0     10406    2085.6     10413    2086.2     10422
GR   2091.0     10446    2093.0     10478    2094.8     10511    2096.6     10542    2097.9     10564
GR   2097.6     10603    2096.4     10638    2095.1     10656    2094.9     10681    2094.8     10697
GR   2095.3     10731    2095.5     10757    2095.3     10794    2094.8     10827    2093.8     10854
GR   2089.5     10871    2089.9     10883    2092.1     10908    2098.3     10928    2099.8     10954
GR   2101.0     10993

ET                 9.1       7.1                                   9931     10477     9707     10627
X1     25.63        87      9934     10088       375       350    365.7
GR   2114.6      8821    2111.4      8900    2109.3      8953    2107.0      9003    2104.7      9056
GR   2102.4      9103    2100.5      9143    2098.6      9174    2095.5      9198    2092.8      9214
GR   2089.7      9227    2090.3      9244    2093.5      9261    2094.7      9275    2095.8      9289
GR   2097.9      9335    2099.1      9384    2099.6      9438    2099.9      9493    2100.2      9543
GR   2100.5      9596    2100.9      9624    2106.9      9647    2107.2      9662    2106.8      9693
GR   2106.2      9707    2102.4      9728    2101.7      9762    2101.2      9788    2101.2      9832
GR   2101.1      9886    2100.3      9904    2098.8      9919    2098.6      9934    2101.0      9939
GR   2096.0      9948    2095.4      9954    2095.2      9965    2096.0      9979    2095.7     10000
GR   2099.2     10007    2099.2     10040    2098.1     10042    2098.2     10065    2099.2     10088
GR   2099.8     10155    2099.6     10209    2099.2     10251    2098.0     10299    2096.3     10317
GR   2097.8     10334    2097.6     10367    2097.0     10381    2096.4     10417    2093.0     10431
GR   2093.0     10444    2094.6     10458    2094.7     10468    2095.1     10477    2096.5     10487
GR   2096.8     10508    2093.2     10530    2093.3     10540    2096.9     10570    2101.2     10603
GR   2104.4     10627    2107.2     10654    2108.1     10674    2108.3     10698    2108.4     10733
GR   2107.3     10752    2106.2     10782    2105.8     10806    2104.7     10820    2101.3     10840
GR   2099.6     10859    2098.3     10882    2096.7     10922    2095.5     10932    2095.3     10958
GR   2092.3     10971    2091.7     10994    2096.6     11006    2094.2     11019    2097.7     11031
GR   2098.6     11065    2100.9     11087

NC     .060      .060      .020       0.3       0.5

ET                          7.11                                   9881     10099
X1     25.70        21      9881     10099       200       750     396
X3        10                                                     2110.7    2112.0
GR   2108.3      9805    2108.0      9854    2099.0      9881    2098.8      9959    2099.0     10000
GR   2098.9     10036    2098.9     10099    2098.8     10197    2110.1     10227    2110.8     10263
GR   2110.8     10300    2110.7     10338    2110.9     10373    2110.9     10410      2108     10740
GR      2108    10800      2106     10880      2106     10950      2116     11010      2116     11070
GR      2106    11340
```

Cross Section 25.72 is immediately Upstream of New River Bridge
Bridge skew has been incorporated by computing distance and effective
area based on a projection normal to flow direction.
The GR record data that lie outside the bridge and adjacent embankments
have not been skewed.
This method is different than that used for the Carefree Highway Bridge,
where the entire set of GR record data are skewed by a constant factor.

```
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QT        2      7800      7800

SB      0.9       1.6       2.6         0       197        16      1410         2    2099.2    2099.0
ET                 9.11      9.11                                                      9990     10227
X1     25.72        47      9990     10227      79.7      79.7      79.7
X2                               1    2109.0    2114.5         0         0      1.33
X3        10                                                     2109.8    2111.6
BT        -9      10030    2109.8                10058    2110.0                10087    2110.3
BT                10115    2110.5                10143    2110.7                10171    2111.0
BT                10200    2111.2                10228    2111.4                10256    2111.6
GR   2109.9      9144    2106.1      9200    2102.4      9282    2101.6      9293    2100.2      9339
GR   2098.5      9390    2096.3      9412    2093.5      9425    2093.6      9433    2099.2      9452
GR   2101.1      9492    2102.1      9545    2102.5      9597    2102.6      9644    2102.1      9681
GR   2101.8      9709    2100.8      9730    2102.5      9751    2103.1      9775    2103.6      9810
GR   2106.3      9822    2106.6      9831    2105.8      9834    2105.5      9861    2106.3      9865
GR   2106.0      9874    2104.7      9878    2104.9      9900    2108.9      9910    2109.0      9922
GR   2108.9      9963    2099.5      9990    2099.2     10000    2099.9     10074    2100.4     10145
GR   2100.6     10227    2100.1     10315    2111.0     10331    2111.3     10372    2111.2     10431
GR   2110.1     10490      2110     10550      2113     10570      2113     10610      2109     10770
GR      2108    10950      2108     11320

NC     .055      .055      .032
```

The ET station in the right overbank was judged to be the limit for
effective flow. The ET station on the left was set at where flow
could begin to breakout out to the east. The flow that breakouts
to the east will be modeled separatley. The discharge for the main
branch of Skunk Creek isn't being reduced by the flow that breakouts
to the east, because during flood events the east bank could easily
be elevated to contain flow in the main branch of Skunk Creek.

```
ET                 9.1       7.1                                   9914     10040     9914     10327
X1     25.83        75      9914     10040       600       145    612.5
GR   2120.4      9162    2114.5      9211    2109.9      9263    2108.9      9290    2107.8      9328
GR   2106.5      9372    2103.6      9395    2106.3      9420    2108.1      9450    2109.1      9502
GR   2108.8      9536    2109.2      9569    2108.7      9592    2107.9      9604    2108.9      9618
GR   2109.6      9668    2110.4      9705    2110.5      9758    2111.0      9812    2110.6      9853
GR   2110.8      9906    2111.8      9914    2110.2      9938    2108.1      9966    2106.0     10000
GR   2105.1     10012    2105.3     10025    2112.7     10040    2111.0     10048    2111.1     10092
GR   2110.8     10157    2109.6     10190    2110.4     10217    2109.9     10245    2110.7     10299
GR   2113.0     10312    2113.3     10327    2113.7     10343    2113.6     10361    2113.1     10375
GR   2111.3     10387    2111.1     10441    2110.5     10482    2110.8     10503    2111.1     10535
```

```
GR   2110.7      10556     2110.0      10612      2108.4      10639      2109.7      10665      2110.1      10700
GR   2109.5      10738     2108.4      10759      2108.1      10779      2108.8      10805      2109.2      10831
GR   2108.6      10856     2109.7      10900      2110.1      10946      2109.6      10987      2109.2      11018
GR   2109.6      11025     2109.0      11062      2108.7      11099      2108.2      11124      2106.6      11135
GR   2108.1      11149     2106.3      11202      2104.6      11211      2104.6      11220      2107.0      11228
GR   2108.0      11262     2109.4      11305      2110.1      11347      2110.5      11359      2114.0      11456

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NC                                                 0.1         0.3
```

The ET station in the right overbank was judged to be the limit for effective flow in the overbank. The ET station on the left was set at where could begin to breakout to the east.

```
ET                  9.1        7.1                                          9923       10064        9923       10616
X1    25.95         91       9986      10057        600        625       620.6
GR   2150.7       8862     2150.4       8964     2150.1       8996      2148.4       9049     2146.4       9088
GR   2142.8       9120     2137.7       9145     2132.5       9163      2128.8       9186     2125.7       9218
GR   2123.2       9254     2119.8       9297     2117.2       9322      2116.1       9353     2116.6       9368
GR   2115.7       9416     2115.9       9426     2115.4       9474      2112.1       9487     2114.1       9494
GR   2113.7       9507     2111.4       9517     2111.4       9520      2115.0       9529     2116.1       9568
GR   2115.2       9609     2114.0       9623     2115.1       9634      2115.8       9657     2116.6       9681
GR   2115.6       9694     2116.5       9727     2117.5       9777      2117.4       9802     2117.8       9841
GR   2117.6       9912     2119.0       9923     2118.9       9936      2117.6       9941     2117.5       9969
GR   2118.1       9986     2110.8      10000     2110.4      10020      2113.5      10032     2114.2      10046
GR   2117.7      10057     2119.5      10072     2119.9      10096      2119.4      10103     2119.1      10132
GR   2117.6      10144     2117.5      10154     2119.2      10169      2119.1      10217     2118.1      10258
GR   2118.8      10282     2118.9      10315     2118.6      10363      2116.5      10380     2116.4      10387
GR   2117.4      10398     2117.6      10425     2117.2      10461      2116.9      10490     2116.0      10512
GR   2116.2      10538     2115.9      10580     2116.3      10593      2116.8      10616     2116.5      10644
GR   2116.2      10658     2116.1      10680     2116.1      10729      2115.9      10781     2115.7      10829
GR   2115.5      10882     2115.9      10993     2115.8      11030      2115.0      11108     2114.4      11161
GR   2113.5      11189     2110.3      11205     2110.5      11222      2112.9      11235     2109.1      11242
GR   2109.1      11249     2112.8      11264     2114.5      11290      2117.0      11327     2118.6      11367
GR   2123.3      11510
```

The ET station for the flow in the right overbank was judged to be the maximum limit for effective flow.

```
ET                  9.1        7.1                                          9969       10052                  10472
QT        2        7800       7800
X1    26.17         64       9967      10039       1225       1040      1132.0
GR   2160.5       9322     2160.3       9339     2159.0       9377      2158.6       9388     2155.2       9405
GR   2153.6       9419     2152.8       9457     2152.1       9498      2151.4       9556     2150.9       9605
GR   2149.4       9633     2148.4       9670     2147.7       9709      2146.4       9766     2145.2       9786
GR   2143.3       9832     2142.1       9867     2141.5       9891      2140.9       9927     2138.3       9940
GR   2136.6       9957     2132.3       9967     2122.5       9980      2121.9       9988     2121.7      10000
GR   2128.2      10020     2129.9      10039     2131.5      10063      2131.2      10085     2131.5      10098
GR   2130.8      10122     2129.5      10141     2130.1      10155      2130.2      10165     2131.5      10194
GR   2131.8      10227     2131.3      10274     2130.2      10286      2128.2      10302     2129.3      10313
GR   2130.8      10335     2131.2      10373     2129.7      10391      2128.3      10403     2129.7      10418
GR   2132.6      10448     2131.9      10472     2132.9      10501      2133.3      10535     2133.4      10566
GR   2132.5      10609     2131.9      10640     2131.7      10651      2132.7      10668     2134.4      10720
GR   2135.1      10759     2136.1      10820     2136.5      10860      2136.0      10933     2136.4      10948
GR   2136.2      10973     2135.2      10990     2133.2      11036      2131.6      11050
1
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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


 *PROP 1
0

 CCHV=      .300 CEHV=      .500
 *SECNO 13.000
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=      9820.0    10065.0  TYPE=       1  TARGET=       245.000
     13.000       4.48    1522.98    1522.98    1522.98    1525.23       2.25        .00        .00    1527.00
    13163.1        .0    13163.1        .0         .0     1093.2         .0         .0         .0  100000.00
        .00        .00      12.04       .00       .000       .025       .000       .000    1518.50    9820.24
    .005829        0.         0.         0.          0          4          0        .00     244.53   10064.76


 *SECNO 13.020

 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=      9820.0    10065.0  TYPE=       1  TARGET=       245.000
     13.020       5.39    1524.39    1523.47    1524.39    1525.94        .50        .21    1527.00
    13163.1        .0    13163.1        .0         .0     1316.1         .0        3.3         .7  100000.00
        .00        .00      10.00       .00       .000       .025       .000       .000    1519.00    9820.16
    .003171      120.       120.      120.         19          5          0        .00     244.67   10064.84


 CCHV=      .300 CEHV=      .500
 *SECNO 13.040

 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=      9537.0    10350.0  TYPE=       1  TARGET=       813.000
     13.040       7.85    1525.95       .00    1525.95    1526.53        .58        .30        .29    1528.00
    13163.1        .0    13163.1        .0         .0     2145.5         .0        7.3        1.4    1527.10
        .01        .00       6.14       .00       .000       .040       .000       .000    1518.10    9731.08
    .002864      100.       100.      100.          5          0          0        .00     394.62   10125.70
```

```
CCHV=     .100 CEHV=     .300
*SECNO 13.080

3470 ENCROACHMENT STATIONS=     9550.0   10679.0  TYPE=      1  TARGET=     1129.000
1
   26JUN98      11:17:35                                                                                                PAGE   41

    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

    13.080      8.73   1526.93        .00   1526.93   1527.13        .20        .56        .04   1524.20
   13163.1    382.5   10462.2     2318.3     193.3     2709.9      893.6      23.0        5.3   1523.50
       .03      1.98      3.86       2.59      .069      .050       .044       .000   1518.20   9550.00
   .002106    230.      230.       230.         2         0          0        .00   1095.47  10645.47

CCHV=     .100 CEHV=     .300
*SECNO 13.160

3265 DIVIDED FLOW

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .64

3470 ENCROACHMENT STATIONS=     9421.0   10816.0  TYPE=      1  TARGET=     1395.000
    13.160      6.64   1528.14        .00   1528.14   1528.50        .36       1.32        .05   1526.00
   13163.1    3734.2    7775.9     1652.9     891.0     1437.7      529.6      55.2       17.0   1526.20
       .05      4.19      5.41       3.12      .038      .052       .042       .000   1521.50   9421.00
   .005155    420.      421.       425.         3         0          0        .00   1310.31  10794.75

*SECNO 13.280

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=     9537.0   10802.0  TYPE=      1  TARGET=     1265.000
    13.280      9.91   1532.51   1532.24   1532.51   1533.21        .70       4.61        .10   1530.90
   15700.0    2428.2    8742.6     4529.2     306.9     1283.2      794.6      88.6       33.0   1531.20
       .07      7.91      6.81       5.70      .038      .052       .042       .000   1522.60   9537.00
   .013778    390.      600.       610.        11        12          0        .00   1230.26  10801.64

*SECNO 13.400

3265 DIVIDED FLOW

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.38

    13.400     10.92   1537.72        .00   1537.72   1538.06        .34       4.82        .04   1537.60
   23300.0    3696.3   11361.7     8241.9     960.9     2330.8     1720.4     143.2       57.1   1537.50
       .11      3.85      4.87       4.79      .038      .052       .042       .000   1526.80   8963.18
   .005377    650.      679.       590.         7         0          0        .00   2079.32  11082.48

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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

*SECNO 13.550

3265 DIVIDED FLOW

    13.550     10.89   1543.09        .00   1543.09   1543.69        .60       5.55        .08   1543.10
   23300.0   11067.7   12232.2         .1    1609.1    2216.4         .2     222.9       90.5   1543.00
       .15      6.88      5.52        .45      .038      .052       .042       .000   1532.20   8752.06
   .009761    740.      787.       850.         2         0          0        .00   1648.66  10497.65

*SECNO 13.660

3470 ENCROACHMENT STATIONS=     8335.0   10646.0  TYPE=      1  TARGET=     2311.000
    13.660      7.45   1547.65        .00   1547.65   1548.17        .52       4.47        .01   1545.40
   23300.0   13742.7    9557.3         .0    2066.5    2253.0         .0     272.2      112.0   1548.60
       .17      6.65      4.24        .00      .038      .052       .000       .000   1540.20   8570.05
   .007557    500.      549.       540.         3         0          0        .00   1912.62  10482.67

*SECNO 13.860

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=     8212.0   10433.0  TYPE=      1  TARGET=     2221.000
    13.860      9.43   1555.73        .00   1555.73   1556.28        .55       8.10        .01   1556.10
   23300.0    8959.8   13139.5     1200.7    1371.1    2351.5      249.6     372.5      155.9   1555.70
       .22      6.53      5.59       4.81      .038      .052       .042       .000   1546.30   8257.22
   .007811   1060.     1049.      1050.         5         0          0        .00   1715.14  10262.97

*SECNO 14.070

3265 DIVIDED FLOW
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3470 ENCROACHMENT STATIONS=      8530.0   10608.0  TYPE=      1  TARGET=     2078.000
   14.070      6.92   1564.42       .00   1564.42   1565.01       .60      8.72       .01   1564.30
  23300.0   16022.4    4983.9    2293.7    2542.7     745.2     580.6     470.4     200.8   1564.50
      .27      6.30      6.69      3.95      .038      .052      .042      .000   1557.50   8615.59
  .008252     1050.     1134.     1100.         5         0         0       .00   1909.12  10528.49
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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

*SECNO 14.300

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   14.300     14.39   1573.99   1573.99   1573.99   1574.90       .91      9.15       .09   1571.60
  23300.0    4606.0    9236.3    9457.8    1110.2     889.1    1723.4     567.5     251.5   1570.00
      .31      4.15     10.39      5.49      .038      .052      .042      .000   1559.60   8677.95
  .008053     1010.     1214.     1210.        10        22         0       .00   2146.54  10865.72

*SECNO 14.540

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=      9283.0   10588.0  TYPE=      1  TARGET=     1305.000
   14.540     11.64   1583.24       .00   1583.24   1584.12       .88      9.22       .00   1581.90
  23300.0      49.4   23250.2        .4      25.6    3089.0        .5     666.8     292.8   1583.00
      .36      1.93      7.53       .70      .038      .052      .042      .000   1571.60   9705.41
  .006663     1410.     1273.     1150.         4         0         0       .00    620.61  10484.50

CCHV=     .100 CEHV=     .300
*SECNO 14.740

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   14.740      9.39   1591.09   1591.09   1591.09   1593.15      2.06      8.49       .35   1587.30
  23300.0   10449.9   12191.1     659.0    1632.0     828.7     118.5     738.8     308.5   1588.30
      .39      6.40     14.71      5.56      .059      .039      .042      .000   1581.70   9533.07
  .009164     1180.     1071.      970.         3        13         0       .00    616.16  10149.23

*SECNO 14.890
   14.890     13.48   1596.68   1596.03   1596.68   1598.40      1.72      5.22       .03   1591.90
  23300.0    8643.6   14655.4       1.0    1700.7    1155.8       1.3     783.8     318.1   1596.40
      .41      5.08     12.68       .71      .059      .039      .042      .000   1583.20   9518.21
  .005683      700.      756.      760.         7        11         0       .00    550.50  10068.71
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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

*SECNO 15.060

3301 HV CHANGED MORE THAN HVINS

   15.060     11.06   1602.36       .00   1602.36   1603.57      1.21      5.11       .05   1602.20
  23300.0      826.3   21127.8    1345.9     291.6    2310.5     237.7     838.7     330.1   1601.40
      .44      2.83      9.14      5.66      .059      .039      .042      .000   1591.30   9736.51
  .005969      670.      930.      950.         3         0         0       .00    755.91  10492.42

*SECNO 15.120

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      9503.0   10546.0  TYPE=      1  TARGET=     1043.000
   15.120      9.26   1604.66   1604.66   1604.66   1606.47      1.81      2.28       .18   1604.10
  23300.0     537.9   20321.1    2441.0     201.3    1795.8     363.2     855.8     335.2   1601.50
      .45      2.67     11.32      6.72      .059      .039      .042      .000   1595.40   9745.79
  .011106      255.      284.      330.         2         9         0       .00    789.48  10535.27

*SECNO 15.220

3470 ENCROACHMENT STATIONS=      9749.0   10672.0  TYPE=      1  TARGET=      923.000
   15.220     11.14   1610.04       .00   1610.04   1611.52      1.47      5.01       .03   1609.10
  23300.0      16.3   20655.9    2627.7      12.5    2037.8     451.9     887.1     344.1   1607.80
      .46      1.31     10.14      5.82      .059      .039      .042      .000   1598.90   9950.28
  .007416      535.      553.      600.         3         0         0       .00    597.88  10548.16

*SECNO 15.410
   15.410      9.32   1616.92       .00   1616.92   1618.62      1.70      7.04       .07   1615.10
  23300.0       9.8   23229.7      60.5       5.1    2215.9      19.0     939.7     355.1   1614.70
      .49      1.93     10.48      3.19      .059      .039      .042      .000   1607.60   9973.43
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   .007131      980.      969.      950.         3         0         0       .00    396.66  10370.09

*SECNO 15.550
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
1
   26JUN98      11:17:35                                                                                PAGE   45

    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

   15.550      9.13   1622.53   1622.53   1622.53   1624.72      2.19      5.90       .15   1619.50
  23300.0    1329.8   18659.4   3310.8     278.3    1442.3     521.2     977.2     362.6   1619.40
      .51      4.78     12.94      6.35      .059      .039      .042      .000   1613.40   9832.84
  .008992      730.      755.      550.         2         5         0       .00    525.23  10358.08

*SECNO 15.750

3301 HV CHANGED MORE THAN HVINS

   15.750     13.67   1629.97       .00   1629.97   1631.23      1.26      6.41       .09   1625.70
  23300.0    9894.0   12979.1     426.8    2049.7    1149.6     125.0    1039.6     376.8   1627.50
      .54      4.83     11.29      3.41      .059      .039      .042      .000   1616.30   9428.94
  .004749      880.     1048.     1030.         2         0         0       .00    768.87  10197.80

*SECNO 15.890

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   15.890      8.21   1635.01   1635.01   1635.01   1636.85      1.85      5.12       .18   1633.20
  23300.0    7082.1   16194.2     23.7    1254.4    1292.1       7.6    1087.9     388.9   1633.50
      .56      5.65     12.53      3.14      .059      .039      .042      .000   1626.80   9481.37
  .011631      700.      738.      730.         3        14         0       .00    712.40  10220.04

*SECNO 16.070
   16.070      9.48   1643.78       .00   1643.78   1645.58      1.80      8.72       .00   1640.10
  23300.0    6758.9   16536.2      4.9    1206.4    1348.0       4.2    1144.5     402.5   1643.30
      .58      5.60     12.27      1.17      .059      .039      .042      .000   1634.30   9635.05
  .007308      980.      950.      840.         4         0         0       .00    512.27  10147.32

*SECNO 16.190
   16.190     10.81   1648.31       .00   1648.31   1649.95      1.63      4.35       .02   1644.40
  23300.0    9523.3   13776.7        .0    1865.5    1088.9        .0    1181.7     410.7   1652.00
      .60      5.10     12.65       .00      .059      .039      .000      .000   1637.50   9316.73
  .006993      540.      646.      660.         3         0         0       .00    751.98  10068.71

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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

*SECNO 16.270
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.270     12.38   1651.78   1651.78   1651.78   1653.84      2.06      3.71       .13   1650.20
  23300.0    4343.6   18956.4        .0     814.2    1516.2        .0    1206.6     417.3   1654.90
      .61      5.33     12.50       .00      .059      .039      .000      .000   1639.40   9399.10
  .011823      400.      422.      425.         4        11         0       .00    643.18  10042.28

*SECNO 16.490

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.51

   16.490      8.33   1661.63       .00   1661.63   1662.62       .99      8.67       .11   1659.20
  23300.0     197.9   10203.8   12898.3      68.0    1212.2    1686.0    1277.0     434.4   1659.50
      .65      2.91      8.42      7.65      .059      .039      .042      .000   1653.30   9861.13
  .005177     1190.     1154.     1150.         5         0         0       .00    642.89  10504.02

CCHV=      .100 CEHV=      .300
*SECNO 16.680
   16.680      6.87   1668.17       .00   1668.17   1669.20      1.03      6.57       .01   1673.50
  23300.0        .0   23295.8      4.2        .0    2855.4       2.5    1346.8     450.0   1666.80
      .69       .00      8.16      1.72      .000      .043      .057      .000   1661.30   9939.05
  .007845      940.      998.     1160.         3         0         0       .00    654.54  10593.60

CCHV=      .300 CEHV=      .500
*SECNO 16.860
3280 CROSS SECTION      16.86 EXTENDED        .76 FEET

3301 HV CHANGED MORE THAN HVINS
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7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1683.30 ELREA= 1679.75

16.860	7.76	1678.96	1678.96	1678.96	1681.95	3.00	8.71	.98	1686.00
23700.0	.0	23700.0	.0	.0	1705.9	.0	1398.2	460.9	1685.90
.71	.00	13.89	.00	.000	.033	.000	.000	1671.20	9787.12
.010120	990.	981.	880.	2	12	0	.00	314.84	10101.96

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.05	1.56	2.70	.00	285.00	10.50	4102.00	2.00	1671.20	1671.20

*SECNO 16.870
3280 CROSS SECTION 16.87 EXTENDED .66 FEET

CLASS A LOW FLOW

3420 BRIDGE W.S.= 1678.71 BRIDGE VELOCITY= 10.90 CALCULATED CHANNEL AREA= 2175.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	1682.38	.95	0.	23700.	4102.	3874.	1684.10	1688.08	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1683.30 ELREA= 1679.75

16.870	7.76	1678.96	.00	1678.96	1682.38	3.43	.43	.00	1685.70
23700.0	.0	23700.0	.0	.0	1595.4	.0	1399.9	461.2	1685.80
.71	.00	14.86	.00	.000	.033	.000	.000	1671.20	9805.12
.012500	44.	44.	44.	0	0	0	.00	312.16	10117.29

CCHV= .100 CEHV= .300
*SECNO 16.960

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.14

3470 ENCROACHMENT STATIONS= 9506.0 11080.0 TYPE= 1 TARGET= 1574.000

16.960	8.94	1684.24	.00	1684.24	1684.94	.70	2.28	.27	1684.00
23700.0	8233.2	15050.0	416.8	1917.2	1938.5	151.0	1428.4	466.9	1685.30
.73	4.29	7.76	2.76	.059	.033	.042	.000	1675.30	9569.87
.002738	410.	456.	600.	3	0	0	.00	782.28	10584.47

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 17.060

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9451.0 10899.0 TYPE= 1 TARGET= 1448.000

17.060	11.26	1688.86	1688.86	1688.86	1690.67	1.81	2.21	.33	1685.20
23700.0	8054.7	14766.0	879.3	1580.1	1125.0	325.7	1476.0	478.2	1685.30
.74	5.10	13.12	2.70	.059	.033	.042	.000	1677.60	9519.25
.005575	630.	566.	440.	20	11	0	.00	983.41	10650.89

CCHV= .100 CEHV= .300
*SECNO 17.180

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9590.0 10839.0 TYPE= 1 TARGET= 1249.000

17.180	9.81	1694.41	1694.41	1694.41	1696.04	1.64	4.43	.02	1690.90
23700.0	3195.1	19243.7	1261.2	539.0	1733.9	358.1	1514.6	490.6	1691.90
.76	5.93	11.10	3.52	.048	.046	.048	.000	1684.60	9665.71
.010302	610.	601.	510.	3	15	0	.00	913.57	10765.79

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*SECNO 17.300

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     9451.0   11686.0  TYPE=      1  TARGET=     2235.000
   17.300      9.79   1700.59      .00   1700.59   1701.52      .93      5.40      .07   1697.20
  23700.0    4459.8   12209.6   7030.6     890.2    1252.3   1531.5    1559.6    507.8   1697.90
      .78      5.01      9.75     4.59      .048      .046     .048      .000  1690.80   9594.52
 .007232      630.      644.     580.         2         0        0       .00  1567.44  11344.66
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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

*SECNO 17.390
3280 CROSS SECTION     17.39 EXTENDED       .67 FEET

3470 ENCROACHMENT STATIONS=     9731.0   11369.0  TYPE=      1  TARGET=     1638.000
   17.390      8.96   1704.66   1704.54   1704.66   1705.73     1.07      4.17      .04   1703.00
  23700.0     282.6   15356.2   8061.1      93.0    1577.1   1761.6    1601.1    526.0   1702.30
      .80      3.04      9.74     4.58      .048      .046     .048      .000  1695.70   9784.11
 .009480      465.      500.     530.         4         9        0       .00  1515.12  11299.23

CCHV=     .100 CEHV=     .300
*SECNO 17.480
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9404.0   11597.0  TYPE=      1  TARGET=     2193.000
   17.480      8.85   1709.25   1709.25   1709.25   1710.29     1.05      3.51      .00   1706.60
  27300.0    3637.1   13743.7   9919.2     931.7    1253.7   2686.8    1642.0    543.0   1705.40
      .82      3.90     10.96     3.69      .060      .042     .060      .000  1700.40   9488.92
 .007268      429.      429.     429.         2         6        0       .00  1925.64  11414.56

*SECNO 17.570
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   17.570     11.29   1713.69   1713.69   1713.69   1715.03     1.34      3.26      .09   1708.00
  27300.0    5458.5   13334.6   8506.9    1122.1    1062.5   2136.2    1690.9    561.2   1708.90
      .83      4.86     12.55     3.98      .060      .042     .060      .000  1702.40   9516.45
 .006775      365.      474.     500.         4        12        0       .00  1487.53  11003.98

*SECNO 17.650
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   17.650     14.01   1717.21   1717.21   1717.21   1718.72     1.51      2.74      .05   1709.30
  27300.0    6558.3   14323.8   6417.9    1603.3    1096.6   1593.3    1735.3    576.2   1709.60
      .85      4.09     13.06     4.03      .060      .042     .060      .000  1703.20   9423.70
 .005462      370.      461.     500.         4        12        0       .00  1379.96  10803.66

*SECNO 17.780
1
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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=     9628.0   10607.0  TYPE=      1  TARGET=      979.000
   17.780      9.11   1721.91      .00   1721.91   1723.20     1.29      4.45      .02   1720.30
  27300.0    3904.4    9614.5  13781.1     769.1     742.8   2160.9    1793.6    593.3   1715.90
      .87      5.08     12.94     6.38      .060      .042     .060      .000  1712.80   9642.06
 .008840      490.      661.     720.         4         0        0       .00   959.09  10601.15

*SECNO 17.840
   17.840      7.67   1724.77      .00   1724.77   1726.18     1.41      2.94      .03   1722.70
  27300.0    1755.8   18756.8   6787.4     375.5    1708.9   1335.1    1819.8    600.5   1722.70
      .88      4.68     10.98     5.08      .060      .042     .060      .000  1717.10   9745.39
 .009181      310.      342.     310.         3         0        0       .00  1008.18  10753.57

*SECNO 17.950

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   17.950     10.27   1729.77   1729.77   1729.77   1731.52     1.75      5.10      .10   1726.50
  27300.0     474.3   16906.9   9918.8     107.0    1317.6   1859.6    1861.2    612.8   1727.40
      .89      4.43     12.83     5.33      .060      .042     .060      .000  1719.50   9818.68
 .009424      500.      564.     520.         4        11        0       .00  1027.29  11097.62

*SECNO 18.090
```

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.41

```
    18.090     11.36   1734.86       .00   1734.86   1735.43       .57      3.79       .12   1730.50
   27700.0    1875.0   13868.3   11956.7     376.2    1901.8    2702.4    1910.9     626.3   1733.00
       .92      4.98      7.29      4.42      .060      .042      .060      .000   1723.50   9853.20
   .004895      713.      706.      375.         3         0         0       .00   1506.08  11359.28
```

*SECNO 18.160

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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
```

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

```
    18.160      7.75   1736.55   1736.55   1736.55   1738.36      1.81      2.55       .37   1735.20
   27700.0    1682.5   13934.0   12083.5     281.4    1025.1    1725.2    1944.5     636.6   1739.00
       .93      5.98     13.59      7.00      .055      .030      .055      .000   1728.80   9722.46
   .010557      345.      378.      360.         3        19         0       .00    949.15  10711.09
```

FLOW DISTRIBUTION FOR SECNO= 18.16 CWSEL= 1736.55

```
STA=     9722.     9775.     9836.    10075.    10199.    10330.    10380.    10430.    10650.    10711.
  PER Q=      3.5       2.6      50.3       3.3      17.9      11.5       6.2       4.6        .1
   AREA=    145.8     135.6    1025.1     183.7     628.8     327.5     227.5     341.0      16.8
    VEL=      6.6       5.3      13.6       5.0       7.9       9.7       7.6       3.7       1.2
  DEPTH=      2.8       2.2       4.4       1.5       4.8       6.5       4.5       1.5        .3
```

*SECNO 18.230
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

```
    18.230     11.75   1741.75   1741.75   1741.75   1743.29      1.54      2.78       .03   1738.00
   27700.0    6722.2   16427.1    4550.6    1183.2    1333.1    1503.6    1975.5     646.6   1738.80
       .94      5.68     12.32      3.03      .055      .030      .055      .000   1730.00   9543.01
   .005386      370.      370.      400.        20        14         0       .00   1309.37  10852.37
```

*SECNO 18.290

3265 DIVIDED FLOW

```
    18.290     10.46   1743.06   1742.91   1743.06   1744.89      1.83      1.52       .09   1738.30
   27700.0    9127.7   14165.2    4407.1    1540.8    1000.5     897.1    1998.3     654.2   1739.90
       .95      5.92     14.16      4.91      .055      .030      .055      .000   1732.60   9575.47
   .005736      200.      300.      310.         6        12         0       .00   1039.14  10645.45
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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
```

*SECNO 18.490

```
    18.490      9.18   1750.88       .00   1750.88   1752.33      1.45      7.40       .04   1747.40
   27700.0    1841.2   15733.2   10125.6     314.7    1346.9    1665.7    2077.7     675.1   1746.90
       .98      5.85     11.68      6.08      .055      .042      .055      .000   1741.70   9739.73
   .008923     1163.     1100.      850.         3         0         0       .00    848.14  10587.87
```

*SECNO 18.570
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

```
    18.570     10.58   1754.08   1754.08   1754.08   1755.87      1.79      3.12       .10   1752.50
   27700.0   13908.1    9457.9    4334.0    1482.0     672.7     909.0    2112.4     686.0   1751.50
       .99      9.38     14.06      4.77      .040      .030      .040      .000   1743.50   9637.06
   .006000      275.      389.      675.         4        11         0       .00    920.13  10557.19
```

*SECNO 18.740
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9321.0 10244.0 TYPE= 1 TARGET= 923.000

```
    18.740     10.17   1760.57   1760.57   1760.57   1762.15      1.58      5.82       .02   1757.70
   27300.0   20362.1    6760.9     177.0    2090.7     603.2      48.3    2163.7     701.3   1758.70
       1.02      9.74     11.21      3.66      .040      .030      .040      .000   1750.40   9330.44
   .009275      750.      918.      650.         3        10         0       .00    875.64  10206.07
```

*SECNO 18.840

3470 ENCROACHMENT STATIONS= 9470.0 10165.0 TYPE= 1 TARGET= 695.000

```
    18.840      8.99   1764.69   1764.59   1764.69   1766.59      1.90      4.34       .09   1763.20
   27300.0   16833.1    9395.7    1071.2    1807.1     669.9     205.6    2194.3     709.9   1762.60
       1.03      9.31     14.02      5.21      .040      .030      .040      .000   1755.70   9474.25
   .008296      500.      497.      325.         6        15         0       .00    684.70  10158.95
```

*SECNO 18.960

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

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SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	L-BANK ELEV R-BANK ELEV SSTA ENDST
18.960	9.14	1771.34	1771.34	1771.34	1772.72	1.38	3.50	.05	1768.00
27300.0	8975.3	10638.0	7686.7	1571.6	791.1	1458.8	2236.7	723.8	1766.30
1.05	5.71	13.45	5.27	.040	.030	.040	.000	1762.20	9450.36
.004639	525.	632.	600.	20	8	0	.00	1432.78	10883.15

*SECNO 19.070

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

19.070	10.33	1775.13	1775.13	1775.13	1776.42	1.30	3.56	.01	1771.90
27300.0	14771.6	8965.4	3563.0	1565.5	910.1	687.1	2285.3	742.3	1773.10
1.07	9.44	9.85	5.19	.031	.045	.031	.000	1764.80	9295.43
.007459	680.	601.	500.	4	11	0	.00	1357.34	10732.67

*SECNO 19.180
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

19.180	10.34	1780.34	1780.34	1780.34	1782.02	1.67	4.72	.11	1779.40
27300.0	16148.9	11151.1	.0	1559.9	1071.9	.0	2321.1	756.2	1781.10
1.08	10.35	10.40	.00	.031	.045	.000	.000	1770.00	9242.08
.010909	460.	599.	720.	2	5	0	.00	834.35	10076.44

*SECNO 19.260

3470 ENCROACHMENT STATIONS= 9391.0 10110.0 TYPE= 1 TARGET= 719.000

19.260	11.76	1784.76	1784.67	1784.76	1786.60	1.84	4.54	.05	1778.20
27300.0	21974.0	4805.9	520.1	1966.8	489.2	79.4	2349.0	764.7	1782.70
1.09	11.17	9.82	6.55	.031	.045	.031	.000	1773.00	9392.03
.008472	500.	416.	300.	4	11	0	.00	717.97	10110.00

*SECNO 19.410

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

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SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	L-BANK ELEV R-BANK ELEV SSTA ENDST
19.410	8.20	1790.80	.00	1790.80	1791.76	.96	5.07	.09	1789.40
27300.0	3064.9	8120.1	16115.0	678.8	742.2	2539.1	2401.9	778.4	1788.60
1.12	4.52	10.94	6.35	.050	.032	.055	.000	1782.60	9597.37
.006293	600.	769.	790.	3	0	0	.00	1012.08	10628.82

*SECNO 19.520

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9795.0 10814.0 TYPE= 1 TARGET= 1019.000

19.520	8.65	1794.85	1794.85	1794.85	1796.91	2.07	4.78	.33	1790.60
27300.0	1870.7	8011.6	17417.7	221.2	474.0	2088.7	2443.3	789.1	1793.40
1.13	8.46	16.90	8.34	.050	.032	.055	.000	1786.20	9900.45
.013328	700.	606.	485.	2	8	0	.00	680.58	10581.03

*SECNO 19.620

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9966.0 10788.0 TYPE= 1 TARGET= 822.000

19.620	10.53	1800.83	.00	1800.83	1802.06	1.23	5.06	.08	1803.90
27300.0	.0	9204.5	18095.5	.0	757.0	2712.9	2481.3	797.7	1798.20
1.15	.00	12.16	6.67	.000	.032	.055	.000	1790.30	9983.79
.007208	515.	528.	530.	4	0	0	.00	746.74	10730.53

*SECNO 19.720

3301 HV CHANGED MORE THAN HVINS

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7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    19.720      9.92   1805.02   1805.02   1805.02   1806.84      1.82      3.75       .18   1800.70
   27300.0    4636.5   10630.0   12033.5     632.1     697.4    1916.4    2520.0     806.4   1801.80
      1.16      7.33     15.24      6.28      .050      .032      .055      .000   1795.10   9802.87
   .007699      500.      510.      500.         3        10         0       .00    760.62  10563.49
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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

*SECNO 19.830
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    19.830     11.53   1810.83   1810.83   1810.83   1812.92      2.09      3.84       .08   1805.80
   27300.0    5220.7   14607.9    7471.4     889.1     976.1    1361.3    2562.2     816.1   1806.60
      1.18      5.87     14.97      5.49      .050      .032      .055      .000   1799.30   9727.16
   .006008      500.      568.      600.        20        12         0       .00    714.61  10441.77

*SECNO 19.920
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9220.0   10393.3  TYPE=      1  TARGET=     1173.310
    19.920     12.80   1814.80   1814.80   1814.80   1816.46      1.66      3.49       .04   1809.70
   27300.0    5610.7   14067.6    7621.7    1342.8    1047.4    1246.5    2599.8     825.3   1810.40
      1.19      4.18     13.43      6.11      .060      .042      .060      .000   1802.00   9220.00
   .008541      250.      492.      660.         3         8         0       .00   1173.26  10393.26

*SECNO 20.050

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

    20.050     10.00   1820.70       .00   1820.70   1821.23       .53      4.66       .11   1814.40
   27300.0   10783.9    4837.5   11678.5    2250.5     551.3    2246.4    2677.2     845.8   1816.00
      1.23      4.79      8.77      5.20      .060      .042      .060      .000   1810.70   9355.04
   .004622      815.      700.      770.         3         0         0       .00   1085.65  10473.75

*SECNO 20.160

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS
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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

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .51

    20.160      9.25   1824.75       .00   1824.75   1826.00      1.24      4.55       .21   1821.50
   27300.0    7504.0    4303.9   15492.1    1207.3     404.0    1624.2    2729.3     859.2   1823.60
      1.25      6.22     10.65      9.54      .060      .042      .060      .000   1815.50   9154.87
   .017887      450.      556.      635.         2         0         0       .00   1116.07  10489.67

*SECNO 20.260

3265 DIVIDED FLOW

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.51

    20.260      9.41   1831.31       .00   1831.31   1832.06       .76      6.02       .05   1828.20
   27300.0   12165.8    5313.7    9820.5    2235.2     522.8    1498.9    2774.1     873.0   1828.20
      1.27      5.44     10.16      6.55      .060      .032      .060      .000   1821.90   9154.12
   .007830      460.      532.      585.         3         0         0       .00   1253.31  10533.85

*SECNO 20.380

3265 DIVIDED FLOW

    20.380      9.79   1835.69       .00   1835.69   1836.48       .79      4.40       .01   1837.50
   27300.0   15282.8    4167.5    7849.7    2568.4     377.3    1191.4    2826.8     888.3   1835.90
      1.29      5.95     11.05      6.59      .060      .032      .060      .000   1825.90   9167.09
   .007981      475.      622.      650.         2         0         0       .00   1211.13  10428.94

*SECNO 20.480

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    20.480      9.08   1841.48   1841.48   1841.48   1842.84      1.35      4.23       .17   1840.60
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   27300.0    9893.8    9448.6    7957.6    2151.8     660.6    1468.6    2881.5     904.7   1838.60
      1.31      4.60     14.30      5.42      .060      .032      .060      .000   1832.40   9232.37
   .007209      600.      527.      520.         3        10         0       .00   1298.90  10531.27
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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

*SECNO 20.620
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   20.620      9.49   1848.79   1848.79   1848.79   1850.37      1.58      5.57       .07   1845.60
   27300.0    9433.4   11259.9    6606.7    2108.3     768.7    1322.3    2957.7     927.6   1844.30
      1.33      4.47     14.65      5.00      .060      .032      .060      .000   1839.30   9254.26
   .007122      915.      789.      580.         2         8         0       .00   1241.81  10496.07

CCHV=     .300 CEHV=     .500
*SECNO 20.640

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.71

   20.640      8.90   1850.90       .00   1850.90   1851.24       .34       .50       .37   1845.00
   27300.0    5086.6   19287.4    2926.0    1203.5    3993.6     656.9    2972.5     931.4   1844.00
      1.34      4.23      4.83      4.45      .045      .043      .045      .000   1842.00   9200.65
   .002446      113.      135.      138.         2         0         0       .00   1349.99  10550.64

CCHV=     .300 CEHV=     .500
*SECNO 20.710

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   20.710      9.87   1852.87   1852.87   1852.87   1854.18      1.31      1.85       .48   1852.00
   27300.0    9832.8   13632.8    3834.4    1793.7    1154.0     747.4    3015.9     944.0   1852.00
      1.36      5.48     11.81      5.13      .060      .038      .060      .000   1843.00   4124.87
   .012609      475.      370.      320.         3         8         0       .00   1391.07   5515.94

*SECNO 20.790

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.55
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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=     4240.0    5500.0  TYPE=      1  TARGET=     1260.000
   20.790      9.67   1857.17       .00   1857.17   1857.91       .74      3.56       .17   1855.00
   27300.0   10677.0   12912.2    3710.8    2436.3    1432.7     993.4    3062.2     958.7   1855.30
      1.37      4.38      9.01      3.74      .060      .038      .060      .000   1847.50   4240.00
   .005282      460.      422.      575.         2         0         0       .00   1260.00   5500.00

*SECNO 20.900

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     4090.0    5475.0  TYPE=      1  TARGET=     1385.000
   20.900      9.83   1862.43   1862.43   1862.43   1863.86      1.43      3.89       .35   1860.70
   27300.0    6308.4   17256.7    3734.9    1287.9    1494.3     870.9    3116.4     974.9   1860.90
      1.39      4.90     11.55      4.29      .060      .038      .060      .000   1852.60   4161.02
   .009407      570.      581.      480.         2         5         0       .00   1313.97   5475.00

*SECNO 20.980

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=     3955.0    5605.0  TYPE=      1  TARGET=     1650.000
   20.980     12.98   1866.18   1865.81   1866.18   1867.49      1.31      3.60       .04   1864.20
   27300.0    6665.9   19860.0     774.1    1425.5    1904.0     294.7    3151.1     987.1   1864.70
      1.41      4.68     10.43      2.63      .060      .038      .060      .000   1853.20   4128.74
   .007918      400.      422.      431.         9        11         0       .00   1250.99   5393.42

*SECNO 21.050
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     3875.0    5475.0  TYPE=      1  TARGET=     1600.000
   21.050     12.17   1869.77   1869.77   1869.77   1871.37      1.61      2.47       .15   1866.00
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  27300.0   10035.6   16576.0     688.4    2367.1    1313.8     302.8    3182.1     997.3   1866.00
     1.42      4.24     12.62      2.27      .060      .038      .060      .000   1857.60   4096.29
  .005991      340.      370.      380.         3        12         0       .00   1247.21   5343.50
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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       WIN     ELMIN   SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR   TOPWID  ENDST

*SECNO 21.110

3470 ENCROACHMENT STATIONS=     3950.0    5580.0  TYPE=      1  TARGET=     1630.000
   21.110     11.50   1872.00       .00   1872.00   1873.36      1.37      1.92       .07   1870.00
  27300.0    8555.5   18620.3     124.1    1925.7    1700.6      60.1    3207.4    1004.8   1870.00
     1.43      4.44     10.95      2.06      .060      .038      .060      .000   1860.50   4159.86
  .006934      260.      317.      370.         3         0         0       .00   1025.38   5185.24

*SECNO 21.180
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     4050.0    5700.0  TYPE=      1  TARGET=     1650.000
   21.180     11.07   1876.07   1876.07   1876.07   1877.60      1.53      2.42       .08   1872.00
  27300.0   11310.1   15557.7     432.1    2613.4    1234.0     147.4    3239.5    1013.8   1872.00
     1.44      4.33     12.61      2.93      .060      .038      .060      .000   1865.00   4050.00
  .006317      360.      370.      356.         5        10         0       .00   1152.57   5202.57

*SECNO 21.250
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     4025.0    5600.0  TYPE=      1  TARGET=     1575.000
   21.250     12.16   1880.86   1880.86   1880.86   1882.51      1.65      2.18       .06   1875.00
  27300.0    8227.4   17681.4    1391.3    2090.2    1414.0     636.5    3276.7    1025.7   1878.00
     1.45      3.94     12.50      2.19      .060      .038      .060      .000   1868.70   4179.23
  .005050      420.      370.      370.        20         8         0       .00   1420.77   5600.00

*SECNO 21.310

3470 ENCROACHMENT STATIONS=     4035.0    5485.0  TYPE=      1  TARGET=     1450.000
   21.310     11.94   1882.64       .00   1882.64   1883.90      1.27      1.28       .11   1878.00
  27300.0    6564.7   20390.6     344.7    1938.1    1986.8     131.9    3302.5    1032.9   1878.00
     1.46      3.39     10.26      2.61      .060      .038      .060      .000   1870.70   4175.94
  .003817      230.      317.      310.         2         0         0       .00    965.41   5141.35

*SECNO 21.350
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26JUN98      11:17:35

   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       WIN     ELMIN   SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR   TOPWID  ENDST

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     4070.0    5425.0  TYPE=      1  TARGET=     1355.000
   21.350     11.86   1883.36       .00   1883.36   1885.23      1.87      1.03       .30   1878.00
  27300.0   10970.8   16088.6     240.6    2116.9    1180.9      75.6    3320.2    1037.2   1878.00
     1.46      5.18     13.62      3.18      .060      .038      .060      .000   1871.50   4255.26
  .006535      205.      211.      220.         2         0         0       .00    829.04   5084.30

*SECNO 21.410

3470 ENCROACHMENT STATIONS=     4110.0    5290.0  TYPE=      1  TARGET=     1180.000
   21.410     12.55   1886.75       .00   1886.75   1888.30      1.55      2.97       .09   1882.00
  27300.0   15462.6   11066.4     771.0    2369.9     812.6     162.8    3352.8    1045.1   1880.00
     1.48      6.52     13.62      4.74      .060      .038      .060      .000   1874.20   4299.76
  .007627      422.      422.      422.         3         0         0       .00    799.93   5099.69

*SECNO 21.490

3470 ENCROACHMENT STATIONS=     4585.0    5515.0  TYPE=      1  TARGET=      930.000
   21.490      8.86   1890.86       .00   1890.86   1892.34      1.48      4.02       .02   1887.70
  27300.0    8514.5   12626.5    6159.0    1191.5    1039.8     882.9    3388.0    1053.3   1888.00
     1.49      7.15     12.14      6.98      .060      .038      .060      .000   1882.00   4616.35
  .009428      475.      475.      475.         3         0         0       .00    700.14   5316.50

*SECNO 21.580

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     4220.0    5630.0  TYPE=      1  TARGET=     1410.000
   21.580      8.70   1895.50       .00   1895.50   1896.45       .95      3.96       .16   1894.00
  27300.0    9056.0   16518.9    1725.1    1539.5    1834.6     525.2    3424.2    1063.0   1894.00
     1.51      5.88      9.00      3.28      .060      .038      .060      .000   1886.80   4335.33
  .007925      525.      475.      250.         2         0         0       .00   1294.67   5630.00
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*SECNO 21.630

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SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	L-BANK ELEV R-BANK ELEV SSTA ENDST
3265 DIVIDED FLOW									
21.630	9.88	1897.88	1897.48	1897.88	1899.24	1.36	2.58	.20	1896.00
27300.0	11581.1	15437.1	281.8	1776.1	1394.7	110.2	3447.3	1071.3	1896.00
1.52	6.52	11.07	2.56	.060	.038	.060	.000	1888.00	4213.41
.011382	280.	264.	370.	5	8	0	.00	1159.04	5478.43

*SECNO 21.690

3301 HV CHANGED MORE THAN HVINS

21.690	8.22	1902.22	.00	1902.22	1903.06	.84	3.66	.16	1900.00
27300.0	10911.1	13468.8	2920.1	2347.4	1443.4	626.2	3483.1	1083.1	1900.00
1.53	4.65	9.33	4.66	.060	.038	.060	.000	1894.00	3891.12
.007181	408.	422.	320.	3	0	0	.00	1412.19	5303.31

*SECNO 21.770

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

21.770	10.63	1905.63	1905.36	1905.63	1907.24	1.61	3.79	.39	1904.00
27300.0	11263.4	15235.6	801.0	1541.8	1262.1	222.9	3520.0	1094.9	1904.00
1.54	7.31	12.07	3.59	.060	.038	.060	.000	1895.00	3694.34
.011080	442.	422.	422.	5	12	0	.00	964.76	5194.72

*SECNO 21.820

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

21.820	8.88	1908.88	1908.88	1908.88	1910.37	1.49	2.89	.04	1906.00
27300.0	16631.2	9475.7	1193.2	2345.0	695.4	261.6	3538.4	1101.0	1906.00
1.55	7.09	13.63	4.56	.060	.038	.060	.000	1900.00	3690.75
.011777	241.	264.	297.	5	10	0	.00	1139.89	5210.74

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SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	L-BANK ELEV R-BANK ELEV SSTA ENDST
*SECNO 21.910									
3265 DIVIDED FLOW									
3301 HV CHANGED MORE THAN HVINS									
21.910	12.04	1914.04	.00	1914.04	1914.81	.77	4.22	.22	1912.00
27300.0	19200.4	6711.1	1388.5	3031.9	731.3	401.4	3577.4	1113.0	1912.00
1.57	6.33	9.18	3.46	.060	.038	.060	.000	1902.00	3809.06
.007426	450.	475.	450.	3	0	0	.00	1154.39	5251.95
*SECNO 21.990									
3265 DIVIDED FLOW									
21.990	7.86	1917.76	1917.60	1917.76	1918.98	1.22	3.95	.23	1918.00
27300.0	17924.0	8210.2	1165.8	2730.5	639.3	270.3	3614.1	1125.1	1916.00
1.58	6.56	12.84	4.31	.060	.038	.060	.000	1909.90	3667.24
.013027	400.	422.	470.	8	14	0	.00	1403.61	5315.83
*SECNO 22.080									
3265 DIVIDED FLOW									
3301 HV CHANGED MORE THAN HVINS									
22.080	9.61	1922.61	.00	1922.61	1923.23	.62	4.06	.18	1922.00
27300.0	19815.2	5817.5	1667.3	3711.7	626.6	492.2	3657.0	1140.0	1922.00
1.60	5.34	9.28	3.39	.060	.038	.060	.000	1913.00	3713.43
.006649	451.	475.	300.	4	0	0	.00	1609.96	5340.23
*SECNO 22.150									
3265 DIVIDED FLOW									
22.150	10.39	1925.39	.00	1925.39	1926.31	.92	2.93	.15	1924.00
27300.0	23293.8	3980.9	25.2	3299.5	370.0	12.1	3690.0	1151.0	1924.00
1.62	7.06	10.76	2.09	.060	.038	.060	.000	1915.00	3356.58

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   .011638      331.      370.      379.         2         0         0       .00   1241.16   5067.37
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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

*SECNO 22.220

3265 DIVIDED FLOW

   22.220     10.96   1928.96       .00   1928.96   1930.31      1.34      3.79       .21   1930.00
  27300.0   21933.4    5339.8      26.8    2553.4     451.9      16.2    3714.6    1158.7   1930.00
     1.63      8.59     11.82      1.65      .060      .038      .060      .000   1918.00   3744.67
  .011862      312.      370.      473.         2         0         0       .00    831.90   5221.84

*SECNO 22.290

3265 DIVIDED FLOW

   22.290     10.00   1933.00       .00   1933.00   1933.96       .96      3.54       .11   1932.00
  27300.0   22574.6    3998.3     727.1    3063.1     372.0     341.2    3742.4    1167.0   1932.00
     1.64      7.37     10.75      2.13      .060      .038      .060      .000   1923.00   3926.81
  .008289      359.      370.      280.         2         0         0       .00   1282.22   5471.95

*SECNO 22.360

3265 DIVIDED FLOW

   22.360     11.94   1936.94       .00   1936.94   1938.18      1.23      4.08       .14   1938.00
  27300.0   20081.3    5389.9    1828.8    2348.2     482.9     443.8    3776.4    1178.3   1938.00
     1.65      8.55     11.16      4.12      .060      .038      .060      .000   1925.00   4068.37
  .011470      436.      370.      370.         3         0         0       .00   1104.00   5688.77

*SECNO 22.430

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     4098.0    5825.0  TYPE=       1  TARGET=     1727.000
   22.430      8.39   1941.79       .00   1941.79   1942.49       .70      4.16       .16   1941.50
  27300.0   18508.3    5303.6    3488.1    2900.6     676.1     537.0    3809.9    1188.6   1941.50
     1.67      6.38      7.84      6.50      .060      .038      .060      .000   1933.40   4098.00
  .009674      410.      370.      340.         4         0         0       .00   1204.82   5302.82
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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

*SECNO 22.480

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     4230.0    5330.0  TYPE=       1  TARGET=     1100.000
   22.480      9.10   1944.10       .00   1944.10   1945.44      1.33      2.63       .32   1944.00
  27300.0   15260.1    8912.1    3127.8    2056.5     715.8     496.7    3828.7    1194.4   1944.00
     1.68      7.42     12.45      6.30      .060      .038      .060      .000   1935.00   4247.04
  .014267      211.      264.      220.         3         0         0       .00   1082.95   5330.00

*SECNO 22.560
   22.560      9.68   1948.18       .00   1948.18   1949.48      1.30      4.03       .01   1946.00
  27300.0   15367.3   10054.7    1878.0    2277.1     809.7     469.7    3857.1    1203.3   1946.00
     1.69      6.75     12.42      4.00      .060      .038      .060      .000   1938.50   4369.09
  .008560      335.      422.      390.         3         0         0       .00   1064.96   5434.06

*SECNO 22.670

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   22.670      9.87   1954.37   1954.37   1954.37   1956.30      1.93      5.08       .32   1950.00
  27300.0   13978.5   12324.7     996.8    2189.9     816.8     198.3    3902.2    1215.3   1950.00
     1.70      6.38     15.09      5.03      .060      .038      .060      .000   1944.50   4379.74
  .009187      620.      528.      450.         2         5         0       .00    786.32   5166.05

*SECNO 22.730
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   22.730     10.89   1957.89   1957.89   1957.89   1959.79      1.90      2.84       .01   1954.00
  27300.0   11522.5   15553.7     223.7    2085.1    1121.5      83.2    3926.4    1221.5   1954.00
     1.71      5.53     13.87      2.69      .060      .038      .060      .000   1947.00   4246.90
  .008447      330.      317.      310.         3         8         0       .00    869.26   5116.16

*SECNO 22.790
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

  22.790      10.94   1960.94    1960.94    1960.94    1962.71       1.76       2.43        .04    1956.00
 27300.0    11474.1   14803.7     1022.3     2306.5     1077.5      224.0     3950.4     1227.8    1956.00
    1.72       4.97     13.74       4.56       .060       .038       .060       .000    1950.00    4197.60
 .007414       295.      317.       310.          3          5          0        .00     965.08    5162.69

*SECNO 22.860

3301 HV CHANGED MORE THAN HVINS

  22.860      11.02   1964.52        .00    1964.52    1965.64       1.11       2.74        .19    1962.00
 24400.0     9394.1   14961.9       44.0     1970.3     1476.7       17.3     3980.4     1236.1    1962.00
    1.73       4.77     10.13       2.55       .060       .038       .060       .000    1953.50    4230.68
 .007368       370.      370.       370.          2          0          0        .00     979.15    5209.83

CCHV=      .300 CEHV=      .500
*SECNO 22.950
  22.950      10.66   1972.66        .00    1972.66    1973.45        .80       7.72        .10    1970.00
 24400.0     4016.1   20378.4        5.5     846.4     2699.7        4.3     4061.1     1259.1    1972.00
    1.77       4.74      7.55       1.27       .050       .048       .050       .000    1962.00    9045.60
 .008068      1000.     1003.      1000.          3          0          0        .00    1017.56   10063.16

*SECNO 22.960

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
  22.960      14.86   1974.46    1974.46    1974.46    1976.26       1.80        .17        .50    1966.00
 24400.0    13251.8   11148.2         .0     2987.3      734.1         .0     4063.4     1259.7    1975.70
    1.77       4.44     15.19        .00       .060       .032       .000       .000    1959.60    9087.79
 .004705        25.       30.        31.         20         11          0        .00     926.98   10014.76

*SECNO 23.130
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
  23.130      11.53   1981.33    1981.33    1981.33    1983.41       2.08       4.37        .14    1978.30
 24400.0     5209.5   14264.2     4926.3     1182.2      978.2      930.1     4125.2     1274.9    1977.20
    1.80       4.41     14.58       5.30       .060       .032       .060       .000    1969.80    9427.59
 .005997       730.      880.       900.          5         19          0        .00     801.73   10229.32
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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

*SECNO 23.250
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
  23.250       9.87   1987.17    1987.17    1987.17    1989.03       1.86       4.02        .07    1983.50
 24400.0     1845.0   13670.9     8884.1      468.6      988.3     1587.4     4167.9     1285.8    1981.30
    1.81       3.94     13.83       5.60       .060       .032       .060       .000    1977.30    9676.44
 .007314       675.      619.       550.          4         10          0        .00     743.33   10419.76

*SECNO 23.330

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
  23.330      11.85   1991.35    1991.35    1991.35    1993.72       2.37       3.38        .25    1989.00
 24400.0      829.9    8186.6    15383.5      260.5      451.5     1890.8     4194.1     1292.2    1985.30
    1.82       3.19     18.13       8.14       .060       .032       .060       .000    1979.50    9757.41
 .009484       490.      433.       375.          4         11          0        .00     599.89   10357.31

*SECNO 23.450

3301 HV CHANGED MORE THAN HVINS

  23.450      10.10   1998.50        .00    1998.50    2000.15       1.66       6.22        .21    1994.80
 24400.0     4837.1    6366.8    13196.1      683.0      430.4     1541.2     4231.0     1300.5    1994.50
    1.84       7.08     14.79       8.56       .060       .032       .060       .000    1988.40    9739.33
 .010768       530.      624.       630.          3          0          0        .00     609.04   10348.37

*SECNO 23.550
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9559.0   10289.0  TYPE=      1  TARGET=      730.000
  23.550       7.22   2003.92    2003.92    2003.92    2005.92       2.00       5.45        .17    2001.20
 24400.0     7122.3   13405.9     3871.8     1094.9      947.2      602.9     4260.9     1307.5    2001.10
    1.85       6.50     14.15       6.42       .060       .032       .060       .000    1996.70    9564.76
 .010673       325.      545.       595.          4         19          0        .00     706.32   10271.08
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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

*SECNO 23.640

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     9421.0   10114.0  TYPE=      1  TARGET=      693.000
  23.640      8.98   2008.98       .00   2008.98   2010.13      1.15      3.95       .26   2003.70
11800.0    4566.3    6119.1    1114.6    1204.6     538.1     286.3    4288.0    1315.6   2005.10
   1.87      3.79     11.37      3.89      .060      .032      .060      .000   2000.00   9429.11
.004681      525.      500.      460.         4         0         0       .00    681.35  10110.46

*SECNO 23.870

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
  23.870     10.07   2018.87   2018.87   2018.87   2020.60      1.73      5.31       .29   2016.70
11800.0    2663.2    8608.4     528.4     787.9     705.5     219.0    4337.5    1331.8   2016.70
   1.90      3.38     12.20      2.41      .060      .032      .060      .000   2008.80   9612.42
.004443      1125.     1180.     1200.         3         8         0       .00    555.39  10167.81

*SECNO 23.940

3265 DIVIDED FLOW

  23.940     10.46   2020.86   2020.83   2020.86   2022.88      2.02      2.13       .15   2020.60
11800.0    1453.6   10051.2     295.2     326.5     820.9      90.9    4350.4    1336.0   2020.10
   1.91      4.45     12.24      3.25      .060      .032      .060      .000   2010.40   9527.41
.006768      340.      403.      435.         4         8         0       .00    415.48  10118.92

*SECNO 24.030

3301 HV CHANGED MORE THAN HVINS

  24.030      7.63   2025.13       .00   2025.13   2026.02       .89      2.80       .34   2025.10
11800.0    1742.6    4776.7    5280.7     427.7     456.0    1103.6    4366.3    1341.3   2022.10
   1.93      4.07     10.48      4.79      .060      .032      .060      .000   2017.50   9756.17
.006034      585.      458.      300.         3         0         0       .00    652.99  10409.16
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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

*SECNO 24.120

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
  24.120      8.30   2028.90   2028.90   2028.90   2030.98      2.08      2.67       .60   2026.60
11800.0     326.4   11308.7     164.9     151.7     956.5      90.0    4382.7    1346.9   2027.20
   1.94      2.15     11.82      1.83      .060      .032      .060      .000   2020.60   9736.38
.005869      450.      452.      440.         2         8         0       .00    436.92  10173.30

*SECNO 24.250

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9798.0   10247.0  TYPE=      1  TARGET=      449.000
  24.250      9.67   2033.67   2033.67   2033.67   2035.81      2.14      4.61       .03   2034.60
   9700.0        .0    6280.3    3419.7        .0     447.7     625.1    4400.9    1352.6   2034.50
   1.96       .00     14.03      5.47      .000      .032      .060      .000   2024.00   9952.75
.007607      765.      709.      665.         3        11         0       .00    267.97  10235.08

*SECNO 24.380

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.47

3470 ENCROACHMENT STATIONS=     9743.0   10160.0  TYPE=      1  TARGET=      417.000
  24.380      7.05   2038.55       .00   2038.55   2039.46       .92      3.29       .37   2035.70
   9700.0     182.5    9193.5     324.0      72.7    1168.4     133.2    4418.5    1357.0   2036.30
   1.98      2.51      7.87      2.43      .060      .030      .060      .000   2031.50   9772.72
.003526      640.      709.      450.         4         0         0       .00    370.39  10143.11

*SECNO 24.480
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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


3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    24.480      6.94    2043.74    2043.74    2043.74    2045.30      1.56       2.17        .32    2041.50
    9700.0    3091.1     6540.7       68.2      799.2      548.7      39.0     4433.3     1361.4    2042.90
      2.00      3.87      11.92       1.75       .060       .030      .060       .000    2036.80    9620.98
   .005916      385.       502.       550.         20          8         0        .00     473.74   10094.71


*SECNO 24.610
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    24.610      9.84    2050.04    2050.04    2050.04    2051.52      1.48       3.31        .02    2046.10
    9700.0    2406.2     6673.7      620.1      837.6      575.4     189.9     4457.6     1370.8    2046.50
      2.02      2.87      11.60       3.26       .060       .030      .060       .000    2040.20    9451.16
   .003984      730.       669.       725.          5         11         0        .00     665.08   10116.24


*SECNO 24.740

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    24.740     10.05    2055.85    2055.85    2055.85    2057.47      1.61       2.66        .07    2055.00
    9700.0     243.4     8592.9      863.8      213.4      796.3     308.3     4479.0     1380.4    2053.80
      2.04      1.14      10.79       2.80       .060       .030      .060       .000    2045.80    9551.84
   .004124      615.       669.       615.         20          5         0        .00     678.84   10244.47


*SECNO 24.870

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    24.870      7.34    2061.94    2061.94    2061.94    2063.58      1.64       3.36        .01    2060.70
    7800.0     221.5     6547.1     1031.4      142.2      590.0     269.7     4498.4     1389.9    2059.10
      2.06      1.56      11.10       3.82       .060       .030      .060       .000    2054.60    9652.80
   .005361      775.       733.       685.         20         19         0        .00     435.82   10180.87
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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


*SECNO 24.950

3301 HV CHANGED MORE THAN HVINS

    24.950      7.56    2064.96        .00    2064.96    2065.68       .72       1.83        .28    2064.70
    7800.0        .1     5213.2     2586.7         .1      664.5     654.2     4508.1     1393.4    2060.50
      2.07       .41      7.85       3.95       .060       .030      .060       .000    2057.40    9919.06
   .004357      485.       406.       285.          2          0         0        .00     360.74   10279.80


*SECNO 25.120

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9928.0   10113.0  TYPE=      1  TARGET=      185.000
    25.120      8.07    2072.77    2072.77    2072.77    2075.32      2.54       4.52        .91    2073.50
    7800.0        .0     7664.1      135.9         .0      593.8      59.7     4527.1     1398.4    2070.60
      2.09       .00      12.91       2.28       .000       .030      .060       .000    2064.70    9951.89
   .006546      900.       868.       800.         20          8         0        .00     153.27   10105.16


*SECNO 25.280

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9552.0   10052.0  TYPE=      1  TARGET=      500.000
    25.280      9.86    2081.36    2081.36    2081.36    2082.98      1.62       4.39        .28    2077.80
    7800.0    2154.2     5478.2      167.6      785.4      454.7      49.3     4547.0     1404.4    2074.00
      2.12      2.74      12.05       3.40       .060       .030      .060       .000    2071.50    9604.19
   .003955      950.       868.       715.          0         11         0        .00     433.20   10037.39


*SECNO 25.380

3301 HV CHANGED MORE THAN HVINS
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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=     9287.0   10336.0  TYPE=      1  TARGET=     1049.000
   25.380      6.78   2084.98      .00   2084.98   2085.30      .32      1.93       .39   2084.70
   7800.0    2509.7   3763.7    1526.6     944.5     661.4     410.7   4563.0    1410.9   2084.30
     2.15      2.66      5.69      3.72      .060      .030      .060      .000   2078.20   9308.85
  .004136      255.      539.      760.         4         0         0       .00   1008.00  10316.85

*SECNO 25.450

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9861.0   10705.0  TYPE=      1  TARGET=      844.000
   25.450      7.35   2088.35   2088.35   2088.35   2089.38      1.03      2.83       .35   2088.80
   7800.0        .0    1785.0    6015.0        .0     181.9     795.2   4575.8    1417.6   2087.90
     2.16       .00      9.81      7.56      .000      .030      .060      .000   2081.00   9967.09
  .018493      375.      362.      375.         3         8         0       .00    582.34  10664.28

*SECNO 25.560

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.55

3470 ENCROACHMENT STATIONS=     9608.0   10564.0  TYPE=      1  TARGET=      956.000
   25.560     10.34   2095.84      .00   2095.84   2096.30      .46      6.76       .17   2095.20
   7800.0     536.1    1408.8    5855.1     242.2     219.3    1078.0   4592.9    1427.4   2095.60
     2.19      2.21      6.43      5.43      .060      .030      .060      .000   2085.50   9619.37
  .007690      535.      584.      600.         4         0         0       .00    866.12  10528.90
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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


*SECNO 25.630

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9707.0   10627.0  TYPE=      1  TARGET=      920.000
   25.630      9.36   2099.06      .00   2099.06   2099.84       .77      3.38       .15   2098.60
   7800.0       8.0    2006.0    5786.0       5.9     228.6     910.8   4603.8    1432.8   2099.20
     2.21      1.36      8.78      6.35      .060      .030      .060      .000   2089.70   9916.31
  .012130      375.      366.      350.         2         0         0       .00    458.07  10586.65


CCHV=     .300 CEHV=     .500
*SECNO 25.700

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      2110.70 ELREA=      2112.00

   25.700      3.51   2102.31   2102.31   2102.31   2104.03      1.72      3.35       .47   2099.00
   7800.0        .0    7800.0        .0        .0     742.0        .0   4616.1    1437.2   2098.90
     2.22       .00     10.51       .00      .000      .020      .000      .000   2098.80   9881.00
  .003909      200.      396.      750.         5        18         0       .00    218.00  10099.00


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    2101.92 , NOT    2102.31 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     .90      1.60      2.60       .00    197.00     16.00   1410.00      2.00   2099.20   2099.00

*SECNO 25.720
BTCARD, BRIDGE STENCL=    9990.00   STENCR=   10227.00

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.45
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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

CLASS B LOW FLOW

3420 BRIDGE W.S.= 2102.91 BRIDGE VELOCITY= 10.86 CALCULATED CHANNEL AREA= 699.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	2105.13	.00	0.	7800.	1410.	1966.	2109.00	2114.50	0.

3470 ENCROACHMENT STATIONS= 9990.0 10227.0 TYPE= 1 TARGET= 237.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 2109.80 ELREA= 2111.60

25.720	4.91	2104.11	.00	2104.11	2105.13	1.02	1.10	.00	2099.50
7800.0	.0	7800.0	.0	.0	962.8	.0	4617.6	1437.6	100000.00
2.22	.00	8.10	.00	.000	.020	.000	.000	2099.20	9990.00
.001871	80.	80.	80.	0	0	0	.00	237.00	10227.00

*SECNO 25.830

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9914.0 10327.0 TYPE= 1 TARGET= 413.000

25.830	8.86	2112.46	2112.46	2112.46	2113.92	1.46	1.90	.22	2111.80
7800.0	.0	5911.1	1888.9	.0	540.8	496.1	4629.0	1440.6	2112.70
2.24	.00	10.93	3.81	.000	.032	.055	.000	2103.60	9914.00
.008114	600.	613.	145.	20	17	0	.00	393.33	10308.95

CCHV= .100 CEHV= .300
*SECNO 25.950

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

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

3470 ENCROACHMENT STATIONS= 9923.0 10616.0 TYPE= 1 TARGET= 693.000

25.950	10.21	2119.31	2119.31	2119.31	2120.57	1.25	3.97	.02	2118.10
7800.0	221.0	4908.2	2670.8	85.2	444.3	806.2	4646.0	1448.1	2117.70
2.26	2.59	11.05	3.31	.055	.032	.055	.000	2109.10	9923.00
.005163	600.	621.	625.	0	11	0	.00	652.16	10616.00

*SECNO 26.170

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

26.170	10.78	2132.48	2132.48	2132.48	2133.91	1.43	5.55	.05	2132.30
7800.0	.0	5530.4	2269.6	.0	491.9	736.1	4677.7	1462.1	2129.90
2.30	.02	11.24	3.08	.055	.032	.055	.000	2121.70	9966.59
.004894	1225.	1132.	1040.	20	8	0	.00	499.86	10472.00

1

TW I-17 SPLIT FLOW

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
2536.95	2538.56	.06	2536.95	2538.56	.06	5	1524.387	1532.511	13.020	13.280

1

T1 Floodway Run - Method 2
T2 Date: 4-25-97
T3 Floodway Run - Method 1

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10	3							1522.96	

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2		-1							

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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

*PROF 2
0

CCHV=     .300 CEHV=     .500
*SECNO 13.000
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9820.0   10065.0  TYPE=      1  TARGET=      245.000
   13.000      4.48   1522.98   1522.98   1522.98   1525.23      2.25       .00        .00   1527.00
  13163.1        .0   13163.1       .0        .0    1093.2        .0        .0         .0 100000.00
      .00       .00     12.04      .00      .000      .025      .000      .000    1518.50   9820.24
 .005829        0.        0.       0.         0          4         0       .00     244.53  10064.76

*SECNO 13.020

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     9820.0   10065.0  TYPE=      1  TARGET=      245.000
   13.020      5.39   1524.39   1523.47   1524.39   1525.94      1.55       .50        .21   1527.00
  13163.1        .0   13163.1       .0        .0    1316.1        .0       3.3         .7 100000.00
      .00       .00     10.00      .00      .000      .025      .000      .000    1519.00   9820.16
 .003171      120.      120.     120.        19          5         0       .00     244.67  10064.84

CCHV=     .300 CEHV=     .500
*SECNO 13.040

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     9537.0   10350.0  TYPE=      1  TARGET=      813.000
   13.040      7.85   1525.95      .00   1525.95   1526.53       .58       .30        .29   1528.00
  13163.1        .0   13163.1       .0        .0    2145.5        .0       7.3        1.4   1527.10
      .01       .00      6.14      .00      .000      .040      .000      .000    1518.10   9731.08
 .002864      100.      100.     100.         5          0         0       .00     394.62  10125.70

CCHV=     .100 CEHV=     .300
*SECNO 13.080

3470 ENCROACHMENT STATIONS=     9550.0   10679.0  TYPE=      1  TARGET=     1129.000
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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

   13.080      8.73   1526.93       .00   1526.93   1527.13       .20       .56        .04   1524.20
  13163.1     382.5   10462.2    2318.3     193.3    2709.9     893.6      23.0        5.3   1523.50
      .03      1.98      3.86      2.59      .069      .050      .044      .000    1518.20   9550.00
 .002106      230.      230.      230.         2          0         0       .00    1095.47  10645.47

CCHV=     .100 CEHV=     .300
*SECNO 13.160

3265 DIVIDED FLOW

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .64

3470 ENCROACHMENT STATIONS=     9421.0   10816.0  TYPE=      1  TARGET=     1395.000
   13.160      6.64   1528.14       .00   1528.14   1528.50       .36      1.32        .05   1526.00
  13163.1    3734.2    7775.9    1652.9     891.0    1437.7     529.6      55.2       17.0   1526.20
      .05      4.19      5.41      3.12      .038      .052      .042      .000    1521.50   9421.00
 .005155      420.      421.      425.         3          0         0       .00    1310.31  10794.75

*SECNO 13.280

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=     9537.0   10802.0  TYPE=      1  TARGET=     1265.000
   13.280      9.91   1532.51   1532.24   1532.51   1533.21       .70      4.61        .10   1530.90
  15700.0    2428.2    8742.6    4529.2     306.9    1283.2     794.6      88.6       33.0   1531.20
      .07      7.91      6.81      5.70      .038      .052      .042      .000    1522.60   9537.00
 .013778      390.      600.      610.        11         12         0       .00    1230.26  10801.64

*SECNO 13.400

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.06

3470 ENCROACHMENT STATIONS=     9670.0   10602.0  TYPE=      1  TARGET=      932.000
   13.400     11.73   1538.53       .00   1538.53   1539.16       .63      5.94        .01   1537.60
  23300.0        .0   18362.9    4937.1        .0    2855.2     804.0     133.9       48.9   1537.50
      .10       .00      6.43      6.14      .000      .052      .042      .000    1526.80   9670.00
 .007154      650.      679.      590.         7          0         0       .00     932.00  10602.00
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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

*SECNO 13.550

3470 ENCROACHMENT STATIONS=      9236.0   10494.0  TYPE=       1  TARGET=      1258.000
   13.550      11.86   1544.06       .00   1544.06   1544.57       .51       5.40       .01   1543.10
  23300.0     6635.7   16664.3        .0   1070.2    3003.7        .0      203.8      68.6 100000.00
      .14       6.20      5.55       .00      .038      .052      .000       .000   1532.20   9236.00
 .006590       740.      787.      850.         2         0         0        .00   1258.00  10494.00

*SECNO 13.660

3470 ENCROACHMENT STATIONS=      9055.0   10482.0  TYPE=       1  TARGET=      1427.000
   13.660       7.99   1548.19       .00   1548.19   1548.78       .59       4.19       .02   1545.40
  23300.0     7899.8   15400.2        .0   1084.4    2801.5        .0      252.8      85.1 100000.00
      .16       7.28      5.50       .00      .038      .052      .000       .000   1540.20   9055.00
 .009491       500.      549.      540.         4         0         0        .00   1427.00  10482.00

*SECNO 13.860

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=      8708.0   10232.0  TYPE=       1  TARGET=      1524.000
   13.860      10.01   1556.31       .00   1556.31   1556.86       .55       8.07       .00   1556.10
  23300.0     6204.5   15415.5     1680.1     889.7    2760.6     342.8      347.9     117.8   1555.70
      .21       6.97      5.58      4.90      .038      .052      .042       .000   1546.30   8708.00
 .006323      1060.     1049.     1050.         6         0         0        .00   1282.28  10232.00

*SECNO 14.070

3470 ENCROACHMENT STATIONS=      8805.0   10529.0  TYPE=       1  TARGET=      1724.000
   14.070       7.08   1564.58       .00   1564.58   1565.25       .67       8.36       .04   1564.30
  23300.0    14668.2    5662.9     2968.8    2230.0     774.5     657.0      444.1     155.3   1564.50
      .26       6.58      7.31      4.52      .038      .052      .042       .000   1557.50   8805.00
 .009427      1050.     1134.     1100.         5         0         0        .00   1724.00  10529.00

*SECNO 14.300

3301 HV CHANGED MORE THAN HVINS
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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

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      9210.0   10160.0  TYPE=       1  TARGET=       950.000
   14.300      15.16   1574.76   1574.76   1574.76   1576.12      1.36      10.07       .21   1571.60
  23300.0     7609.7   11066.6    4623.8    1293.7    969.7     546.9      526.0     188.3   1570.00
      .29       5.88     11.41      8.46      .038      .052      .042       .000   1559.60   9210.00
 .008656      1010.     1214.     1210.        10        14         0        .00    950.00  10160.00

*SECNO 14.540

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      9950.0   10480.0  TYPE=       1  TARGET=       530.000
   14.540      12.17   1583.77       .00   1583.77   1584.51       .74       8.33       .06   1581.90
  23300.0         .0  23300.0        .0        .0    3368.5        .0      617.6     210.9 100000.00
      .35        .00      6.92       .00      .000      .052      .000       .000   1571.60   9950.00
 .005047      1410.     1273.     1150.         4         0         0        .00    530.00  10480.00

CCHV=      .100 CEHV=      .300
*SECNO 14.740

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      9720.0   10076.0  TYPE=       1  TARGET=       356.000
   14.740       9.54   1591.24   1591.24   1591.24   1593.99      2.76       7.90       .60   1587.30
  23300.0     9702.7   13597.3        .0   1238.1    842.9        .0      686.1     222.1 100000.00
      .37       7.84     16.13       .00      .059      .039      .000       .000   1581.70   9720.00
 .011187      1180.     1071.      970.         2        15         0        .00    356.00  10076.00

*SECNO 14.890

3301 HV CHANGED MORE THAN HVINS
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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


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.57


3470 ENCROACHMENT STATIONS=     9620.0   10059.0  TYPE=      1  TARGET=      439.000
    14.890      14.33   1597.53       .00   1597.53   1599.09       1.56       4.98        .12   1591.90
   23300.0     8311.3   14988.7        .0    1644.8    1258.0         .0      727.5      228.6 100000.00
       .39       5.05     11.92       .00      .059      .039       .000       .000    1583.20   9620.00
   .004536       700.      756.      760.         4         0          0        .00     439.00  10059.00


*SECNO 15.060

3470 ENCROACHMENT STATIONS=     9972.0   10390.0  TYPE=      1  TARGET=      418.000
    15.060      11.15   1602.45       .00   1602.45   1603.97       1.52       4.88        .00   1602.20
   23300.0        .0   23300.0        .0        .0    2351.7         .0      778.7      236.8 100000.00
       .42        .00      9.91       .00      .000      .039       .000       .000    1591.30   9972.00
   .006873       670.      930.      950.         3         0          0        .00     418.00  10390.00


*SECNO 15.120

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9975.0   10351.0  TYPE=      1  TARGET=      376.000
    15.120       9.34   1604.74   1604.74   1604.74   1607.27       2.53       2.70        .30   1604.10
   23300.0        .0   23300.0        .0        .0    1824.5         .0      792.3      239.4 100000.00
       .42        .00     12.77       .00      .000      .039       .000       .000    1595.40   9975.00
   .014039       255.      284.      330.         3        15          0        .00     376.00  10351.00


*SECNO 15.220

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.50


3470 ENCROACHMENT STATIONS=     9977.0   10348.0  TYPE=      1  TARGET=      371.000
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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


    15.220      11.88   1610.78       .00   1610.78   1612.35       1.57       4.99        .10   1609.10
   23300.0        .0   23300.0        .0        .0    2314.1         .0      818.6      244.1 100000.00
       .44        .00     10.07       .00      .000      .039       .000       .000    1598.90   9977.00
   .006279       535.      553.      600.         4         0          0        .00     371.00  10348.00


*SECNO 15.410

3470 ENCROACHMENT STATIONS=     9979.0   10353.0  TYPE=      1  TARGET=      374.000
    15.410       9.45   1617.05       .00   1617.05   1618.69       1.64       6.32        .02   1615.10
   23300.0        .0   23300.0        .0        .0    2264.3         .0      869.5      252.4 100000.00
       .46        .00     10.29       .00      .000      .039       .000       .000    1607.60   9979.00
   .006777       980.      969.      950.         3         0          0        .00     374.00  10353.00


*SECNO 15.550

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9935.0   10182.0  TYPE=      1  TARGET=      247.000
    15.550       9.51   1622.91   1622.91   1622.91   1626.22       3.31       6.44        .50   1619.50
   23300.0        .0   22523.7     776.3        .0    1522.5      104.7      903.0      257.7   1619.40
       .48        .00     14.79      7.42      .000      .039       .042       .000    1613.40   9935.00
   .011173       730.      755.      550.         2         5          0        .00     247.00  10182.00


*SECNO 15.750

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.89


3470 ENCROACHMENT STATIONS=     9477.0   10116.0  TYPE=      1  TARGET=      639.000
    15.750      14.63   1630.93       .00   1630.93   1631.86        .93       5.40        .24   1625.70
   23300.0    10707.2   12422.0     170.8    2435.5    1269.7       45.1      962.9      267.4   1627.50
       .52       4.40      9.78      3.79      .059      .039       .042       .000    1616.30   9477.00
   .003124       880.     1048.     1030.         3         0          0        .00     639.00  10116.00
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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

*SECNO 15.890

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9817.0   10210.0  TYPE=      1  TARGET=      393.000
   15.890      8.95   1635.75   1635.75   1635.75   1638.43      2.69      3.99       .53   1633.20
   23300.0    2948.8   20351.2       .0     443.5    1470.2        .0    1009.7     275.7 100000.00
       .53      6.65     13.84       .00      .059      .039      .000      .000   1626.80   9817.00
   .012090      700.      738.      730.        20        14         0       .00    374.02  10210.00


*SECNO 16.070

3470 ENCROACHMENT STATIONS=     9830.0   10130.0  TYPE=      1  TARGET=      300.000
   16.070     10.45   1644.75       .00   1644.75   1646.99      2.23      8.51       .05   1640.10
   23300.0    3774.0   19526.0       .0     616.4    1523.8        .0    1054.3     283.2 100000.00
       .56      6.12     12.81       .00      .059      .039      .000      .000   1634.30   9830.00
   .006843      980.      950.      840.         3         0         0       .00    300.00  10130.00


*SECNO 16.190

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9600.0   10068.0  TYPE=      1  TARGET=      468.000
   16.190     11.73   1649.23       .00   1649.23   1650.86      1.63      3.82       .06   1644.40
   23300.0    8578.4   14721.6       .0    1526.9    1212.6        .0    1087.8     288.3 100000.00
       .57      5.62     12.14       .00      .059      .039      .000      .000   1637.50   9600.00
   .005604      540.      646.      660.         3         0         0       .00    468.00  10068.00


*SECNO 16.270

3301 HV CHANGED MORE THAN HVINS

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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


7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9760.0   10042.0  TYPE=      1  TARGET=      282.000
   16.270     12.92   1652.32   1652.32   1652.32   1655.35      3.04      3.43       .42   1650.20
   23300.0       .0   23300.0       .0        .0    1666.5        .0    1108.8     291.8 100000.00
       .58       .00     13.98       .00      .000      .039      .000      .000   1639.40   9760.00
   .013189      400.      422.      425.         3         8         0       .00    282.00  10042.00


*SECNO 16.490

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.73


3470 ENCROACHMENT STATIONS=     9906.0   10320.0  TYPE=      1  TARGET=      414.000
   16.490      9.25   1662.56       .00   1662.56   1663.71      1.15      8.17       .19   1659.20
   23300.0       .0   12157.8   11142.2       .0    1420.5    1286.0    1166.6     301.1   1659.50
       .62       .00      8.56      8.66      .000      .039      .042      .000   1653.30   9906.00
   .004419     1190.     1154.     1150.         4         0         0       .00    414.00  10320.00


CCHV=      .100 CEHV=      .300
*SECNO 16.680

3470 ENCROACHMENT STATIONS=     9940.0   10590.0  TYPE=      1  TARGET=      650.000
   16.680      7.08   1668.38       .00   1668.38   1669.32       .94      5.59       .02 100000.00
   23300.0       .0   23300.0       .0        .0    2992.2        .0    1234.3     313.6 100000.00
       .66       .00      7.79       .00      .000      .043      .000      .000   1661.30   9940.00
   .006730      940.      998.     1160.         2         0         0       .00    650.00  10590.00


CCHV=      .300 CEHV=      .500
*SECNO 16.860
3280 CROSS SECTION      16.86 EXTENDED       .91 FEET


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
1
   26JUN98      11:17:35                                                                                    PAGE   85

    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS      L-BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA        R-BANK ELEV
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    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=     9788.0   10101.0  TYPE=      1  TARGET=      313.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1683.30 ELREA=      1679.75

    16.860      7.91   1679.11   1679.11   1679.11   1681.95      2.83      7.67       .95 100000.00
   23700.0        .0  23700.0        .0        .0    1754.8        .0    1287.7     324.4 100000.00
       .68       .00     13.51       .00      .000      .033      .000      .000   1671.20   9788.00
   .009175      990.      981.      880.         2         8         0       .00    313.00  10101.00


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.05      1.56      2.70       .00    285.00     10.50   4102.00      2.00   1671.20   1671.20

*SECNO 16.870
BTCARD, BRIDGE STENCL=    9698.73   STENCR=    9956.86
3280 CROSS SECTION     16.87 EXTENDED      1.65 FEET

CLASS A LOW FLOW

3420 BRIDGE W.S.=    1678.89 BRIDGE VELOCITY=      10.63     CALCULATED CHANNEL AREA=      2231.

 EGPRS      EGLWC       H3        QWEIR     QLOW      BAREA    TRAPEZOID      ELLC      ELTRD     WEIRLN
                                                                  AREA
       .00   1682.36       .84        0.    23700.     4102.     3874.     1684.10   1688.08        0.


3470 ENCROACHMENT STATIONS=     9806.0   10117.0  TYPE=      1  TARGET=      311.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1683.30 ELREA=      1679.75

    16.870      8.75   1679.95       .00   1679.95   1682.36      2.40       .41       .00 100000.00
   23700.0        .0  23700.0        .0        .0    1904.4        .0    1289.6     324.8 100000.00
       .68       .00     12.45       .00      .000      .033      .000      .000   1671.20   9806.00
   .006964       44.       44.       44.         0         0         0       .00    311.00  10117.00


CCHV=     .100 CEHV=     .300
*SECNO 16.960
1
   26JUN98      11:17:35                                                                          PAGE   86

    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=     9893.0   10534.0  TYPE=      1  TARGET=      641.000
    16.960      9.24   1684.54   1684.54   1684.54   1687.11      2.57      3.44       .05   1684.00
   27300.0     308.4  26565.0     426.7      79.2    2041.2      90.4    1311.2     328.8   1685.30
       .69      3.89     13.01      4.72      .059      .033      .042      .000   1675.30   9893.00
   .008053      410.      456.      600.         3         8         0       .00    442.69  10534.00


*SECNO 17.060

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9650.0   10550.0  TYPE=      1  TARGET=      900.000
    17.060     12.13   1689.73   1689.73   1689.73   1691.70      1.97      3.67       .06   1685.20
   27300.0    7991.7  17095.0    2213.3    1466.0    1249.2     603.3    1347.3     336.9   1685.30
       .70      5.45     13.69      3.67      .059      .033      .042      .000   1677.60   9650.00
   .005272      630.      566.      440.         5        11         0       .00    887.84  10550.00


CCHV=     .100 CEHV=     .300
*SECNO 17.180

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9697.0   10650.0  TYPE=      1  TARGET=      953.000
    17.180     10.32   1694.92   1694.92   1694.92   1696.65      1.73      4.21       .02   1690.90
   27300.0    4316.4  21543.9    1439.7     680.2    1875.9     355.9    1389.5     348.1   1691.90
       .72      6.35     11.48      4.05      .048      .046      .048      .000   1684.60   9697.00
   .009931      610.      601.      510.         3        10         0       .00    827.62  10650.00


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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
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    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 17.300

3470 ENCROACHMENT STATIONS=      9670.0   10450.0  TYPE=       1  TARGET=      780.000
   17.300      10.29    1701.09      .00   1701.09   1702.36      1.27       5.66        .05   1697.20
  27300.0    5811.6    14585.1    6903.3     952.7    1345.5    1041.0     1434.4      359.5   1697.90
      .74      6.10      10.84      6.63      .048      .046      .048       .000    1690.80   9670.00
 .008124      630.       644.      580.         2         0         0        .00     780.00  10450.00

*SECNO 17.390
3280 CROSS SECTION      17.39 EXTENDED      1.43 FEET

3470 ENCROACHMENT STATIONS=      9785.0   10550.0  TYPE=       1  TARGET=      765.000
   17.390       9.73    1705.43      .00   1705.43   1706.87      1.45       4.46        .05   1703.00
  27300.0     756.7    19254.7    7288.6     174.7    1793.5    1117.9     1471.6      368.4   1702.30
      .75      4.33      10.74      6.52      .048      .046      .048       .000    1695.70   9785.00
 .009709      465.       500.      530.         3         0         0        .00     765.00  10550.00

CCHV=      .100 CEHV=      .300
*SECNO 17.480
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      9850.0   10605.0  TYPE=       1  TARGET=      755.000
   17.480       9.58    1709.98    1709.98   1709.98   1711.77      1.79       3.93        .10   1706.60
  27300.0     718.2    17727.3    8854.5     145.5    1386.7    1736.4     1502.9      375.9   1705.40
      .76      4.93      12.78      5.10      .060      .042      .060       .000    1700.40   9850.00
 .008642      429.       429.      429.         2         6         0        .00     755.00  10605.00

*SECNO 17.570
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      9879.0   10640.0  TYPE=       1  TARGET=      761.000
   17.570      12.06    1714.46    1714.46   1714.46   1716.57      2.11       3.92        .10   1708.00
  27300.0    2432.7    16460.4    8406.8     308.0    1153.1    1739.2     1538.6      384.4   1708.90
      .78      7.90      14.27      4.83      .060      .042      .060       .000    1702.40   9879.00
 .007859      365.       474.      500.         8        11         0        .00     761.00  10640.00
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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

*SECNO 17.650

3470 ENCROACHMENT STATIONS=      9629.0   10386.0  TYPE=       1  TARGET=      757.000
   17.650      14.48    1717.68    1717.62   1717.68   1719.85      2.17       3.26        .02   1709.30
  27300.0    5182.2    16693.5    5424.4    1083.9    1142.0    1127.6     1573.1      392.5   1709.60
      .79      4.78      14.62      4.81      .060      .042      .060       .000    1703.20   9629.00
 .006479      370.       461.      500.         9        11         0        .00     757.00  10386.00

*SECNO 17.780

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      9654.0   10591.0  TYPE=       1  TARGET=      937.000
   17.780      10.05    1722.85      .00   1722.85   1723.66       .81       3.68        .14   1720.30
  27300.0    4337.3    8690.3    14272.4    1003.3     832.1    2689.7     1631.3      404.8   1715.90
      .82      4.32      10.44      5.31      .060      .042      .060       .000    1712.80   9654.00
 .004946      490.       661.      720.         4         0         0        .00     937.00  10591.00

*SECNO 17.840

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .66

3470 ENCROACHMENT STATIONS=      9770.0   10670.0  TYPE=       1  TARGET=      900.000
   17.840       7.47    1724.57    1724.47   1724.57   1726.26      1.69       2.33        .26   1722.70
  27300.0    1216.3    19547.9    6535.8     269.3    1648.6    1174.6     1659.4      411.5   1722.70
      .82      4.52      11.86      5.56      .060      .042      .060       .000    1717.10   9770.00
 .011240      310.       342.      310.         6        19         0        .00     900.00  10670.00

*SECNO 17.950

3470 ENCROACHMENT STATIONS=      9845.0   10595.0  TYPE=       1  TARGET=      750.000
   17.950      10.46    1729.96      .00   1729.96   1731.66      1.69       5.40        .00   1726.50
  27300.0     320.4    16939.9    10039.7     69.8    1352.3    1795.3     1698.4      421.5   1727.40
      .84      4.59      12.53      5.59      .060      .042      .060       .000    1719.50   9845.00
 .008677      500.       564.      520.         4         0         0        .00     750.00  10595.00
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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS      L-BANK ELEV
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    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 18.090

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9895.0   10610.0  TYPE=      1  TARGET=      715.000
   18.090     11.50   1735.00      .00   1735.00   1735.86       .86      4.12       .08   1730.50
  27700.0    1403.3   15948.6   10348.2     236.1    1957.8    1618.5    1742.5     430.2   1733.00
      .86      5.94      8.15      6.39      .060      .042      .060      .000   1723.50   9895.00
 .005877      713.      706.      375.         3         0         0       .00    715.00  10610.00


*SECNO 18.160

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9752.0   10425.0  TYPE=      1  TARGET=      673.000
   18.160      8.16   1736.96      .00   1736.96   1738.80      1.84      2.64       .29   1735.20
  27700.0    1698.7   14775.3   11226.0     275.0    1119.4    1483.2    1770.6     435.9   1739.00
      .87      6.18     13.20      7.57      .055      .030      .055      .000   1728.80   9752.00
 .008907      345.      378.      360.         3         0         0       .00    642.88  10425.00


FLOW DISTRIBUTION FOR SECNO=     18.16          CWSEL=   1736.96

STA=     9752.     9775.     9836.    10075.    10199.    10330.    10380.    10425.
  PER Q=      3.1       3.1      53.3       4.0      18.8      11.7       6.1
   AREA=    114.7     160.3    1119.4     221.9     681.7     347.7     231.9
    VEL=      7.4       5.3      13.2       5.0       7.7       9.3       7.2
  DEPTH=      5.0       2.6       4.8       1.8       5.2       7.0       5.2

*SECNO 18.230

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
1
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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=     9630.0   10195.0  TYPE=      1  TARGET=      565.000
   18.230     11.75   1741.75   1741.75   1741.75   1744.26      2.51      3.08       .20   1738.00
  27700.0    6334.5   19426.6    1938.9     895.1    1333.3     456.3    1794.9     441.2   1738.80
      .88      7.08     14.57      4.25      .055      .030      .055      .000   1730.00   9630.00
 .007528      370.      370.      400.        20        14         0       .00    565.00  10195.00


*SECNO 18.290

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.41


3470 ENCROACHMENT STATIONS=     9630.0   10170.0  TYPE=      1  TARGET=      540.000
   18.290     11.63   1744.23      .00   1744.23   1745.76      1.54      1.41       .10   1738.30
  27700.0    9347.0   14649.2    3703.8    1683.0    1158.6     685.5    1813.5     444.5   1739.90
      .89      5.55     12.64      5.40      .055      .030      .055      .000   1732.60   9630.00
 .003761      200.      300.      310.         2         0         0       .00    540.00  10170.00


*SECNO 18.490

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9832.0   10515.0  TYPE=      1  TARGET=      683.000
   18.490      8.91   1750.61   1750.61   1750.61   1752.65      2.04      6.61       .15   1747.40
  27700.0        .0   17319.7   10380.3        .0    1290.9    1459.9    1887.8     458.5   1746.90
      .91       .00     13.42      7.11      .000      .042      .055      .000   1741.70   9832.00
 .012717     1163.     1100.      850.         3        19         0       .00    683.00  10515.00


*SECNO 18.570

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.45


3470 ENCROACHMENT STATIONS=     9700.0   10480.0  TYPE=      1  TARGET=      780.000
1
   26JUN98       11:17:35                                                                                          PAGE   91

    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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   18.570      10.97   1754.47   1754.46   1754.47   1756.42      1.95      3.76       .01   1752.50
 27700.0    12086.1   10351.9    5262.0    1254.7     709.6     983.0    1919.6     467.7   1751.50
     .93       9.63     14.59      5.35      .040      .030      .040      .000   1743.50   9700.00
 .006017       275.      389.      675.         4        11         0       .00    780.00  10480.00

*SECNO 18.740

3470 ENCROACHMENT STATIONS=     9380.0   10125.0  TYPE=      1  TARGET=      745.000
   18.740      10.24   1760.64   1760.63   1760.64   1762.36      1.72      5.92       .02   1757.70
 27300.0    20453.4    6846.6        .0    2035.9     580.8        .0    1968.9     480.8 100000.00
     .95      10.05     11.79       .00      .040      .030      .000      .000   1750.40   9380.00
 .009529       750.      918.      650.         2        10         0       .00    745.00  10125.00

*SECNO 18.840
3280 CROSS SECTION     18.84 EXTENDED       .17 FEET

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9576.0   10140.0  TYPE=      1  TARGET=      564.000
   18.840       9.87   1765.57   1765.57   1765.57   1767.66      2.09      4.12       .11   1763.20
 27300.0    14100.7   11352.2    1847.1    1549.3     776.6     290.6    1998.3     488.1   1762.60
     .96       9.10     14.62      6.36      .040      .030      .040      .000   1755.70   9576.00
 .007401       500.      497.      325.         2        10         0       .00    564.00  10140.00

*SECNO 18.960

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9639.0   10480.0  TYPE=      1  TARGET=      841.000
   18.960       9.66   1771.86   1771.86   1771.86   1773.44      1.58      3.31       .05   1768.00
 27300.0     6794.4   11567.3    8938.3    1107.1     841.8    1454.7    2038.0     497.3   1766.30
     .98       6.14     13.74      6.14      .040      .030      .040      .000   1762.20   9639.00
 .004459       525.      632.      600.        20         6         0       .00    841.00  10480.00

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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

*SECNO 19.070

3470 ENCROACHMENT STATIONS=     9485.0   10315.0  TYPE=      1  TARGET=      830.000
   19.070      10.61   1775.41       .00   1775.41   1776.83      1.42      3.37       .02   1771.90
 27300.0    15701.0    9307.3    2291.7    1595.7     949.8     380.9    2082.0     508.7   1773.10
     .99       9.84      9.80      6.02      .031      .045      .031      .000   1764.80   9485.00
 .006971       680.      601.      500.         3         0         0       .00    830.00  10315.00

*SECNO 19.180
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9330.0   10076.0  TYPE=      1  TARGET=      746.000
   19.180      10.49   1780.49   1780.49   1780.49   1782.19      1.70      4.39       .08   1779.40
 27300.0    15959.2   11340.8        .0    1508.7    1101.7        .0    2115.7     518.3 100000.00
    1.01      10.58     10.29       .00      .031      .045      .000      .000   1770.00   9330.00
 .010287       460.      599.      720.         2         6         0       .00    746.00  10076.00

*SECNO 19.260
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9430.0   10065.0  TYPE=      1  TARGET=      635.000
   19.260      11.80   1784.80   1784.80   1784.80   1786.75      1.95      4.47       .08   1778.20
 27300.0    22339.9    4909.0      51.1    1947.6     492.2       9.1    2143.2     525.9   1782.70
    1.02      11.47      9.97      5.61      .031      .045      .031      .000   1773.00   9430.00
 .008663       500.      416.      300.         1         8         0       .00    635.00  10065.00

*SECNO 19.410

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     9660.0   10610.0  TYPE=      1  TARGET=      950.000
   19.410       8.30   1790.90       .00   1790.90   1791.86       .96      5.01       .10   1789.40
 27300.0     2757.4    8223.6   16319.0     600.2     757.1    2584.2    2195.3     538.4   1788.60
    1.05       4.59     10.86      6.31      .050      .032      .055      .000   1782.60   9660.00
 .006038       600.      769.      790.         3         0         0       .00    941.03  10610.00

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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
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    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST

*SECNO 19.520

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      9901.0   10581.0  TYPE=       1  TARGET=       680.000
   19.520      8.65   1794.85   1794.85   1794.85   1796.91      2.06       4.65        .33   1790.60
  27300.0    1871.2    8009.5   17419.3     221.5     474.3    2090.6     2236.5      548.5   1793.40
    1.06      8.45     16.89      8.33      .050      .032      .055       .000    1786.20   9901.00
  .013293     700.      606.      485.         2         8         0        .00     680.00  10581.00


*SECNO 19.620

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      9984.0   10730.5  TYPE=       1  TARGET=       746.510
   19.620     10.52   1800.82       .00   1800.82   1802.06      1.23       5.06        .08 100000.00
  27300.0        .0    9208.8   18091.2        .0     756.5    2710.7     2274.4      557.2   1798.20
    1.08       .00     12.17      6.67      .000      .032      .055       .000    1790.30   9984.00
  .007222      515.      528.      530.         4         0         0        .00     746.44  10730.44


*SECNO 19.720

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      9825.0   10550.0  TYPE=       1  TARGET=       725.000
   19.720      9.95   1805.05   1805.05   1805.05   1806.92      1.87       3.78        .19   1800.70
  27300.0    4291.2   10769.9   12238.9     572.2     699.6    1922.7     2312.8      565.7   1801.80
    1.09      7.50     15.39      6.37      .050      .032      .055       .000    1795.10   9825.00
  .007819     500.      510.      500.         3        10         0        .00     725.00  10550.00


*SECNO 19.830
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
1
   26JUN98       11:17:35                                                                                    PAGE   94

    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=      9742.0   10420.0  TYPE=       1  TARGET=       678.000
   19.830     11.43   1810.73   1810.73   1810.73   1812.93      2.21       4.00        .10   1805.80
  27300.0    5141.4   14767.5    7391.1     857.5     964.4    1318.4     2354.2      574.9   1806.60
    1.11      6.00     15.31      5.61      .050      .032      .055       .000    1799.30   9742.00
  .006391     500.      568.      600.        20        11         0        .00     678.00  10420.00


*SECNO 19.920

3470 ENCROACHMENT STATIONS=      9710.0   10393.3  TYPE=       1  TARGET=       683.310
   19.920     12.83   1814.83       .00   1814.83   1816.79      1.96       3.83        .02   1809.70
  27300.0    4330.8   14870.9    8098.3     781.8    1050.8    1254.8     2389.8      582.4   1810.40
    1.12      5.54     14.15      6.45      .060      .042      .060       .000    1802.00   9710.00
  .009441     250.      492.      660.         4         0         0        .00     683.31  10393.31


*SECNO 20.050

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.53


3470 ENCROACHMENT STATIONS=      9420.0   10473.7  TYPE=       1  TARGET=      1053.720
   20.050     10.22   1820.92       .00   1820.92   1821.41       .49       4.47        .15   1814.40
  27300.0   10855.8    4763.1   11681.2    2351.0     568.6    2344.4     2463.9      598.0   1816.00
    1.16      4.62      8.38      4.98      .060      .042      .060       .000    1810.70   9420.00
  .004042     815.      700.      770.         3         0         0        .00    1053.72  10473.72


*SECNO 20.160

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
1
   26JUN98       11:17:35                                                                                    PAGE   95

    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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3470 ENCROACHMENT STATIONS=      9202.0   10489.7  TYPE=       1  TARGET=      1287.700
    20.160      9.21   1824.71   1824.71   1824.71   1826.06      1.35      4.27       .26   1821.50
   27300.0    7043.3    4384.5   15872.2    1099.7     399.0    1606.7    2516.7     611.0   1823.60
      1.17      6.40     10.99      9.88      .060      .042      .060      .000   1815.50   9202.00
   .019338      450.      556.      635.         3        10         0       .00   1062.26  10489.47

*SECNO 20.260

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.60

3470 ENCROACHMENT STATIONS=      9190.0   10395.0  TYPE=       1  TARGET=      1205.000
    20.260      9.55   1831.45       .00   1831.45   1832.22       .77      6.11       .06   1828.20
   27300.0   11623.0    5552.3   10124.7    2171.1     542.0    1541.2    2560.9     624.3   1828.20
      1.20      5.35     10.24      6.57      .060      .032      .060      .000   1821.90   9190.00
   .007578      460.      532.      585.         3         0         0       .00   1205.00  10395.00

*SECNO 20.380

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=      9209.0   10415.0  TYPE=       1  TARGET=      1206.000
    20.380      9.86   1835.76       .00   1835.76   1836.56       .80      4.33       .01   1837.50
   27300.0   15114.5    4239.0    7946.5    2523.0     383.1    1206.2    2613.6     639.0   1835.90
      1.22      5.99     11.06      6.59      .060      .032      .060      .000   1825.90   9209.00
   .007899      475.      622.      650.         2         0         0       .00   1166.22  10415.00

*SECNO 20.480

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
1
   26JUN98       11:17:35                                                                                    PAGE   96

    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=      9424.0   10330.0  TYPE=       1  TARGET=       906.000
    20.480      9.68   1842.08   1842.08   1842.08   1843.75      1.67      4.17       .26   1840.60
   27300.0    8833.7   10720.4    7745.9    1823.8     716.0    1210.3    2664.6     652.6   1838.60
      1.24      4.84     14.97      6.40      .060      .032      .060      .000   1832.40   9424.00
   .007094      600.      527.      520.        20         6         0       .00    906.00  10330.00

*SECNO 20.620
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      9485.0   10370.0  TYPE=       1  TARGET=       885.000
    20.620     10.21   1849.51   1849.51   1849.51   1851.43      1.92      5.42       .08   1845.60
   27300.0    8904.7   12889.4    5505.8    1778.7     844.3    1090.0    2731.8     668.9   1844.30
      1.26      5.01     15.27      5.05      .060      .032      .060      .000   1839.30   9485.00
   .006824      915.      789.      580.         3         8         0       .00    885.00  10370.00

CCHV=      .300 CEHV=      .500
*SECNO 20.640

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.63

3470 ENCROACHMENT STATIONS=      9500.0   10350.0  TYPE=       1  TARGET=       850.000
    20.640      9.90   1851.90       .00   1851.90   1852.38       .48       .52       .43   1845.00
   27300.0        .0   26933.1     366.9        .0    4829.8      81.5    2744.8     671.5   1844.00
      1.26       .00      5.58      4.50      .000      .043      .045      .000   1842.00   9500.00
   .002559      113.      135.      138.         2         0         0       .00    850.00  10350.00

CCHV=      .300 CEHV=      .500
*SECNO 20.710

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
1
   26JUN98       11:17:35                                                                                    PAGE   97

    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=      4500.0    5310.0  TYPE=       1  TARGET=       810.000
    20.710     10.49   1853.49   1853.49   1853.49   1855.40      1.91      1.89       .72   1852.00
   27300.0    8796.0   17254.4    1249.6    1359.4    1315.0     276.6    2779.6     678.9   1852.00
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     1.27       6.47      13.12       4.52       .060       .038       .060       .000   1843.00   4500.00
  .013071       475.       370.       320.          2          8          0        .00    810.00   5310.00

*SECNO 20.790

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.44

3470 ENCROACHMENT STATIONS=      4500.0    5160.0  TYPE=       1  TARGET=      660.000
    20.790      10.59   1858.09       .00   1858.09   1859.43       1.34       3.86        .17   1855.00
   27300.0     9288.7   18011.3        .0    1775.1    1664.9         .0     2812.4      686.7 100000.00
      1.29       5.23     10.82       .00      .060      .038       .000       .000    1847.50   4500.00
  .006320       460.      422.      575.         2         0          0        .00     660.00   5160.00

*SECNO 20.900

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      4550.0    5220.0  TYPE=       1  TARGET=      670.000
    20.900      10.17   1862.77   1862.77   1862.77   1864.74       1.97       4.58        .31   1860.70
   27300.0     6090.6   20102.2    1107.2     989.8    1591.7      271.9     2853.7      695.3   1860.90
      1.30       6.15     12.63      4.07      .060      .038       .060       .000    1852.60   4550.00
  .010341       570.      581.      480.         2        10          0        .00     670.00   5220.00

*SECNO 20.980

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      4390.0    5060.0  TYPE=       1  TARGET=      670.000
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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

    20.980      13.71   1866.91       .00   1866.91   1868.12       1.21       3.16        .23   1864.20
   27300.0     6244.2   21055.8        .0    1262.9    2174.0         .0     2883.6      701.7 100000.00
      1.32       4.94      9.69       .00      .060      .038       .000       .000    1853.20   4390.00
  .005766       400.      422.      431.         3         0          0        .00     670.00   5060.00

*SECNO 21.050

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      4380.0    5075.0  TYPE=       1  TARGET=      695.000
    21.050      12.32   1869.92   1869.92   1869.92   1871.93       2.01       2.25        .40   1866.00
   27300.0     8842.1   18108.7     349.2    1846.8    1337.7       87.7     2911.1      707.2   1866.00
      1.33       4.79     13.54      3.98      .060      .038       .060       .000    1857.60   4380.00
  .006732       340.      370.      380.         4        10          0        .00     695.00   5075.00

*SECNO 21.110

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      4350.0    5125.0  TYPE=       1  TARGET=      775.000
    21.110      12.26   1872.76       .00   1872.76   1873.90       1.14       1.71        .26   1870.00
   27300.0     8398.3   18901.7        .0    1936.0    1908.2         .0     2934.5      711.9 100000.00
      1.34       4.34      9.91       .00      .060      .038       .000       .000    1860.50   4350.00
  .004932       260.      317.      370.         2         0          0        .00     775.00   5125.00

*SECNO 21.180

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      4200.0    5100.0  TYPE=       1  TARGET=      900.000
    21.180      11.09   1876.09   1876.09   1876.09   1877.78       1.69       2.13        .27   1872.00
   27300.0    11202.5   16097.5        .0    2390.5    1236.4         .0     2965.7      718.9 100000.00
      1.35       4.69     13.02       .00      .060      .038       .000       .000    1865.00   4200.00
  .006962.      360.      370.      356.        20        10          0        .00     900.00   5100.00
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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

*SECNO 21.250
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
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3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 4310.0 5055.0 TYPE= 1 TARGET= 745.000

21.250	12.29	1880.99	1880.99	1880.99	1883.17	2.17	2.52	.24	1875.00
27300.0	7673.4	19626.6	.0	1784.8	1433.7	.0	2997.2	726.6	100000.00
1.36	4.30	13.69	.00	.060	.038	.000	.000	1868.70	4310.00
.006101	420.	370.	370.	20	8	0	.00	745.00	5055.00

*SECNO 21.310

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 4450.0 5100.0 TYPE= 1 TARGET= 650.000

21.310	12.75	1883.45	.00	1883.45	1884.72	1.27	1.28	.27	1878.00
27300.0	5164.2	21653.4	482.4	1465.9	2169.0	156.9	3019.4	730.7	1878.00
1.37	3.52	9.98	3.07	.060	.038	.060	.000	1870.70	4450.00
.003213	230.	317.	310.	3	0	0	.00	650.00	5100.00

*SECNO 21.350

3470 ENCROACHMENT STATIONS= 4400.0 5105.0 TYPE= 1 TARGET= 705.000

21.350	12.62	1884.12	.00	1884.12	1885.70	1.58	.83	.16	1878.00
27300.0	10935.7	15987.3	377.0	2160.5	1279.4	129.6	3037.1	734.0	1878.00
1.37	5.06	12.50	2.91	.060	.038	.060	.000	1871.50	4400.00
.004941	205.	211.	220.	2	0	0	.00	705.00	5105.00

*SECNO 21.410

3470 ENCROACHMENT STATIONS= 4500.0 5100.0 TYPE= 1 TARGET= 600.000

21.410	12.49	1886.69	.00	1886.69	1888.42	1.73	2.64	.07	1882.00
27300.0	15197.7	11329.7	772.6	2123.4	806.2	157.2	3069.3	740.3	1880.00
1.38	7.16	14.05	4.92	.060	.038	.060	.000	1874.20	4500.00
.008208	422.	422.	422.	2	0	0	.00	596.32	5096.32

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 21.490

3470 ENCROACHMENT STATIONS= 4617.0 5317.0 TYPE= 1 TARGET= 700.000

21.490	9.09	1891.09	.00	1891.09	1892.43	1.34	3.90	.11	1887.70
27300.0	8545.4	12546.4	6208.3	1255.3	1080.4	936.3	3104.0	747.3	1888.00
1.40	6.81	11.61	6.63	.060	.038	.060	.000	1882.00	4617.00
.008194	475.	475.	475.	3	0	0	.00	700.00	5317.00

*SECNO 21.580
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 4415.0 5255.0 TYPE= 1 TARGET= 840.000

21.580	8.76	1895.56	1895.56	1895.56	1897.25	1.69	4.64	.17	1894.00
27300.0	6103.6	21196.4	.0	1032.3	1857.8	.0	3136.5	755.5	100000.00
1.41	5.91	11.41	.00	.060	.038	.000	.000	1886.80	4415.00
.012570	525.	475.	250.	2	10	0	.00	840.00	5255.00

*SECNO 21.630

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 4265.0 5320.0 TYPE= 1 TARGET= 1055.000

21.630	10.81	1898.81	.00	1898.81	1899.97	1.16	2.57	.16	1896.00
27300.0	9773.5	17325.6	200.9	2027.4	1694.3	52.9	3157.3	761.5	1896.00
1.42	4.82	10.23	3.80	.060	.038	.060	.000	1888.00	4265.00
.007494	280.	264.	370.	3	0	0	.00	1055.00	5320.00

*SECNO 21.690

3470 ENCROACHMENT STATIONS= 3970.0 5300.0 TYPE= 1 TARGET= 1330.000

21.690	8.24	1902.24	.00	1902.24	1903.16	.92	3.11	.07	1900.00
27300.0	10248.4	14005.1	3046.4	2129.5	1449.8	630.7	3194.5	772.5	1900.00
1.44	4.81	9.66	4.83	.060	.038	.060	.000	1894.00	3970.00
.007649	408.	422.	320.	3	0	0	.00	1330.00	5300.00

*SECNO 21.770

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

3301 HV CHANGED MORE THAN HVINS

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3470 ENCROACHMENT STATIONS=      3694.0    5165.0  TYPE=       1  TARGET=     1471.000
    21.770      10.73   1905.73       .00   1905.73   1907.26      1.53      3.79       .30   1904.00
   27300.0   11284.1   15187.5     828.4    1602.8    1288.5     219.5    3230.9     783.9   1904.00
      1.45       7.04     11.79      3.77      .060      .038      .060      .000   1895.00   3694.00
   .010275      442.      422.      422.         3         0         0       .00    958.18   5165.00


*SECNO 21.820

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      3750.0    5200.0  TYPE=       1  TARGET=     1450.000
    21.820       8.92   1908.92   1908.92   1908.92   1910.58      1.67      2.90       .07   1906.00
   27300.0   16042.1    9978.2    1279.7    2173.3     699.8     264.8    3249.0     789.8   1906.00
      1.46       7.38     14.26      4.83      .060      .038      .060      .000   1900.00   3750.00
   .012785      241.      264.      297.         3        12         0       .00   1074.67   5200.00


*SECNO 21.910

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      3900.0    5040.0  TYPE=       1  TARGET=     1140.000
    21.910      12.60   1914.60       .00   1914.60   1915.60      1.00      4.82       .20   1912.00
   27300.0   18503.3    8796.7        .0    2893.9     823.2        .0    3284.8     801.3 100000.00
      1.47       6.39     10.69       .00      .060      .038      .000      .000   1902.00   3900.00
   .008780      450.      475.      450.         3         0         0       .00   1140.00   5040.00


*SECNO 21.990
1
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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


3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      3765.0    5090.0  TYPE=       1  TARGET=     1325.000
    21.990       8.53   1918.43       .00   1918.43   1919.61      1.18      3.92       .09   1918.00
   27300.0   18283.5    9016.5        .0    3005.4     726.4        .0    3319.4     812.3 100000.00
      1.49       6.08     12.41       .00      .060      .038      .000      .000   1909.90   3765.00
   .010584      400.      422.      470.         4         0         0       .00   1234.22   5090.00


*SECNO 22.080

3470 ENCROACHMENT STATIONS=      4050.0    5175.0  TYPE=       1  TARGET=     1125.000
    22.080       9.98   1922.98       .00   1922.98   1923.90       .92      4.21       .08   1922.00
   27300.0   18596.4    7258.8    1444.8    2951.5     672.0     315.3    3359.0     824.4   1922.00
      1.50       6.30     10.80      4.58      .060      .038      .060      .000   1913.00   4050.00
   .008200      451.      475.      300.         3         0         0       .00   1125.00   5175.00


*SECNO 22.150

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      3700.0    5070.0  TYPE=       1  TARGET=     1370.000
    22.150      11.11   1926.11       .00   1926.11   1927.17      1.06      3.20       .07   1924.00
   27300.0   22178.7    5041.6      79.7    3029.4     435.0      26.2    3387.9     832.9   1924.00
      1.51       7.32     11.59      3.04      .060      .038      .060      .000   1915.00   3700.00
   .010883      331.      370.      379.         2         0         0       .00   1088.06   5070.00


*SECNO 22.220

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      3918.0    5067.0  TYPE=       1  TARGET=     1149.000
    22.220      11.46   1929.46       .00   1929.46   1930.81      1.35      3.49       .15   1930.00
   27300.0   21582.9    5717.1        .0    2477.8     501.1        .0    3411.7     839.8 100000.00
      1.52       8.71     11.41       .00      .060      .038      .000      .000   1918.00   3918.00
   .010699      312.      370.      473.         2         0         0       .00    783.94   5063.74


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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


*SECNO 22.290

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      4000.0    5100.0  TYPE=       1  TARGET=     1100.000
    22.290      10.37   1933.37       .00   1933.37   1934.52      1.15      3.65       .06   1932.00
   27300.0   22468.9    4789.8      41.3    2928.4     397.2      22.6    3437.9     846.8   1932.00
      1.54       7.67     12.06      1.83      .060      .038      .060      .000   1923.00   4000.00
   .009553      359.      370.      280.         3         0         0       .00    911.26   5100.00
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*SECNO 22.360

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=     4100.0    5080.0  TYPE=      1  TARGET=      980.000
    22.360      12.48   1937.48       .00   1937.48   1938.67      1.19      4.13       .02   1938.00
   27300.0   21505.8    5794.2        .0    2629.0     545.1        .0    3469.8     855.4   1938.00
      1.55      8.18     10.63       .00      .060      .038      .000      .000   1925.00   4100.00
   .009993      436.      370.      370.         3         0         0       .00    844.30   5062.21

*SECNO 22.430

3470 ENCROACHMENT STATIONS=     4192.0    5110.0  TYPE=      1  TARGET=      918.000
    22.430       8.83   1942.23       .00   1942.23   1943.29      1.06      4.57       .04   1941.50
   27300.0   19513.9    7786.0        .0    2633.3     776.3        .0    3500.1     863.5 100000.00
      1.56      7.41     10.03       .00      .060      .038      .000      .000   1933.40   4192.00
   .013209      410.      370.      340.         4         0         0       .00    918.00   5110.00

*SECNO 22.480

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     4372.0    5095.0  TYPE=      1  TARGET=      723.000
    22.480       9.97   1944.97       .00   1944.97   1946.73      1.76      3.09       .35   1944.00
   27300.0   15562.0   11738.1        .0    2058.7     856.9        .0    3516.4     867.7 100000.00
      1.57      7.56     13.70       .00      .060      .038      .000      .000   1935.00   4372.00
   .013693      211.      264.      220.         3         0         0       .00    723.00   5095.00
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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

*SECNO 22.560

3470 ENCROACHMENT STATIONS=     4470.0    5105.0  TYPE=      1  TARGET=      635.000
    22.560      10.57   1949.07       .00   1949.07   1950.55      1.48      3.74       .08   1946.00
   27300.0   15413.7   11769.0     117.3    2316.2     920.1      30.6    3542.0     873.3   1946.00
      1.58      6.65     12.79      3.83      .060      .038      .060      .000   1938.50   4470.00
   .007659      335.      422.      390.         3         0         0       .00    635.00   5105.00

*SECNO 22.670

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     4475.0    5050.0  TYPE=      1  TARGET=      575.000
    22.670      10.44   1954.94   1954.94   1954.94   1957.05      2.11      4.83       .31   1950.00
   27300.0   13968.1   13331.9        .0    2124.9     873.6        .0    3584.7     881.6 100000.00
      1.59      6.57     15.26       .00      .060      .038      .000      .000   1944.50   4475.00
   .009158      620.      528.      450.         2         6         0       .00    575.00   5050.00

*SECNO 22.730
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     4499.0    5025.0  TYPE=      1  TARGET=      526.000
    22.730      11.64   1958.64   1958.64   1958.64   1961.11      2.48      2.91       .18   1954.00
   27300.0    9049.1   18250.9        .0    1487.6    1230.1        .0    3606.0     885.8 100000.00
      1.60      6.08     14.84       .00      .060      .038      .000      .000   1947.00   4499.00
   .008905      330.      317.      310.         3         8         0       .00    526.00   5025.00

*SECNO 22.790

3470 ENCROACHMENT STATIONS=     4490.0    5150.0  TYPE=      1  TARGET=      660.000
    22.790      11.63   1961.63       .00   1961.63   1963.68      2.05      2.44       .13   1956.00
   27300.0    9377.9   16507.7    1414.3    1742.9    1168.0     284.7    3626.7     889.9   1956.00
      1.61      5.38     14.13      4.97      .060      .038      .060      .000   1950.00   4490.00
   .007045      295.      317.      310.         0         0         0       .00    660.00   5150.00
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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

*SECNO 22.860

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     4450.0    5192.0  TYPE=      1  TARGET=      742.000
    22.860      11.77   1965.27       .00   1965.27   1966.28      1.00      2.28       .31   1962.00
   24400.0    8601.7   15798.3        .0    1838.7    1687.5        .0    3655.2     895.8 100000.00
      1.62      4.68      9.36       .00      .060      .038      .000      .000   1953.50   4450.00
   .005346      370.      370.      370.         2         0         0       .00    742.00   5192.00
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CCHV=      .300 CEHV=      .500
*SECNO 22.950

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .69

3470 ENCROACHMENT STATIONS=     9450.0   10050.0  TYPE=      1  TARGET=      600.000
   22.950     10.69   1972.69      .00   1972.69   1973.94      1.25      7.54       .12   1970.00
  24400.0        .0  24400.0        .0        .0    2720.9        .0    3727.1     911.2 100000.00
     1.65       .00      8.97      .00      .000      .048      .000      .000   1962.00   9450.00
  .011353     1000.     1003.    1000.         3         0         0       .00    600.00  10050.00


*SECNO 22.960

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9500.0   10014.0  TYPE=      1  TARGET=      514.000
   22.960     14.99   1974.59   1974.59   1974.59   1976.96      2.37       .22       .56   1966.00
  24400.0   12105.9   12294.1       .0    2230.3     742.3        .0    3728.9     911.6 100000.00
     1.66      5.43     16.56      .00      .060      .032      .000      .000   1959.60   9500.00
  .005495       25.       30.      31.        20        11         0       .00    514.00  10014.00


*SECNO 23.130
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
1                                                                                          PAGE  106
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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=     9595.0   10156.0  TYPE=      1  TARGET=      561.000
   23.130     12.45   1982.25   1982.25   1982.25   1984.45      2.19      4.39       .05   1978.30
  24400.0    4904.9   15636.8   3858.4    1105.6    1084.8     744.6    3783.0     921.2   1977.20
     1.68      4.44     14.41      5.18      .060      .032      .060      .000   1969.80   9595.00
  .005104       730.      880.     900.         5        10         0       .00    561.00  10156.00


*SECNO 23.250

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9874.0   10208.0  TYPE=      1  TARGET=      334.000
   23.250     10.51   1987.81   1987.81   1987.81   1990.90      3.09      4.06       .45   1983.50
  24400.0        .0  17423.2    6976.8        .0    1085.0     971.5    3817.8     927.5   1981.30
     1.69       .00     16.06      7.18      .000      .032      .060      .000   1977.30   9874.00
  .009032       675.      619.     550.         2        15         0       .00    334.00  10208.00


*SECNO 23.330

3470 ENCROACHMENT STATIONS=     9963.0   10294.0  TYPE=      1  TARGET=      331.000
   23.330     12.61   1992.11      .00   1992.11   1994.72      2.61      3.68       .14   1989.00
  24400.0        .0    8939.5   15460.5        .0     492.7    1788.5    3837.5     930.5   1985.30
     1.70       .00     18.14      8.64      .000      .032      .060      .000   1979.50   9963.00
  .009082       490.      433.     375.         4         0         0       .00    331.00  10294.00


*SECNO 23.450

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     9867.0   10332.0  TYPE=      1  TARGET=      465.000
   23.450     10.59   1998.99      .00   1998.99   2000.54      1.55      5.50       .32   1994.80
  24400.0    4690.6    6624.9   13084.5    633.9     469.6    1618.0    3872.9     936.1   1994.50
     1.72      7.40     14.11      8.09      .060      .032      .060      .000   1988.40   9867.00
  .008718       530.      624.     630.         3         0         0       .00    465.00  10332.00


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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


*SECNO 23.550

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9766.0   10233.0  TYPE=      1  TARGET=      467.000
   23.550      7.82   2004.52   2004.52   2004.52   2007.03      2.51      4.90       .48   2001.20
  24400.0    5129.4   15845.4   3425.2     730.7    1057.9     535.3    3902.3     941.5   2001.10
     1.73      7.02     14.98      6.40      .060      .032      .060      .000   1996.70   9766.00
  .010316       325.      545.     595.         3        19         0       .00    467.00  10233.00
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*SECNO 23.640

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      9435.0   10097.0  TYPE=      1  TARGET=      662.000
    23.640      9.84   2009.84       .00   2009.84   2010.53       .69      2.95       .55   2003.70
   11800.0    5134.1    5524.9    1141.0    1639.2     605.3     340.2    3930.7     948.1   2005.10
      1.75      3.13      9.13      3.35      .060      .032      .060      .000   2000.00   9435.00
   .002579      525.      500.      460.         4         0         0       .00    662.00  10097.00


*SECNO 23.870

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      9668.0   10021.0  TYPE=      1  TARGET=      353.000
    23.870     10.24   2019.04   2019.04   2019.04   2021.23      2.19      4.13       .75   2016.70
   11800.0    2335.1    9464.9        .0     665.8     720.5        .0    3983.1     961.4 100000.00
      1.78      3.51     13.14       .00      .060      .032      .000      .000   2008.80   9668.00
   .005181     1125.     1180.     1200.        20         8         0       .00    353.00  10021.00


*SECNO 23.940
1
   26JUN98      11:17:35                                                                                PAGE  108

    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


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      9542.0   10042.0  TYPE=      1  TARGET=      500.000
    23.940     11.38   2021.78       .00   2021.78   2023.25      1.46      1.80       .22   2020.60
   11800.0    1723.2    9959.5     117.3     558.6     950.3      52.0    3995.9     964.9   2020.10
      1.79      3.08     10.48      2.26      .060      .032      .060      .000   2010.40   9542.00
   .004081      340.      403.      435.         4         0         0       .00    500.00  10042.00


*SECNO 24.030

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      9900.0   10123.0  TYPE=      1  TARGET=      223.000
    24.030      8.33   2025.83   2025.83   2025.83   2028.41      2.58      2.74       .56   2025.10
   11800.0     313.5    7815.8    3670.7      72.8     520.1     511.1    4009.8     969.0   2022.10
      1.80      4.31     15.03      7.18      .060      .032      .060      .000   2017.50   9900.00
   .010422      585.      458.      300.        20        19         0       .00    223.00  10123.00


*SECNO 24.120

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.62


3470 ENCROACHMENT STATIONS=      9860.0   10067.0  TYPE=      1  TARGET=      207.000
    24.120      9.15   2029.75       .00   2029.75   2031.41      1.66      2.73       .28   2026.60
   11800.0     372.4   11427.6        .0     130.8    1090.0        .0    4021.8     971.2 100000.00
      1.81      2.85     10.48       .00      .060      .032      .000      .000   2020.60   9860.00
   .003961      450.      452.      440.         3         0         0       .00    207.00  10067.00


*SECNO 24.250
1
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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


3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      9953.0   10199.0  TYPE=      1  TARGET=      246.000
    24.250      9.98   2033.98   2033.98   2033.98   2036.28      2.30      3.61       .32 100000.00
    9700.0        .0    6652.0    3048.0        .0     467.8     562.0    4039.9     974.8   2034.50
      1.83       .00     14.22      5.42      .000      .032      .060      .000   2024.00   9953.00
   .007466      765.      709.      665.         2         8         0       .00    237.05  10199.00
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*SECNO 24.380

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.53


3470 ENCROACHMENT STATIONS=     9811.0   10077.0  TYPE=      1  TARGET=      266.000
    24.380      7.37   2038.87       .00   2038.87   2039.80       .93      3.11       .41   2035.70
    9700.0        .0    9700.0        .0        .0    1255.2        .0    4056.8     978.4 100000.00
      1.86       .00      7.73       .00      .000      .030      .000      .000   2031.50   9811.00
   .003180      640.      709.      450.         4         0         0       .00    266.00  10077.00


*SECNO 24.480

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9834.0   10048.0  TYPE=      1  TARGET=      214.000
    24.480      7.66   2044.46   2044.46   2044.46   2046.83      2.37      2.16       .72   2041.50
    9700.0    1471.8    8228.2        .0     358.2     618.5        .0    4069.2     981.0 100000.00
      1.87      4.11     13.30       .00      .060      .030      .000      .000   2036.80   9834.00
   .006414      385.      502.      550.        20         8         0       .00    214.00  10048.00


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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


*SECNO 24.610

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9944.0   10023.0  TYPE=      1  TARGET=       79.000
    24.610     10.29   2050.49   2050.49   2050.49   2054.40      3.91      4.77       .77   2046.10
    9700.0        .0    9700.0        .0        .0     611.4        .0    4081.6     983.3 100000.00
      1.88       .00     15.87       .00      .000      .030      .000      .000   2040.20   9944.00
   .007847      730.      669.      725.         3        11         0       .00     79.00  10023.00


*SECNO 24.740

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.46


3470 ENCROACHMENT STATIONS=     9961.0   10086.0  TYPE=      1  TARGET=      125.000
    24.740     10.89   2056.69       .00   2056.69   2058.49      1.80      3.45       .63   2055.00
    9700.0        .0    9700.0        .0        .0     900.5        .0    4093.2     984.9 100000.00
      1.90       .00     10.77       .00      .000      .030      .000      .000   2045.80   9961.00
   .003656      615.      669.      615.         2         0         0       .00    125.00  10086.00


*SECNO 24.870

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9929.0   10080.0  TYPE=      1  TARGET=      151.000
    24.870      7.39   2061.99   2061.99   2061.99   2064.49      2.50      3.50       .35   2060.70
    7800.0      78.0    7627.4      94.6      36.0     595.1      26.7    4106.4     987.2   2059.10
      1.91      2.17     12.82      3.54      .060      .030      .060      .000   2054.60   9929.00
   .007071      775.      733.      685.        20        19         0       .00    151.00  10080.00


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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


*SECNO 24.950

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9920.0   10100.0  TYPE=      1  TARGET=      180.000
    24.950      8.39   2065.79       .00   2065.79   2067.21      1.41      2.39       .33   2064.70
    7800.0        .0    7757.1      42.9        .0     810.9      15.9    4113.2     988.7   2060.50
      1.92       .00      9.57      2.70      .000      .030      .060      .000   2057.40   9920.00
   .005009      485.      406.      285.         3         0         0       .00    180.00  10100.00


*SECNO 25.120
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3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9952.0 10105.0 TYPE= 1 TARGET= 153.000

25.120	8.09	2072.79	2072.79	2072.79	2075.32	2.53	4.91	.56	100000.00
7800.0	.0	7661.5	138.5	.0	595.6	60.6	4127.9	992.0	2070.60
1.94	.00	12.86	2.28	.000	.030	.060	.000	2064.70	9952.00
.006470	900.	868.	800.	3	8	0	.00	153.00	10105.00

*SECNO 25.280
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9849.0 10037.0 TYPE= 1 TARGET= 188.000

25.280	9.94	2081.44	2081.44	2081.44	2083.89	2.46	5.01	.02	2077.80
7800.0	1252.2	6349.3	198.5	343.8	459.2	50.2	4143.1	995.4	2074.00
1.96	3.64	13.83	3.95	.060	.030	.060	.000	2071.50	9849.00
.005141	950.	868.	715.	2	11	0	.00	188.00	10037.00

*SECNO 25.380

3301 HV CHANGED MORE THAN HVINS

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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

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.48

3470 ENCROACHMENT STATIONS= 9650.0 10296.0 TYPE= 1 TARGET= 646.000

25.380	7.75	2085.95	.00	2085.95	2086.28	.33	1.75	.64	2084.70
7800.0	1105.2	4969.2	1725.6	504.6	926.8	551.9	4159.4	999.9	2084.30
2.00	2.19	5.36	3.13	.060	.030	.060	.000	2078.20	9650.00
.002342	255.	539.	760.	4	0	0	.00	646.00	10296.00

*SECNO 25.450

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9968.0 10598.0 TYPE= 1 TARGET= 630.000

25.450	8.24	2089.24	2089.24	2089.24	2090.27	1.03	1.76	.35	100000.00
7800.0	.0	3091.2	4708.8	.0	273.6	918.3	4172.9	1005.4	2087.90
2.01	.00	11.30	5.13	.000	.030	.060	.000	2081.00	9968.00
.014737	375.	362.	375.	20	9	0	.00	630.00	10598.00

*SECNO 25.560

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS= 9686.0 10511.0 TYPE= 1 TARGET= 825.000

25.560	10.41	2095.91	.00	2095.91	2096.36	.45	5.92	.17	2095.20
7800.0	485.4	1461.1	5853.5	218.2	228.5	1104.0	4191.5	1015.0	2095.60
2.04	2.22	6.39	5.30	.060	.030	.060	.000	2085.50	9686.72
.007208	535.	584.	600.	5	0	0	.00	802.73	10511.00

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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

*SECNO 25.630

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .62

3470 ENCROACHMENT STATIONS= 9931.0 10477.0 TYPE= 1 TARGET= 546.000

25.630	9.74	2099.44	2099.41	2099.44	2100.64	1.19	3.90	.37	2098.60
7800.0	6.3	2861.6	4932.1	2.5	279.2	633.2	4201.6	1020.1	2099.20
2.05	2.54	10.25	7.79	.060	.030	.060	.000	2089.70	9931.00
.018742	375.	366.	350.	4	12	0	.00	429.73	10477.00

```
CCHV=     .300 CEHV=     .500
*SECNO 25.700

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.42


3470 ENCROACHMENT STATIONS=     9881.0   10099.0  TYPE=      1  TARGET=      218.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      2110.70 ELREA=      2112.00

    25.700      3.74   2102.54       .00   2102.54   2104.05      1.50      3.26       .15   2099.00
    7800.0        .0    7800.0        .0        .0     793.0        .0    4211.9    1024.2 100000.00
      2.07       .00      9.84       .00      .000      .020      .000      .000   2098.80   9881.00
   .003202      200.      396.      750.         6         0         0       .00    218.00  10099.00


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    2101.92 , NOT    2102.54 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      .90      1.60      2.60       .00    197.00     16.00   1410.00      2.00   2099.20   2099.00

*SECNO 25.720
BTCARD, BRIDGE STENCL=    9990.00   STENCR=   10227.00
1
   26JUN98      11:17:35                                                                                    PAGE  114

    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

CLASS B LOW FLOW

3420 BRIDGE W.S.=    2102.91 BRIDGE VELOCITY=      10.86     CALCULATED CHANNEL AREA=       699.

 EGPRS       EGLWC       H3        QWEIR       QLOW       BAREA   TRAPEZOID       ELLC      ELTRD      WEIRLN
                                                                      AREA
       .00   2105.13       .00         0.      7800.      1410.     1966.     2109.00   2114.50         0.


3470 ENCROACHMENT STATIONS=     9990.0   10227.0  TYPE=      1  TARGET=      237.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      2109.80 ELREA=      2111.60

    25.720      4.91   2104.11       .00   2104.11   2105.13      1.02      1.08       .00   2099.50
    7800.0        .0    7800.0        .0        .0     962.8        .0    4213.5    1024.6 100000.00
      2.07       .00      8.10       .00      .000      .020      .000      .000   2099.20   9990.00
   .001871        80.       80.       80.         0         0         0       .00    237.00  10227.00


*SECNO 25.830

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9914.0   10040.0  TYPE=      1  TARGET=      126.000
    25.830      9.44   2113.04   2113.04   2113.04   2115.55      2.50      2.19       .74   2111.80
    7800.0        .0    7800.0        .0        .0     614.5        .0    4224.6    1027.1 100000.00
      2.08       .00     12.69       .00      .000      .032      .000      .000   2103.60   9914.00
   .009372       600.      613.      145.        20        17         0       .00    126.00  10040.00


CCHV=     .100 CEHV=     .300
*SECNO 25.950
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9923.0   10064.0  TYPE=      1  TARGET=      141.000
    25.950     11.23   2120.33   2120.33   2120.33   2123.08      2.75      4.85       .07   2118.10
    7800.0     598.3    7152.2      49.6     149.5     516.7      15.5    4233.8    1029.0   2117.70
      2.10      4.00     13.84      3.20      .055      .032      .055      .000   2109.10   9923.00
   .006625       600.      621.      625.         2        11         0       .00    141.00  10064.00


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   26JUN98      11:17:35                                                                                    PAGE  115

    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 26.170
3280 CROSS SECTION     26.17 EXTENDED      1.09 FEET


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9969.0   10052.0  TYPE=      1  TARGET=       83.000
    26.170     10.99   2132.69   2132.69   2132.69   2136.22      3.53      8.50       .24 100000.00
    7800.0        .0    7676.6     123.4        .0     505.1      30.6    4249.8    1032.0   2129.90
      2.12       .00     15.20      4.03      .000      .032      .055      .000   2121.70   9969.00
   .008544      1225.     1132.     1040.         3         5         0       .00     83.00  10052.00
```

TW I-17 SPLIT FLOW

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
2536.95	2538.56	.06	2536.95	2538.56	.06	5	1524.387	1532.511	13.020	13.280

THIS RUN EXECUTED 26JUN98 11:17:53

****
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

MONT. WAT. AND HEC

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	DEPTH	ELMIN	EG	CRIWS	VCH	10*KS	XLCH	SSTA	TOPWID	ENDST
*	13.000	13163.05	1522.98	4.48	1518.50	1525.23	1522.98	12.04	58.29	.00	9820.24	244.53	10064.76
*	13.000	13163.05	1522.98	4.48	1518.50	1525.23	1522.98	12.04	58.29	.00	9820.24	244.53	10064.76
	13.020	13163.05	1524.39	5.39	1519.00	1525.94	1523.47	10.00	31.71	120.00	9820.16	244.67	10064.84
	13.020	13163.05	1524.39	5.39	1519.00	1525.94	1523.47	10.00	31.71	120.00	9820.16	244.67	10064.84
	13.040	13163.05	1525.95	7.85	1518.10	1526.53	.00	6.14	28.64	100.00	9731.08	394.62	10125.70
	13.040	13163.05	1525.95	7.85	1518.10	1526.53	.00	6.14	28.64	100.00	9731.08	394.62	10125.70
	13.080	13163.05	1526.93	8.73	1518.20	1527.13	.00	3.86	21.06	230.00	9550.00	1095.47	10645.47
	13.080	13163.05	1526.93	8.73	1518.20	1527.13	.00	3.86	21.06	230.00	9550.00	1095.47	10645.47
*	13.160	13163.05	1528.14	6.64	1521.50	1528.50	.00	5.41	51.55	421.00	9421.00	1310.31	10794.75
*	13.160	13163.05	1528.14	6.64	1521.50	1528.50	.00	5.41	51.55	421.00	9421.00	1310.31	10794.75
	13.280	15700.00	1532.51	9.91	1522.60	1533.21	1532.24	6.81	137.78	600.00	9537.00	1230.26	10801.64
	13.280	15700.00	1532.51	9.91	1522.60	1533.21	1532.24	6.81	137.78	600.00	9537.00	1230.26	10801.64
*	13.400	23300.00	1537.72	10.92	1526.80	1538.06	.00	4.87	53.77	678.60	8963.18	2079.32	11082.48
*	13.400	23300.00	1538.53	11.73	1526.80	1539.16	.00	6.43	71.54	678.60	9670.00	932.00	10602.00
	13.550	23300.00	1543.09	10.89	1532.20	1543.69	.00	5.52	97.61	787.30	8752.06	1648.66	10497.65
	13.550	23300.00	1544.06	11.86	1532.20	1544.57	.00	5.55	65.90	787.30	9236.00	1258.00	10494.00
	13.660	23300.00	1547.65	7.45	1540.20	1548.17	.00	4.24	75.57	549.10	8570.05	1912.62	10482.67
	13.660	23300.00	1548.19	7.99	1540.20	1548.78	.00	5.50	94.91	549.10	9055.00	1427.00	10482.00
	13.860	23300.00	1555.73	9.43	1546.30	1556.28	.00	5.59	78.11	1049.10	8257.22	1715.14	10262.97
	13.860	23300.00	1556.31	10.01	1546.30	1556.86	.00	5.58	63.23	1049.10	8708.00	1282.28	10232.00
	14.070	23300.00	1564.42	6.92	1557.50	1565.01	.00	6.69	82.52	1134.10	8615.59	1909.12	10528.49
	14.070	23300.00	1564.58	7.08	1557.50	1565.25	.00	7.31	94.27	1134.10	8805.00	1724.00	10529.00

	SECNO	Q	CWSEL	DEPTH	ELMIN	EG	CRIWS	VCH	10*KS	XLCH	SSTA	TOPWID	ENDST
*	14.300	23300.00	1573.99	14.39	1559.60	1574.90	1573.99	10.39	80.53	1213.60	8677.95	2146.54	10865.72
*	14.300	23300.00	1574.76	15.16	1559.60	1576.12	1574.76	11.41	86.56	1213.60	9210.00	950.00	10160.00
	14.540	23300.00	1583.24	11.64	1571.60	1584.12	.00	7.53	66.63	1273.20	9705.41	620.61	10484.50
	14.540	23300.00	1583.77	12.17	1571.60	1584.51	.00	6.92	50.47	1273.20	9950.00	530.00	10480.00
*	14.740	23300.00	1591.09	9.39	1581.70	1593.15	1591.09	14.71	91.64	1070.90	9533.07	616.16	10149.23
*	14.740	23300.00	1591.24	9.54	1581.70	1593.99	1591.24	16.13	111.87	1070.90	9720.00	356.00	10076.00
	14.890	23300.00	1596.68	13.48	1583.20	1598.40	1596.03	12.68	56.83	756.40	9518.21	550.50	10068.71
*	14.890	23300.00	1597.53	14.33	1583.20	1599.09	.00	11.92	45.36	756.40	9620.00	439.00	10059.00
	15.060	23300.00	1602.36	11.06	1591.30	1603.57	.00	9.14	59.69	930.30	9736.51	755.91	10492.42
	15.060	23300.00	1602.45	11.15	1591.30	1603.97	.00	9.91	68.73	930.30	9972.00	418.00	10390.00
*	15.120	23300.00	1604.66	9.26	1595.40	1606.47	1604.66	11.32	111.06	283.60	9745.79	789.48	10535.27
*	15.120	23300.00	1604.74	9.34	1595.40	1607.27	1604.74	12.77	140.39	283.60	9975.00	376.00	10351.00
	15.220	23300.00	1610.04	11.14	1598.90	1611.52	.00	10.14	74.16	553.10	9950.28	597.88	10548.16
*	15.220	23300.00	1610.78	11.88	1598.90	1612.35	.00	10.07	62.79	553.10	9977.00	371.00	10348.00
	15.410	23300.00	1616.92	9.32	1607.60	1618.62	.00	10.48	71.31	968.90	9973.43	396.66	10370.09
	15.410	23300.00	1617.05	9.45	1607.60	1618.69	.00	10.29	67.77	968.90	9979.00	374.00	10353.00
*	15.550	23300.00	1622.53	9.13	1613.40	1624.72	1622.53	12.94	89.92	755.30	9832.84	525.23	10358.08
*	15.550	23300.00	1622.91	9.51	1613.40	1626.22	1622.91	14.79	111.73	755.30	9935.00	247.00	10182.00
	15.750	23300.00	1629.97	13.67	1616.30	1631.23	.00	11.29	47.49	1048.40	9428.94	768.87	10197.80
*	15.750	23300.00	1630.93	14.63	1616.30	1631.86	.00	9.78	31.24	1048.40	9477.00	639.00	10116.00
*	15.890	23300.00	1635.01	8.21	1626.80	1636.85	1635.01	12.53	116.31	738.40	9481.37	712.40	10220.04
*	15.890	23300.00	1635.75	8.95	1626.80	1638.43	1635.75	13.84	120.90	738.40	9817.00	374.02	10210.00

	16.070	23300.00	1643.78	9.48	1634.30	1645.58	.00	12.27	73.08	950.30	9635.05	512.27	10147.32
	16.070	23300.00	1644.75	10.45	1634.30	1646.99	.00	12.81	68.43	950.30	9830.00	300.00	10130.00
	16.190	23300.00	1648.31	10.81	1637.50	1649.95	.00	12.65	69.93	645.60	9316.73	751.98	10068.71
	16.190	23300.00	1649.23	11.73	1637.50	1650.86	.00	12.14	56.04	645.60	9600.00	468.00	10068.00
*	16.270	23300.00	1651.78	12.38	1639.40	1653.84	1651.78	12.50	118.23	422.10	9399.10	643.18	10042.28
*	16.270	23300.00	1652.32	12.92	1639.40	1655.35	1652.32	13.98	131.89	422.10	9760.00	282.00	10042.00
*	16.490	23300.00	1661.63	8.33	1653.30	1662.62	.00	8.42	51.77	1153.60	9861.13	642.89	10504.02
*	16.490	23300.00	1662.56	9.26	1653.30	1663.71	.00	8.56	44.19	1153.60	9906.00	414.00	10320.00
	16.680	23300.00	1668.17	6.87	1661.30	1669.20	.00	8.16	78.45	997.50	9939.05	654.54	10593.60
	16.680	23300.00	1668.38	7.08	1661.30	1669.32	.00	7.79	67.30	997.50	9940.00	650.00	10590.00
*	16.860	23700.00	1678.96	7.76	1671.20	1681.95	1678.96	13.89	101.20	980.90	9787.12	314.84	10101.96
*	16.860	23700.00	1679.11	7.91	1671.20	1681.95	1679.11	13.51	91.75	980.90	9788.00	313.00	10101.00

	SECNO	Q	CWSEL	DEPTH	ELMIN	EG	CRIWS	VCH	10*KS	XLCH	SSTA	TOPWID	ENDST
	16.870	23700.00	1678.96	7.76	1671.20	1682.38	.00	14.86	125.00	44.20	9805.12	312.16	10117.29
	16.870	23700.00	1679.95	8.75	1671.20	1682.36	.00	12.45	69.64	44.20	9806.00	311.00	10117.00
*	16.960	23700.00	1684.24	8.94	1675.30	1684.94	.00	7.76	27.38	456.20	9569.87	782.28	10584.47
*	16.960	27300.00	1684.54	9.24	1675.30	1687.11	1684.54	13.01	80.53	456.20	9893.00	442.69	10534.00
*	17.060	23700.00	1688.86	11.26	1677.60	1690.67	1688.86	13.12	55.75	566.00	9519.25	983.41	10650.89
*	17.060	27300.00	1689.73	12.13	1677.60	1691.70	1689.73	13.69	52.72	566.00	9650.00	887.84	10550.00
*	17.180	23700.00	1694.41	9.81	1684.60	1696.04	1694.41	11.10	103.02	600.80	9665.71	913.57	10765.79
*	17.180	27300.00	1694.92	10.32	1684.60	1696.65	1694.92	11.48	99.31	600.80	9697.00	827.62	10650.00
	17.300	23700.00	1700.59	9.79	1690.80	1701.52	.00	9.75	72.32	644.40	9594.52	1567.44	11344.66
	17.300	27300.00	1701.09	10.29	1690.80	1702.36	.00	10.84	81.24	644.40	9670.00	780.00	10450.00
	17.390	23700.00	1704.66	8.96	1695.70	1705.73	1704.54	9.74	94.80	500.00	9784.11	1515.12	11299.23
	17.390	27300.00	1705.43	9.73	1695.70	1706.87	.00	10.74	97.09	500.00	9785.00	765.00	10550.00
*	17.480	27300.00	1709.25	8.85	1700.40	1710.29	1709.25	10.96	72.68	429.40	9488.92	1925.64	11414.56
*	17.480	27300.00	1709.98	9.58	1700.40	1711.77	1709.98	12.78	86.42	429.40	9850.00	755.00	10605.00
*	17.570	27300.00	1713.69	11.29	1702.40	1715.03	1713.69	12.55	67.75	474.40	9516.45	1487.53	11003.98
*	17.570	27300.00	1714.46	12.06	1702.40	1716.57	1714.46	14.27	78.59	474.40	9879.00	761.00	10640.00
*	17.650	27300.00	1717.21	14.01	1703.20	1718.72	1717.21	13.06	54.62	460.80	9423.70	1379.96	10803.66
	17.650	27300.00	1717.68	14.48	1703.20	1719.85	1717.62	14.62	64.79	460.80	9629.00	757.00	10386.00
	17.780	27300.00	1721.91	9.11	1712.80	1723.20	.00	12.94	88.40	661.30	9642.06	959.09	10601.15
	17.780	27300.00	1722.85	10.05	1712.80	1723.66	.00	10.44	49.46	661.30	9654.00	937.00	10591.00
	17.840	27300.00	1724.77	7.67	1717.10	1726.18	.00	10.98	91.81	341.70	9745.39	1008.18	10753.57
*	17.840	27300.00	1724.57	7.47	1717.10	1726.26	1724.47	11.86	112.40	341.70	9770.00	900.00	10670.00
*	17.950	27300.00	1729.77	10.27	1719.50	1731.52	1729.77	12.83	94.24	563.80	9818.68	1027.29	11097.62
	17.950	27300.00	1729.96	10.46	1719.50	1731.66	.00	12.53	86.77	563.80	9845.00	750.00	10595.00
*	18.090	27700.00	1734.86	11.36	1723.50	1735.43	.00	7.29	48.95	705.80	9853.20	1506.08	11359.28
	18.090	27700.00	1735.00	11.50	1723.50	1735.86	.00	8.15	58.77	705.80	9895.00	715.00	10610.00
*	18.160	27700.00	1736.55	7.75	1728.80	1738.36	1736.55	13.59	105.57	377.60	9722.46	949.15	10711.09
	18.160	27700.00	1736.96	8.16	1728.80	1738.80	.00	13.20	89.07	377.60	9752.00	642.88	10425.00
*	18.230	27700.00	1741.75	11.75	1730.00	1743.29	1741.75	12.32	53.86	370.00	9543.01	1309.37	10852.37
*	18.230	27700.00	1741.75	11.75	1730.00	1744.26	1741.75	14.57	75.28	370.00	9630.00	565.00	10195.00
	18.290	27700.00	1743.06	10.46	1732.60	1744.89	1742.91	14.16	57.36	300.00	9575.47	1039.14	10645.45
*	18.290	27700.00	1744.23	11.63	1732.60	1745.76	.00	12.64	37.61	300.00	9630.00	540.00	10170.00
	18.490	27700.00	1750.88	9.18	1741.70	1752.33	.00	11.68	89.23	1099.70	9739.73	848.14	10587.87
*	18.490	27700.00	1750.61	8.91	1741.70	1752.65	1750.61	13.42	127.17	1099.70	9832.00	683.00	10515.00

	SECNO	Q	CWSEL	DEPTH	ELMIN	EG	CRIWS	VCH	10*KS	XLCH	SSTA	TOPWID	ENDST
*	18.570	27700.00	1754.08	10.58	1743.50	1755.87	1754.08	14.06	60.00	389.00	9637.06	920.13	10557.19
*	18.570	27700.00	1754.47	10.97	1743.50	1756.42	1754.46	14.59	60.17	389.00	9700.00	780.00	10480.00
*	18.740	27300.00	1760.57	10.17	1750.40	1762.15	1760.57	11.21	92.75	917.80	9330.44	875.64	10206.07
	18.740	27300.00	1760.64	10.24	1750.40	1762.36	1760.63	11.79	95.29	917.80	9380.00	745.00	10125.00
	18.840	27300.00	1764.69	8.99	1755.70	1766.59	1764.59	14.02	82.96	497.10	9474.25	684.70	10158.95
*	18.840	27300.00	1765.57	9.87	1755.70	1767.66	1765.57	14.62	74.01	497.10	9576.00	564.00	10140.00
*	18.960	27300.00	1771.34	9.14	1762.20	1772.72	1771.34	13.45	46.39	631.70	9450.36	1432.78	10883.15
*	18.960	27300.00	1771.86	9.66	1762.20	1773.44	1771.86	13.74	44.59	631.70	9639.00	841.00	10480.00
*	19.070	27300.00	1775.13	10.33	1764.80	1776.42	1775.13	9.85	74.59	601.00	9295.43	1357.34	10732.67
	19.070	27300.00	1775.41	10.61	1764.80	1776.83	.00	9.80	69.71	601.00	9485.00	830.00	10315.00
*	19.180	27300.00	1780.34	10.34	1770.00	1782.02	1780.34	10.40	109.09	598.70	9242.08	834.35	10076.44
*	19.180	27300.00	1780.49	10.49	1770.00	1782.19	1780.49	10.29	102.87	598.70	9330.00	746.00	10076.00
	19.260	27300.00	1784.76	11.76	1773.00	1786.60	1784.67	9.82	84.72	416.40	9392.03	717.97	10110.00
*	19.260	27300.00	1784.80	11.80	1773.00	1786.75	1784.80	9.97	86.63	416.40	9430.00	635.00	10065.00
	19.410	27300.00	1790.80	8.20	1782.60	1791.76	.00	10.94	62.93	769.40	9597.37	1012.08	10628.82
	19.410	27300.00	1790.90	8.30	1782.60	1791.86	.00	10.86	60.38	769.40	9660.00	941.03	10610.00
*	19.520	27300.00	1794.85	8.65	1786.20	1796.91	1794.85	16.90	133.28	606.30	9900.45	680.58	10581.03
*	19.520	27300.00	1794.85	8.65	1786.20	1796.91	1794.85	16.89	132.93	606.30	9901.00	680.00	10581.00

	19.620	27300.00	1800.83	10.53	1790.30	1802.06	.00	12.16	72.08	528.00	9983.79	746.74	10730.53
	19.620	27300.00	1800.82	10.52	1790.30	1802.06	.00	12.17	72.22	528.00	9984.00	746.44	10730.44
*	19.720	27300.00	1805.02	9.92	1795.10	1806.84	1805.02	15.24	76.99	509.90	9802.87	760.62	10563.49
*	19.720	27300.00	1805.05	9.95	1795.10	1806.92	1805.05	15.39	78.19	509.90	9825.00	725.00	10550.00
*	19.830	27300.00	1810.83	11.53	1799.30	1812.92	1810.83	14.97	60.08	567.80	9727.16	714.61	10441.77
*	19.830	27300.00	1810.73	11.43	1799.30	1812.93	1810.73	15.31	63.91	567.80	9742.00	678.00	10420.00
*	19.920	27300.00	1814.80	12.80	1802.00	1816.46	1814.80	13.43	85.41	492.00	9220.00	1173.26	10393.26
	19.920	27300.00	1814.83	12.83	1802.00	1816.79	.00	14.15	94.41	492.00	9710.00	683.31	10393.31
	20.050	27300.00	1820.70	10.00	1810.70	1821.23	.00	8.77	46.22	700.00	9355.04	1085.65	10473.75
*	20.050	27300.00	1820.92	10.22	1810.70	1821.41	.00	8.38	40.42	700.00	9420.00	1053.72	10473.72
*	20.160	27300.00	1824.75	9.25	1815.50	1826.00	.00	10.65	178.87	555.70	9154.87	1116.07	10489.67
*	20.160	27300.00	1824.71	9.21	1815.50	1826.06	1824.71	10.99	193.38	555.70	9202.00	1062.26	10489.47
*	20.260	27300.00	1831.31	9.41	1821.90	1832.06	.00	10.16	78.30	531.60	9154.12	1253.31	10533.85
*	20.260	27300.00	1831.45	9.55	1821.90	1832.22	.00	10.24	75.78	531.60	9190.00	1205.00	10395.00
	20.380	27300.00	1835.69	9.79	1825.90	1836.48	.00	11.05	79.81	622.30	9167.09	1211.13	10428.94
	20.380	27300.00	1835.76	9.86	1825.90	1836.56	.00	11.06	78.99	622.30	9209.00	1166.22	10415.00

	SECNO	Q	CWSEL	DEPTH	ELMIN	EG	CRIWS	VCH	10*KS	XLCH	SSTA	TOPWID	ENDST
*	20.480	27300.00	1841.48	9.08	1832.40	1842.84	1841.48	14.30	72.09	526.70	9232.37	1298.90	10531.27
*	20.480	27300.00	1842.08	9.68	1832.40	1843.75	1842.08	14.97	70.94	526.70	9424.00	906.00	10330.00
*	20.620	27300.00	1848.79	9.49	1839.30	1850.37	1848.79	14.65	71.22	788.90	9254.26	1241.81	10496.07
*	20.620	27300.00	1849.51	10.21	1839.30	1851.43	1849.51	15.27	68.24	788.90	9485.00	885.00	10370.00
*	20.640	27300.00	1850.90	8.90	1842.00	1851.24	.00	4.83	24.46	135.00	9200.65	1349.99	10550.64
*	20.640	27300.00	1851.90	9.90	1842.00	1852.38	.00	5.58	25.59	135.00	9500.00	850.00	10350.00
*	20.710	27300.00	1852.87	9.87	1843.00	1854.18	1852.87	11.81	126.09	369.60	4124.87	1391.07	5515.94
*	20.710	27300.00	1853.49	10.49	1843.00	1855.40	1853.49	13.12	130.71	369.60	4500.00	810.00	5310.00
*	20.790	27300.00	1857.17	9.67	1847.50	1857.91	.00	9.01	52.82	422.40	4240.00	1260.00	5500.00
*	20.790	27300.00	1858.09	10.59	1847.50	1859.43	.00	10.82	63.20	422.40	4500.00	660.00	5160.00
*	20.900	27300.00	1862.43	9.83	1852.60	1863.86	1862.43	11.55	94.07	580.80	4161.02	1313.97	5475.00
*	20.900	27300.00	1862.77	10.17	1852.60	1864.74	1862.77	12.63	103.41	580.80	4550.00	670.00	5220.00
	20.980	27300.00	1866.18	12.98	1853.20	1867.49	1865.81	10.43	79.18	422.40	4128.74	1250.99	5393.42
	20.980	27300.00	1866.91	13.71	1853.20	1868.12	.00	9.69	57.66	422.40	4390.00	670.00	5060.00
*	21.050	27300.00	1869.77	12.17	1857.60	1871.37	1869.77	12.62	59.91	369.60	4096.29	1247.21	5343.50
*	21.050	27300.00	1869.92	12.32	1857.60	1871.93	1869.92	13.54	67.32	369.60	4380.00	695.00	5075.00
	21.110	27300.00	1872.00	11.50	1860.50	1873.36	.00	10.95	69.34	316.80	4159.86	1025.38	5185.24
	21.110	27300.00	1872.76	12.26	1860.50	1873.90	.00	9.91	49.32	316.80	4350.00	775.00	5125.00
*	21.180	27300.00	1876.07	11.07	1865.00	1877.60	1876.07	12.61	63.17	369.60	4050.00	1152.57	5202.57
*	21.180	27300.00	1876.09	11.09	1865.00	1877.78	1876.09	13.02	69.62	369.60	4200.00	900.00	5100.00
*	21.250	27300.00	1880.86	12.16	1868.70	1882.51	1880.86	12.50	50.50	369.60	4179.23	1420.77	5600.00
*	21.250	27300.00	1880.99	12.29	1868.70	1883.17	1880.99	13.69	61.01	369.60	4310.00	745.00	5055.00
	21.310	27300.00	1882.64	11.94	1870.70	1883.90	.00	10.26	38.17	316.80	4175.94	965.41	5141.35
	21.310	27300.00	1883.45	12.75	1870.70	1884.72	.00	9.98	32.13	316.80	4450.00	650.00	5100.00
	21.350	27300.00	1883.36	11.86	1871.50	1885.23	.00	13.62	65.35	211.20	4255.26	829.04	5084.30
	21.350	27300.00	1884.12	12.62	1871.50	1885.70	.00	12.50	49.41	211.20	4400.00	705.00	5105.00
	21.410	27300.00	1886.75	12.55	1874.20	1888.30	.00	13.62	76.27	422.00	4299.76	799.93	5099.69
	21.410	27300.00	1886.69	12.49	1874.20	1888.42	.00	14.05	82.08	422.00	4500.00	596.32	5096.32
	21.490	27300.00	1890.86	8.86	1882.00	1892.34	.00	12.14	94.28	475.00	4616.35	700.14	5316.50
	21.490	27300.00	1891.09	9.09	1882.00	1892.43	.00	11.61	81.94	475.00	4617.00	700.00	5317.00
	21.580	27300.00	1895.50	8.70	1886.80	1896.45	.00	9.00	79.25	475.20	4335.33	1294.67	5630.00
*	21.580	27300.00	1895.56	8.76	1886.80	1897.25	1895.56	11.41	125.70	475.20	4415.00	840.00	5255.00
	21.630	27300.00	1897.88	9.88	1888.00	1899.24	1897.48	11.07	113.82	264.00	4213.41	1159.04	5478.43
	21.630	27300.00	1898.81	10.81	1888.00	1899.97	.00	10.23	74.94	264.00	4265.00	1055.00	5320.00

SECNO	Q	CWSEL	DEPTH	ELMIN	EG	CRIWS	VCH	10*KS	XLCH	SSTA	TOPWID	ENDST
21.690	27300.00	1902.22	8.22	1894.00	1903.06	.00	9.33	71.81	422.40	3891.12	1412.19	5303.31
21.690	27300.00	1902.24	8.24	1894.00	1903.16	.00	9.66	76.49	422.40	3970.00	1330.00	5300.00
21.770	27300.00	1905.63	10.63	1895.00	1907.24	1905.36	12.07	110.80	422.40	3694.34	964.76	5194.72
21.770	27300.00	1905.73	10.73	1895.00	1907.26	.00	11.79	102.75	422.40	3694.00	958.18	5165.00
* 21.820	27300.00	1908.88	8.88	1900.00	1910.37	1908.88	13.63	117.77	264.00	3690.75	1139.89	5210.74
* 21.820	27300.00	1908.92	8.92	1900.00	1910.58	1908.92	14.26	127.85	264.00	3750.00	1074.67	5200.00
21.910	27300.00	1914.04	12.04	1902.00	1914.81	.00	9.18	74.26	475.20	3809.06	1154.39	5251.95
21.910	27300.00	1914.60	12.60	1902.00	1915.60	.00	10.69	87.80	475.20	3900.00	1140.00	5040.00
21.990	27300.00	1917.76	7.86	1909.90	1918.98	1917.60	12.84	130.27	422.40	3667.24	1403.61	5315.83
21.990	27300.00	1918.43	8.53	1909.90	1919.61	.00	12.41	105.84	422.40	3765.00	1234.22	5090.00
22.080	27300.00	1922.61	9.61	1913.00	1923.23	.00	9.28	66.49	475.20	3713.43	1609.96	5340.23
22.080	27300.00	1922.98	9.98	1913.00	1923.90	.00	10.80	82.00	475.20	4050.00	1125.00	5175.00
22.150	27300.00	1925.39	10.39	1915.00	1926.31	.00	10.76	116.38	369.60	3356.58	1241.16	5067.37
22.150	27300.00	1926.11	11.11	1915.00	1927.17	.00	11.59	108.83	369.60	3700.00	1088.06	5070.00

	22.220	27300.00	1928.96	10.96	1918.00	1930.31	.00	11.82	118.62	369.60	3744.67	831.90	5221.84
	22.220	27300.00	1929.46	11.46	1918.00	1930.81	.00	11.41	106.99	369.60	3918.00	783.94	5063.74
	22.290	27300.00	1933.00	10.00	1923.00	1933.96	.00	10.75	82.89	369.60	3926.81	1282.22	5471.95
	22.290	27300.00	1933.37	10.37	1923.00	1934.52	.00	12.06	95.53	369.60	4000.00	911.26	5100.00
	22.360	27300.00	1936.94	11.94	1925.00	1938.18	.00	11.16	114.70	369.60	4068.37	1104.00	5688.77
	22.360	27300.00	1937.48	12.48	1925.00	1938.67	.00	10.63	99.93	369.60	4100.00	844.30	5062.21
	22.430	27300.00	1941.79	8.39	1933.40	1942.49	.00	7.84	96.74	369.60	4098.00	1204.82	5302.82
	22.430	27300.00	1942.23	8.83	1933.40	1943.29	.00	10.03	132.09	369.60	4192.00	918.00	5110.00
	22.480	27300.00	1944.10	9.10	1935.00	1945.44	.00	12.45	142.67	264.00	4247.04	1082.95	5330.00
	22.480	27300.00	1944.97	9.97	1935.00	1946.73	.00	13.70	136.93	264.00	4372.00	723.00	5095.00
	22.560	27300.00	1948.18	9.68	1938.50	1949.48	.00	12.42	85.60	422.40	4369.09	1064.96	5434.06
	22.560	27300.00	1949.07	10.57	1938.50	1950.55	.00	12.79	76.59	422.40	4470.00	635.00	5105.00
*	22.670	27300.00	1954.37	9.87	1944.50	1956.30	1954.37	15.09	91.87	528.00	4379.74	786.32	5166.05
*	22.670	27300.00	1954.94	10.44	1944.50	1957.05	1954.94	15.26	91.58	528.00	4475.00	575.00	5050.00
*	22.730	27300.00	1957.89	10.89	1947.00	1959.79	1957.89	13.87	84.47	316.80	4246.90	869.26	5116.16
*	22.730	27300.00	1958.64	11.64	1947.00	1961.11	1958.64	14.84	89.05	316.80	4499.00	526.00	5025.00
*	22.790	27300.00	1960.94	10.94	1950.00	1962.71	1960.94	13.74	74.14	316.80	4197.60	965.08	5162.69
	22.790	27300.00	1961.63	11.63	1950.00	1963.68	.00	14.13	70.45	316.80	4490.00	660.00	5150.00
	22.860	24400.00	1964.52	11.02	1953.50	1965.64	.00	10.13	73.68	370.00	4230.68	979.15	5209.83
	22.860	24400.00	1965.27	11.77	1953.50	1966.28	.00	9.36	53.46	370.00	4450.00	742.00	5192.00

	SECNO	Q	CWSEL	DEPTH	ELMIN	EG	CRIWS	VCH	10*KS	XLCH	SSTA	TOPWID	ENDST
	22.950	24400.00	1972.66	10.66	1962.00	1973.45	.00	7.55	80.68	1003.00	9045.60	1017.56	10063.16
*	22.950	24400.00	1972.69	10.69	1962.00	1973.94	.00	8.97	113.53	1003.00	9450.00	600.00	10050.00
*	22.960	24400.00	1974.46	14.86	1959.60	1976.26	1974.46	15.19	47.05	30.00	9087.79	926.98	10014.76
*	22.960	24400.00	1974.59	14.99	1959.60	1976.96	1974.59	16.56	54.95	30.00	9500.00	514.00	10014.00
*	23.130	24400.00	1981.33	11.53	1969.80	1983.41	1981.33	14.58	59.97	880.20	9427.59	801.73	10229.32
*	23.130	24400.00	1982.25	12.45	1969.80	1984.45	1982.25	14.41	51.04	880.20	9595.00	561.00	10156.00
*	23.250	24400.00	1987.17	9.87	1977.30	1989.03	1987.17	13.83	73.14	619.40	9676.44	743.33	10419.76
*	23.250	24400.00	1987.81	10.51	1977.30	1990.90	1987.81	16.06	90.32	619.40	9874.00	334.00	10208.00
*	23.330	24400.00	1991.35	11.85	1979.50	1993.72	1991.35	18.13	94.84	432.60	9757.41	599.89	10357.31
	23.330	24400.00	1992.11	12.61	1979.50	1994.72	.00	18.14	90.82	432.60	9963.00	331.00	10294.00
	23.450	24400.00	1998.50	10.10	1988.40	2000.15	.00	14.79	107.68	623.50	9739.33	609.04	10348.37
	23.450	24400.00	1998.99	10.59	1988.40	2000.54	.00	14.11	87.18	623.50	9867.00	465.00	10332.00
*	23.550	24400.00	2003.92	7.22	1996.70	2005.92	2003.92	14.15	106.73	545.10	9564.76	706.32	10271.08
*	23.550	24400.00	2004.52	7.82	1996.70	2007.03	2004.52	14.98	103.16	545.10	9766.00	467.00	10233.00
	23.640	11800.00	2008.98	8.98	2000.00	2010.13	.00	11.37	46.81	500.20	9429.11	681.35	10110.46
	23.640	11800.00	2009.84	9.84	2000.00	2010.53	.00	9.13	25.79	500.20	9435.00	662.00	10097.00
*	23.870	11800.00	2018.87	10.07	2008.80	2020.60	2018.87	12.20	44.43	1179.60	9612.42	555.39	10167.81
*	23.870	11800.00	2019.04	10.24	2008.80	2021.23	2019.04	13.14	51.81	1179.60	9668.00	353.00	10021.00
	23.940	11800.00	2020.86	10.46	2010.40	2022.88	2020.83	12.24	67.68	403.20	9527.41	415.48	10118.92
	23.940	11800.00	2021.78	11.38	2010.40	2023.25	.00	10.48	40.81	403.20	9542.00	500.00	10042.00
	24.030	11800.00	2025.13	7.63	2017.50	2026.02	.00	10.48	60.34	457.80	9756.17	652.99	10409.16
*	24.030	11800.00	2025.83	8.33	2017.50	2028.41	2025.83	15.03	104.22	457.80	9900.00	223.00	10123.00
*	24.120	11800.00	2028.90	8.30	2020.60	2030.98	2028.90	11.82	58.69	451.70	9736.38	436.92	10173.30
*	24.120	11800.00	2029.75	9.15	2020.60	2031.41	.00	10.48	39.61	451.70	9860.00	207.00	10067.00
*	24.250	9700.00	2033.67	9.67	2024.00	2035.81	2033.67	14.03	76.07	708.60	9952.75	267.97	10235.08
*	24.250	9700.00	2033.98	9.98	2024.00	2036.28	2033.98	14.22	74.66	708.60	9953.00	237.05	10199.00
*	24.380	9700.00	2038.55	7.05	2031.50	2039.46	.00	7.87	35.26	708.80	9772.72	370.39	10143.11
*	24.380	9700.00	2038.87	7.37	2031.50	2039.80	.00	7.73	31.80	708.80	9811.00	266.00	10077.00
*	24.480	9700.00	2043.74	6.94	2036.80	2045.30	2043.74	11.92	59.16	501.70	9620.98	473.74	10094.71
*	24.480	9700.00	2044.46	7.66	2036.80	2046.83	2044.46	13.30	64.14	501.70	9834.00	214.00	10048.00
*	24.610	9700.00	2050.04	9.84	2040.20	2051.52	2050.04	11.60	39.84	668.90	9451.16	665.08	10116.24
*	24.610	9700.00	2050.49	10.29	2040.20	2054.40	2050.49	15.87	78.47	668.90	9944.00	79.00	10023.00
*	24.740	9700.00	2055.85	10.05	2045.80	2057.47	2055.85	10.79	41.24	668.80	9551.84	678.84	10244.47
*	24.740	9700.00	2056.69	10.89	2045.80	2058.49	.00	10.77	36.56	668.80	9961.00	125.00	10086.00

	SECNO	Q	CWSEL	DEPTH	ELMIN	EG	CRIWS	VCH	10*KS	XLCH	SSTA	TOPWID	ENDST
*	24.870	7800.00	2061.94	7.34	2054.60	2063.58	2061.94	11.10	53.61	732.80	9652.80	435.82	10180.87
*	24.870	7800.00	2061.99	7.39	2054.60	2064.49	2061.99	12.82	70.71	732.80	9929.00	151.00	10080.00
	24.950	7800.00	2064.96	7.56	2057.40	2065.68	.00	7.85	43.57	405.60	9919.06	360.74	10279.80
	24.950	7800.00	2065.79	8.39	2057.40	2067.21	.00	9.57	50.09	405.60	9920.00	180.00	10100.00
*	25.120	7800.00	2072.77	8.07	2064.70	2075.32	2072.77	12.91	65.46	867.70	9951.89	153.27	10105.16
*	25.120	7800.00	2072.79	8.09	2064.70	2075.32	2072.79	12.86	64.70	867.70	9952.00	153.00	10105.00
*	25.280	7800.00	2081.36	9.86	2071.50	2082.98	2081.36	12.05	39.55	867.50	9604.19	433.20	10037.39
*	25.280	7800.00	2081.44	9.94	2071.50	2083.89	2081.44	13.83	51.41	867.50	9849.00	188.00	10037.00
	25.380	7800.00	2084.98	6.78	2078.20	2085.30	.00	5.69	41.36	538.70	9308.85	1008.00	10316.85
*	25.380	7800.00	2085.95	7.75	2078.20	2086.28	.00	5.36	23.42	538.70	9650.00	646.00	10296.00

*	25.450	7800.00	2088.35	7.35	2081.00	2089.38	2088.35	9.81	184.93	362.20	9967.09	582.34	10664.28
*	25.450	7800.00	2089.24	8.24	2081.00	2090.27	2089.24	11.30	147.37	362.20	9968.00	630.00	10598.00
*	25.560	7800.00	2095.84	10.34	2085.50	2096.30	.00	6.43	76.90	583.50	9619.37	866.12	10528.90
*	25.560	7800.00	2095.91	10.41	2085.50	2096.36	.00	6.39	72.08	583.50	9686.72	802.73	10511.00
	25.630	7800.00	2099.06	9.36	2089.70	2099.84	.00	8.78	121.30	365.70	9916.31	458.07	10586.65
*	25.630	7800.00	2099.44	9.74	2089.70	2100.64	2099.41	10.25	187.42	365.70	9931.00	429.73	10477.00
*	25.700	7800.00	2102.31	3.51	2098.80	2104.03	2102.31	10.51	39.09	396.00	9881.00	218.00	10099.00
*	25.700	7800.00	2102.54	3.74	2098.80	2104.05	.00	9.84	32.02	396.00	9881.00	218.00	10099.00
*	25.720	7800.00	2104.11	4.91	2099.20	2105.13	.00	8.10	18.71	79.70	9990.00	237.00	10227.00
*	25.720	7800.00	2104.11	4.91	2099.20	2105.13	.00	8.10	18.71	79.70	9990.00	237.00	10227.00
*	25.830	7800.00	2112.46	8.86	2103.60	2113.92	2112.46	10.93	81.14	612.50	9914.00	393.33	10308.95
*	25.830	7800.00	2113.04	9.44	2103.60	2115.55	2113.04	12.69	93.72	612.50	9914.00	126.00	10040.00
*	25.950	7800.00	2119.31	10.21	2109.10	2120.57	2119.31	11.05	51.63	620.60	9923.00	652.16	10616.00
*	25.950	7800.00	2120.33	11.23	2109.10	2123.08	2120.33	13.84	66.25	620.60	9923.00	141.00	10064.00
*	26.170	7800.00	2132.48	10.78	2121.70	2133.91	2132.48	11.24	48.94	1132.00	9966.59	499.86	10472.00
*	26.170	7800.00	2132.69	10.99	2121.70	2136.22	2132.69	15.20	85.44	1132.00	9969.00	83.00	10052.00

MONT. WAT. AND HEC

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	13.000	1522.98	-.01	1525.23	244.53	.00	13163.05	.00	245.00	9820.00	9820.00	10065.00	10065.00
*	13.000	1522.98	-.01	1525.23	244.53	.00	13163.05	.00	245.00	9820.00	9820.00	10065.00	10065.00
	13.020	1524.39	.00	1525.94	244.67	.00	13163.05	.00	245.00	9820.00	9820.00	10065.00	10065.00
	13.020	1524.39	.00	1525.94	244.67	.00	13163.05	.00	245.00	9820.00	9820.00	10065.00	10065.00
	13.040	1525.95	-.01	1526.53	394.62	.00	13163.05	.00	813.00	9537.00	9721.00	10130.00	10350.00
	13.040	1525.95	-.01	1526.53	394.62	.00	13163.05	.00	813.00	9537.00	9721.00	10130.00	10350.00
	13.080	1526.93	-.01	1527.13	1095.47	382.50	10462.22	2318.33	1129.00	9550.00	9615.00	10182.00	10679.00
	13.080	1526.93	-.01	1527.13	1095.47	382.50	10462.22	2318.33	1129.00	9550.00	9615.00	10182.00	10679.00
*	13.160	1528.14	.00	1528.50	1310.31	3734.22	7775.94	1652.89	1395.00	9421.00	9953.00	10288.00	10816.00
*	13.160	1528.14	.00	1528.50	1310.31	3734.22	7775.94	1652.89	1395.00	9421.00	9953.00	10288.00	10816.00
	13.280	1532.51	.00	1533.21	1230.26	2428.25	8742.59	4529.16	1265.00	9537.00	9671.00	10110.00	10802.00
	13.280	1532.51	.00	1533.21	1230.26	2428.25	8742.59	4529.16	1265.00	9537.00	9671.00	10110.00	10802.00
*	13.400	1537.72	.00	1538.06	2079.32	3696.35	11361.71	8241.94	.00	.00	9670.00	10319.00	.00
*	13.400	1538.53	.00	1539.16	932.00	.00	18362.90	4937.10	932.00	9670.00	9670.00	10319.00	10602.00
	13.550	1543.09	.00	1543.69	1648.66	11067.74	12232.19	.07	.00	.00	9688.00	10494.00	.00
	13.550	1544.06	.00	1544.57	1258.00	6635.72	16664.28	.00	1258.00	9236.00	9688.00	10494.00	10494.00
	13.660	1547.65	.00	1548.17	1912.62	13742.68	9557.32	.00	2311.00	8335.00	9477.00	10486.00	10646.00
	13.660	1548.19	.00	1548.78	1427.00	7899.81	15400.19	.00	1427.00	9055.00	9477.00	10486.00	10482.00
	13.860	1555.73	.00	1556.28	1715.14	8959.83	13139.49	1200.68	2221.00	8212.00	9330.00	10042.00	10433.00
	13.860	1556.31	.00	1556.86	1282.28	6204.46	15415.46	1680.08	1524.00	8708.00	9330.00	10042.00	10232.00
	14.070	1564.42	.00	1565.01	1909.12	16022.38	4983.93	2293.70	2078.00	8530.00	9879.00	10059.00	10608.00
	14.070	1564.58	.00	1565.25	1724.00	14668.25	5662.93	2968.83	1724.00	8805.00	9879.00	10059.00	10529.00
*	14.300	1573.99	.00	1574.90	2146.54	4605.95	9236.27	9457.78	.00	.00	9923.00	10027.00	.00
*	14.300	1574.76	.00	1576.12	950.00	7609.69	11066.56	4623.76	950.00	9210.00	9923.00	10027.00	10160.00
	14.540	1583.24	.00	1584.12	620.61	49.43	23250.19	.38	1305.00	9283.00	9950.00	10480.00	10588.00
	14.540	1583.77	.00	1584.51	530.00	.00	23300.00	.00	530.00	9950.00	9950.00	10480.00	10480.00
*	14.740	1591.09	.00	1593.15	616.16	10449.87	12191.10	659.03	.00	.00	9976.00	10076.00	.00
*	14.740	1591.24	.00	1593.99	356.00	9702.70	13597.30	.00	356.00	9720.00	9976.00	10076.00	10076.00
	14.890	1596.68	.00	1598.40	550.50	8643.61	14655.43	.96	.00	.00	9938.00	10059.00	.00
*	14.890	1597.53	.00	1599.09	439.00	8311.28	14988.72	.00	439.00	9620.00	9938.00	10059.00	10059.00
	15.060	1602.36	.00	1603.57	755.91	826.28	21127.82	1345.90	.00	.00	9972.00	10390.00	.00
	15.060	1602.45	.00	1603.97	418.00	.00	23300.00	.00	418.00	9972.00	9972.00	10390.00	10390.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	15.120	1604.66	.00	1606.47	789.48	537.88	20321.09	2441.03	1043.00	9503.00	9975.00	10351.00	10546.00
*	15.120	1604.74	.00	1607.27	376.00	.00	23300.00	.00	376.00	9975.00	9975.00	10351.00	10351.00
	15.220	1610.04	.00	1611.52	597.88	16.31	20655.95	2627.74	923.00	9749.00	9977.00	10348.00	10672.00
*	15.220	1610.78	.00	1612.35	371.00	.00	23300.00	.00	371.00	9977.00	9977.00	10348.00	10348.00
	15.410	1616.92	.00	1618.62	396.66	9.80	23229.68	60.52	.00	.00	9979.00	10353.00	.00
	15.410	1617.05	.00	1618.69	374.00	.00	23300.00	.00	374.00	9979.00	9979.00	10353.00	10353.00
*	15.550	1622.53	.00	1624.72	525.23	1329.84	18659.37	3310.79	.00	.00	9935.00	10147.00	.00
*	15.550	1622.91	.00	1626.22	247.00	.00	22523.71	776.29	247.00	9935.00	9935.00	10147.00	10182.00
	15.750	1629.97	.00	1631.23	768.87	9894.03	12979.14	426.82	.00	.00	9977.00	10102.00	.00
*	15.750	1630.93	.00	1631.86	639.00	10707.21	12422.01	170.77	639.00	9477.00	9977.00	10102.00	10116.00
*	15.890	1635.01	.00	1636.85	712.40	7082.10	16194.18	23.71	.00	.00	9969.00	10210.00	.00
*	15.890	1635.75	.00	1638.43	374.02	2948.76	20351.24	.00	393.00	9817.00	9969.00	10210.00	10210.00
	16.070	1643.78	.00	1645.58	512.27	6758.93	16536.19	4.87	.00	.00	9948.00	10130.00	.00

	16.070	1644.75	.00	1646.99	300.00	3774.04	19525.96	.00	300.00	9830.00	9948.00	10130.00	10130.00
	16.190	1648.31	.00	1649.95	751.98	9523.27	13776.73	.00	.00	.00	9934.00	10077.00	.00
	16.190	1649.23	.00	1650.86	468.00	8578.41	14721.59	.00	468.00	9600.00	9934.00	10077.00	10068.00
*	16.270	1651.78	.00	1653.84	643.18	4343.55	18956.44	.00	.00	.00	9760.00	10045.00	.00
*	16.270	1652.32	.00	1655.35	282.00	.00	23300.00	.00	282.00	9760.00	9760.00	10045.00	10042.00
*	16.490	1661.63	.00	1662.62	642.89	197.91	10203.83	12898.27	.00	.00	9906.00	10130.00	.00
*	16.490	1662.56	.00	1663.71	414.00	.00	12157.76	11142.23	414.00	9906.00	9906.00	10130.00	10320.00
	16.680	1668.17	.00	1669.20	654.54	.00	23295.76	4.24	.00	.00	9928.00	10590.00	.00
	16.680	1668.38	.00	1669.32	650.00	.00	23300.00	.00	650.00	9940.00	9928.00	10590.00	10590.00
*	16.860	1678.96	.00	1681.95	314.84	.00	23700.00	.00	.00	.00	9770.22	10118.82	.00
*	16.860	1679.11	.00	1681.95	313.00	.00	23700.00	.00	313.00	9788.00	9770.22	10118.82	10101.00
	16.870	1678.96	.00	1682.38	312.16	.00	23700.00	.00	.00	.00	9791.69	10139.46	.00
	16.870	1679.95	.00	1682.36	311.00	.00	23700.00	.00	311.00	9806.00	9791.69	10139.46	10117.00
*	16.960	1684.24	.00	1684.94	782.28	8233.17	15050.02	416.81	1574.00	9506.00	9932.00	10342.00	11080.00
*	16.960	1684.54	.00	1687.11	442.69	308.37	26564.95	426.68	641.00	9893.00	9932.00	10342.00	10534.00
*	17.060	1688.86	.00	1690.67	983.41	8054.70	14765.99	879.31	1448.00	9451.00	9947.00	10090.00	10899.00
*	17.060	1689.73	.00	1691.70	887.84	7991.67	17095.04	2213.30	900.00	9650.00	9947.00	10090.00	10550.00
*	17.180	1694.41	.00	1696.04	913.57	3195.09	19243.72	1261.20	1249.00	9590.00	9978.00	10254.00	10839.00
*	17.180	1694.92	.00	1696.65	827.62	4316.38	21543.92	1439.71	953.00	9697.00	9978.00	10254.00	10650.00
	17.300	1700.59	.00	1701.52	1567.44	4459.84	12209.61	7030.55	2235.00	9451.00	9970.00	10156.00	11686.00
	17.300	1701.09	.00	1702.36	780.00	5811.56	14585.10	6903.34	780.00	9670.00	9970.00	10156.00	10450.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	17.390	1704.66	.00	1705.73	1515.12	282.63	15356.23	8061.14	1638.00	9731.00	9893.00	10179.00	11369.00
	17.390	1705.43	.00	1706.87	765.00	756.68	19254.72	7288.60	765.00	9785.00	9893.00	10179.00	10550.00
*	17.480	1709.25	.00	1710.29	1925.64	3637.09	13743.72	9919.19	2193.00	9404.00	9893.00	10073.00	11597.00
*	17.480	1709.98	.00	1711.77	755.00	718.25	17727.29	8854.46	755.00	9850.00	9893.00	10073.00	10605.00
*	17.570	1713.69	.00	1715.03	1487.53	5458.53	13334.55	8506.92	.00	.00	9923.00	10040.00	.00
*	17.570	1714.46	.00	1716.57	761.00	2432.72	16460.44	8406.84	761.00	9879.00	9923.00	10040.00	10640.00
*	17.650	1717.21	.00	1718.72	1379.96	6558.31	14323.79	6417.90	.00	.00	9924.00	10021.00	.00
	17.650	1717.68	.00	1719.85	757.00	5182.18	16693.47	5424.35	757.00	9629.00	9924.00	10021.00	10386.00
	17.780	1721.91	.00	1723.20	959.09	3904.37	9614.50	13781.14	979.00	9628.00	9931.00	10026.00	10607.00
	17.780	1722.85	.00	1723.66	937.00	4337.34	8690.28	14272.38	937.00	9654.00	9931.00	10026.00	10591.00
	17.840	1724.77	.00	1726.18	1008.18	1755.76	18756.83	6787.41	.00	.00	9925.00	10217.00	.00
*	17.840	1724.57	.00	1726.26	900.00	1216.26	19547.92	6535.82	900.00	9770.00	9925.00	10217.00	10670.00
*	17.950	1729.77	.00	1731.52	1027.29	474.31	16906.90	9918.79	.00	.00	9867.00	10047.00	.00
	17.950	1729.96	.00	1731.66	750.00	320.37	16939.88	10039.75	750.00	9845.00	9867.00	10047.00	10595.00
*	18.090	1734.86	.00	1735.43	1506.08	1874.98	13868.30	11956.72	.00	.00	9936.00	10310.00	.00
	18.090	1735.00	.00	1735.86	715.00	1403.29	15948.56	10348.15	715.00	9895.00	9936.00	10310.00	10610.00
*	18.160	1736.55	.00	1738.36	949.15	1682.45	13934.00	12083.54	.00	.00	9836.00	10075.00	.00
	18.160	1736.96	.00	1738.80	642.88	1698.71	14775.26	11226.03	673.00	9752.00	9836.00	10075.00	10425.00
*	18.230	1741.75	.00	1743.29	1309.37	6722.23	16427.15	4550.63	.00	.00	9800.00	10010.00	.00
*	18.230	1741.75	.00	1744.26	565.00	6334.47	19426.60	1938.93	565.00	9630.00	9800.00	10010.00	10195.00
	18.290	1743.06	.00	1744.89	1039.14	9127.66	14165.21	4407.13	.00	.00	9914.00	10049.00	.00
*	18.290	1744.23	.00	1745.76	540.00	9347.01	14649.20	3703.79	540.00	9630.00	9914.00	10049.00	10170.00
	18.490	1750.88	.00	1752.33	848.14	1841.22	15733.23	10125.55	.00	.00	9832.00	10037.00	.00
*	18.490	1750.61	.00	1752.65	683.00	.00	17319.74	10380.26	683.00	9832.00	9832.00	10037.00	10515.00
*	18.570	1754.08	.00	1755.87	920.13	13908.12	9457.89	4333.98	.00	.00	9947.00	10041.00	.00
*	18.570	1754.47	.00	1756.42	780.00	12086.06	10351.92	5262.03	780.00	9700.00	9947.00	10041.00	10480.00
*	18.740	1760.57	.00	1762.15	875.64	20362.10	6760.93	176.98	923.00	9321.00	9975.00	10142.00	10244.00
	18.740	1760.64	.00	1762.36	745.00	20453.45	6846.55	.00	745.00	9380.00	9975.00	10142.00	10125.00
	18.840	1764.69	.00	1766.59	684.70	16833.08	9395.68	1071.25	695.00	9470.00	9915.00	10036.00	10165.00
*	18.840	1765.57	.00	1767.66	564.00	14100.72	11352.18	1847.10	564.00	9576.00	9915.00	10036.00	10140.00
*	18.960	1771.34	.00	1772.72	1432.78	8975.27	10637.99	7686.75	.00	.00	9924.00	10021.00	.00
*	18.960	1771.86	.00	1773.44	841.00	6794.37	11567.28	8938.35	841.00	9639.00	9924.00	10021.00	10480.00
*	19.070	1775.13	.00	1776.42	1357.34	14771.60	8965.44	3562.96	.00	.00	9928.00	10068.00	.00
	19.070	1775.41	.00	1776.83	830.00	15701.03	9307.25	2291.72	830.00	9485.00	9928.00	10068.00	10315.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	19.180	1780.34	.00	1782.02	834.35	16148.92	11151.08	.00	.00	.00	9874.00	10080.00	.00
*	19.180	1780.49	.00	1782.19	746.00	15959.17	11340.83	.00	746.00	9330.00	9874.00	10080.00	10076.00
	19.260	1784.76	.00	1786.60	717.97	21974.03	4805.90	520.07	719.00	9391.00	9981.00	10061.00	10110.00
*	19.260	1784.80	.00	1786.75	635.00	22339.92	4909.01	51.07	635.00	9430.00	9981.00	10061.00	10065.00
	19.410	1790.80	.00	1791.76	1012.08	3064.88	8120.10	16115.02	.00	.00	9928.00	10072.00	.00
	19.410	1790.90	.00	1791.86	941.03	2757.41	8223.58	16319.01	950.00	9660.00	9928.00	10072.00	10610.00
*	19.520	1794.85	.00	1796.91	680.58	1870.70	8011.61	17417.69	1019.00	9795.00	9972.00	10055.00	10814.00
*	19.520	1794.85	.00	1796.91	680.00	1871.23	8009.46	17419.31	680.00	9901.00	9972.00	10055.00	10581.00
	19.620	1800.83	.00	1802.06	746.74	.00	9204.45	18095.55	822.00	9966.00	9966.00	10120.00	10788.00

	19.620	1800.82	.00	1802.06	746.44	.00	9208.78	18091.22	746.51	9984.00	9966.00	10120.00	10730.51
*	19.720	1805.02	.00	1806.84	760.62	4636.50	10629.98	12033.52	.00	.00	9948.00	10043.00	.00
*	19.720	1805.05	.00	1806.92	725.00	4291.18	10769.88	12238.95	725.00	9825.00	9948.00	10043.00	10550.00
*	19.830	1810.83	.00	1812.92	714.61	5220.71	14607.88	7471.41	.00	.00	9960.00	10074.00	.00
*	19.830	1810.73	.00	1812.93	678.00	5141.37	14767.50	7391.12	678.00	9742.00	9960.00	10074.00	10420.00
*	19.920	1814.80	.00	1816.46	1173.26	5610.67	14067.63	7621.71	1173.31	9220.00	9974.00	10097.00	10393.31
	19.920	1814.83	.00	1816.79	683.31	4330.82	14870.89	8098.29	683.31	9710.00	9974.00	10097.00	10393.31
	20.050	1820.70	.00	1821.23	1085.65	10783.92	4837.54	11678.55	.00	.00	9954.00	10032.00	.00
*	20.050	1820.92	.00	1821.41	1053.72	10855.78	4763.06	11681.16	1053.72	9420.00	9954.00	10032.00	10473.72
*	20.160	1824.75	.00	1826.00	1116.07	7504.00	4303.93	15492.07	.00	.00	9953.00	10071.00	.00
*	20.160	1824.71	.00	1826.06	1062.26	7043.26	4384.50	15872.24	1287.70	9202.00	9953.00	10071.00	10489.70
*	20.260	1831.31	.00	1832.06	1253.31	12165.82	5313.71	9820.46	.00	.00	9920.00	10054.00	.00
*	20.260	1831.45	.00	1832.22	1205.00	11623.01	5552.29	10124.70	1205.00	9190.00	9920.00	10054.00	10395.00
	20.380	1835.69	.00	1836.48	1211.13	15282.82	4167.49	7849.68	.00	.00	9951.00	10043.00	.00
	20.380	1835.76	.00	1836.56	1166.22	15114.49	4239.02	7946.48	1206.00	9209.00	9951.00	10043.00	10415.00
*	20.480	1841.48	.00	1842.84	1298.90	9893.79	9448.59	7957.62	.00	.00	9972.00	10065.00	.00
*	20.480	1842.08	.00	1843.75	906.00	8833.72	10720.35	7745.93	906.00	9424.00	9972.00	10065.00	10330.00
*	20.620	1848.79	.00	1850.37	1241.81	9433.36	11259.89	6606.75	.00	.00	9969.00	10074.00	.00
*	20.620	1849.51	.00	1851.43	885.00	8904.71	12889.45	5505.85	885.00	9485.00	9969.00	10074.00	10370.00
*	20.640	1850.90	.00	1851.24	1349.99	5086.61	19287.42	2925.97	.00	.00	9500.00	10340.00	.00
*	20.640	1851.90	.00	1852.38	850.00	.00	26933.09	366.91	850.00	9500.00	9500.00	10340.00	10350.00
*	20.710	1852.87	.00	1854.18	1391.07	9832.78	13632.78	3834.44	.00	.00	4910.00	5170.00	.00
*	20.710	1853.49	.00	1855.40	810.00	8795.98	17254.40	1249.63	810.00	4500.00	4910.00	5170.00	5310.00
*	20.790	1857.17	.00	1857.91	1260.00	10677.01	12912.21	3710.77	1260.00	4240.00	4907.00	5160.00	5500.00
*	20.790	1858.09	.00	1859.43	660.00	9288.65	18011.35	.00	660.00	4500.00	4907.00	5160.00	5160.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	20.900	1862.43	.00	1863.86	1313.97	6308.44	17256.68	3734.88	1385.00	4090.00	4810.00	5090.00	5475.00
*	20.900	1862.77	.00	1864.74	670.00	6090.63	20102.20	1107.17	670.00	4550.00	4810.00	5090.00	5220.00
	20.980	1866.18	.00	1867.49	1250.99	6665.91	19860.04	774.06	1650.00	3955.00	4695.00	5060.00	5605.00
	20.980	1866.91	.00	1868.12	670.00	6244.24	21055.76	.00	670.00	4390.00	4695.00	5060.00	5060.00
*	21.050	1869.77	.00	1871.37	1247.21	10035.59	16575.99	688.42	1600.00	3875.00	4892.00	5045.00	5475.00
*	21.050	1869.92	.00	1871.93	695.00	8842.10	18108.74	349.16	695.00	4380.00	4892.00	5045.00	5075.00
	21.110	1872.00	.00	1873.36	1025.38	8555.55	18620.33	124.12	1630.00	3950.00	4850.00	5125.00	5580.00
	21.110	1872.76	.00	1873.90	775.00	8398.26	18901.74	.00	775.00	4350.00	4850.00	5125.00	5125.00
*	21.180	1876.07	.00	1877.60	1152.57	11310.14	15557.73	432.13	1650.00	4050.00	4950.00	5100.00	5700.00
*	21.180	1876.09	.00	1877.78	900.00	11202.48	16097.52	.00	900.00	4200.00	4950.00	5100.00	5100.00
*	21.250	1880.86	.00	1882.51	1420.77	8227.38	17681.37	1391.26	1575.00	4025.00	4910.00	5055.00	5600.00
*	21.250	1880.99	.00	1883.17	745.00	7673.41	19626.59	.00	745.00	4310.00	4910.00	5055.00	5055.00
	21.310	1882.64	.00	1883.90	965.41	6564.68	20390.59	344.74	1450.00	4035.00	4825.00	5050.00	5485.00
	21.310	1883.45	.00	1884.72	650.00	5164.17	21653.38	482.45	650.00	4450.00	4825.00	5050.00	5100.00
	21.350	1883.36	.00	1885.23	829.04	10970.75	16088.62	240.63	1355.00	4070.00	4895.00	5025.00	5425.00
	21.350	1884.12	.00	1885.70	705.00	10935.73	15987.27	377.00	705.00	4400.00	4895.00	5025.00	5105.00
	21.410	1886.75	.00	1888.30	799.93	15462.63	11066.36	771.01	1180.00	4110.00	4910.00	5010.00	5290.00
	21.410	1886.69	.00	1888.42	596.32	15197.72	11329.71	772.57	600.00	4500.00	4910.00	5010.00	5100.00
	21.490	1890.86	.00	1892.34	700.14	8514.46	12626.54	6158.99	930.00	4585.00	4900.00	5080.00	5515.00
	21.490	1891.09	.00	1892.43	700.00	8545.39	12546.36	6208.25	700.00	4617.00	4900.00	5080.00	5317.00
	21.580	1895.50	.00	1896.45	1294.67	9056.02	16518.93	1725.05	1410.00	4220.00	4815.00	5255.00	5630.00
*	21.580	1895.56	.00	1897.25	840.00	6103.55	21196.45	.00	840.00	4415.00	4815.00	5255.00	5255.00
	21.630	1897.88	.00	1899.24	1159.04	11581.14	15437.09	281.78	.00	.00	4980.00	5300.00	.00
	21.630	1898.81	.00	1899.97	1055.00	9773.48	17325.57	200.94	1055.00	4265.00	4980.00	5300.00	5320.00
	21.690	1902.22	.00	1903.06	1412.19	10911.11	13468.81	2920.07	.00	.00	4780.00	5085.00	.00
	21.690	1902.24	.00	1903.16	1330.00	10248.42	14005.13	3046.45	1330.00	3970.00	4780.00	5085.00	5300.00
	21.770	1905.63	.00	1907.24	964.76	11263.45	15235.55	801.00	.00	.00	4795.00	5045.00	.00
	21.770	1905.73	.00	1907.26	958.18	11284.13	15187.49	828.38	1471.00	3694.00	4795.00	5045.00	5165.00
*	21.820	1908.88	.00	1910.37	1139.89	16631.16	9475.66	1193.18	.00	.00	4950.00	5070.00	.00
*	21.820	1908.92	.00	1910.58	1074.67	16042.13	9978.21	1279.65	1450.00	3750.00	4950.00	5070.00	5200.00
	21.910	1914.04	.00	1914.81	1154.39	19200.42	6711.08	1388.50	.00	.00	4878.00	5040.00	.00
	21.910	1914.60	.00	1915.60	1140.00	18503.25	8796.75	.00	1140.00	3900.00	4878.00	5040.00	5040.00
	21.990	1917.76	.00	1918.98	1403.61	17924.01	8210.15	1165.84	.00	.00	4960.00	5090.00	.00
	21.990	1918.43	.00	1919.61	1234.22	18283.52	9016.49	.00	1325.00	3765.00	4960.00	5090.00	5090.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
22.080	1922.61	.00	1923.23	1609.96	19815.20	5817.49	1667.31	.00	.00	4930.00	5055.00	.00
22.080	1922.98	.00	1923.90	1125.00	18596.37	7258.85	1444.78	1125.00	4050.00	4930.00	5055.00	5175.00
22.150	1925.39	.00	1926.31	1241.16	23293.85	3980.93	25.23	.00	.00	4960.00	5050.00	.00
22.150	1926.11	.00	1927.17	1088.06	22178.71	5041.61	79.68	1370.00	3700.00	4960.00	5050.00	5070.00
22.220	1928.96	.00	1930.31	831.90	21933.43	5339.77	26.81	.00	.00	4955.00	5067.00	.00

	22.220	1929.46	.00	1930.81	783.94	21582.94	5717.06	.00	1149.00	3918.00	4955.00	5067.00	5067.00
	22.290	1933.00	.00	1933.96	1282.22	22574.61	3998.28	727.10	.00	.00	4972.00	5040.00	.00
	22.290	1933.37	.00	1934.52	911.26	22468.94	4789.80	41.26	1100.00	4000.00	4972.00	5040.00	5100.00
	22.360	1936.94	.00	1938.18	1104.00	20081.32	5389.91	1828.78	.00	.00	4940.00	5070.00	.00
	22.360	1937.48	.00	1938.67	844.30	21505.80	5794.20	.00	980.00	4100.00	4940.00	5070.00	5080.00
	22.430	1941.79	.00	1942.49	1204.82	18508.27	5303.64	3488.10	1727.00	4098.00	4880.00	5110.00	5825.00
	22.430	1942.23	.00	1943.29	918.00	19513.95	7786.05	.00	918.00	4192.00	4880.00	5110.00	5110.00
	22.480	1944.10	.00	1945.44	1082.95	15260.14	8912.11	3127.75	1100.00	4230.00	4932.00	5095.00	5330.00
	22.480	1944.97	.00	1946.73	723.00	15561.95	11738.05	.00	723.00	4372.00	4932.00	5095.00	5095.00
	22.560	1948.18	.00	1949.48	1064.96	15367.35	10054.67	1877.98	.00	.00	4970.00	5095.00	.00
	22.560	1949.07	.00	1950.55	635.00	15413.70	11769.02	117.28	635.00	4470.00	4970.00	5095.00	5105.00
*	22.670	1954.37	.00	1956.30	786.32	13978.46	12324.73	996.82	.00	.00	4950.00	5050.00	.00
*	22.670	1954.94	.00	1957.05	575.00	13968.15	13331.86	.00	575.00	4475.00	4950.00	5050.00	5050.00
*	22.730	1957.89	.00	1959.79	869.26	11522.51	15553.75	223.74	.00	.00	4880.00	5025.00	.00
*	22.730	1958.64	.00	1961.11	526.00	9049.10	18250.90	.00	526.00	4499.00	4880.00	5025.00	5025.00
*	22.790	1960.94	.00	1962.71	965.08	11474.08	14803.66	1022.26	.00	.00	4930.00	5060.00	.00
	22.790	1961.63	.00	1963.68	660.00	9377.94	16507.73	1414.33	660.00	4490.00	4930.00	5060.00	5150.00
	22.860	1964.52	.00	1965.64	979.15	9394.06	14961.91	44.03	.00	.00	4912.00	5192.00	.00
	22.860	1965.27	.00	1966.28	742.00	8601.72	15798.28	.00	742.00	4450.00	4912.00	5192.00	5192.00
	22.950	1972.66	.00	1973.45	1017.56	4016.14	20378.36	5.50	.00	.00	9450.00	10050.00	.00
*	22.950	1972.69	.00	1973.94	600.00	.00	24400.00	.00	600.00	9450.00	9450.00	10050.00	10050.00
*	22.960	1974.46	.00	1976.26	926.98	13251.78	11148.22	.00	.00	.00	9951.00	10016.00	.00
*	22.960	1974.59	.00	1976.96	514.00	12105.91	12294.09	.00	514.00	9500.00	9951.00	10016.00	10014.00
*	23.130	1981.33	.00	1983.41	801.73	5209.49	14264.23	4926.28	.00	.00	9895.00	10011.00	.00
*	23.130	1982.25	.00	1984.45	561.00	4904.87	15636.76	3858.37	561.00	9595.00	9895.00	10011.00	10156.00
*	23.250	1987.17	.00	1989.03	743.33	1845.04	13670.88	8884.08	.00	.00	9874.00	10025.00	.00
*	23.250	1987.81	.00	1990.90	334.00	.00	17423.22	6976.78	334.00	9874.00	9874.00	10025.00	10208.00
*	23.330	1991.35	.00	1993.72	599.89	829.90	8186.62	15383.48	.00	.00	9963.00	10017.00	.00
	23.330	1992.11	.00	1994.72	331.00	.00	8939.50	15460.50	331.00	9963.00	9963.00	10017.00	10294.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	23.450	1998.50	.00	2000.15	609.04	4837.12	6366.80	13196.08	.00	.00	9979.00	10058.00	.00
	23.450	1998.99	.00	2000.54	465.00	4690.58	6624.89	13084.53	465.00	9867.00	9979.00	10058.00	10332.00
*	23.550	2003.92	.00	2005.92	706.32	7122.33	13405.89	3871.78	730.00	9559.00	9916.00	10102.00	10289.00
*	23.550	2004.52	.00	2007.03	467.00	5129.38	15845.44	3425.18	467.00	9766.00	9916.00	10102.00	10233.00
	23.640	2008.98	.00	2010.13	681.35	4566.28	6119.13	1114.58	693.00	9421.00	9941.00	10019.00	10114.00
	23.640	2009.84	.00	2010.53	662.00	5134.12	5524.88	1141.00	662.00	9435.00	9941.00	10019.00	10097.00
*	23.870	2018.87	.00	2020.60	555.39	2663.15	8608.44	528.41	.00	.00	9934.00	10021.00	.00
*	23.870	2019.04	.00	2021.23	353.00	2335.13	9464.87	.00	353.00	9668.00	9934.00	10021.00	10021.00
	23.940	2020.86	.00	2022.88	415.48	1453.64	10051.20	295.16	.00	.00	9880.00	10020.00	.00
	23.940	2021.78	.00	2023.25	500.00	1723.19	9959.49	117.32	500.00	9542.00	9880.00	10020.00	10042.00
	24.030	2025.13	.00	2026.02	652.99	1742.58	4776.69	5280.73	.00	.00	9932.00	10023.00	.00
*	24.030	2025.83	.00	2028.41	223.00	313.51	7815.79	3670.70	223.00	9900.00	9932.00	10023.00	10123.00
*	24.120	2028.90	.00	2030.98	436.92	326.36	11308.74	164.90	.00	.00	9911.00	10067.00	.00
*	24.120	2029.75	.00	2031.41	207.00	372.37	11427.63	.00	207.00	9860.00	9911.00	10067.00	10067.00
*	24.250	2033.67	.00	2035.81	267.97	.00	6280.35	3419.65	449.00	9798.00	9951.00	10018.00	10247.00
*	24.250	2033.98	.00	2036.28	237.05	.00	6651.98	3048.02	246.00	9953.00	9951.00	10018.00	10199.00
*	24.380	2038.55	.00	2039.46	370.39	182.51	9193.50	323.99	417.00	9743.00	9811.00	10077.00	10160.00
*	24.380	2038.87	.00	2039.80	266.00	.00	9700.00	.00	266.00	9811.00	9811.00	10077.00	10077.00
*	24.480	2043.74	.00	2045.30	473.74	3091.09	6540.72	68.19	.00	.00	9951.00	10048.00	.00
*	24.480	2044.46	.00	2046.83	214.00	1471.75	8228.25	.00	214.00	9834.00	9951.00	10048.00	10048.00
*	24.610	2050.04	.00	2051.52	665.08	2406.21	6673.71	620.07	.00	.00	9944.00	10023.00	.00
*	24.610	2050.49	.00	2054.40	79.00	.00	9700.00	.00	79.00	9944.00	9944.00	10023.00	10023.00
*	24.740	2055.85	.00	2057.47	678.84	243.38	8592.86	863.77	.00	.00	9961.00	10086.00	.00
*	24.740	2056.69	.00	2058.49	125.00	.00	9700.00	.00	125.00	9961.00	9961.00	10086.00	10086.00
*	24.870	2061.94	.00	2063.58	435.82	221.51	6547.06	1031.43	.00	.00	9962.00	10071.00	.00
*	24.870	2061.99	.00	2064.49	151.00	77.99	7627.42	94.58	151.00	9929.00	9962.00	10071.00	10080.00
	24.950	2064.96	.00	2065.68	360.74	.05	5213.25	2586.70	.00	.00	9920.00	10097.00	.00
	24.950	2065.79	.00	2067.21	180.00	.00	7757.07	42.93	180.00	9920.00	9920.00	10097.00	10100.00
*	25.120	2072.77	.00	2075.32	153.27	.00	7664.11	135.89	185.00	9928.00	9949.00	10053.00	10113.00
*	25.120	2072.79	.00	2075.32	153.00	.00	7661.50	138.50	153.00	9952.00	9949.00	10053.00	10105.00
*	25.280	2081.36	.00	2082.98	433.20	2154.24	5478.20	167.56	500.00	9552.00	9965.00	10024.00	10052.00
*	25.280	2081.44	.00	2083.89	188.00	1252.19	6349.26	198.55	188.00	9849.00	9965.00	10024.00	10037.00
	25.380	2084.98	.00	2085.30	1008.00	2509.69	3763.73	1526.58	1049.00	9287.00	9865.00	10140.00	10336.00
*	25.380	2085.95	.00	2086.28	646.00	1105.20	4969.24	1725.56	646.00	9650.00	9865.00	10140.00	10296.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	25.450	2088.35	.00	2089.38	582.34	.00	1785.01	6014.99	844.00	9861.00	9966.00	10072.00	10705.00

*	25.450	2089.24	.00	2090.27	630.00	.00	3091.25	4708.75	630.00	9968.00	9966.00	10072.00	10598.00
*	25.560	2095.84	.00	2096.30	866.12	536.09	1408.83	5855.07	956.00	9608.00	9927.00	10048.00	10564.00
*	25.560	2095.91	.00	2096.36	802.73	485.36	1461.15	5853.49	825.00	9686.00	9927.00	10048.00	10511.00
	25.630	2099.06	.00	2099.84	458.07	8.02	2005.98	5786.00	920.00	9707.00	9934.00	10088.00	10627.00
*	25.630	2099.44	.00	2100.64	429.73	6.28	2861.58	4932.14	546.00	9931.00	9934.00	10088.00	10477.00
*	25.700	2102.31	.00	2104.03	218.00	.00	7800.00	.00	.00	.00	9881.00	10099.00	.00
*	25.700	2102.54	.00	2104.05	218.00	.00	7800.00	.00	218.00	9881.00	9881.00	10099.00	10099.00
*	25.720	2104.11	.00	2105.13	237.00	.00	7800.00	.00	237.00	9990.00	9990.00	10227.00	10227.00
*	25.720	2104.11	.00	2105.13	237.00	.00	7800.00	.00	237.00	9990.00	9990.00	10227.00	10227.00
*	25.830	2112.46	.00	2113.92	393.33	.00	5911.11	1888.89	413.00	9914.00	9914.00	10040.00	10327.00
*	25.830	2113.04	.00	2115.55	126.00	.00	7800.00	.00	126.00	9914.00	9914.00	10040.00	10040.00
*	25.950	2119.31	.00	2120.57	652.16	221.04	4908.17	2670.79	693.00	9923.00	9986.00	10057.00	10616.00
*	25.950	2120.33	.00	2123.08	141.00	598.27	7152.16	49.56	141.00	9923.00	9986.00	10057.00	10064.00
*	26.170	2132.48	.00	2133.91	499.86	.00	5530.36	2269.63	10472.00	.00	9967.00	10039.00	10472.00
*	26.170	2132.69	.00	2136.22	83.00	.00	7676.56	123.44	83.00	9969.00	9967.00	10039.00	10052.00

MONT. WAT. AND HEC

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	13.000	.00	.00	.00	1518.50	13163.05	1522.98	1522.98	1525.23	58.29	12.04	1093.19	1724.06
*	13.000	.00	.00	.00	1518.50	13163.05	1522.98	1522.98	1525.23	58.29	12.04	1093.19	1724.06
	13.020	120.00	.00	.00	1519.00	13163.05	1524.39	1523.47	1525.94	31.71	10.00	1316.08	2337.66
	13.020	120.00	.00	.00	1519.00	13163.05	1524.39	1523.47	1525.94	31.71	10.00	1316.08	2337.66
	13.040	100.00	.00	.00	1518.10	13163.05	1525.95	.00	1526.53	28.64	6.14	2145.45	2459.42
	13.040	100.00	.00	.00	1518.10	13163.05	1525.95	.00	1526.53	28.64	6.14	2145.45	2459.42
	13.080	230.00	.00	.00	1518.20	13163.05	1526.93	.00	1527.13	21.06	3.86	3796.82	2868.37
	13.080	230.00	.00	.00	1518.20	13163.05	1526.93	.00	1527.13	21.06	3.86	3796.82	2868.37
*	13.160	421.00	.00	.00	1521.50	13163.05	1528.14	.00	1528.50	51.55	5.41	2858.32	1833.29
*	13.160	421.00	.00	.00	1521.50	13163.05	1528.14	.00	1528.50	51.55	5.41	2858.32	1833.29
	13.280	600.00	.00	.00	1522.60	15700.00	1532.51	1532.24	1533.21	137.78	6.81	2384.62	1337.52
	13.280	600.00	.00	.00	1522.60	15700.00	1532.51	1532.24	1533.21	137.78	6.81	2384.62	1337.52
*	13.400	678.60	.00	.00	1526.80	23300.00	1537.72	.00	1538.06	53.77	4.87	5012.18	3177.59
*	13.400	678.60	.00	.00	1526.80	23300.00	1538.53	.00	1539.16	71.54	6.43	3659.17	2754.70
	13.550	787.30	.00	.00	1532.20	23300.00	1543.09	.00	1543.69	97.61	5.52	3825.70	2358.41
	13.550	787.30	.00	.00	1532.20	23300.00	1544.06	.00	1544.57	65.90	5.55	4073.86	2870.16
	13.660	549.10	.00	.00	1540.20	23300.00	1547.65	.00	1548.17	75.57	4.24	4319.53	2680.34
	13.660	549.10	.00	.00	1540.20	23300.00	1548.19	.00	1548.78	94.91	5.50	3885.92	2391.60
	13.860	1049.10	.00	.00	1546.30	23300.00	1555.73	.00	1556.28	78.11	5.59	3972.16	2636.31
	13.860	1049.10	.00	.00	1546.30	23300.00	1556.31	.00	1556.86	63.23	5.58	3993.17	2930.21
	14.070	1134.10	.00	.00	1557.50	23300.00	1564.42	.00	1565.01	82.52	6.69	3868.46	2564.91
	14.070	1134.10	.00	.00	1557.50	23300.00	1564.58	.00	1565.25	94.27	7.31	3661.50	2399.79
*	14.300	1213.60	.00	.00	1559.60	23300.00	1573.99	1573.99	1574.90	80.53	10.39	3722.61	2596.40
*	14.300	1213.60	.00	.00	1559.60	23300.00	1574.76	1574.76	1576.12	86.56	11.41	2810.28	2504.38
	14.540	1273.20	.00	.00	1571.60	23300.00	1583.24	.00	1584.12	66.63	7.53	3115.17	2854.44
	14.540	1273.20	.00	.00	1571.60	23300.00	1583.77	.00	1584.51	50.47	6.92	3368.46	3279.80
*	14.740	1070.90	.00	.00	1581.70	23300.00	1591.09	1591.09	1593.15	91.64	14.71	2579.22	2434.02
*	14.740	1070.90	.00	.00	1581.70	23300.00	1591.24	1591.24	1593.99	111.87	16.13	2081.01	2202.90
	14.890	756.40	.00	.00	1583.20	23300.00	1596.68	1596.03	1598.40	56.83	12.68	2857.87	3090.77
*	14.890	756.40	.00	.00	1583.20	23300.00	1597.53	.00	1599.09	45.36	11.92	2902.76	3459.61
	15.060	930.30	.00	.00	1591.30	23300.00	1602.36	.00	1603.57	59.69	9.14	2839.81	3015.83
	15.060	930.30	.00	.00	1591.30	23300.00	1602.45	.00	1603.97	68.73	9.91	2351.67	2810.47

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	15.120	283.60	.00	.00	1595.40	23300.00	1604.66	1604.66	1606.47	111.06	11.32	2360.34	2210.91
*	15.120	283.60	.00	.00	1595.40	23300.00	1604.74	1604.74	1607.27	140.39	12.77	1824.52	1966.49
	15.220	553.10	.00	.00	1598.90	23300.00	1610.04	.00	1611.52	74.16	10.14	2502.20	2705.66
*	15.220	553.10	.00	.00	1598.90	23300.00	1610.78	.00	1612.35	62.79	10.07	2314.15	2940.51
	15.410	968.90	.00	.00	1607.60	23300.00	1616.92	.00	1618.62	71.31	10.48	2239.94	2759.25
	15.410	968.90	.00	.00	1607.60	23300.00	1617.05	.00	1618.69	67.77	10.29	2264.31	2830.37
*	15.550	755.30	.00	.00	1613.40	23300.00	1622.53	1622.53	1624.72	89.92	12.94	2241.80	2457.14
*	15.550	755.30	.00	.00	1613.40	23300.00	1622.91	1622.91	1626.22	111.73	14.79	1627.21	2204.28
	15.750	1048.40	.00	.00	1616.30	23300.00	1629.97	.00	1631.23	47.49	11.29	3324.29	3380.95
*	15.750	1048.40	.00	.00	1616.30	23300.00	1630.93	.00	1631.86	31.24	9.78	3750.34	4168.96
*	15.890	738.40	.00	.00	1626.80	23300.00	1635.01	1635.01	1636.85	116.31	12.53	2554.05	2160.47
*	15.890	738.40	.00	.00	1626.80	23300.00	1635.75	1635.75	1638.43	120.90	13.84	1913.73	2119.09
	16.070	950.30	.00	.00	1634.30	23300.00	1643.78	.00	1645.58	73.08	12.27	2558.59	2725.54
	16.070	950.30	.00	.00	1634.30	23300.00	1644.75	.00	1646.99	68.43	12.81	2140.19	2816.59

	16.190	645.60	.00	.00	1637.50	23300.00	1648.31	.00	1649.95	69.93	12.65	2954.43	2786.37
	16.190	645.60	.00	.00	1637.50	23300.00	1649.23	.00	1650.86	56.04	12.14	2739.48	3112.49
*	16.270	422.10	.00	.00	1639.40	23300.00	1651.78	1651.78	1653.84	118.23	12.50	2330.41	2142.82
*	16.270	422.10	.00	.00	1639.40	23300.00	1652.32	1652.32	1655.35	131.89	13.98	1666.46	2028.82
*	16.490	1153.60	.00	.00	1653.30	23300.00	1661.63	.00	1662.62	51.77	8.42	2966.17	3238.20
*	16.490	1153.60	.00	.00	1653.30	23300.00	1662.56	.00	1663.71	44.19	8.56	2706.54	3505.15
	16.680	997.50	.00	.00	1661.30	23300.00	1668.17	.00	1669.20	78.45	8.16	2857.84	2630.66
	16.680	997.50	.00	.00	1661.30	23300.00	1668.38	.00	1669.32	67.30	7.79	2992.18	2840.09
*	16.860	980.90	.00	.00	1671.20	23700.00	1678.96	1678.96	1681.95	101.20	13.89	1705.91	2355.92
*	16.860	980.90	.00	.00	1671.20	23700.00	1679.11	1679.11	1681.95	91.75	13.51	1754.76	2474.22
	16.870	44.20	1688.08	1684.10	1671.20	23700.00	1678.96	.00	1682.38	125.00	14.86	1595.37	2119.76
	16.870	44.20	1688.08	1684.10	1671.20	23700.00	1679.95	.00	1682.36	69.64	12.45	1904.37	2839.92
*	16.960	456.20	.00	.00	1675.30	23700.00	1684.24	.00	1684.94	27.38	7.76	4006.73	4529.23
*	16.960	456.20	.00	.00	1675.30	27300.00	1684.54	1684.54	1687.11	80.53	13.01	2210.82	3042.23
*	17.060	566.00	.00	.00	1677.60	23700.00	1688.86	1688.86	1690.67	55.75	13.12	3030.82	3174.22
*	17.060	566.00	.00	.00	1677.60	27300.00	1689.73	1689.73	1691.70	52.72	13.69	3318.49	3760.03
*	17.180	600.80	.00	.00	1684.60	23700.00	1694.41	1694.41	1696.04	103.02	11.10	2630.90	2335.01
*	17.180	600.80	.00	.00	1684.60	27300.00	1694.92	1694.92	1696.65	99.31	11.48	2912.04	2739.45
	17.300	644.40	.00	.00	1690.80	23700.00	1700.59	.00	1701.52	72.32	9.75	3674.01	2786.89
	17.300	644.40	.00	.00	1690.80	27300.00	1701.09	.00	1702.36	81.24	10.84	3339.17	3028.83

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	17.390	500.00	.00	.00	1695.70	23700.00	1704.66	1704.54	1705.73	94.80	9.74	3431.70	2434.17
	17.390	500.00	.00	.00	1695.70	27300.00	1705.43	.00	1706.87	97.09	10.74	3086.14	2770.63
*	17.480	429.40	.00	.00	1700.40	27300.00	1709.25	1709.25	1710.29	72.68	10.96	4872.26	3202.23
*	17.480	429.40	.00	.00	1700.40	27300.00	1709.98	1709.98	1711.77	86.42	12.78	3268.58	2936.63
*	17.570	474.40	.00	.00	1702.40	27300.00	1713.69	1713.69	1715.03	67.75	12.55	4320.80	3316.64
*	17.570	474.40	.00	.00	1702.40	27300.00	1714.46	1714.46	1716.57	78.59	14.27	3200.32	3079.49
*	17.650	460.80	.00	.00	1703.20	27300.00	1717.21	1717.21	1718.72	54.62	13.06	4293.17	3694.04
	17.650	460.80	.00	.00	1703.20	27300.00	1717.68	1717.62	1719.85	64.79	14.62	3353.46	3391.55
	17.780	661.30	.00	.00	1712.80	27300.00	1721.91	.00	1723.20	88.40	12.94	3672.76	2903.59
	17.780	661.30	.00	.00	1712.80	27300.00	1722.85	.00	1723.66	49.46	10.44	4525.17	3881.95
	17.840	341.70	.00	.00	1717.10	27300.00	1724.77	.00	1726.18	91.81	10.98	3419.47	2849.09
*	17.840	341.70	.00	.00	1717.10	27300.00	1724.57	1724.47	1726.26	112.40	11.86	3092.52	2574.98
*	17.950	563.80	.00	.00	1719.50	27300.00	1729.77	1729.77	1731.52	94.24	12.83	3284.27	2812.26
	17.950	563.80	.00	.00	1719.50	27300.00	1729.96	.00	1731.66	86.77	12.53	3217.44	2930.80
*	18.090	705.80	.00	.00	1723.50	27700.00	1734.86	.00	1735.43	48.95	7.29	4980.44	3959.26
	18.090	705.80	.00	.00	1723.50	27700.00	1735.00	.00	1735.86	58.77	8.15	3812.35	3613.22
*	18.160	377.60	.00	.00	1728.80	27700.00	1736.55	1736.55	1738.36	105.57	13.59	3031.75	2695.93
	18.160	377.60	.00	.00	1728.80	27700.00	1736.96	.00	1738.80	89.07	13.20	2877.50	2934.99
*	18.230	370.00	.00	.00	1730.00	27700.00	1741.75	1741.75	1743.29	53.86	12.32	4019.91	3774.44
*	18.230	370.00	.00	.00	1730.00	27700.00	1741.75	1741.75	1744.26	75.28	14.57	2684.75	3192.49
	18.290	300.00	.00	.00	1732.60	27700.00	1743.06	1742.91	1744.89	57.36	14.16	3438.30	3657.35
*	18.290	300.00	.00	.00	1732.60	27700.00	1744.23	.00	1745.76	37.61	12.64	3527.08	4516.57
	18.490	1099.70	.00	.00	1741.70	27700.00	1750.88	.00	1752.33	89.23	11.68	3327.25	2932.37
*	18.490	1099.70	.00	.00	1741.70	27700.00	1750.61	1750.61	1752.65	127.17	13.42	2750.80	2456.38
*	18.570	389.00	.00	.00	1743.50	27700.00	1754.08	1754.08	1755.87	60.00	14.06	3063.81	3575.98
*	18.570	389.00	.00	.00	1743.50	27700.00	1754.47	1754.46	1756.42	60.17	14.59	2947.35	3570.89
*	18.740	917.80	.00	.00	1750.40	27300.00	1760.57	1760.57	1762.15	92.75	11.21	2742.29	2834.66
	18.740	917.80	.00	.00	1750.40	27300.00	1760.64	1760.63	1762.36	95.29	11.79	2616.69	2796.71
	18.840	497.10	.00	.00	1755.70	27300.00	1764.69	1764.59	1766.59	82.96	14.02	2682.68	2997.28
*	18.840	497.10	.00	.00	1755.70	27300.00	1765.57	1765.57	1767.66	74.01	14.62	2616.50	3173.30
*	18.960	631.70	.00	.00	1762.20	27300.00	1771.34	1771.34	1772.72	46.39	13.45	3821.56	4008.40
*	18.960	631.70	.00	.00	1762.20	27300.00	1771.86	1771.86	1773.44	44.59	13.74	3403.67	4088.29
*	19.070	601.00	.00	.00	1764.80	27300.00	1775.13	1775.13	1776.42	74.59	9.85	3162.68	3160.92
	19.070	601.00	.00	.00	1764.80	27300.00	1775.41	.00	1776.83	69.71	9.80	2926.50	3269.70

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	19.180	598.70	.00	.00	1770.00	27300.00	1780.34	1780.34	1782.02	109.09	10.40	2631.82	2613.76
*	19.180	598.70	.00	.00	1770.00	27300.00	1780.49	1780.49	1782.19	102.87	10.29	2610.36	2691.68
	19.260	416.40	.00	.00	1773.00	27300.00	1784.76	1784.67	1786.60	84.72	9.82	2535.52	2966.06
*	19.260	416.40	.00	.00	1773.00	27300.00	1784.80	1784.80	1786.75	86.63	9.97	2448.90	2933.19
	19.410	769.40	.00	.00	1782.60	27300.00	1790.80	.00	1791.76	62.93	10.94	3960.02	3441.42
	19.410	769.40	.00	.00	1782.60	27300.00	1790.90	.00	1791.86	60.38	10.86	3941.58	3513.17
*	19.520	606.30	.00	.00	1786.20	27300.00	1794.85	1794.85	1796.91	133.28	16.90	2783.91	2364.69
*	19.520	606.30	.00	.00	1786.20	27300.00	1794.85	1794.85	1796.91	132.93	16.89	2786.40	2367.86
	19.620	528.00	.00	.00	1790.30	27300.00	1800.83	.00	1802.06	72.08	12.16	3469.88	3215.57
	19.620	528.00	.00	.00	1790.30	27300.00	1800.82	.00	1802.06	72.22	12.17	3467.22	3212.46

*	19.720	509.90	.00	.00	1795.10	27300.00	1805.02	1805.02	1806.84	76.99	15.24	3245.95	3111.26
*	19.720	509.90	.00	.00	1795.10	27300.00	1805.05	1805.05	1806.92	78.19	15.39	3194.56	3087.29
*	19.830	567.80	.00	.00	1799.30	27300.00	1810.83	1810.83	1812.92	60.08	14.97	3226.57	3522.20
*	19.830	567.80	.00	.00	1799.30	27300.00	1810.73	1810.73	1812.93	63.91	15.31	3140.37	3414.86
*	19.920	492.00	.00	.00	1802.00	27300.00	1814.80	1814.80	1816.46	85.41	13.43	3636.78	2953.99
	19.920	492.00	.00	.00	1802.00	27300.00	1814.83	.00	1816.79	94.41	14.15	3087.42	2809.67
	20.050	700.00	.00	.00	1810.70	27300.00	1820.70	.00	1821.23	46.22	8.77	5048.16	4015.61
*	20.050	700.00	.00	.00	1810.70	27300.00	1820.92	.00	1821.41	40.42	8.38	5264.05	4294.06
*	20.160	555.70	.00	.00	1815.50	27300.00	1824.75	.00	1826.00	178.87	10.65	3235.48	2041.25
*	20.160	555.70	.00	.00	1815.50	27300.00	1824.71	1824.71	1826.06	193.38	10.99	3105.45	1963.18
*	20.260	531.60	.00	.00	1821.90	27300.00	1831.31	.00	1832.06	78.30	10.16	4256.94	3085.27
*	20.260	531.60	.00	.00	1821.90	27300.00	1831.45	.00	1832.22	75.78	10.24	4254.29	3136.00
	20.380	622.30	.00	.00	1825.90	27300.00	1835.69	.00	1836.48	79.81	11.05	4137.13	3055.90
	20.380	622.30	.00	.00	1825.90	27300.00	1835.76	.00	1836.56	78.99	11.06	4112.32	3071.74
*	20.480	526.70	.00	.00	1832.40	27300.00	1841.48	1841.48	1842.84	72.09	14.30	4280.92	3215.38
*	20.480	526.70	.00	.00	1832.40	27300.00	1842.08	1842.08	1843.75	70.94	14.97	3750.13	3241.40
*	20.620	788.90	.00	.00	1839.30	27300.00	1848.79	1848.79	1850.37	71.22	14.65	4199.26	3234.81
*	20.620	788.90	.00	.00	1839.30	27300.00	1849.51	1849.51	1851.43	68.24	15.27	3712.98	3304.67
*	20.640	135.00	.00	.00	1842.00	27300.00	1850.90	.00	1851.24	24.46	4.83	5853.91	5519.41
*	20.640	135.00	.00	.00	1842.00	27300.00	1851.90	.00	1852.38	25.59	5.58	4911.27	5396.68
*	20.710	369.60	.00	.00	1843.00	27300.00	1852.87	1852.87	1854.18	126.09	11.81	3695.06	2431.21
*	20.710	369.60	.00	.00	1843.00	27300.00	1853.49	1853.49	1855.40	130.71	13.12	2951.02	2387.86
*	20.790	422.40	.00	.00	1847.50	27300.00	1857.17	.00	1857.91	52.82	9.01	4862.37	3756.47
*	20.790	422.40	.00	.00	1847.50	27300.00	1858.09	.00	1859.43	63.20	10.82	3440.07	3434.00

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	20.900	580.80	.00	.00	1852.60	27300.00	1862.43	1862.43	1863.86	94.07	11.55	3653.13	2814.75
*	20.900	580.80	.00	.00	1852.60	27300.00	1862.77	1862.77	1864.74	103.41	12.63	2853.44	2684.61
	20.980	422.40	.00	.00	1853.20	27300.00	1866.18	1865.81	1867.49	79.18	10.43	3624.21	3068.02
	20.980	422.40	.00	.00	1853.20	27300.00	1866.91	.00	1868.12	57.66	9.69	3436.88	3595.30
*	21.050	369.60	.00	.00	1857.60	27300.00	1869.77	1869.77	1871.37	59.91	12.62	3983.74	3527.11
*	21.050	369.60	.00	.00	1857.60	27300.00	1869.92	1869.92	1871.93	67.32	13.54	3272.25	3327.24
	21.110	316.80	.00	.00	1860.50	27300.00	1872.00	.00	1873.36	69.34	10.95	3686.38	3278.44
	21.110	316.80	.00	.00	1860.50	27300.00	1872.76	.00	1873.90	49.32	9.91	3844.17	3887.25
*	21.180	369.60	.00	.00	1865.00	27300.00	1876.07	1876.07	1877.60	63.17	12.61	3994.85	3434.95
*	21.180	369.60	.00	.00	1865.00	27300.00	1876.09	1876.09	1877.78	69.62	13.02	3626.95	3271.81
*	21.250	369.60	.00	.00	1868.70	27300.00	1880.86	1880.86	1882.51	50.50	12.50	4140.66	3841.80
*	21.250	369.60	.00	.00	1868.70	27300.00	1880.99	1880.99	1883.17	61.01	13.69	3218.58	3495.17
	21.310	316.80	.00	.00	1870.70	27300.00	1882.64	.00	1883.90	38.17	10.26	4056.91	4418.56
	21.310	316.80	.00	.00	1870.70	27300.00	1883.45	.00	1884.72	32.13	9.98	3791.78	4815.91
	21.350	211.20	.00	.00	1871.50	27300.00	1883.36	.00	1885.23	65.35	13.62	3373.45	3377.18
	21.350	211.20	.00	.00	1871.50	27300.00	1884.12	.00	1885.70	49.41	12.50	3569.43	3883.66
	21.410	422.00	.00	.00	1874.20	27300.00	1886.75	.00	1888.30	76.27	13.62	3345.30	3125.98
	21.410	422.00	.00	.00	1874.20	27300.00	1886.69	.00	1888.42	82.08	14.05	3086.75	3013.29
	21.490	475.00	.00	.00	1882.00	27300.00	1890.86	.00	1892.34	94.28	12.14	3114.12	2811.54
	21.490	475.00	.00	.00	1882.00	27300.00	1891.09	.00	1892.43	81.94	11.61	3271.93	3015.96
	21.580	475.20	.00	.00	1886.80	27300.00	1895.50	.00	1896.45	79.25	9.00	3899.19	3066.73
*	21.580	475.20	.00	.00	1886.80	27300.00	1895.56	1895.56	1897.25	125.70	11.41	2890.12	2434.97
	21.630	264.00	.00	.00	1888.00	27300.00	1897.88	1897.48	1899.24	113.82	11.07	3280.92	2558.91
	21.630	264.00	.00	.00	1888.00	27300.00	1898.81	.00	1899.97	74.94	10.23	3774.64	3153.50
	21.690	422.40	.00	.00	1894.00	27300.00	1902.22	.00	1903.06	71.81	9.33	4416.99	3221.65
	21.690	422.40	.00	.00	1894.00	27300.00	1902.24	.00	1903.16	76.49	9.66	4210.04	3121.49
	21.770	422.40	.00	.00	1895.00	27300.00	1905.63	1905.36	1907.24	110.80	12.07	3026.73	2593.53
	21.770	422.40	.00	.00	1895.00	27300.00	1905.73	.00	1907.26	102.75	11.79	3110.74	2693.17
*	21.820	264.00	.00	.00	1900.00	27300.00	1908.88	1908.88	1910.37	117.77	13.63	3302.03	2515.63
*	21.820	264.00	.00	.00	1900.00	27300.00	1908.92	1908.92	1910.58	127.85	14.26	3137.83	2414.40
	21.910	475.20	.00	.00	1902.00	27300.00	1914.04	.00	1914.81	74.26	9.18	4164.53	3168.04
	21.910	475.20	.00	.00	1902.00	27300.00	1914.60	.00	1915.60	87.80	10.69	3717.13	2913.56
	21.990	422.40	.00	.00	1909.90	27300.00	1917.76	1917.60	1918.98	130.27	12.84	3640.07	2391.91
	21.990	422.40	.00	.00	1909.90	27300.00	1918.43	.00	1919.61	105.84	12.41	3731.81	2653.56

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
22.080	475.20	.00	.00	1913.00	27300.00	1922.61	.00	1923.23	66.49	9.28	4830.48	3347.90
22.080	475.20	.00	.00	1913.00	27300.00	1922.98	.00	1923.90	82.00	10.80	3938.81	3014.87
22.150	369.60	.00	.00	1915.00	27300.00	1925.39	.00	1926.31	116.38	10.76	3681.60	2530.65
22.150	369.60	.00	.00	1915.00	27300.00	1926.11	.00	1927.17	108.83	11.59	3490.70	2616.95
22.220	369.60	.00	.00	1918.00	27300.00	1928.96	.00	1930.31	118.62	11.82	3021.49	2506.58
22.220	369.60	.00	.00	1918.00	27300.00	1929.46	.00	1930.81	106.99	11.41	2978.89	2639.34

	22.290	369.60	.00	.00	1923.00	27300.00	1933.00	.00	1933.96	82.89	10.75	3776.24	2998.51
	22.290	369.60	.00	.00	1923.00	27300.00	1933.37	.00	1934.52	95.53	12.06	3348.23	2793.07
	22.360	369.60	.00	.00	1925.00	27300.00	1936.94	.00	1938.18	114.70	11.16	3274.90	2549.11
	22.360	369.60	.00	.00	1925.00	27300.00	1937.48	.00	1938.67	99.93	10.63	3174.15	2730.93
	22.430	369.60	.00	.00	1933.40	27300.00	1941.79	.00	1942.49	96.74	7.84	4113.63	2775.62
	22.430	369.60	.00	.00	1933.40	27300.00	1942.23	.00	1943.29	132.09	10.03	3409.55	2375.31
	22.480	264.00	.00	.00	1935.00	27300.00	1944.10	.00	1945.44	142.67	12.45	3268.99	2285.55
	22.480	264.00	.00	.00	1935.00	27300.00	1944.97	.00	1946.73	136.93	13.70	2915.57	2332.96
	22.560	422.40	.00	.00	1938.50	27300.00	1948.18	.00	1949.48	85.60	12.42	3556.58	2950.68
	22.560	422.40	.00	.00	1938.50	27300.00	1949.07	.00	1950.55	76.59	12.79	3266.99	3119.45
*	22.670	528.00	.00	.00	1944.50	27300.00	1954.37	1954.37	1956.30	91.87	15.09	3204.97	2848.23
*	22.670	528.00	.00	.00	1944.50	27300.00	1954.94	1954.94	1957.05	91.58	15.26	2998.45	2852.80
*	22.730	316.80	.00	.00	1947.00	27300.00	1957.89	1957.89	1959.79	84.47	13.87	3289.79	2970.36
*	22.730	316.80	.00	.00	1947.00	27300.00	1958.64	1958.64	1961.11	89.05	14.84	2717.73	2893.01
*	22.790	316.80	.00	.00	1950.00	27300.00	1960.94	1960.94	1962.71	74.14	13.74	3608.02	3170.51
	22.790	316.80	.00	.00	1950.00	27300.00	1961.63	.00	1963.68	70.45	14.13	3195.65	3252.60
	22.860	370.00	.00	.00	1953.50	24400.00	1964.52	.00	1965.64	73.68	10.13	3464.24	2842.60
	22.860	370.00	.00	.00	1953.50	24400.00	1965.27	.00	1966.28	53.46	9.36	3526.16	3337.01
	22.950	1003.00	.00	.00	1962.00	24400.00	1972.66	.00	1973.45	80.68	7.55	3550.46	2716.51
*	22.950	1003.00	.00	.00	1962.00	24400.00	1972.69	.00	1973.94	113.53	8.97	2720.94	2290.03
*	22.960	30.00	.00	.00	1959.60	24400.00	1974.46	1974.46	1976.26	47.05	15.19	3721.38	3557.16
*	22.960	30.00	.00	.00	1959.60	24400.00	1974.59	1974.59	1976.96	54.95	16.56	2972.60	3291.54
*	23.130	880.20	.00	.00	1969.80	24400.00	1981.33	1981.33	1983.41	59.97	14.58	3090.55	3150.79
*	23.130	880.20	.00	.00	1969.80	24400.00	1982.25	1982.25	1984.45	51.04	14.41	2935.12	3415.30
*	23.250	619.40	.00	.00	1977.30	24400.00	1987.17	1987.17	1989.03	73.14	13.83	3044.29	2853.02
*	23.250	619.40	.00	.00	1977.30	24400.00	1987.81	1987.81	1990.90	90.32	16.06	2056.51	2567.42
*	23.330	432.60	.00	.00	1979.50	24400.00	1991.35	1991.35	1993.72	94.84	18.13	2602.87	2505.53
	23.330	432.60	.00	.00	1979.50	24400.00	1992.11	.00	1994.72	90.82	18.14	2281.17	2560.36

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	23.450	623.50	.00	.00	1988.40	24400.00	1998.50	.00	2000.15	107.68	14.79	2654.57	2351.42
	23.450	623.50	.00	.00	1988.40	24400.00	1998.99	.00	2000.54	87.18	14.11	2721.45	2613.28
*	23.550	545.10	.00	.00	1996.70	24400.00	2003.92	2003.92	2005.92	106.73	14.15	2644.98	2361.83
*	23.550	545.10	.00	.00	1996.70	24400.00	2004.52	2004.52	2007.03	103.16	14.98	2323.86	2402.38
	23.640	500.20	.00	.00	2000.00	11800.00	2008.98	.00	2010.13	46.81	11.37	2029.02	1724.64
	23.640	500.20	.00	.00	2000.00	11800.00	2009.84	.00	2010.53	25.79	9.13	2584.62	2323.79
*	23.870	1179.60	.00	.00	2008.80	11800.00	2018.87	2018.87	2020.60	44.43	12.20	1712.40	1770.35
*	23.870	1179.60	.00	.00	2008.80	11800.00	2019.04	2019.04	2021.23	51.81	13.14	1386.27	1639.31
	23.940	403.20	.00	.00	2010.40	11800.00	2020.86	2020.83	2022.88	67.68	12.24	1238.29	1434.35
	23.940	403.20	.00	.00	2010.40	11800.00	2021.78	.00	2023.25	40.81	10.48	1560.84	1847.23
	24.030	457.80	.00	.00	2017.50	11800.00	2025.13	.00	2026.02	60.34	10.48	1987.33	1519.03
*	24.030	457.80	.00	.00	2017.50	11800.00	2025.83	2025.83	2028.41	104.22	15.03	1103.95	1155.86
*	24.120	451.70	.00	.00	2020.60	11800.00	2028.90	2028.90	2030.98	58.69	11.82	1198.14	1540.23
*	24.120	451.70	.00	.00	2020.60	11800.00	2029.75	.00	2031.41	39.61	10.48	1220.84	1875.00
*	24.250	708.60	.00	.00	2024.00	9700.00	2033.67	2033.67	2035.81	76.07	14.03	1072.73	1112.18
*	24.250	708.60	.00	.00	2024.00	9700.00	2033.98	2033.98	2036.28	74.66	14.22	1029.80	1122.62
*	24.380	708.80	.00	.00	2031.50	9700.00	2038.55	.00	2039.46	35.26	7.87	1374.30	1633.62
*	24.380	708.80	.00	.00	2031.50	9700.00	2038.87	.00	2039.80	31.80	7.73	1255.17	1719.99
*	24.480	501.70	.00	.00	2036.80	9700.00	2043.74	2043.74	2045.30	59.16	11.92	1386.93	1261.07
*	24.480	501.70	.00	.00	2036.80	9700.00	2044.46	2044.46	2046.83	64.14	13.30	976.71	1211.16
*	24.610	668.90	.00	.00	2040.20	9700.00	2050.04	2050.04	2051.52	39.84	11.60	1602.90	1536.72
*	24.610	668.90	.00	.00	2040.20	9700.00	2050.49	2050.49	2054.40	78.47	15.87	611.39	1095.02
*	24.740	668.80	.00	.00	2045.80	9700.00	2055.85	2055.85	2057.47	41.24	10.79	1318.00	1510.49
*	24.740	668.80	.00	.00	2045.80	9700.00	2056.69	.00	2058.49	36.56	10.77	900.50	1604.16
*	24.870	732.80	.00	.00	2054.60	7800.00	2061.94	2061.94	2063.58	53.61	11.10	1001.83	1065.25
*	24.870	732.80	.00	.00	2054.60	7800.00	2061.99	2061.99	2064.49	70.71	12.82	657.75	927.61
	24.950	405.60	.00	.00	2057.40	7800.00	2064.96	.00	2065.68	43.57	7.85	1318.87	1181.69
	24.950	405.60	.00	.00	2057.40	7800.00	2065.79	.00	2067.21	50.09	9.57	826.79	1102.15
*	25.120	867.70	.00	.00	2064.70	7800.00	2072.77	2072.77	2075.32	65.46	12.91	653.46	964.04
*	25.120	867.70	.00	.00	2064.70	7800.00	2072.79	2072.79	2075.32	64.70	12.86	656.22	969.73
*	25.280	867.50	.00	.00	2071.50	7800.00	2081.36	2081.36	2082.98	39.55	12.05	1289.43	1240.27
*	25.280	867.50	.00	.00	2071.50	7800.00	2081.44	2081.44	2083.89	51.41	13.83	853.24	1087.86
	25.380	538.70	.00	.00	2078.20	7800.00	2084.98	.00	2085.30	41.36	5.69	2016.63	1212.80
*	25.380	538.70	.00	.00	2078.20	7800.00	2085.95	.00	2086.28	23.42	5.36	1983.32	1611.61

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	25.450	362.20	.00	.00	2081.00	7800.00	2088.35	2088.35	2089.38	184.93	9.81	977.13	573.58
*	25.450	362.20	.00	.00	2081.00	7800.00	2089.24	2089.24	2090.27	147.37	11.30	1191.91	642.53

*	25.560	583.50	.00	.00	2085.50	7800.00	2095.84	.00	2096.30	76.90	6.43	1539.40	889.45
*	25.560	583.50	.00	.00	2085.50	7800.00	2095.91	.00	2096.36	72.08	6.39	1550.69	918.72
	25.630	365.70	.00	.00	2089.70	7800.00	2099.06	.00	2099.84	121.30	8.78	1145.20	708.21
*	25.630	365.70	.00	.00	2089.70	7800.00	2099.44	2099.41	2100.64	187.42	10.25	914.87	569.75
*	25.700	396.00	.00	.00	2098.80	7800.00	2102.31	2102.31	2104.03	39.09	10.51	742.02	1247.57
*	25.700	396.00	.00	.00	2098.80	7800.00	2102.54	.00	2104.05	32.02	9.84	793.01	1378.36
*	25.720	79.70	2114.50	2109.00	2099.20	7800.00	2104.11	.00	2105.13	18.71	8.10	962.78	1803.50
*	25.720	79.70	2114.50	2109.00	2099.20	7800.00	2104.11	.00	2105.13	18.71	8.10	962.78	1803.50
*	25.830	612.50	.00	.00	2103.60	7800.00	2112.46	2112.46	2113.92	81.14	10.93	1036.99	865.90
*	25.830	612.50	.00	.00	2103.60	7800.00	2113.04	2113.04	2115.55	93.72	12.69	614.52	805.69
*	25.950	620.60	.00	.00	2109.10	7800.00	2119.31	2119.31	2120.57	51.63	11.05	1335.70	1085.51
*	25.950	620.60	.00	.00	2109.10	7800.00	2120.33	2120.33	2123.08	66.25	13.84	681.74	958.29
*	26.170	1132.00	.00	.00	2121.70	7800.00	2132.48	2132.48	2133.91	48.94	11.24	1228.03	1115.02
*	26.170	1132.00	.00	.00	2121.70	7800.00	2132.69	2132.69	2136.22	85.44	15.20	535.70	843.86

MONT. WAT. AND HEC

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	13.000	13163.05	1522.98	.00	.00	-.01	244.53	.00
*	13.000	13163.05	1522.98	.00	.00	-.01	244.53	.00
	13.020	13163.05	1524.39	.00	1.41	.00	244.67	120.00
	13.020	13163.05	1524.39	.00	1.41	.00	244.67	120.00
	13.040	13163.05	1525.95	.00	1.56	-.01	394.62	100.00
	13.040	13163.05	1525.95	.00	1.56	-.01	394.62	100.00
	13.080	13163.05	1526.93	.00	.98	-.01	1095.47	230.00
	13.080	13163.05	1526.93	.00	.98	-.01	1095.47	230.00
*	13.160	13163.05	1528.14	.00	1.21	.00	1310.31	421.00
*	13.160	13163.05	1528.14	.00	1.21	.00	1310.31	421.00
	13.280	15700.00	1532.51	.00	4.37	.00	1230.26	600.00
	13.280	15700.00	1532.51	.00	4.37	.00	1230.26	600.00
*	13.400	23300.00	1537.72	.00	5.21	.00	2079.32	678.60
*	13.400	23300.00	1538.53	.81	6.02	.00	932.00	678.60
	13.550	23300.00	1543.09	.00	5.37	.00	1648.66	787.30
	13.550	23300.00	1544.06	.97	5.53	.00	1258.00	787.30
	13.660	23300.00	1547.65	.00	4.56	.00	1912.62	549.10
	13.660	23300.00	1548.19	.54	4.13	.00	1427.00	549.10
	13.860	23300.00	1555.73	.00	8.08	.00	1715.14	1049.10
	13.860	23300.00	1556.31	.58	8.11	.00	1282.28	1049.10
	14.070	23300.00	1564.42	.00	8.69	.00	1909.12	1134.10
	14.070	23300.00	1564.58	.16	8.27	.00	1724.00	1134.10
*	14.300	23300.00	1573.99	.00	9.57	.00	2146.54	1213.60
*	14.300	23300.00	1574.76	.78	10.18	.00	950.00	1213.60
	14.540	23300.00	1583.24	.00	9.25	.00	620.61	1273.20
	14.540	23300.00	1583.77	.53	9.00	.00	530.00	1273.20
*	14.740	23300.00	1591.09	.00	7.85	.00	616.16	1070.90
*	14.740	23300.00	1591.24	.14	7.47	.00	356.00	1070.90
	14.890	23300.00	1596.68	.00	5.59	.00	550.50	756.40
*	14.890	23300.00	1597.53	.84	6.29	.00	439.00	756.40
	15.060	23300.00	1602.36	.00	5.67	.00	755.91	930.30
	15.060	23300.00	1602.45	.09	4.92	.00	418.00	930.30

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	15.120	23300.00	1604.66	.00	2.31	.00	789.48	283.60
*	15.120	23300.00	1604.74	.08	2.29	.00	376.00	283.60
	15.220	23300.00	1610.04	.00	5.38	.00	597.88	553.10
*	15.220	23300.00	1610.78	.74	6.04	.00	371.00	553.10
	15.410	23300.00	1616.92	.00	6.88	.00	396.66	968.90
	15.410	23300.00	1617.05	.13	6.27	.00	374.00	968.90
*	15.550	23300.00	1622.53	.00	5.61	.00	525.23	755.30
*	15.550	23300.00	1622.91	.38	5.86	.00	247.00	755.30
	15.750	23300.00	1629.97	.00	7.44	.00	768.87	1048.40
*	15.750	23300.00	1630.93	.96	8.02	.00	639.00	1048.40
*	15.890	23300.00	1635.01	.00	5.04	.00	712.40	738.40
*	15.890	23300.00	1635.75	.74	4.82	.00	374.02	738.40
	16.070	23300.00	1643.78	.00	8.77	.00	512.27	950.30
	16.070	23300.00	1644.75	.97	9.01	.00	300.00	950.30

	16.190	23300.00	1648.31	.00	4.53	.00	751.98	645.60
	16.190	23300.00	1649.23	.92	4.48	.00	468.00	645.60
*	16.270	23300.00	1651.78	.00	3.47	.00	643.18	422.10
*	16.270	23300.00	1652.32	.53	3.08	.00	282.00	422.10
*	16.490	23300.00	1661.63	.00	9.85	.00	642.89	1153.60
*	16.490	23300.00	1662.56	.93	10.25	.00	414.00	1153.60
	16.680	23300.00	1668.17	.00	6.54	.00	654.54	997.50
	16.680	23300.00	1668.38	.21	5.82	.00	650.00	997.50
*	16.860	23700.00	1678.96	.00	10.79	.00	314.84	980.90
*	16.860	23700.00	1679.11	.16	10.73	.00	313.00	980.90
	16.870	23700.00	1678.96	.00	.00	.00	312.16	44.20
	16.870	23700.00	1679.95	.99	.84	.00	311.00	44.20
*	16.960	23700.00	1684.24	.00	5.29	.00	782.28	456.20
*	16.960	27300.00	1684.54	.30	4.59	.00	442.69	456.20
*	17.060	23700.00	1688.86	.00	4.62	.00	983.41	566.00
*	17.060	27300.00	1689.73	.87	5.19	.00	887.84	566.00
*	17.180	23700.00	1694.41	.00	5.55	.00	913.57	600.80
*	17.180	27300.00	1694.92	.51	5.19	.00	827.62	600.80
	17.300	23700.00	1700.59	.00	6.18	.00	1567.44	644.40
	17.300	27300.00	1701.09	.50	6.17	.00	780.00	644.40

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	17.390	23700.00	1704.66	.00	4.08	.00	1515.12	500.00
	17.390	27300.00	1705.43	.76	4.34	.00	765.00	500.00
*	17.480	27300.00	1709.25	.00	4.58	.00	1925.64	429.40
*	17.480	27300.00	1709.98	.74	4.56	.00	755.00	429.40
*	17.570	27300.00	1713.69	.00	4.44	.00	1487.53	474.40
*	17.570	27300.00	1714.46	.77	4.48	.00	761.00	474.40
*	17.650	27300.00	1717.21	.00	3.52	.00	1379.96	460.80
	17.650	27300.00	1717.68	.47	3.22	.00	757.00	460.80
	17.780	27300.00	1721.91	.00	4.69	.00	959.09	661.30
	17.780	27300.00	1722.85	.94	5.17	.00	937.00	661.30
	17.840	27300.00	1724.77	.00	2.86	.00	1008.18	341.70
*	17.840	27300.00	1724.57	-.20	1.72	.00	900.00	341.70
*	17.950	27300.00	1729.77	.00	5.00	.00	1027.29	563.80
	17.950	27300.00	1729.96	.19	5.39	.00	750.00	563.80
*	18.090	27700.00	1734.86	.00	5.09	.00	1506.08	705.80
	18.090	27700.00	1735.00	.15	5.04	.00	715.00	705.80
*	18.160	27700.00	1736.55	.00	1.69	.00	949.15	377.60
	18.160	27700.00	1736.96	.41	1.95	.00	642.88	377.60
*	18.230	27700.00	1741.75	.00	5.20	.00	1309.37	370.00
*	18.230	27700.00	1741.75	.00	4.79	.00	565.00	370.00
	18.290	27700.00	1743.06	.00	1.32	.00	1039.14	300.00
*	18.290	27700.00	1744.23	1.17	2.48	.00	540.00	300.00
	18.490	27700.00	1750.88	.00	7.82	.00	848.14	1099.70
*	18.490	27700.00	1750.61	-.27	6.38	.00	683.00	1099.70
*	18.570	27700.00	1754.08	.00	3.19	.00	920.13	389.00
*	18.570	27700.00	1754.47	.39	3.86	.00	780.00	389.00
*	18.740	27300.00	1760.57	.00	6.49	.00	875.64	917.80
	18.740	27300.00	1760.64	.07	6.17	.00	745.00	917.80
	18.840	27300.00	1764.69	.00	4.12	.00	684.70	497.10
*	18.840	27300.00	1765.57	.88	4.93	.00	564.00	497.10
*	18.960	27300.00	1771.34	.00	6.65	.00	1432.78	631.70
*	18.960	27300.00	1771.86	.52	6.29	.00	841.00	631.70
*	19.070	27300.00	1775.13	.00	3.79	.00	1357.34	601.00
	19.070	27300.00	1775.41	.29	3.55	.00	830.00	601.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	19.180	27300.00	1780.34	.00	5.22	.00	834.35	598.70
*	19.180	27300.00	1780.49	.15	5.08	.00	746.00	598.70
	19.260	27300.00	1784.76	.00	4.42	.00	717.97	416.40
*	19.260	27300.00	1784.80	.04	4.31	.00	635.00	416.40
	19.410	27300.00	1790.80	.00	6.04	.00	1012.08	769.40
	19.410	27300.00	1790.90	.10	6.10	.00	941.03	769.40
*	19.520	27300.00	1794.85	.00	4.05	.00	680.58	606.30
*	19.520	27300.00	1794.85	.00	3.95	.00	680.00	606.30
	19.620	27300.00	1800.83	.00	5.98	.00	746.74	528.00
	19.620	27300.00	1800.82	.00	5.97	.00	746.44	528.00

*	19.720	27300.00	1805.02	.00	4.20	.00	760.62	509.90
*	19.720	27300.00	1805.05	.02	4.22	.00	725.00	509.90
*	19.830	27300.00	1810.83	.00	5.81	.00	714.61	567.80
*	19.830	27300.00	1810.73	-.10	5.68	.00	678.00	567.80
*	19.920	27300.00	1814.80	.00	3.97	.00	1173.26	492.00
	19.920	27300.00	1814.83	.03	4.10	.00	683.31	492.00
	20.050	27300.00	1820.70	.00	5.90	.00	1085.65	700.00
*	20.050	27300.00	1820.92	.22	6.10	.00	1053.72	700.00
*	20.160	27300.00	1824.75	.00	4.05	.00	1116.07	555.70
*	20.160	27300.00	1824.71	-.04	3.79	.00	1062.26	555.70
*	20.260	27300.00	1831.31	.00	6.55	.00	1253.31	531.60
*	20.260	27300.00	1831.45	.15	6.74	.00	1205.00	531.60
	20.380	27300.00	1835.69	.00	4.38	.00	1211.13	622.30
	20.380	27300.00	1835.76	.07	4.31	.00	1166.22	622.30
*	20.480	27300.00	1841.48	.00	5.80	.00	1298.90	526.70
*	20.480	27300.00	1842.08	.60	6.32	.00	906.00	526.70
*	20.620	27300.00	1848.79	.00	7.31	.00	1241.81	788.90
*	20.620	27300.00	1849.51	.72	7.43	.00	885.00	788.90
*	20.640	27300.00	1850.90	.00	2.11	.00	1349.99	135.00
*	20.640	27300.00	1851.90	1.00	2.38	.00	850.00	135.00
*	20.710	27300.00	1852.87	.00	1.97	.00	1391.07	369.60
*	20.710	27300.00	1853.49	.62	1.59	.00	810.00	369.60
*	20.790	27300.00	1857.17	.00	4.30	.00	1260.00	422.40
*	20.790	27300.00	1858.09	.92	4.60	.00	660.00	422.40

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	20.900	27300.00	1862.43	.00	5.26	.00	1313.97	580.80
*	20.900	27300.00	1862.77	.35	4.69	.00	670.00	580.80
	20.980	27300.00	1866.18	.00	3.75	.00	1250.99	422.40
	20.980	27300.00	1866.91	.73	4.14	.00	670.00	422.40
*	21.050	27300.00	1869.77	.00	3.59	.00	1247.21	369.60
*	21.050	27300.00	1869.92	.16	3.01	.00	695.00	369.60
	21.110	27300.00	1872.00	.00	2.23	.00	1025.38	316.80
	21.110	27300.00	1872.76	.76	2.83	.00	775.00	316.80
*	21.180	27300.00	1876.07	.00	4.08	.00	1152.57	369.60
*	21.180	27300.00	1876.09	.02	3.33	.00	900.00	369.60
*	21.250	27300.00	1880.86	.00	4.78	.00	1420.77	369.60
*	21.250	27300.00	1880.99	.14	4.91	.00	745.00	369.60
	21.310	27300.00	1882.64	.00	1.78	.00	965.41	316.80
	21.310	27300.00	1883.45	.81	2.46	.00	650.00	316.80
	21.350	27300.00	1883.36	.00	.73	.00	829.04	211.20
	21.350	27300.00	1884.12	.76	.67	.00	705.00	211.20
	21.410	27300.00	1886.75	.00	3.39	.00	799.93	422.00
	21.410	27300.00	1886.69	-.06	2.57	.00	596.32	422.00
	21.490	27300.00	1890.86	.00	4.11	.00	700.14	475.00
	21.490	27300.00	1891.09	.22	4.39	.00	700.00	475.00
	21.580	27300.00	1895.50	.00	4.64	.00	1294.67	475.20
*	21.580	27300.00	1895.56	.05	4.47	.00	840.00	475.20
	21.630	27300.00	1897.88	.00	2.38	.00	1159.04	264.00
	21.630	27300.00	1898.81	.93	3.26	.00	1055.00	264.00
	21.690	27300.00	1902.22	.00	4.34	.00	1412.19	422.40
	21.690	27300.00	1902.24	.02	3.43	.00	1330.00	422.40
	21.770	27300.00	1905.63	.00	3.41	.00	964.76	422.40
	21.770	27300.00	1905.73	.10	3.49	.00	958.18	422.40
*	21.820	27300.00	1908.88	.00	3.25	.00	1139.89	264.00
*	21.820	27300.00	1908.92	.04	3.18	.00	1074.67	264.00
	21.910	27300.00	1914.04	.00	5.16	.00	1154.39	475.20
	21.910	27300.00	1914.60	.56	5.69	.00	1140.00	475.20
	21.990	27300.00	1917.76	.00	3.72	.00	1403.61	422.40
	21.990	27300.00	1918.43	.67	3.83	.00	1234.22	422.40

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
22.080	27300.00	1922.61	.00	4.85	.00	1609.96	475.20
22.080	27300.00	1922.98	.36	4.55	.00	1125.00	475.20
22.150	27300.00	1925.39	.00	2.77	.00	1241.16	369.60
22.150	27300.00	1926.11	.72	3.13	.00	1088.06	369.60
22.220	27300.00	1928.96	.00	3.58	.00	831.90	369.60
22.220	27300.00	1929.46	.50	3.35	.00	783.94	369.60

	22.290	27300.00	1933.00	.00	4.04	.00	1282.22	369.60
	22.290	27300.00	1933.37	.37	3.91	.00	911.26	369.60
	22.360	27300.00	1936.94	.00	3.94	.00	1104.00	369.60
	22.360	27300.00	1937.48	.54	4.11	.00	844.30	369.60
	22.430	27300.00	1941.79	.00	4.85	.00	1204.82	369.60
	22.430	27300.00	1942.23	.44	4.75	.00	918.00	369.60
	22.480	27300.00	1944.10	.00	2.31	.00	1082.95	264.00
	22.480	27300.00	1944.97	.87	2.74	.00	723.00	264.00
	22.560	27300.00	1948.18	.00	4.08	.00	1064.96	422.40
	22.560	27300.00	1949.07	.88	4.10	.00	635.00	422.40
*	22.670	27300.00	1954.37	.00	6.19	.00	786.32	528.00
*	22.670	27300.00	1954.94	.57	5.87	.00	575.00	528.00
*	22.730	27300.00	1957.89	.00	3.52	.00	869.26	316.80
*	22.730	27300.00	1958.64	.75	3.70	.00	526.00	316.80
*	22.790	27300.00	1960.94	.00	3.05	.00	965.08	316.80
	22.790	27300.00	1961.63	.69	2.99	.00	660.00	316.80
	22.860	24400.00	1964.52	.00	3.58	.00	979.15	370.00
	22.860	24400.00	1965.27	.75	3.64	.00	742.00	370.00
	22.950	24400.00	1972.66	.00	8.14	.00	1017.56	1003.00
*	22.950	24400.00	1972.69	.03	7.42	.00	600.00	1003.00
*	22.960	24400.00	1974.46	.00	1.80	.00	926.98	30.00
*	22.960	24400.00	1974.59	.14	1.90	.00	514.00	30.00
*	23.130	24400.00	1981.33	.00	6.88	.00	801.73	880.20
*	23.130	24400.00	1982.25	.92	7.66	.00	561.00	880.20
*	23.250	24400.00	1987.17	.00	5.84	.00	743.33	619.40
*	23.250	24400.00	1987.81	.64	5.56	.00	334.00	619.40
*	23.330	24400.00	1991.35	.00	4.18	.00	599.89	432.60
	23.330	24400.00	1992.11	.76	4.30	.00	331.00	432.60

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	23.450	24400.00	1998.50	.00	7.15	.00	609.04	623.50
	23.450	24400.00	1998.99	.50	6.88	.00	465.00	623.50
*	23.550	24400.00	2003.92	.00	5.42	.00	706.32	545.10
*	23.550	24400.00	2004.52	.60	5.52	.00	467.00	545.10
	23.640	11800.00	2008.98	.00	5.06	.00	681.35	500.20
	23.640	11800.00	2009.84	.86	5.32	.00	662.00	500.20
*	23.870	11800.00	2018.87	.00	9.89	.00	555.39	1179.60
*	23.870	11800.00	2019.04	.17	9.20	.00	353.00	1179.60
	23.940	11800.00	2020.86	.00	1.99	.00	415.48	403.20
	23.940	11800.00	2021.78	.93	2.74	.00	500.00	403.20
	24.030	11800.00	2025.13	.00	4.27	.00	652.99	457.80
*	24.030	11800.00	2025.83	.70	4.04	.00	223.00	457.80
*	24.120	11800.00	2028.90	.00	3.77	.00	436.92	451.70
*	24.120	11800.00	2029.75	.86	3.93	.00	207.00	451.70
*	24.250	9700.00	2033.67	.00	4.77	.00	267.97	708.60
*	24.250	9700.00	2033.98	.31	4.23	.00	237.05	708.60
*	24.380	9700.00	2038.55	.00	4.88	.00	370.39	708.80
*	24.380	9700.00	2038.87	.33	4.89	.00	266.00	708.80
*	24.480	9700.00	2043.74	.00	5.19	.00	473.74	501.70
*	24.480	9700.00	2044.46	.72	5.59	.00	214.00	501.70
*	24.610	9700.00	2050.04	.00	6.30	.00	665.08	668.90
*	24.610	9700.00	2050.49	.46	6.04	.00	79.00	668.90
*	24.740	9700.00	2055.85	.00	5.82	.00	678.84	668.80
*	24.740	9700.00	2056.69	.83	6.19	.00	125.00	668.80
*	24.870	7800.00	2061.94	.00	6.09	.00	435.82	732.80
*	24.870	7800.00	2061.99	.05	5.30	.00	151.00	732.80
	24.950	7800.00	2064.96	.00	3.02	.00	360.74	405.60
	24.950	7800.00	2065.79	.83	3.80	.00	180.00	405.60
*	25.120	7800.00	2072.77	.00	7.81	.00	153.27	867.70
*	25.120	7800.00	2072.79	.02	7.00	.00	153.00	867.70
*	25.280	7800.00	2081.36	.00	8.59	.00	433.20	867.50
*	25.280	7800.00	2081.44	.08	8.65	.00	188.00	867.50
	25.380	7800.00	2084.98	.00	3.62	.00	1008.00	538.70
*	25.380	7800.00	2085.95	.97	4.51	.00	646.00	538.70

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	25.450	7800.00	2088.35	.00	3.37	.00	582.34	362.20
*	25.450	7800.00	2089.24	.89	3.29	.00	630.00	362.20

*	25.560	7800.00	2095.84	.00	7.49	.00	866.12	583.50
*	25.560	7800.00	2095.91	.07	6.68	.00	802.73	583.50
	25.630	7800.00	2099.06	.00	3.22	.00	458.07	365.70
*	25.630	7800.00	2099.44	.38	3.53	.00	429.73	365.70
*	25.700	7800.00	2102.31	.00	3.25	.00	218.00	396.00
*	25.700	7800.00	2102.54	.23	3.10	.00	218.00	396.00
*	25.720	7800.00	2104.11	.00	1.80	.00	237.00	79.70
*	25.720	7800.00	2104.11	.00	1.57	.00	237.00	79.70
*	25.830	7800.00	2112.46	.00	8.35	.00	393.33	612.50
*	25.830	7800.00	2113.04	.59	8.93	.00	126.00	612.50
*	25.950	7800.00	2119.31	.00	6.85	.00	652.16	620.60
*	25.950	7800.00	2120.33	1.02	7.29	.00	141.00	620.60
*	26.170	7800.00	2132.48	.00	13.16	.00	499.86	1132.00
*	26.170	7800.00	2132.69	.21	12.36	.00	83.00	1132.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO=     24.030  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     24.120  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     24.120  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=     24.120  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     24.250  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     24.250  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     24.250  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     24.250  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     24.380  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     24.380  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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CAUTION SECNO=     24.480  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     24.480  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     24.480  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     24.480  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     24.480  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     24.480  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     24.610  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     24.610  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     24.610  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     24.610  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     24.740  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     24.740  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     24.740  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
WARNING SECNO=     24.740  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     24.870  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     24.870  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     24.870  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     24.870  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     24.870  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     24.870  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     25.120  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.120  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     25.120  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     25.120  PROFILE=  2  CRITICAL DEPTH ASSUMED
1
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CAUTION SECNO=     25.120  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     25.280  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.280  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     25.280  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.280  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     25.380  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     25.450  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.450  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     25.450  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.450  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     25.450  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=     25.560  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     25.560  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     25.630  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     25.700  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.700  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=     25.700  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     25.720  PROFILE=  1  HYDRAULIC JUMP D.S.
WARNING SECNO=     25.720  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=     25.720  PROFILE=  2  HYDRAULIC JUMP D.S.

CAUTION SECNO=     25.830  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.830  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     25.830  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     25.830  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.830  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     25.830  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     25.950  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.950  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     25.950  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.950  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     26.170  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     26.170  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     26.170  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     26.170  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     26.170  PROFILE=  2  MINIMUM SPECIFIC ENERGY

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Floodway width summary: MONT. WAT. AND HEC
Profile No. 2

Section Number	Elevation Increase	Top Width	Left Encroach Station	Left Sta Distance From Center	Center Station	Right Sta Distance From Center	Right Encroach Station
13.000	.00	245.00	9820.00	122.50	9942.50	122.50	10065.00
13.020	.00	245.00	9820.00	122.50	9942.50	122.50	10065.00
13.040	.00	813.00	9537.00	388.50	9925.50	424.50	10350.00
13.080	.00	1129.00	9550.00	348.50	9898.50	780.50	10679.00
13.160	.00	1395.00	9421.00	699.50	10120.50	695.50	10816.00
13.280	.00	1265.00	9537.00	353.50	9890.50	911.50	10802.00
13.400	.81	932.00	9670.00	324.50	9994.50	607.50	10602.00
13.550	.97	1258.00	9236.00	855.00	10091.00	403.00	10494.00
13.660	.54	1427.00	9055.00	926.50	9981.50	500.50	10482.00
13.860	.58	1524.00	8708.00	978.00	9686.00	546.00	10232.00
14.070	.16	1724.00	8805.00	1164.00	9969.00	560.00	10529.00
14.300	.78	950.00	9210.00	765.00	9975.00	185.00	10160.00
14.540	.53	530.00	9950.00	265.00	10215.00	265.00	10480.00
14.740	.14	356.00	9720.00	306.00	10026.00	50.00	10076.00
14.890	.84	439.00	9620.00	378.50	9998.50	60.50	10059.00
15.060	.09	418.00	9972.00	209.00	10181.00	209.00	10390.00
15.120	.08	376.00	9975.00	188.00	10163.00	188.00	10351.00

15.220	.74	371.00	9977.00	185.50	10162.50	185.50	10348.00
15.410	.13	374.00	9979.00	187.00	10166.00	187.00	10353.00
15.550	.38	247.00	9935.00	106.00	10041.00	141.00	10182.00
15.750	.96	639.00	9477.00	562.50	10039.50	76.50	10116.00
15.890	.74	393.00	9817.00	272.50	10089.50	120.50	10210.00
16.070	.97	300.00	9830.00	209.00	10039.00	91.00	10130.00
16.190	.92	468.00	9600.00	405.50	10005.50	62.50	10068.00
16.270	.53	282.00	9760.00	142.50	9902.50	139.50	10042.00
16.490	.93	414.00	9906.00	112.00	10018.00	302.00	10320.00
16.680	.21	650.00	9940.00	319.00	10259.00	331.00	10590.00
16.860	.16	313.00	9788.00	156.52	9944.52	156.48	10101.00
16.870	.99	311.00	9806.00	159.58	9965.58	151.42	10117.00
16.960	.30	641.00	9893.00	244.00	10137.00	397.00	10534.00
17.060	.87	900.00	9650.00	368.50	10018.50	531.50	10550.00
17.180	.51	953.00	9697.00	419.00	10116.00	534.00	10650.00
17.300	.50	780.00	9670.00	393.00	10063.00	387.00	10450.00
17.390	.76	765.00	9785.00	251.00	10036.00	514.00	10550.00
17.480	.74	755.00	9850.00	133.00	9983.00	622.00	10605.00
17.570	.77	761.00	9879.00	102.50	9981.50	658.50	10640.00
17.650	.47	757.00	9629.00	343.50	9972.50	413.50	10386.00
17.780	.94	937.00	9654.00	324.50	9978.50	612.50	10591.00
17.840	-.20	900.00	9770.00	301.00	10071.00	599.00	10670.00
17.950	.19	750.00	9845.00	112.00	9957.00	638.00	10595.00
18.090	.15	715.00	9895.00	228.00	10123.00	487.00	10610.00
18.160	.41	673.00	9752.00	203.50	9955.50	469.50	10425.00
18.230	.00	565.00	9630.00	275.00	9905.00	290.00	10195.00
18.290	1.17	540.00	9630.00	351.50	9981.50	188.50	10170.00
18.490	-.27	683.00	9832.00	102.50	9934.50	580.50	10515.00
18.570	.39	780.00	9700.00	294.00	9994.00	486.00	10480.00
18.740	.07	745.00	9380.00	678.50	10058.50	66.50	10125.00

18.840	.88	564.00	9576.00	399.50	9975.50	164.50	10140.00
18.960	.52	841.00	9639.00	333.50	9972.50	507.50	10480.00
19.070	.29	830.00	9485.00	513.00	9998.00	317.00	10315.00
19.180	.15	746.00	9330.00	647.00	9977.00	99.00	10076.00
19.260	.04	635.00	9430.00	591.00	10021.00	44.00	10065.00
19.410	.10	950.00	9660.00	340.00	10000.00	610.00	10610.00
19.520	.00	680.00	9901.00	112.50	10013.50	567.50	10581.00
19.620	.00	746.51	9984.00	59.00	10043.00	687.51	10730.51
19.720	.02	725.00	9825.00	170.50	9995.50	554.50	10550.00
19.830	-.10	678.00	9742.00	275.00	10017.00	403.00	10420.00
19.920	.03	683.31	9710.00	325.50	10035.50	357.81	10393.31
20.050	.22	1053.72	9420.00	573.00	9993.00	480.72	10473.72
20.160	-.04	1287.70	9202.00	810.00	10012.00	477.70	10489.70
20.260	.15	1205.00	9190.00	797.00	9987.00	408.00	10395.00
20.380	.07	1206.00	9209.00	788.00	9997.00	418.00	10415.00
20.480	.60	906.00	9424.00	594.50	10018.50	311.50	10330.00
20.620	.72	885.00	9485.00	536.50	10021.50	348.50	10370.00
20.640	1.00	850.00	9500.00	420.00	9920.00	430.00	10350.00
20.710	.62	810.00	4500.00	540.00	5040.00	270.00	5310.00
20.790	.92	660.00	4500.00	533.50	5033.50	126.50	5160.00
20.900	.35	670.00	4550.00	400.00	4950.00	270.00	5220.00
20.980	.73	670.00	4390.00	487.50	4877.50	182.50	5060.00
21.050	.16	695.00	4380.00	588.50	4968.50	106.50	5075.00
21.110	.76	775.00	4350.00	637.50	4987.50	137.50	5125.00
21.180	.02	900.00	4200.00	825.00	5025.00	75.00	5100.00
21.250	.14	745.00	4310.00	672.50	4982.50	72.50	5055.00
21.310	.81	650.00	4450.00	487.50	4937.50	162.50	5100.00
21.350	.76	705.00	4400.00	560.00	4960.00	145.00	5105.00
21.410	-.06	600.00	4500.00	460.00	4960.00	140.00	5100.00
21.490	.22	700.00	4617.00	373.00	4990.00	327.00	5317.00
21.580	.05	840.00	4415.00	620.00	5035.00	220.00	5255.00
21.630	.93	1055.00	4265.00	875.00	5140.00	180.00	5320.00
21.690	.02	1330.00	3970.00	962.50	4932.50	367.50	5300.00
21.770	.10	1471.00	3694.00	1226.00	4920.00	245.00	5165.00
21.820	.04	1450.00	3750.00	1260.00	5010.00	190.00	5200.00
21.910	.56	1140.00	3900.00	1059.00	4959.00	81.00	5040.00
21.990	.67	1325.00	3765.00	1260.00	5025.00	65.00	5090.00
22.080	.36	1125.00	4050.00	942.50	4992.50	182.50	5175.00
22.150	.72	1370.00	3700.00	1305.00	5005.00	65.00	5070.00
22.220	.50	1149.00	3918.00	1093.00	5011.00	56.00	5067.00
22.290	.37	1100.00	4000.00	1006.00	5006.00	94.00	5100.00
22.360	.54	980.00	4100.00	905.00	5005.00	75.00	5080.00
22.430	.44	918.00	4192.00	803.00	4995.00	115.00	5110.00
22.480	.87	723.00	4372.00	641.50	5013.50	81.50	5095.00
22.560	.88	635.00	4470.00	562.50	5032.50	72.50	5105.00
22.670	.57	575.00	4475.00	525.00	5000.00	50.00	5050.00
22.730	.75	526.00	4499.00	453.50	4952.50	72.50	5025.00
22.790	.69	660.00	4490.00	505.00	4995.00	155.00	5150.00
22.860	.75	742.00	4450.00	602.00	5052.00	140.00	5192.00
22.950	.03	600.00	9450.00	300.00	9750.00	300.00	10050.00
22.960	.14	514.00	9500.00	483.50	9983.50	30.50	10014.00
23.130	.92	561.00	9595.00	358.00	9953.00	203.00	10156.00
23.250	.64	334.00	9874.00	75.50	9949.50	258.50	10208.00
23.330	.76	331.00	9963.00	27.00	9990.00	304.00	10294.00

23.450	.50	465.00	9867.00	151.50	10018.50	313.50	10332.00
23.550	.60	467.00	9766.00	243.00	10009.00	224.00	10233.00
23.640	.86	662.00	9435.00	545.00	9980.00	117.00	10097.00
23.870	.17	353.00	9668.00	309.50	9977.50	43.50	10021.00
23.940	.93	500.00	9542.00	408.00	9950.00	92.00	10042.00
24.030	.70	223.00	9900.00	77.50	9977.50	145.50	10123.00
24.120	.86	207.00	9860.00	129.00	9989.00	78.00	10067.00
24.250	.31	246.00	9953.00	31.50	9984.50	214.50	10199.00
24.380	.33	266.00	9811.00	133.00	9944.00	133.00	10077.00
24.480	.72	214.00	9834.00	165.50	9999.50	48.50	10048.00
24.610	.46	79.00	9944.00	39.50	9983.50	39.50	10023.00
24.740	.83	125.00	9961.00	62.50	10023.50	62.50	10086.00
24.870	.05	151.00	9929.00	87.50	10016.50	63.50	10080.00
24.950	.83	180.00	9920.00	88.50	10008.50	91.50	10100.00
25.120	.02	153.00	9952.00	49.00	10001.00	104.00	10105.00
25.280	.08	188.00	9849.00	145.50	9994.50	42.50	10037.00

25.380	.97	646.00	9650.00	352.50	10002.50	293.50	10296.00
25.450	.89	630.00	9968.00	51.00	10019.00	579.00	10598.00
25.560	.07	825.00	9686.00	301.50	9987.50	523.50	10511.00
25.630	.38	546.00	9931.00	80.00	10011.00	466.00	10477.00
25.700	.23	218.00	9881.00	109.00	9990.00	109.00	10099.00
25.720	.00	237.00	9990.00	118.50	10108.50	118.50	10227.00
25.830	.59	126.00	9914.00	63.00	9977.00	63.00	10040.00
25.950	1.02	141.00	9923.00	98.50	10021.50	42.50	10064.00
26.170	.21	83.00	9969.00	34.00	10003.00	49.00	10052.00

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FLOODWAY DATA, MONT. WAT. AND HEC
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
13.000	245.	1093.	12.0	1523.0	1523.0	.0
13.020	245.	1316.	10.0	1524.4	1524.4	.0
13.040	395.	2145.	6.1	1525.9	1525.9	.0
13.080	1095.	3797.	3.5	1526.9	1526.9	.0
13.160	1374.	2858.	4.6	1528.1	1528.1	.0
13.280	1265.	2385.	6.6	1532.5	1532.5	.0
13.400	932.	3659.	6.4	1538.5	1537.7	.8
13.550	1258.	4074.	5.7	1544.1	1543.1	1.0
13.660	1427.	3886.	6.0	1548.1	1547.6	.5
13.860	1524.	3993.	5.8	1556.3	1555.7	.6
14.070	1724.	3662.	6.4	1564.6	1564.4	.2
14.300	950.	2810.	8.3	1574.8	1574.0	.8
14.540	530.	3368.	6.9	1583.7	1583.2	.5
14.740	356.	2081.	11.2	1591.2	1591.1	.1
14.890	439.	2903.	8.0	1597.5	1596.7	.8
15.060	418.	2352.	9.9	1602.5	1602.4	.1
15.120	376.	1825.	12.8	1604.8	1604.7	.1
15.220	371.	2314.	10.1	1610.7	1610.0	.7
15.410	374.	2264.	10.3	1617.0	1616.9	.1
15.550	247.	1627.	14.3	1622.9	1622.5	.4
15.750	639.	3750.	6.2	1631.0	1630.0	1.0
15.890	393.	1914.	12.2	1635.7	1635.0	.7
16.070	300.	2140.	10.9	1644.8	1643.8	1.0
16.190	468.	2739.	8.5	1649.2	1648.3	.9
16.270	282.	1666.	14.0	1652.3	1651.8	.5
16.490	414.	2707.	8.6	1662.5	1661.6	.9
16.680	650.	2992.	7.8	1668.4	1668.2	.2
16.860	313.	1755.	13.5	1679.2	1679.0	.2
16.870	311.	1904.	12.4	1680.0	1679.0	1.0
16.960	641.	2211.	12.3	1684.5	1684.2	.3
17.060	900.	3318.	8.2	1689.8	1688.9	.9
17.180	953.	2912.	9.4	1694.9	1694.4	.5
17.300	780.	3339.	8.2	1701.1	1700.6	.5
17.390	765.	3086.	8.8	1705.5	1704.7	.8
17.480	755.	3269.	8.4	1709.9	1709.2	.7
17.570	761.	3200.	8.5	1714.5	1713.7	.8
17.650	757.	3353.	8.1	1717.7	1717.2	.5
17.780	937.	4525.	6.0	1722.8	1721.9	.9
17.840	900.	3093.	8.8	1724.6	1724.8	-.2
17.950	750.	3217.	8.5	1730.0	1729.8	.2
18.090	715.	3812.	7.3	1735.0	1734.9	.1
18.160	673.	2878.	9.6	1736.9	1736.5	.4

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FLOODWAY DATA, MONT. WAT. AND HEC
PROFILE NO. 2

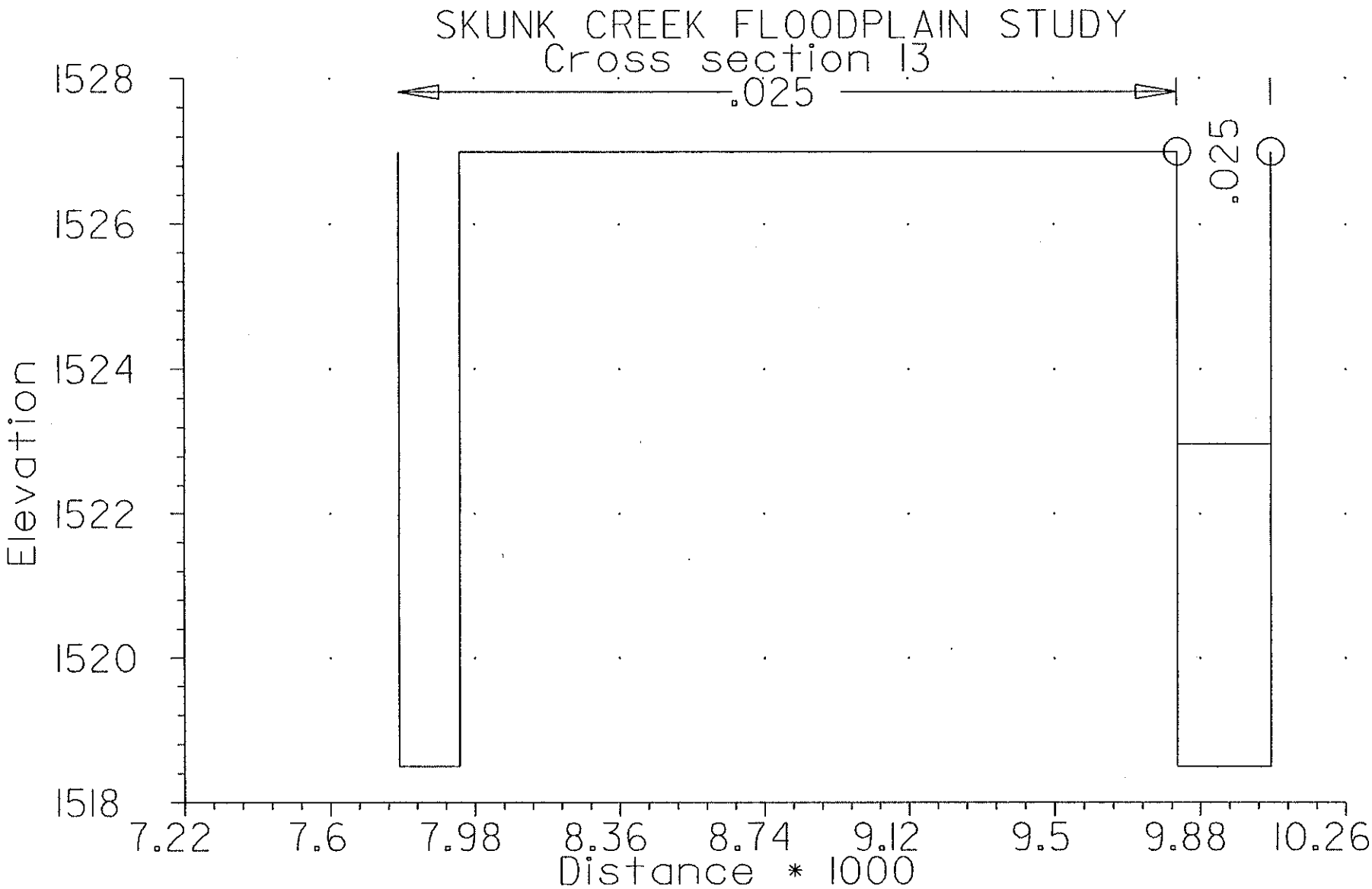
STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
18.230	565.	2685.	10.3	1741.7	1741.7	.0
18.290	540.	3527.	7.9	1744.3	1743.1	1.2
18.490	683.	2751.	10.1	1750.6	1750.9	-.3
18.570	780.	2947.	9.4	1754.5	1754.1	.4
18.740	745.	2617.	10.4	1760.7	1760.6	.1
18.840	564.	2616.	10.4	1765.6	1764.7	.9
18.960	841.	3404.	8.0	1771.8	1771.3	.5
19.070	830.	2926.	9.3	1775.4	1775.1	.3
19.180	746.	2610.	10.5	1780.4	1780.3	.1
19.260	635.	2449.	11.1	1784.8	1784.8	.0
19.410	950.	3942.	6.9	1790.9	1790.8	.1
19.520	680.	2786.	9.8	1794.8	1794.8	.0
19.620	746.	3467.	7.9	1800.8	1800.8	.0
19.720	725.	3195.	8.5	1805.0	1805.0	.0
19.830	678.	3140.	8.7	1810.7	1810.8	-.1
19.920	683.	3087.	8.8	1814.8	1814.8	.0
20.050	1054.	5264.	5.2	1820.9	1820.7	.2
20.160	1287.	3105.	8.8	1824.8	1824.8	.0
20.260	1205.	4254.	6.4	1831.4	1831.3	.1
20.380	1206.	4112.	6.6	1835.8	1835.7	.1
20.480	906.	3750.	7.3	1842.1	1841.5	.6
20.620	885.	3713.	7.4	1849.5	1848.8	.7
20.640	850.	4911.	5.6	1851.9	1850.9	1.0
20.710	810.	2951.	9.3	1853.5	1852.9	.6
20.790	660.	3440.	7.9	1858.1	1857.2	.9
20.900	670.	2853.	9.6	1862.7	1862.4	.3
20.980	670.	3437.	7.9	1866.9	1866.2	.7
21.050	695.	3272.	8.3	1870.0	1869.8	.2
21.110	775.	3844.	7.1	1872.8	1872.0	.8

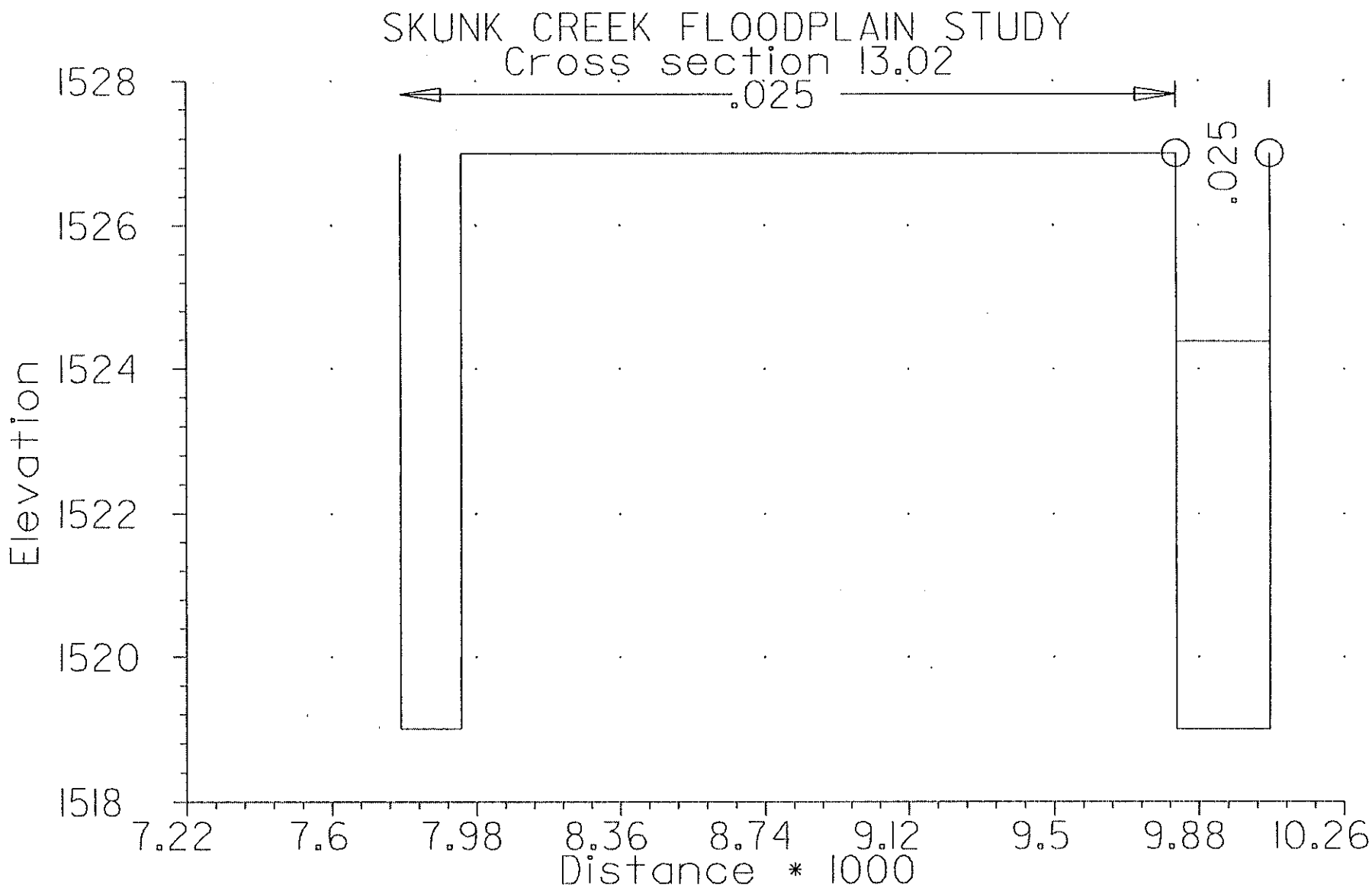
21.180	900.	3627.	7.5	1876.1	1876.1	.0
21.250	745.	3219.	8.5	1881.0	1880.9	.1
21.310	650.	3792.	7.2	1883.4	1882.6	.8
21.350	705.	3569.	7.6	1884.2	1883.4	.8
21.410	596.	3087.	8.8	1886.6	1886.7	-.1
21.490	700.	3272.	8.3	1891.1	1890.9	.2
21.580	840.	2890.	9.4	1895.6	1895.5	.1
21.630	1055.	3775.	7.2	1898.8	1897.9	.9
21.690	1330.	4210.	6.5	1902.2	1902.2	.0
21.770	1471.	3111.	8.8	1905.7	1905.6	.1
21.820	1450.	3138.	8.7	1908.9	1908.9	.0
21.910	1140.	3717.	7.3	1914.6	1914.0	.6
21.990	1325.	3732.	7.3	1918.5	1917.8	.7

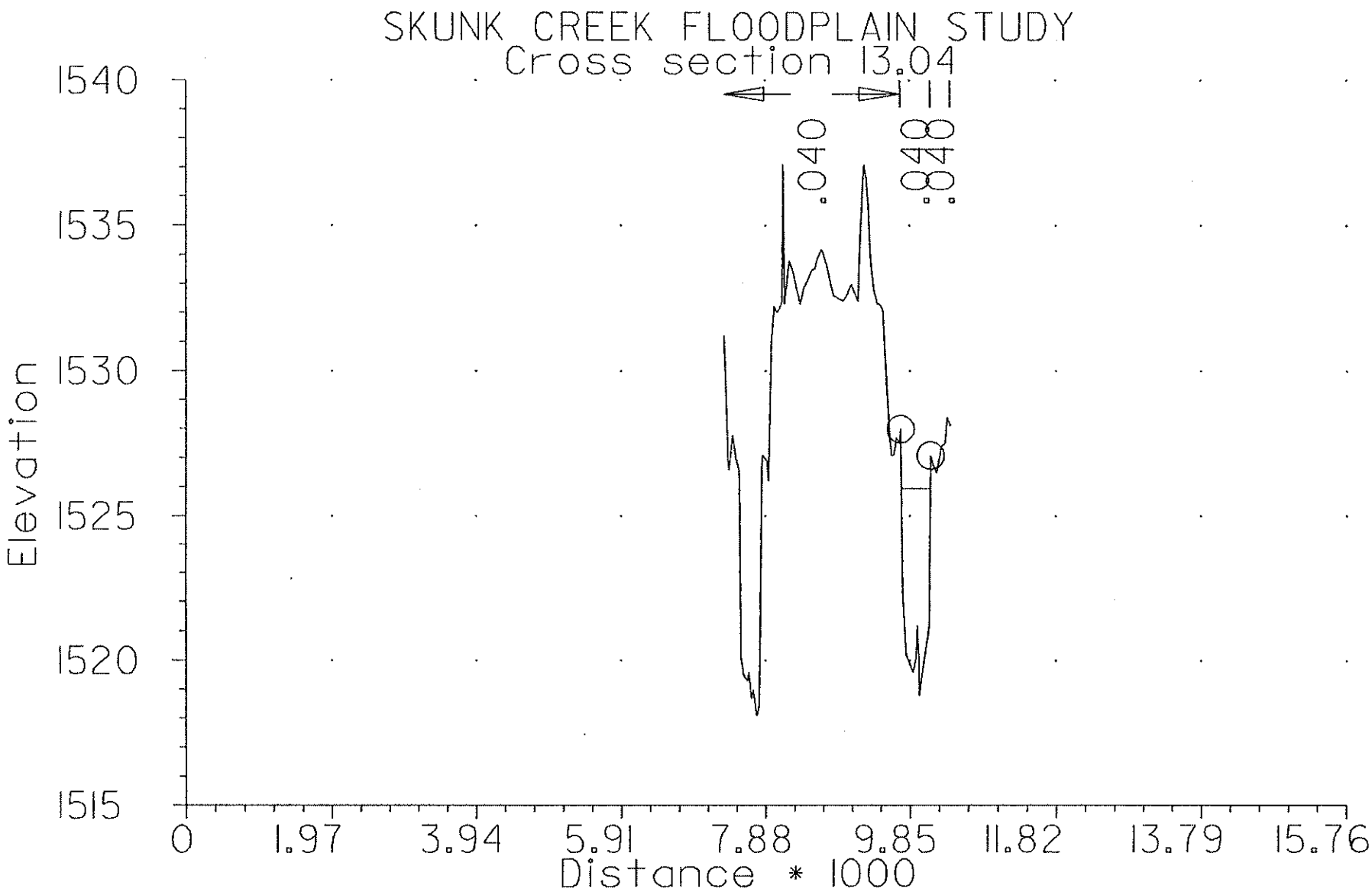
1

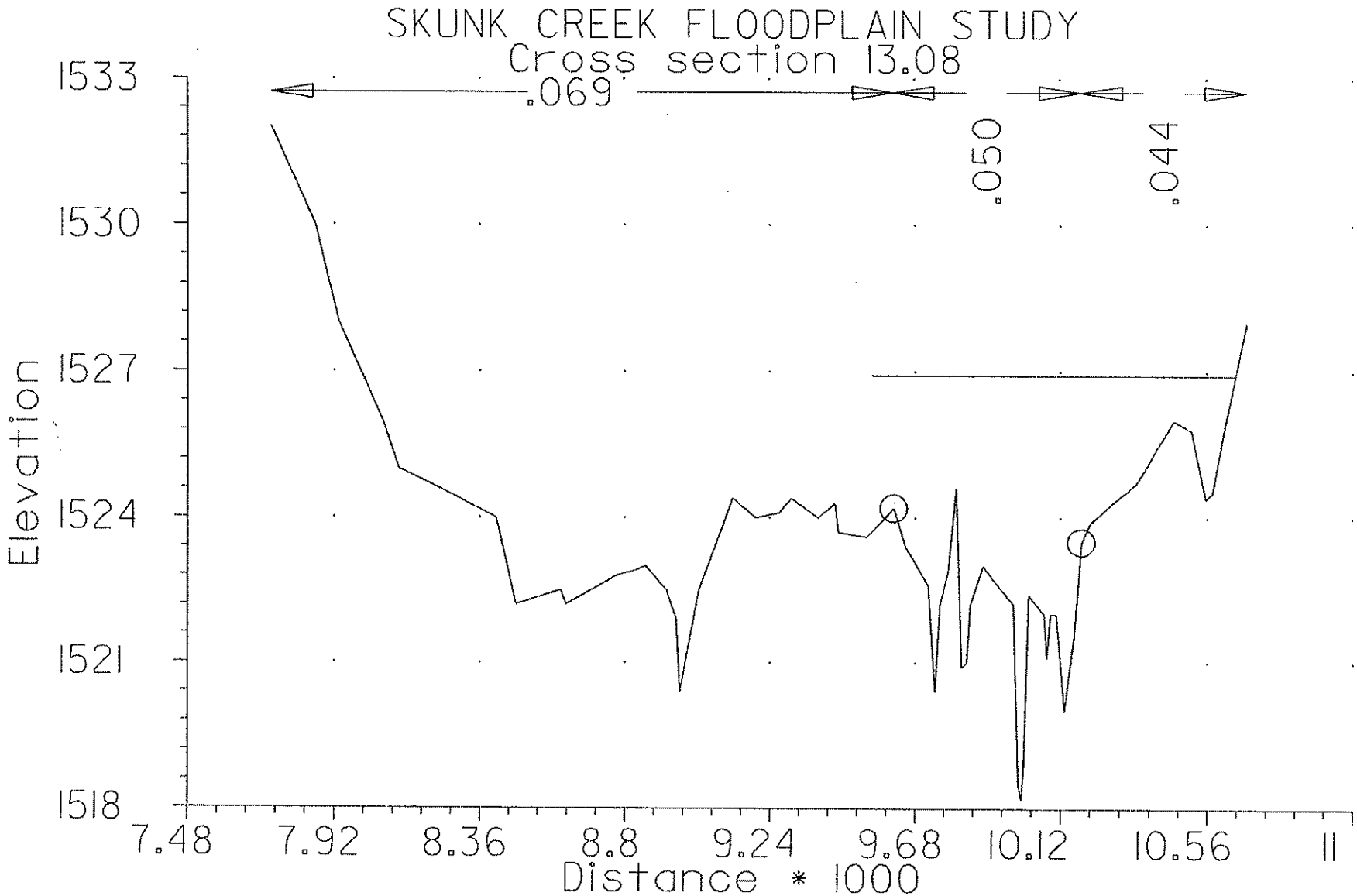
FLOODWAY DATA, MONT. WAT. AND HEC
PROFILE NO. 2

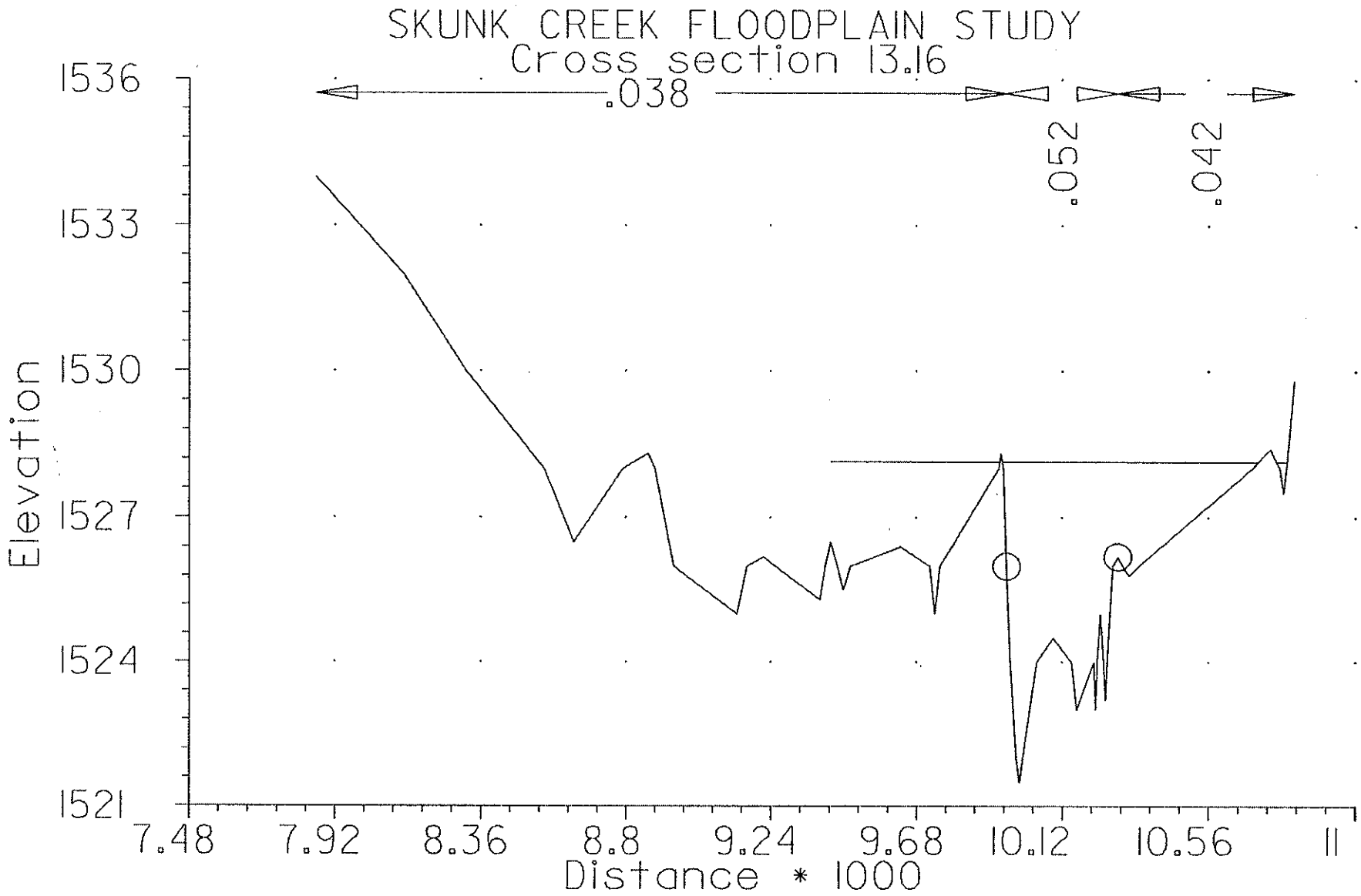
STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
22.080	1125.	3939.	6.9	1923.0	1922.6	.4
22.150	1370.	3491.	7.8	1926.1	1925.4	.7
22.220	1146.	2979.	9.2	1929.5	1929.0	.5
22.290	1100.	3348.	8.2	1933.4	1933.0	.4
22.360	962.	3174.	8.6	1937.4	1936.9	.5
22.430	918.	3410.	8.0	1942.2	1941.8	.4
22.480	723.	2916.	9.4	1945.0	1944.1	.9
22.560	635.	3267.	8.4	1949.1	1948.2	.9
22.670	575.	2998.	9.1	1955.0	1954.4	.6
22.730	526.	2718.	10.0	1958.6	1957.9	.7
22.790	660.	3196.	8.5	1961.6	1960.9	.7
22.860	742.	3526.	6.9	1965.3	1964.5	.8
22.950	600.	2721.	9.0	1972.7	1972.7	.0
22.960	514.	2973.	8.2	1974.6	1974.5	.1
23.130	561.	2935.	8.3	1982.2	1981.3	.9
23.250	334.	2057.	11.9	1987.8	1987.2	.6
23.330	331.	2281.	10.7	1992.2	1991.4	.8
23.450	465.	2721.	9.0	1999.0	1998.5	.5
23.550	467.	2324.	10.5	2004.5	2003.9	.6
23.640	662.	2585.	4.6	2009.9	2009.0	.9
23.870	353.	1386.	8.5	2019.1	2018.9	.2
23.940	500.	1561.	7.6	2021.8	2020.9	.9
24.030	223.	1104.	10.7	2025.8	2025.1	.7
24.120	207.	1221.	9.7	2029.8	2028.9	.9
24.250	246.	1030.	9.4	2034.0	2033.7	.3
24.380	266.	1255.	7.7	2038.8	2038.5	.3
24.480	214.	977.	9.9	2044.4	2043.7	.7
24.610	79.	611.	15.9	2050.5	2050.0	.5
24.740	125.	901.	10.8	2056.7	2055.9	.8
24.870	151.	658.	11.9	2061.9	2061.9	.0
24.950	180.	827.	9.4	2065.8	2065.0	.8
25.120	153.	656.	11.9	2072.8	2072.8	.0
25.280	188.	853.	9.1	2081.5	2081.4	.1
25.380	646.	1983.	3.9	2086.0	2085.0	1.0
25.450	630.	1192.	6.5	2089.3	2088.4	.9
25.560	824.	1551.	5.0	2095.9	2095.8	.1
25.630	546.	915.	8.5	2099.5	2099.1	.4
25.700	218.	793.	9.8	2102.5	2102.3	.2
25.720	237.	963.	8.1	2104.1	2104.1	.0
25.830	126.	615.	12.7	2113.1	2112.5	.6
25.950	141.	682.	11.4	2120.3	2119.3	1.0
26.170	83.	536.	14.6	2132.7	2132.5	.2

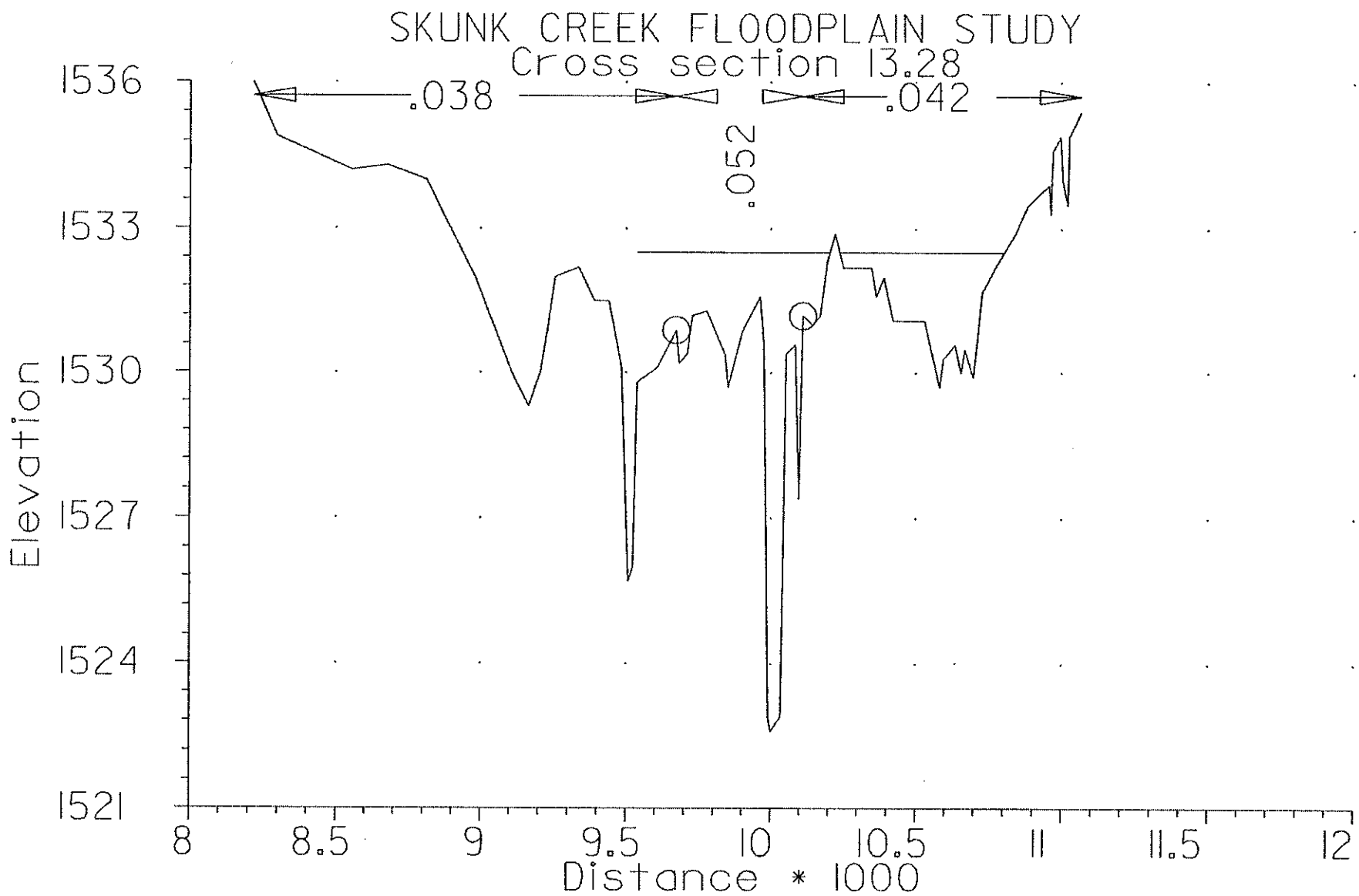

SKUNK CREEK FLOODPLAIN STUDY
Cross section 13
.025
.025
1528
1526
1524
1522
1520
1518
Elevation
7.22
7.6
7.98
8.36
8.74
9.12
9.5
9.88
10.26
Distance * 1000

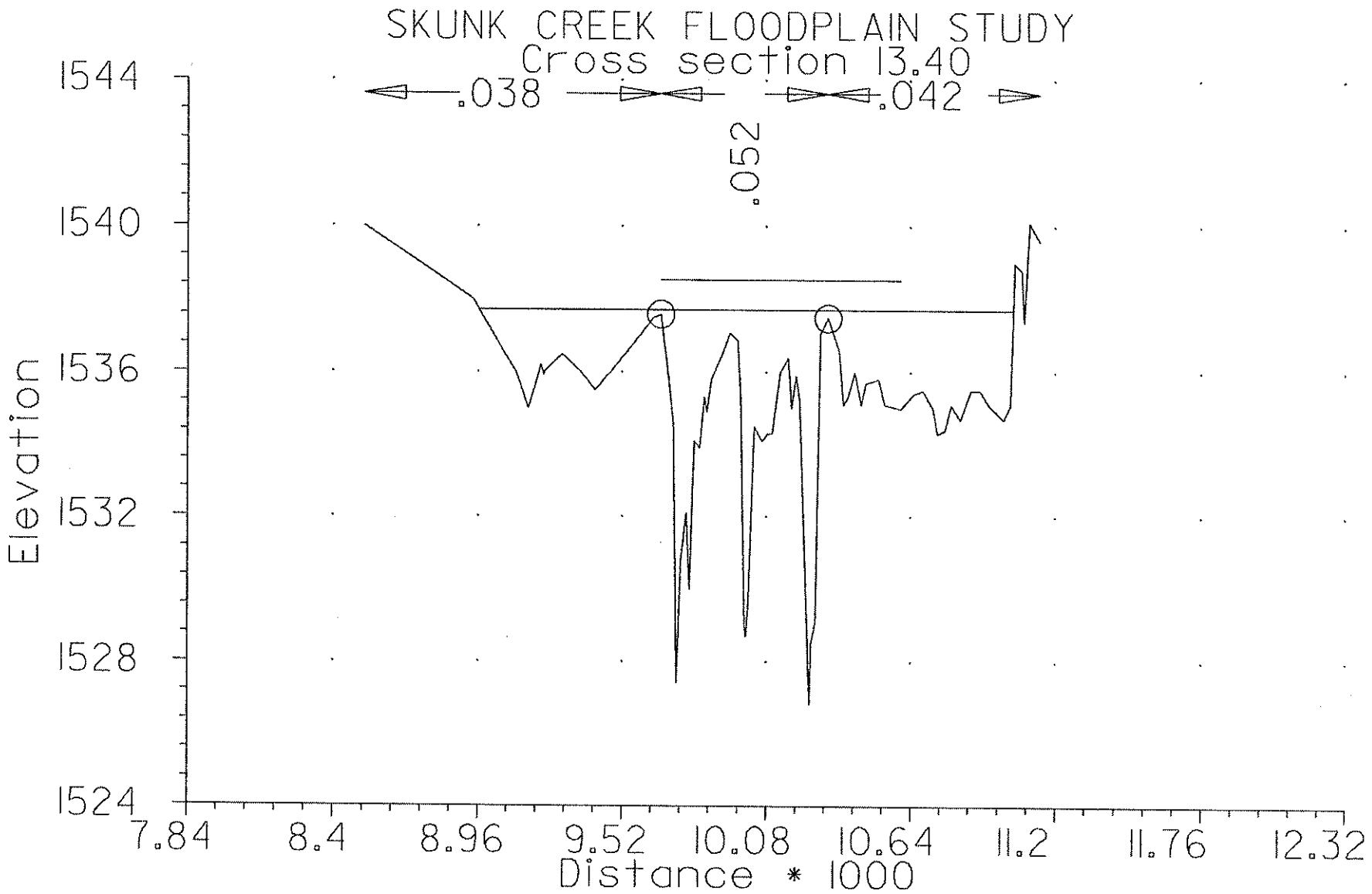

SKUNK CREEK FLOODPLAIN STUDY
Cross section 13.02
.025
.025
1
1528
1526
1524
1522
1520
1518
Elevation
7.22
7.6
7.98
8.36
8.74
9.12
9.5
9.88
10.26
Distance * 1000

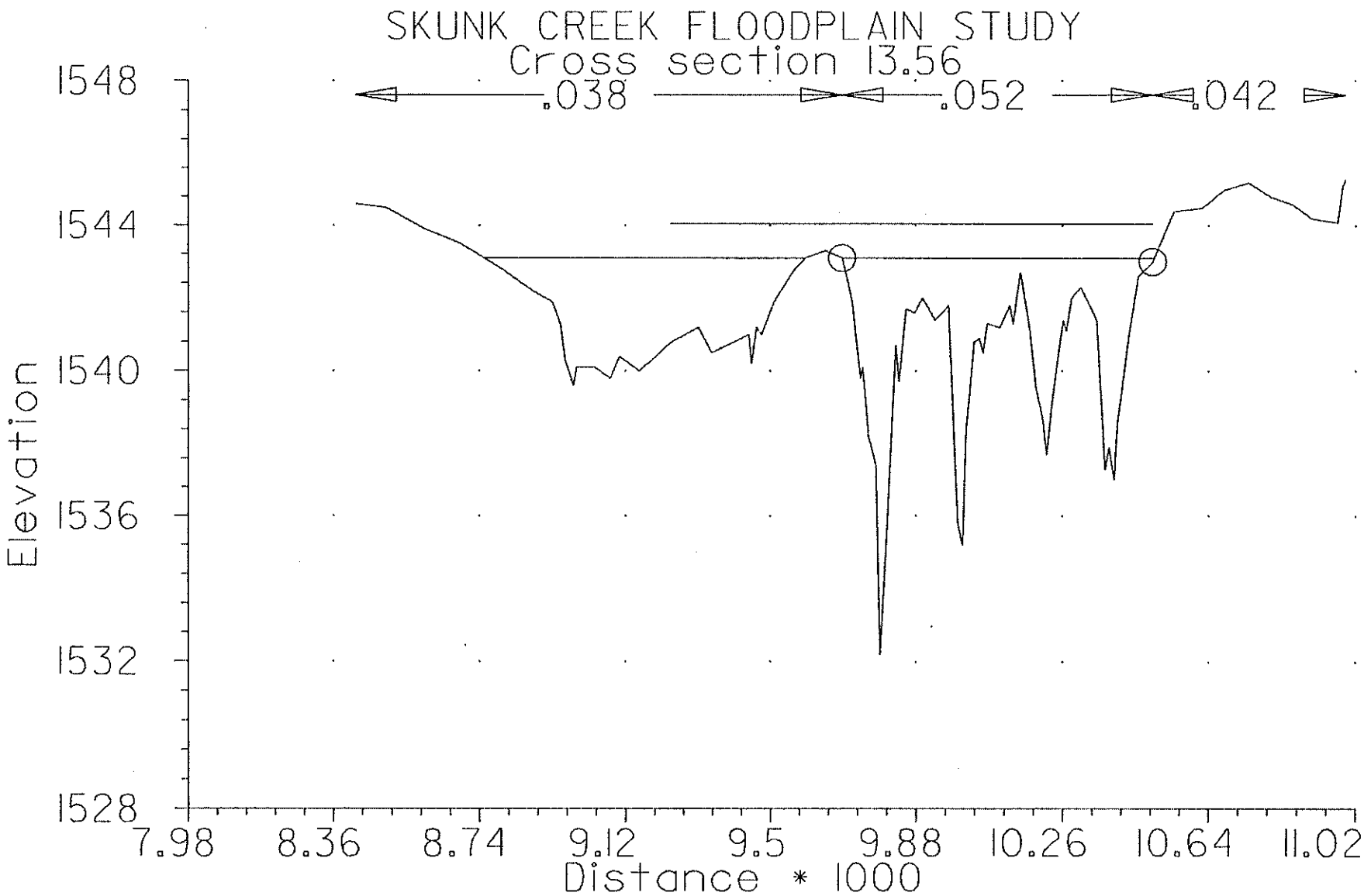

SKUNK CREEK FLOODPLAIN STUDY
Cross section 13.04
.040
.048
.048
1540
1535
1530
1525
1520
1515
Elevation
0
1.97
3.94
5.91
7.88
9.85
11.82
13.79
15.76
Distance * 1000

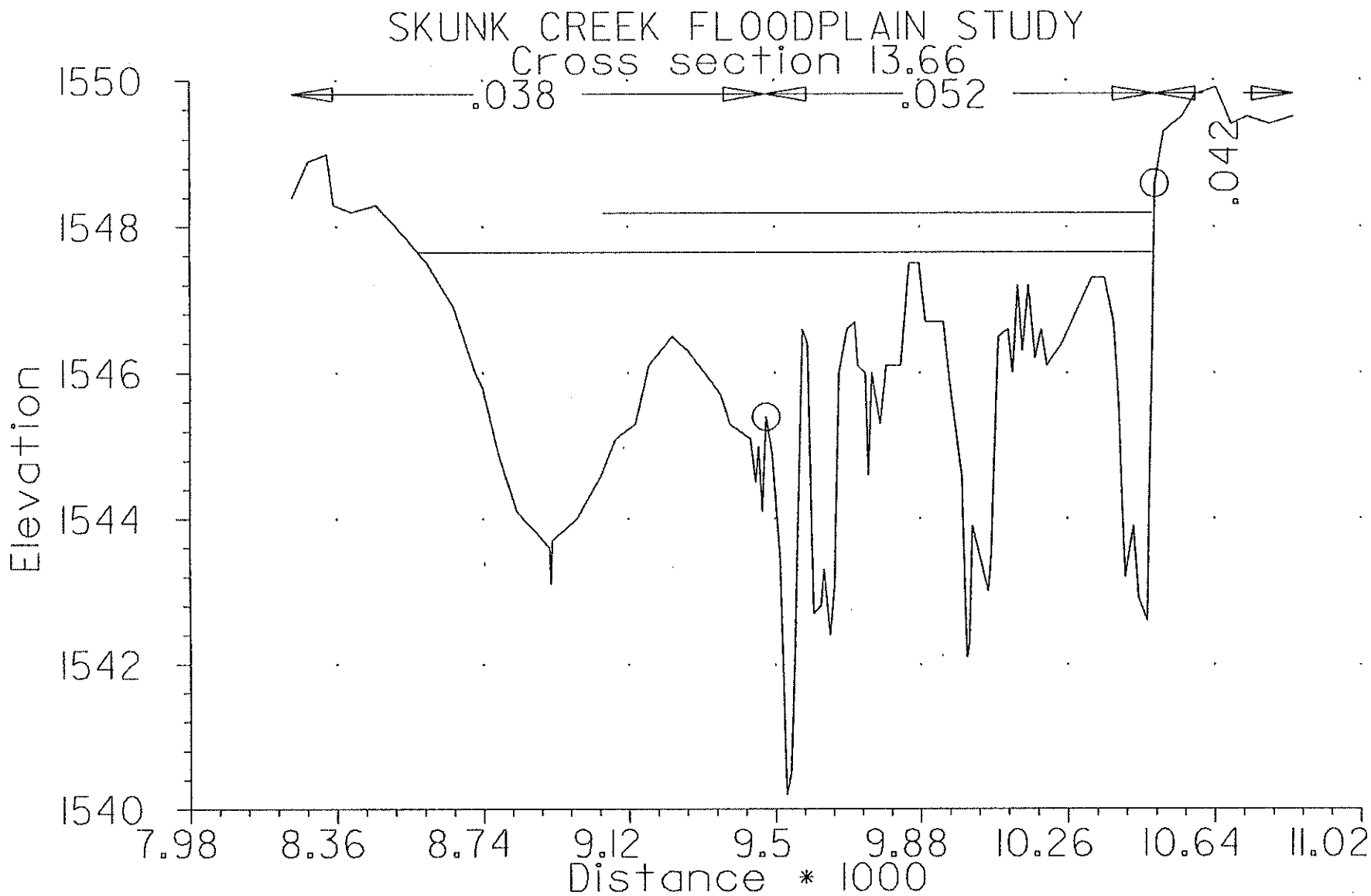

SKUNK CREEK FLOODPLAIN STUDY
Cross section 13.08
.069
.050
.044
1533
1530
1527
1524
1521
1518
Elevation
7.48
7.92
8.36
8.8
9.24
9.68
10.12
10.56
11
Distance * 1000

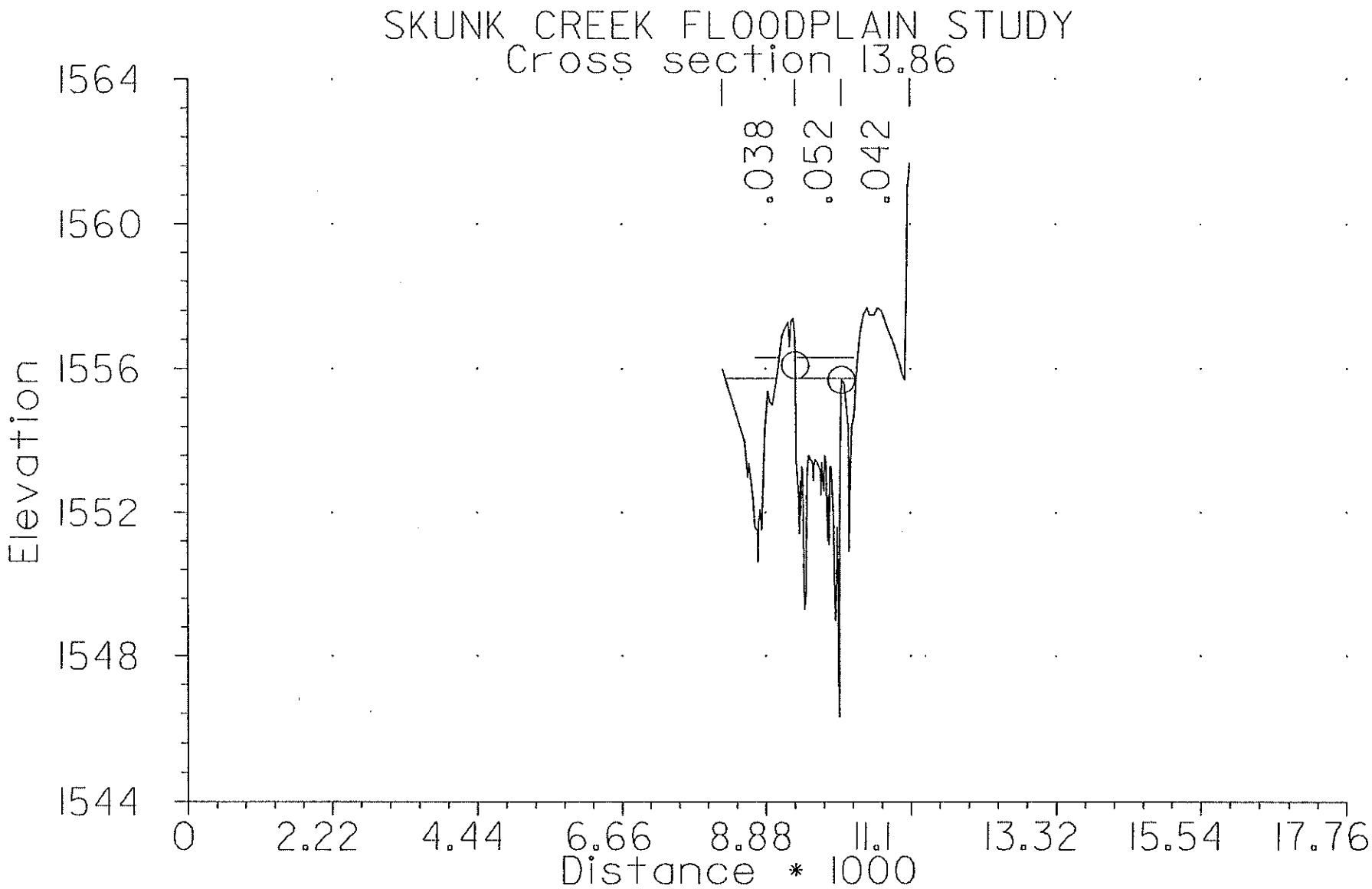

SKUNK CREEK FLOODPLAIN STUDY
Cross section 13.16
.038
.052
.042
1536
1533
1530
1527
1524
1521
Elevation
7.48
7.92
8.36
8.8
9.24
9.68
10.12
10.56
11
Distance * 1000

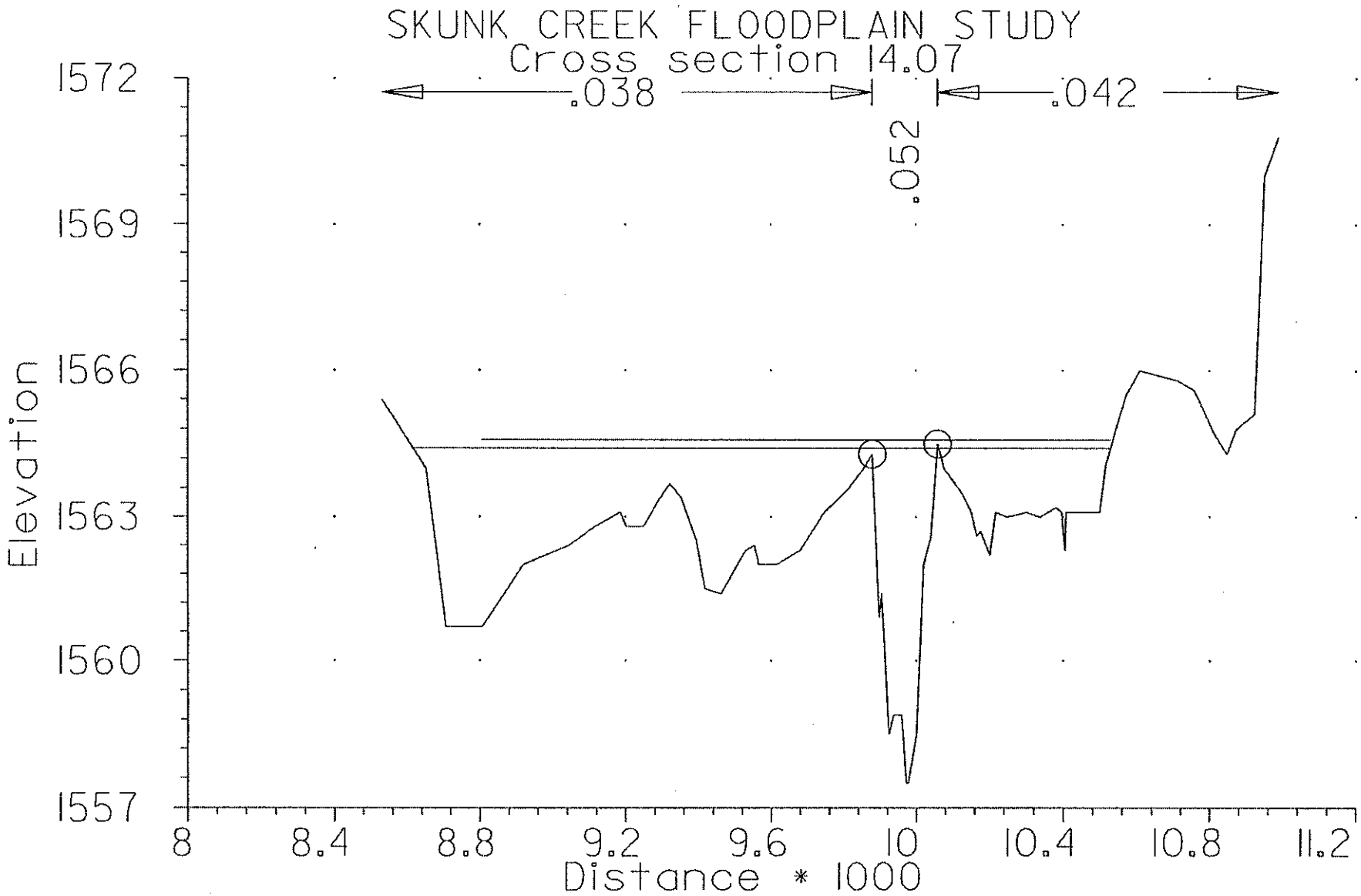

SKUNK CREEK FLOODPLAIN STUDY
Cross section 13.28
.038
.042
.052
1536
1533
1530
1527
1524
1521
Elevation
8
8.5
9
9.5
10
10.5
11
11.5
12
Distance * 1000

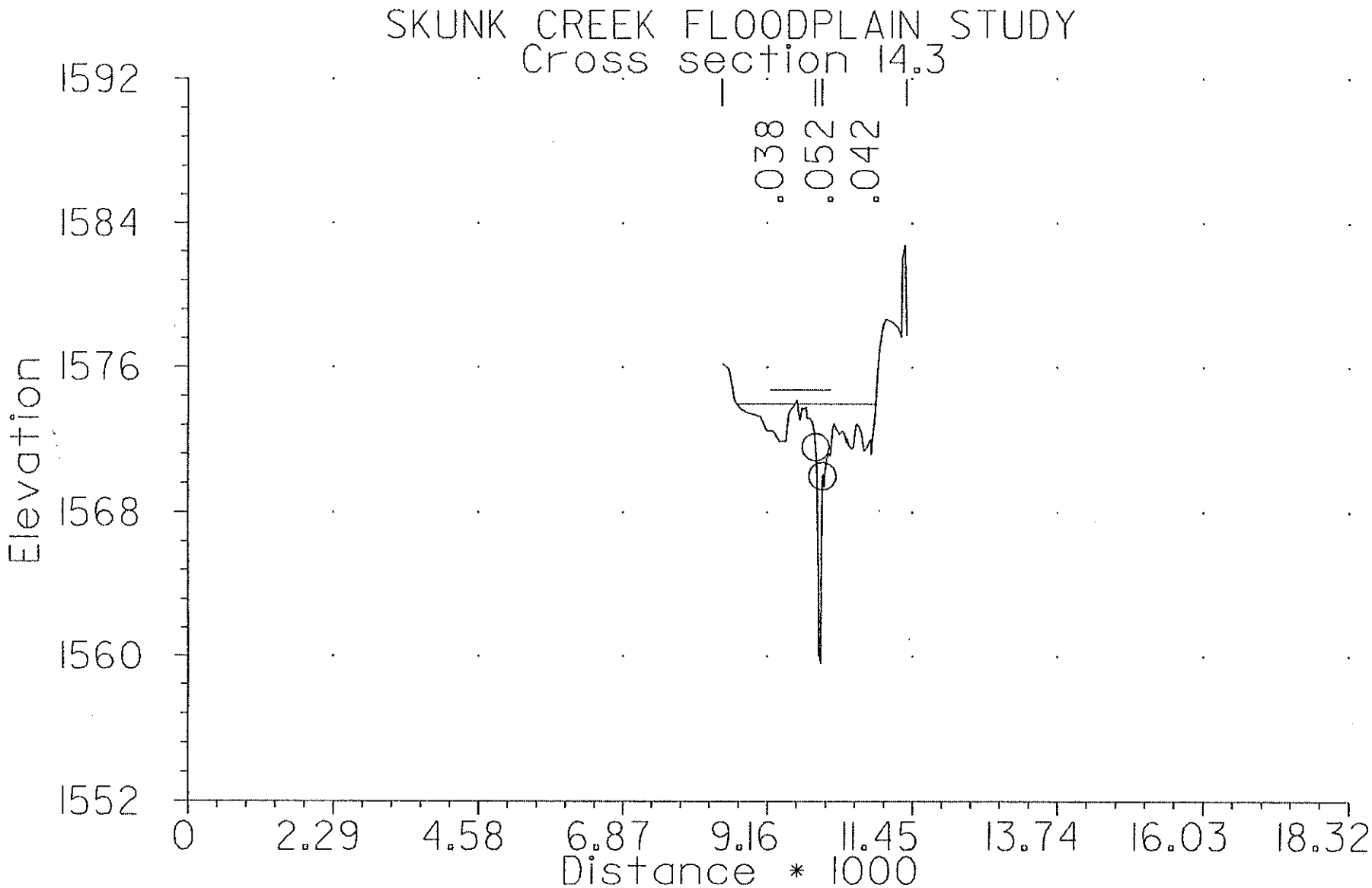

SKUNK CREEK FLOODPLAIN STUDY
Cross section 13.40
.038
.042
.052
1544
1540
1536
1532
1528
1524
Elevation
7.84
8.4
8.96
9.52
10.08
10.64
11.2
11.76
12.32
Distance * 1000

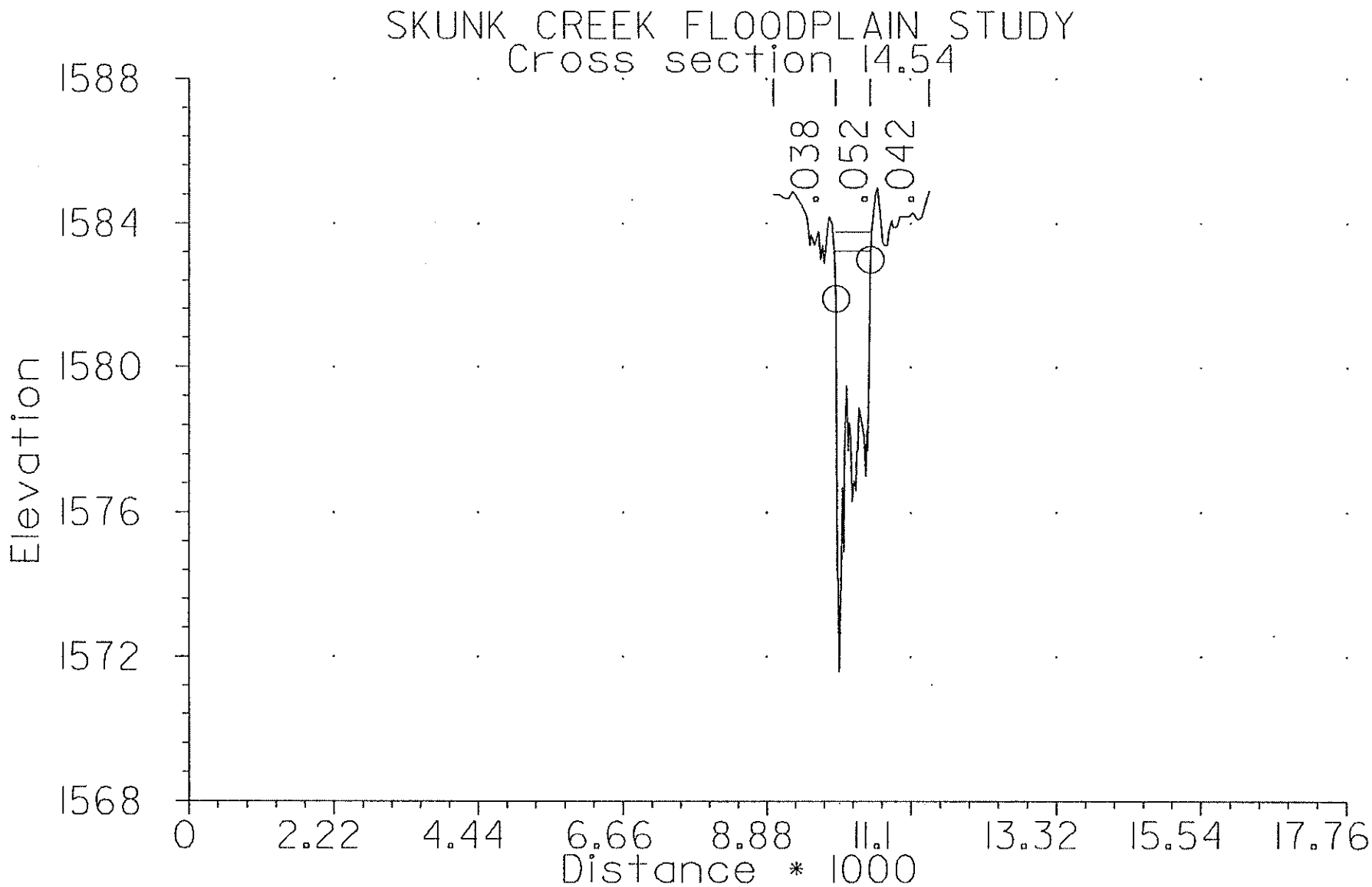

SKUNK CREEK FLOODPLAIN STUDY
Cross section 13.56
.038
.052
.042
1548
1544
1540
1536
1532
1528
Elevation
7.98
8.36
8.74
9.12
9.5
9.88
10.26
10.64
11.02
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 13.66
.038
.052
.042
1550
1548
1546
1544
1542
1540
Elevation
7.98
8.36
8.74
9.12
9.5
9.88
10.26
10.64
11.02
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 13.86
.038
.052
.042
1564
1560
1556
1552
1548
1544
Elevation
0
2.22
4.44
6.66
8.88
11.1
13.32
15.54
17.76
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 14.07
.038
.042
.052
1572
1569
1566
1563
1560
1557
Elevation
8
8.4
8.8
9.2
9.6
10
10.4
10.8
11.2
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 14.3
.038
.052
.042
1592
1584
1576
1568
1560
1552
Elevation
0
2.29
4.58
6.87
9.16
11.45
13.74
16.03
18.32
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 14.54
.038
.052
.042
1588
1584
1580
1576
1572
1568
Elevation
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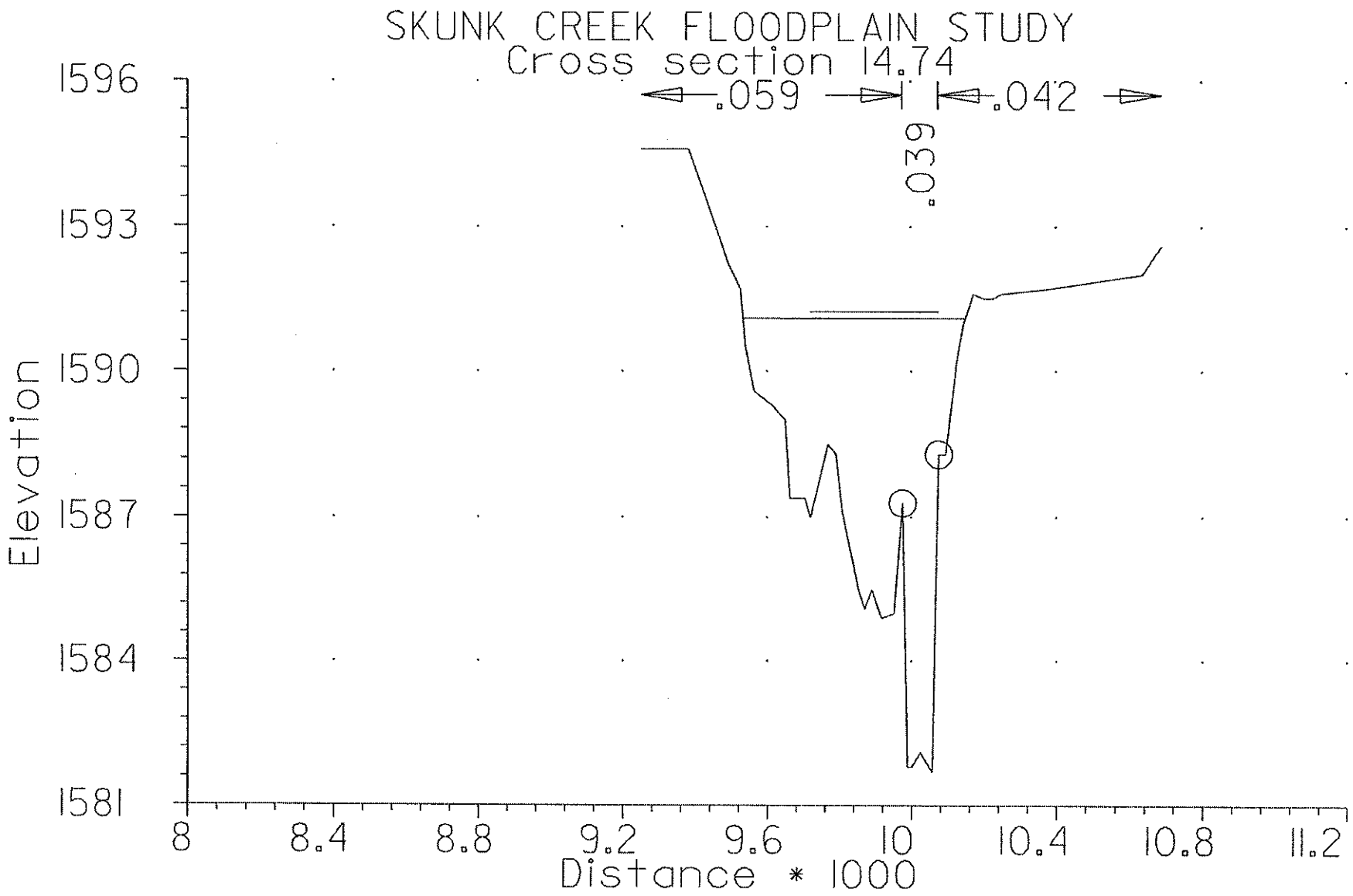
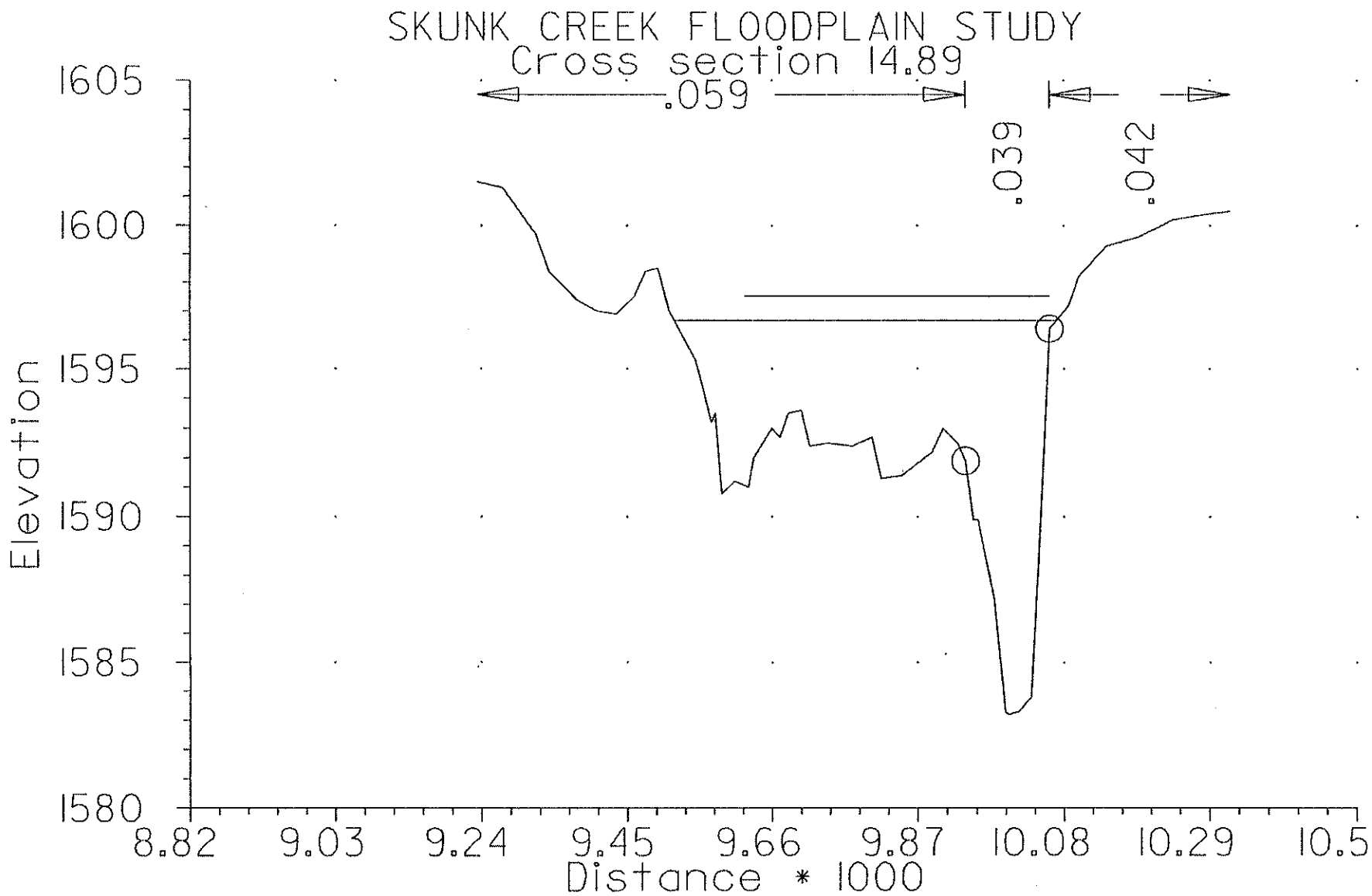
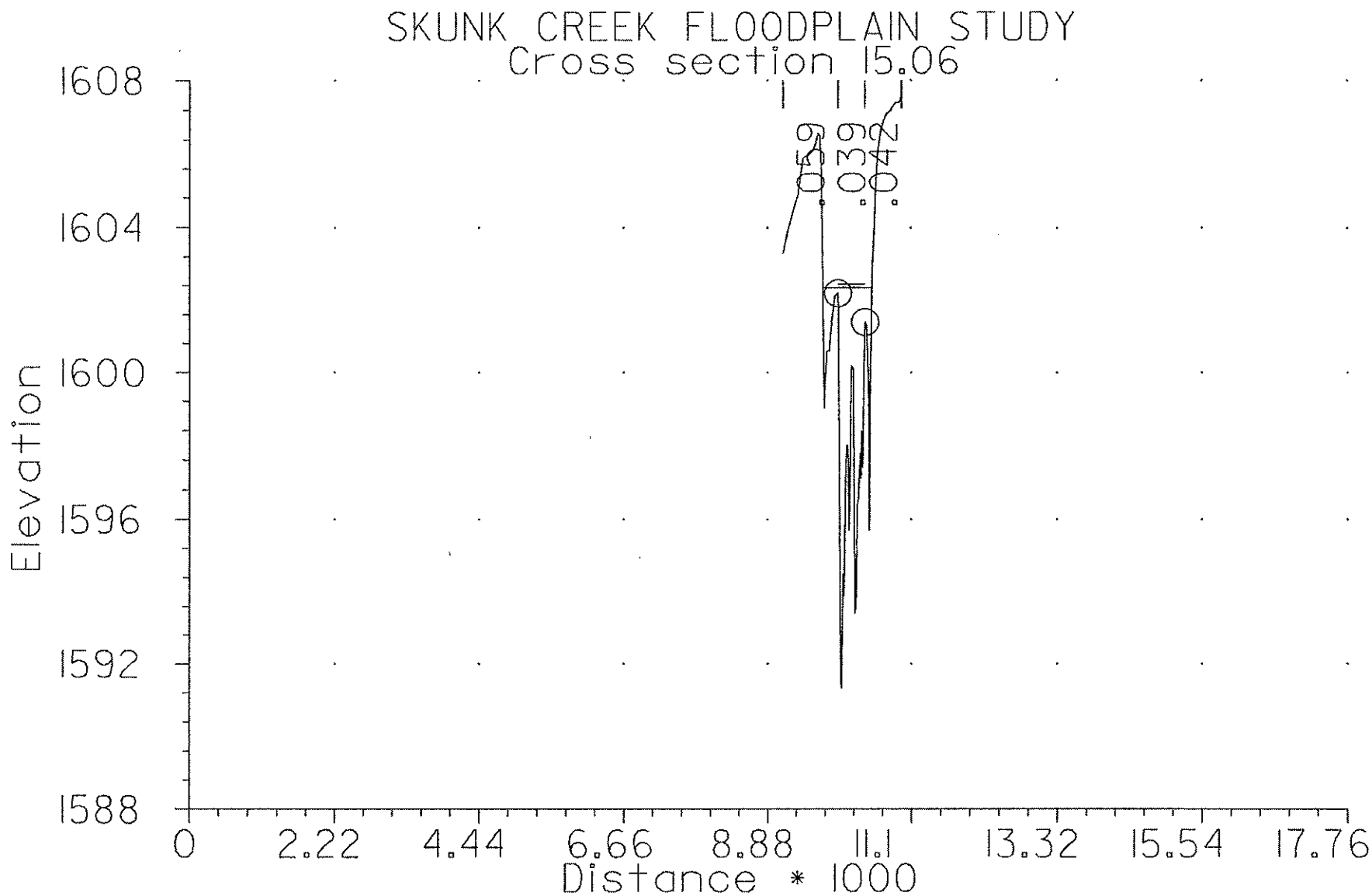
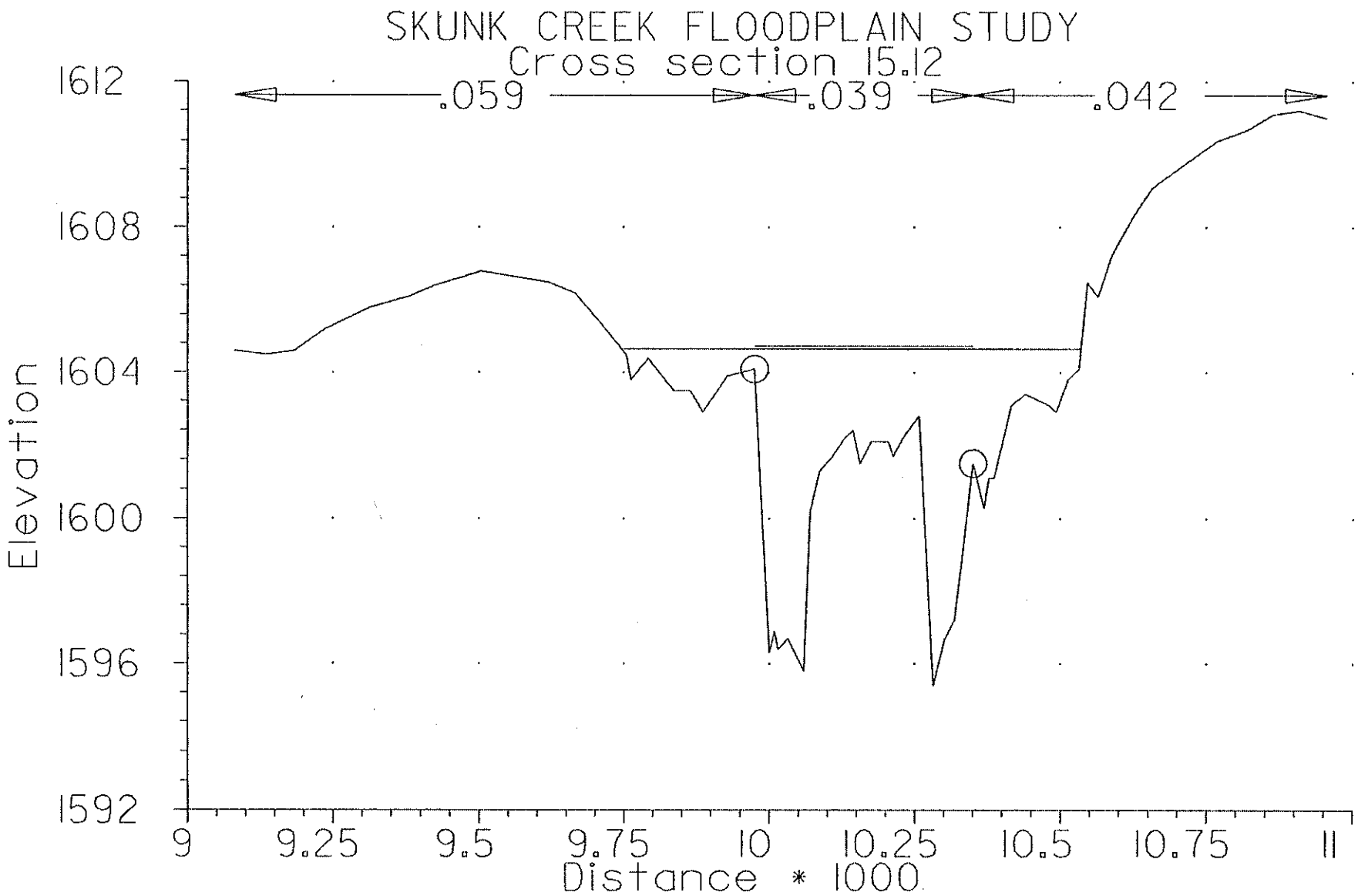
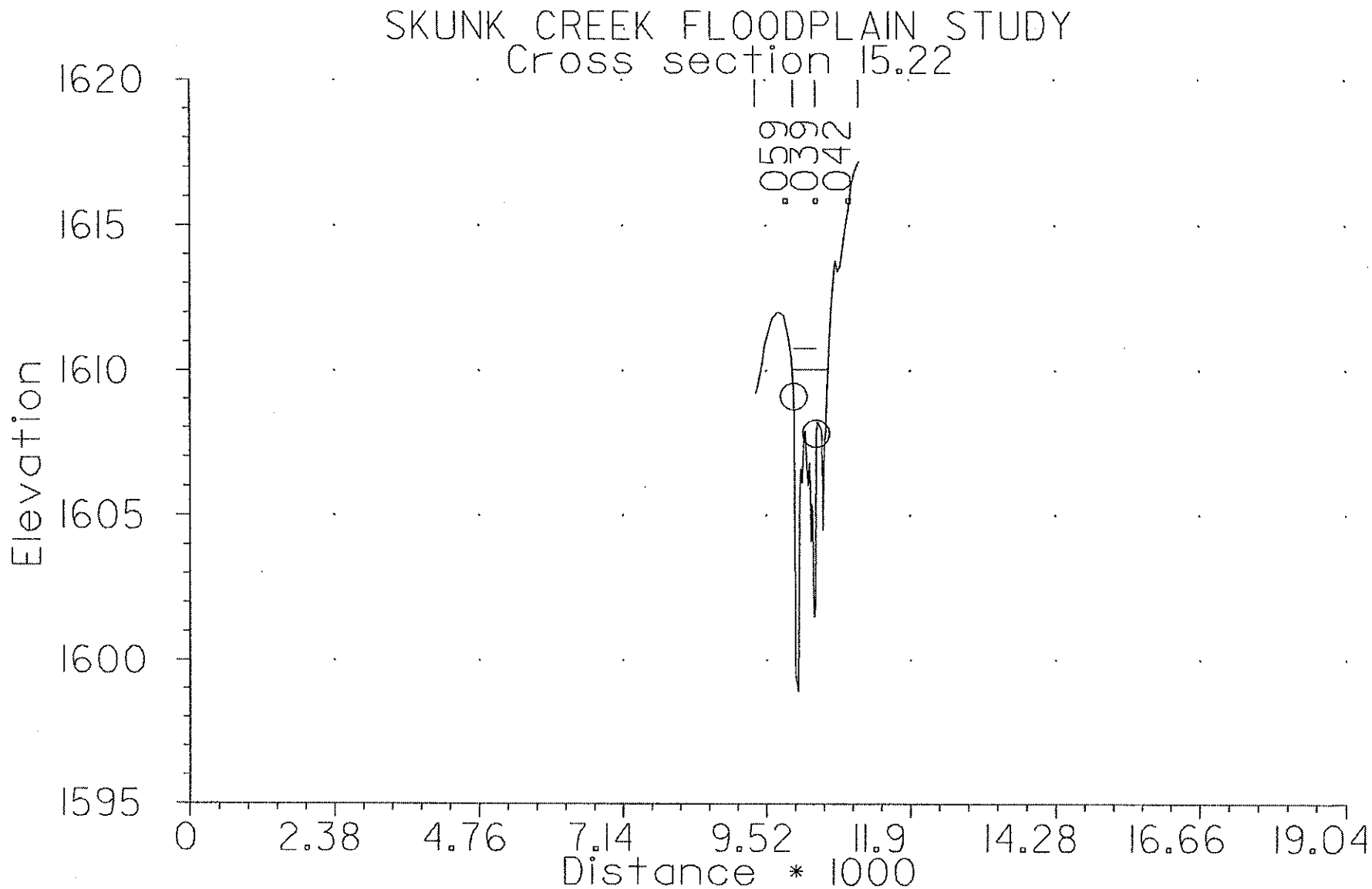
2.22
4.44
6.66
8.88
11.1
13.32
15.54
17.76
Distance * 1000

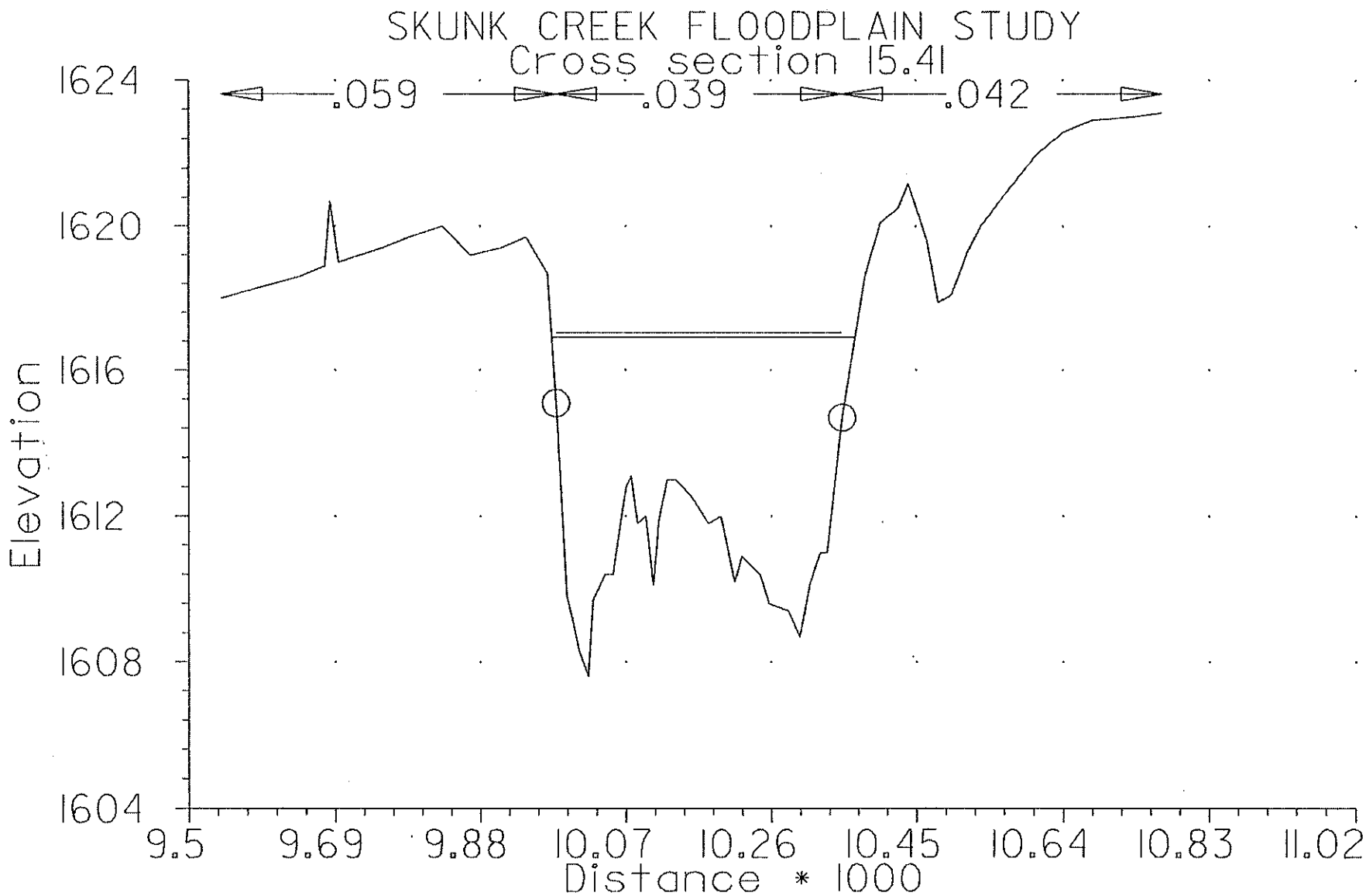

SKUNK CREEK FLOODPLAIN STUDY
Cross section 14.74
.059
.042
.039
1596
1593
1590
1587
1584
1581
Elevation
8
8.4
8.8
9.2
9.6
10
10.4
10.8
11.2
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 14.89
.059
.039
.042
1605
1600
1595
1590
1585
1580
Elevation
8.82
9.03
9.24
9.45
9.66
9.87
10.08
10.29
10.5
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 15.06
1608
1604
1600
1596
1592
1588
Elevation
0
2.22
4.44
6.66
8.88
11.1
13.32
15.54
17.76
Distance * 1000
.059
.039
.042


SKUNK CREEK FLOODPLAIN STUDY
Cross section 15.12
.059
.039
.042
1612
1608
1604
1600
1596
1592
Elevation
9
9.25
9.5
9.75
10
10.25
10.5
10.75
11
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 15.22
1620
1615
1610
1605
1600
1595
Elevation
0
2.38
4.76
7.14
9.52
11.9
14.28
16.66
19.04
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 15.41
.059
.039
.042
1624
1620
1616
1612
1608
1604
Elevation
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9.69
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10.07
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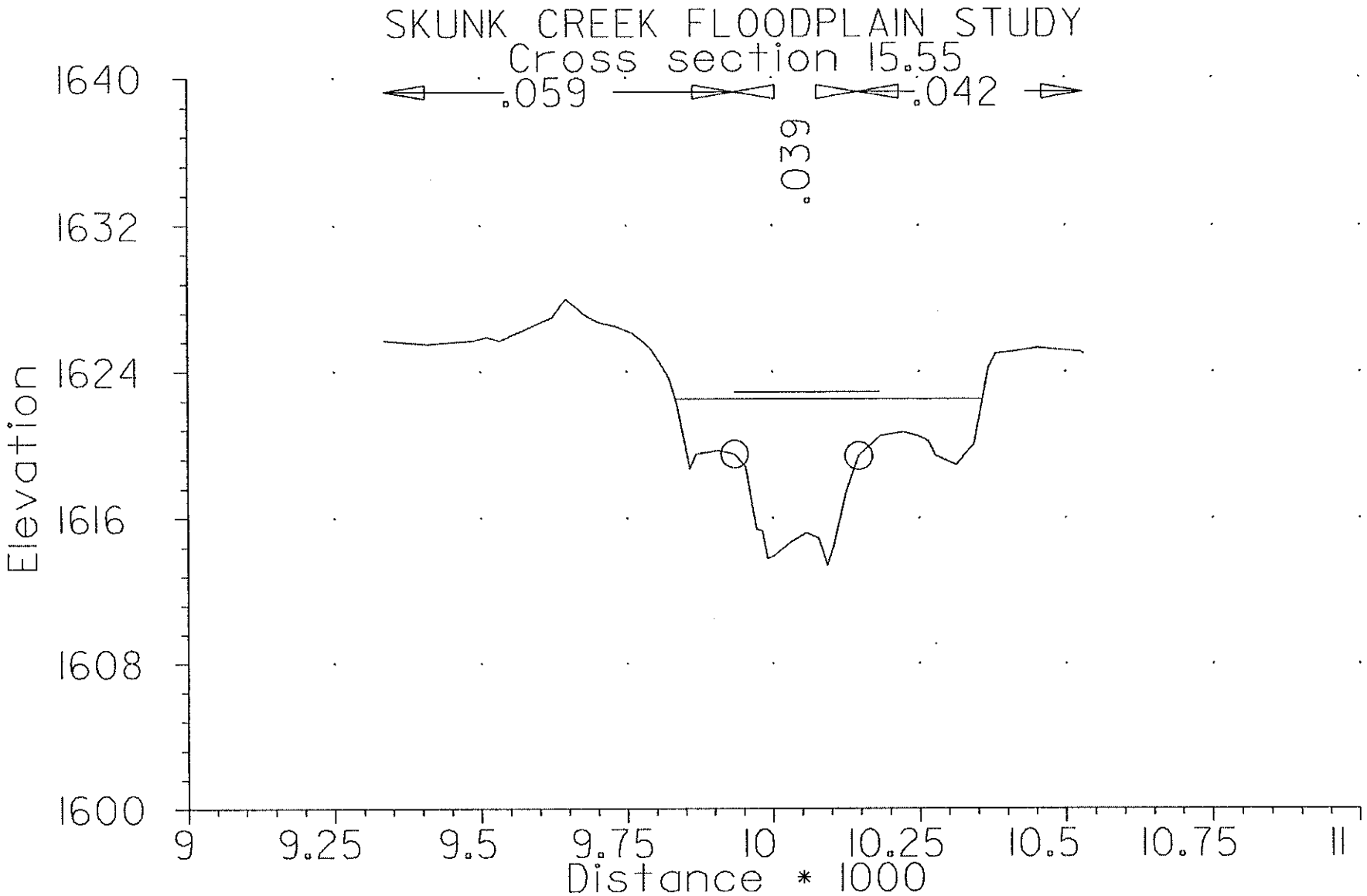
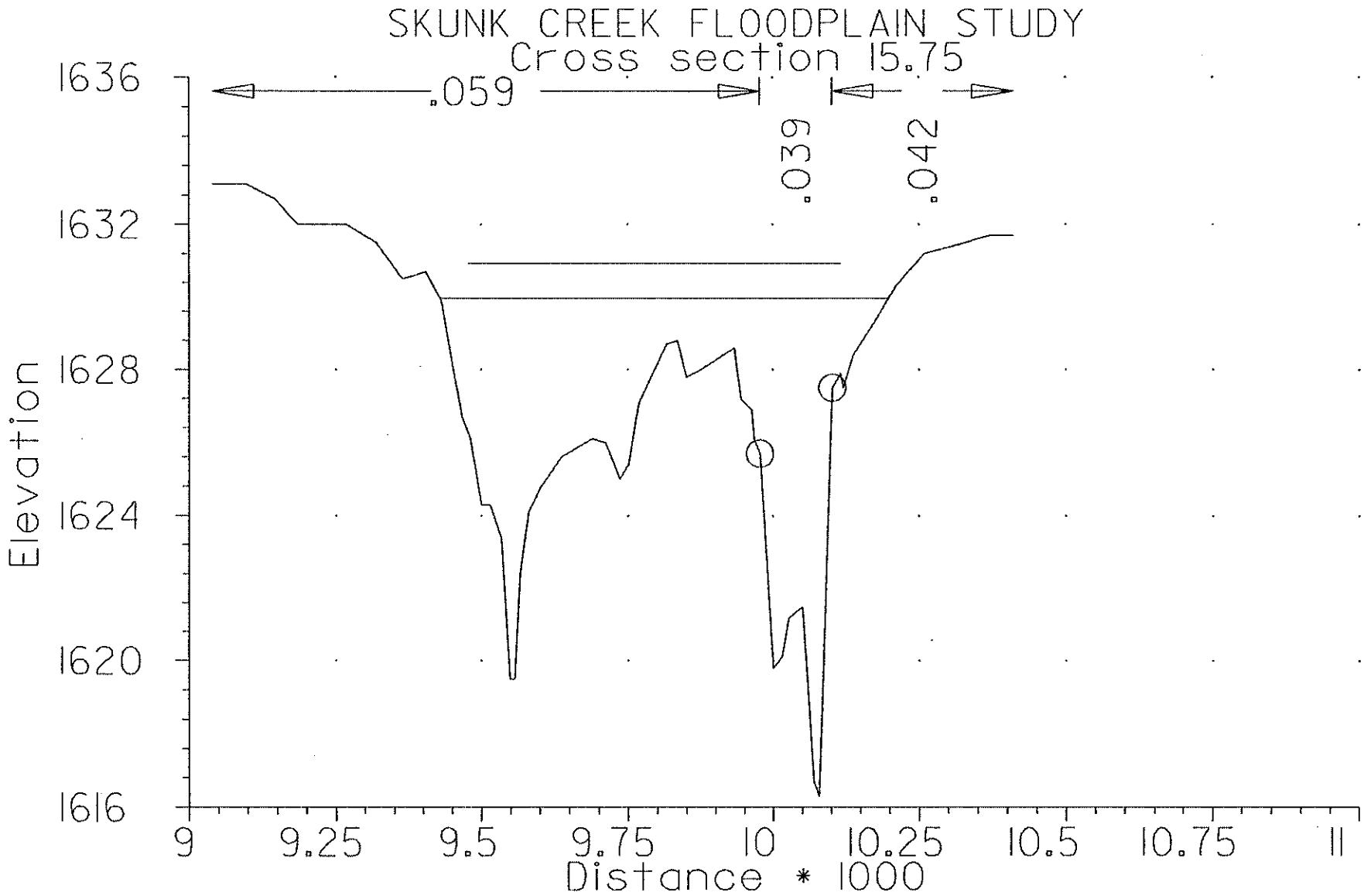
10.83
11.02
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 15.55
.059
.039
.042
1640
1632
1624
1616
1608
1600
Elevation
9
9.25
9.5
9.75
10
10.25
10.5
10.75
11
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 15.75
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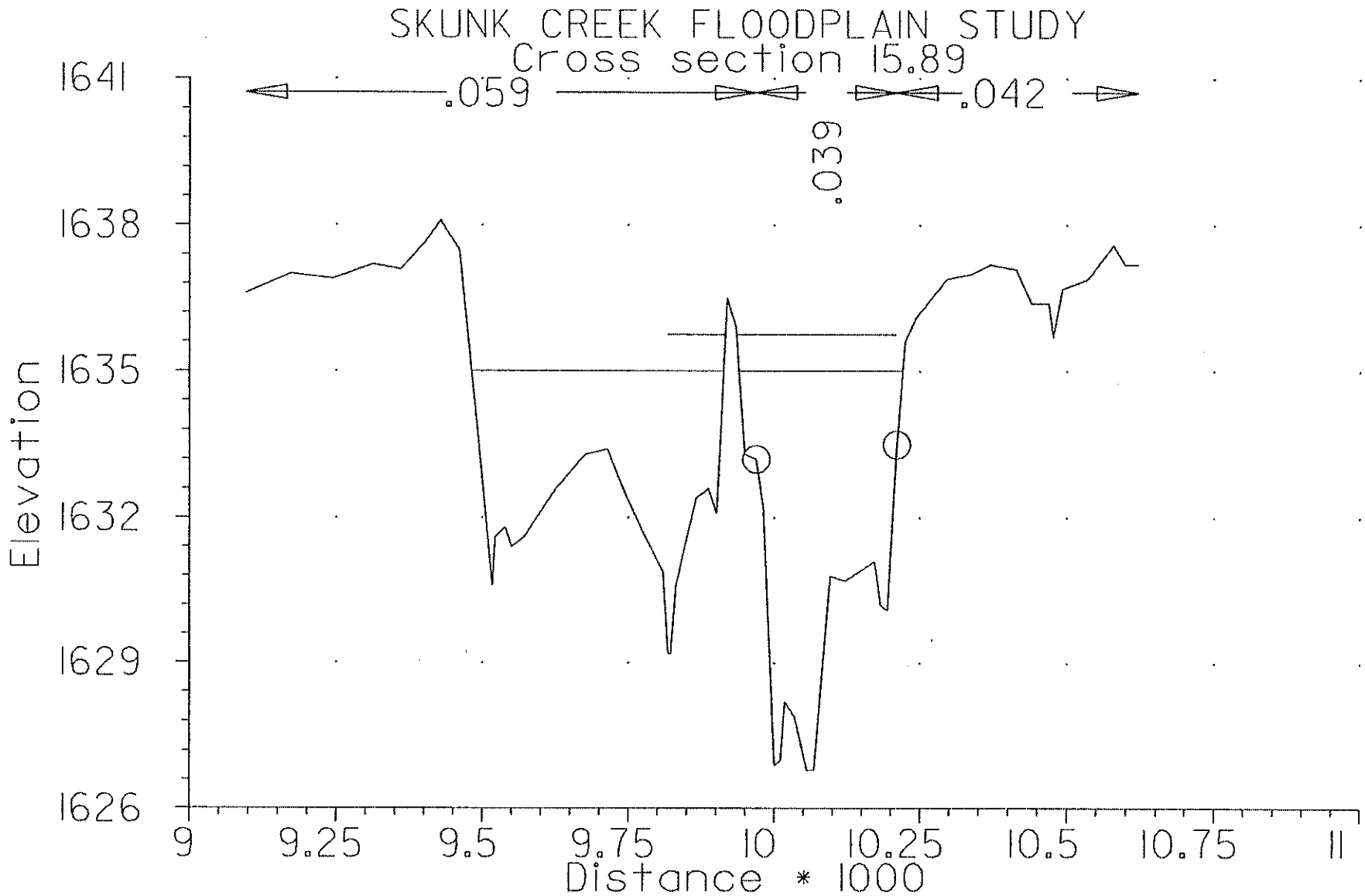
.039
.042
1636
1632
1628
1624
1620
1616
Elevation
9
9.25
9.5
9.75
10
10.25
10.5
10.75
11
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 15.89
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.042
.039
1641
1638
1635
1632
1629
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Elevation
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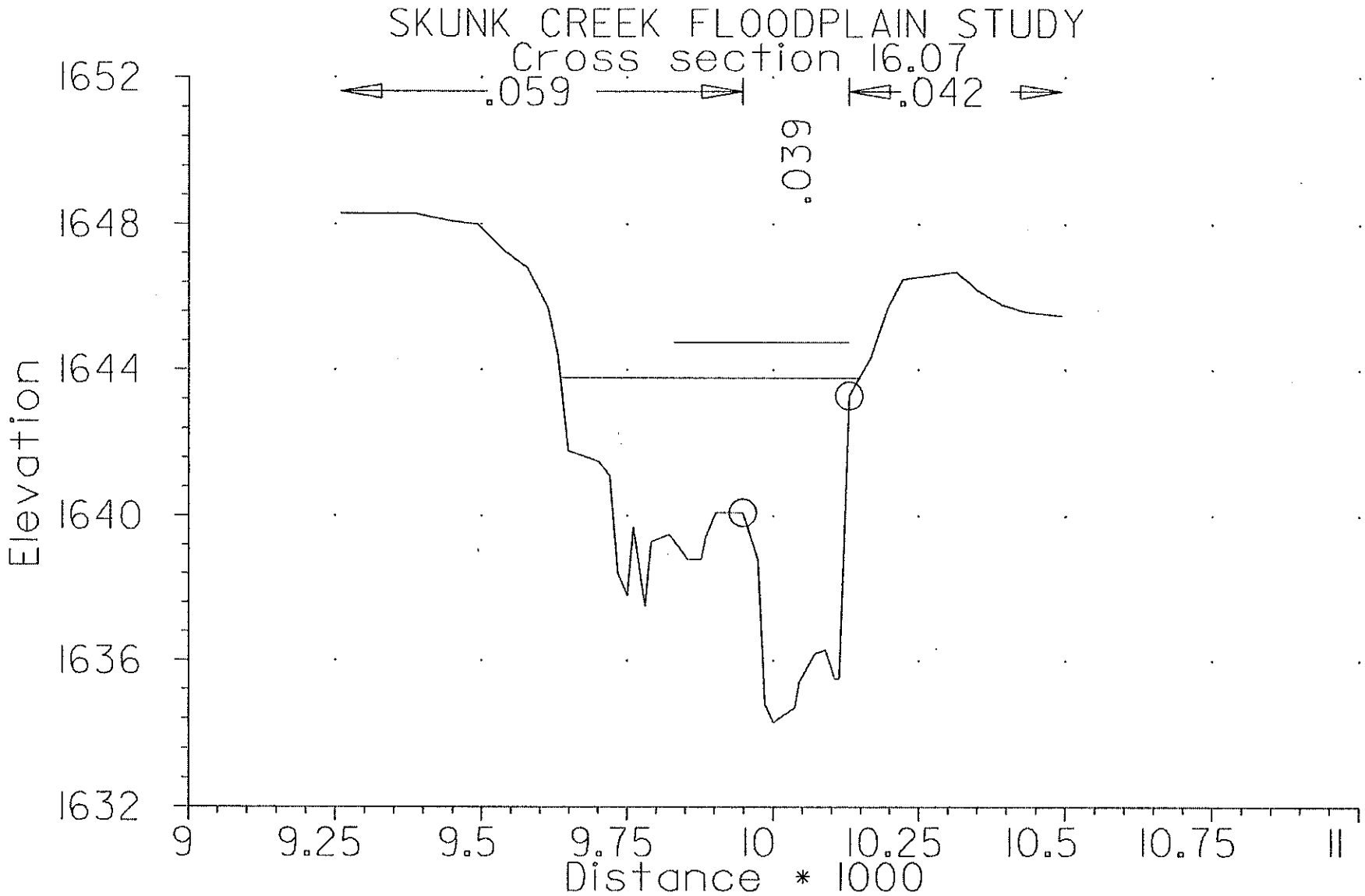
9.5
9.75
10
10.25
10.5
10.75
11
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 16.07
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.042
.039
1652
1648
1644
1640
1636
1632
Elevation
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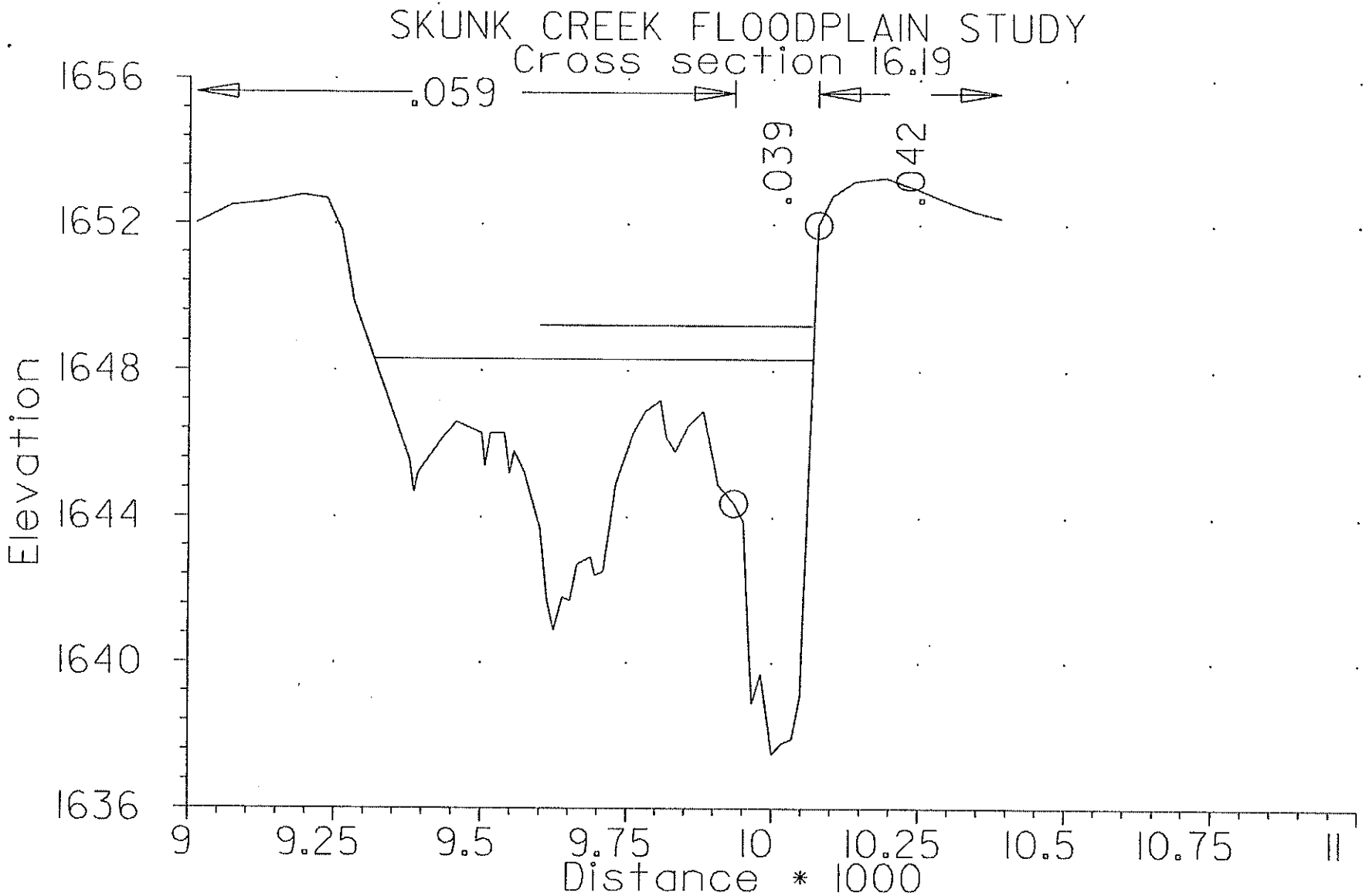
9.5
9.75
10
10.25
10.5
10.75
11
Distance * 1000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Cross section 16.19
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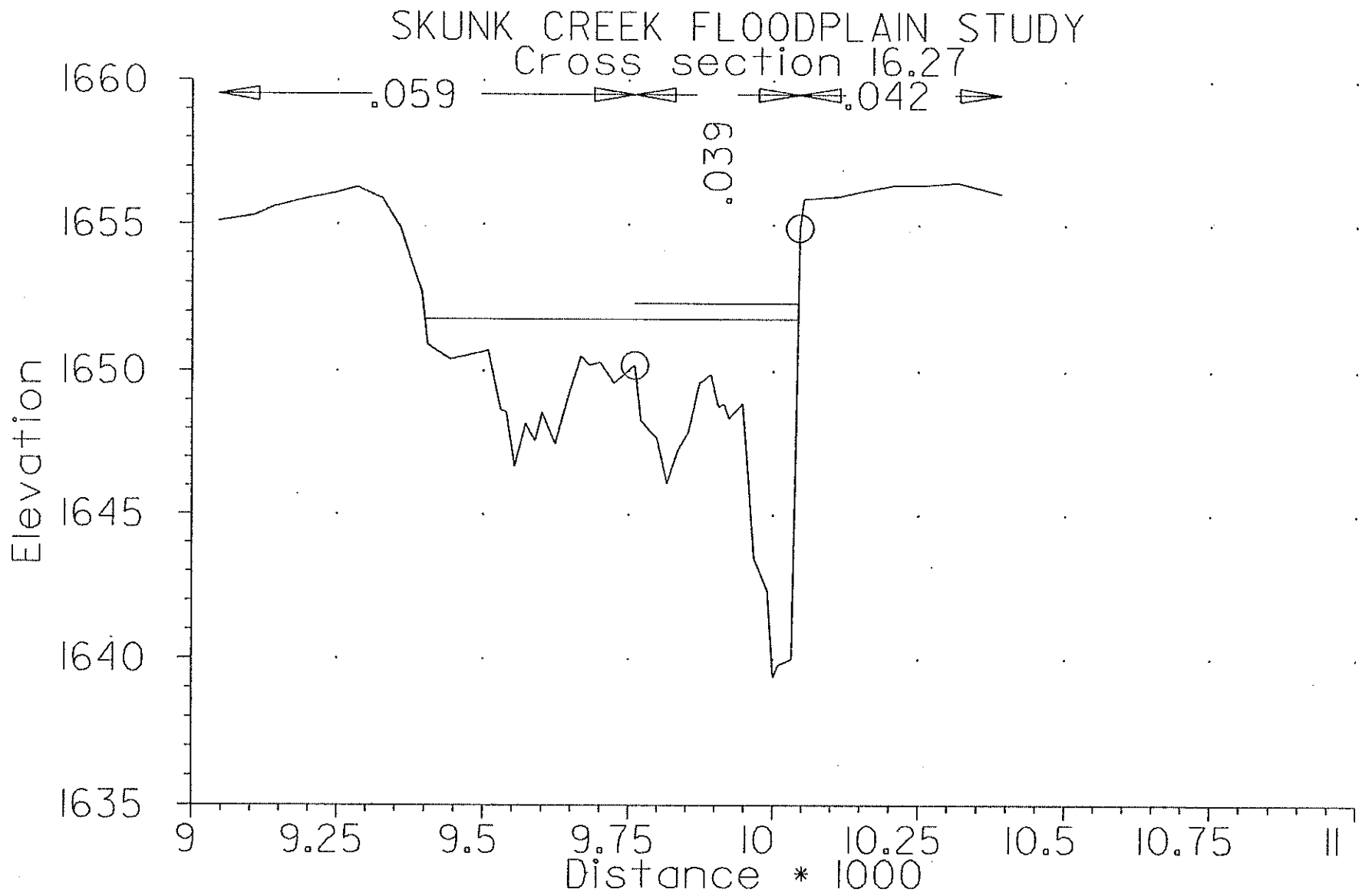
.039
.042
1656
1652
1648
1644
1640
1636
Elevation
9
9.25
9.5
9.75
10
10.25
10.5
10.75
11
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 16.27
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.039
.042
1660
1655
1650
1645
1640
1635
Elevation
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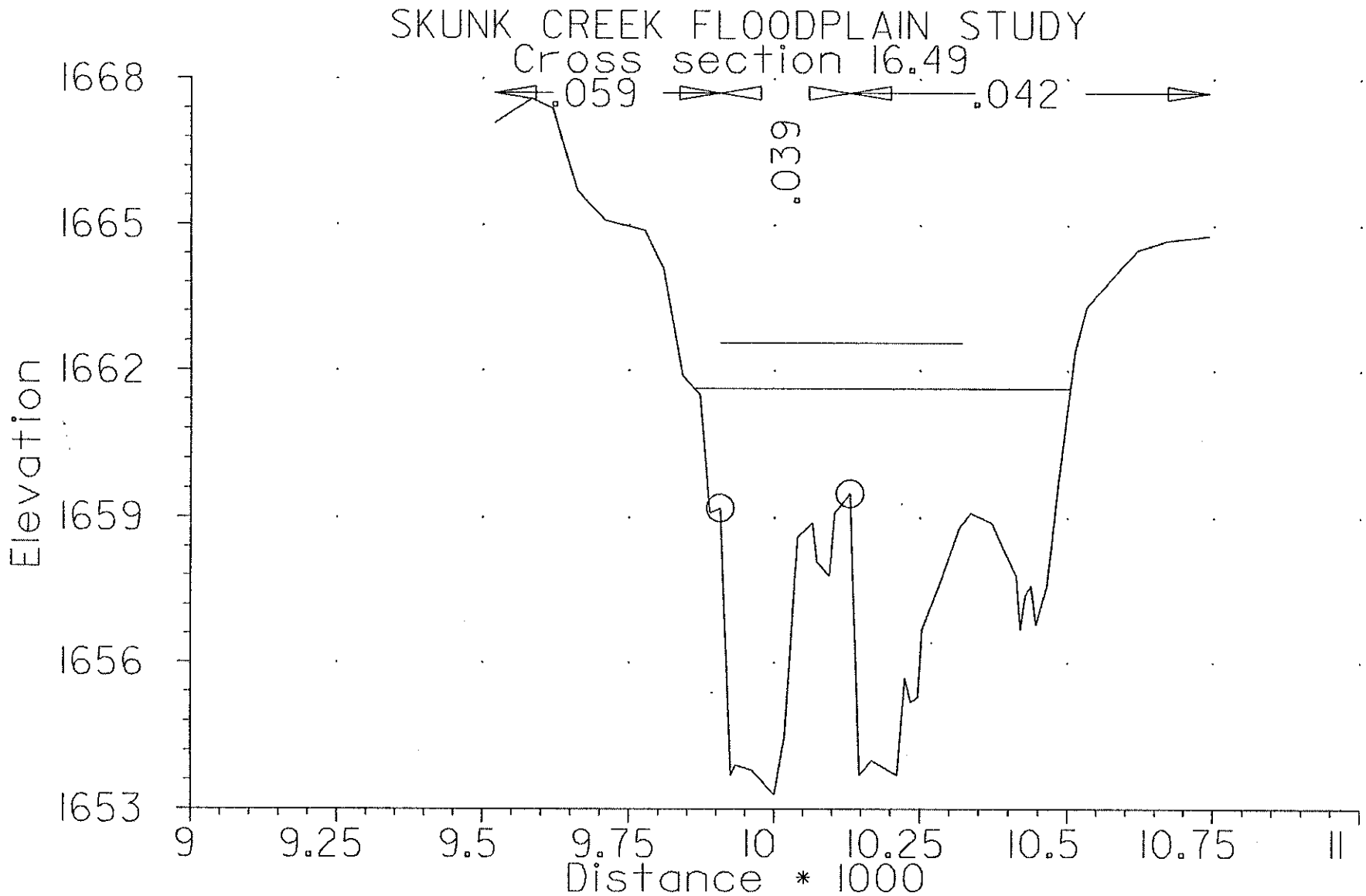
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 16.49
.059
.039
.042
1668
1665
1662
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Elevation
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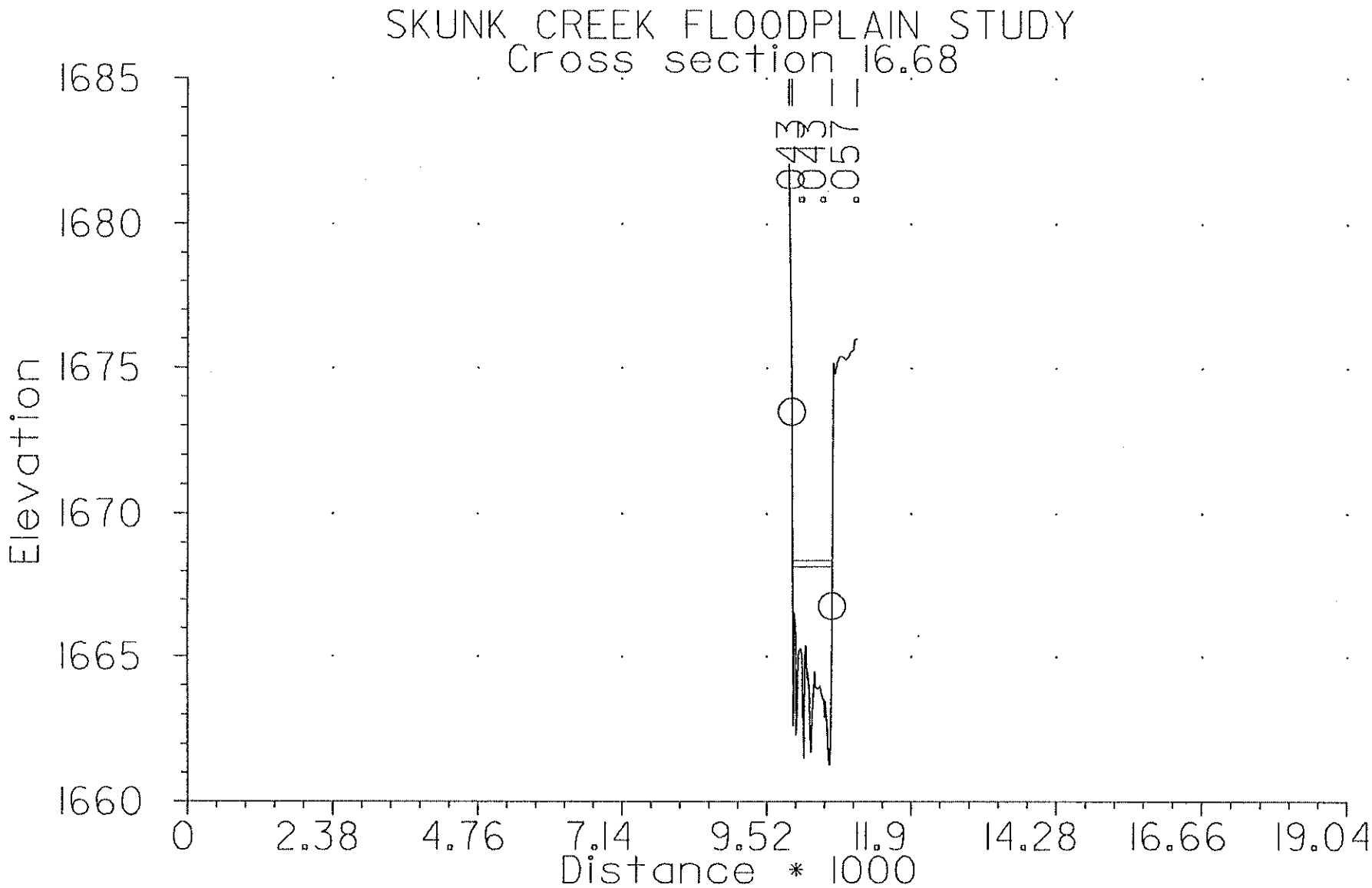
11
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 16.68
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1670
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Elevation
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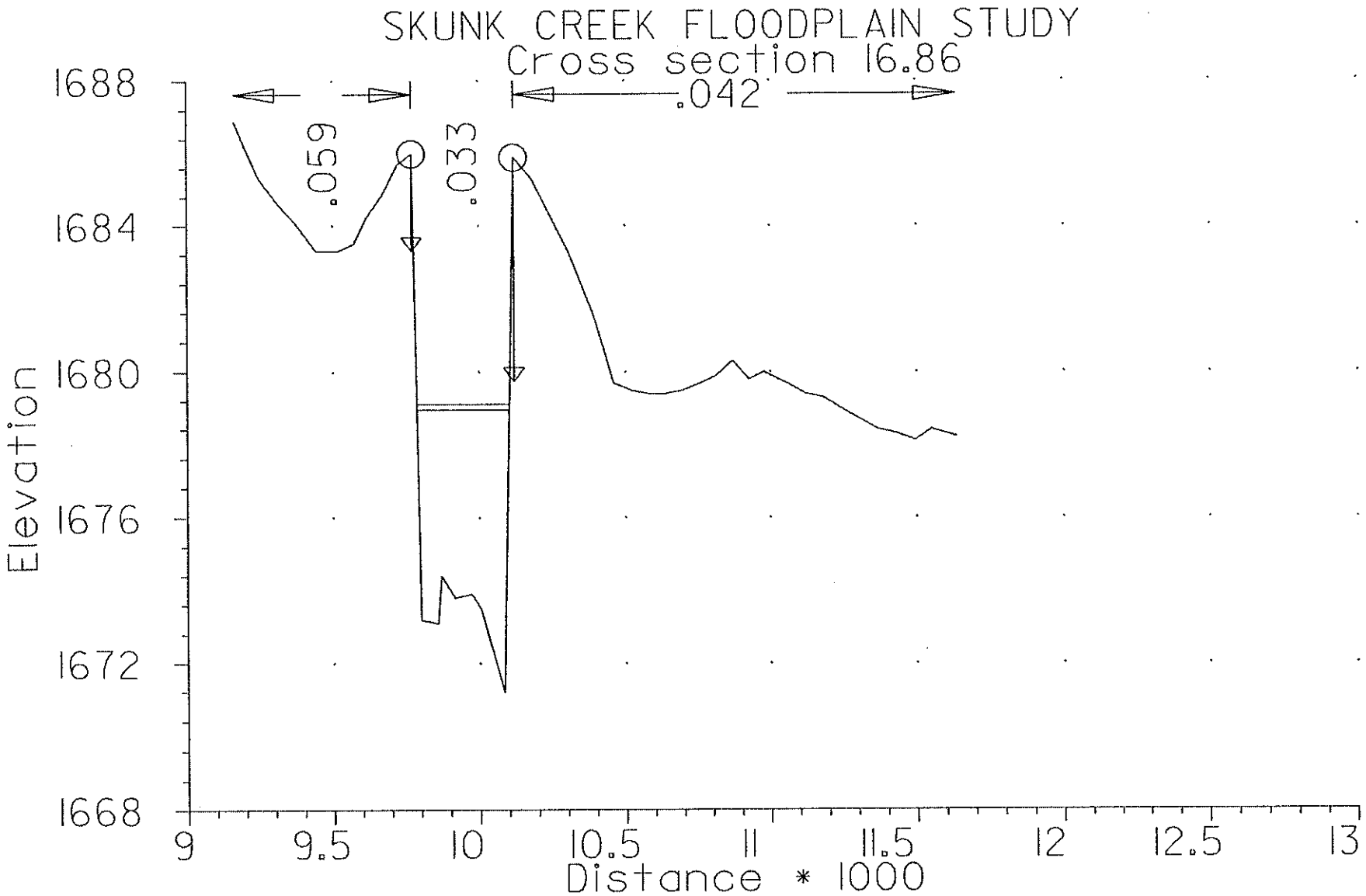
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 16.86
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.033
.042
Elevation
1688
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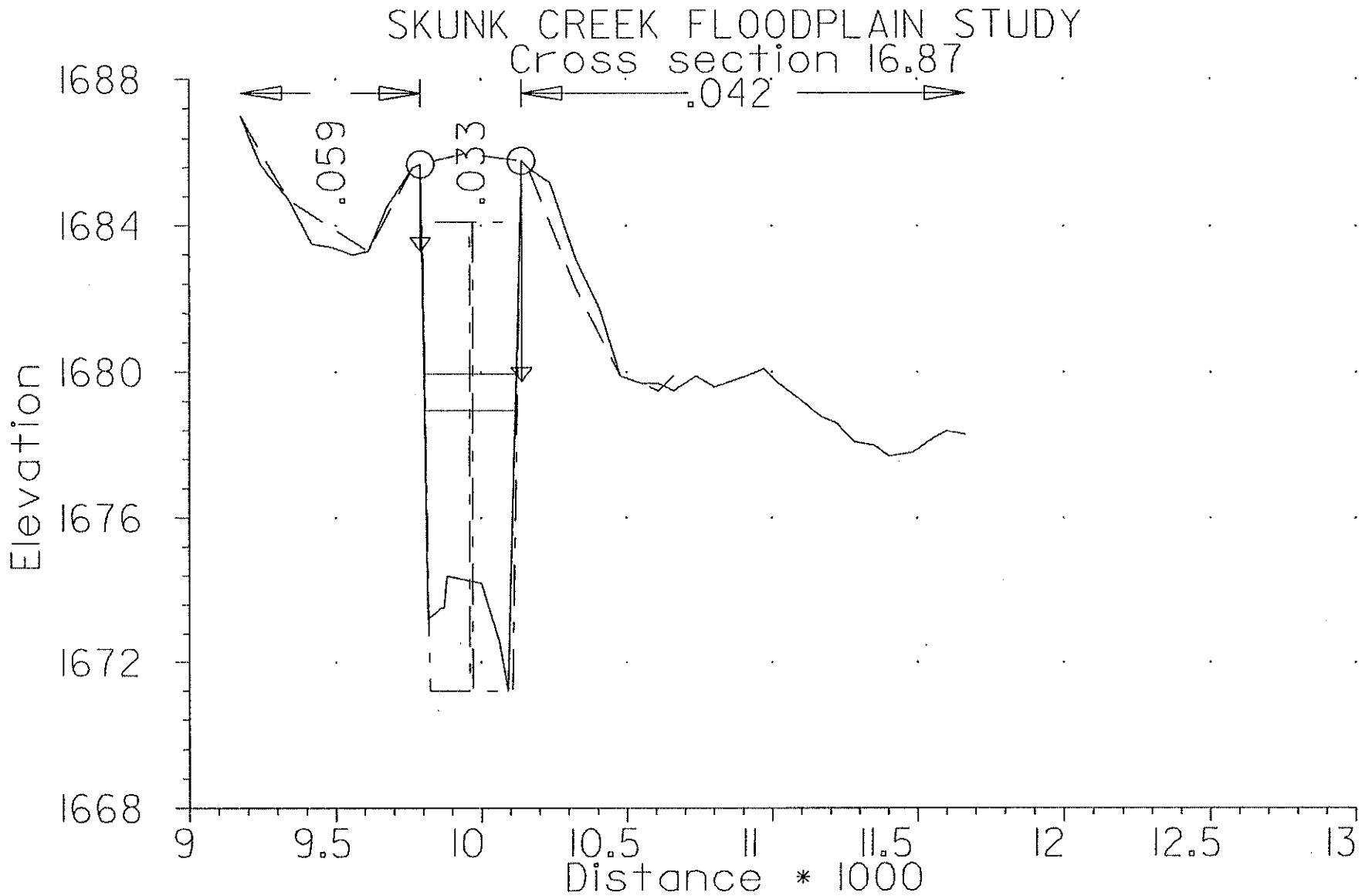
13
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 16.87
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.03
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Elevation
1688
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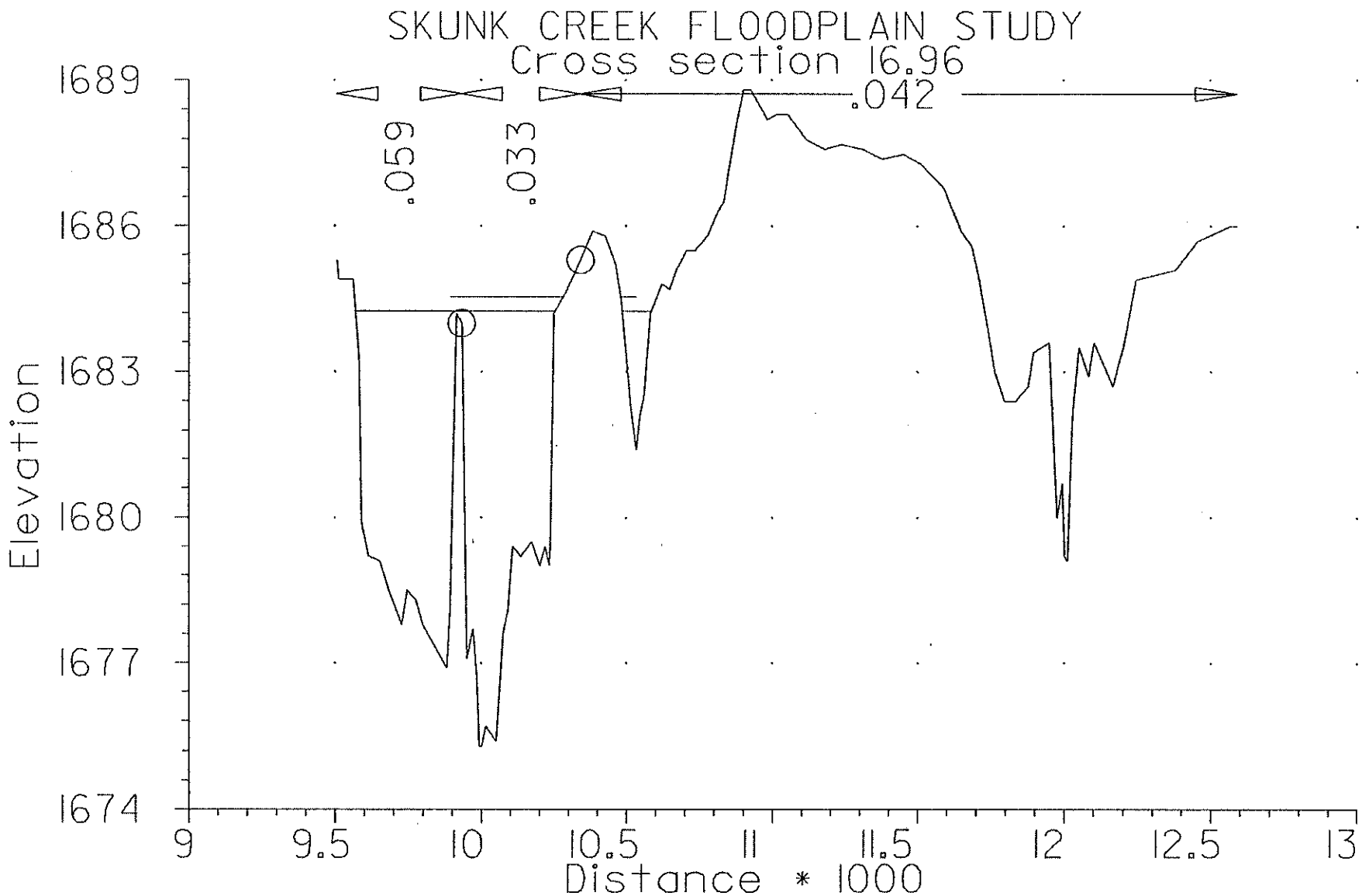
13
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 16.96
.059
.033
.042
1689
1686
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Elevation
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11.5
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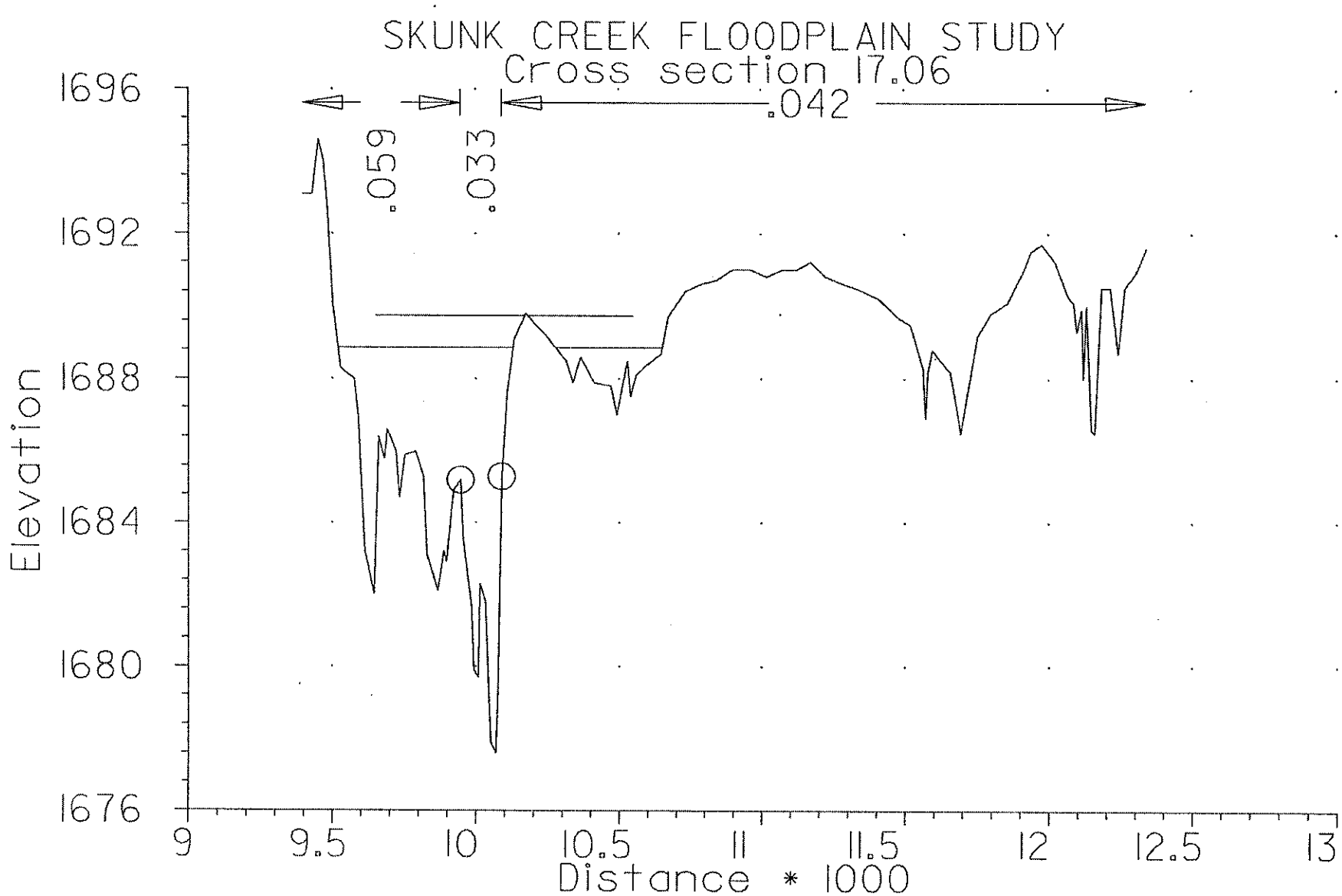
12.5
13
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 17.06
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Elevation
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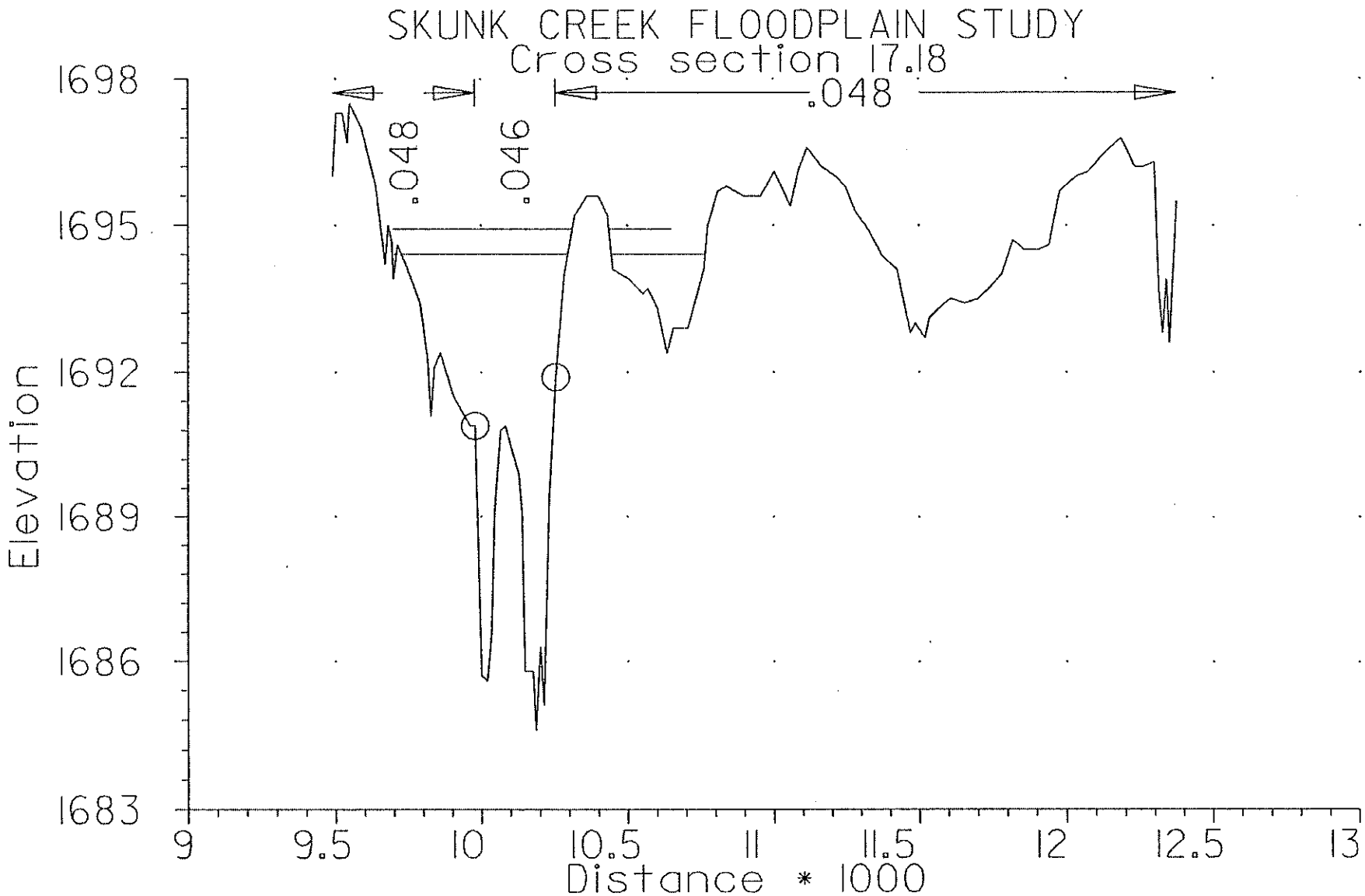
12.5
13
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 17.18
.048
.048
.046
1698
1695
1692
1689
1686
1683
Elevation
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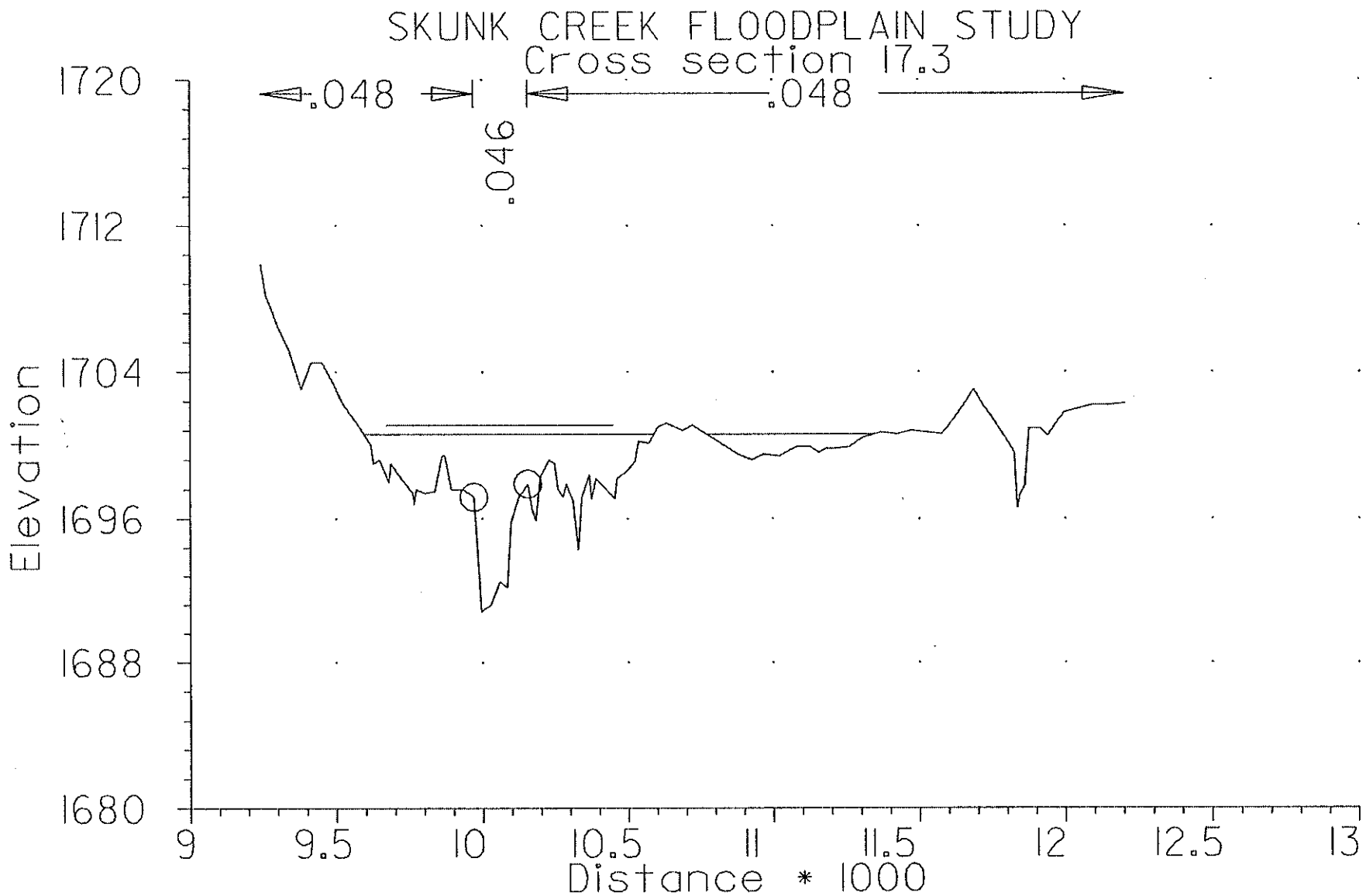
12.5
13
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 17.3
.048
.046
.048
1720
1712
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Elevation
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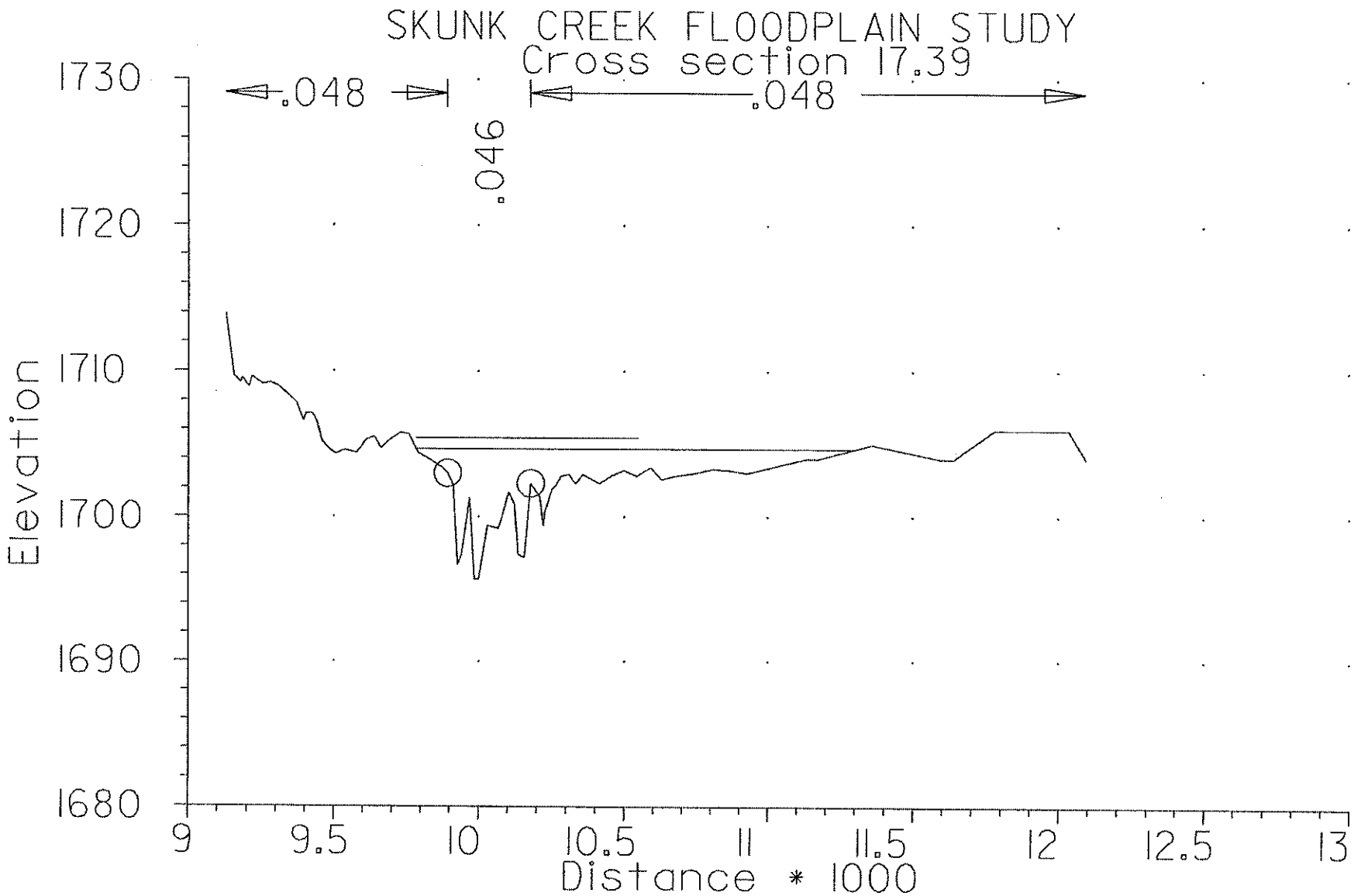
12.5
13
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 17.39
.048
.046
.048
1730
1720
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Elevation
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11
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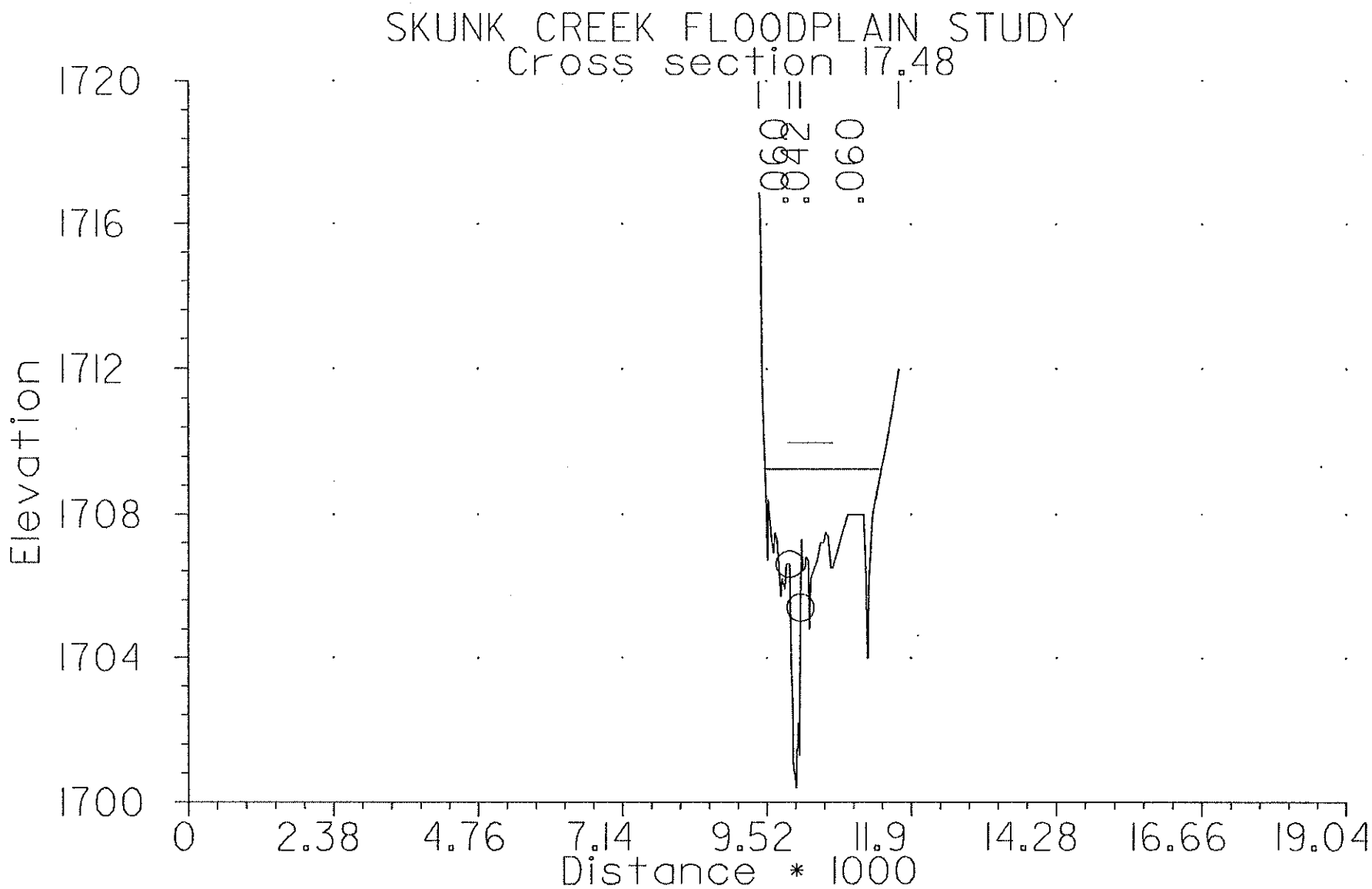
12
12.5
13
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 17.48
1720
1716
1712
1708
1704
1700
Elevation
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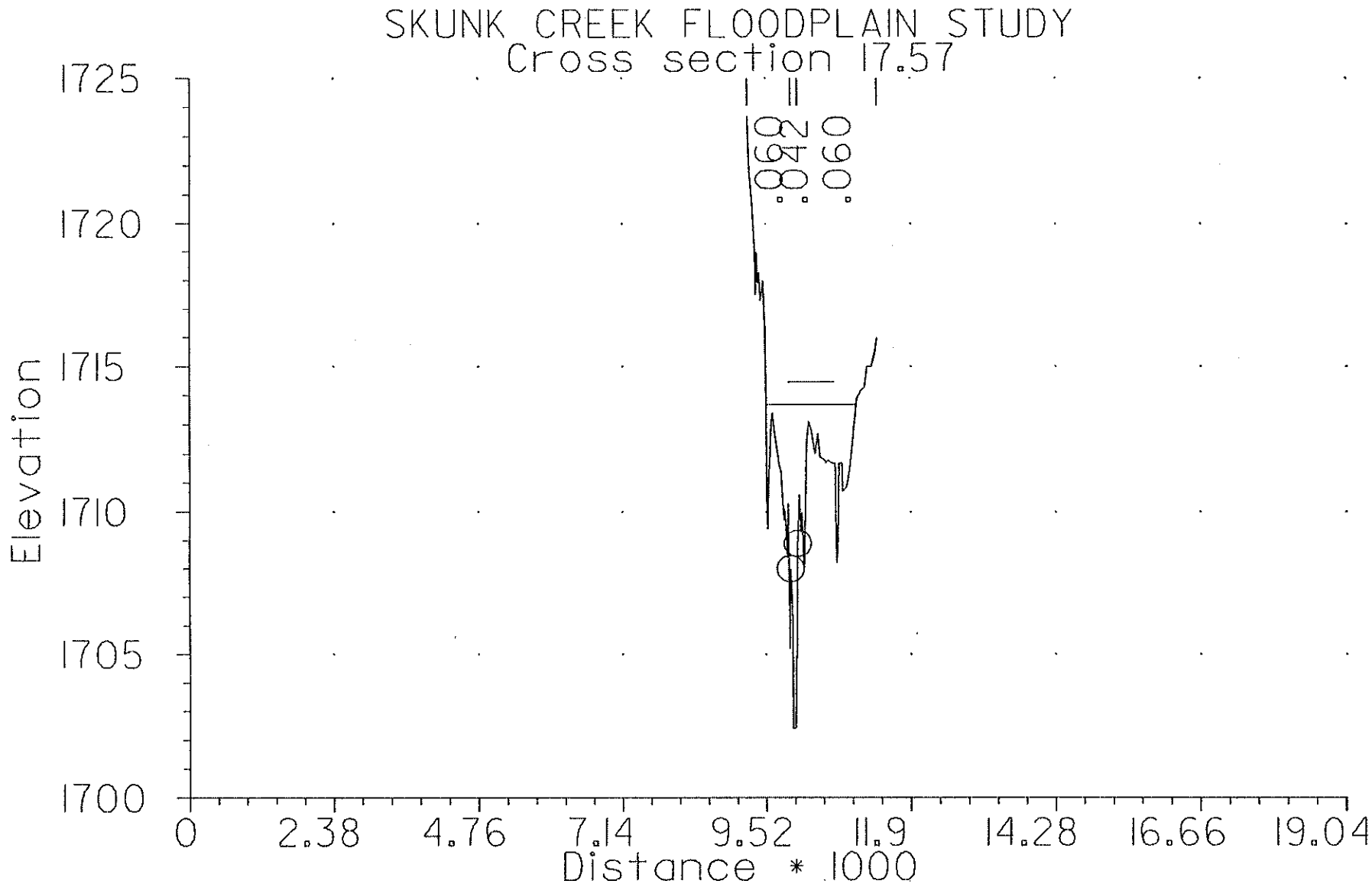
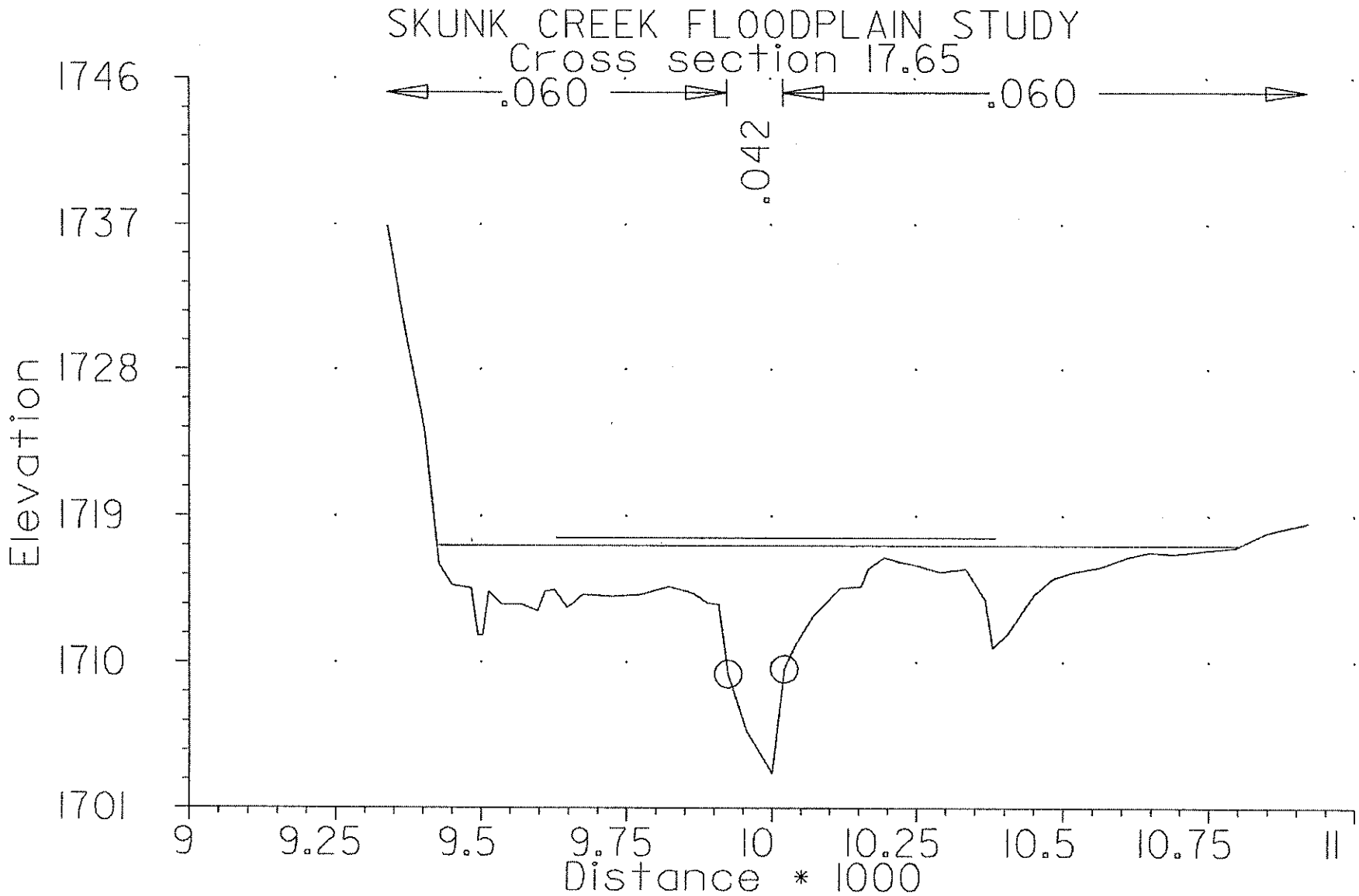
2.38
4.76
7.14
9.52
11.9
14.28
16.66
19.04
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 17.57
1725
1720
1715
1710
1705
1700
Elevation
0
2.38
4.76
7.14
9.52
11.9
14.28
16.66
19.04
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 17.65
.060
.042
.060
1746
1737
1728
1719
1710
1701
Elevation
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10
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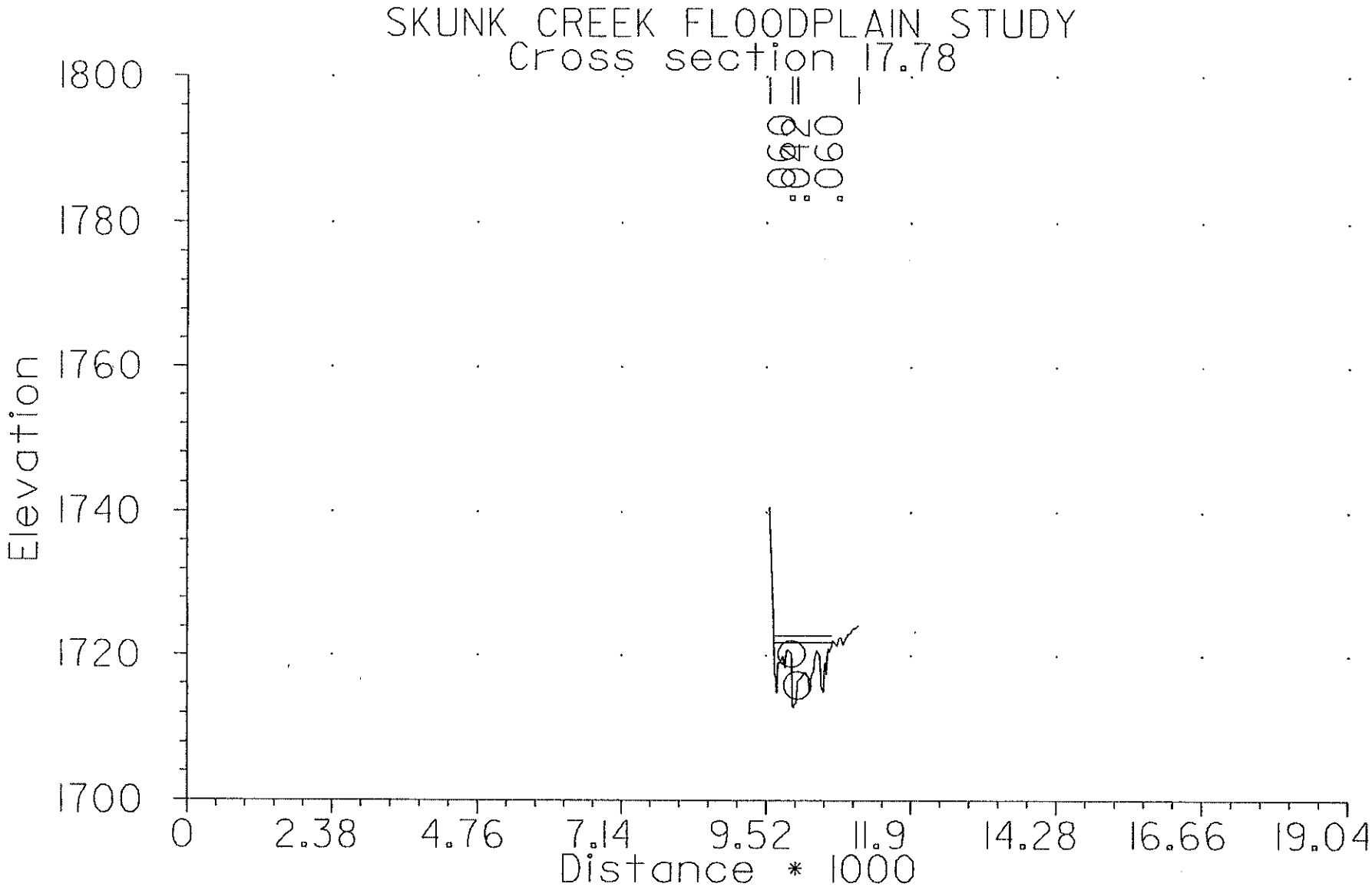
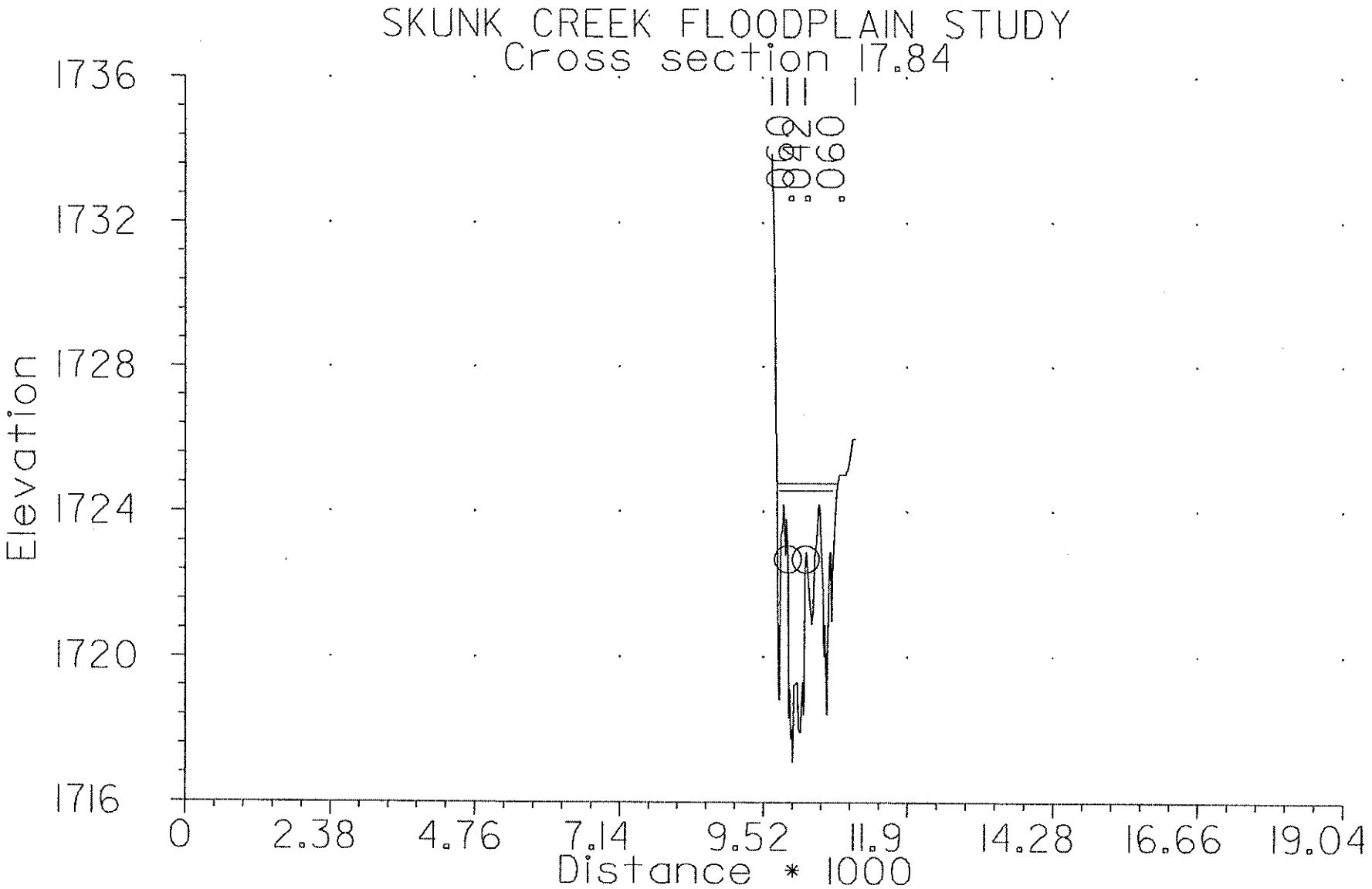
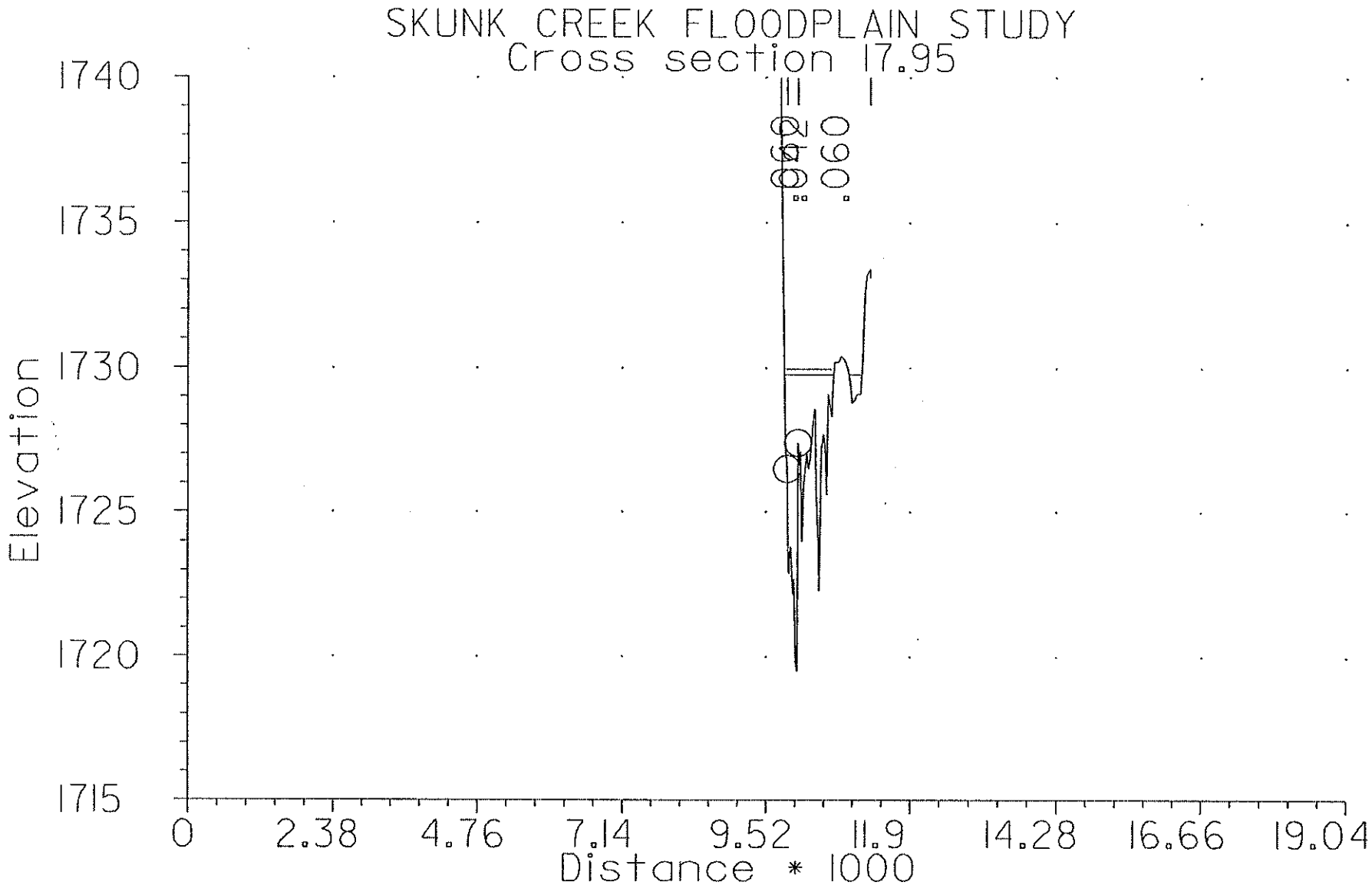
10.5
10.75
11
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 17.78
1800
1780
1760
1740
1720
1700
Elevation
0
2.38
4.76
7.14
9.52
11.9
14.28
16.66
19.04
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 17.84
Elevation
1736
1732
1728
1724
1720
1716
0
2.38
4.76
7.14
9.52
11.9
14.28
16.66
19.04
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 17.95
Elevation
1740
1735
1730
1725
1720
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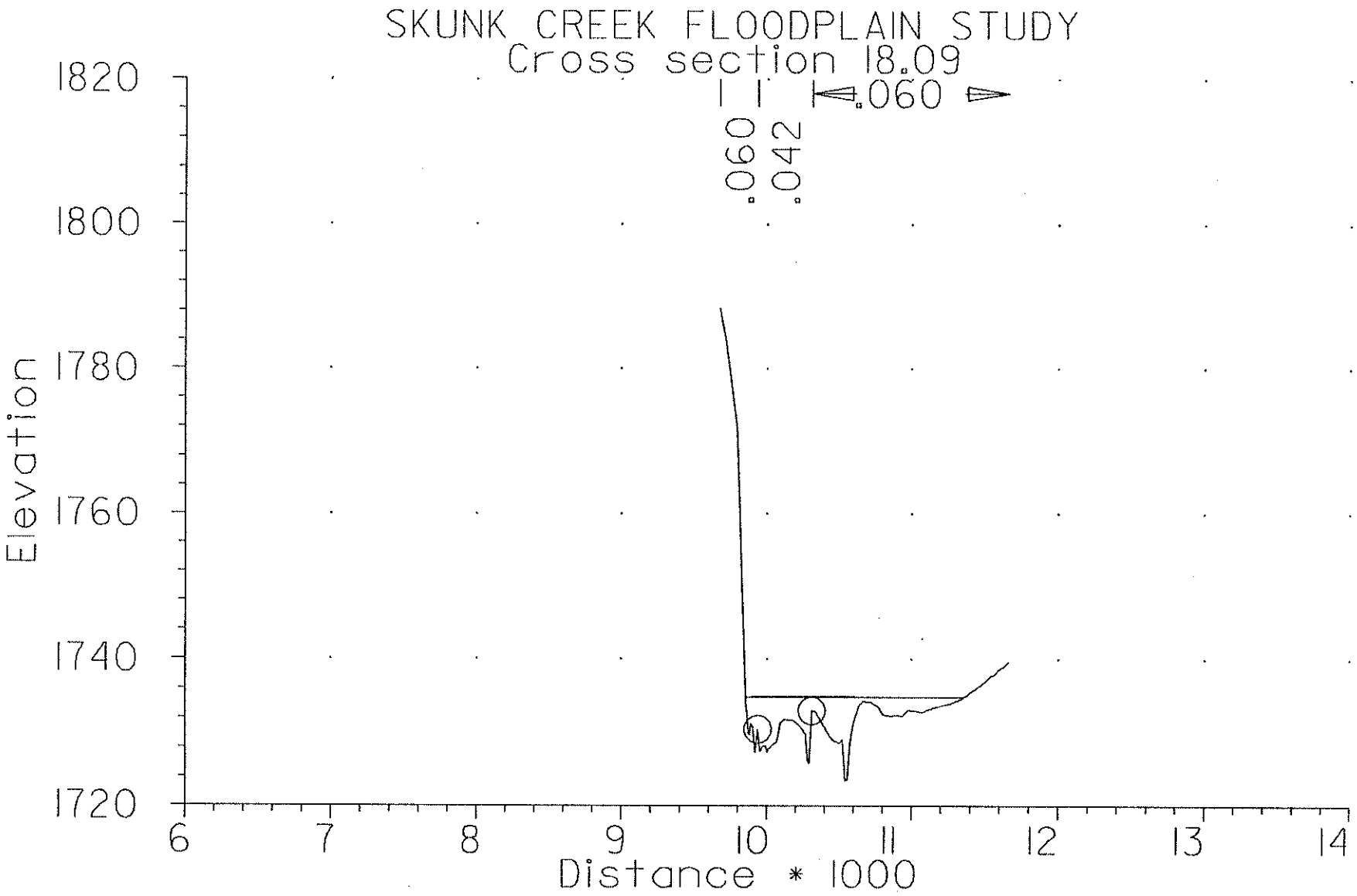
0
2.38
4.76
7.14
9.52
11.9
14.28
16.66
19.04
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 18.09
.060
.060
.042
Elevation
1820
1800
1780
1760
1740
1720
6
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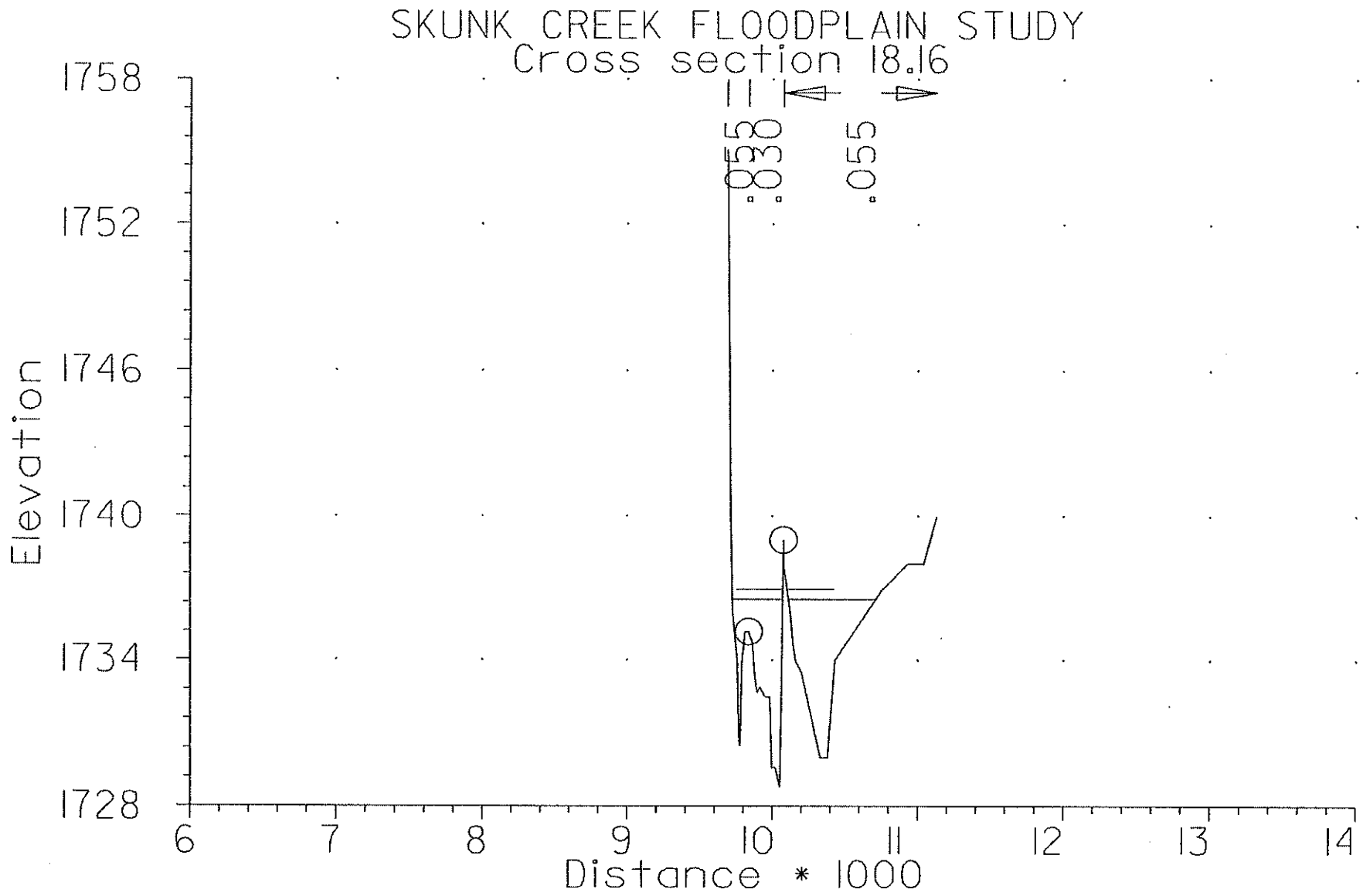
8
9
10
11
12
13
14
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 18.16
.055
.030
.055
1758
1752
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1740
1734
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Elevation
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9
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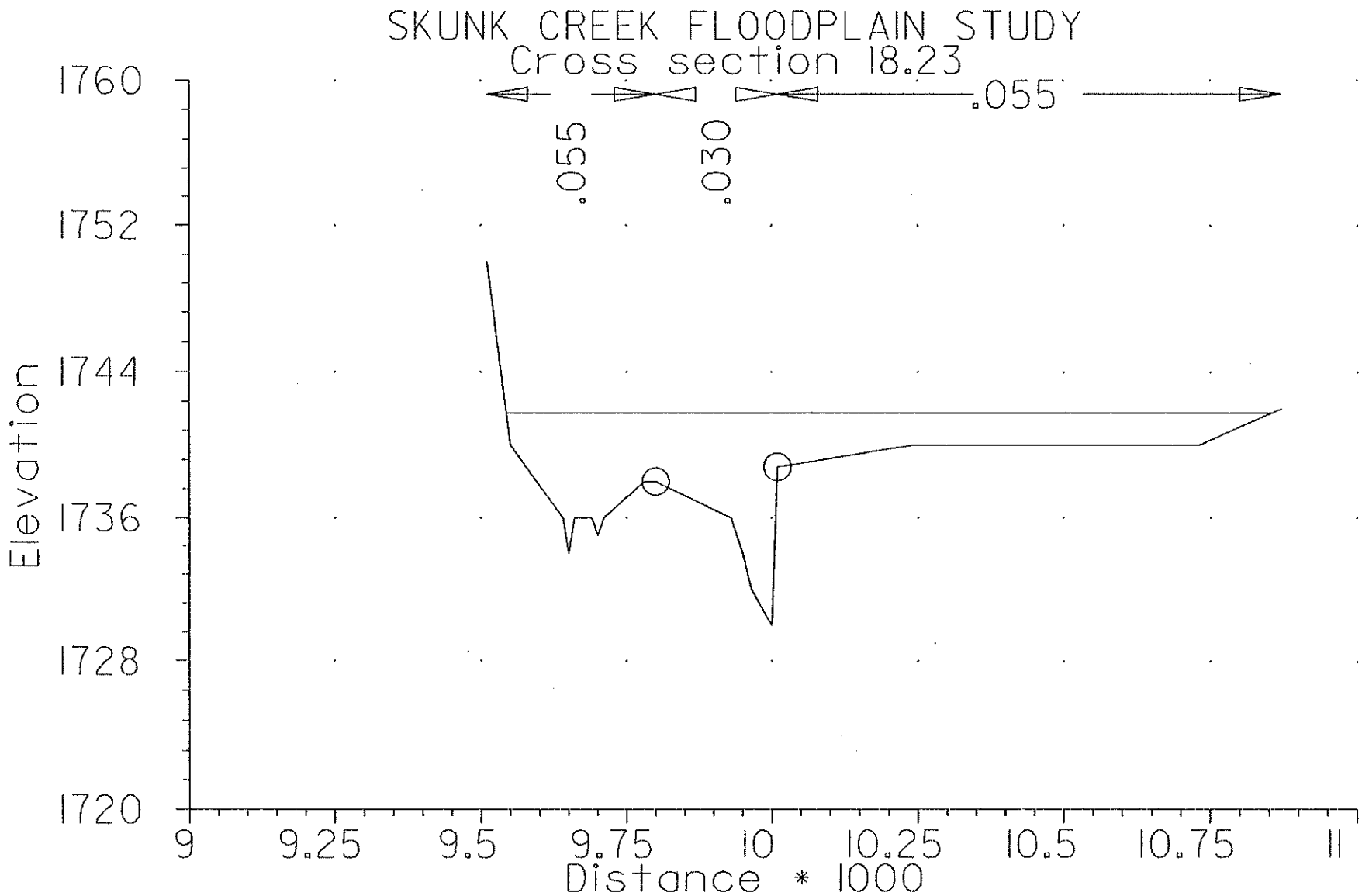
13
14
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 18.23
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.055
.030
1760
1752
1744
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Elevation
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9.5
9.75
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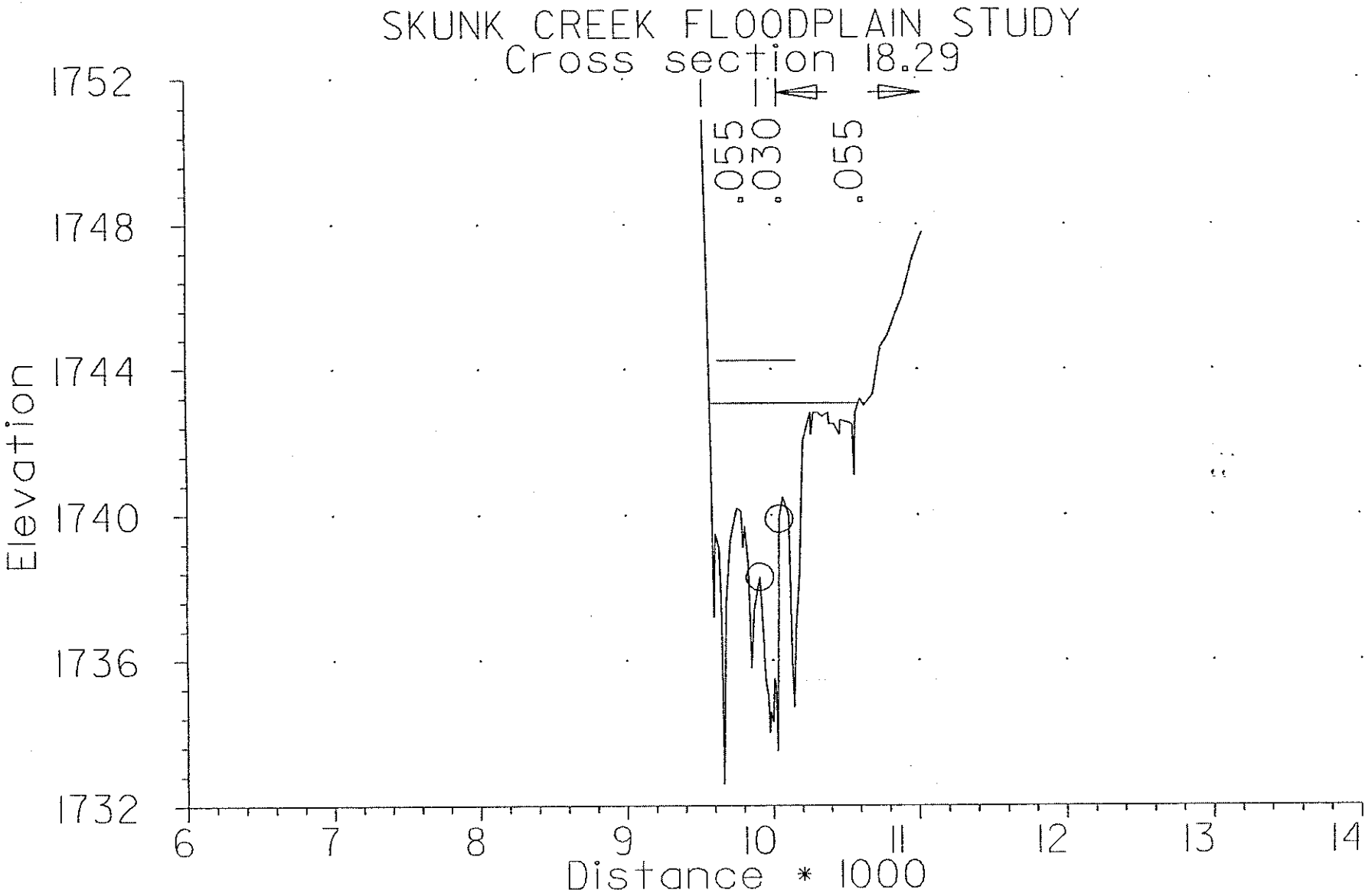
10.25
10.5
10.75
11
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 18.29
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.030
.055
1752
1748
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1740
1736
1732
Elevation
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9
10
11
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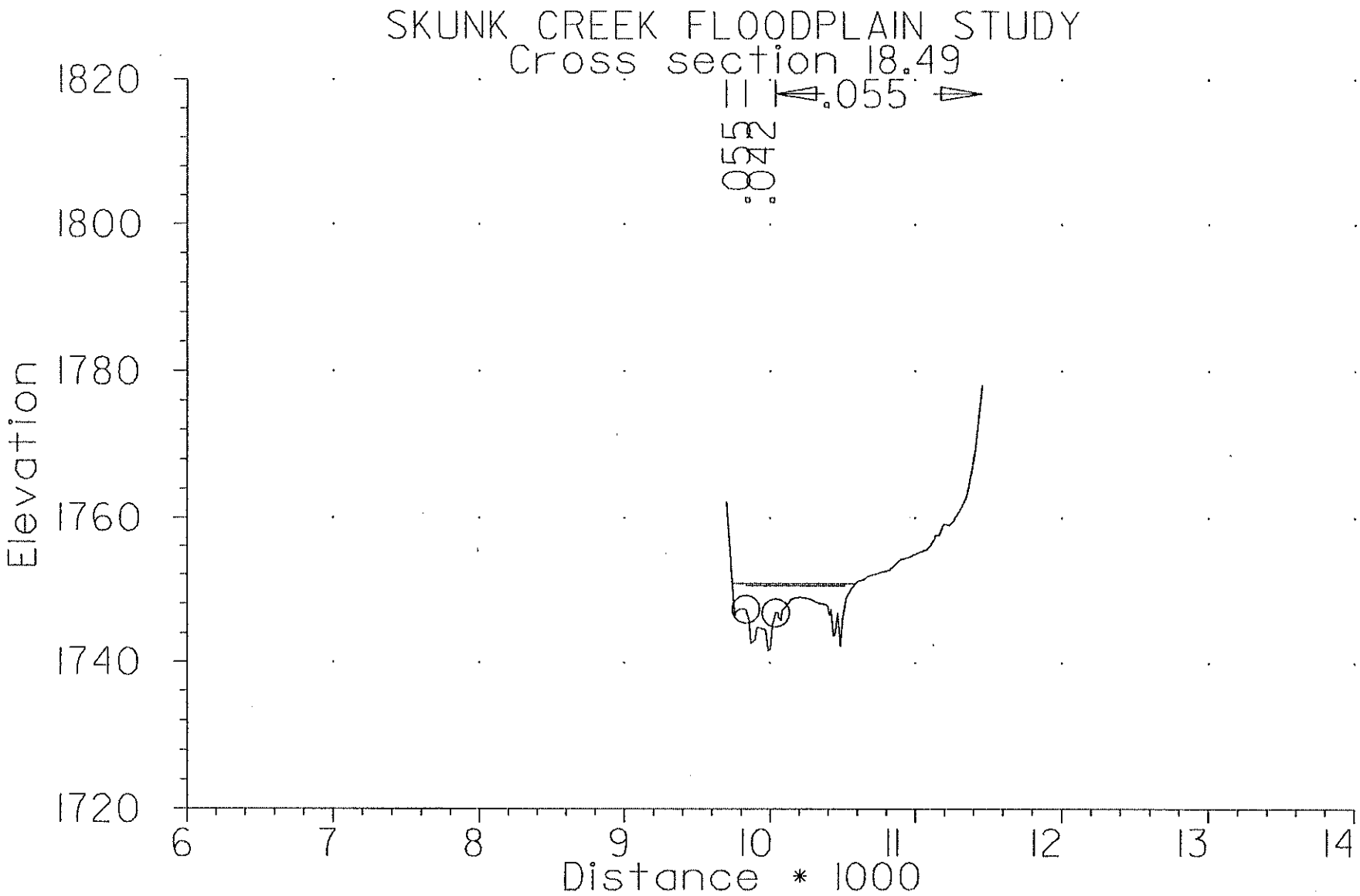
13
14
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 18.49
11
.055
.055
.055
1820
1800
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1760
1740
1720
Elevation
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9
10
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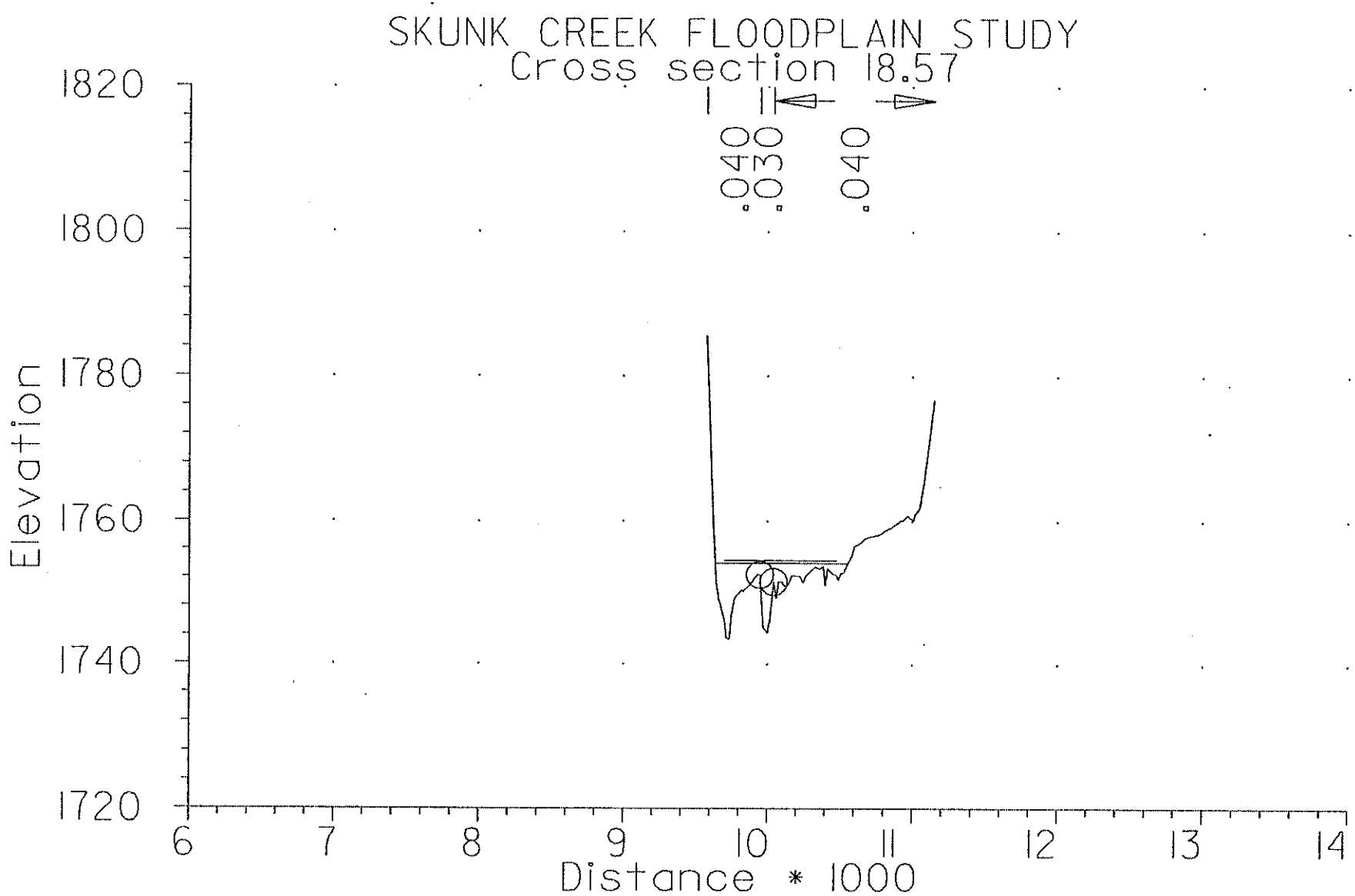
14
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 18.57
.040
.030
.040
1820
1800
1780
1760
1740
1720
Elevation
6
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8
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10
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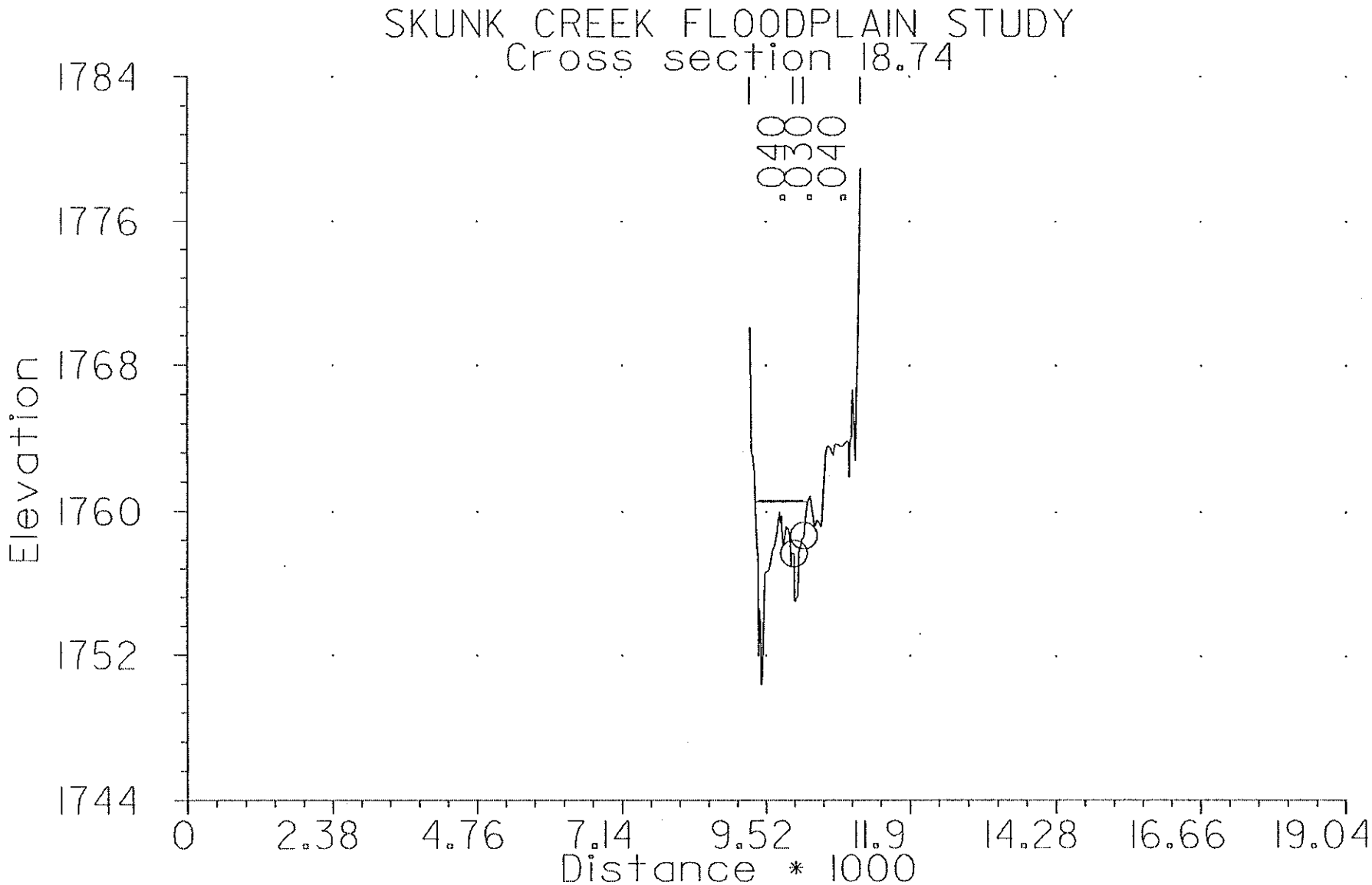
14
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 18.74
1784
1776
1768
1760
1752
1744
Elevation
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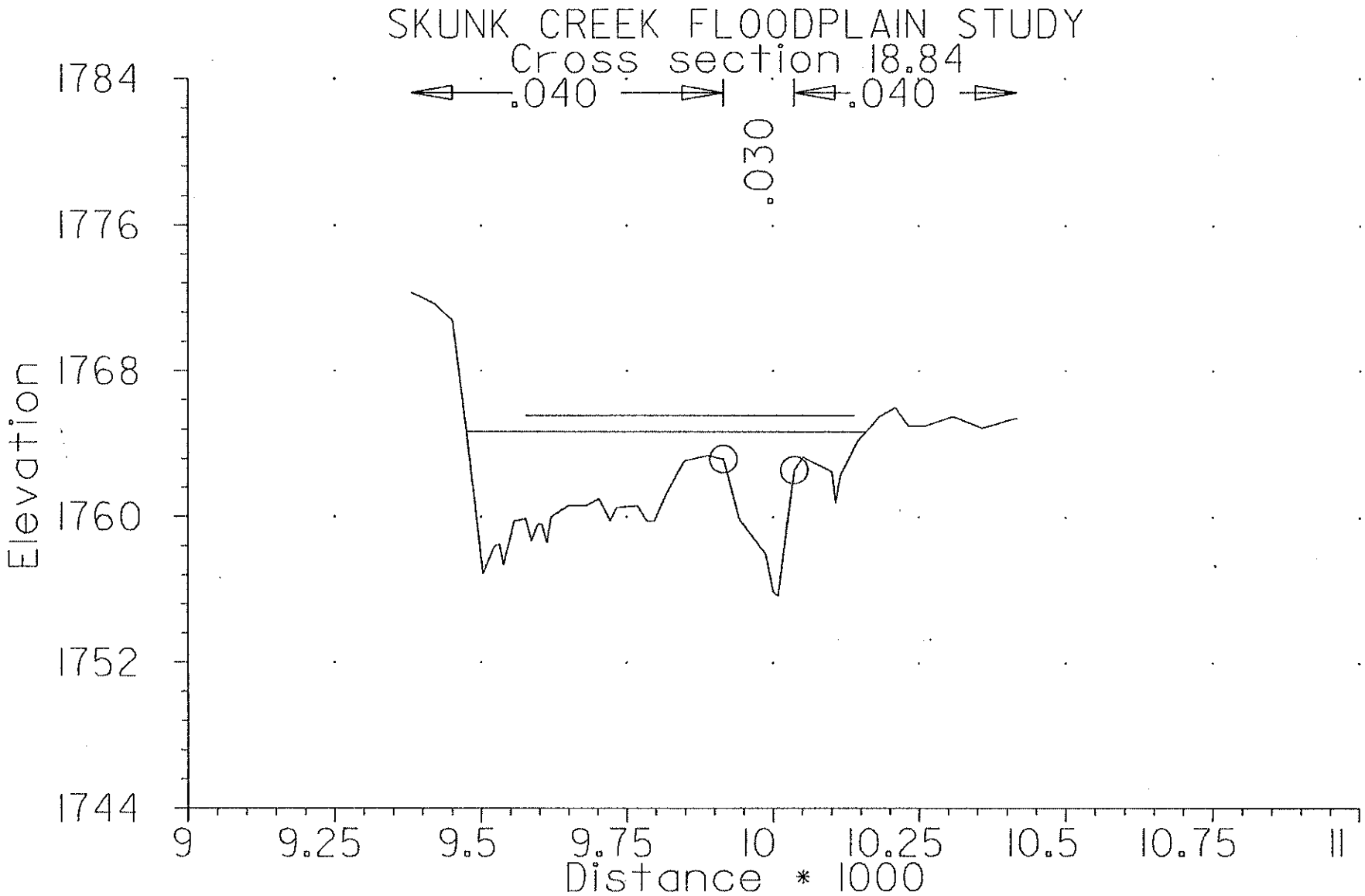
4.76
7.14
9.52
11.9
14.28
16.66
19.04
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 18.84
.040
.040
.030
1784
1776
1768
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1752
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Elevation
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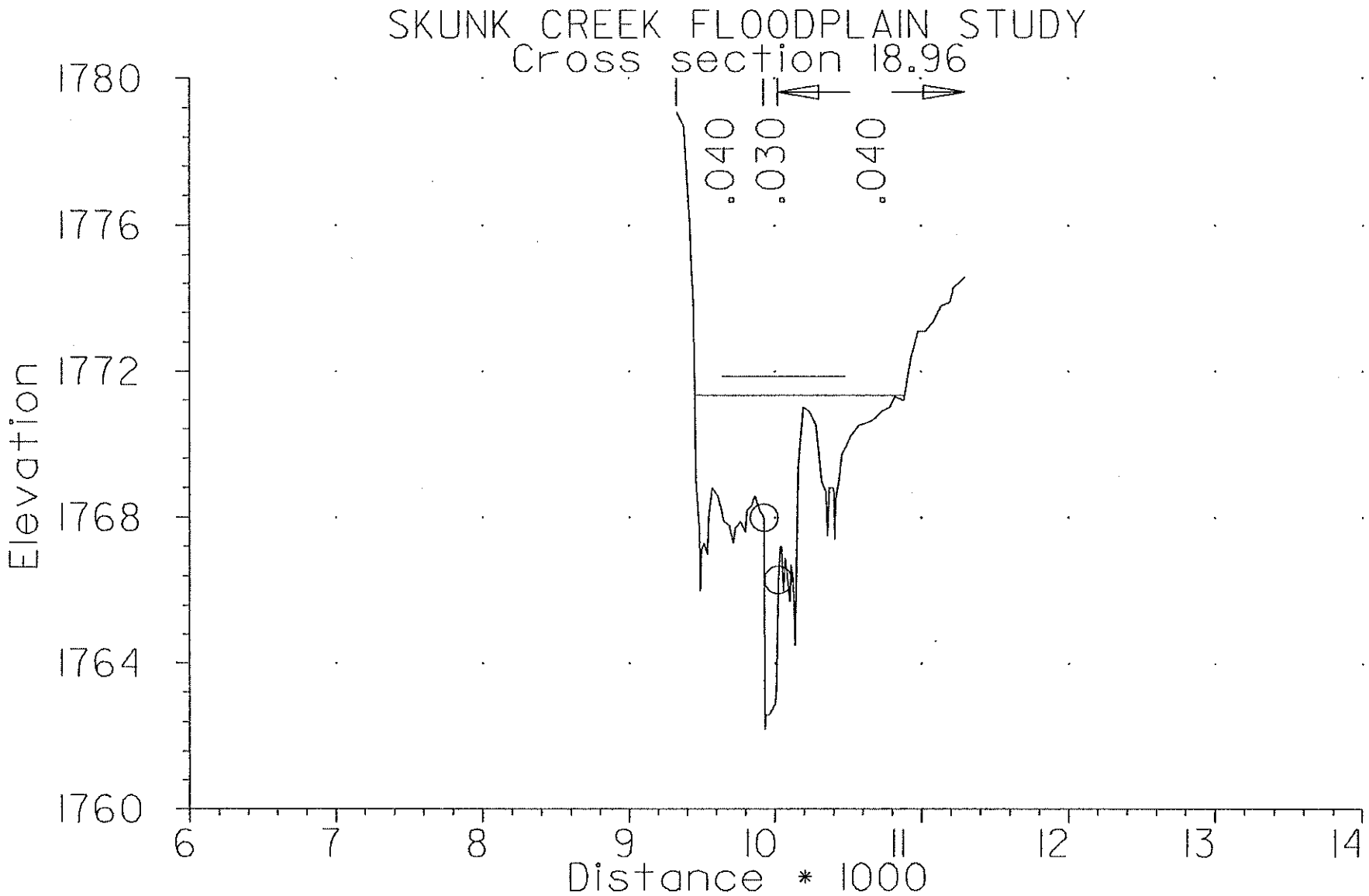
9.75
10
10.25
10.5
10.75
11
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 18.96
.040
.030
.040
1780
1776
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1768
1764
1760
Elevation
6
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9
10
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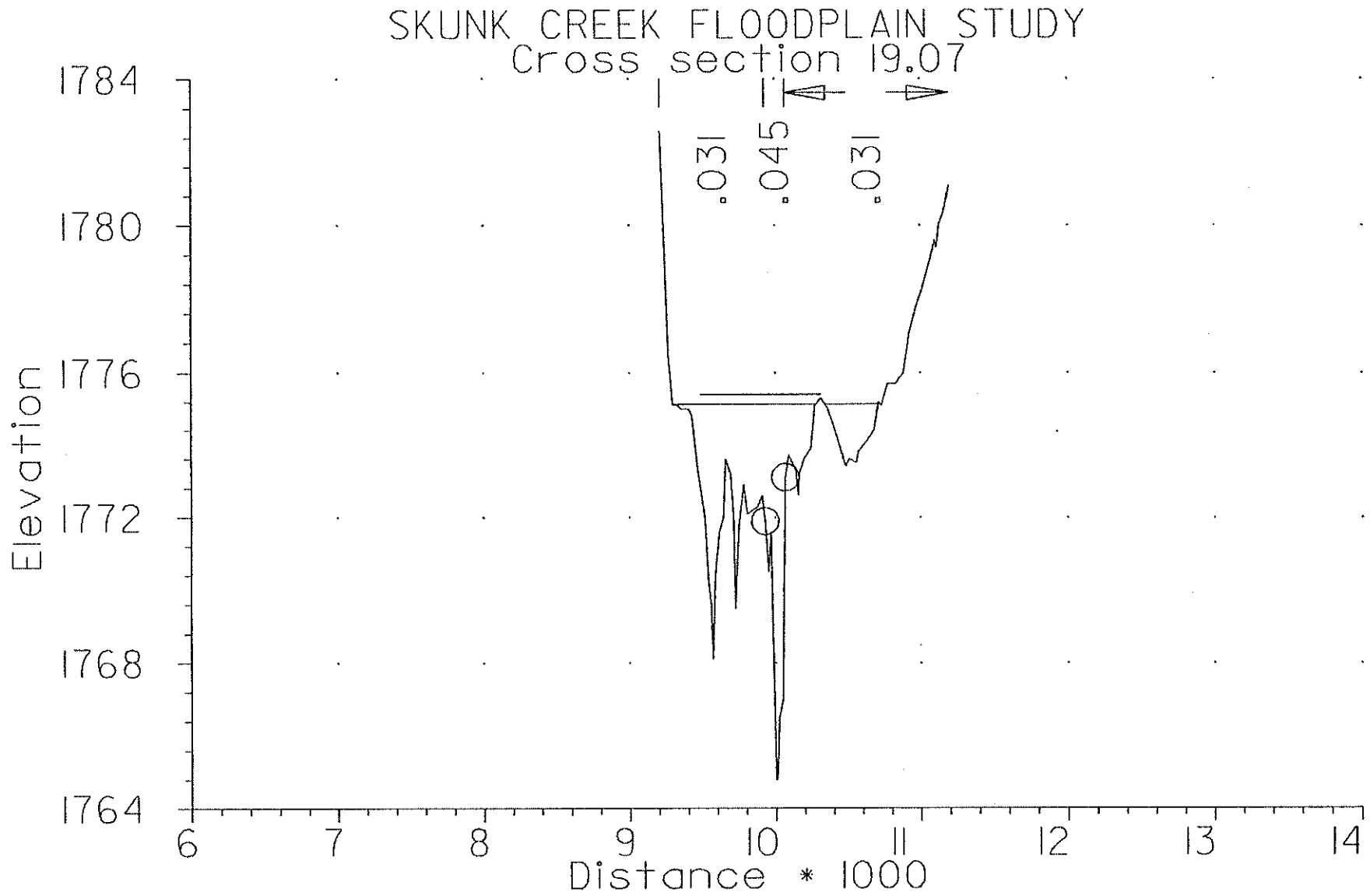
13
14
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 19.07
.031
.045
.031
1784
1780
1776
1772
1768
1764
Elevation
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9
10
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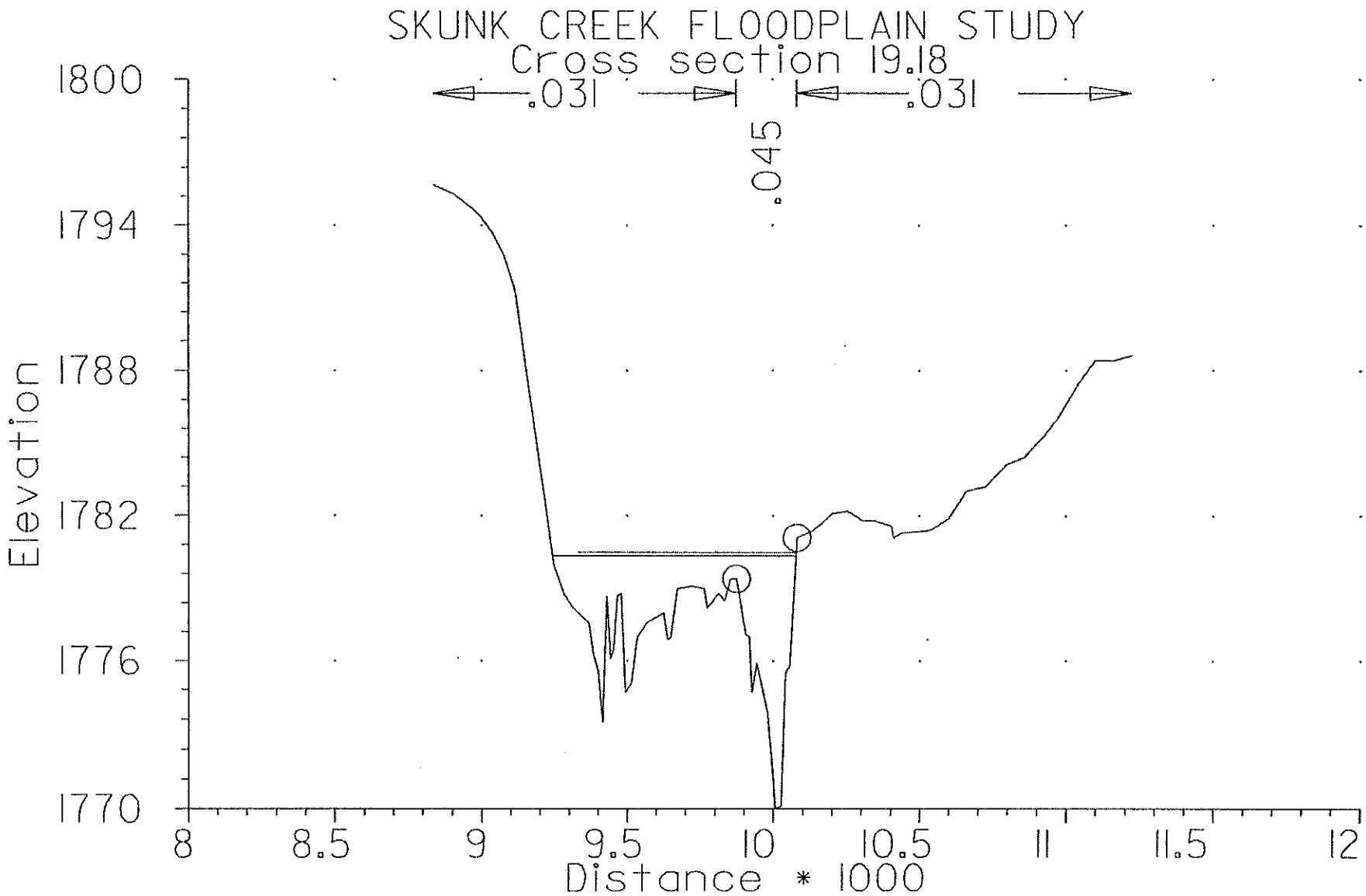
13
14
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 19.18
.031
.045
.031
1800
1794
1788
1782
1776
1770
Elevation
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9
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10
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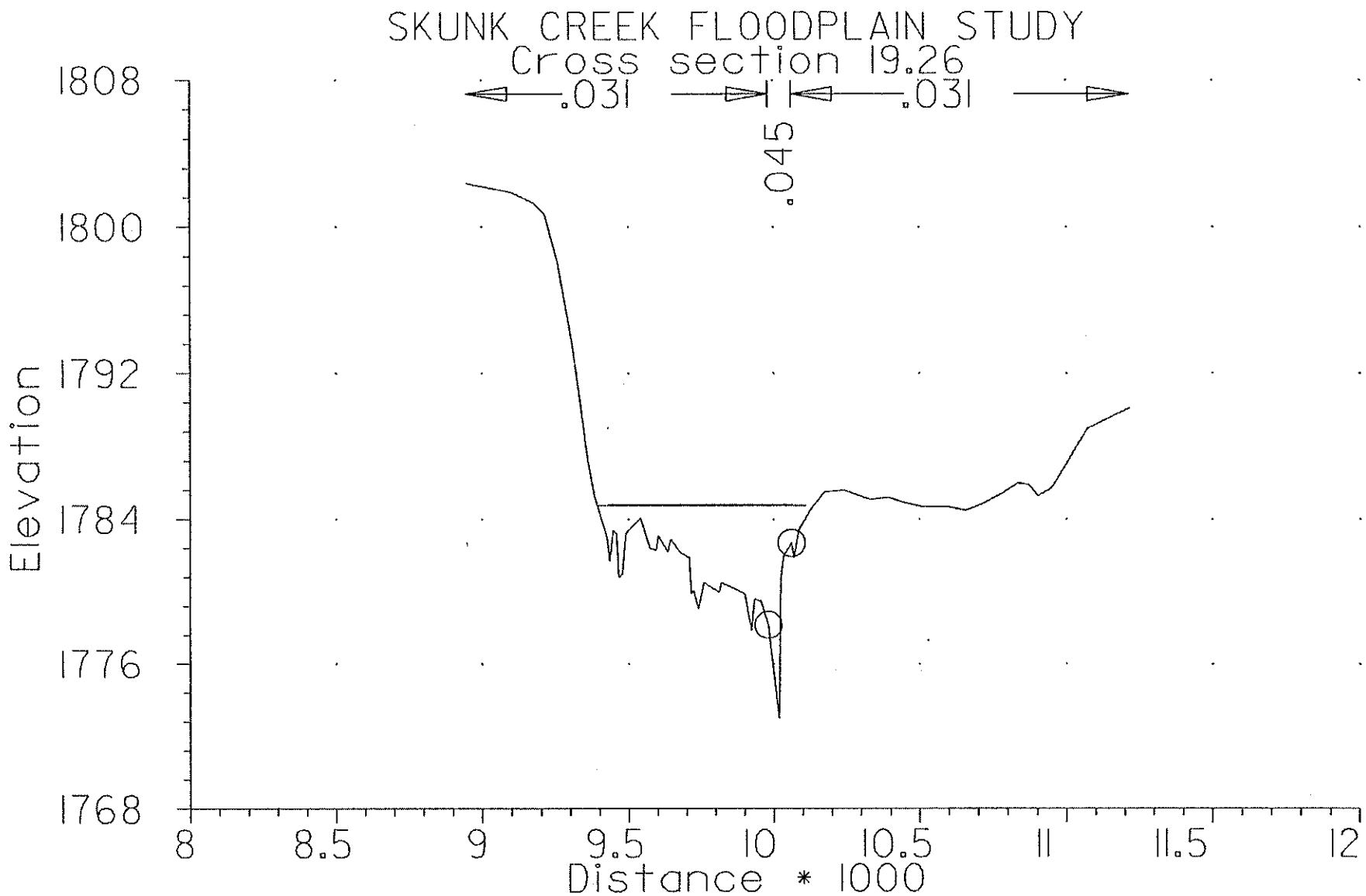
11
11.5
12
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 19.26
.031
.045
.031
1808
1800
1792
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1776
1768
Elevation
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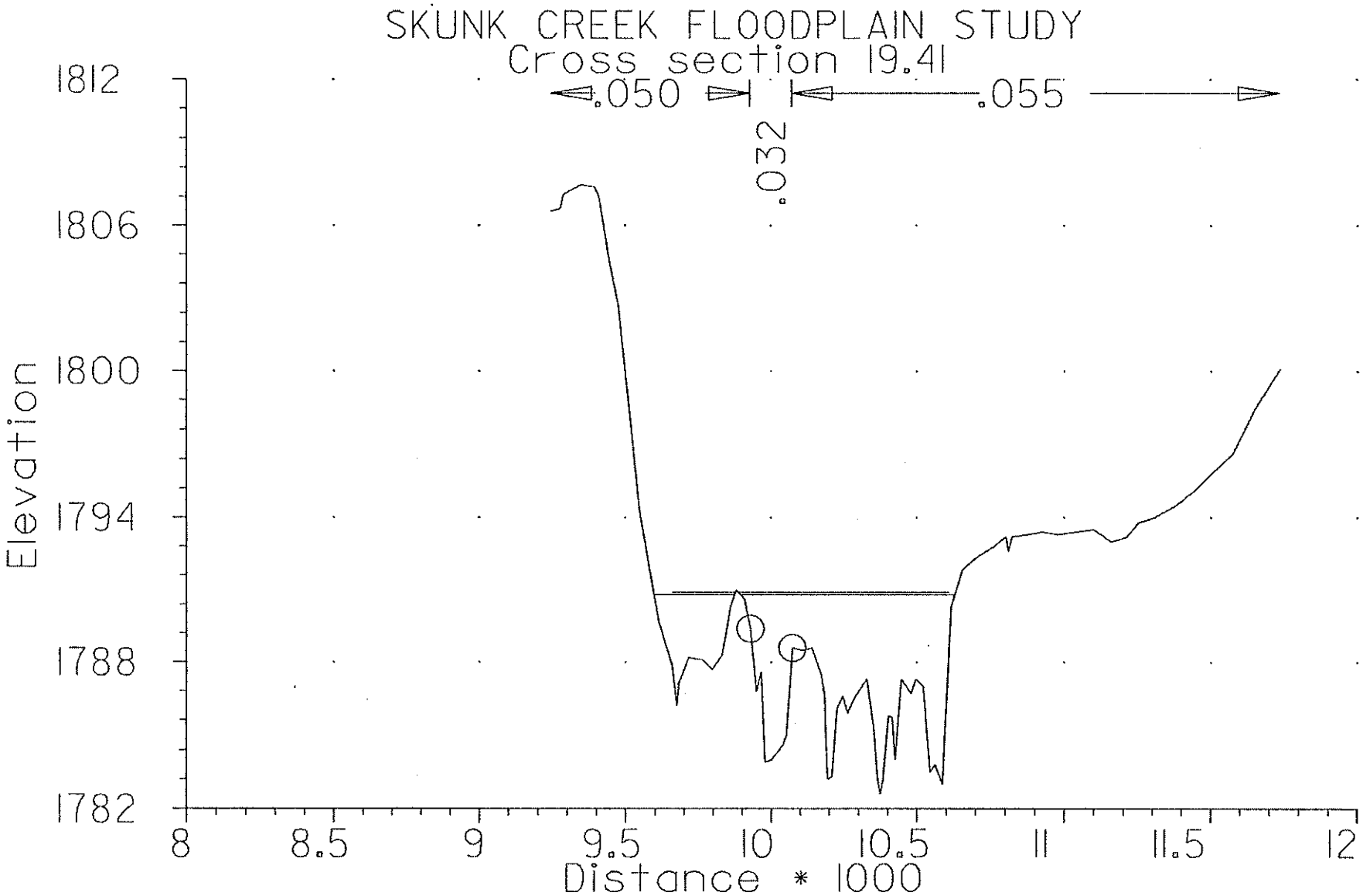
11
11.5
12
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 19.41
.050
.032
.055
1812
1806
1800
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1788
1782
Elevation
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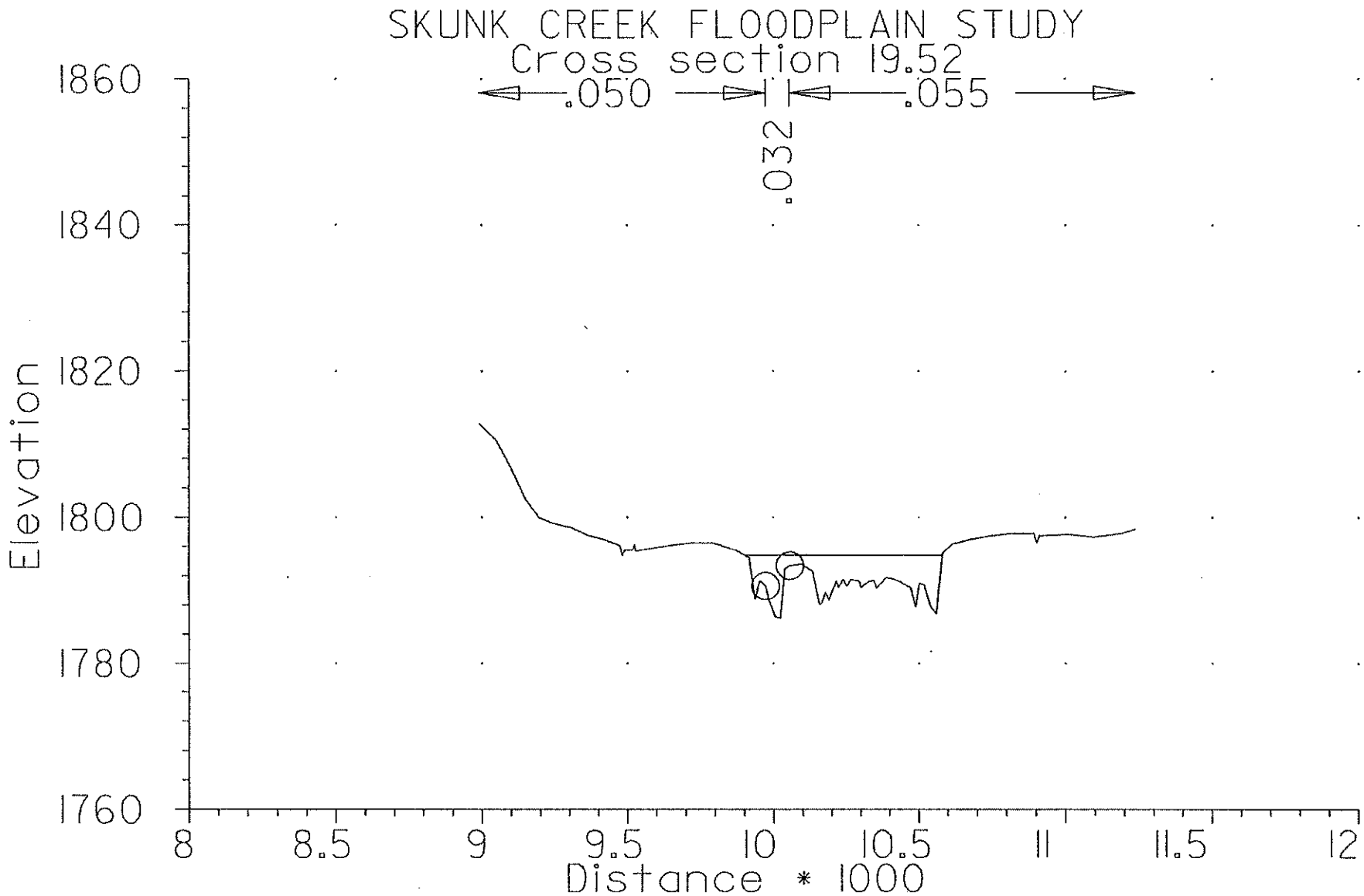
11
11.5
12
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 19.52
.050
.032
.055
Elevation
1860
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1800
1780
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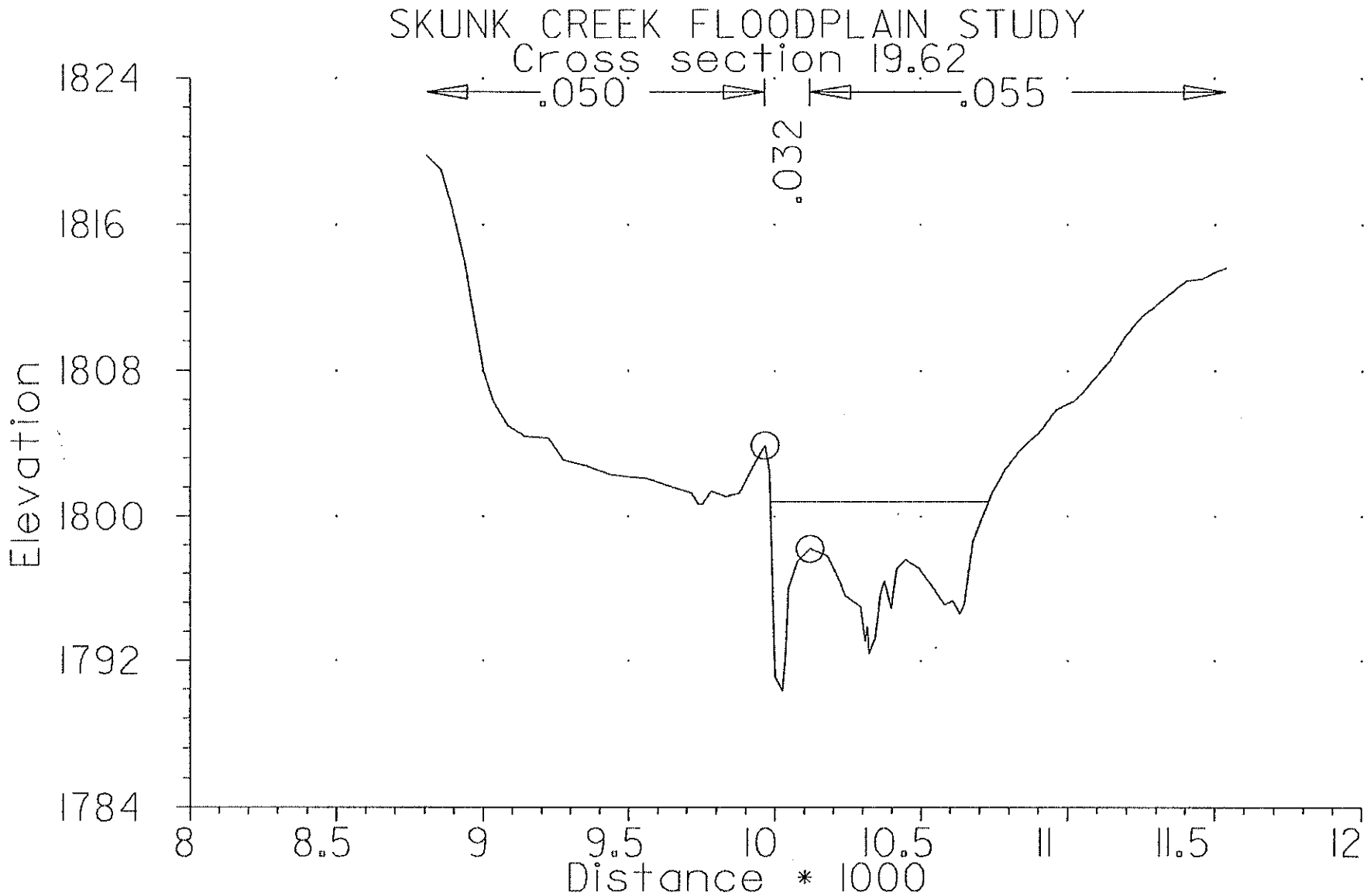
11.5
12
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 19.62
.050
.032
.055
1824
1816
1808
1800
1792
1784
Elevation
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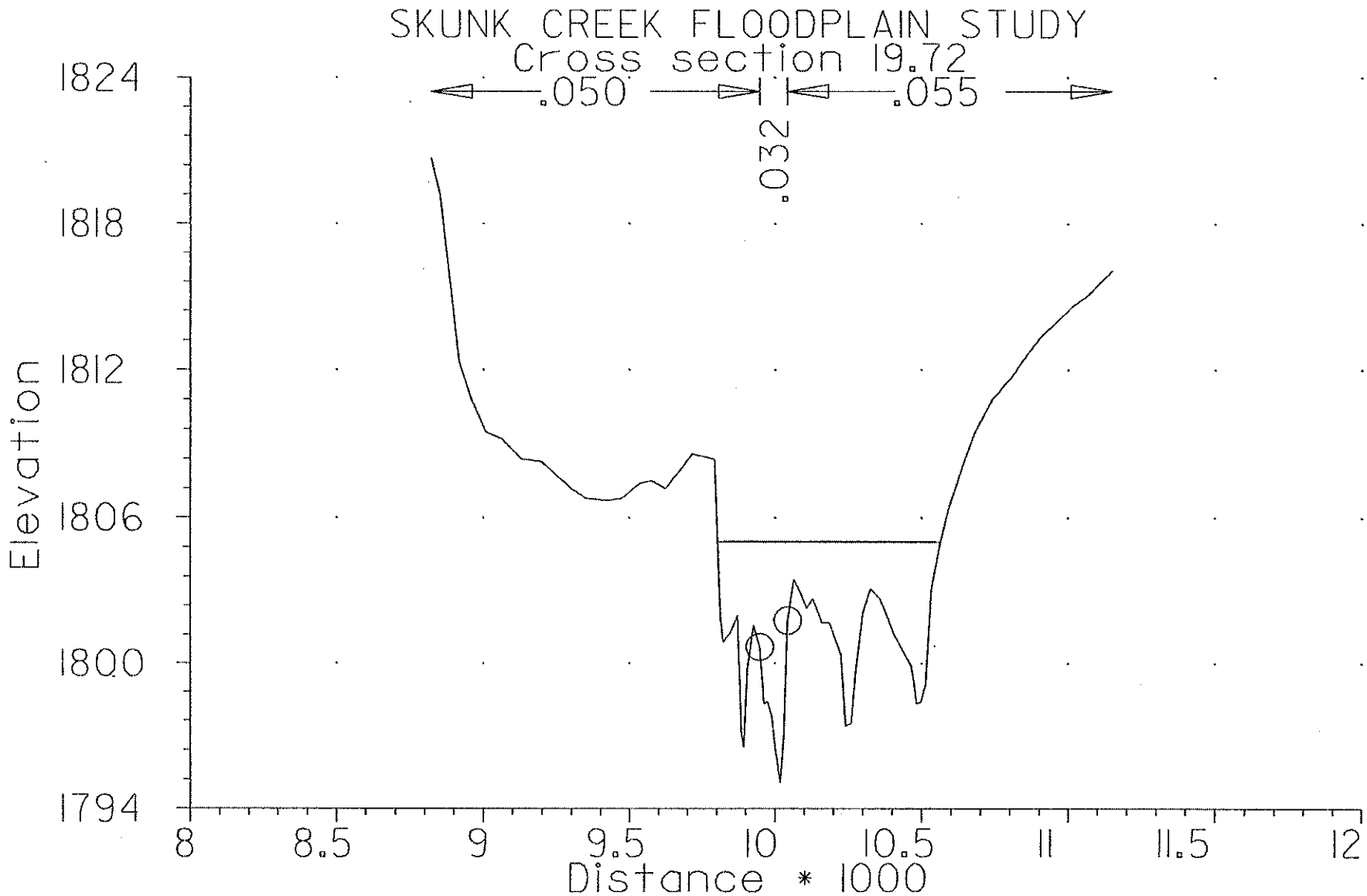
11
11.5
12
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 19.72
.050
.032
.055
1824
1818
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1806
1800
1794
Elevation
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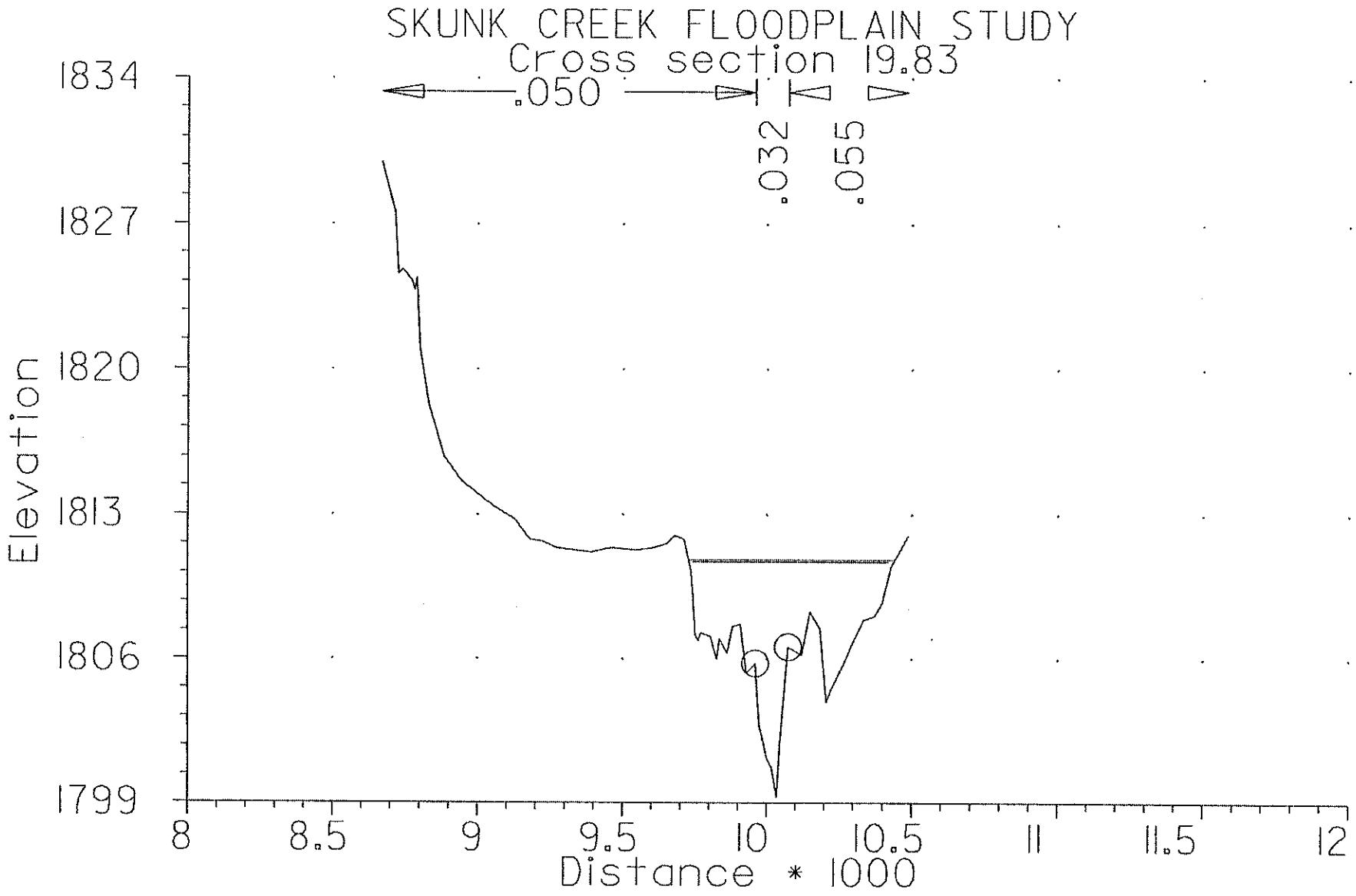
11
11.5
12
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 19.83
.050
.032
.055
1834
1827
1820
1813
1806
1799
Elevation
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10.5
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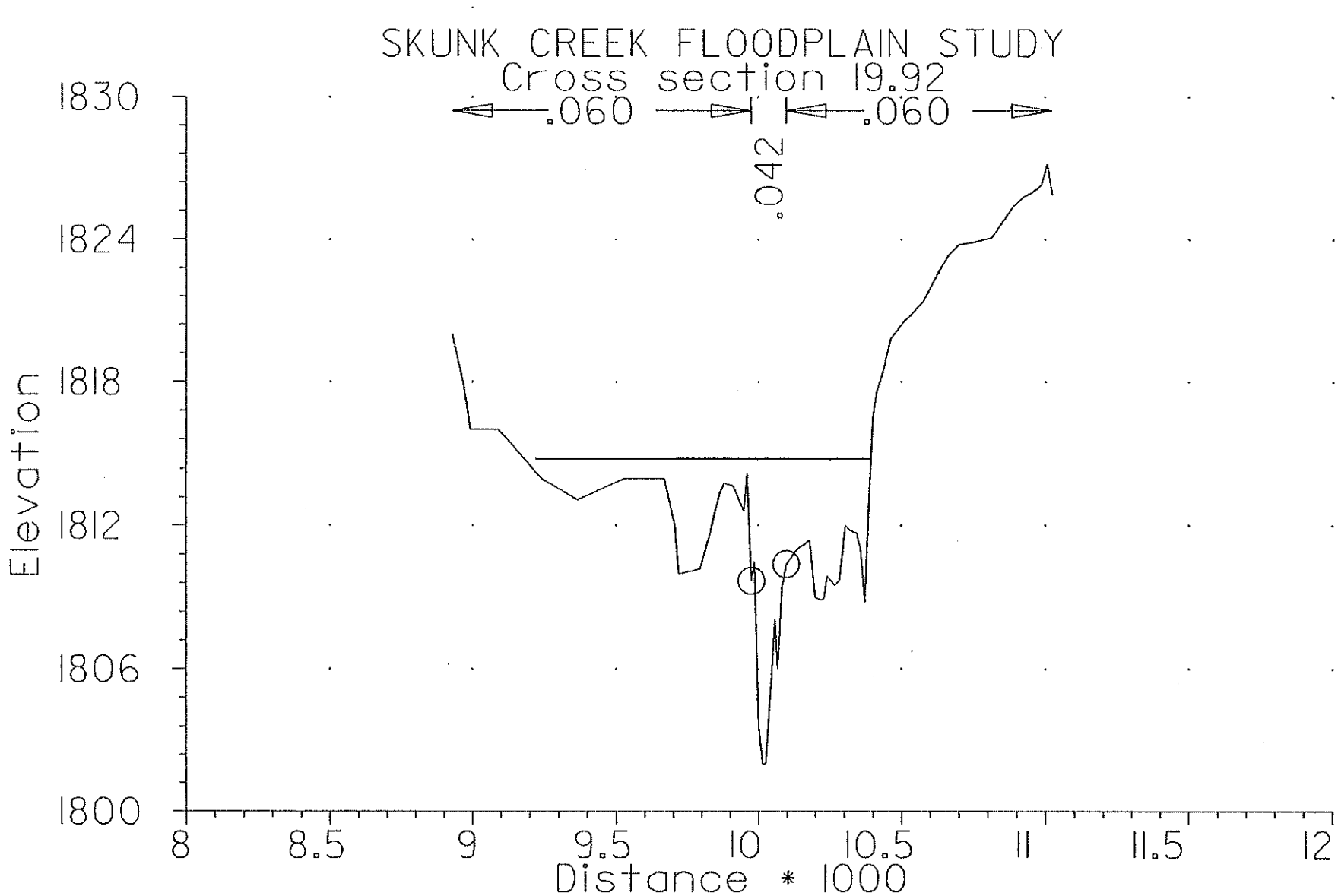
11.5
12
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 19.92
.060
.060
.042
1830
1824
1818
1812
1806
1800
Elevation
8
8.5
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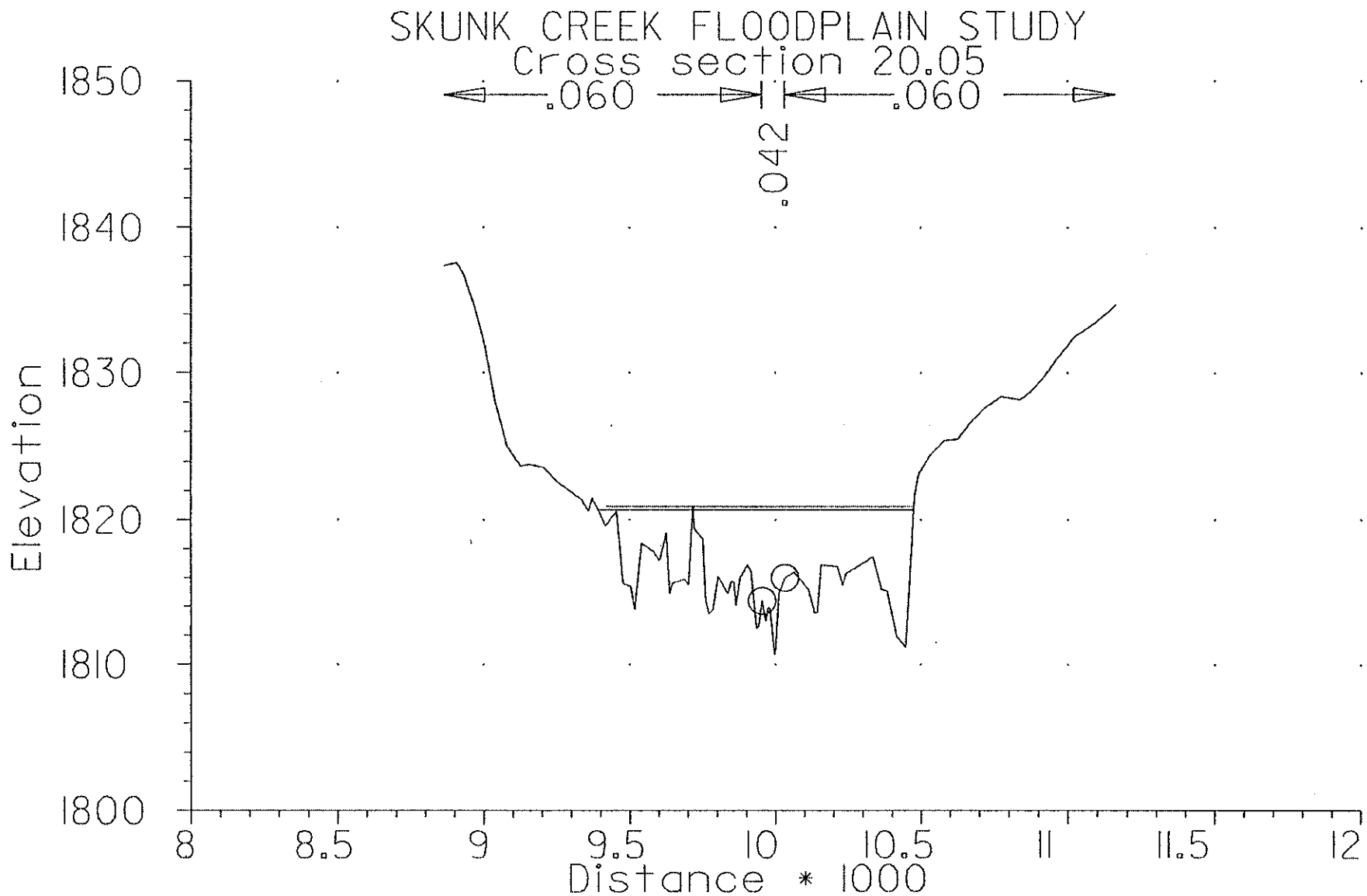
10
10.5
11
11.5
12
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 20.05
.060
.060
.042
1850
1840
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1820
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1800
Elevation
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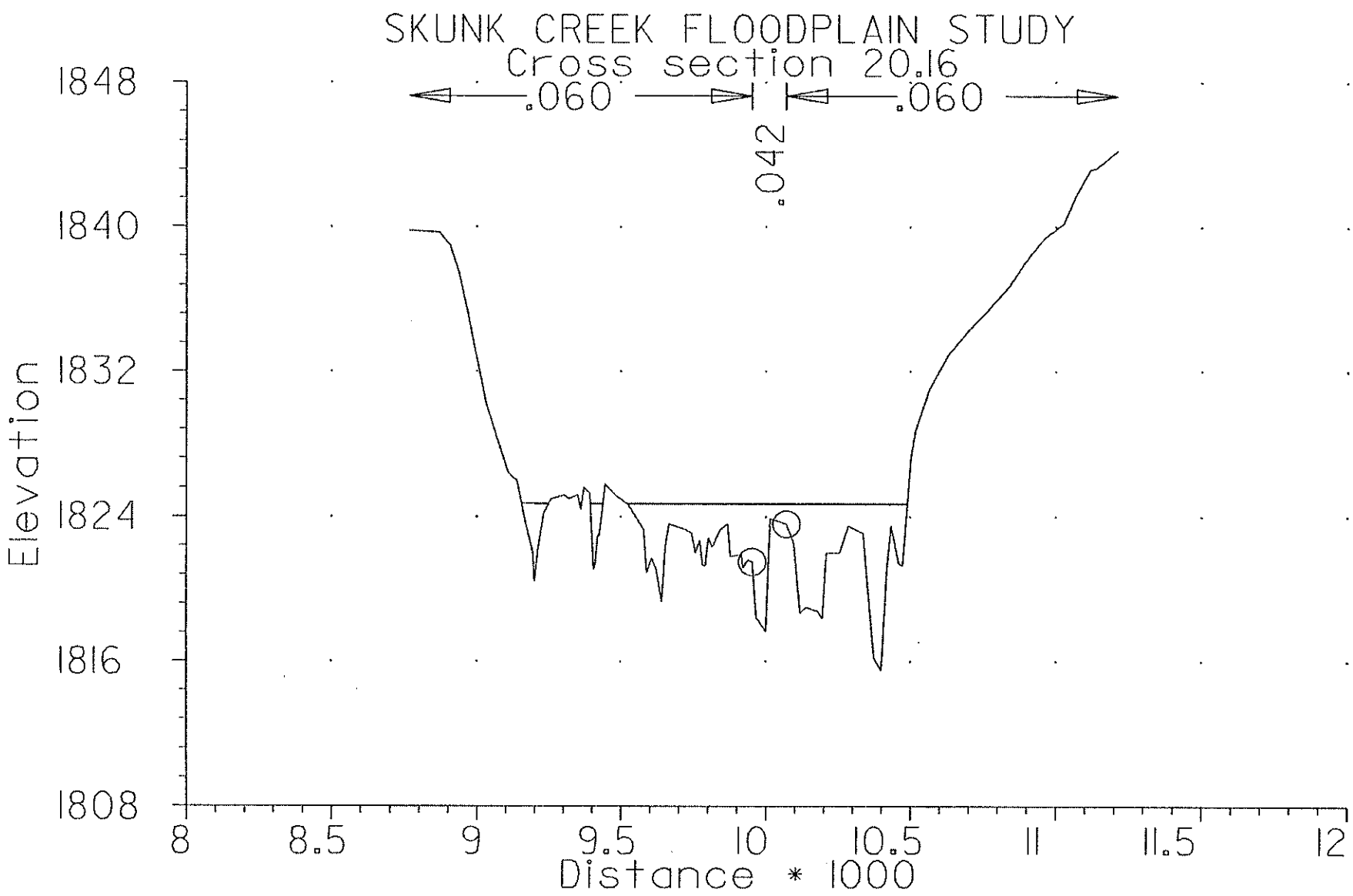
10.5
11
11.5
12
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 20.16
.060
.060
.042
1848
1840
1832
1824
1816
1808
Elevation
8
8.5
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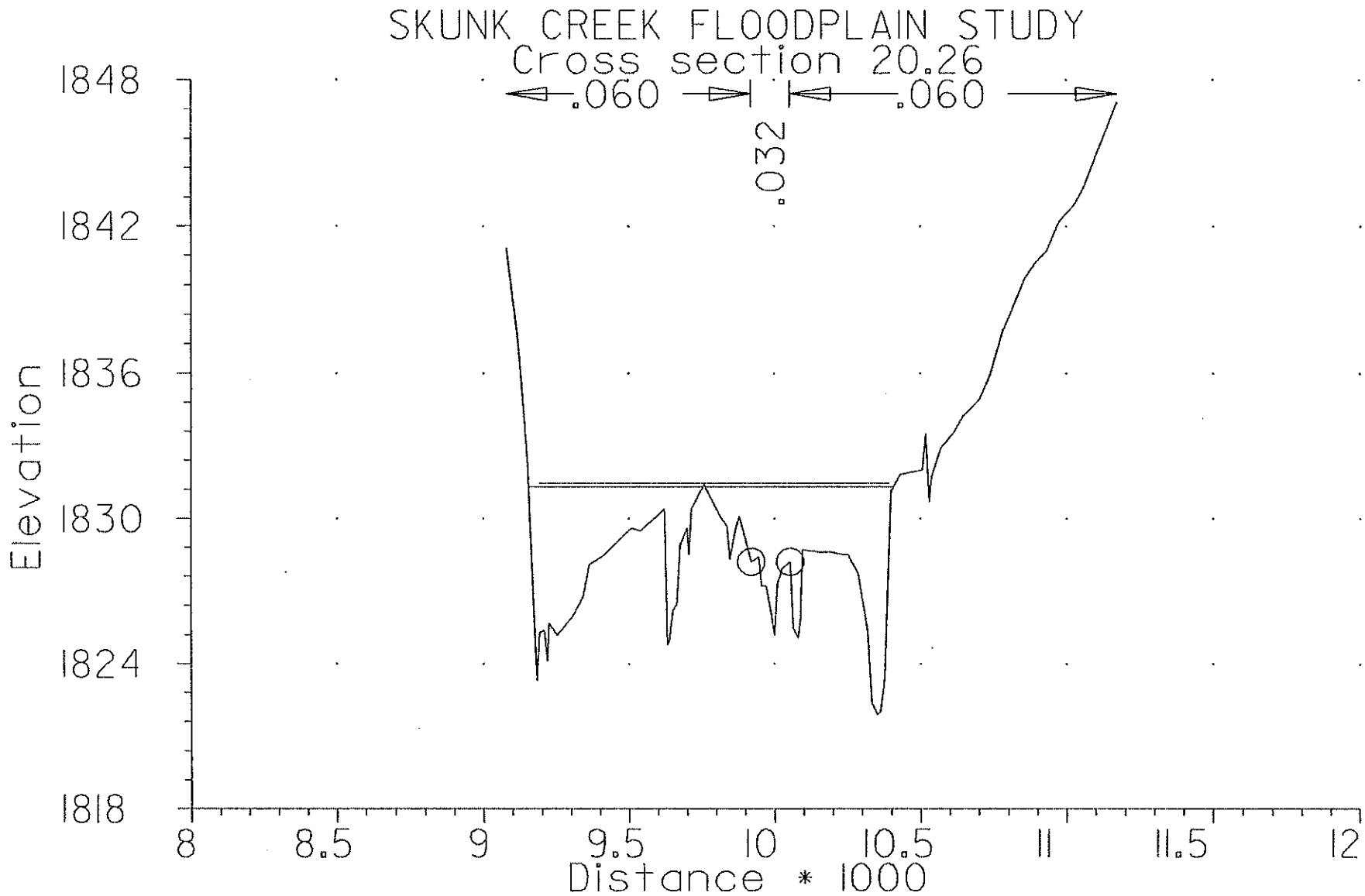
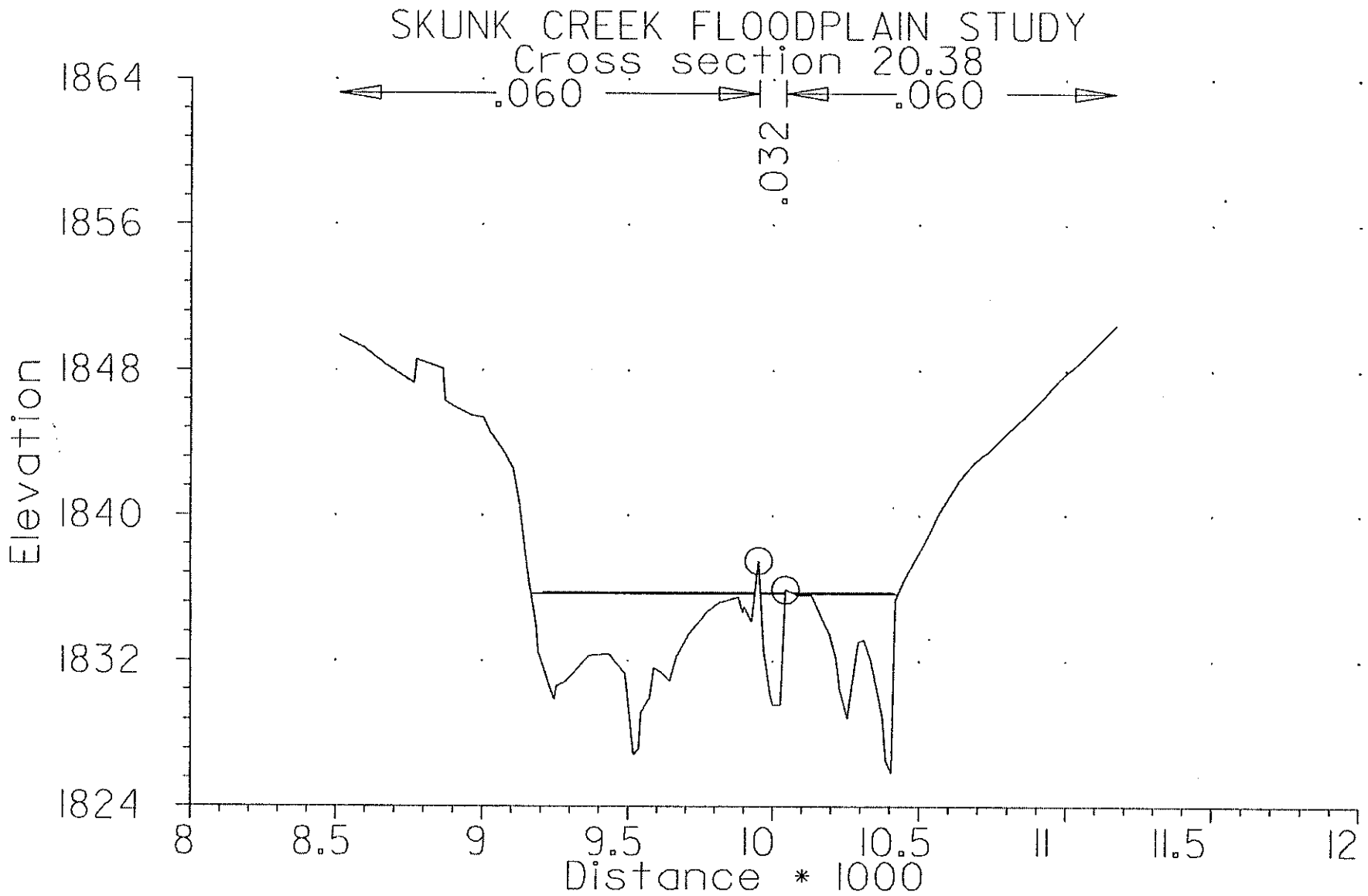
10
10.5
11
11.5
12
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 20.26
.060
.032
.060
1848
1842
1836
1830
1824
1818
Elevation
8
8.5
9
9.5
10
10.5
11
11.5
12
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 20.38
.060
.060
.032
1864
1856
1848
1840
1832
1824
Elevation
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8.5
9
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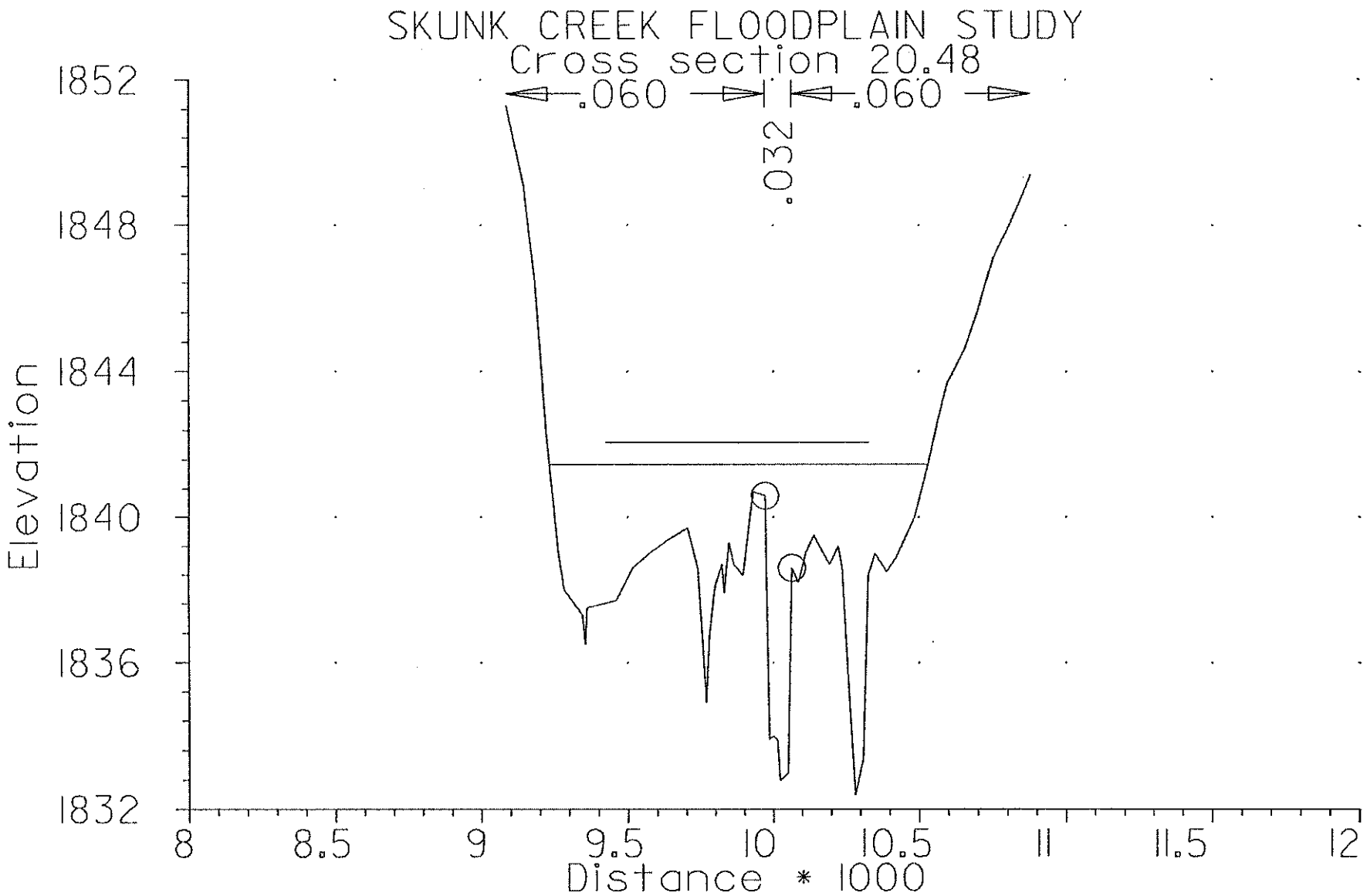
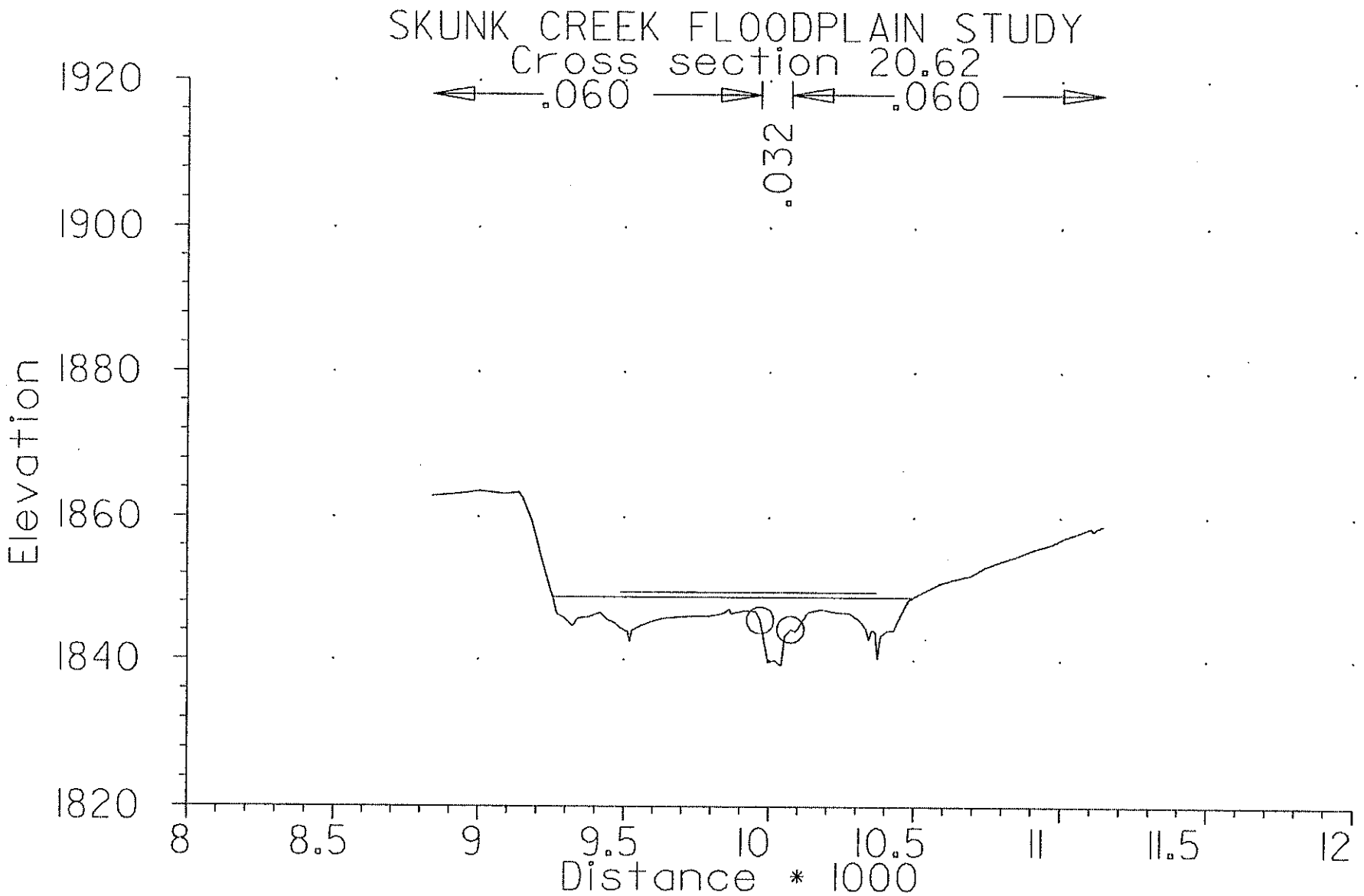
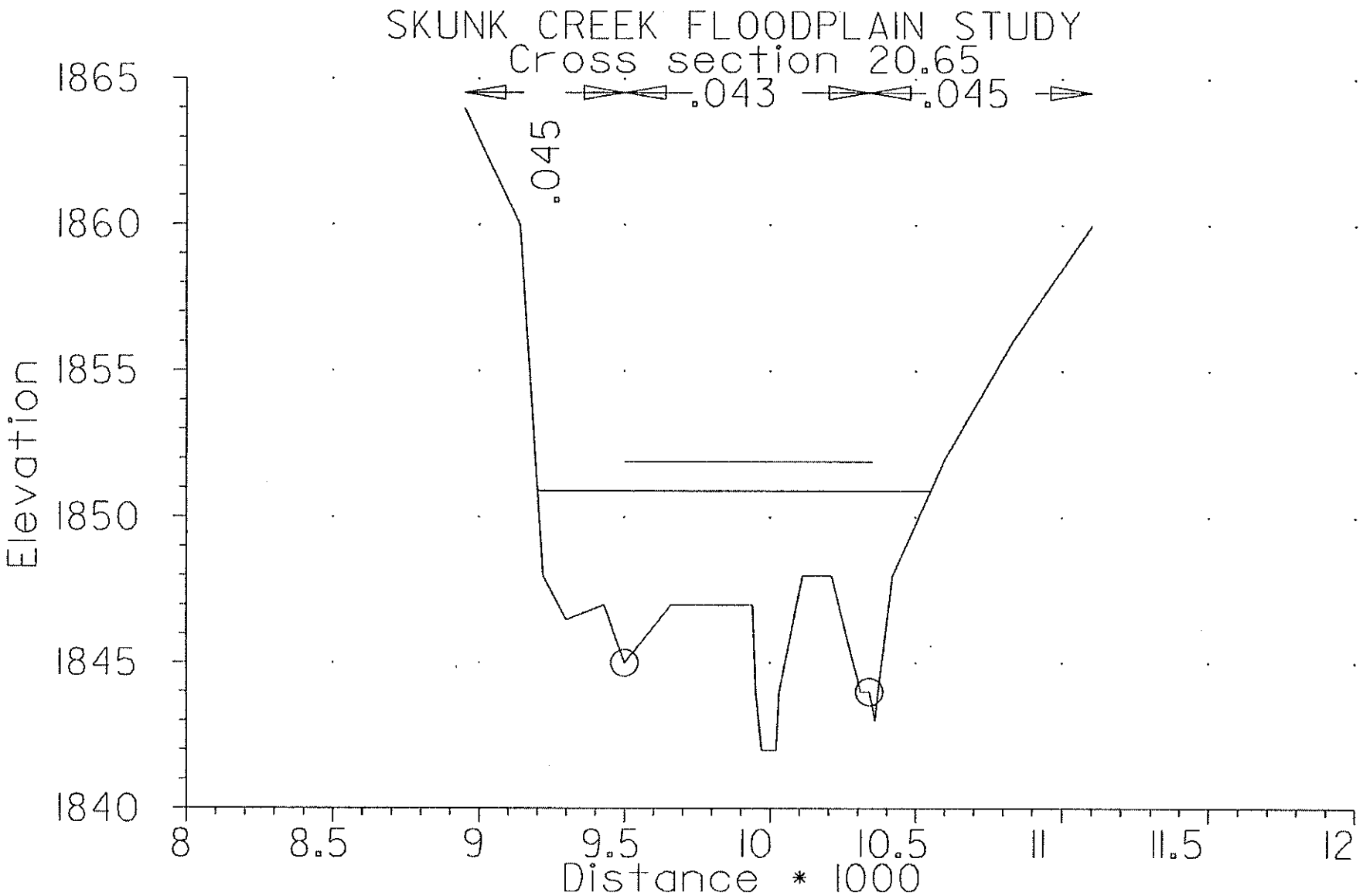
10.5
11
11.5
12
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 20.48
.060
.060
.032
1852
1848
1844
1840
1836
1832
Elevation
8
8.5
9
9.5
10
10.5
11
11.5
12
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 20.62
.060
.060
.032
1920
1900
1880
1860
1840
1820
Elevation
8
8.5
9
9.5
10
10.5
11
11.5
12
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 20.65
.043
.045
.045
1865
1860
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1850
1845
1840
Elevation
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8.5
9
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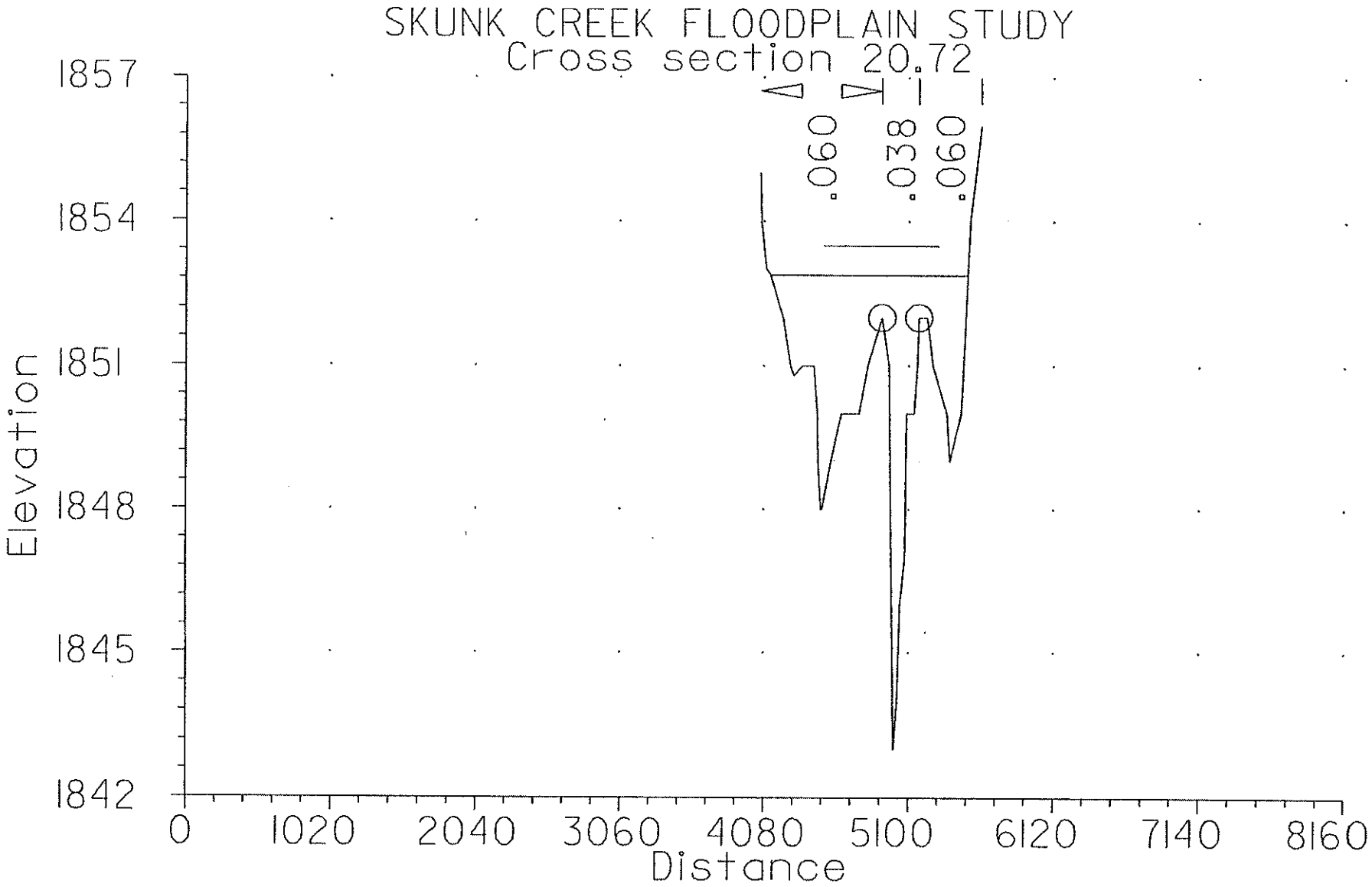
10
10.5
11
11.5
12
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Cross section 20.72
.060
.038
.060
1857
1854
1851
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1845
1842
Elevation
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1020
2040
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4080
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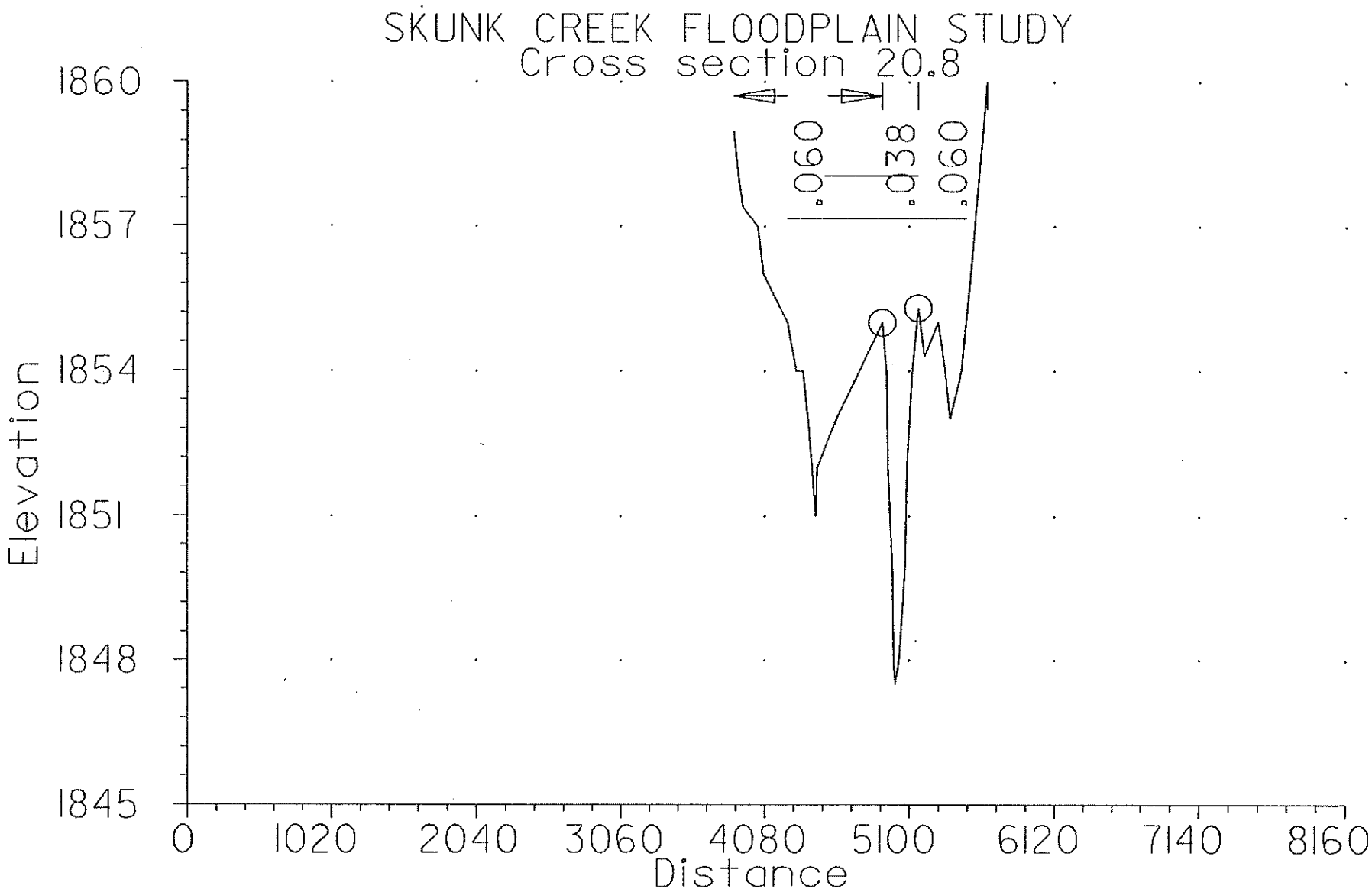
6120
7140
8160
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 20.8
.060
.038
.060
1860
1857
1854
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1848
1845
Elevation
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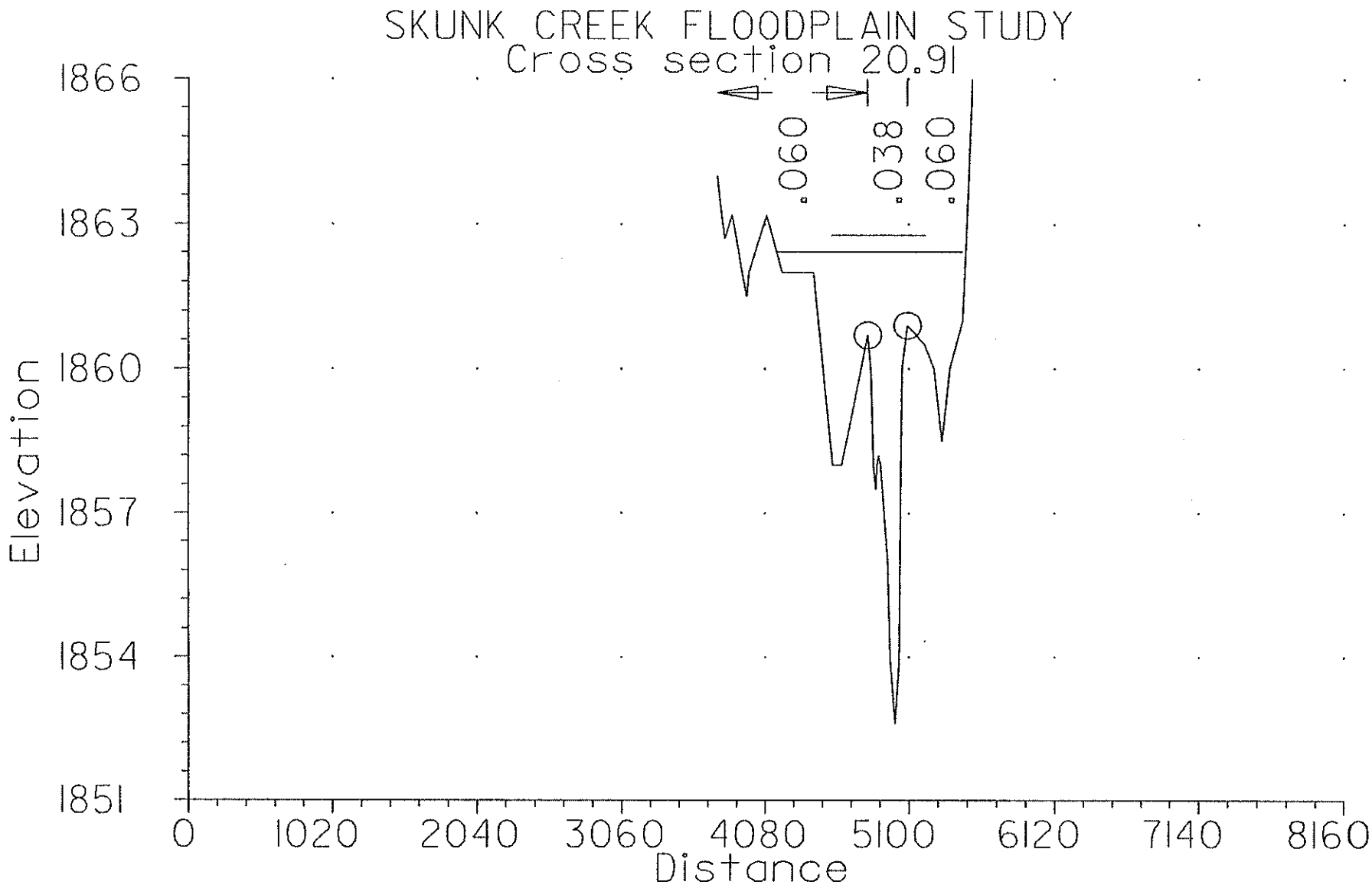
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 20.91
.060
.038
.060
1866
1863
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1854
1851
Elevation
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2040
3060
4080
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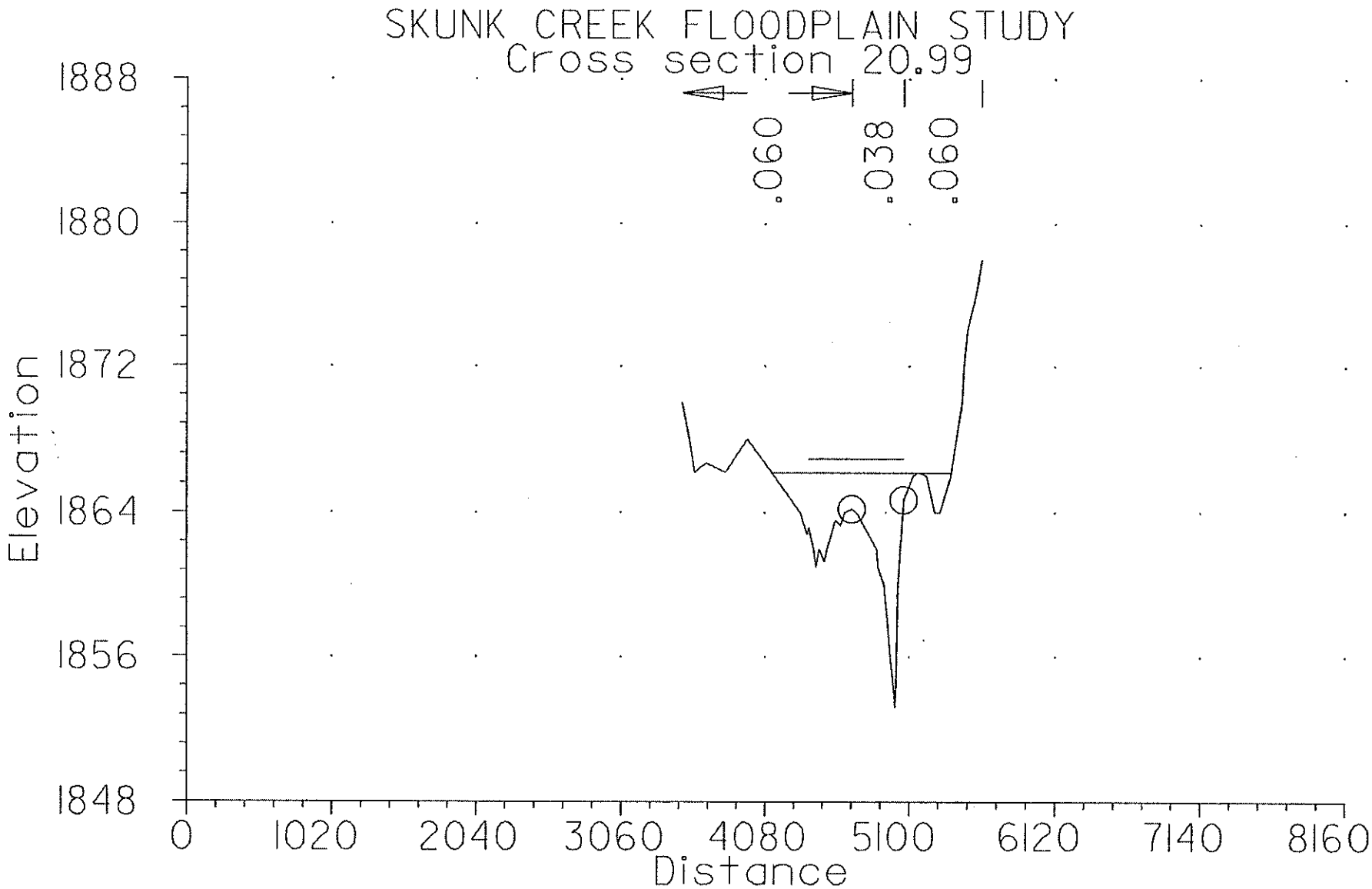
7140
8160
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 20.99
.060
.038
.060
1888
1880
1872
1864
1856
1848
Elevation
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2040
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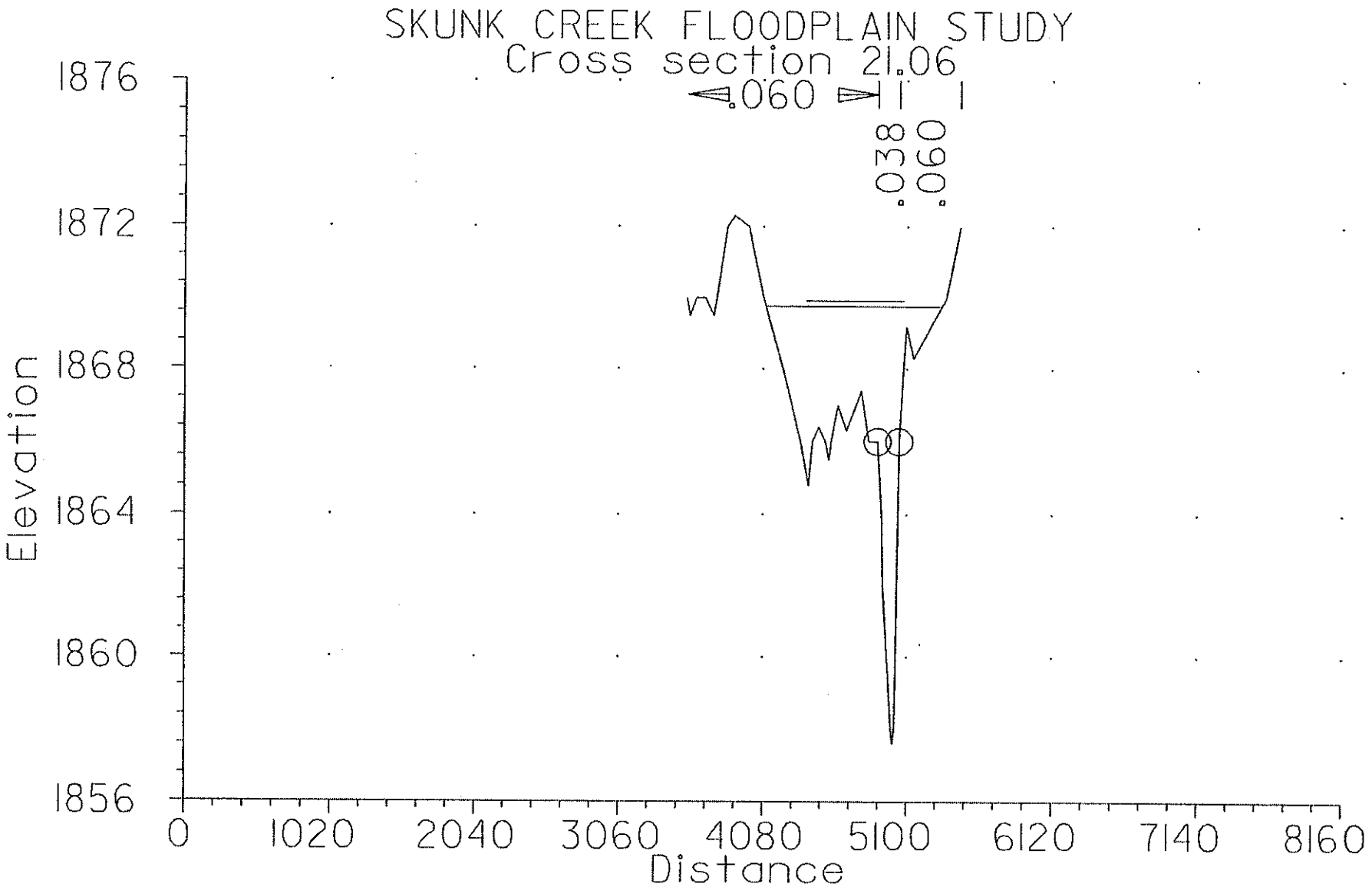
6120
7140
8160
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 21.06
.060
.038
.060
1876
1872
1868
1864
1860
1856
Elevation
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2040
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4080
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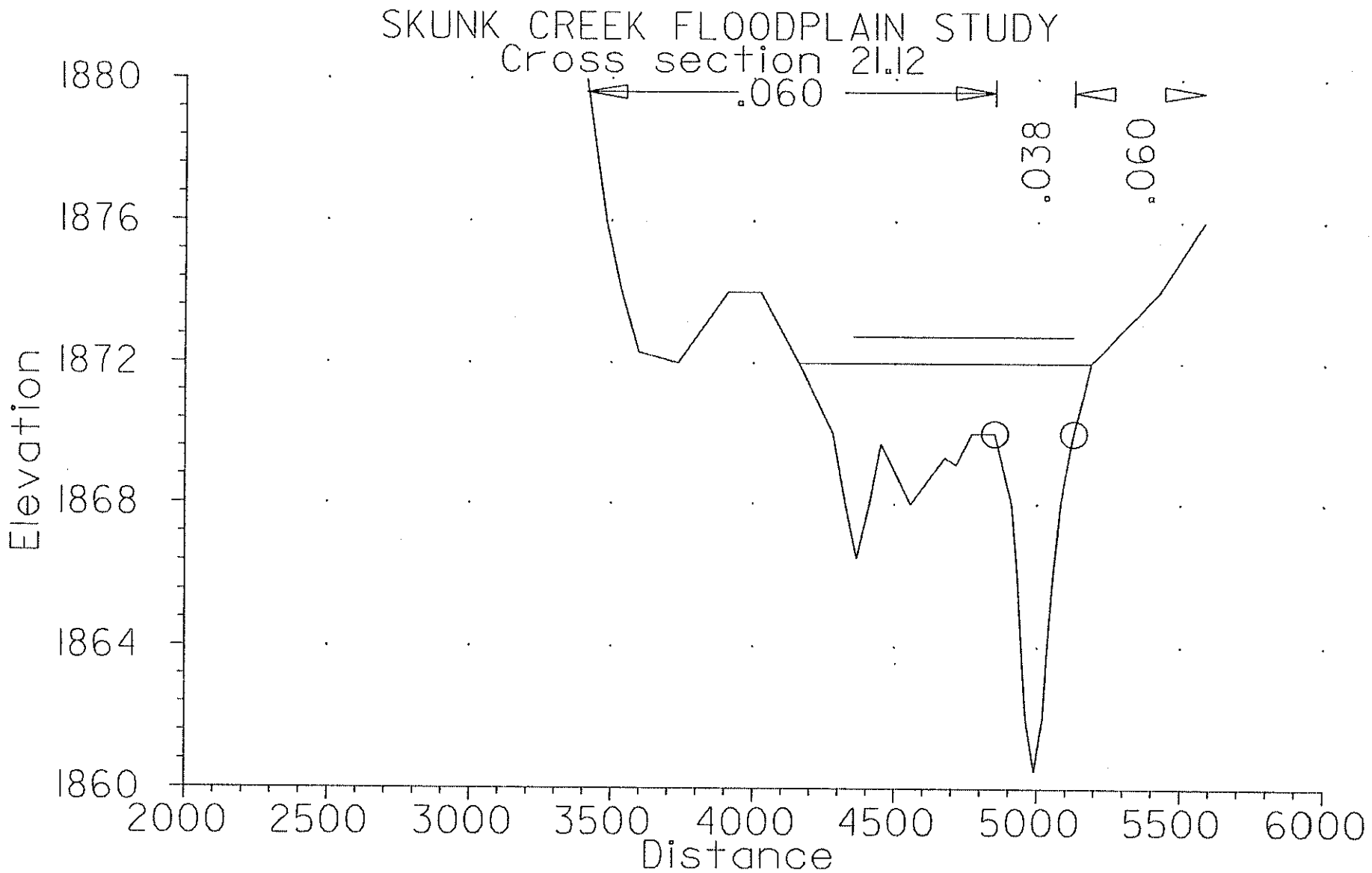
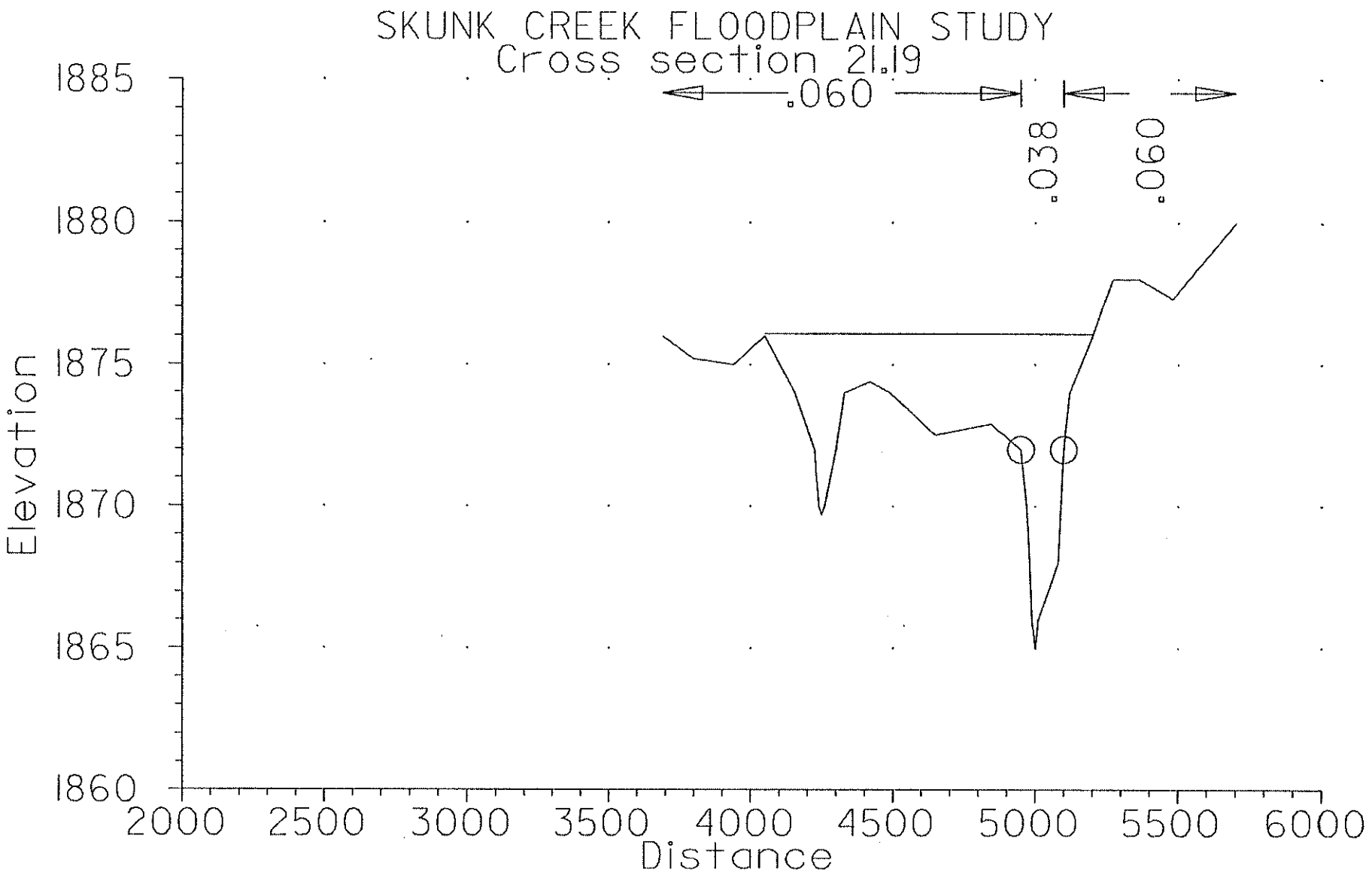
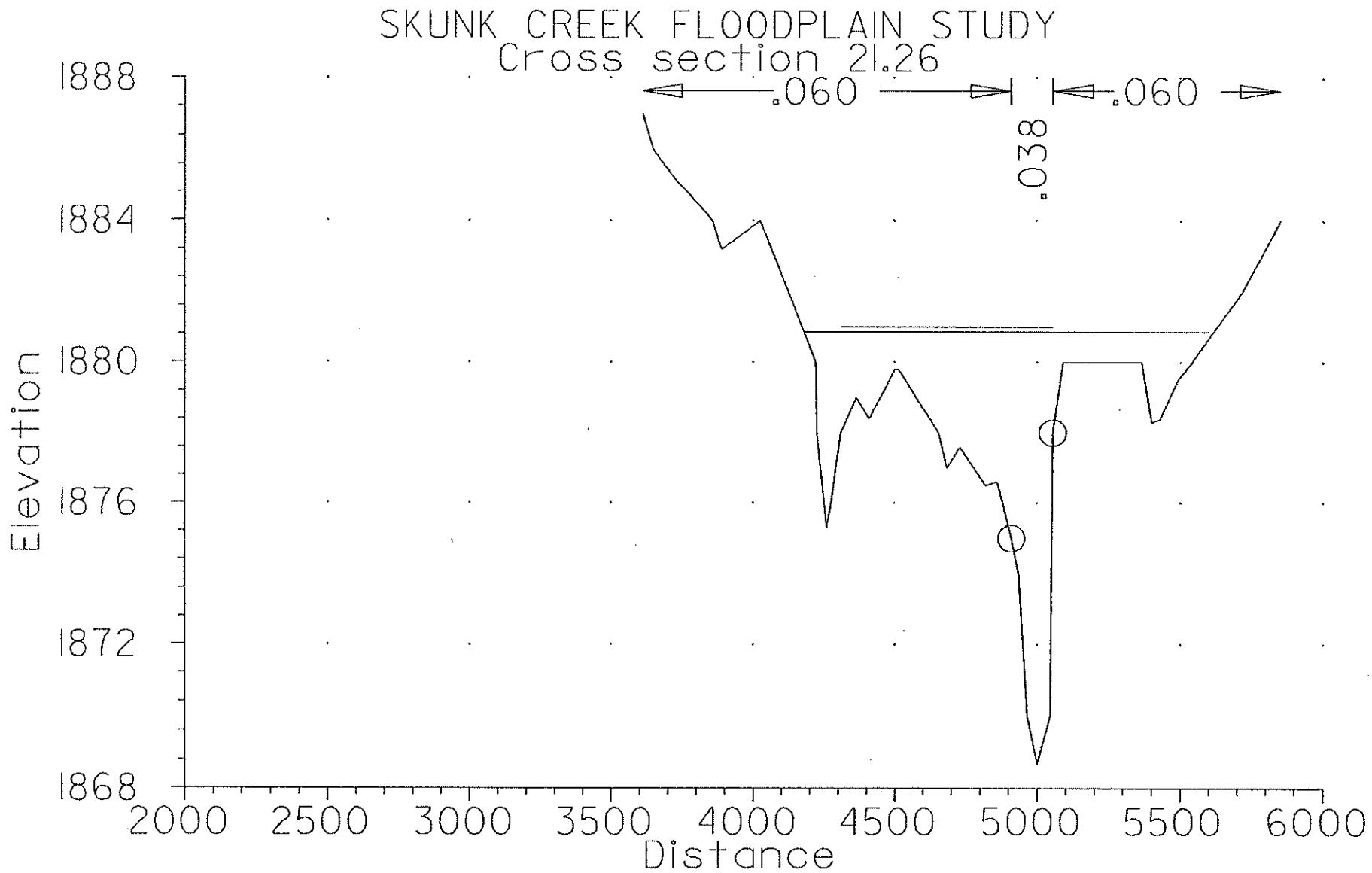
6120
7140
8160
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 21.12
.060
.038
.060
1880
1876
1872
1868
1864
1860
Elevation
2000
2500
3000
3500
4000
4500
5000
5500
6000
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 21.19
.060
.038
.060
1885
1880
1875
1870
1865
1860
Elevation
2000
2500
3000
3500
4000
4500
5000
5500
6000
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 21.26
.060
.038
.060
1888
1884
1880
1876
1872
1868
Elevation
2000
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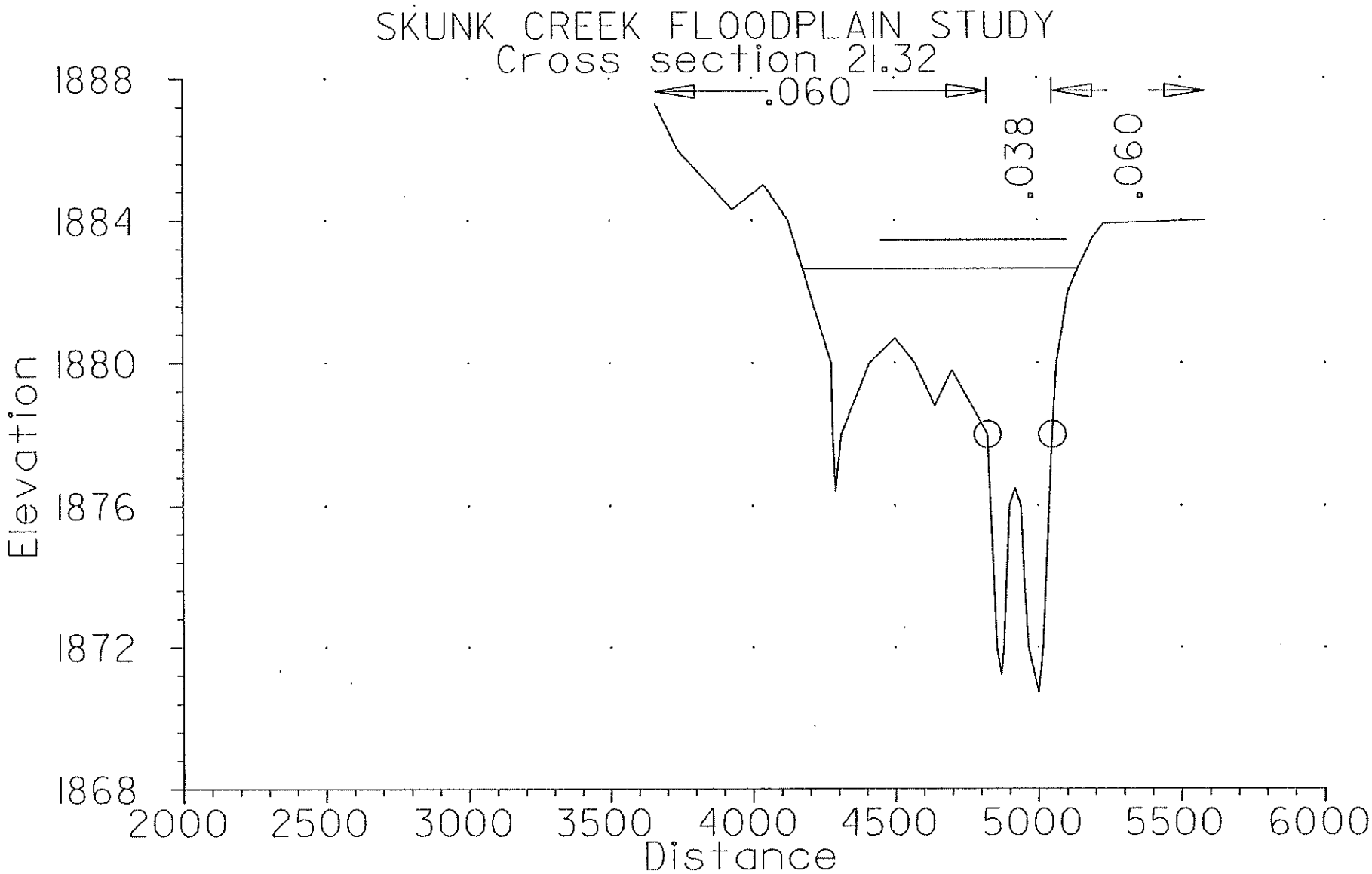
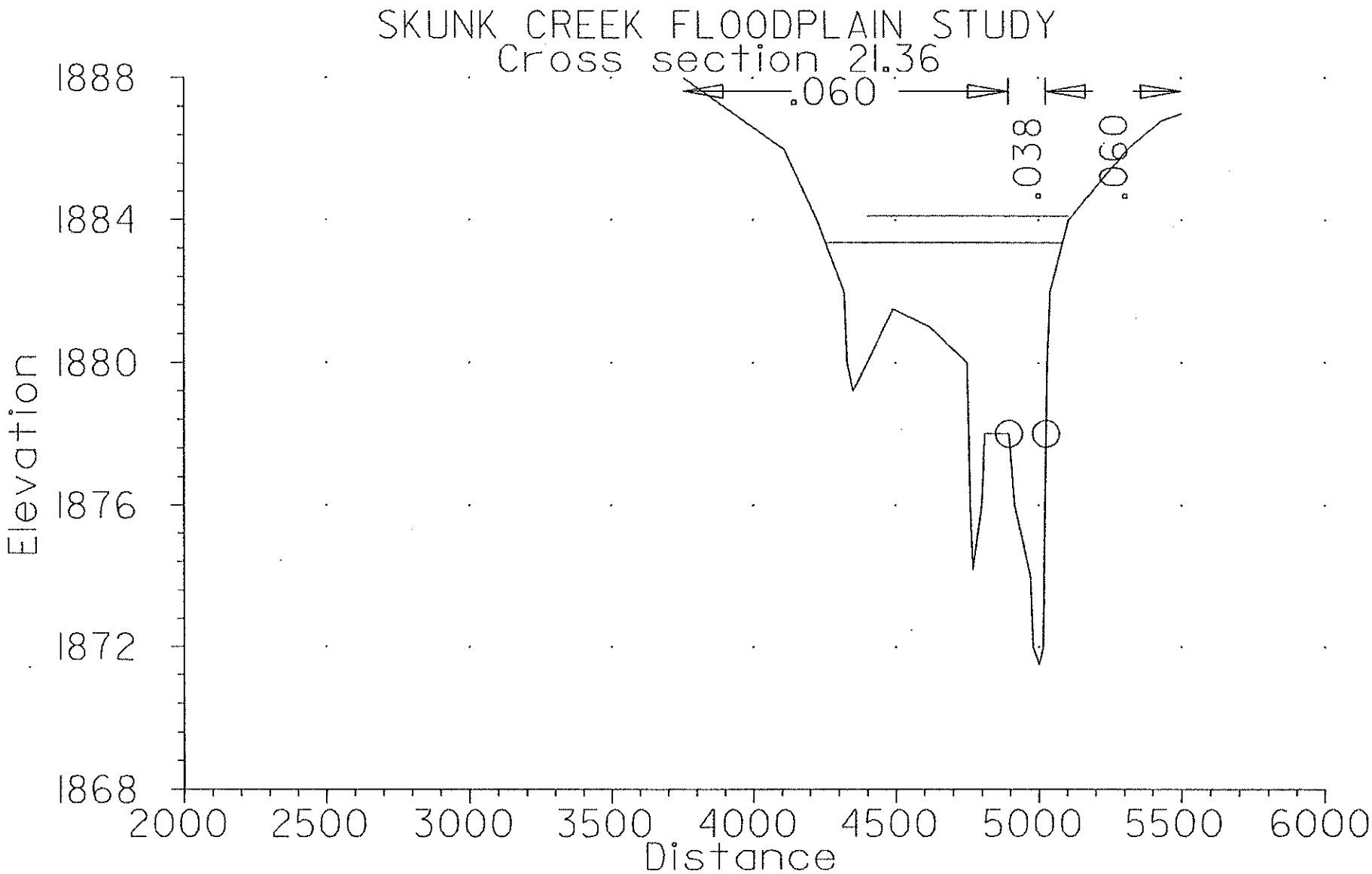
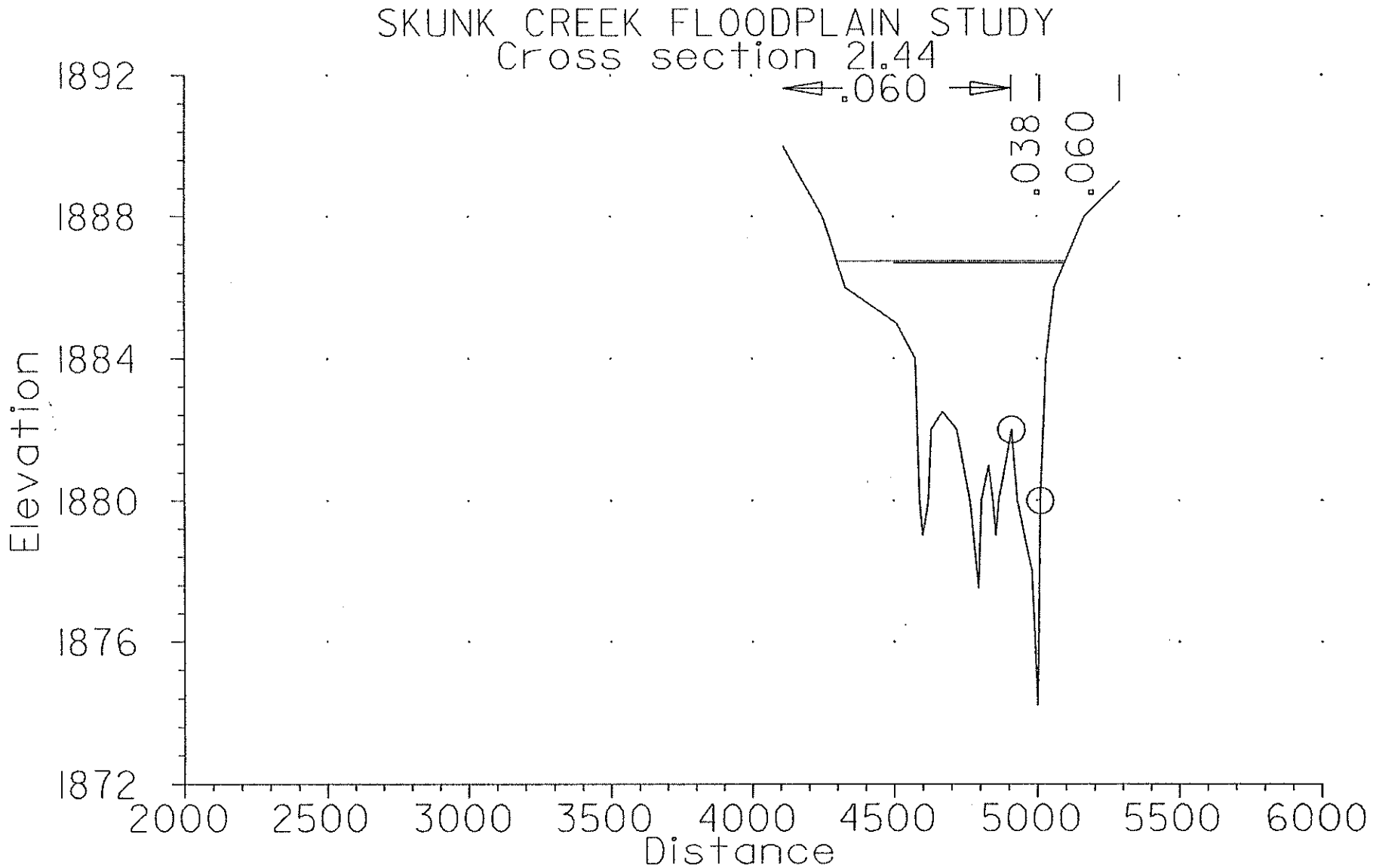
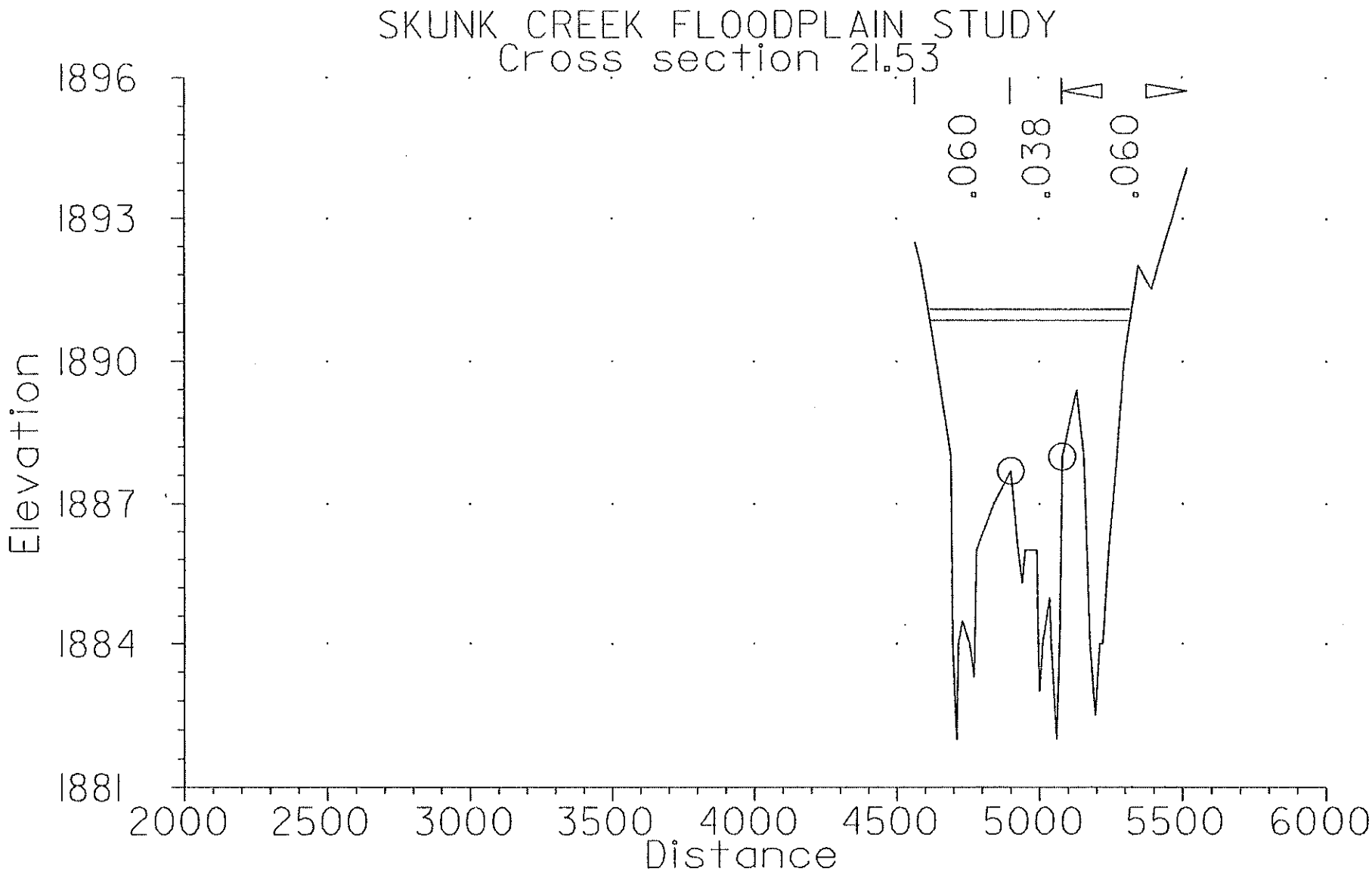
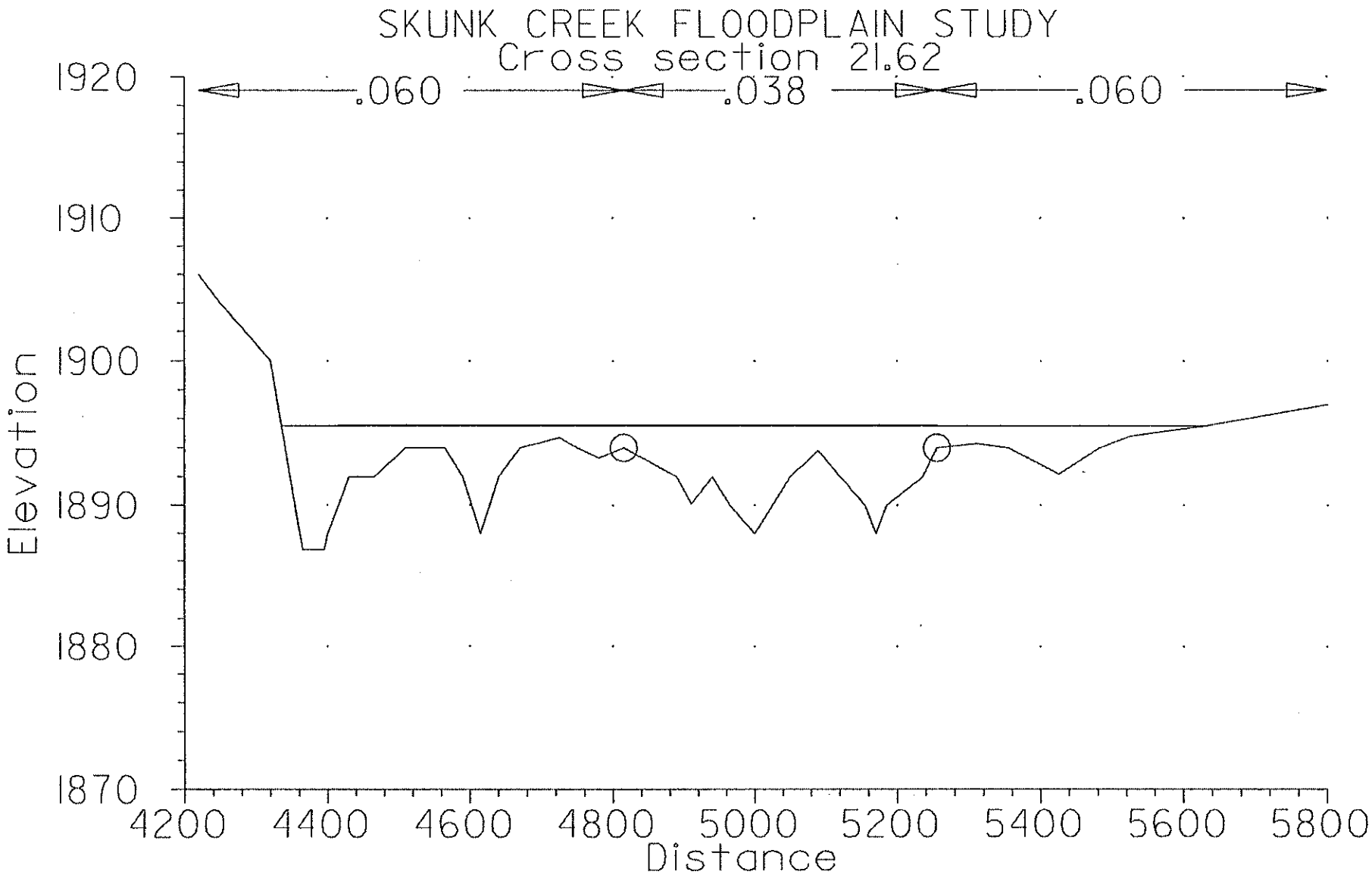
3000
3500
4000
4500
5000
5500
6000
Distance

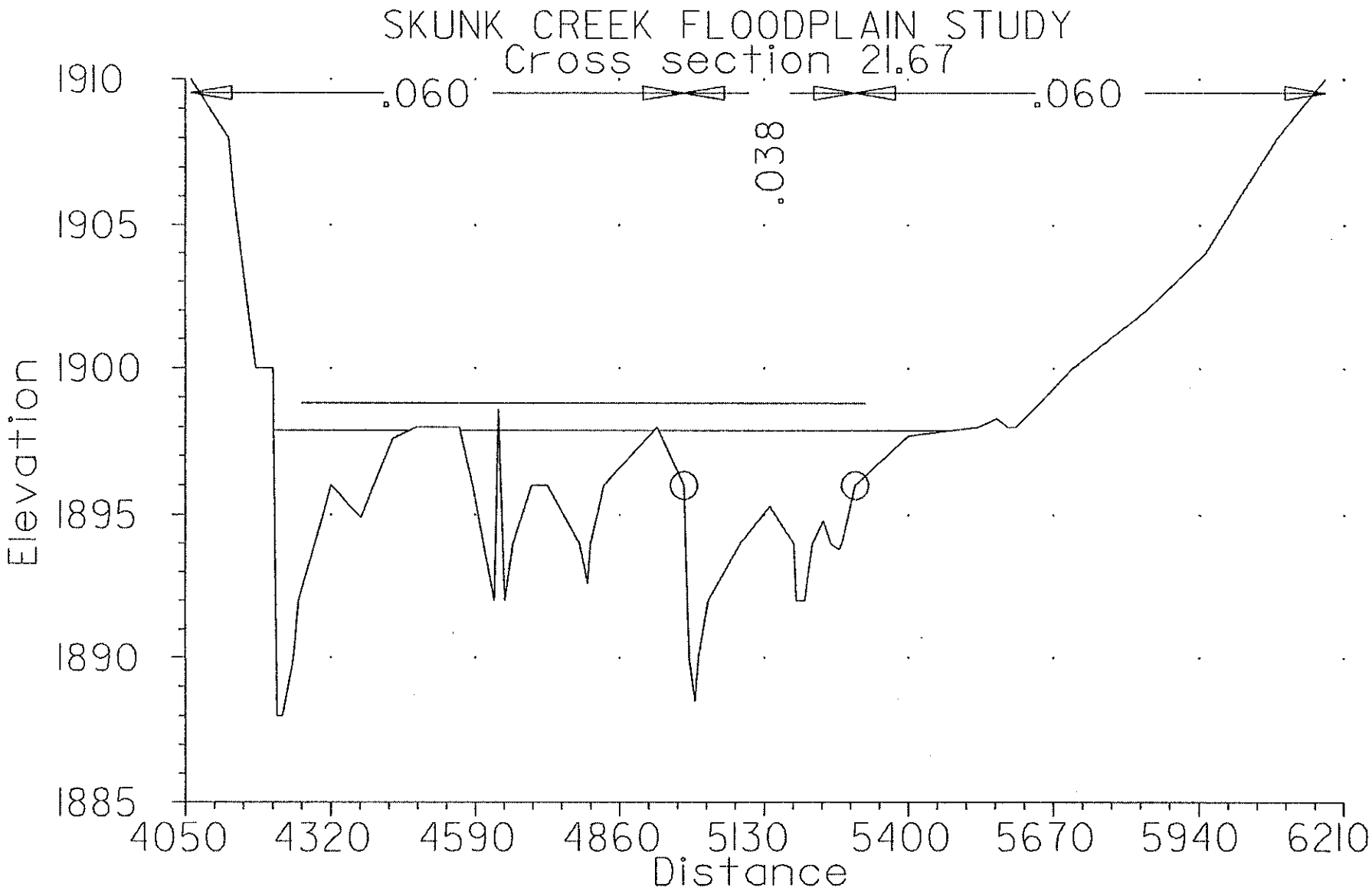

SKUNK CREEK FLOODPLAIN STUDY
Cross section 21.32
.060
.038
.060
1888
1884
1880
1876
1872
1868
Elevation
2000
2500
3000
3500
4000
4500
5000
5500
6000
Distance

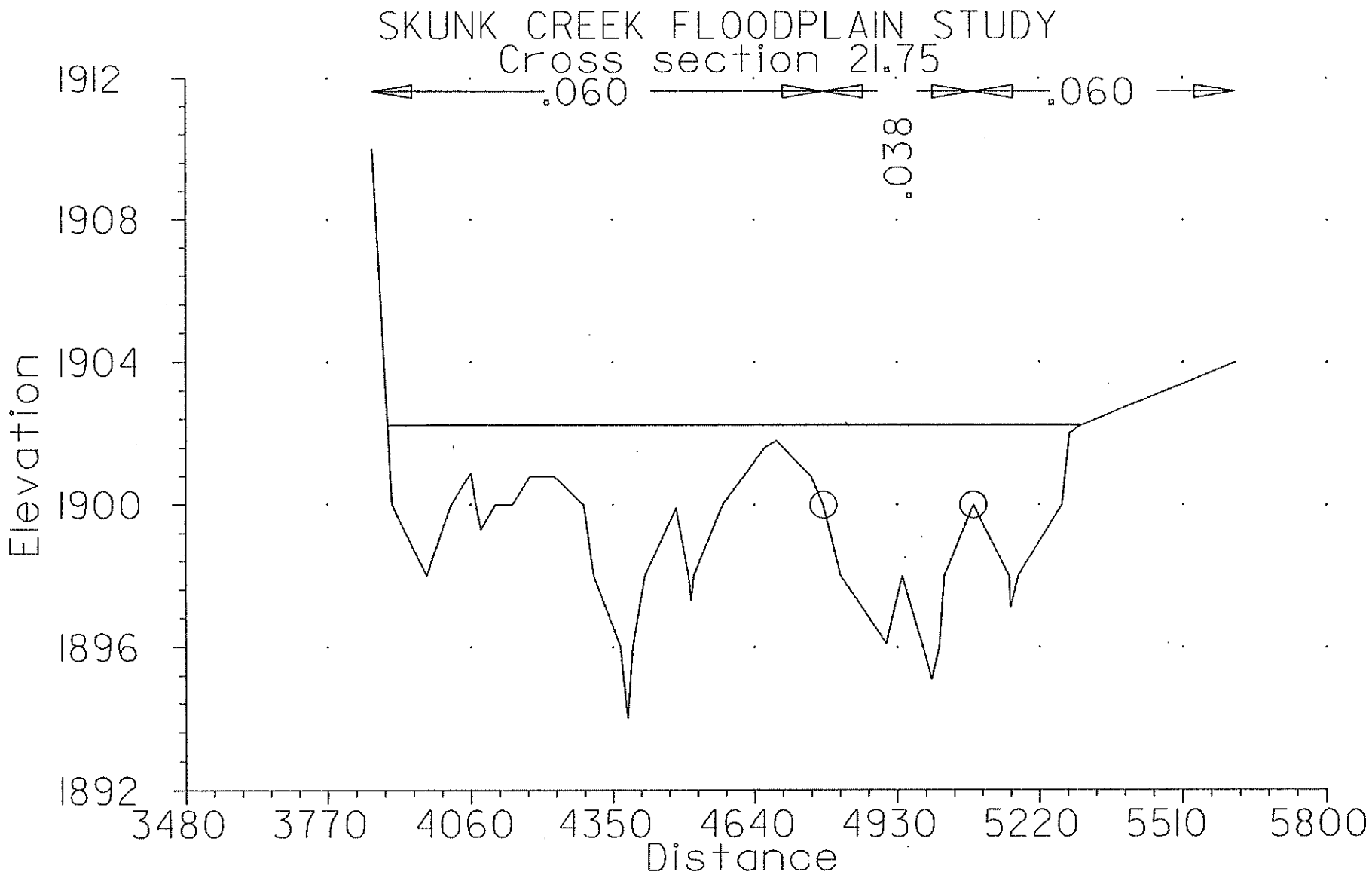

SKUNK CREEK FLOODPLAIN STUDY
Cross section 21.36
.060
.038
.060
1888
1884
1880
1876
1872
1868
Elevation
2000
2500
3000
3500
4000
4500
5000
5500
6000
Distance

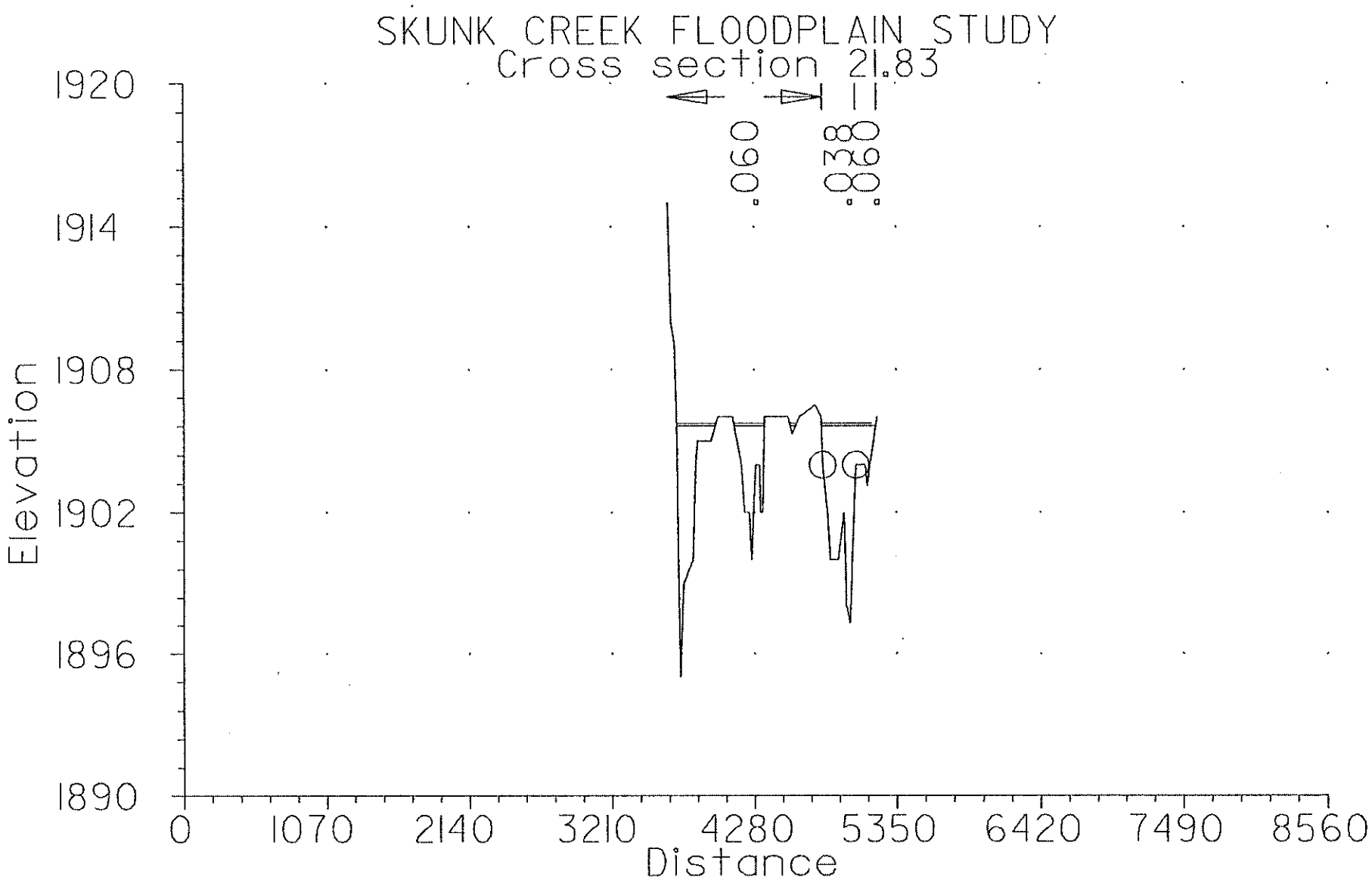

SKUNK CREEK FLOODPLAIN STUDY
Cross section 21.44
.060
.038
.060
1892
1888
1884
1880
1876
1872
Elevation
2000
2500
3000
3500
4000
4500
5000
5500
6000
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 21.53
.060
.038
.060
1896
1893
1890
1887
1884
1881
Elevation
2000
2500
3000
3500
4000
4500
5000
5500
6000
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 21.62
.060
.038
.060
1920
1910
1900
1890
1880
1870
Elevation
4200
4400
4600
4800
5000
5200
5400
5600
5800
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 21.67
.060
.038
.060
1910
1905
1900
1895
1890
1885
Elevation
4050
4320
4590
4860
5130
5400
5670
5940
6210
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 21.75
.060
.060
.038
1912
1908
1904
1900
1896
1892
Elevation
3480
3770
4060
4350
4640
4930
5220
5510
5800
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 21.83
.060
.038
.060
1920
1914
1908
1902
1896
1890
Elevation
0
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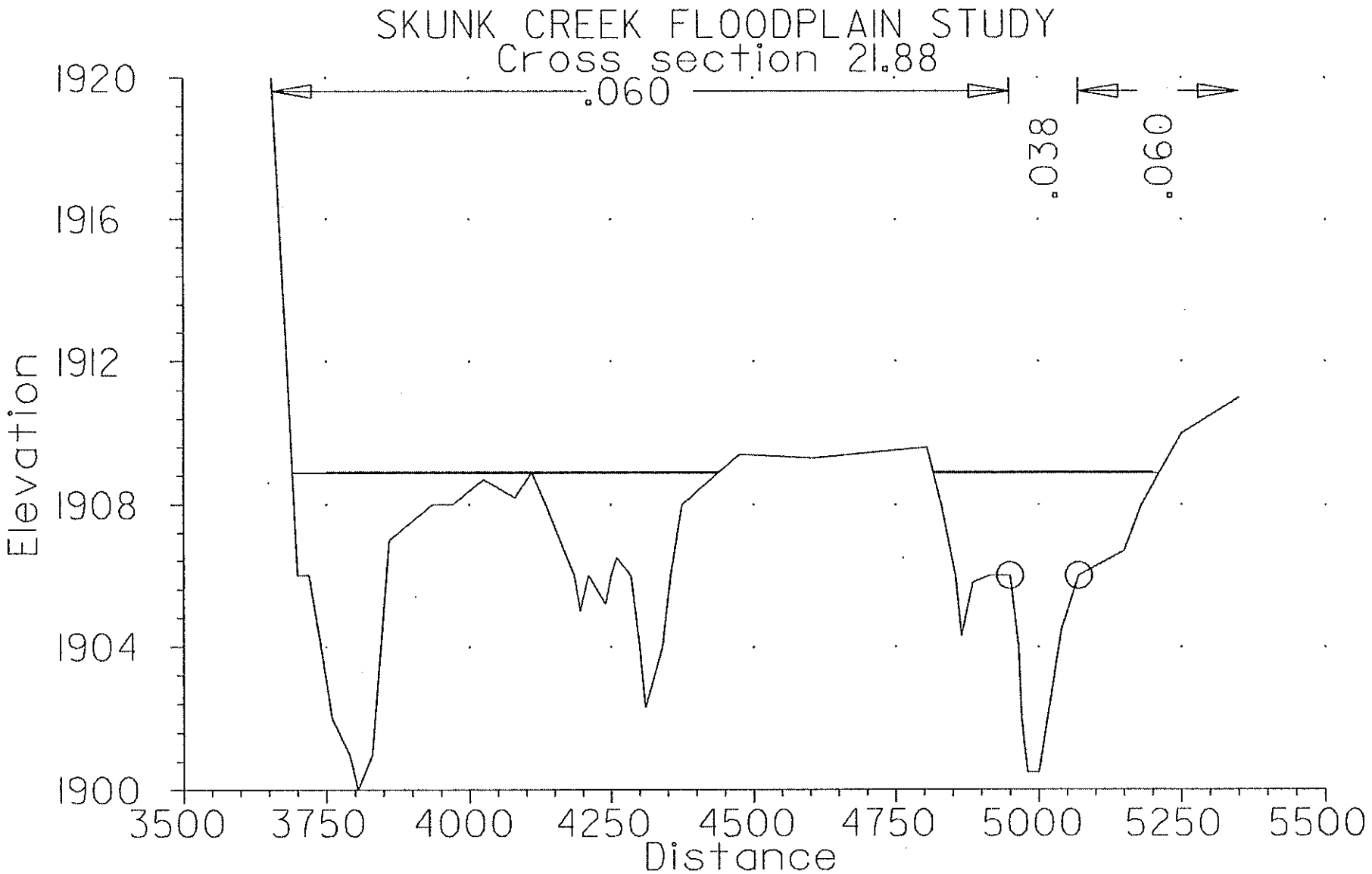
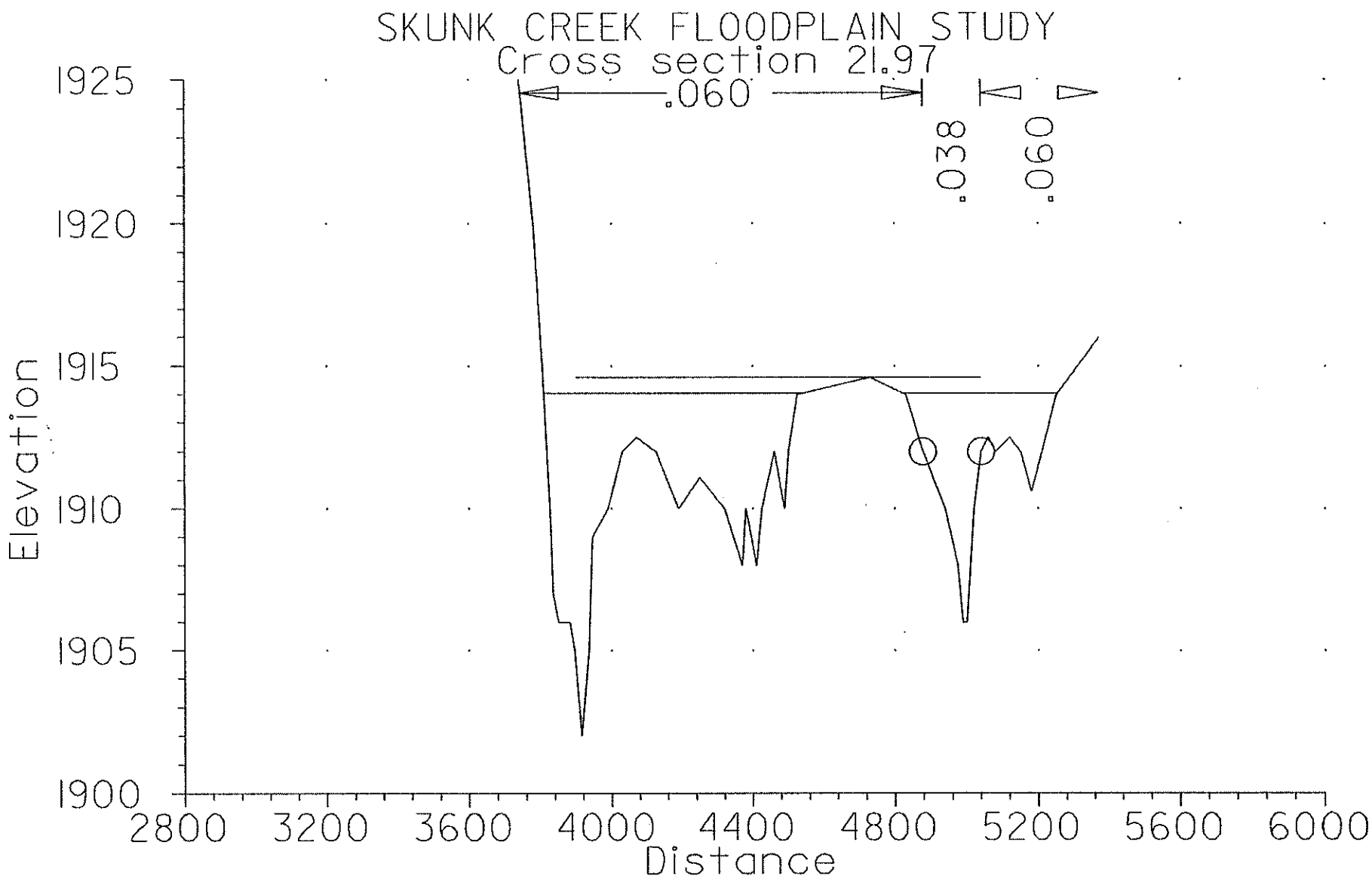
2140
3210
4280
5350
6420
7490
8560
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 21.88
.060
.038
.060
1920
1916
1912
1908
1904
1900
Elevation
3500
3750
4000
4250
4500
4750
5000
5250
5500
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 21.97
.060
.038
.060
1925
1920
1915
1910
1905
1900
Elevation
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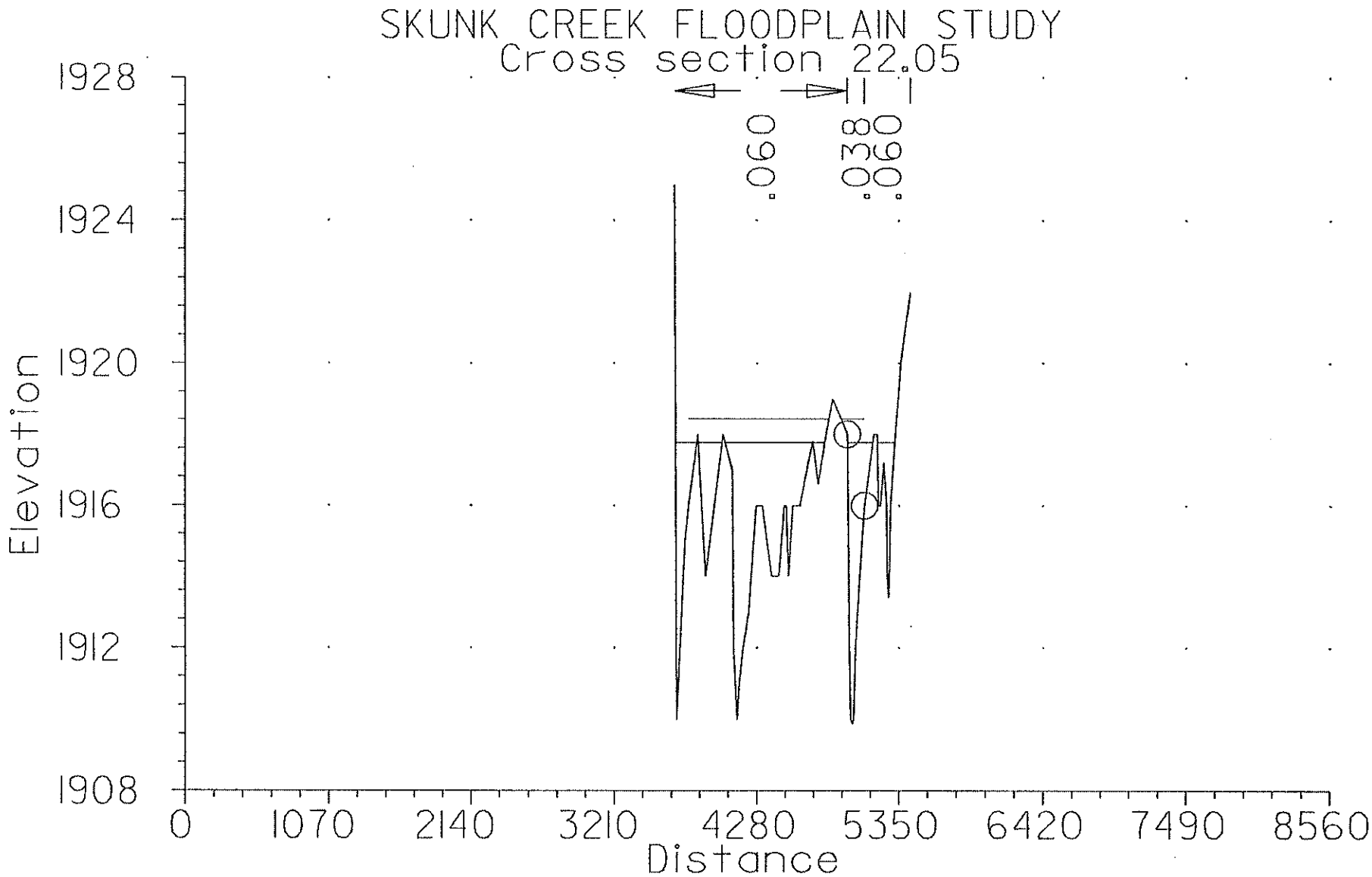
4400
4800
5200
5600
6000
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 22.05
.060
.038
.060
1928
1924
1920
1916
1912
1908
Elevation
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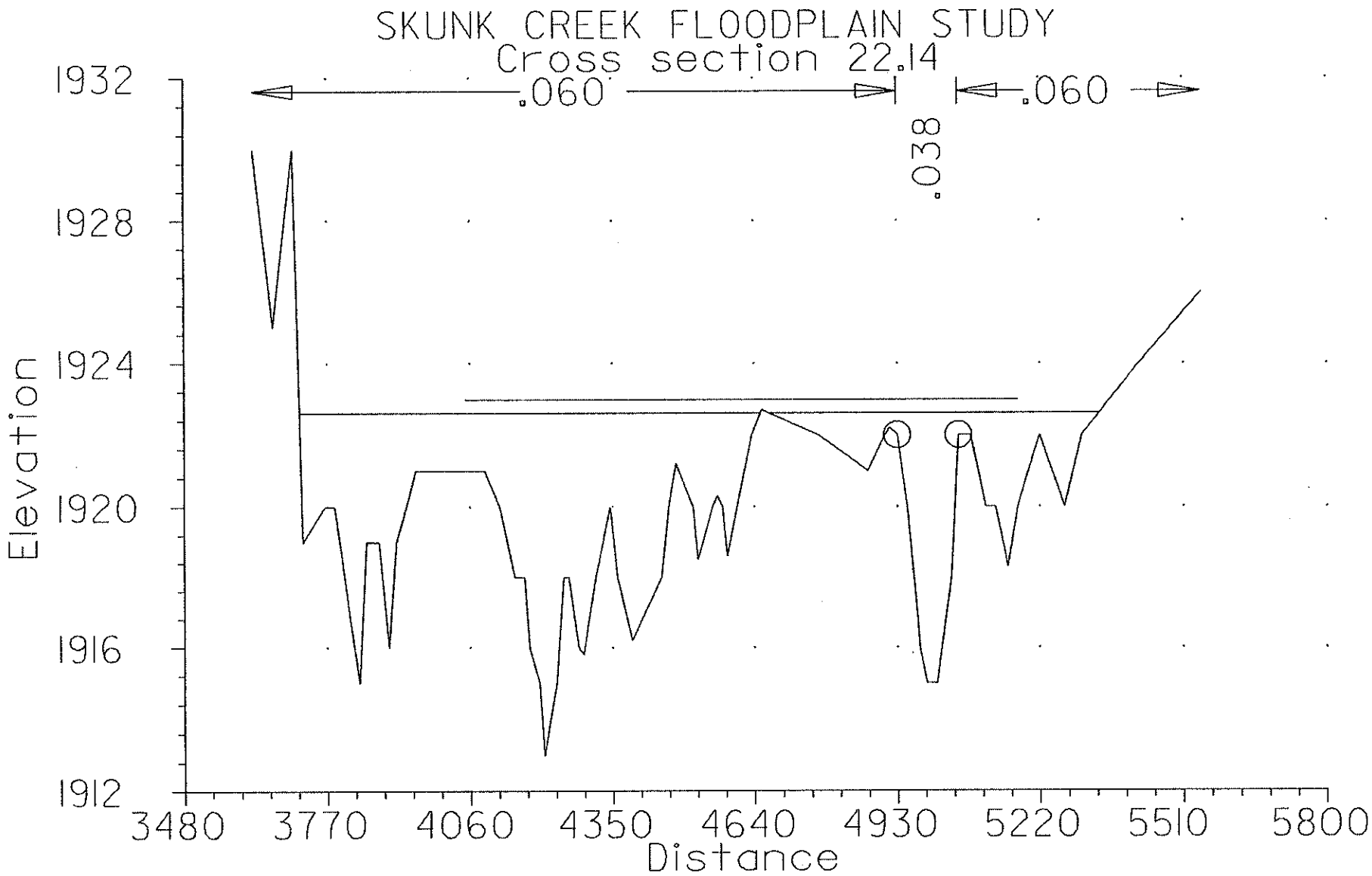
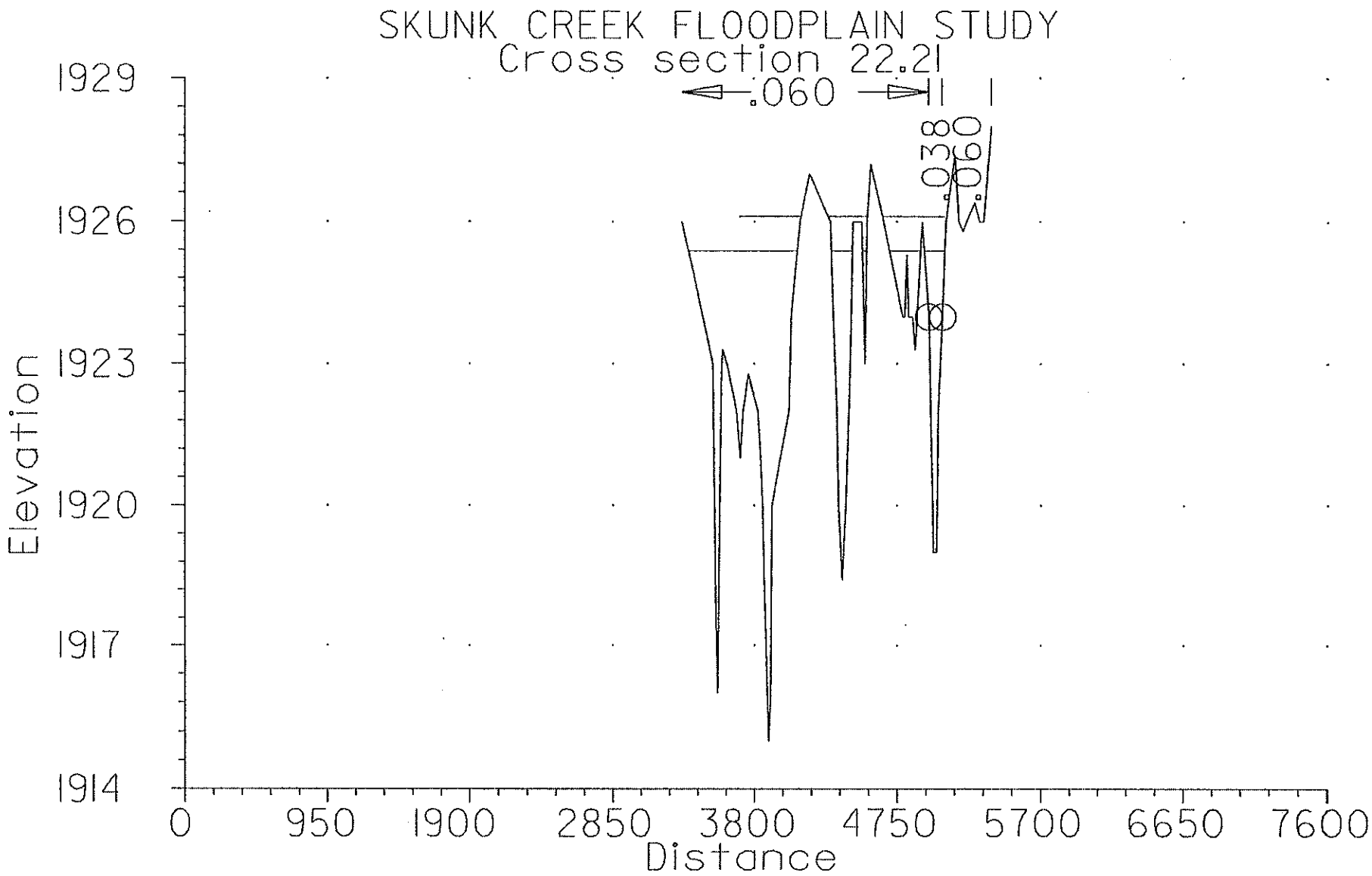
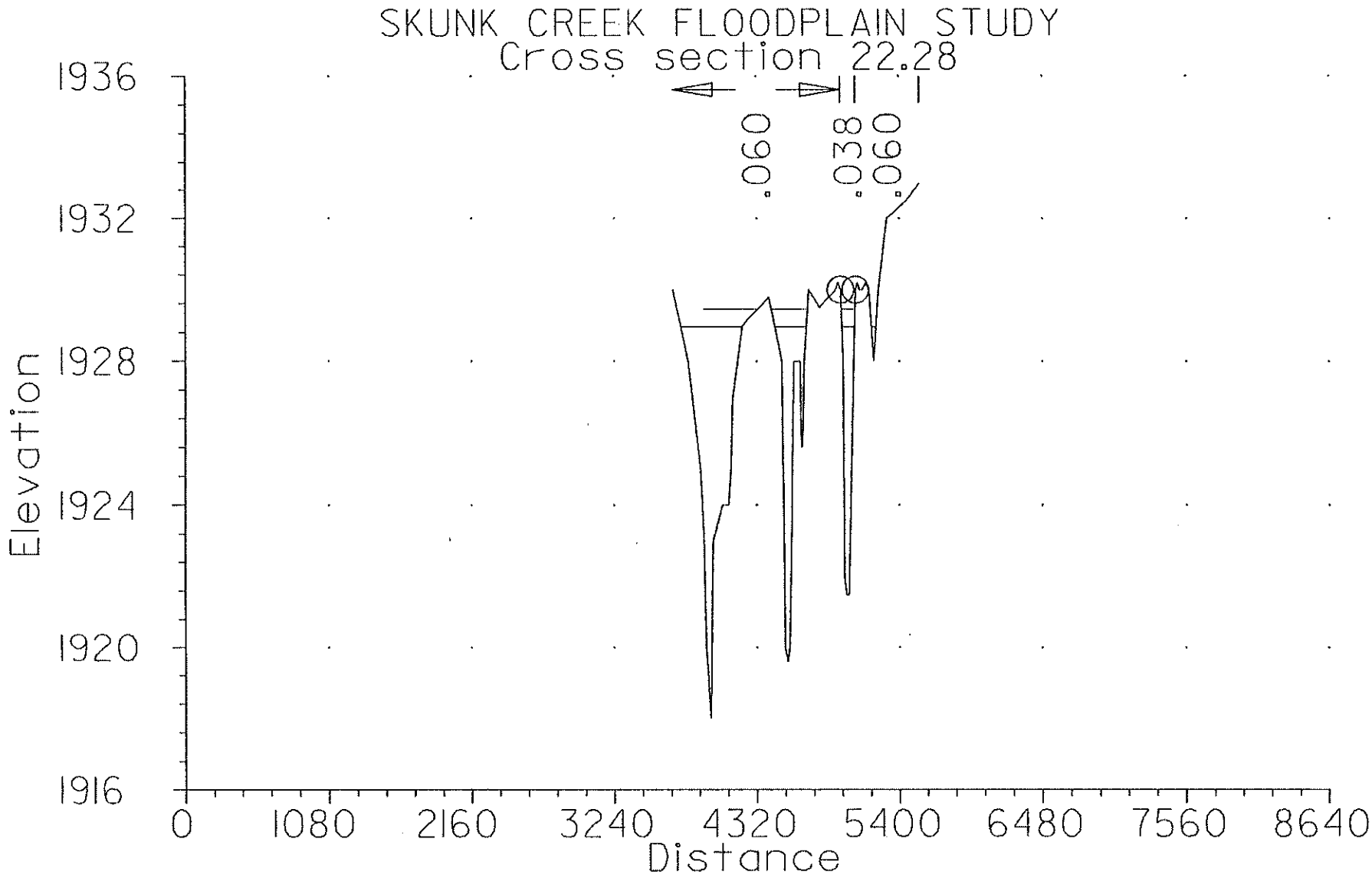
4280
5350
6420
7490
8560
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 22.14
.060
.060
.038
1932
1928
1924
1920
1916
1912
Elevation
3480
3770
4060
4350
4640
4930
5220
5510
5800
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 22.21
.060
.038
.060
1929
1926
1923
1920
1917
1914
Elevation
0
950
1900
2850
3800
4750
5700
6650
7600
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 22.28
.060
.038
.060
1936
1932
1928
1924
1920
1916
Elevation
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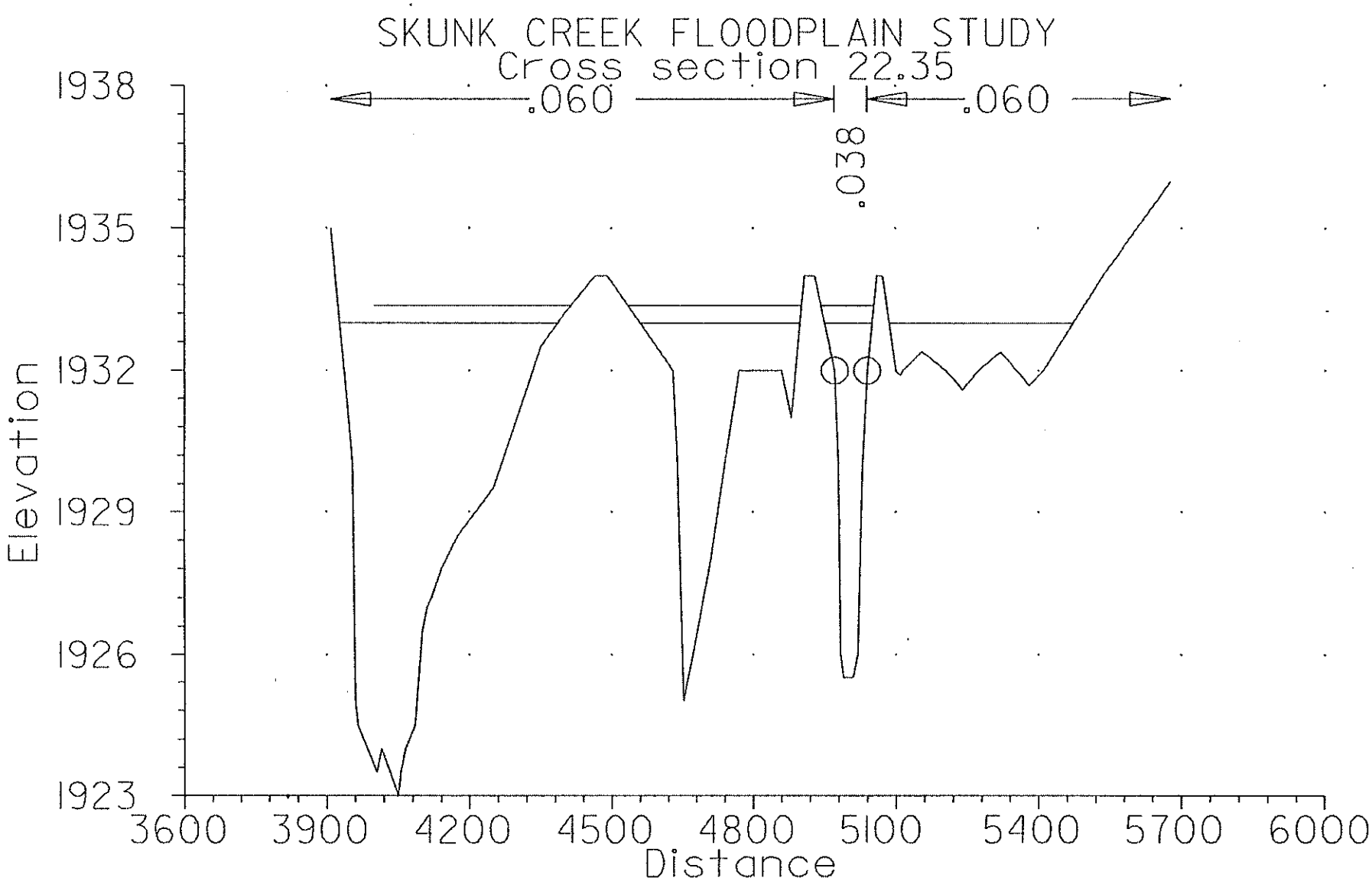
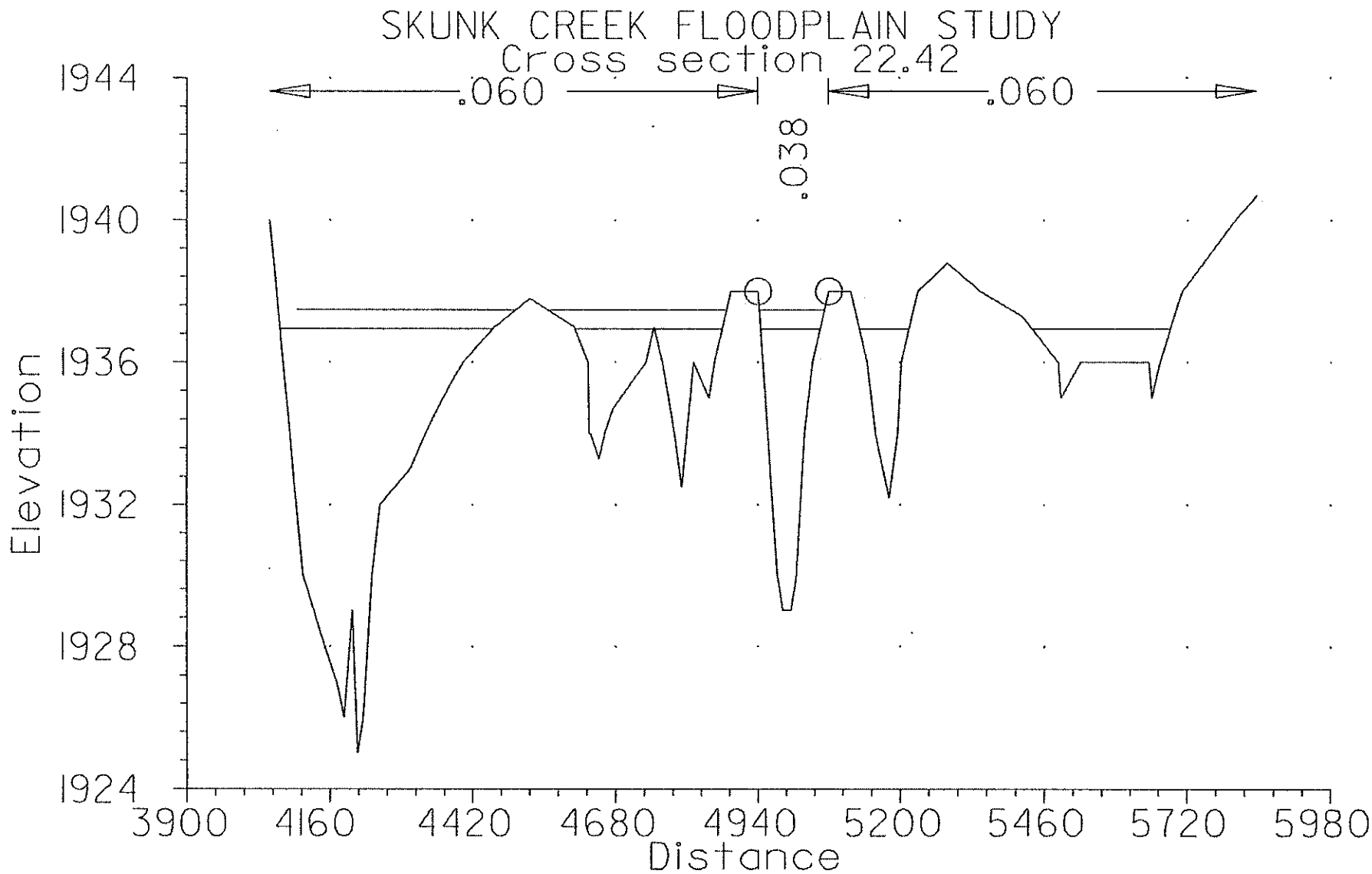
1080
2160
3240
4320
5400
6480
7560
8640
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 22.35
.060
.060
.038
1938
1935
1932
1929
1926
1923
Elevation
3600
3900
4200
4500
4800
5100
5400
5700
6000
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 22.42
.060
.060
.038
1944
1940
1936
1932
1928
1924
Elevation
3900
4160
4420
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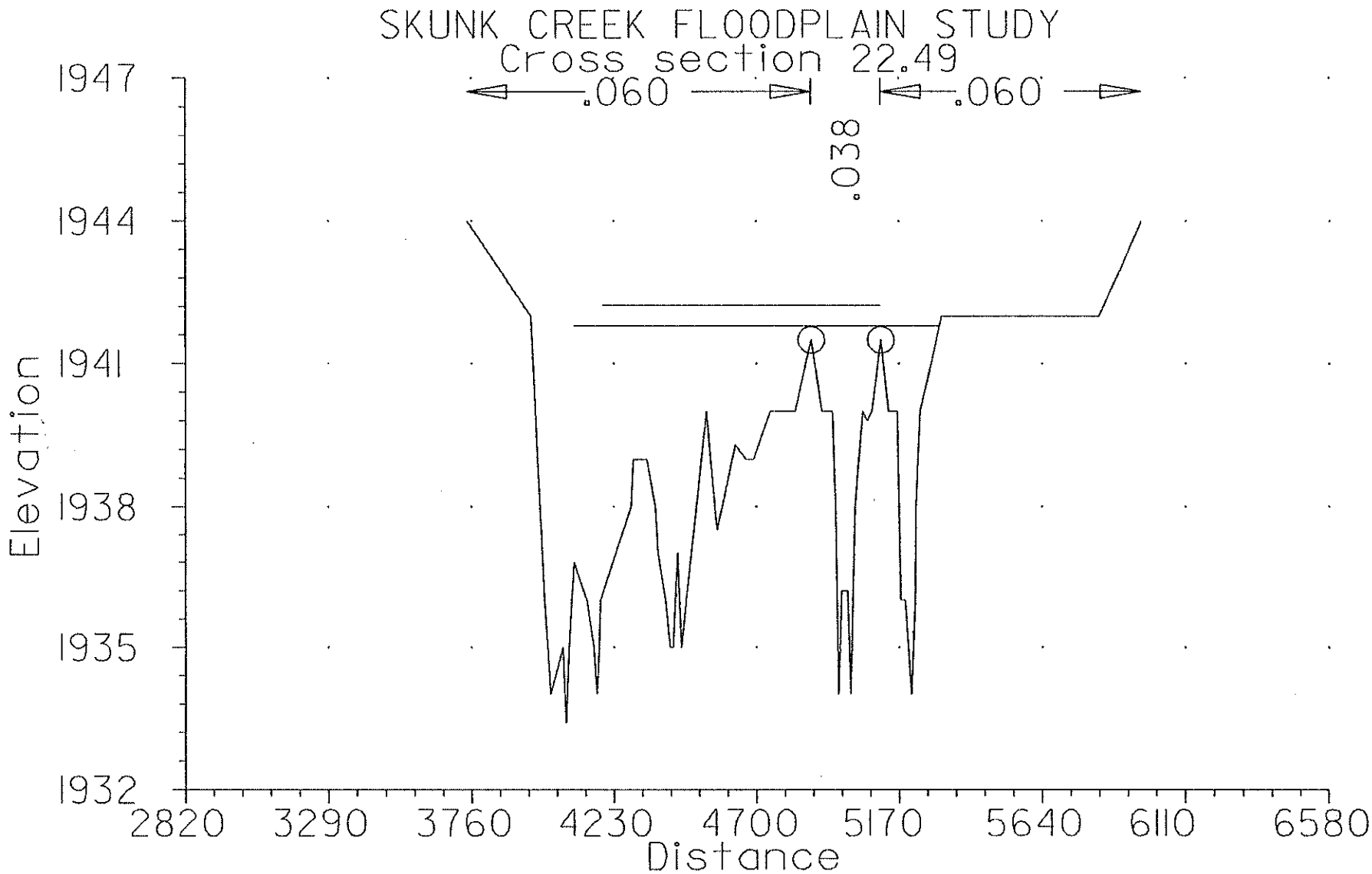
4940
5200
5460
5720
5980
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 22.49
.060
.060
.038
1947
1944
1941
1938
1935
1932
Elevation
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3760
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4700
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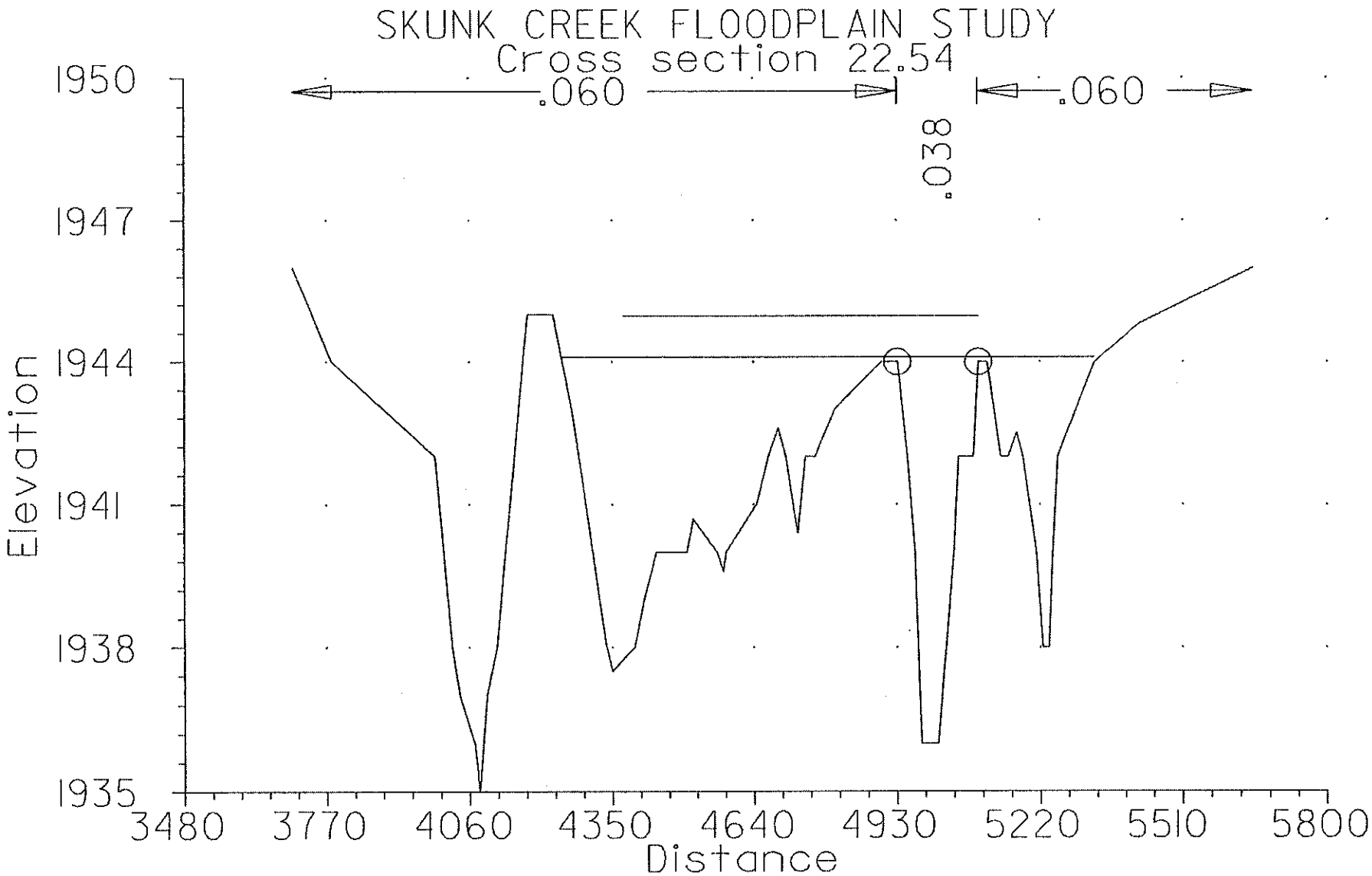
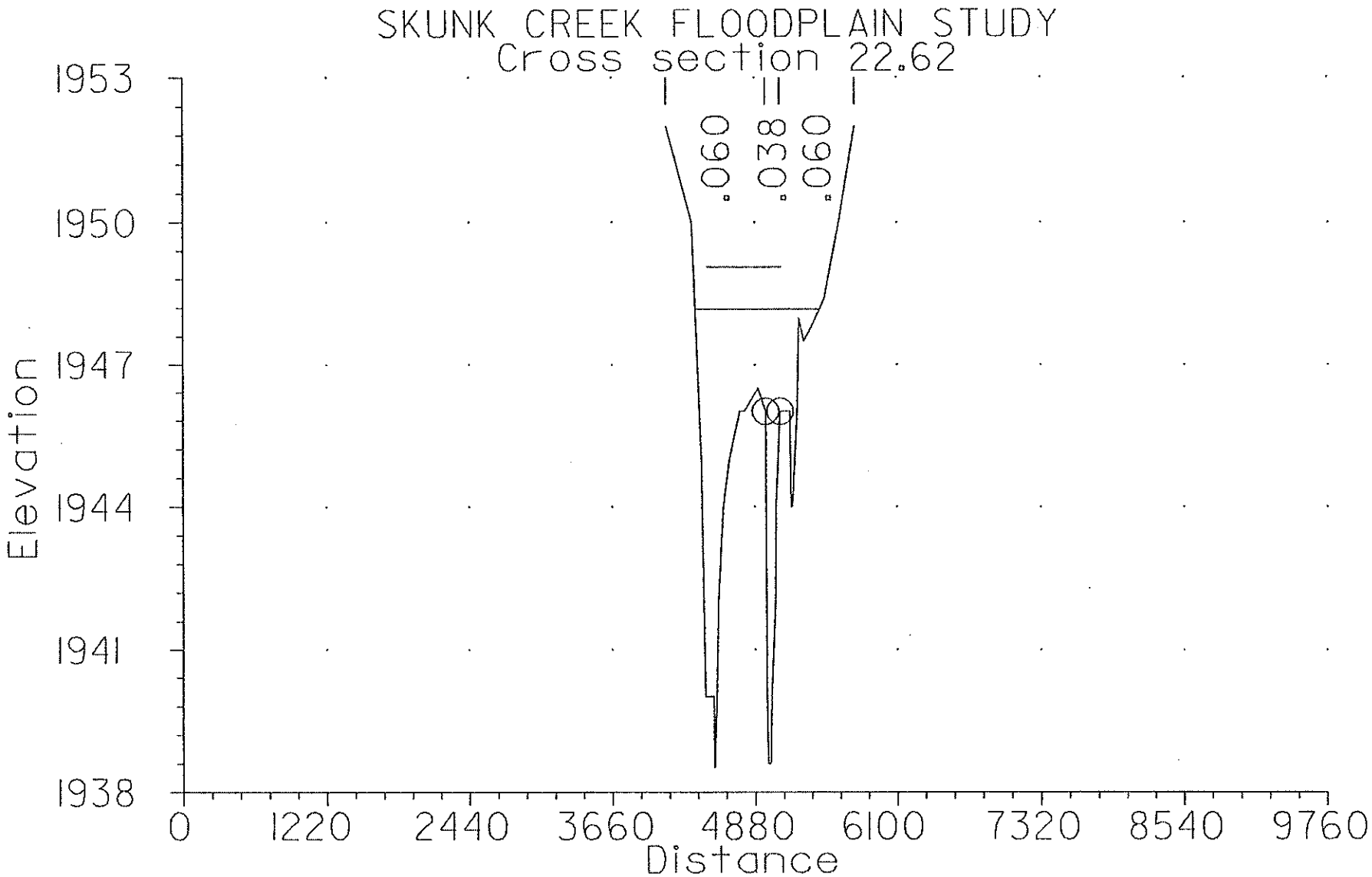
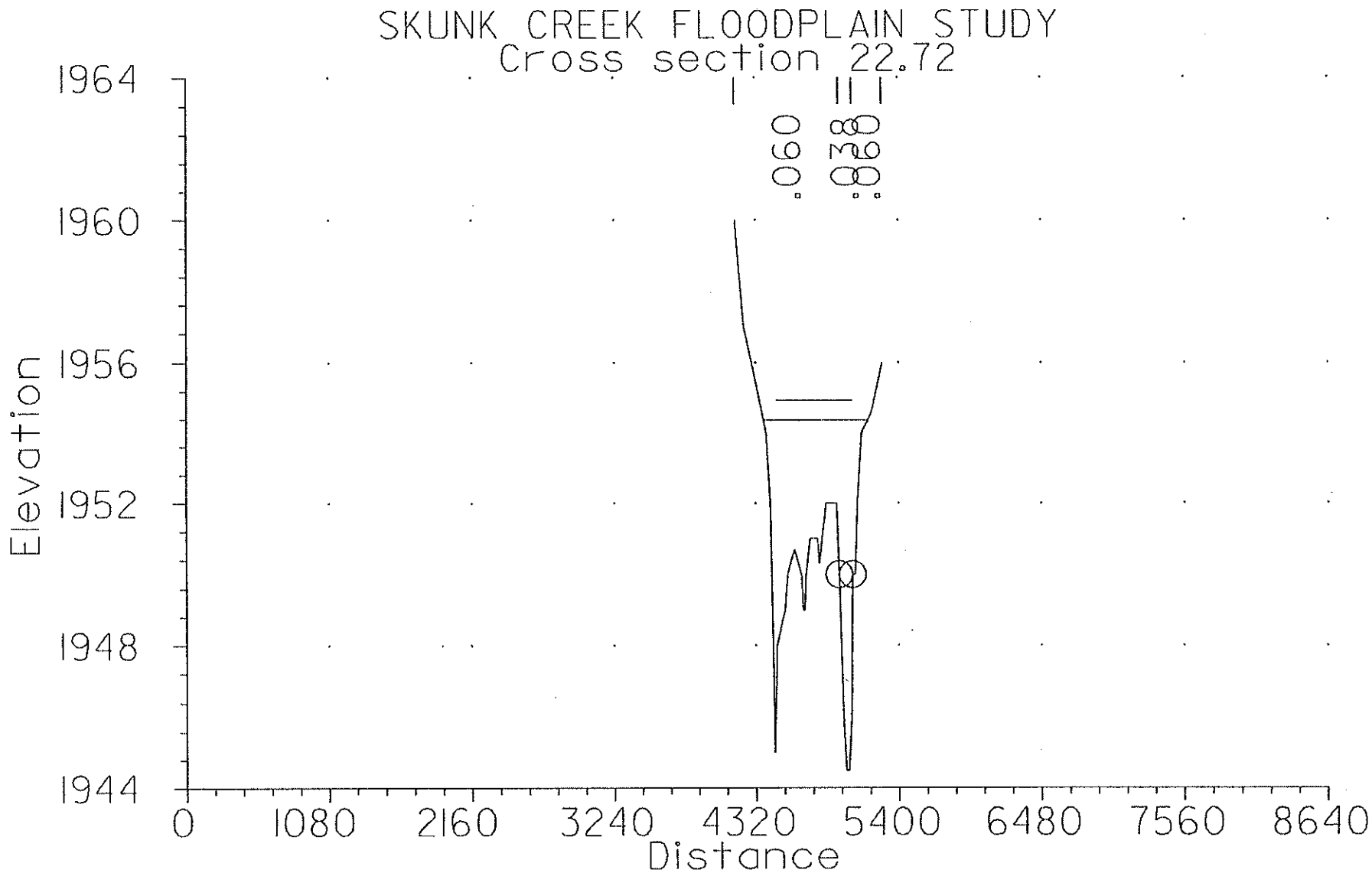
5640
6110
6580
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 22.54
.060
.060
.038
1950
1947
1944
1941
1938
1935
Elevation
3480
3770
4060
4350
4640
4930
5220
5510
5800
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 22.62
.060
.038
.060
1953
1950
1947
1944
1941
1938
Elevation
0
1220
2440
3660
4880
6100
7320
8540
9760
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 22.72
.060
.038
.060
1964
1960
1956
1952
1948
1944
Elevation
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4320
5400
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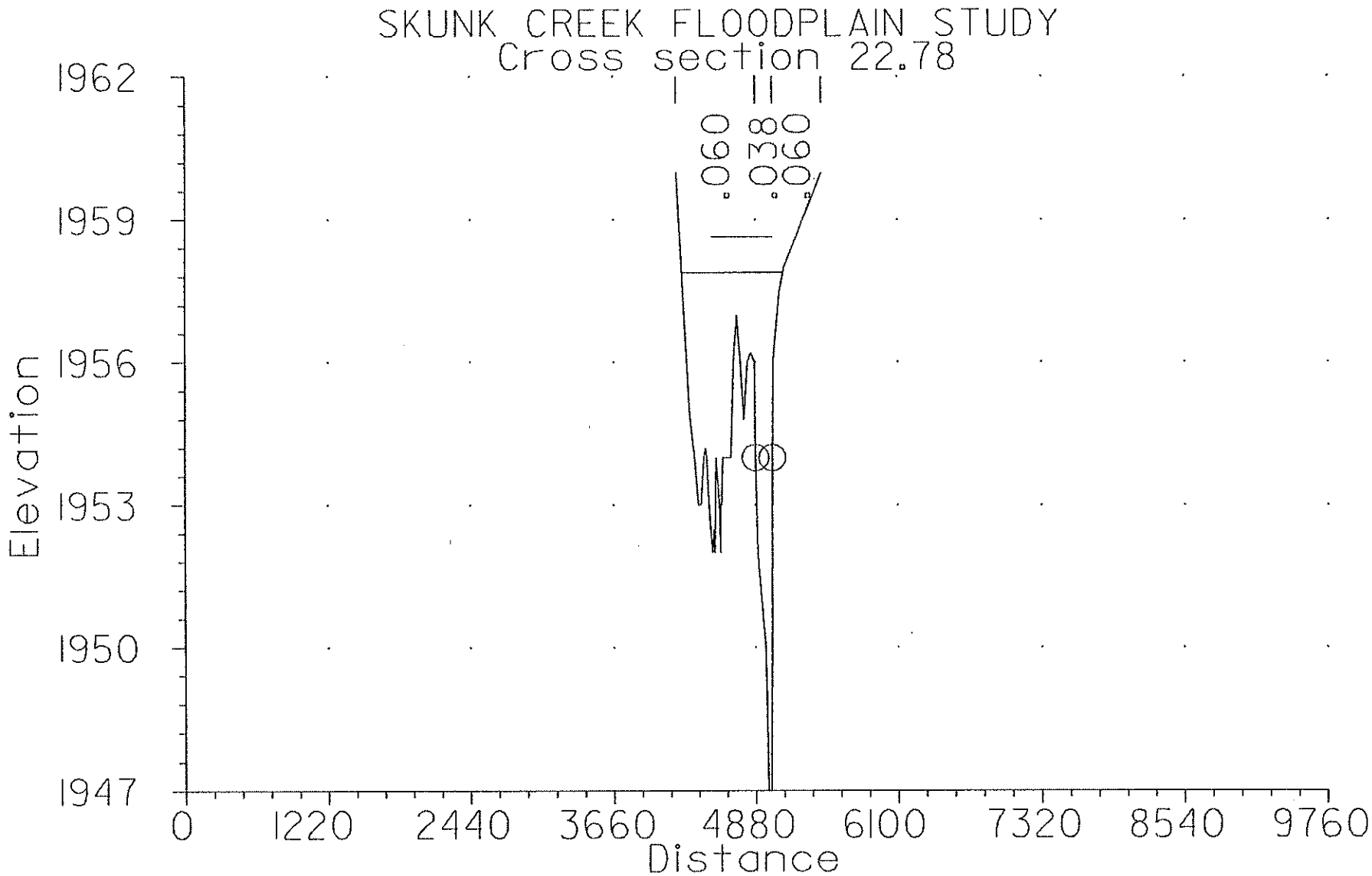
7560
8640
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 22.78
060
380
060
1962
1959
1956
1953
1950
1947
Elevation
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1220
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4880
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7320
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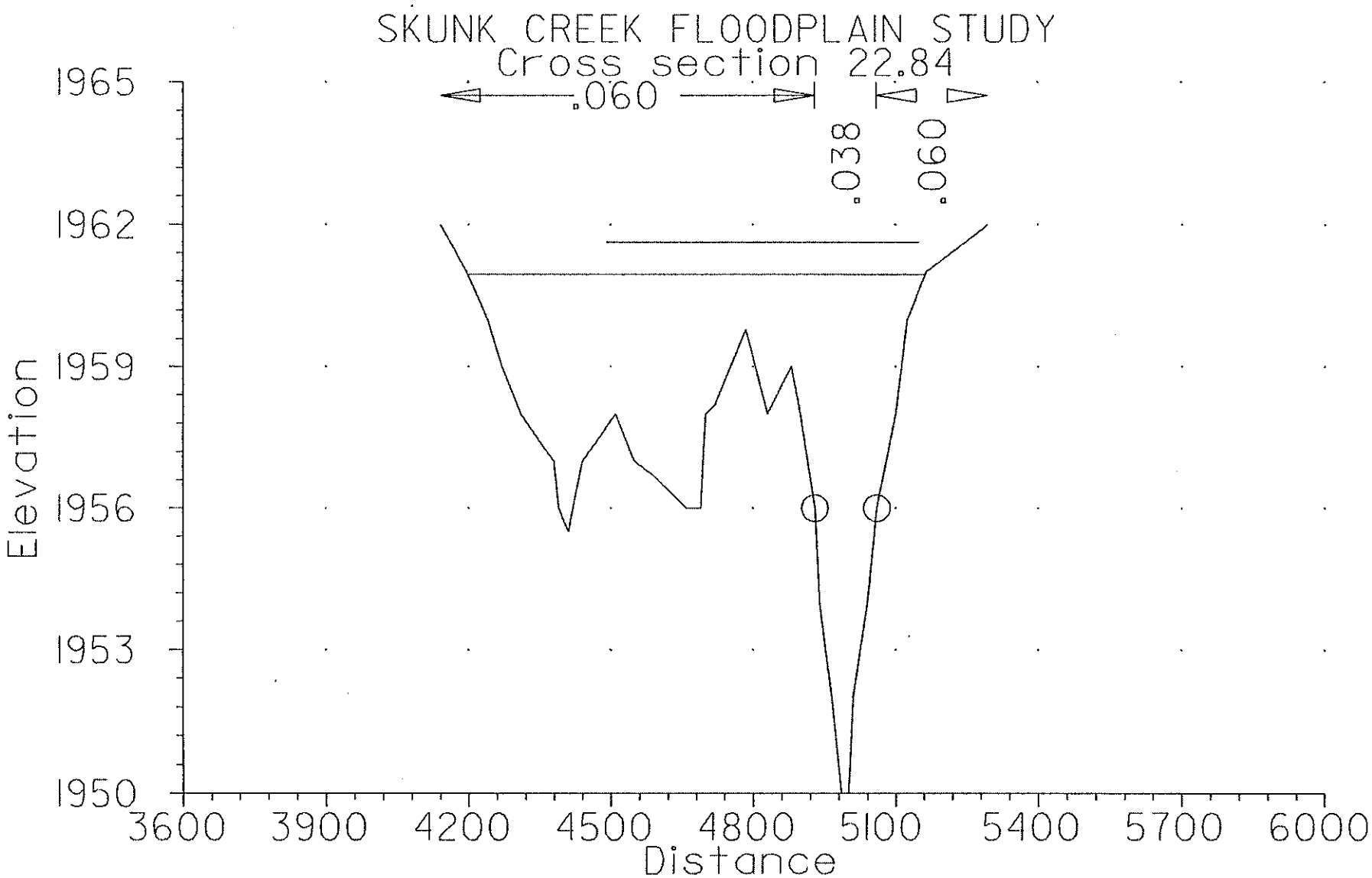
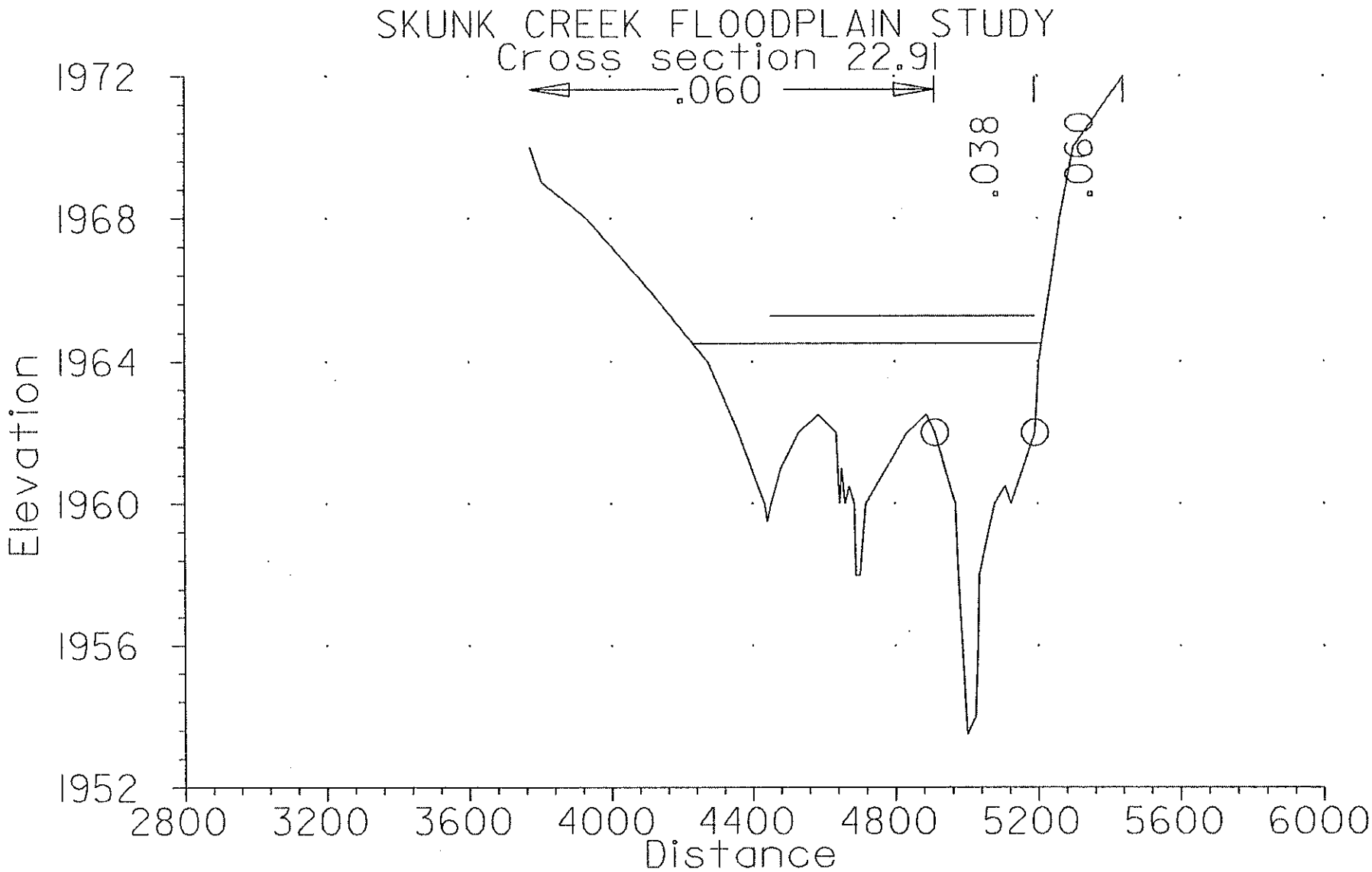
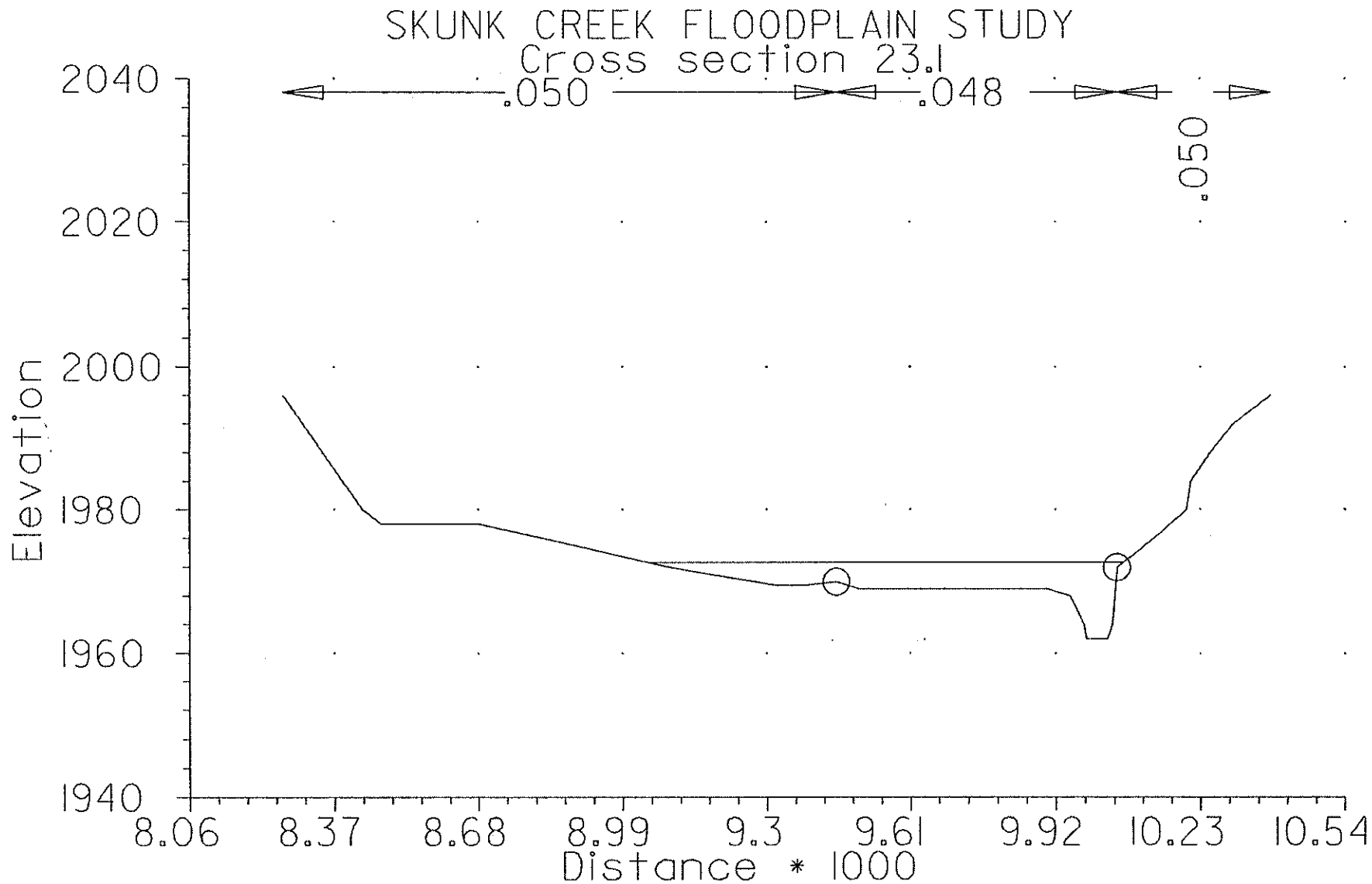
9760
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 22.84
.060
.038
.060
1965
1962
1959
1956
1953
1950
Elevation
3600
3900
4200
4500
4800
5100
5400
5700
6000
Distance


SKUNK CREEK FLOODPLAIN STUDY
Cross section 22.91
.060
.038
.060
1972
1968
1964
1960
1956
1952
Elevation
2800
3200
3600
4000
4400
4800
5200
5600
6000
Distance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Cross section 23.1
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2020
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1960
1940
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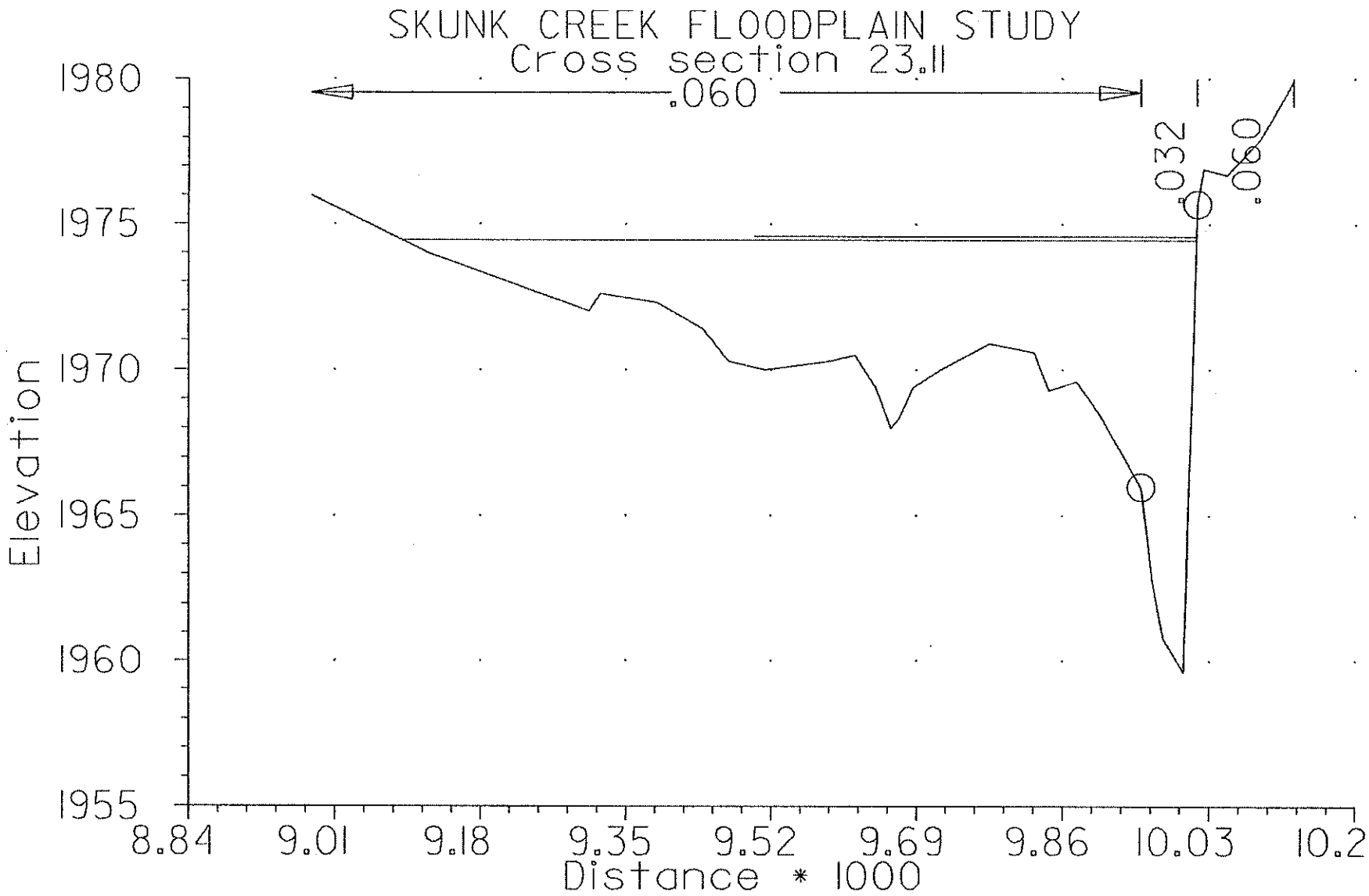
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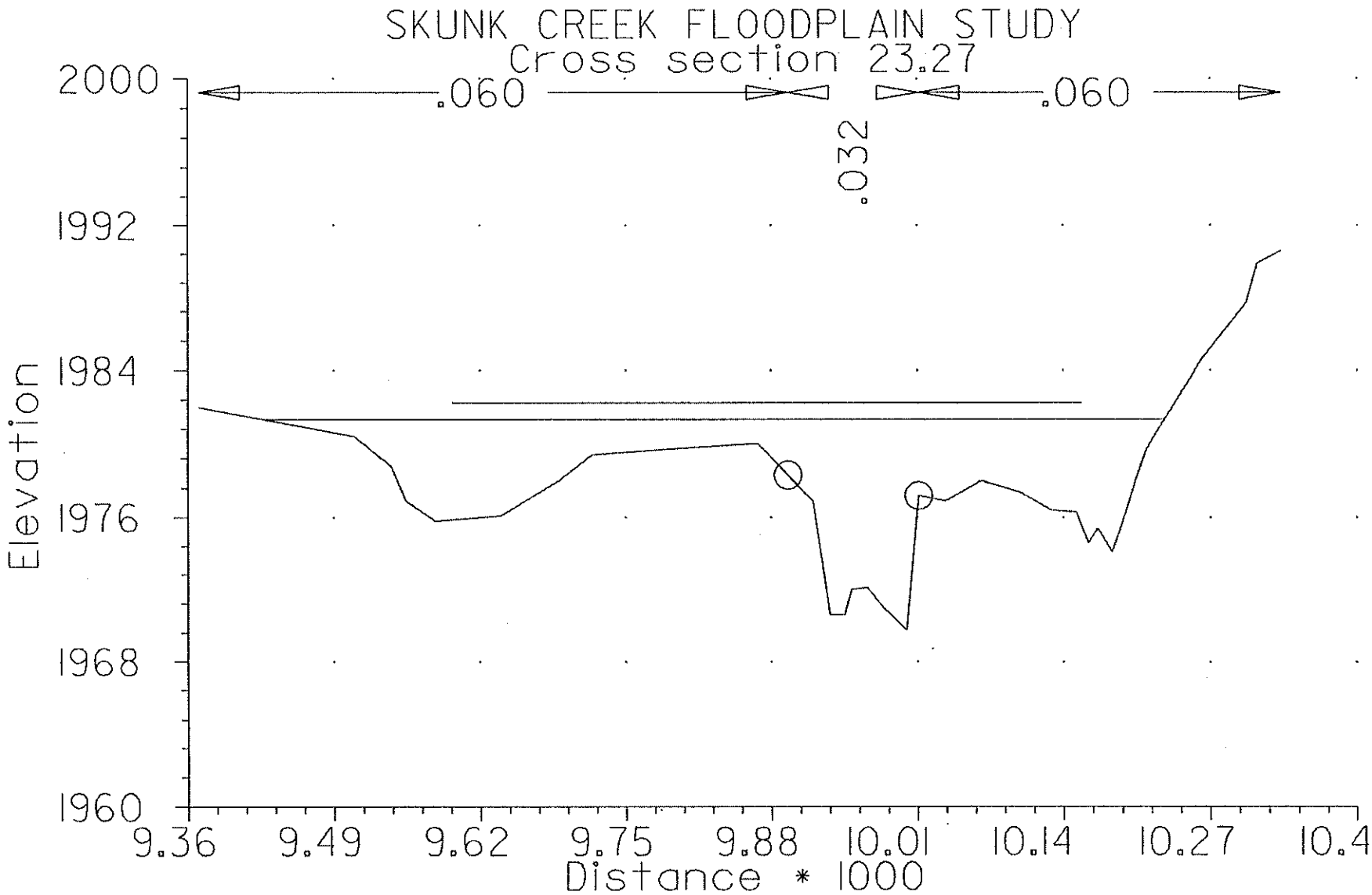
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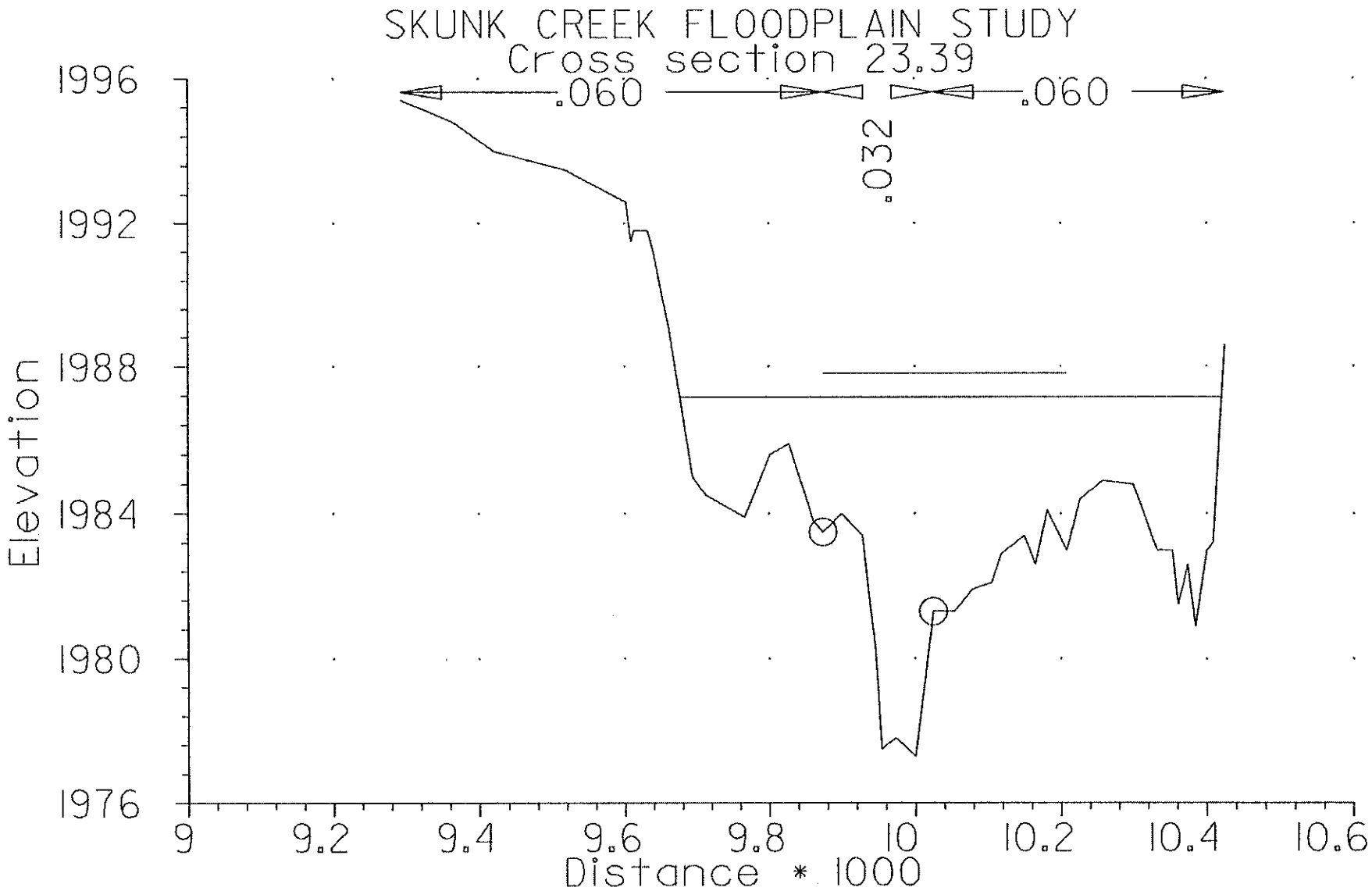
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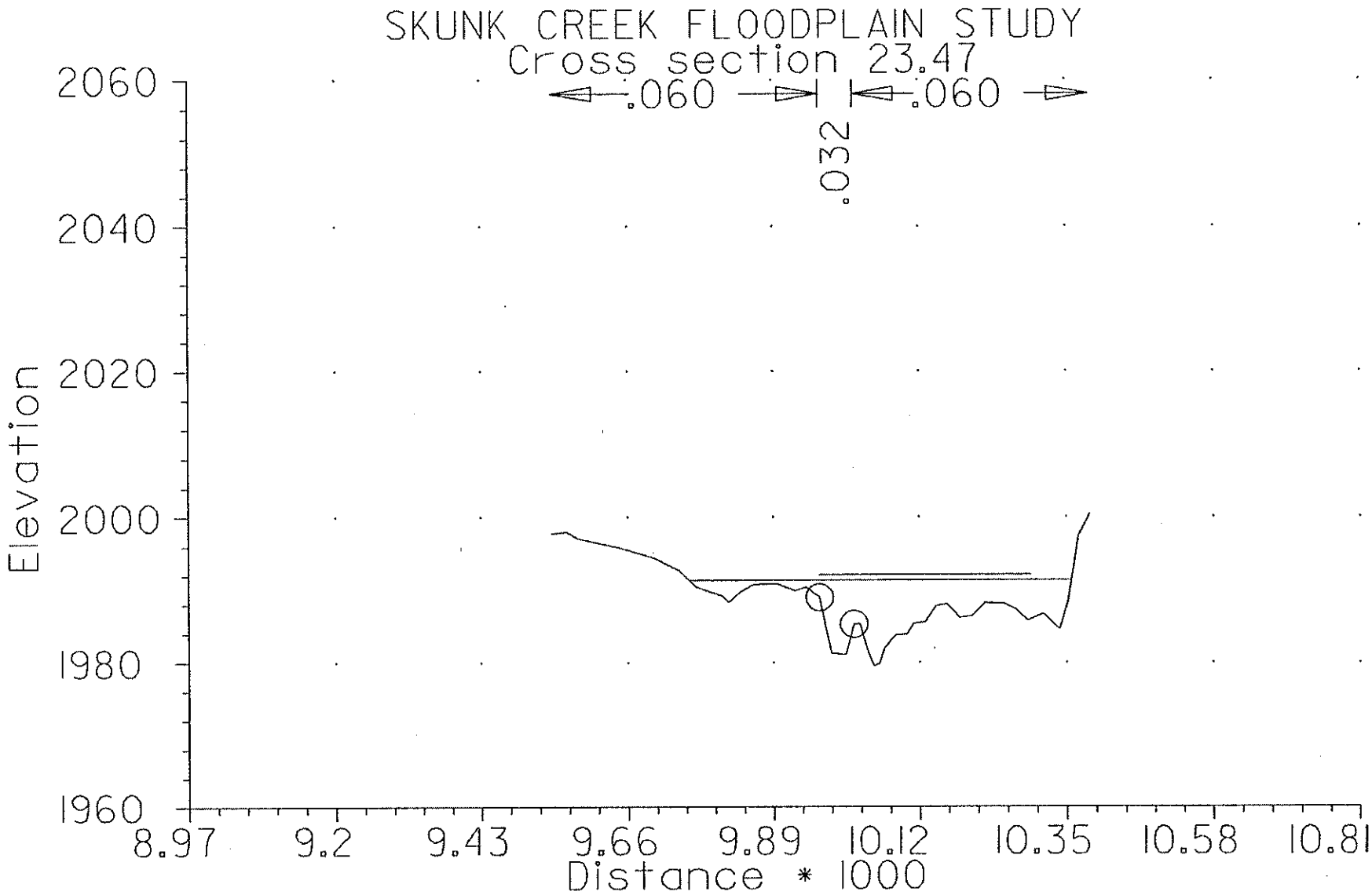
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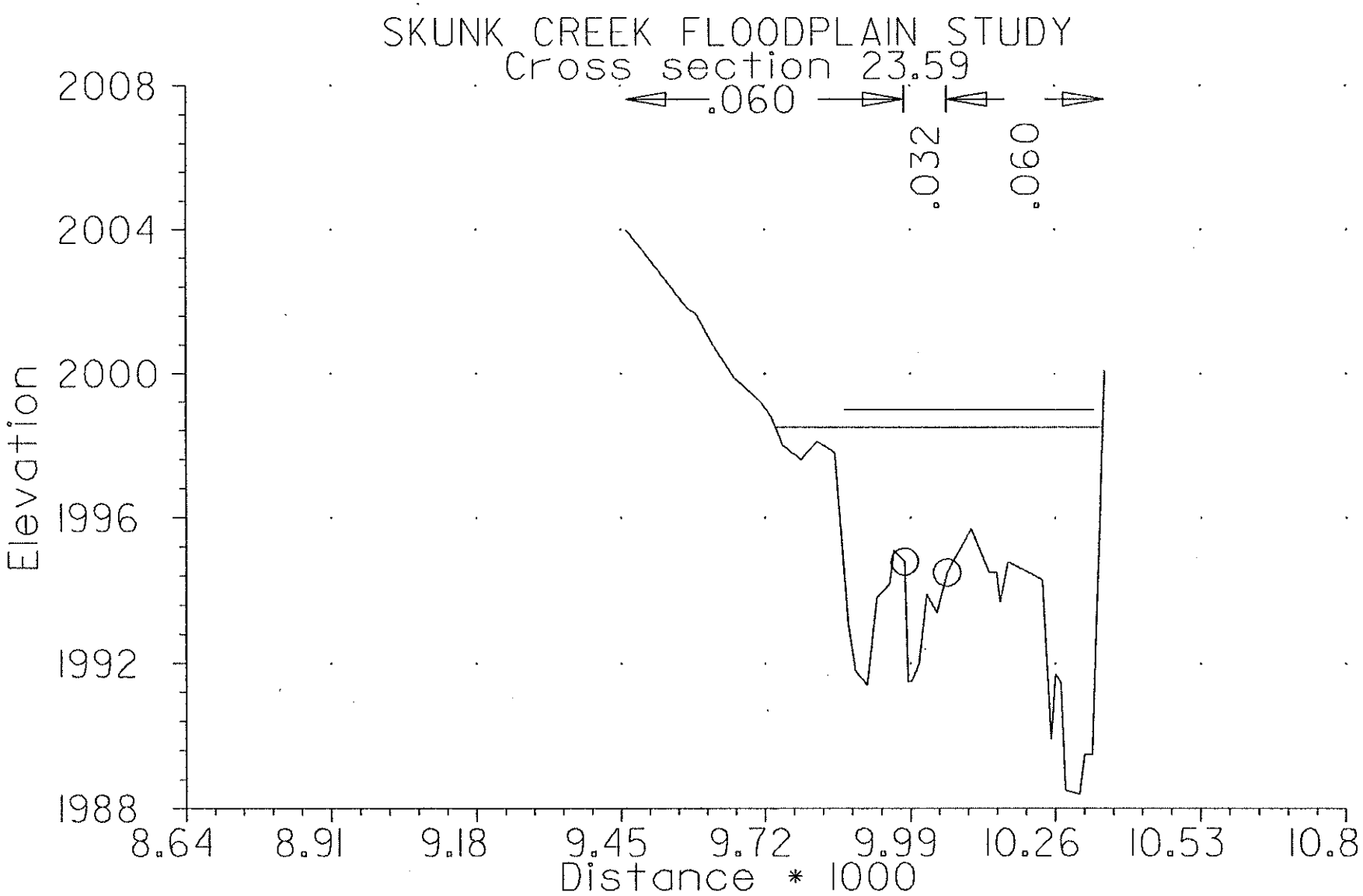
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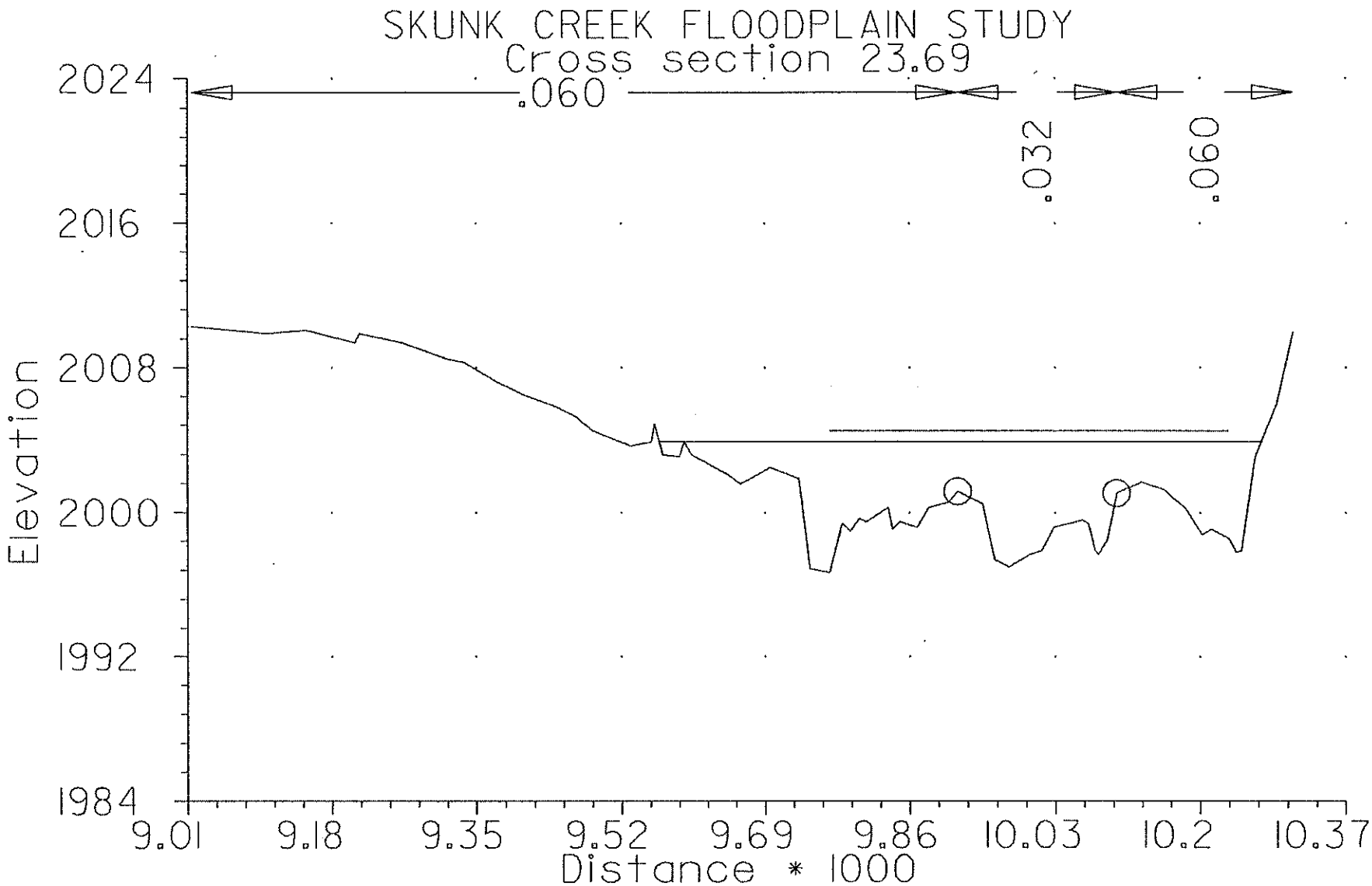
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2016
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Elevation
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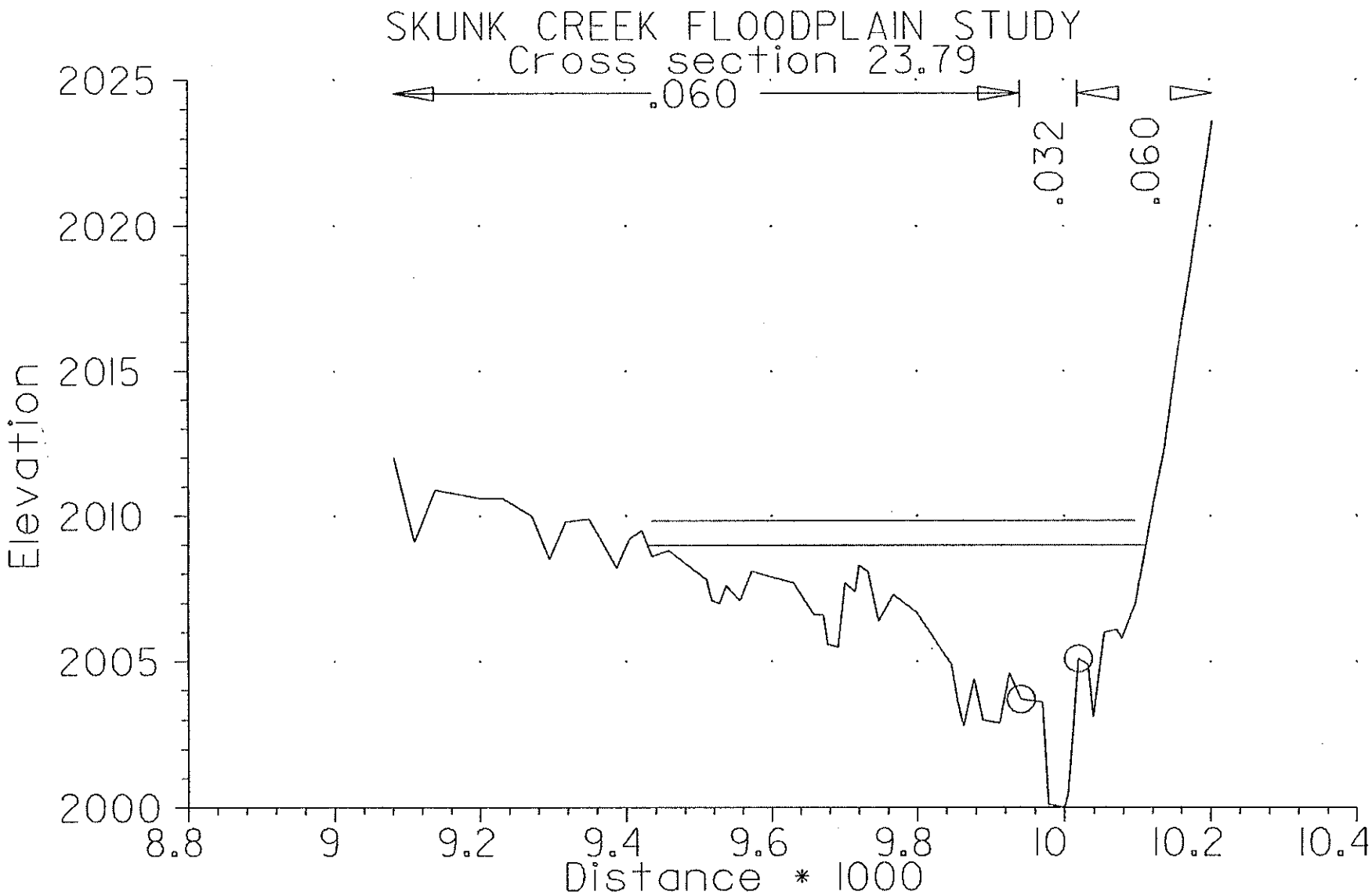
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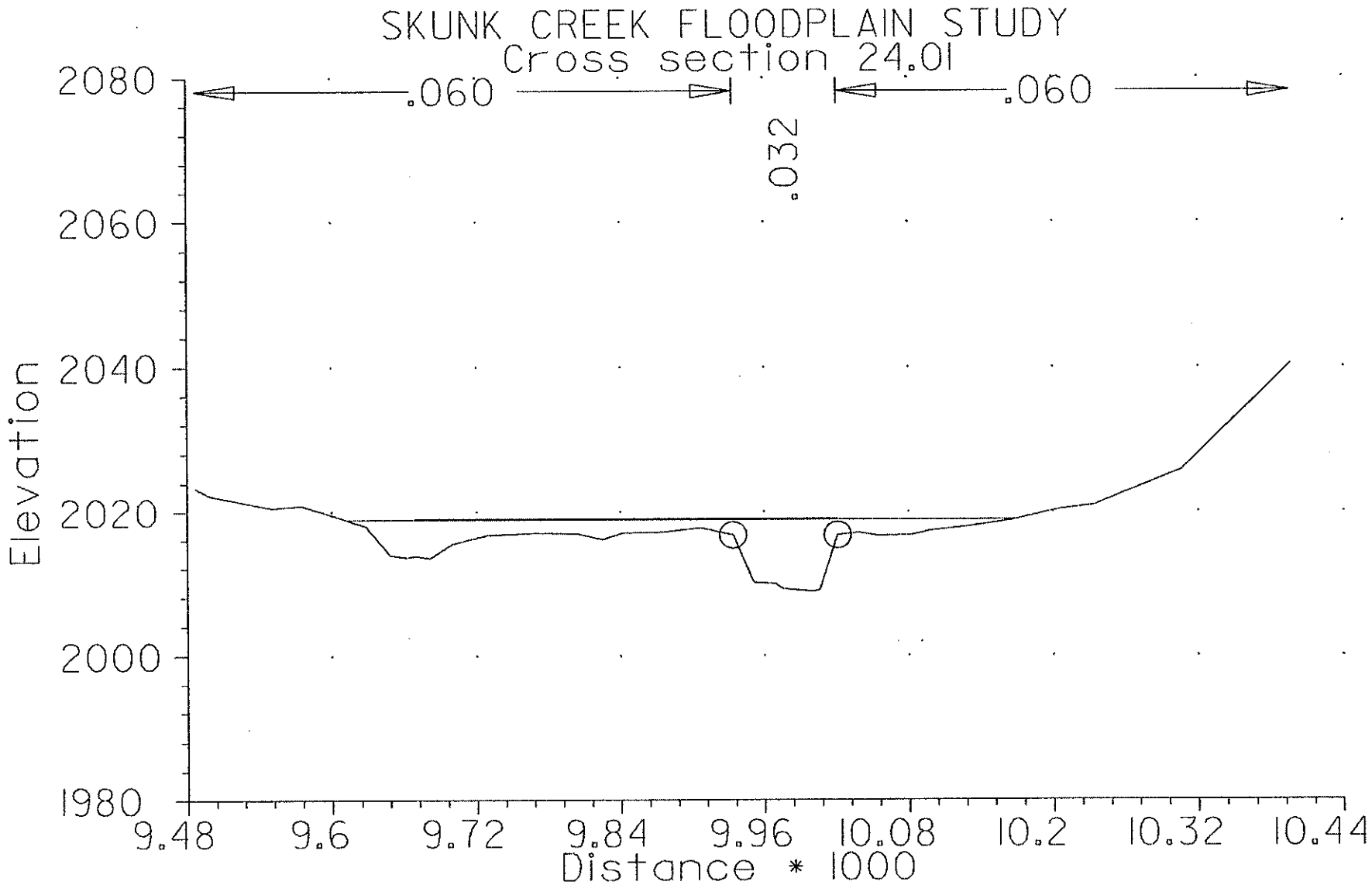
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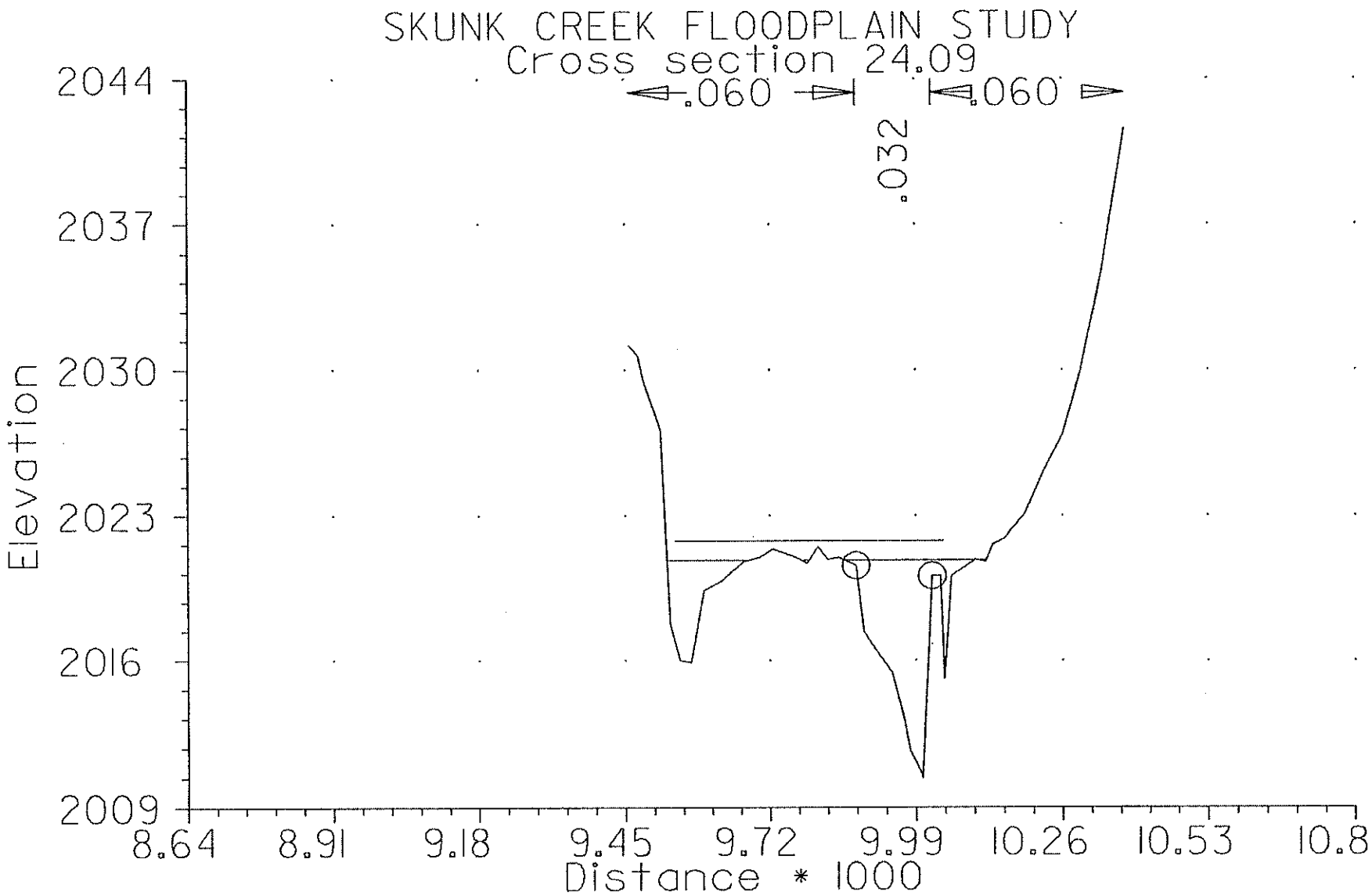
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Cross section 24.09
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.032
Elevation
2044
2037
2030
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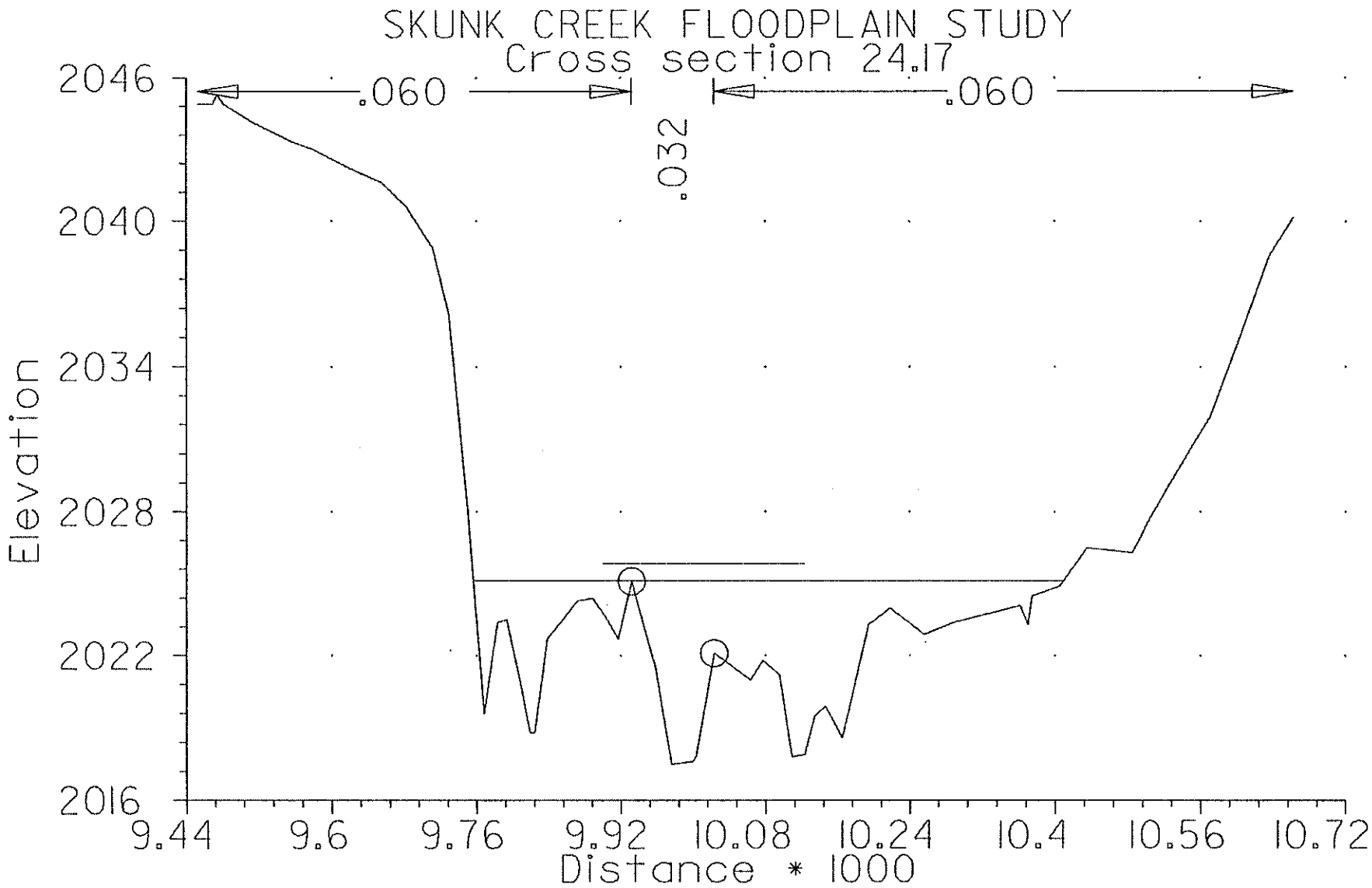
10.8
Distance * 1000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2028
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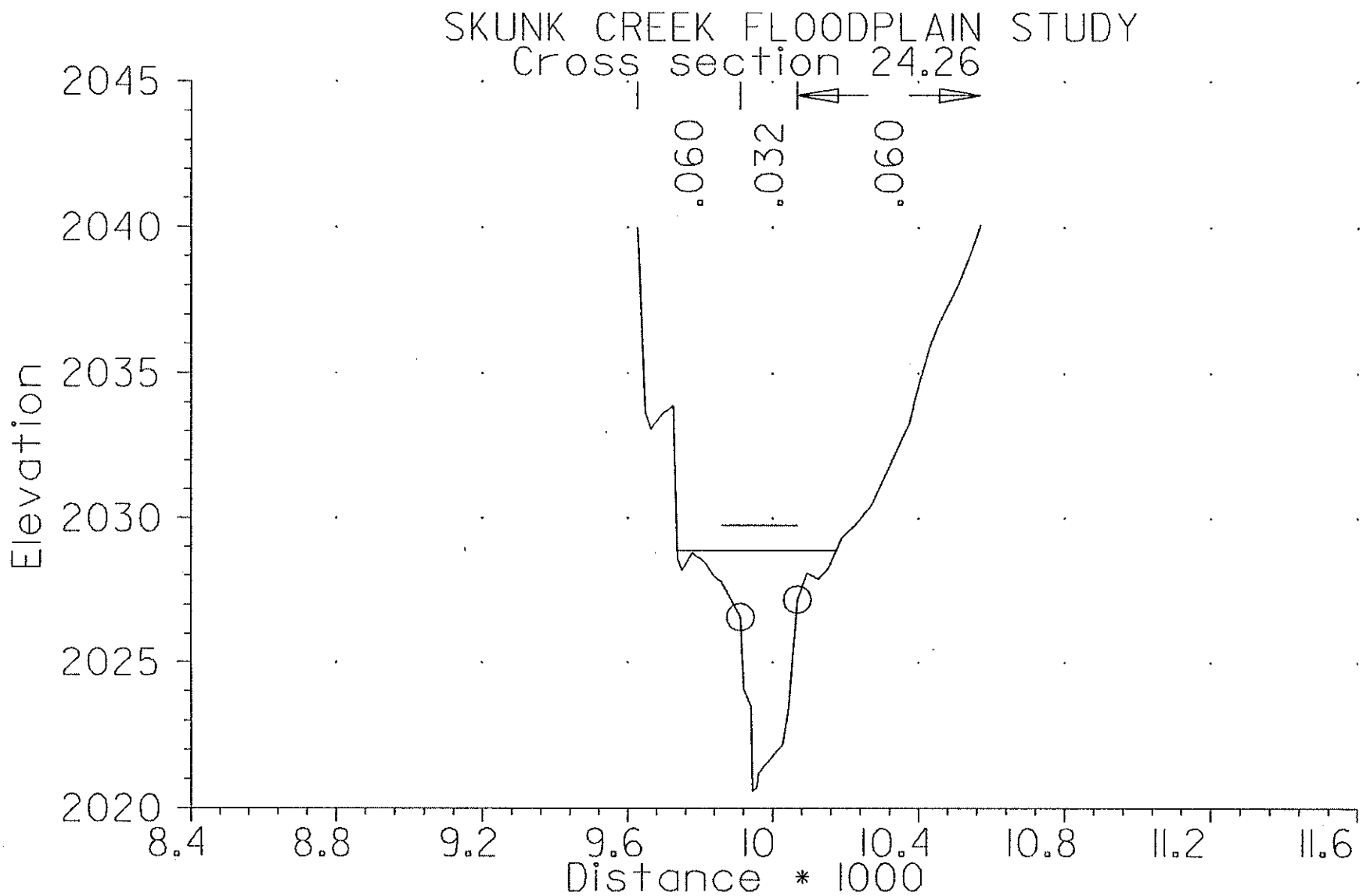
Distance * 1000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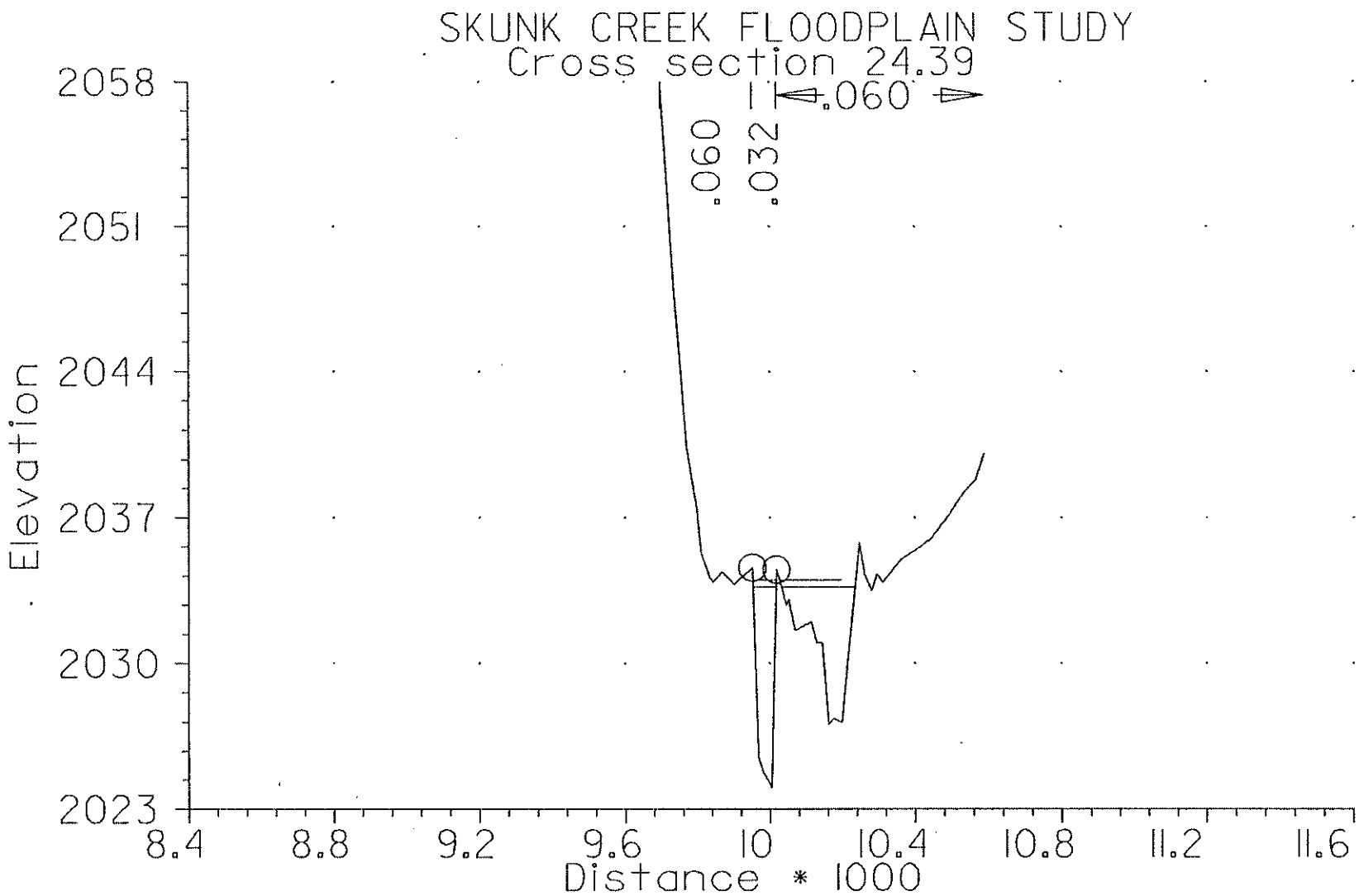
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2037
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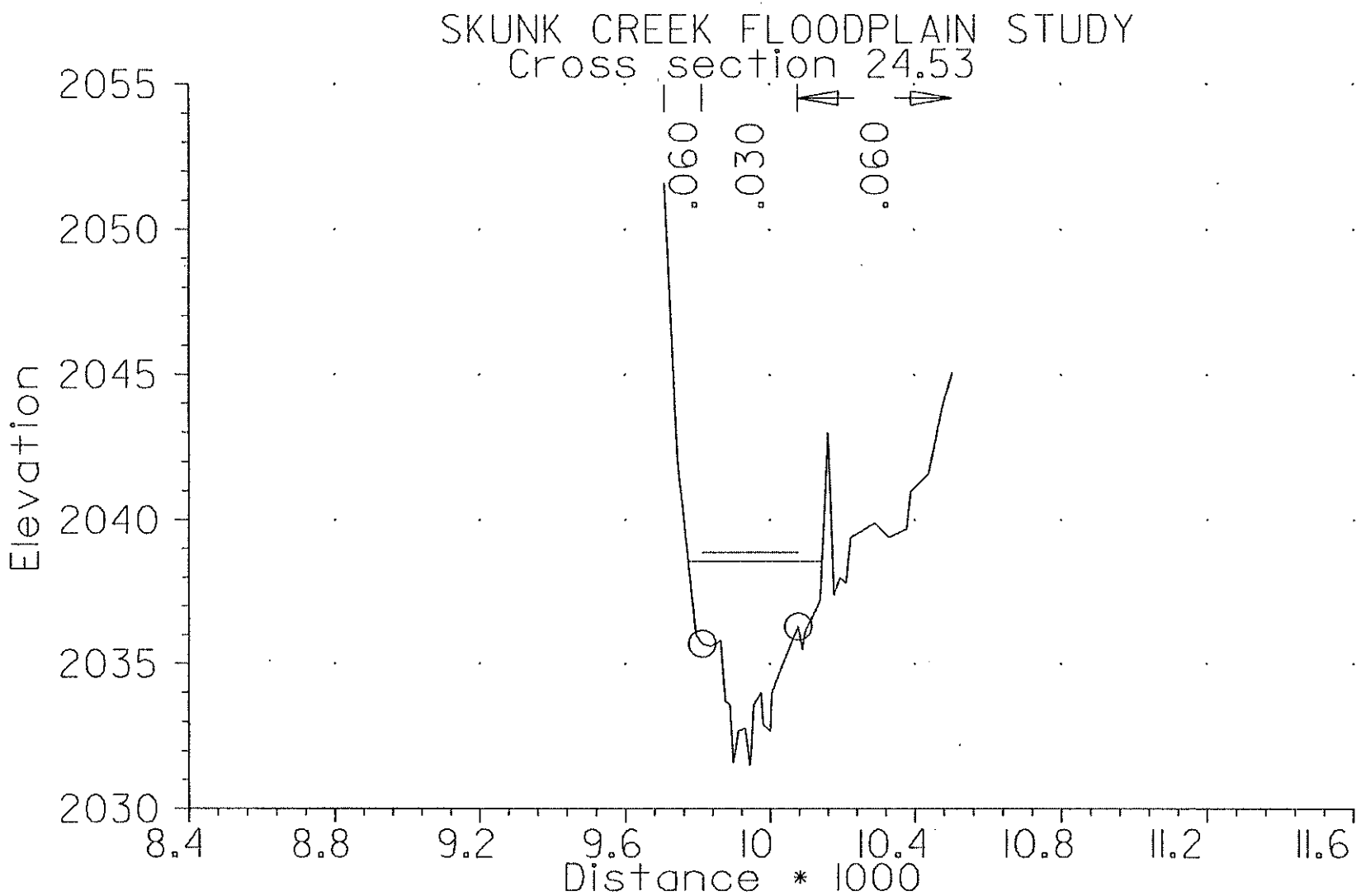
9.6
10
10.4
10.8
11.2
11.6
Distance * 1000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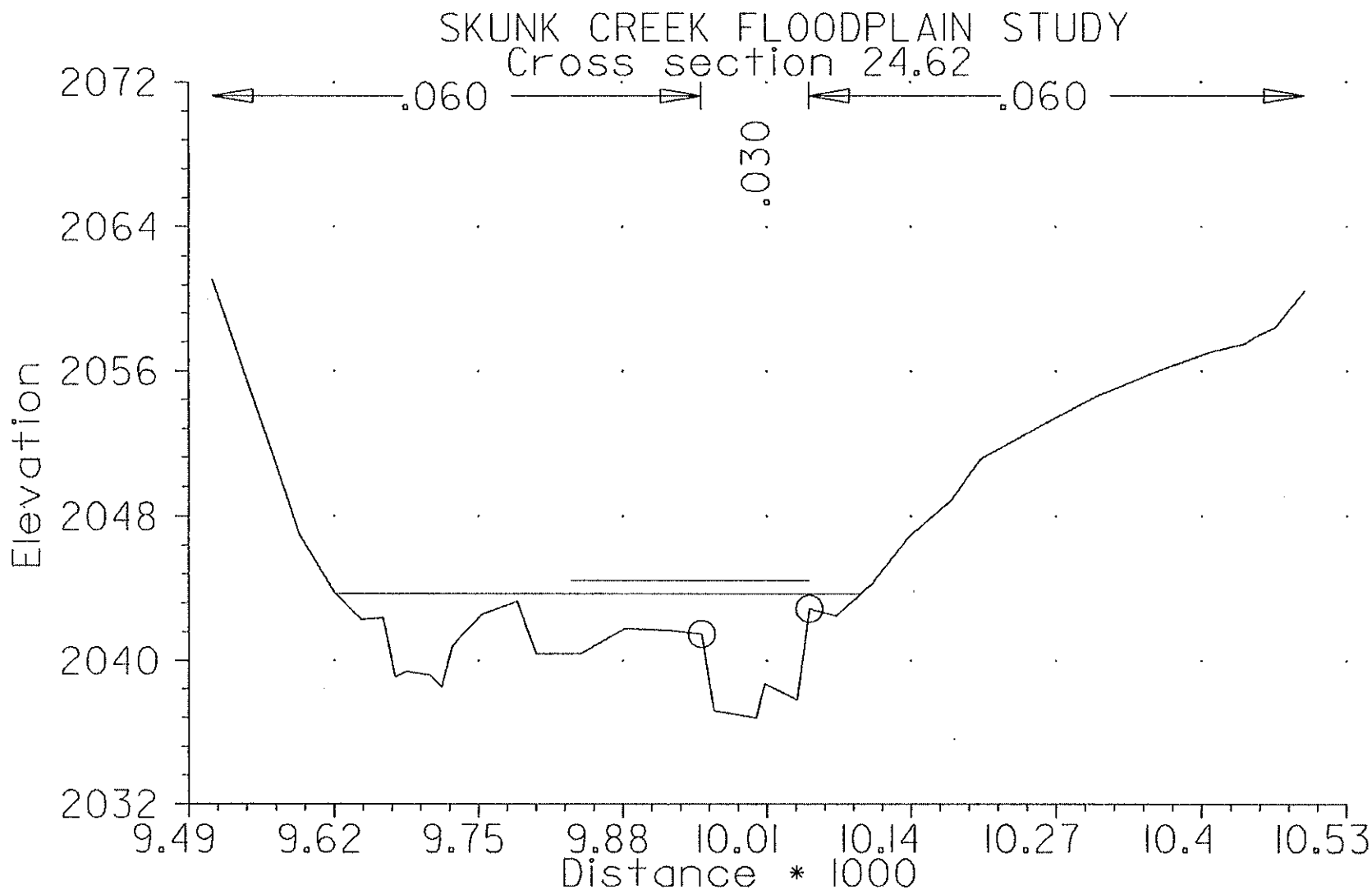
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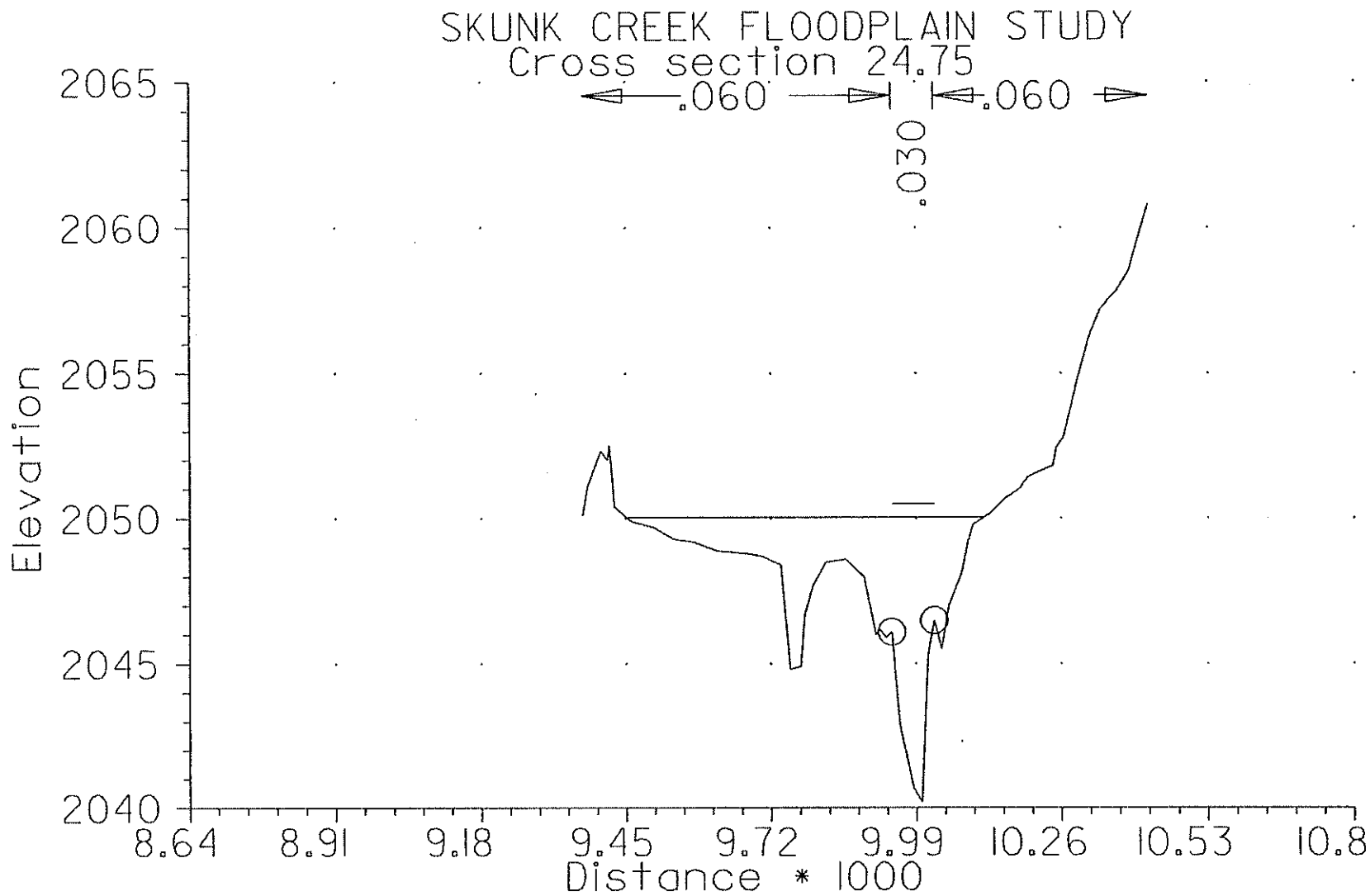
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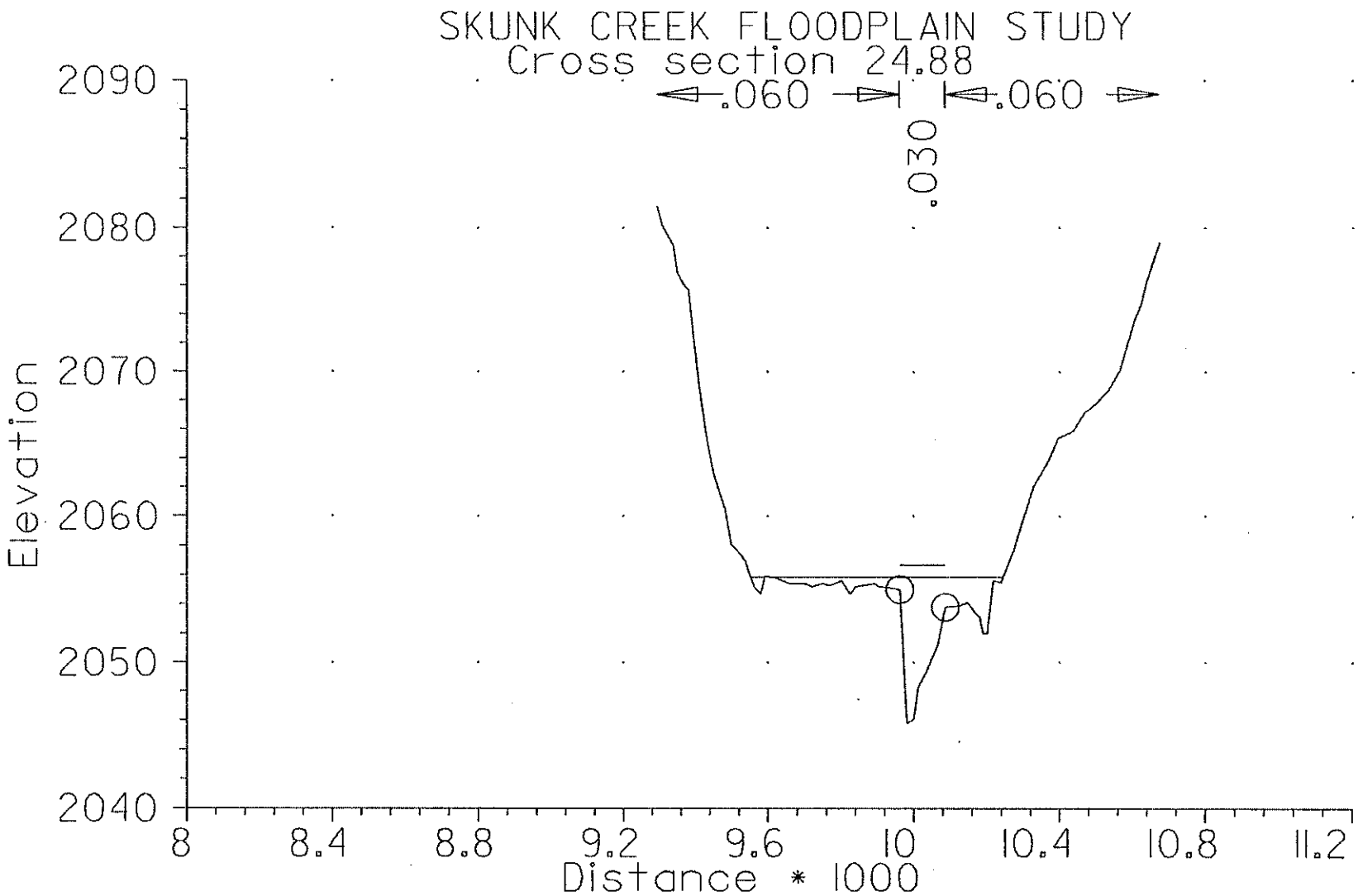
Distance * 1000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10
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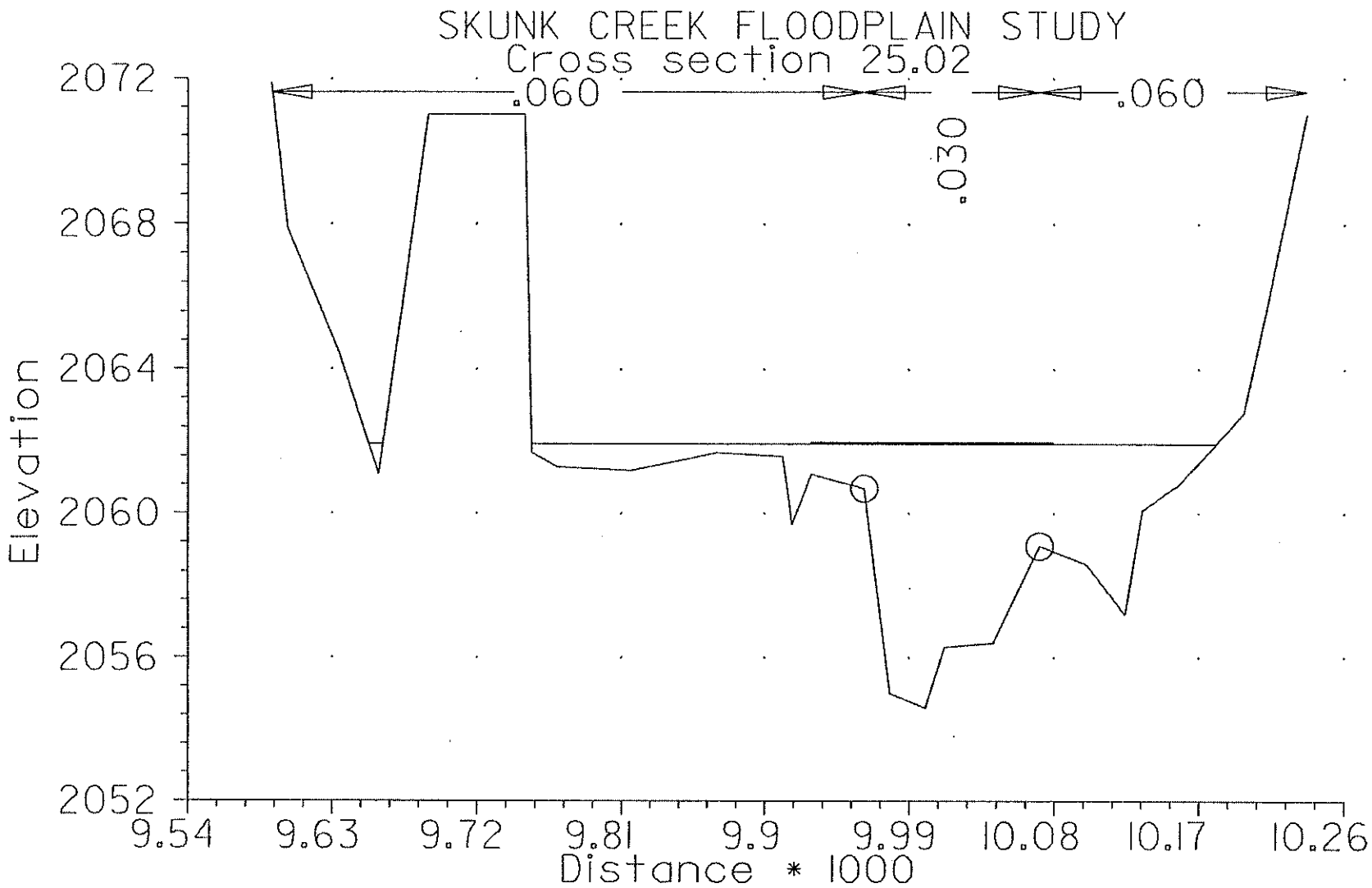
11.2
Distance * 1000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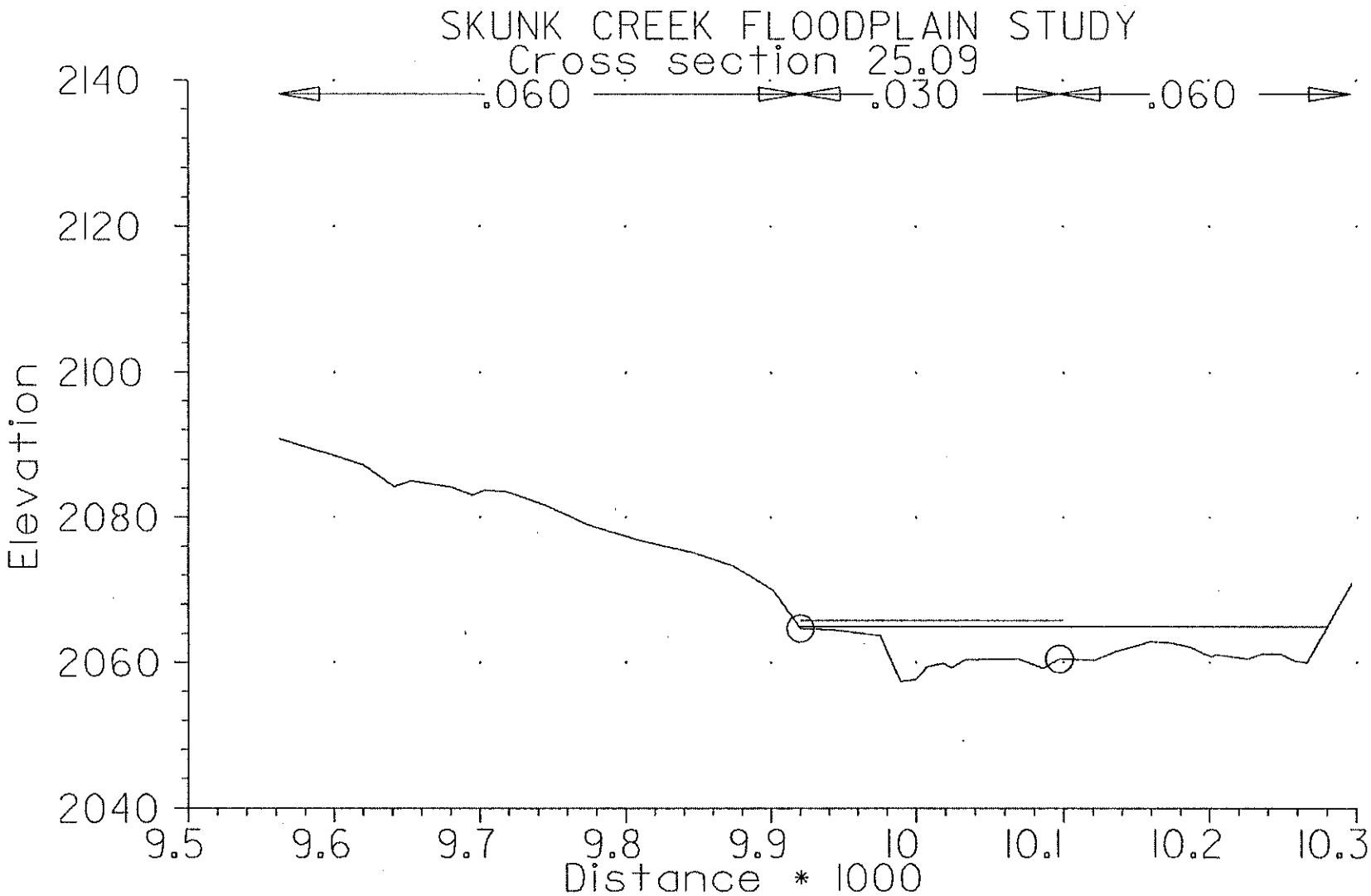
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10
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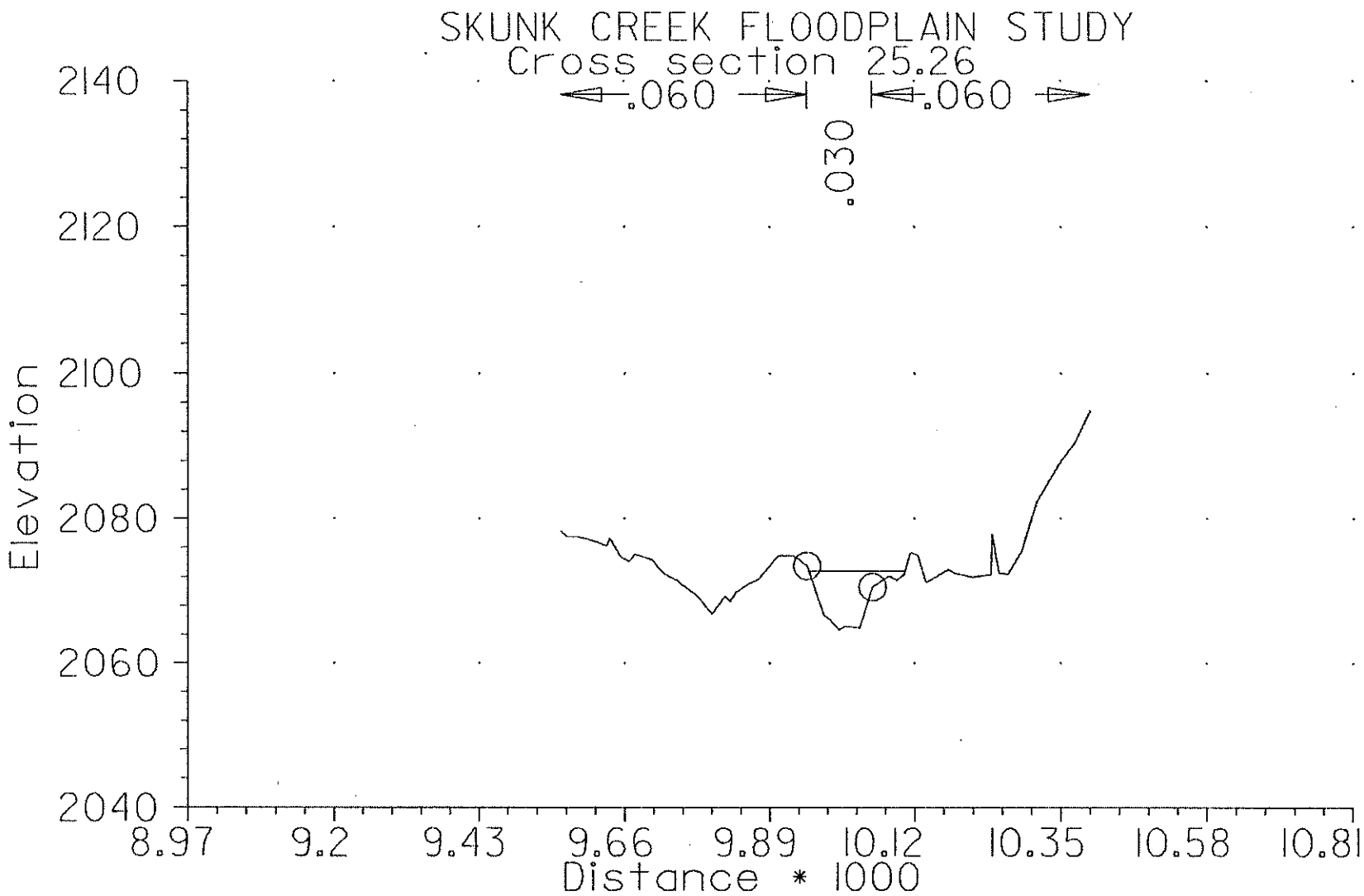
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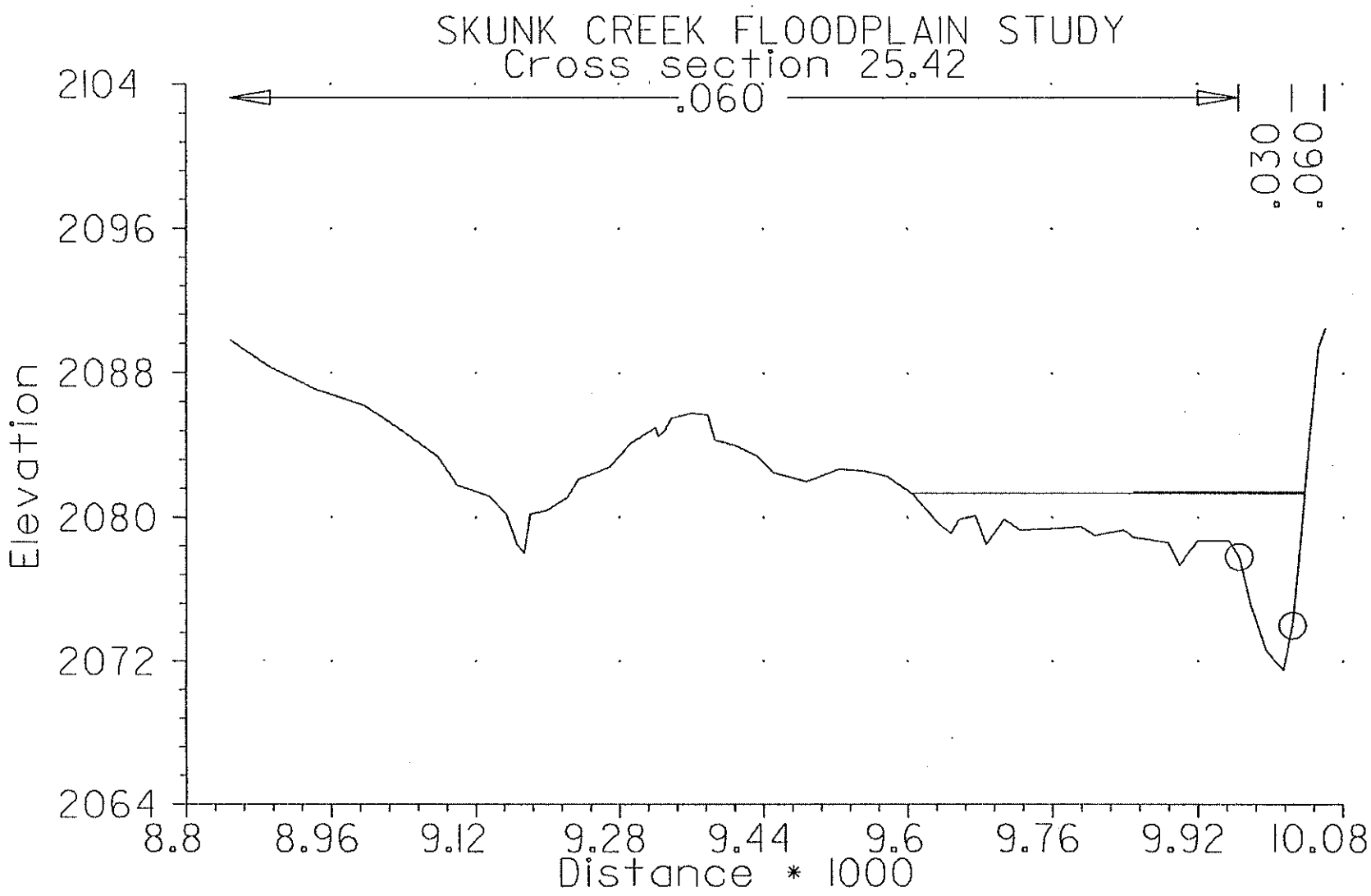
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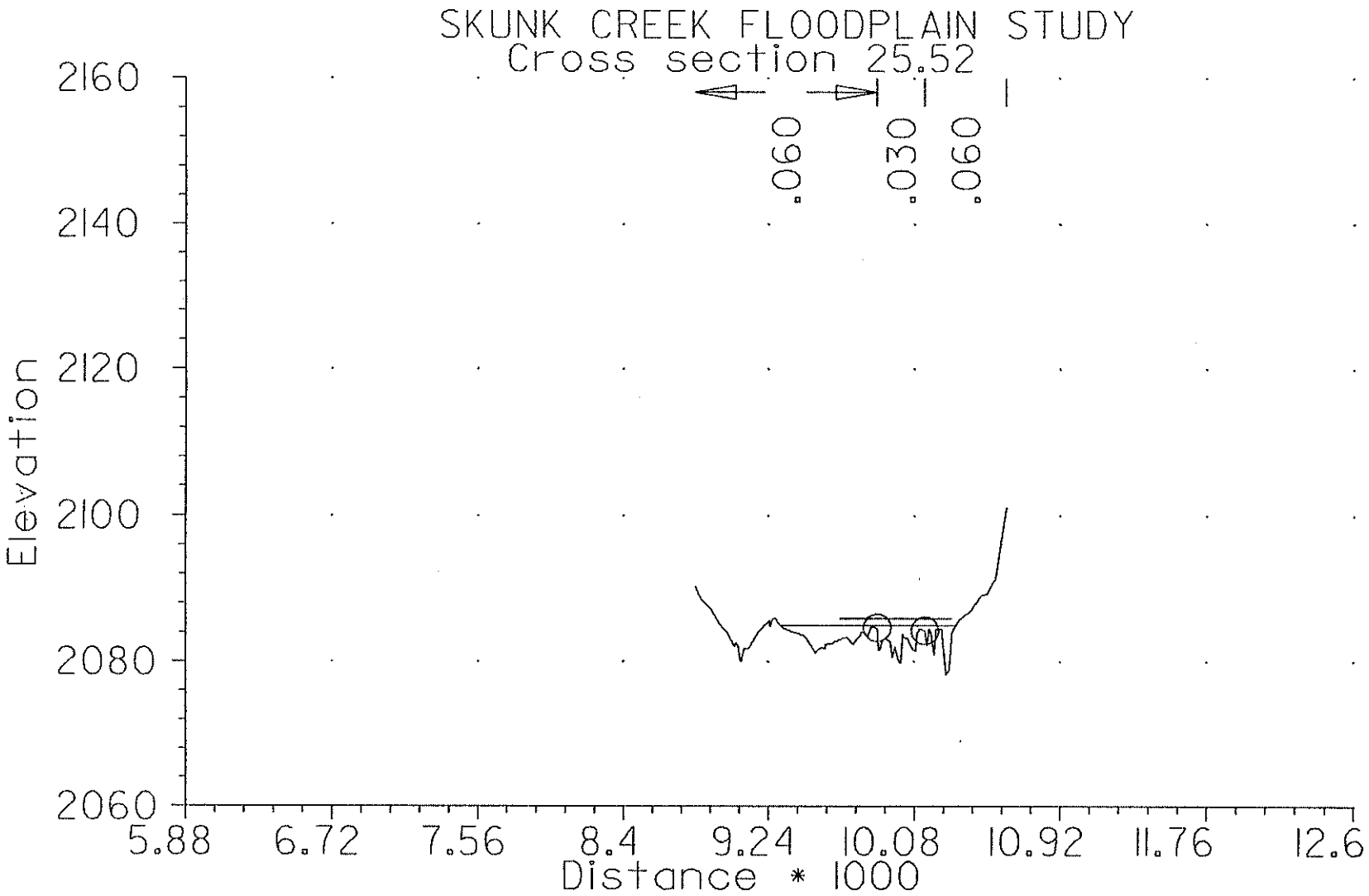
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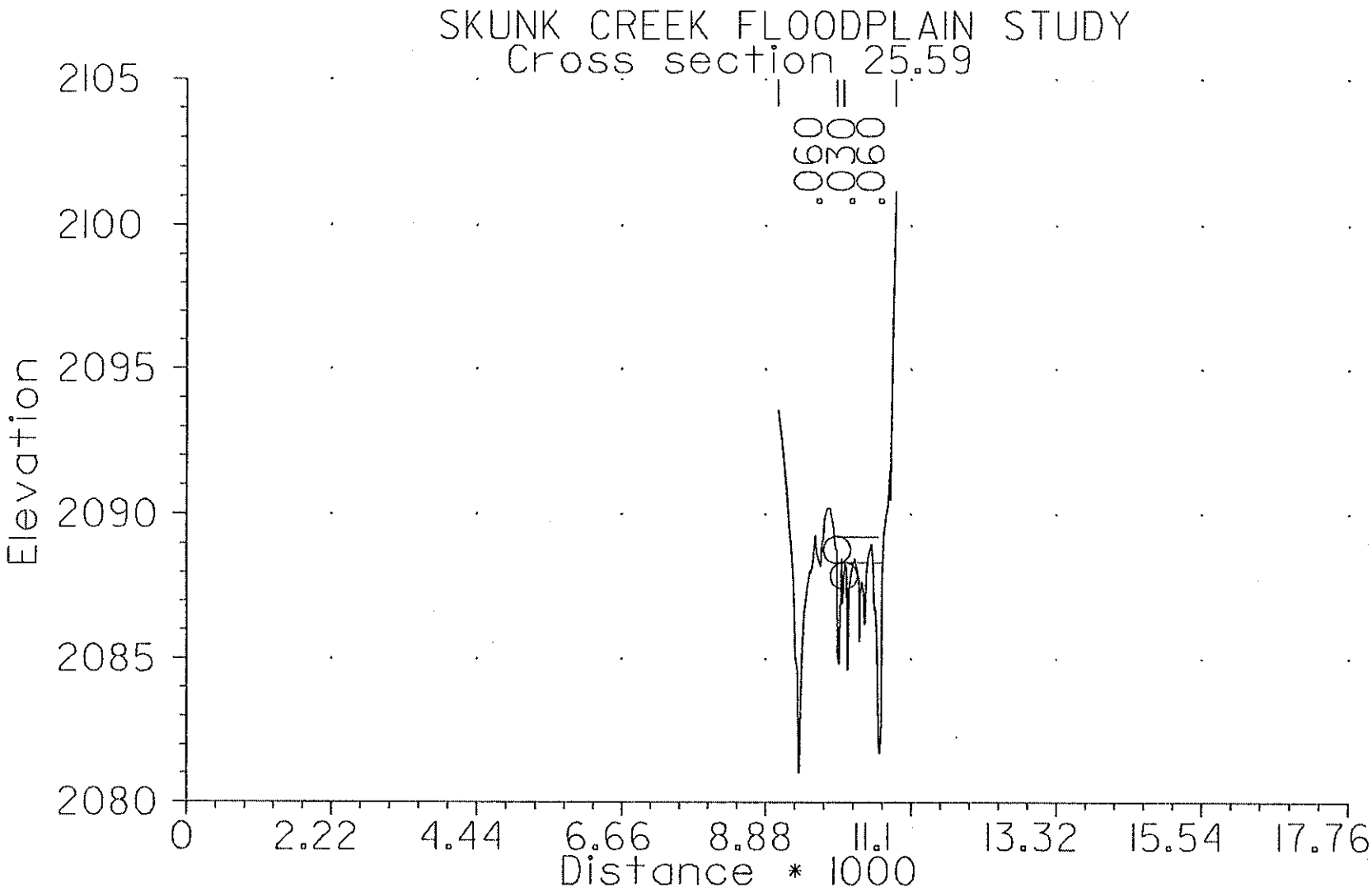
Distance * 1000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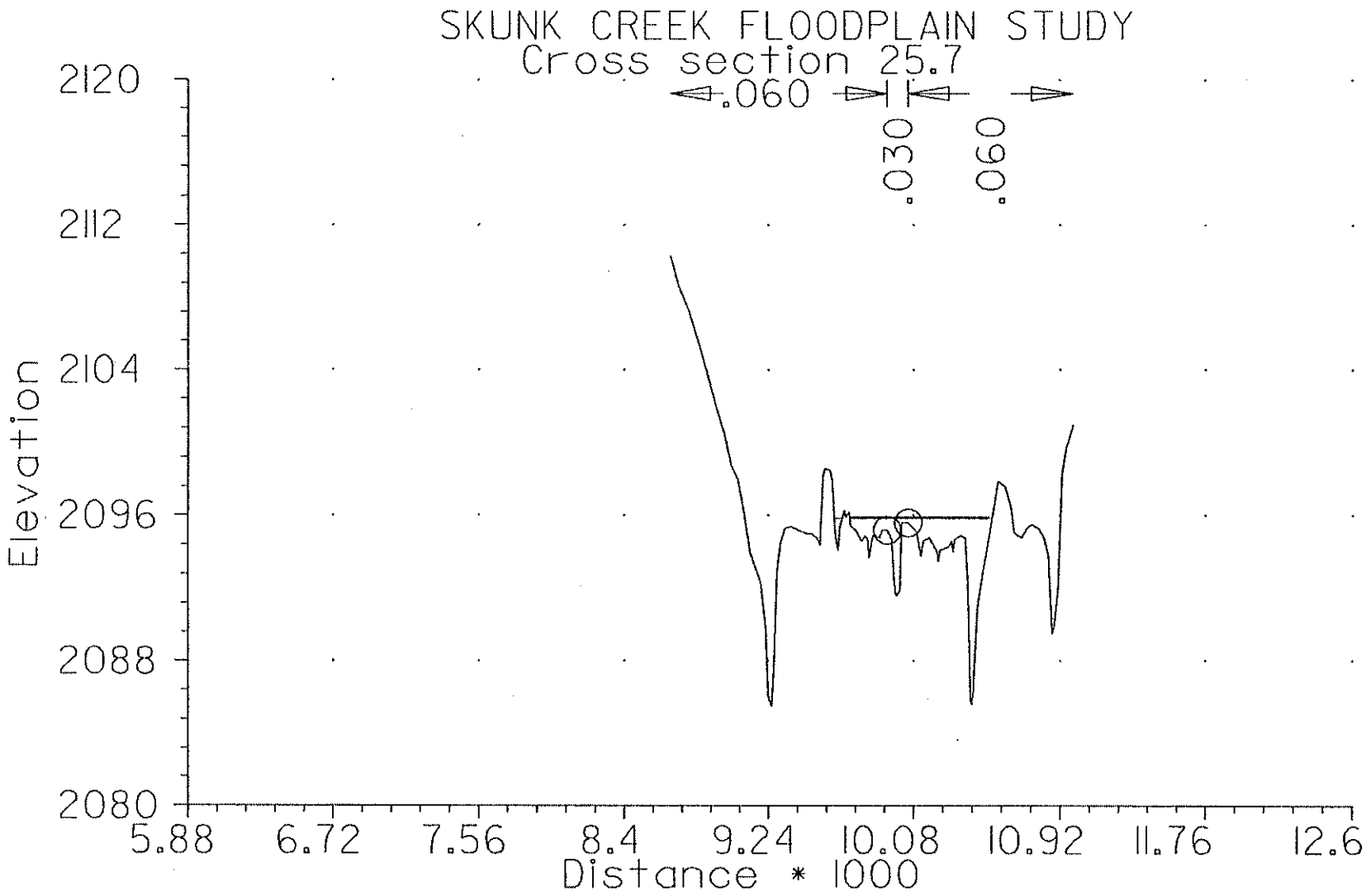
Distance * 1000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2096
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6.72
7.56
8.4
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10.08
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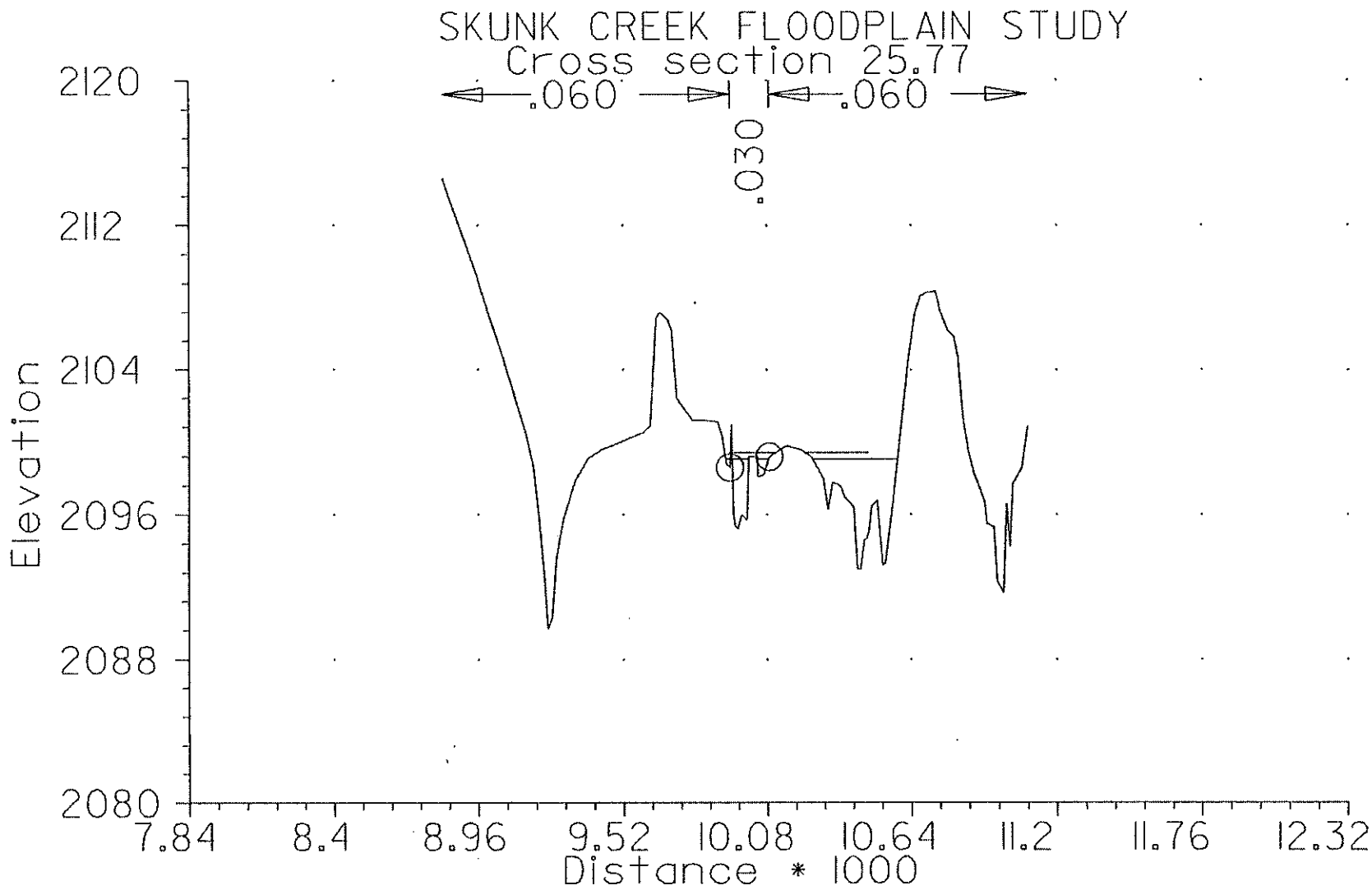
12.6
Distance * 1000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11.2
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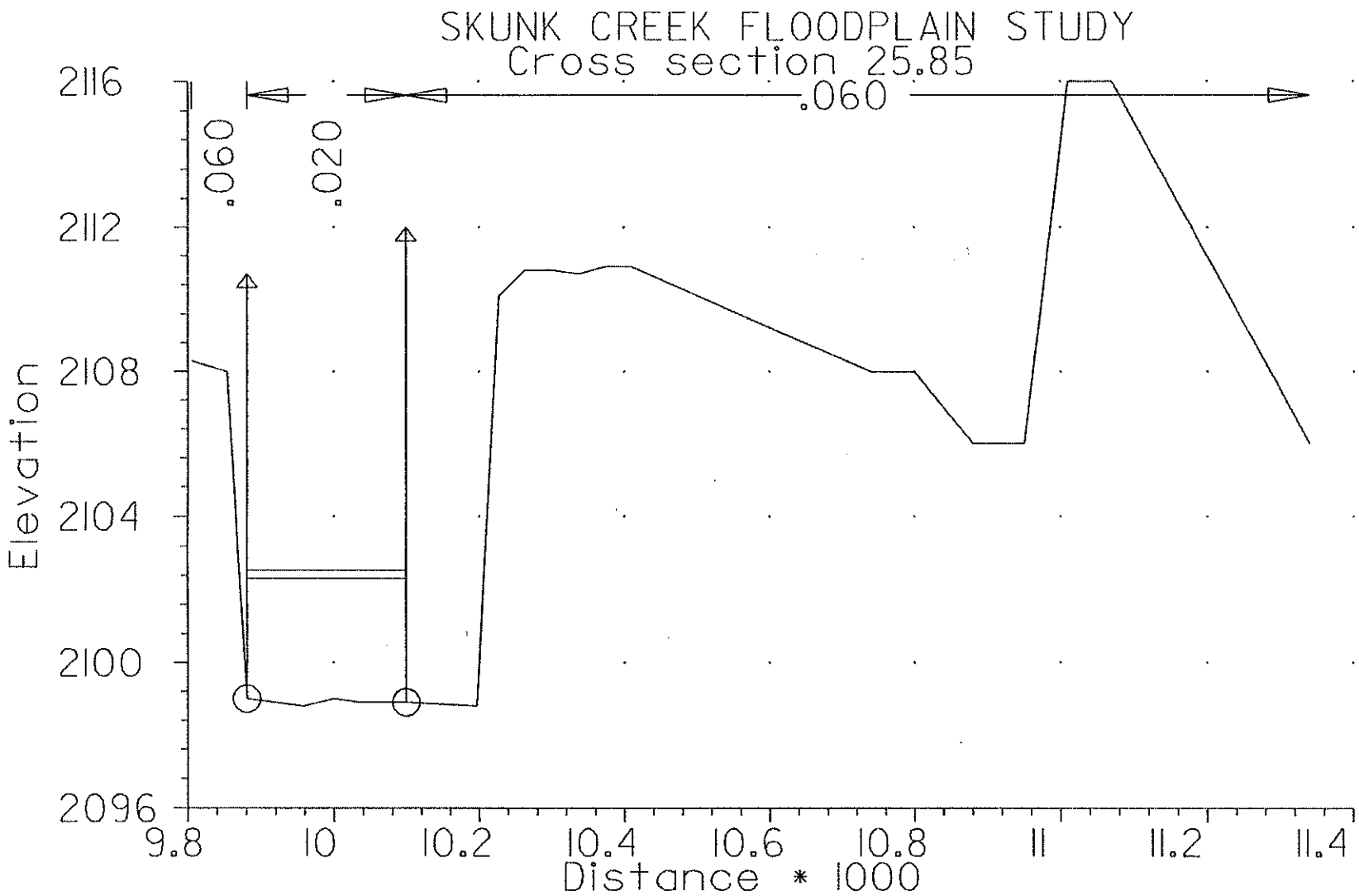
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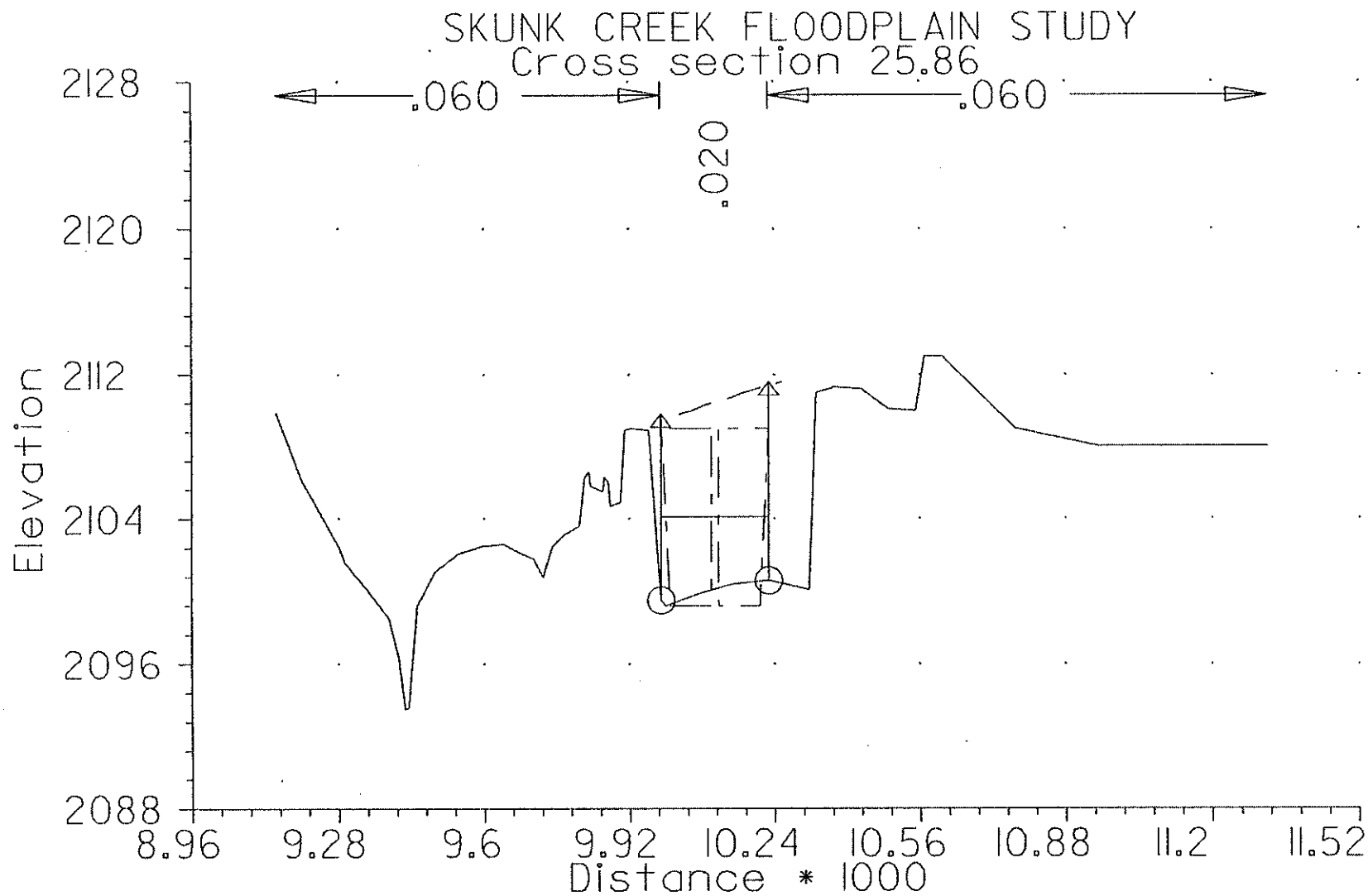
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
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2104
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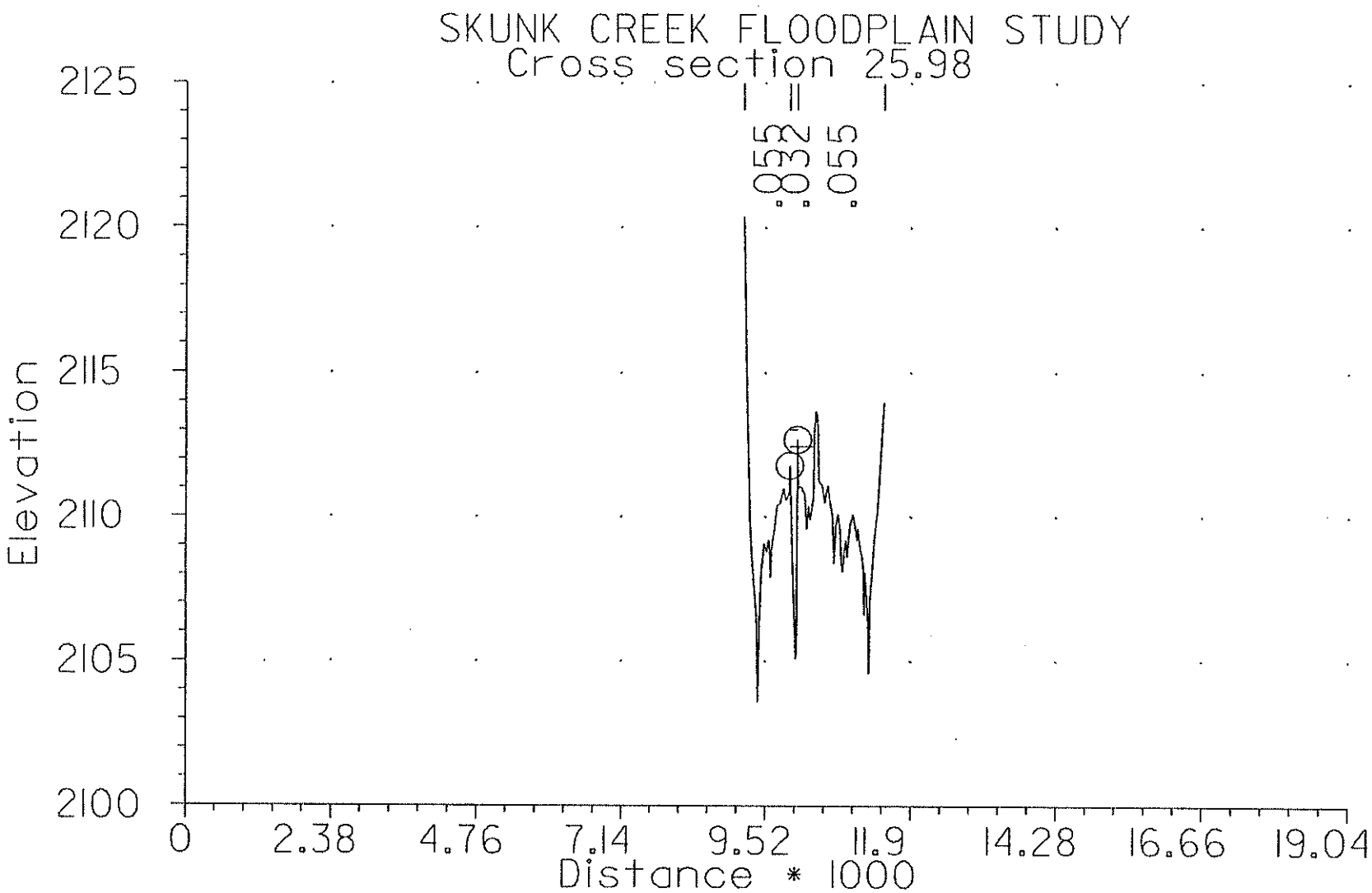
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
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.055
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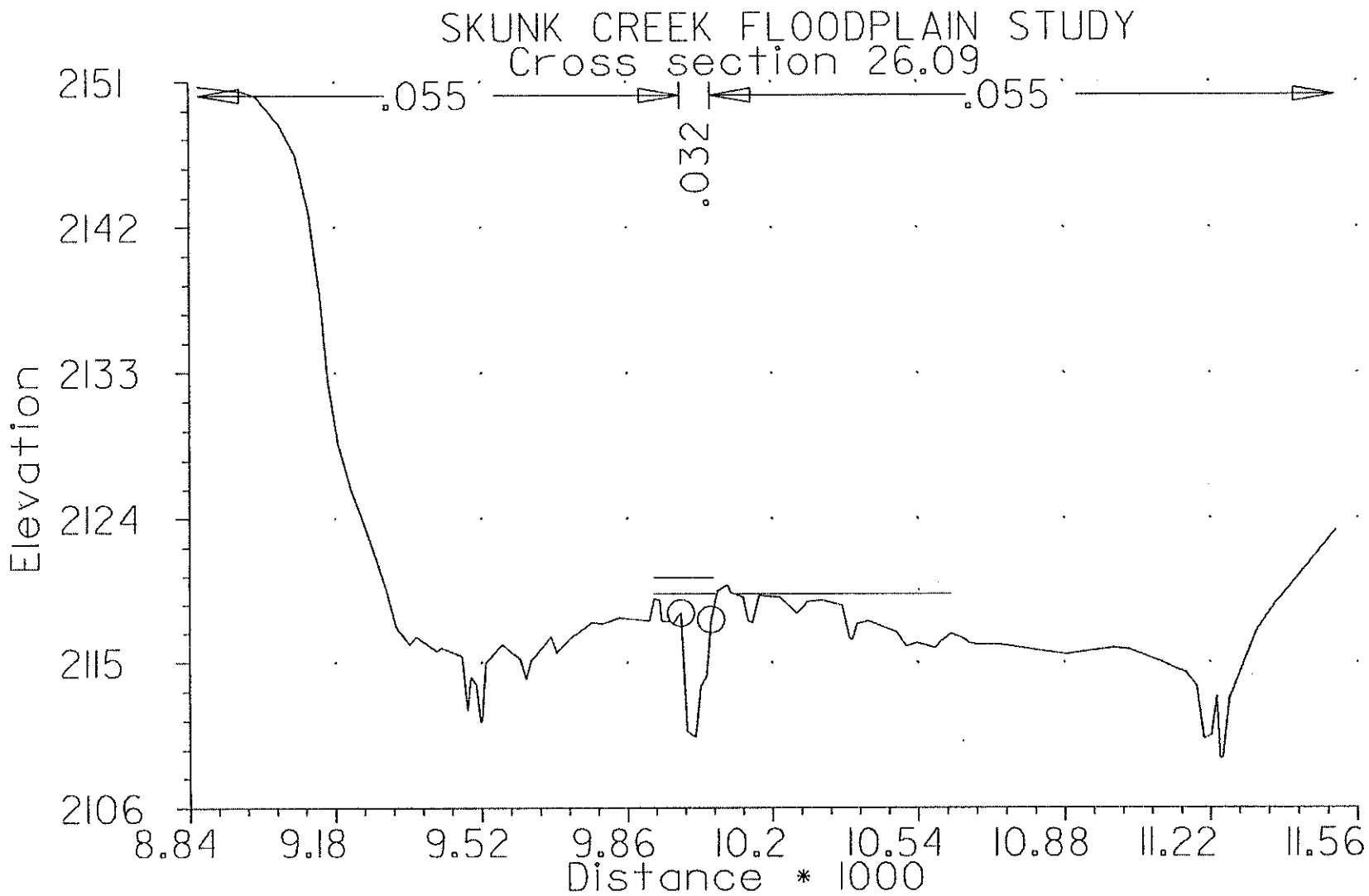
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2124
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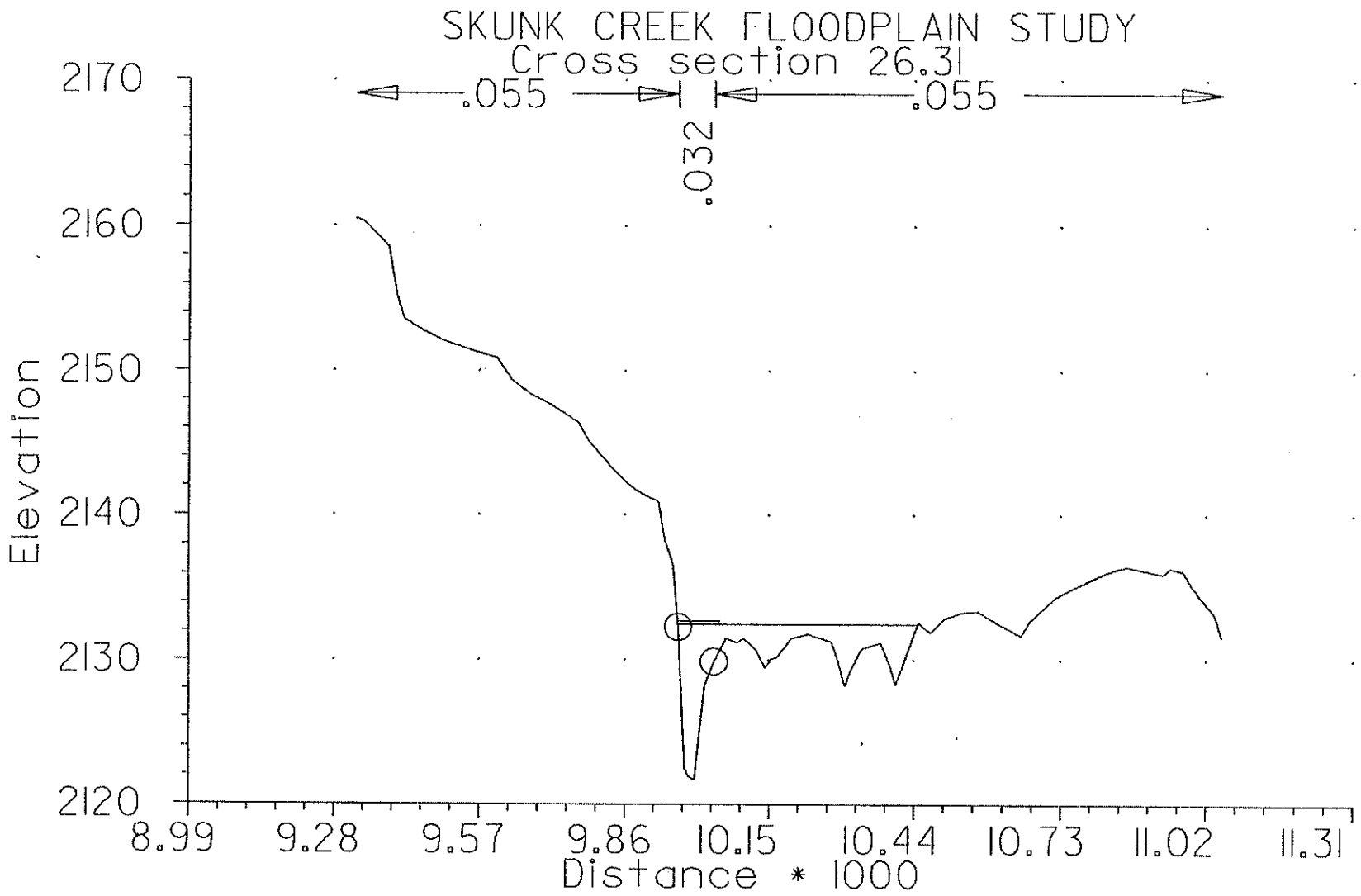
SKUNK CREEK FLOODPLAIN STUDY
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Elevation
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8.99
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9.57
9.86
10.15
10.44
10.73
11.02
11.31
Distance * 1000

Appendix B

MONTGOMERY WATSON

```
1*****************************************
 *  HEC-2 WATER SURFACE PROFILES          *
 *                                        *
 *  Version   4.6.2;  May 1991            *
 *                                        *
 *  RUN DATE    28MAY98    TIME   15:07:55 *
 *****************************************
```

```
*****************************************
*  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
```

1

28MAY98 15:07:55 PAGE 1

THIS RUN EXECUTED 28MAY98 15:07:55

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

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

FILE NAME: SK-SPLIT.DAT

THE PURPOSE OF THIS MODEL IS TO DETERMINE THE AMOUNT OF FLOW THAT SPLITS TO THE EAST OF SKUNK CREEK ABOVE NEW RIVER ROAD.

SPLIT FLOW BEING PERFORMED

```
SF      SPLIT FLOW ANALYISS ABOVE NEW RIVER ROAD


TW      SPLIT FLOW FROM 26.31 TO 26.09
WS    15   26.09   26.31   25.09    2.65
WC     0    2119     155    2120     260    2122     320    2122     500    2124
WC   635    2126     720    2128     750    2130     785    2132     820    2134
WC   880    2136     930    2138    1005    2140    1135    2146

TW      SPLIT FLOW FROM 26.09 TO 25.98
WS     6   25.98   26.09   25.09    2.65
WC     0  2111.8     115    2112     210    2114     450    2116     560    2118
WC   650    2119

TW      SPLIT FLOW FROM 25.98 TO 25.86
WS     6   25.86   25.98   25.09    2.65
WC     0    2108     100    2104     260    2106     400    2108     520    2110
WC   640  2111.8
```

1

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```
T1      SKUNK CREEK SPLIT FLOW ANALYSIS ABOVE NEW RIVER ROAD
T2      100-YEAR FREQUENCY            DATE:  FEBRUARY 1998
T2      THE DATA FOR THIS ANALYIS WAS OBTAINED FROM THE MONTGOMERY WATSON
T3      SKUNK CREEK STUDY

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

              2                                                          2061.94

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    -1                 -1


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    38       43        1        8       42        3        2       26       39       53
     4       54


NC    .06      .03      .06       .1       .3

QT      1     7800

ET                      7.1                                   9929    10080
X1   25.02       27     9962    10071      775      685    732.8
GR  2071.9     9592   2067.9     9602   2064.5     9634   2061.1     9659     2071     9690
GR    2071     9750   2061.7     9754   2061.3     9770   2061.2     9816   2061.7     9870
GR  2061.6     9911   2059.7     9917   2061.1     9929   2060.7     9962   2055.0     9978
GR  2054.6    10000   2056.3    10012   2056.4    10042   2057.8    10057   2059.1    10071
GR  2058.6    10100   2057.2    10124   2060.1    10135   2060.8    10157   2061.5    10172
GR  2062.8    10198   2071.0    10237


ET                      7.1                                   9920    10100
```

X1	25.09	42	9920	10097	485	285	405.6			
GR	2090.8	9562	2088.9	9594	2087.3	9620	2084.3	9641	2085.1	9653
GR	2084.2	9681	2083.1	9695	2083.8	9703	2083.6	9718	2081.7	9745
GR	2079.0	9774	2076.8	9810	2075.2	9846	2073.3	9874	2070.0	9901
GR	2064.7	9920	2064.6	9939	2064.3	9953	2063.7	9975	2057.4	9989
GR	2057.7	10000	2059.4	10007	2059.9	10018	2059.3	10024	2060.4	10033
GR	2060.5	10069	2059.2	10086	2060.5	10097	2060.3	10121	2061.5	10135
GR	2062.9	10159	2062.7	10173	2062.2	10185	2060.8	10201	2061.1	10204
GR	2060.5	10226	2061.2	10236	2061.2	10248	2060.2	10258	2060.0	10266
GR	2063.2	10275	2070.9	10296						

ET		9.1	7.1				9952	10105	9928	10113
X1	25.26	46	9949	10053	900	800	867.7			
GR	2078.3	9560	2077.5	9570	2077.5	9586	2076.9	9612	2076.2	9632
GR	2077.3	9637	2074.7	9654	2074.1	9667	2075.1	9676	2074.3	9703
GR	2072.5	9721	2071.6	9740	2069.4	9774	2066.9	9798	2069.4	9819
GR	2068.6	9826	2069.9	9836	2071.0	9855	2071.7	9872	2074.9	9903
GR	2074.9	9928	2073.5	9949	2066.7	9976	2066.2	9985	2064.7	10000
GR	2065.2	10008	2065.0	10033	2070.6	10053	2072.1	10079	2071.5	10092
GR	2072.4	10104	2075.3	10113	2075.0	10125	2071.2	10138	2073.0	10173
GR	2072.5	10184	2072.0	10211	2072.3	10240	2077.9	10242	2072.5	10253
GR	2072.4	10267	2075.6	10289	2082.4	10312	2087.7	10348	2090.5	10372
GR	2094.9	10396								

ET		9.1	7.1				9849	10037	9552	10052
X1	25.42	57	9965	10024	950	715	867.5			
GR	2089.8	8848	2088.3	8893	2087.1	8943	2086.2	8997	2085.0	9033
GR	2083.4	9077	2081.8	9099	2081.2	9134	2080.2	9154	2078.5	9166
GR	2078.0	9174	2080.2	9181	2080.4	9199	2081.1	9222	2082.1	9234
GR	2082.8	9269	2084.1	9292	2085.0	9320	2084.5	9323	2084.8	9330
GR	2085.5	9337	2085.8	9360	2085.7	9378	2084.3	9386	2084.0	9409
GR	2083.4	9433	2082.5	9450	2082.0	9487	2082.2	9498	2082.7	9523
GR	2082.6	9552	2082.3	9577	2081.3	9606	2079.8	9632	2079.1	9648
GR	2079.9	9657	2080.1	9675	2078.5	9687	2079.9	9707	2079.3	9725
GR	2079.4	9767	2079.5	9791	2079.0	9807	2079.3	9838	2078.9	9849
GR	2078.6	9887	2077.3	9899	2078.7	9919	2078.7	9954	2077.8	9965
GR	2075.1	9978	2072.6	9995	2072.3	10000	2071.5	10014	2074.0	10024
GR	2089.4	10052	2090.5	10060						

ET		9.1	7.1				9650	10296	9287	10336
X1	25.52	77	9865	10140	255	760	538.7			
GR	2090.3	8816	2088.6	8849	2087.3	8903	2085.3	8954	2083.9	9005
GR	2082.6	9032	2082.1	9045	2082.7	9053	2082.1	9066	2080.1	9076
GR	2080.0	9083	2081.8	9098	2081.8	9126	2083.8	9174	2084.9	9211
GR	2085.4	9235	2085.7	9244	2084.8	9247	2085.9	9262	2086.0	9276
GR	2085.7	9287	2085.0	9308	2084.6	9333	2084.1	9379	2083.9	9415
GR	2083.6	9447	2082.2	9487	2081.2	9510	2081.6	9523	2082.0	9549
GR	2081.8	9565	2082.4	9571	2082.5	9601	2082.8	9624	2083.3	9672
GR	2083.3	9697	2082.4	9725	2083.4	9760	2084.1	9775	2084.0	9795
GR	2083.4	9810	2084.8	9830	2084.7	9865	2081.6	9873	2081.7	9883
GR	2082.7	9892	2083.3	9910	2082.8	9940	2080.6	9952	2082.1	9967
GR	2080.3	9984	2079.8	10000	2083.8	10012	2083.2	10026	2083.3	10037
GR	2081.7	10071	2081.5	10085	2084.0	10094	2084.6	10109	2084.3	10140
GR	2082.2	10152	2084.6	10162	2084.0	10174	2080.9	10194	2084.5	10203
GR	2084.5	10236	2078.2	10262	2078.9	10281	2084.1	10296	2085.8	10336
GR	2087.0	10404	2089.1	10466	2089.3	10498	2090.7	10528	2091.2	10546
GR	2095.2	10571	2101.2	10610						

ET		9.1	7.1				9968	10598	9861	10705
X1	25.59	70	9966	10072	375	375	362.2			
GR	2093.6	9071	2092.6	9124	2091.0	9188	2089.7	9236	2088.1	9290
GR	2086.9	9314	2085.1	9329	2084.6	9367	2081.0	9383	2081.0	9394
GR	2083.6	9412	2085.2	9434	2086.6	9464	2087.6	9517	2088.1	9557
GR	2088.0	9570	2088.4	9600	2089.3	9633	2088.7	9650	2088.5	9679
GR	2088.2	9715	2088.9	9731	2089.3	9761	2089.8	9775	2090.2	9813
GR	2090.2	9861	2089.6	9909	2088.8	9941	2088.8	9966	2085.1	9975
GR	2084.8	10000	2086.9	10010	2086.9	10026	2088.5	10038	2086.9	10053
GR	2087.9	10072	2088.3	10093	2088.1	10113	2084.7	10127	2084.6	10132
GR	2087.4	10148	2088.0	10182	2088.5	10230	2088.2	10266	2087.8	10301
GR	2085.6	10312	2087.2	10322	2087.7	10347	2087.3	10374	2086.2	10388
GR	2086.2	10394	2087.9	10414	2088.5	10440	2089.0	10488	2088.4	10513
GR	2086.7	10533	2086.8	10551	2085.6	10575	2082.0	10598	2081.7	10615
GR	2082.7	10641	2087.7	10653	2089.2	10679	2089.8	10705	2090.3	10742
GR	2091.5	10771	2090.5	10780	2092.7	10793	2097.1	10823	2101.2	10867

ET		9.1	7.1				9686	10511	9608	10564
X1	25.70	91	9927	10048	535	600	583.5			
GR	2110.3	8666	2108.6	8716	2107.3	8774	2105.7	8825	2104.5	8861
GR	2102.2	8927	2100.4	8984	2098.8	9019	2098.0	9059	2096.0	9098
GR	2094.0	9131	2093.0	9168	2092.3	9193	2089.6	9224	2086.1	9237
GR	2085.5	9256	2087.2	9268	2092.9	9288	2094.5	9307	2095.3	9336
GR	2095.4	9368	2095.2	9413	2095.0	9460	2095.0	9487	2094.8	9519
GR	2094.4	9538	2098.2	9554	2098.6	9566	2098.5	9595	2097.9	9608
GR	2095.0	9624	2094.1	9642	2095.3	9652	2096.3	9680	2095.9	9687
GR	2096.2	9706	2095.4	9716	2095.2	9745	2094.6	9777	2094.9	9800
GR	2094.6	9817	2093.7	9823	2094.9	9842	2094.8	9883	2095.2	9898
GR	2095.2	9927	2094.7	9952	2092.3	9968	2091.6	9977	2091.8	9996
GR	2091.9	10000	2095.6	10010	2095.6	10048	2095.1	10094	2093.8	10121
GR	2094.6	10134	2094.8	10169	2094.0	10215	2093.5	10221	2094.1	10231
GR	2094.3	10277	2094.6	10298	2094.0	10305	2094.7	10315	2094.9	10348
GR	2094.8	10375	2092.6	10390	2086.0	10406	2085.6	10413	2086.2	10422
GR	2091.0	10446	2093.0	10478	2094.8	10511	2096.6	10542	2097.9	10564
GR	2097.6	10603	2096.4	10638	2095.1	10656	2094.9	10681	2094.8	10697
GR	2095.3	10731	2095.5	10757	2095.3	10794	2094.8	10827	2093.8	10854
GR	2089.5	10871	2089.9	10883	2092.1	10908	2098.3	10928	2099.8	10954

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GR   2101.0      10993

ET                 9.1       7.1                                   9931     10477      9707     10627
X1    25.77         87      9934     10088       375       350     365.7
GR   2114.6       8821    2111.4      8900    2109.3      8953    2107.0      9003    2104.7      9056
GR   2102.4       9103    2100.5      9143    2098.6      9174    2095.5      9198    2092.8      9214
GR   2089.7       9227    2090.3      9244    2093.5      9261    2094.7      9275    2095.8      9289
GR   2097.9       9335    2099.1      9384    2099.6      9438    2099.9      9493    2100.2      9543
GR   2100.5       9596    2100.9      9624    2106.9      9647    2107.2      9662    2106.8      9693
GR   2106.2       9707    2102.4      9728    2101.7      9762    2101.2      9788    2101.2      9832
GR   2101.1       9886    2100.3      9904    2098.8      9919    2098.6      9934    2101.0      9939
GR   2096.0       9948    2095.4      9954    2095.2      9965    2096.0      9979    2095.7     10000
GR   2099.2      10007    2099.2     10040    2098.1     10042    2098.2     10065    2099.2     10088
GR   2099.8      10155    2099.6     10209    2099.2     10251    2098.0     10299    2096.3     10317
1
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GR   2097.8      10334    2097.6     10367    2097.0     10381    2096.4     10417    2093.0     10431
GR   2093.0      10444    2094.6     10458    2094.7     10468    2095.1     10477    2096.5     10487
GR   2096.8      10508    2093.2     10530    2093.3     10540    2096.9     10570    2101.2     10603
GR   2104.4      10627    2107.2     10654    2108.1     10674    2108.3     10698    2108.4     10733
GR   2107.3      10752    2106.2     10782    2105.8     10806    2104.7     10820    2101.3     10840
GR   2099.6      10859    2098.3     10882    2096.7     10922    2095.5     10932    2095.3     10958
GR   2092.3      10971    2091.7     10994    2096.6     11006    2094.2     11019    2097.7     11031
GR   2098.6      11065    2100.9     11087

NC     .060       .060      .020       0.3       0.5

ET                          7.11                                   9881     10099
X1    25.85         21      9881     10099       200       750      396
X3       10                                                      2110.7    2112.0
GR   2108.3       9805    2108.0      9854    2099.0      9881    2098.8      9959    2099.0     10000
GR   2098.9      10036    2098.9     10099    2098.8     10197    2110.1     10227    2110.8     10263
GR   2110.8      10300    2110.7     10338    2110.9     10373    2110.9     10410      2108     10740
GR     2108      10800      2106     10880      2106     10950      2116     11010      2116     11070
GR     2106      11340
```

Cross Section 25.86 is immediately Upstream of New River Bridge
Bridge skew has been incorporated by computing distance and effective
area based on a projection normal to flow direction.
The GR record data that lie outside the bridge and adjacent embankments
have not been skewed.
This method is different than that used for the Carefree Highway Bridge,
where the entire set of GR record data are skewed by a constant factor.

```
SB       0.9        1.6       2.6         0       197        16      1410         2    2099.2    2099.0
ET                 9.11      9.11                                                       9990     10227
X1    25.86         47      9990     10227      79.7      79.7      79.7
X2                           1    2109.0    2114.5         0         0      1.33
X3       10                                                      2109.8    2111.6
BT       -9      10030    2109.8               10058    2110.0               10087    2110.3
BT               10115    2110.5               10143    2110.7               10171    2111.0
BT               10200    2111.2               10228    2111.4               10256    2111.6
GR   2109.9       9144    2106.1      9200    2102.4      9282    2101.6      9293    2100.2      9339
GR   2098.5       9390    2096.3      9412    2093.5      9425    2093.6      9433    2099.2      9452
GR   2101.1       9492    2102.1      9545    2102.5      9597    2102.6      9644    2102.1      9681
GR   2101.8       9709    2100.8      9730    2102.5      9751    2103.1      9775    2103.6      9810
GR   2106.3       9822    2106.6      9831    2105.8      9834    2105.5      9861    2106.3      9865
GR   2106.0       9874    2104.7      9878    2104.9      9900    2108.9      9910    2109.0      9922
GR   2108.9       9963    2099.5      9990    2099.2     10000    2099.9     10074    2100.4     10145
GR   2100.6      10227    2100.1     10315    2111.0     10331    2111.3     10372    2111.2     10431
GR   2110.1      10490      2110     10550      2113     10570      2113     10610      2109     10770
GR     2108      10950      2108     11320
1
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NC     .055       .055      .032

ET                 7.1                                                    9914     10343
X1    25.98         75      9914     10040       600       145     612.5
X3       10
GR   2120.4       9162    2114.5      9211    2109.9      9263    2108.9      9290    2107.8      9328
GR   2106.5       9372    2103.6      9395    2106.3      9420    2108.1      9450    2109.1      9502
GR   2108.8       9536    2109.2      9569    2108.7      9592    2107.9      9604    2108.9      9618
GR   2109.6       9668    2110.4      9705    2110.5      9758    2111.0      9812    2110.6      9853
GR   2110.8       9906    2111.8      9914    2110.2      9938    2108.1      9966    2106.0     10000
GR   2105.1      10012    2105.3     10025    2112.7     10040    2111.0     10048    2111.1     10092
GR   2110.8      10157    2109.6     10190    2110.4     10217    2109.9     10245    2110.7     10299
GR   2113.0      10312    2113.3     10327    2113.7     10343    2113.6     10361    2113.1     10375
GR   2111.3      10387    2111.1     10441    2110.5     10482    2110.8     10503    2111.1     10535
GR   2110.7      10556    2110.0     10612    2108.4     10639    2109.7     10665    2110.1     10700
GR   2109.5      10738    2108.4     10759    2108.1     10779    2108.8     10805    2109.2     10831
GR   2108.6      10856    2109.7     10900    2110.1     10946    2109.6     10987    2109.2     11018
GR   2109.6      11025    2109.0     11062    2108.7     11099    2108.2     11124    2106.6     11135
GR   2108.1      11149    2106.3     11202    2104.6     11211    2104.6     11220    2107.0     11228
GR   2108.0      11262    2109.4     11305    2110.1     11347    2110.5     11359    2114.0     11456

NC                                     0.1       0.3

ET                 7.1                                                    9923     10096
X1    26.09         91      9986     10057       600       625     620.6
X3       10
GR   2150.7       8862    2150.4      8964    2150.1      8996    2148.4      9049    2146.4      9088
GR   2142.8       9120    2137.7      9145    2132.5      9163    2128.8      9186    2125.7      9218
GR   2123.2       9254    2119.8      9297    2117.2      9322    2116.1      9353    2116.6      9368
GR   2115.7       9416    2115.9      9426    2115.4      9474    2112.1      9487    2114.1      9494
GR   2113.7       9507    2111.4      9517    2111.4      9520    2115.0      9529    2116.1      9568
GR   2115.2       9609    2114.0      9623    2115.1      9634    2115.8      9657    2116.6      9681
GR   2115.6       9694    2116.5      9727    2117.5      9777    2117.4      9802    2117.8      9841
GR   2117.6       9912    2119.0      9923    2118.9      9936    2117.6      9941    2117.5      9969
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GR   2118.1      9986     2110.8     10000     2110.4     10020     2113.5     10032     2114.2     10046
GR   2117.7     10057     2119.5     10072     2119.9     10096     2119.4     10103     2119.1     10132
GR   2117.6     10144     2117.5     10154     2119.2     10169     2119.1     10217     2118.1     10258
GR   2118.8     10282     2118.9     10315     2118.6     10363     2116.5     10380     2116.4     10387
GR   2117.4     10398     2117.6     10425     2117.2     10461     2116.9     10490     2116.0     10512
GR   2116.2     10538     2115.9     10580     2116.3     10593     2116.8     10616     2116.5     10644
GR   2116.2     10658     2116.1     10680     2116.1     10729     2115.9     10781     2115.7     10829
GR   2115.5     10882     2115.9     10993     2115.8     11030     2115.0     11108     2114.4     11161
GR   2113.5     11189     2110.3     11205     2110.5     11222     2112.9     11235     2109.1     11242
GR   2109.1     11249     2112.8     11264     2114.5     11290     2117.0     11327     2118.6     11367
GR   2123.3     11510

1
   28MAY98      15:07:55                                                                                PAGE    7


ET                 7.1                                                          10501
X1    26.31         64       9967      10039       1225       1040     1132.0
X3       10
GR   2160.5      9322     2160.3      9339     2159.0      9377     2158.6      9388     2155.2      9405
GR   2153.6      9419     2152.8      9457     2152.1      9498     2151.4      9556     2150.9      9605
GR   2149.4      9633     2148.4      9670     2147.7      9709     2146.4      9766     2145.2      9786
GR   2143.3      9832     2142.1      9867     2141.5      9891     2140.9      9927     2138.3      9940
GR   2136.6      9957     2132.3      9967     2122.5      9980     2121.9      9988     2121.7     10000
GR   2128.2     10020     2129.9     10039     2131.5     10063     2131.2     10085     2131.5     10098
GR   2130.8     10122     2129.5     10141     2130.1     10155     2130.2     10165     2131.5     10194
GR   2131.8     10227     2131.3     10274     2130.2     10286     2128.2     10302     2129.3     10313
GR   2130.8     10335     2131.2     10373     2129.7     10391     2128.3     10403     2129.7     10418
GR   2132.6     10448     2131.9     10472     2132.9     10501     2133.3     10535     2133.4     10566
GR   2132.5     10609     2131.9     10640     2131.7     10651     2132.7     10668     2134.4     10720
GR   2135.1     10759     2136.1     10820     2136.5     10860     2136.0     10933     2136.4     10948
GR   2136.2     10973     2135.2     10990     2133.2     11036     2131.6     11050
1
   28MAY98      15:07:55                                                                                PAGE    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
0

 CCHV=     .100 CEHV=     .300
 *SECNO 25.020

 3265 DIVIDED FLOW

    25.020      7.34   2061.94   2061.66   2061.94   2063.16      1.22       .00       .00   2060.70
    7800.0     309.0    4596.9    2894.1     141.4     589.6     269.3        .0        .0   2059.10
       .00      2.19      7.80     10.75      .060      .060      .030      .000   2054.60   9652.82
   .010596      775.      733.      685.         0         7         0       .00    435.71  10180.80


 *SECNO 25.090

 3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.46

    25.090      7.43   2064.83       .00       .00   2065.61       .79      2.41       .04   2064.70
    7800.0        .0    2613.3    5186.7        .0     640.8     629.7       9.5       3.5   2060.50
       .01       .02      4.08      8.24      .060      .060      .030      .000   2057.40   9919.54
   .004944      485.      406.      285.         2         0         0       .00    359.90  10279.44


 *SECNO 25.260

 3301 HV CHANGED MORE THAN HVINS


 3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .25


 3470 ENCROACHMENT STATIONS=     9928.0   10113.0  TYPE=      1  TARGET=      185.000
    25.260      6.31   2071.01   2070.96   2071.01   2073.18      2.17      7.15       .41   2073.50
    4990.0        .0    4985.5       4.4        .0     421.8       1.5      25.8       7.9   2070.60
       .03       .00     11.82      3.05      .000      .060      .030      .000   2064.70   9958.89
   .031443      900.      868.      800.         6         8         0       .00    101.22  10060.11


 *SECNO 25.420

 3301 HV CHANGED MORE THAN HVINS

1
   28MAY98      15:07:55                                                                                PAGE    9

    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


 3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.67


 3470 ENCROACHMENT STATIONS=     9552.0   10052.0  TYPE=      1  TARGET=      500.000
    25.420      9.63   2081.13       .00   2081.13   2081.56       .43      8.21       .17   2077.80
    4990.0    1913.4    2751.3     325.3     702.8     441.1      46.2      42.5      13.5   2074.00
       .08      2.72      6.24      7.04      .060      .060      .030      .000   2071.50   9608.92
   .004416      950.      868.      715.         4         0         0       .00    428.05  10036.97


 *SECNO 25.520
```

```
3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9287.0   10336.0  TYPE=      1  TARGET=     1049.000
    25.520      5.83   2084.03   2084.03   2084.03   2084.71      .68      2.74       .08   2084.70
    4990.0    1286.1    1250.2    2453.8     475.7     415.8    272.5      54.0      18.6   2084.30
       .11      2.70      3.01      9.01      .060      .060     .030      .000   2078.20   9391.86
   .006690      255.      539.      760.         5        11        0       .00    743.58  10295.79


*SECNO 25.590

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9861.0   10705.0  TYPE=      1  TARGET=      844.000
    25.590      6.83   2087.83   2087.83   2087.83   2088.75      .92      2.12       .07   2088.80
    4990.0        .0     288.2    4701.8        .0     131.2    594.6      62.1      23.4   2087.90
       .12       .00      2.20      7.91      .000      .060     .030      .000   2081.00   9968.36
   .004893      375.      362.      375.        20         8        0       .00    399.46  10655.24


*SECNO 25.700
1
   28MAY98      15:07:55                                                                                    PAGE   10

    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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9608.0   10564.0  TYPE=      1  TARGET=      956.000
    25.700      9.23   2094.73   2094.73   2094.73   2095.64      .92      2.43       .00   2095.20
    4990.0      15.3     301.0    4673.7      18.9     124.5    590.3      72.1      29.2   2095.60
       .14       .81      2.42      7.92      .060      .060     .030      .000   2085.50   9629.46
   .003421      535.      584.      600.        20        12        0       .00    455.83  10509.67


*SECNO 25.770

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9707.0   10627.0  TYPE=      1  TARGET=      920.000
    25.770      8.09   2097.79   2097.79   2097.87   2098.89     1.10      1.73       .05   2098.60
    4990.0        .0     404.8    4585.2        .0     118.6    526.8      77.6      32.5   2099.20
       .15       .00      3.41      8.70      .000      .060     .030      .000   2089.70   9944.78
   .007721      375.      366.      350.        20        13        0       .00    333.39  10576.84


CCHV=     .300 CEHV=     .500
*SECNO 25.850
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      2110.70 ELREA=      2112.00

    25.850      2.63   2101.43   2101.43   2101.43   2102.71     1.28      3.17       .09   2099.00
    4990.0        .0    4990.0        .0        .0     549.8       .0      85.2      36.1   2098.90
       .17       .00      9.08       .00      .000      .020     .000      .000   2098.80   9881.00
   .004347      200.      396.      750.         5        17        0       .00    218.00  10099.00


1
   28MAY98      15:07:55                                                                                    PAGE   11

    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


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    2101.17 , NOT    2101.43 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     .90       1.60       2.60        .00     197.00      16.00    1410.00      2.00    2099.20    2099.00

*SECNO 25.860
BTCARD, BRIDGE STENCL=    9990.00   STENCR=   10227.00
CLASS B LOW FLOW

3420 BRIDGE W.S.=    2101.94 BRIDGE VELOCITY=       9.42     CALCULATED CHANNEL AREA=       511.

 EGPRS      EGLWC      H3         QWEIR      QLOW       BAREA    TRAPEZOID      ELLC       ELTRD      WEIRLN
                                                                    AREA
      .00   2103.74       .00         0.     4990.      1410.      1966.     2109.00    2114.50         0.
```

```
3470 ENCROACHMENT STATIONS=     9990.0   10227.0  TYPE=      1  TARGET=      237.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      2109.80 ELREA=      2111.60

    25.860      3.67   2102.87       .00   2102.87   2103.74       .86      1.03       .00   2099.50
    4990.0        .0    4990.0        .0       .0     668.8        .0      86.3      36.5 100000.00
       .17       .00      7.46       .00      .000      .020      .000      .000   2099.20   9990.00
   .002561       80.       80.       80.         0         0         0       .00    237.00  10227.00


*SECNO 25.980

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9914.0   10343.0  TYPE=      1  TARGET=      429.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      2111.80 ELREA=      2112.70

    25.980      6.83   2111.93   2111.93   2111.93   2113.91      1.97      2.84       .55   2111.80
    5357.2        .0    5357.2       .0        .0     475.1        .0      94.4      39.0   2112.70
       .19       .00     11.28       .00      .000      .032      .000      .000   2105.10   9914.00
   .010084      600.      613.      145.        20        17         0       .00    124.45  10038.45


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   28MAY98      15:07:55                                                                          PAGE   12

    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


CCHV=     .100 CEHV=     .300
*SECNO 26.090

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9923.0   10096.0  TYPE=      1  TARGET=      173.000
    26.090     10.07   2120.47   2120.47   2120.47   2122.98      2.51      4.52       .16   2118.10
    7755.1     621.4    7013.1     120.5     158.0     526.3      46.5     102.9      41.1   2117.70
       .20      3.93     13.33      2.59      .055      .032      .055      .000   2110.40   9923.00
   .005992      600.      621.      625.        12        14         0       .00    173.00  10096.00


*SECNO 26.310

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    26.310     10.82   2132.52   2132.52   2132.52   2133.90      1.39      5.95       .11   2132.30
    7800.0        .0    5490.9    2309.1        .1     494.8     758.5     128.0      49.7   2129.90
       .24       .02     11.10      3.04      .055      .032      .055      .000   2121.70   9966.50
   .004732     1225.     1132.     1040.         1         8         0       .00    519.57  10489.85


1
   28MAY98      15:07:55                                                                          PAGE   13


 TW      SPLIT FLOW FROM 26.31 TO 26.09

    ASQ       QCOMP      ERRAC      TASQ       TCQ       TABER      NITER      DSWS      USWS      DSSNO      USSNO
    44.93     45.10        .38     44.93     45.10        .38          7  2120.470  2132.515     26.090     26.310


 TW      SPLIT FLOW FROM 26.09 TO 25.98

    ASQ       QCOMP      ERRAC      TASQ       TCQ       TABER      NITER      DSWS      USWS      DSSNO      USSNO
   2397.86   2404.79        .29   2442.79   2449.90        .29          7  2111.933  2120.470     25.980     26.090


 TW      SPLIT FLOW FROM 25.98 TO 25.86

    ASQ       QCOMP      ERRAC      TASQ       TCQ       TABER      NITER      DSWS      USWS      DSSNO      USSNO
    367.22    369.54        .63   2810.00   2819.44        .34          7  2102.872  2111.933     25.860     25.980

1
   28MAY98      15:07:55                                                                          PAGE   14


                                                                    THIS RUN EXECUTED 28MAY98     15:07:56
 ************************************
 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
```

SKUNK CREEK STUDY

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	DEPTH	ELMIN	EG	CRIWS	VCH	XLCH	SSTA	TOPWID	ENDST
	25.020	7800.00	2061.94	7.34	2054.60	2063.16	2061.66	7.80	.00	9652.82	435.71	10180.80
*	25.090	7800.00	2064.83	7.43	2057.40	2065.61	.00	4.08	405.60	9919.54	359.90	10279.44
*	25.260	4990.00	2071.01	6.31	2064.70	2073.18	2070.96	11.82	867.70	9958.89	101.22	10060.11
*	25.420	4990.00	2081.13	9.63	2071.50	2081.56	.00	6.24	867.50	9608.92	428.05	10036.97
*	25.520	4990.00	2084.03	5.83	2078.20	2084.71	2084.03	3.01	538.70	9391.86	743.58	10295.79
*	25.590	4990.00	2087.83	6.83	2081.00	2088.75	2087.83	2.20	362.20	9968.36	399.46	10655.24
*	25.700	4990.00	2094.73	9.23	2085.50	2095.64	2094.73	2.42	583.50	9629.46	455.83	10509.67
*	25.770	4990.00	2097.79	8.09	2089.70	2098.89	2097.79	3.41	365.70	9944.78	333.39	10576.84
*	25.850	4990.00	2101.43	2.63	2098.80	2102.71	2101.43	9.08	396.00	9881.00	218.00	10099.00
*	25.860	4990.00	2102.87	3.67	2099.20	2103.74	.00	7.46	79.70	9990.00	237.00	10227.00
*	25.980	5357.21	2111.93	6.83	2105.10	2113.91	2111.93	11.28	612.50	9914.00	124.45	10038.45
*	26.090	7755.07	2120.47	10.07	2110.40	2122.98	2120.47	13.33	620.60	9923.00	173.00	10096.00
*	26.310	7800.00	2132.52	10.82	2121.70	2133.90	2132.52	11.10	1132.00	9966.50	519.57	10489.85

1

28MAY98 15:07:55 PAGE 15

SUMMARY OF ERRORS AND SPECIAL NOTES

```
WARNING SECNO=     25.090  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     25.260  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     25.420  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     25.520  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.520  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     25.590  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.590  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     25.590  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     25.700  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.700  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     25.700  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     25.770  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.770  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     25.770  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     25.850  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.850  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     25.860  PROFILE=  1  HYDRAULIC JUMP D.S.

CAUTION SECNO=     25.980  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.980  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     25.980  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     26.090  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     26.090  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     26.310  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     26.310  PROFILE=  1  MINIMUM SPECIFIC ENERGY
```

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1*****************************************
 *  HEC-2 WATER SURFACE PROFILES          *
 *                                        *
 *  Version   4.6.2;  May 1991            *
 *                                        *
 *  RUN DATE    28MAY98    TIME   15:07:24 *
 *****************************************
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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     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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THIS RUN EXECUTED 28MAY98 15:07:24

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

 Version   4.6.2;  May 1991
*************************************
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```
        FILE NAME:  SK-TRIB.DAT

T1      SKUNK CREEK TRIBUTARY ANALYSIS
T2      100-YEAR FREQUENCY              DATE:  FEBRUARY 1998
T2      THIS RUN INCORPORATES REVISIONS TO ONLY MODEL THE FLOW THAT COULD
T2      SPLIT FROM THE MAIN PORTION OF SKUNK CREEK ABOVE NEW RIVER ROAD BRIDGE.
T2      THIS FLOW COULD SPLIT FROM THE MAIN FLOW BETWEEN CROSS SECTIONS
T2      25.86 AND 26.31, AND WILL GO IN A SOUTHERLY DIRECTION SEPARATED FROM THE
T2      MAIN FLOW, UNTIL RETURNING JUST BELOW CROSS SECTION 25.26.
T3      THE DATA FOR THIS ANALYSIS WAS EXTRACTED FROM THE MONTGOMERY WATSON
T3      SKUNK CREEK FLOODPLAIN STUDY.

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

                2                                                                   2064.96

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    -1                  -1                                      -1

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    38        43        1         8         42        3         2         26        5         39
    53        4         54        110       115       150       200

       ANALYSIS OF THE SPLIT FLOW FLOW ON THE EAST SIDE OF SKUNK CREEK FROM
       CROSS SECTIONS 25.09 TO 26.31.  NO FLOODWAY ANALYSIS WAS PERFORMED.

QT        1       7800
NC     0.06       0.06      0.03        .1        .3

       STARTING WATER SURFACE ELEVATION FOR THE SPLIT FLOW ANALYSIS WAS
       SELECTED FROM THE ORIGINAL HEC-2 HYDRAULIC MODEL, AS 2064.96 FT.

X1    25.09         42      9920     10097       485       285     405.6
GR   2090.8       9562    2088.9      9594    2087.3      9620    2084.3      9641    2085.1      9653
GR   2084.2       9681    2083.1      9695    2083.8      9703    2083.6      9718    2081.7      9745
GR   2079.0       9774    2076.8      9810    2075.2      9846    2073.3      9874    2070.0      9901
GR   2064.7       9920    2064.6      9939    2064.3      9953    2063.7      9975    2057.4      9989
GR   2057.7      10000    2059.4     10007    2059.9     10018    2059.3     10024    2060.4     10033
GR   2060.5      10069    2059.2     10086    2060.5     10097    2060.3     10121    2061.5     10135
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GR   2062.9      10159    2062.7     10173    2062.2     10185    2060.8     10201    2061.1     10204
GR   2060.5      10226    2061.2     10236    2061.2     10248    2060.2     10258    2060.0     10266
GR   2063.2      10275    2070.9     10296

QT        1       2810
NC     0.06       0.06      0.03
ET                9.1                                                                   9676       9928
X1    25.26         46      9703      9903       920       920       920
GR   2078.3       9560    2077.5      9570    2077.5      9586    2076.9      9612    2076.2      9632
GR   2077.3       9637    2074.7      9654    2074.1      9667    2075.1      9676    2074.3      9703
GR   2072.5       9721    2071.6      9740    2069.4      9774    2066.9      9798    2069.4      9819
GR   2068.6       9826    2069.9      9836    2071.0      9855    2071.7      9872    2074.9      9903
GR   2074.9       9928    2073.5      9949    2066.7      9976    2066.2      9985    2064.7     10000
GR   2065.2      10008    2065.0     10033    2070.6     10053    2072.1     10079    2071.5     10092
GR   2072.4      10104    2075.3     10113    2075.0     10125    2071.2     10138    2073.0     10173
GR   2072.5      10184    2072.0     10211    2072.3     10240    2077.9     10242    2072.5     10253
GR   2072.4      10267    2075.6     10289    2082.4     10312    2087.7     10348    2090.5     10372
GR   2094.9      10396

ET                9.1                                                                   9033       9360
X1    25.42         57      9077      9269       770       770       770
GR   2089.8       8848    2088.3      8893    2087.1      8943    2086.2      8997    2085.0      9033
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GR   2083.4      9077    2081.8      9099    2081.2      9134    2080.2      9154    2078.5      9166
GR   2078.0      9174    2080.2      9181    2080.4      9199    2081.1      9222    2082.1      9234
GR   2082.8      9269    2084.1      9292    2085.0      9320    2084.5      9323    2084.8      9330
GR   2085.5      9337    2085.8      9360    2085.7      9378    2084.3      9386    2084.0      9409
GR   2083.4      9433    2082.5      9450    2082.0      9487    2082.2      9498    2082.7      9523
GR   2082.6      9552    2082.3      9577    2081.3      9606    2079.8      9632    2079.1      9648
GR   2079.9      9657    2080.1      9675    2078.5      9687    2079.9      9707    2079.3      9725
GR   2079.4      9767    2079.5      9791    2079.0      9807    2079.3      9838    2078.9      9849
GR   2078.6      9887    2077.3      9899    2078.7      9919    2078.7      9954    2077.8      9965
GR   2075.1      9978    2072.6      9995    2072.3     10000    2071.5     10014    2074.0     10024
GR   2089.4     10052    2090.5     10060

ET                9.1                                                                  8903       9276
X1    25.52        77       9005      9174       110       110       110
GR   2090.3      8816    2088.6      8849    2087.3      8903    2085.3      8954    2083.9      9005
GR   2082.6      9032    2082.1      9045    2082.7      9053    2082.1      9066    2080.1      9076
GR   2080.0      9083    2081.8      9098    2081.8      9126    2083.8      9174    2084.9      9211
GR   2085.4      9235    2085.7      9244    2084.8      9247    2085.9      9262    2086.0      9276
GR   2085.7      9287    2085.0      9308    2084.6      9333    2084.1      9379    2083.9      9415
GR   2083.6      9447    2082.2      9487    2081.2      9510    2081.6      9523    2082.0      9549
GR   2081.8      9565    2082.4      9571    2082.5      9601    2082.8      9624    2083.3      9672
GR   2083.3      9697    2082.4      9725    2083.4      9760    2084.1      9775    2084.0      9795
GR   2083.4      9810    2084.8      9830    2084.7      9865    2081.6      9873    2081.7      9883
GR   2082.7      9892    2083.3      9910    2082.8      9940    2080.6      9952    2082.1      9967
GR   2080.3      9984    2079.8     10000    2083.8     10012    2083.2     10026    2083.3     10037
GR   2081.7     10071    2081.5     10085    2084.0     10094    2084.6     10109    2084.3     10140
GR   2082.2     10152    2084.6     10162    2084.0     10174    2080.9     10194    2084.5     10203
GR   2084.5     10236    2078.2     10262    2078.9     10281    2084.1     10296    2085.8     10336
GR   2087.0     10404    2089.1     10466    2089.3     10498    2090.7     10528    2091.2     10546
1
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GR   2095.2     10571    2101.2     10610

ET                9.1                                                                  9290       9600
X1    25.59        70       9314      9464       180       180       180
GR   2093.6      9071    2092.6      9124    2091.0      9188    2089.7      9236    2088.1      9290
GR   2086.9      9314    2085.1      9329    2084.6      9367    2081.0      9383    2081.0      9394
GR   2083.6      9412    2085.2      9434    2086.6      9464    2087.6      9517    2088.1      9557
GR   2088.0      9570    2088.4      9600    2089.3      9633    2088.7      9650    2088.5      9679
GR   2088.2      9715    2088.9      9731    2089.3      9761    2089.8      9775    2090.2      9813
GR   2090.2      9861    2089.6      9909    2088.8      9941    2088.8      9966    2085.1      9975
GR   2084.8     10000    2086.9     10010    2086.9     10026    2088.5     10038    2086.9     10053
GR   2087.9     10072    2088.3     10093    2088.1     10113    2084.7     10127    2084.6     10132
GR   2087.4     10148    2088.0     10182    2088.5     10230    2088.2     10266    2087.8     10301
GR   2085.6     10312    2087.2     10322    2087.7     10347    2087.3     10374    2086.2     10388
GR   2086.2     10394    2087.9     10414    2088.5     10440    2089.0     10488    2088.4     10513
GR   2086.7     10533    2086.8     10551    2085.6     10575    2082.0     10598    2081.7     10615
GR   2082.7     10641    2087.7     10653    2089.2     10679    2089.8     10705    2090.3     10742
GR   2091.5     10771    2090.5     10780    2092.7     10793    2097.1     10823    2101.2     10867

ET                9.1                                                                  9059       9519
X1    25.70        91       9193      9288       470       470       470
GR   2110.3      8666    2108.6      8716    2107.3      8774    2105.7      8825    2104.5      8861
GR   2102.2      8927    2100.4      8984    2098.8      9019    2098.0      9059    2096.0      9098
GR   2094.0      9131    2093.0      9168    2092.3      9193    2089.6      9224    2086.1      9237
GR   2085.5      9256    2087.2      9268    2092.9      9288    2094.5      9307    2095.3      9336
GR   2095.4      9368    2095.2      9413    2095.0      9460    2095.0      9487    2094.8      9519
GR   2094.4      9538    2098.2      9554    2098.6      9566    2098.5      9595    2097.9      9608
GR   2095.0      9624    2094.1      9642    2095.3      9652    2096.3      9680    2095.9      9687
GR   2096.2      9706    2095.4      9716    2095.2      9745    2094.6      9777    2094.9      9800
GR   2094.6      9817    2093.7      9823    2094.9      9842    2094.8      9883    2095.2      9898
GR   2095.2      9927    2094.7      9952    2092.3      9968    2091.6      9977    2091.8      9996
GR   2091.9     10000    2095.6     10010    2095.6     10048    2095.1     10094    2093.8     10121
GR   2094.6     10134    2094.8     10169    2094.0     10215    2093.5     10221    2094.1     10231
GR   2094.3     10277    2094.6     10298    2094.0     10305    2094.7     10315    2094.9     10348
GR   2094.8     10375    2092.6     10390    2086.0     10406    2085.6     10413    2086.2     10422
GR   2091.0     10446    2093.0     10478    2094.8     10511    2096.6     10542    2097.9     10564
GR   2097.6     10603    2096.4     10638    2095.1     10656    2094.9     10681    2094.8     10697
GR   2095.3     10731    2095.5     10757    2095.3     10794    2094.8     10827    2093.8     10854
GR   2089.5     10871    2089.9     10883    2092.1     10908    2098.3     10928    2099.8     10954
GR   2101.0     10993

ET                9.1                                                                  9103       9624
X1    25.77        87       9198      9275       395       395       395
GR   2114.6      8821    2111.4      8900    2109.3      8953    2107.0      9003    2104.7      9056
GR   2102.4      9103    2100.5      9143    2098.6      9174    2095.5      9198    2092.8      9214
GR   2089.7      9227    2090.3      9244    2093.5      9261    2094.7      9275    2095.8      9289
GR   2097.9      9335    2099.1      9384    2099.6      9438    2099.9      9493    2100.2      9543
GR   2100.5      9596    2100.9      9624    2106.9      9647    2107.2      9662    2106.8      9693
GR   2106.2      9707    2102.4      9728    2101.7      9762    2101.2      9788    2101.2      9832
GR   2101.1      9886    2100.3      9904    2098.8      9919    2098.6      9934    2101.0      9939
GR   2096.0      9948    2095.4      9954    2095.2      9965    2096.0      9979    2095.7     10000
1
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GR   2099.2     10007    2099.2     10040    2098.1     10042    2098.2     10065    2099.2     10088
GR   2099.8     10155    2099.6     10209    2099.2     10251    2098.0     10299    2096.3     10317
GR   2097.8     10334    2097.6     10367    2097.0     10381    2096.4     10417    2093.0     10431
GR   2093.0     10444    2094.6     10458    2094.7     10468    2095.1     10477    2096.5     10487
GR   2096.8     10508    2093.2     10530    2093.3     10540    2096.9     10570    2101.2     10603
GR   2104.4     10627    2107.2     10654    2108.1     10674    2108.3     10698    2108.4     10733
GR   2107.3     10752    2106.2     10782    2105.8     10806    2104.7     10820    2101.3     10840
GR   2099.6     10859    2098.3     10882    2096.7     10922    2095.5     10932    2095.3     10958
GR   2092.3     10971    2091.7     10994    2096.6     11006    2094.2     11019    2097.7     11031
GR   2098.6     11065    2100.9     11087

ET                9.1                                                                  9293       9810
X1    25.86        47       9293      9545       340       340       340
GR   2109.9      9144    2106.1      9200    2102.4      9282    2101.6      9293    2100.2      9339
GR   2098.5      9390    2096.3      9412    2093.5      9425    2093.6      9433    2099.2      9452
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GR   2101.1      9492    2102.1      9545    2102.5      9597    2102.6      9644    2102.1      9681
GR   2101.8      9709    2100.8      9730    2102.5      9751    2103.1      9775    2103.6      9810
GR   2106.3      9822    2106.6      9831    2105.8      9834    2105.5      9861    2106.3      9865
GR   2106.0      9874    2104.7      9878    2104.9      9900    2108.9      9910    2109.0      9922
GR   2108.9      9963    2099.5      9990    2099.2     10000    2099.9     10074    2100.4     10145
GR   2100.6     10227    2100.1     10315    2111.0     10331    2111.3     10372    2111.2     10431
GR   2110.1     10490      2110     10550      2113     10570      2113     10610      2109     10770
GR      2108     10950      2108     11320

NC     .055      .055      .032

QT        1      2443

ET               9.1                                                                    9211      9705
X1    25.98        75      9290      9502     612.5     612.5     612.5
GR   2120.4      9162    2114.5      9211    2109.9      9263    2108.9      9290    2107.8      9328
GR   2106.5      9372    2103.6      9395    2106.3      9420    2108.1      9450    2109.1      9502
GR   2108.8      9536    2109.2      9569    2108.7      9592    2107.9      9604    2108.9      9618
GR   2109.6      9668    2110.4      9705    2110.5      9758    2111.0      9812    2110.6      9853
GR   2110.8      9906    2111.8      9914    2110.2      9938    2108.1      9966    2106.0     10000
GR   2105.1     10012    2105.3     10025    2112.7     10040    2111.0     10048    2111.1     10092
GR   2110.8     10157    2109.6     10190    2110.4     10217    2109.9     10245    2110.7     10299
GR   2113.0     10312    2113.3     10327    2113.7     10343    2113.6     10361    2113.1     10375
GR   2111.3     10387    2111.1     10441    2110.5     10482    2110.8     10503    2111.1     10535
GR   2110.7     10556    2110.0     10612    2108.4     10639    2109.7     10665    2110.1     10700
GR   2109.5     10738    2108.4     10759    2108.1     10779    2108.8     10805    2109.2     10831
GR   2108.6     10856    2109.7     10900    2110.1     10946    2109.6     10987    2109.2     11018
GR   2109.6     11025    2109.0     11062    2108.7     11099    2108.2     11124    2106.6     11135
GR   2108.1     11149    2106.3     11202    2104.6     11211    2104.6     11220    2107.0     11228
GR   2108.0     11262    2109.4     11305    2110.1     11347    2110.5     11359    2114.0     11456
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QT        1        45

ET               9.1                                                                    9322      9777
X1    26.09        91      9657      9474     620.6     620.6     620.6
GR   2150.7      8862    2150.4      8964    2150.1      8996    2148.4      9049    2146.4      9088
GR   2142.8      9120    2137.7      9145    2132.5      9163    2128.8      9186    2125.7      9218
GR   2123.2      9254    2119.8      9297    2117.2      9322    2116.1      9353    2116.6      9368
GR   2115.7      9416    2115.9      9426    2115.4      9474    2112.1      9487    2114.1      9494
GR   2113.7      9507    2111.4      9517    2111.4      9520    2115.0      9529    2116.1      9568
GR   2115.2      9609    2114.0      9623    2115.1      9634    2115.8      9657    2116.6      9681
GR   2115.6      9694    2116.5      9727    2117.5      9777    2117.4      9802    2117.8      9841
GR   2117.6      9912    2119.0      9923    2118.9      9936    2117.6      9941    2117.5      9969
GR   2118.1      9986    2110.8     10000    2110.4     10020    2113.5     10032    2114.2     10046
GR   2117.7     10057    2119.5     10072    2119.9     10096    2119.4     10103    2119.1     10132
GR   2117.6     10144    2117.5     10154    2119.2     10169    2119.1     10217    2118.1     10258
GR   2118.8     10282    2118.9     10315    2118.6     10363    2116.5     10380    2116.4     10387
GR   2117.4     10398    2117.6     10425    2117.2     10461    2116.9     10490    2116.0     10512
GR   2116.2     10538    2115.9     10580    2116.3     10593    2116.8     10616    2116.5     10644
GR   2116.2     10658    2116.1     10680    2116.1     10729    2115.9     10781    2115.7     10829
GR   2115.5     10882    2115.9     10993    2115.8     11030    2115.0     11108    2114.4     11161
GR   2113.5     11189    2110.3     11205    2110.5     11222    2112.9     11235    2109.1     11242
GR   2109.1     11249    2112.8     11264    2114.5     11290    2117.0     11327    2118.6     11367
GR   2123.3     11510

QT        1      7800

NC     0.055     0.055     0.032
X1    26.31        64      9967     10039      1290      1290      1290
GR   2160.5      9322    2160.3      9339    2159.0      9377    2158.6      9388    2155.2      9405
GR   2153.6      9419    2152.8      9457    2152.1      9498    2151.4      9556    2150.9      9605
GR   2149.4      9633    2148.4      9670    2147.7      9709    2146.4      9766    2145.2      9786
GR   2143.3      9832    2142.1      9867    2141.5      9891    2140.9      9927    2138.3      9940
GR   2136.6      9957    2132.3      9967    2122.5      9980    2121.9      9988    2121.7     10000
GR   2128.2     10020    2129.9     10039    2131.5     10063    2131.2     10085    2131.5     10098
GR   2130.8     10122    2129.5     10141    2130.1     10155    2130.2     10165    2131.5     10194
GR   2131.8     10227    2131.3     10274    2130.2     10286    2128.2     10302    2129.3     10313
GR   2130.8     10335    2131.2     10373    2129.7     10391    2128.3     10403    2129.7     10418
GR   2132.6     10448    2131.9     10472    2132.9     10501    2133.3     10535    2133.4     10566
GR   2132.5     10609    2131.9     10640    2131.7     10651    2132.7     10668    2134.4     10720
GR   2135.1     10759    2136.1     10820    2136.5     10860    2136.0     10933    2136.4     10948
GR   2136.2     10973    2135.2     10990    2133.2     11036    2131.6     11050
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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       WIN       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 25.090
    25.090      7.56   2064.96   2064.02   2064.96   2065.68       .72       .00       .00   2064.70
    7800.0        .0    5213.2    2586.7        .1     664.3     653.9        .0        .0   2060.50
       .00       .41      7.85      3.96      .060      .030      .060      .000   2057.40   9919.07
   .004363      485.      406.      285.         0         9         0       .00    360.73  10279.80


*SECNO 25.260
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9676.0     9928.0  TYPE=      1  TARGET=      252.000
    25.260      7.46   2072.16   2072.16       .00   2073.23      1.07      4.78       .10   2074.30
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    2810.0        .0    2810.0        .0        .0     339.0        .0      17.5       5.4   2074.90
      .03        .00      8.29       .00      .000      .030      .000      .000   2064.70   9728.14
   .009353       920.      920.      920.         0         6         0       .00    148.33   9876.47


 *SECNO 25.420
 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=     9033.0    9360.0  TYPE=      1  TARGET=      327.000
    25.420      11.48   2082.98   2082.98       .00   2083.98      1.00      7.95       .01   2083.40
    2810.0        .0    2809.9        .1        .0     349.3        .3      23.6       8.4   2082.80
      .06        .00      8.04       .52      .000      .030      .060      .000   2071.50   9082.84
   .011445       770.      770.      770.         0        21         0       .00    189.26   9272.10


 *SECNO 25.520
 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=     8903.0    9276.0  TYPE=      1  TARGET=      373.000
    25.520       6.04   2084.24   2084.24       .00   2085.31      1.07      1.25       .02   2083.90
    2810.0        1.6    2805.3       3.0       2.1     337.5       3.2      24.5       8.8   2083.80
      .06        .80      8.31       .95      .060      .030      .060      .000   2078.20   8992.75
   .011230       110.      110.      110.         0        11         0       .00    195.91   9188.67


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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


 *SECNO 25.590
 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=     9290.0    9600.0  TYPE=      1  TARGET=      310.000
    25.590       5.45   2086.45   2086.45       .00   2087.62      1.17      1.95       .03   2086.90
    2810.0        .0    2810.0        .0        .0     323.2        .0      25.8       9.5   2086.60
      .07        .00      8.69       .00      .000      .030      .000      .000   2081.00   9317.75
   .010462       180.      180.      180.         0        15         0       .00    143.02   9460.77


 *SECNO 25.700

 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=     9059.0    9519.0  TYPE=      1  TARGET=      460.000
    25.700       5.98   2091.48   2091.48       .00   2093.17      1.69      4.58       .16   2092.30
    2810.0        .0    2810.0        .0        .0     269.1        .0      29.0      10.8   2092.90
      .08        .00     10.44       .00      .000      .030      .000      .000   2085.50   9202.42
   .009096       470.      470.      470.         0         8         0       .00     80.60   9283.02


 *SECNO 25.770
 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=     9103.0    9624.0  TYPE=      1  TARGET=      521.000
    25.770       6.02   2095.72   2095.72       .00   2097.41      1.69      3.48       .00   2095.50
    2810.0        .1    2800.2       9.7        .2     268.3       6.7      31.5      11.5   2094.70
      .09        .53     10.44      1.46      .060      .030      .060      .000   2089.70   9196.28
   .008543       395.      395.      395.         0         5         0       .00     91.74   9288.01


 *SECNO 25.860

 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
1
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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=     9293.0    9810.0  TYPE=      1  TARGET=      517.000
    25.860       6.80   2100.30   2100.30       .00   2101.47      1.18      3.16       .05   2101.60
    2810.0        .0    2810.0        .0        .0     322.9        .0      33.8      12.4   2102.10
      .10        .00      8.70       .00      .000      .030      .000      .000   2093.50   9335.83
   .010174       340.      340.      340.         0         8         0       .00    139.25   9475.08


 *SECNO 25.980

 3265 DIVIDED FLOW

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=     9211.0    9705.0  TYPE=      1  TARGET=      494.000
    25.980       5.20   2108.80   2108.80       .00   2109.61       .82      6.70       .04   2108.90
    2443.0        .0    2422.2      20.8        .0     332.5      11.8      38.5      15.0   2109.10
      .12        .00      7.29      1.76      .000      .032      .055      .000   2103.60   9293.57
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   .011927      613.      613.      613.         0        16         0       .00    221.65   9616.55

*SECNO 26.090
1707 STCHL OF   9657.00 GREATER THAN STCHR    9474.00

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .20

3470 ENCROACHMENT STATIONS=     9322.0    9777.0  TYPE=      1  TARGET=      455.000
    26.090      5.96   2115.06   2113.10       .00   2115.06       .00      5.36       .08 100000.00
      45.0        .0        .0      45.0        .0        .0     110.8      41.8      17.1   2115.40
       .55       .00       .00       .41      .000      .000      .055      .000   2109.10   9475.36
   .000105      621.      621.      621.         4        13         0       .00     78.50   9633.56

*SECNO 26.310
1
   28MAY98      15:07:24                                                                          PAGE    9

    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

3280 CROSS SECTION     26.31 EXTENDED       .97 FEET

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    26.310     10.87   2132.57   2132.57       .00   2133.88      1.32      5.45       .39   2132.30
    7800.0        .0    5419.3    2380.7        .1     498.5     812.3      62.8      27.0   2129.90
       .59       .02     10.87      2.93      .055      .032      .055      .000   2121.70   9966.38
   .004495      1290.     1290.     1290.         0        14         0       .00    591.95  11050.00

1
   28MAY98      15:07:24                                                                          PAGE   10


                                                                    THIS RUN EXECUTED 28MAY98    15:07:24
*************************************
 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

SKUNK CREEK FLOODPLAIN S

SUMMARY PRINTOUT

      SECNO       Q       CWSEL     DEPTH     ELMIN      EG       CRIWS      VCH      10*KS     XLCH      SSTA     TOPWID     ENDST
      25.090   7800.00   2064.96     7.56   2057.40   2065.68   2064.02     7.85     43.63      .00   9919.07    360.73  10279.80
*     25.260   2810.00   2072.16     7.46   2064.70   2073.23   2072.16     8.29     93.53    920.00   9728.14    148.33   9876.47
*     25.420   2810.00   2082.98    11.48   2071.50   2083.98   2082.98     8.04    114.45    770.00   9082.84    189.26   9272.10
*     25.520   2810.00   2084.24     6.04   2078.20   2085.31   2084.24     8.31    112.30    110.00   8992.75    195.91   9188.67
*     25.590   2810.00   2086.45     5.45   2081.00   2087.62   2086.45     8.69    104.62    180.00   9317.75    143.02   9460.77
*     25.700   2810.00   2091.48     5.98   2085.50   2093.17   2091.48    10.44     90.96    470.00   9202.42     80.60   9283.02
*     25.770   2810.00   2095.72     6.02   2089.70   2097.41   2095.72    10.44     85.43    395.00   9196.28     91.74   9288.01
*     25.860   2810.00   2100.30     6.80   2093.50   2101.47   2100.30     8.70    101.74    340.00   9335.83    139.25   9475.08
*     25.980   2443.00   2108.80     5.20   2103.60   2109.61   2108.80     7.29    119.27    612.50   9293.57    221.65   9616.55
*     26.090     45.00   2115.06     5.96   2109.10   2115.06   2113.10      .00      1.05    620.60   9475.36     78.50   9633.56
*     26.310   7800.00   2132.57    10.87   2121.70   2133.88   2132.57    10.87     44.95   1290.00   9966.38    591.95  11050.00

1
   28MAY98      15:07:24                                                                          PAGE   11

SKUNK CREEK FLOODPLAIN S

SUMMARY PRINTOUT TABLE  110

      SECNO     CWSEL     DIFKWS      EG       TOPWID      QLOB       QCH       QROB      PERENC     STENCL     STCHL      STCHR     STENCR
      25.090   2064.96       .00   2065.68    360.73       .05   5213.25   2586.70       .00        .00   9920.00   10097.00       .00
```

*	25.260	2072.16	.00	2073.23	148.33	.00	2810.00	.00	252.00	9676.00	9703.00	9903.00	9928.00
*	25.420	2082.98	.00	2083.98	189.26	.00	2809.86	.14	327.00	9033.00	9077.00	9269.00	9360.00
*	25.520	2084.24	.00	2085.31	195.91	1.64	2805.31	3.04	373.00	8903.00	9005.00	9174.00	9276.00
*	25.590	2086.45	.00	2087.62	143.02	.00	2810.00	.00	310.00	9290.00	9314.00	9464.00	9600.00
*	25.700	2091.48	.00	2093.17	80.60	.00	2810.00	.00	460.00	9059.00	9193.00	9288.00	9519.00
*	25.770	2095.72	.00	2097.41	91.74	.10	2800.18	9.72	521.00	9103.00	9198.00	9275.00	9624.00
*	25.860	2100.30	.00	2101.47	139.25	.00	2810.00	.00	517.00	9293.00	9293.00	9545.00	9810.00
*	25.980	2108.80	.00	2109.61	221.65	.00	2422.19	20.81	494.00	9211.00	9290.00	9502.00	9705.00
*	26.090	2115.06	.00	2115.06	78.50	.00	.00	45.00	455.00	9322.00	8862.00	9474.00	9777.00
*	26.310	2132.57	.00	2133.88	591.95	.00	5419.29	2380.70	.00	.00	9967.00	10039.00	.00

SKUNK CREEK FLOODPLAIN S

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	25.090	.00	.00	.00	2057.40	7800.00	2064.96	2064.02	2065.68	43.63	7.85	1318.34	1180.92
*	25.260	920.00	.00	.00	2064.70	2810.00	2072.16	2072.16	2073.23	93.53	8.29	338.95	290.55
*	25.420	770.00	.00	.00	2071.50	2810.00	2082.98	2082.98	2083.98	114.45	8.04	349.58	262.66
*	25.520	110.00	.00	.00	2078.20	2810.00	2084.24	2084.24	2085.31	112.30	8.31	342.80	265.17
*	25.590	180.00	.00	.00	2081.00	2810.00	2086.45	2086.45	2087.62	104.62	8.69	323.20	274.73
*	25.700	470.00	.00	.00	2085.50	2810.00	2091.48	2091.48	2093.17	90.96	10.44	269.07	294.63
*	25.770	395.00	.00	.00	2089.70	2810.00	2095.72	2095.72	2097.41	85.43	10.44	275.14	304.02
*	25.860	340.00	.00	.00	2093.50	2810.00	2100.30	2100.30	2101.47	101.74	8.70	322.95	278.59
*	25.980	612.50	.00	.00	2103.60	2443.00	2108.80	2108.80	2109.61	119.27	7.29	344.26	223.70
*	26.090	620.60	.00	.00	2109.10	45.00	2115.06	2113.10	2115.06	1.05	.00	110.79	43.94
*	26.310	1290.00	.00	.00	2121.70	7800.00	2132.57	2132.57	2133.88	44.95	10.87	1310.88	1163.40

SKUNK CREEK FLOODPLAIN S

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	25.090	7800.00	2064.96	.00	.00	.00	360.73	.00
*	25.260	2810.00	2072.16	.00	7.20	.00	148.33	920.00
*	25.420	2810.00	2082.98	.00	10.81	.00	189.26	770.00
*	25.520	2810.00	2084.24	.00	1.26	.00	195.91	110.00
*	25.590	2810.00	2086.45	.00	2.21	.00	143.02	180.00
*	25.700	2810.00	2091.48	.00	5.03	.00	80.60	470.00
*	25.770	2810.00	2095.72	.00	4.24	.00	91.74	395.00
*	25.860	2810.00	2100.30	.00	4.57	.00	139.25	340.00
*	25.980	2443.00	2108.80	.00	8.50	.00	221.65	612.50
*	26.090	45.00	2115.06	.00	6.26	.00	78.50	620.60
*	26.310	7800.00	2132.57	.00	17.51	.00	591.95	1290.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION SECNO=     25.260  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.260  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     25.420  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.420  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     25.520  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.520  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     25.590  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.590  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     25.700  PROFILE=  1  CRITICAL DEPTH ASSUMED
```

```
CAUTION SECNO=     25.700  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     25.770  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.770  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     25.860  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.860  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     25.980  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.980  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     26.090  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     26.310  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     26.310  PROFILE=  1  MINIMUM SPECIFIC ENERGY
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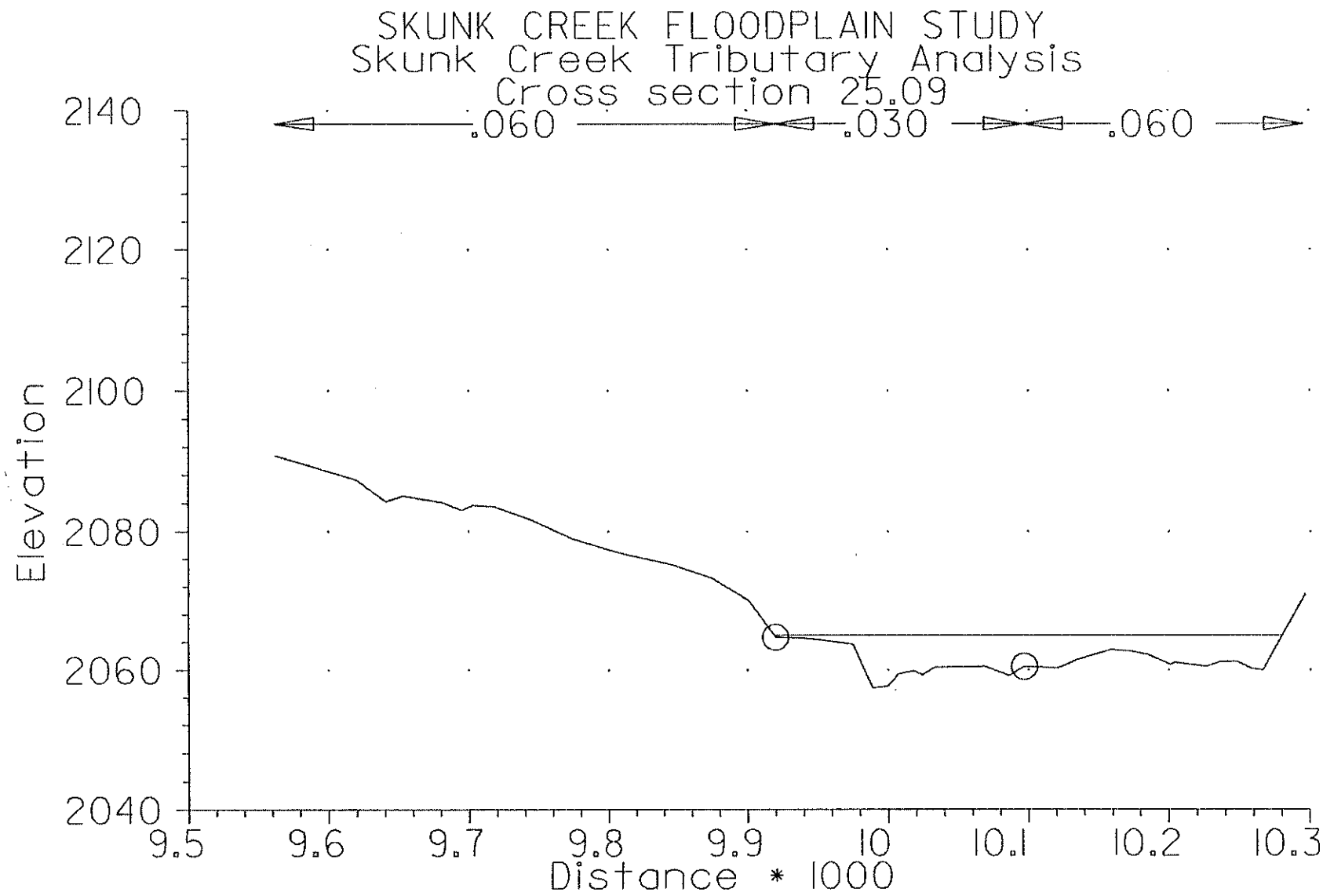
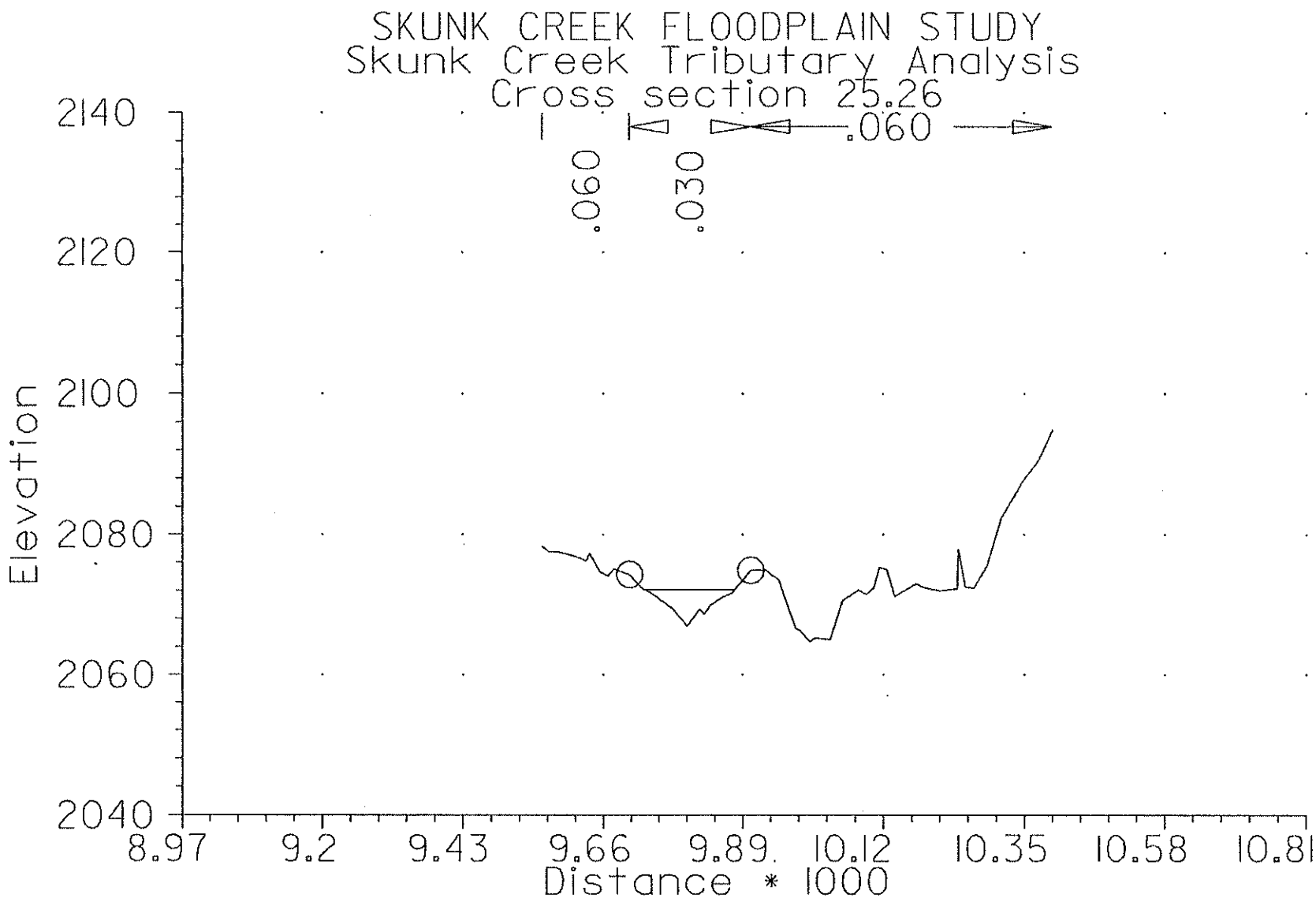

SKUNK CREEK FLOODPLAIN STUDY
Skunk Creek Tributary Analysis
Cross section 25.09
.060
.030
.060
2140
2120
2100
2080
2060
2040
Elevation
9.5
9.6
9.7
9.8
9.9
10
10.1
10.2
10.3
Distance * 1000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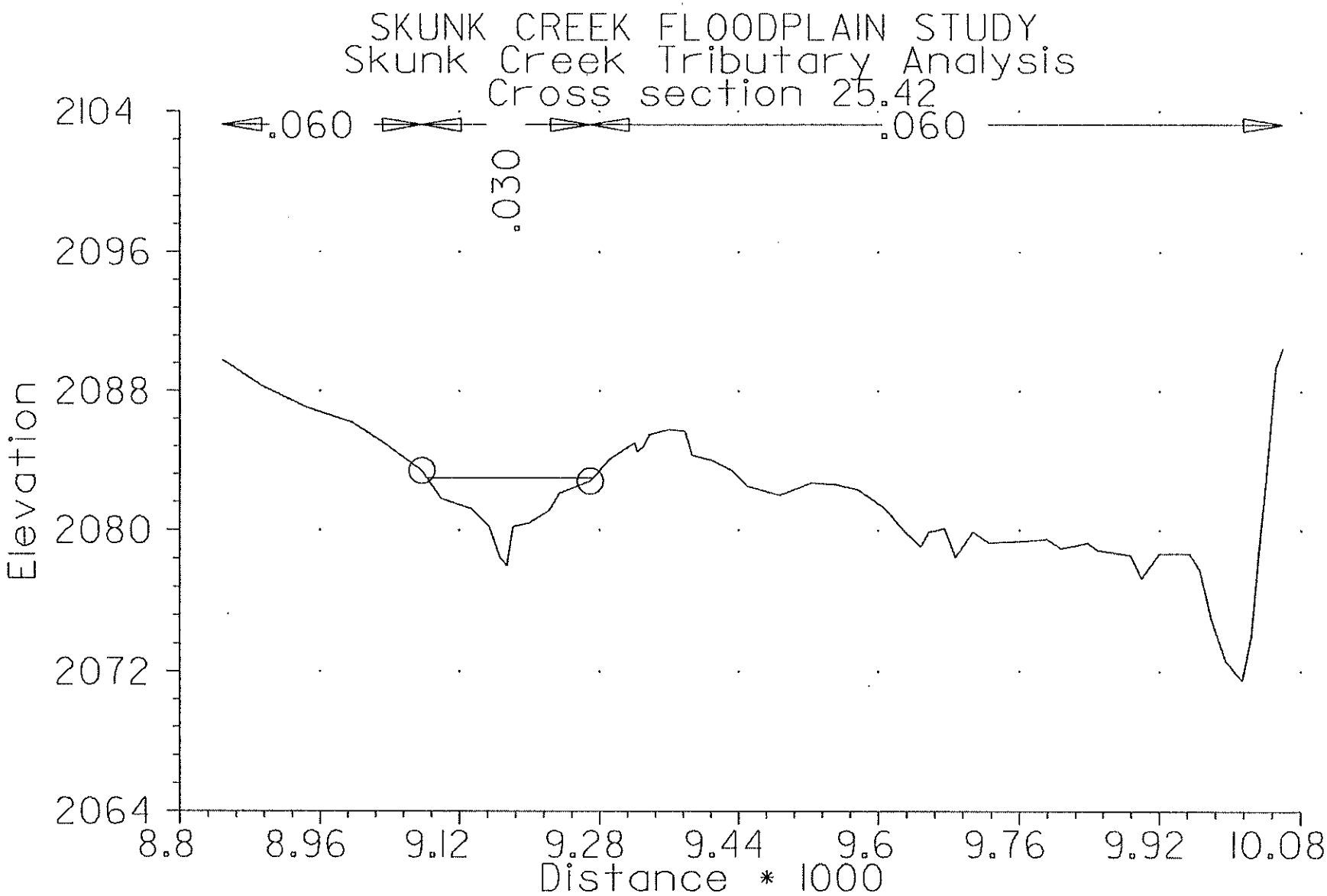
Skunk Creek Tributary Analysis
Cross section 25.26
.060
.060
.030
Elevation
2140
2120
2100
2080
2060
2040
8.97
9.2
9.43
9.66
9.89
10.12
10.35
10.58
10.81
Distance * 1000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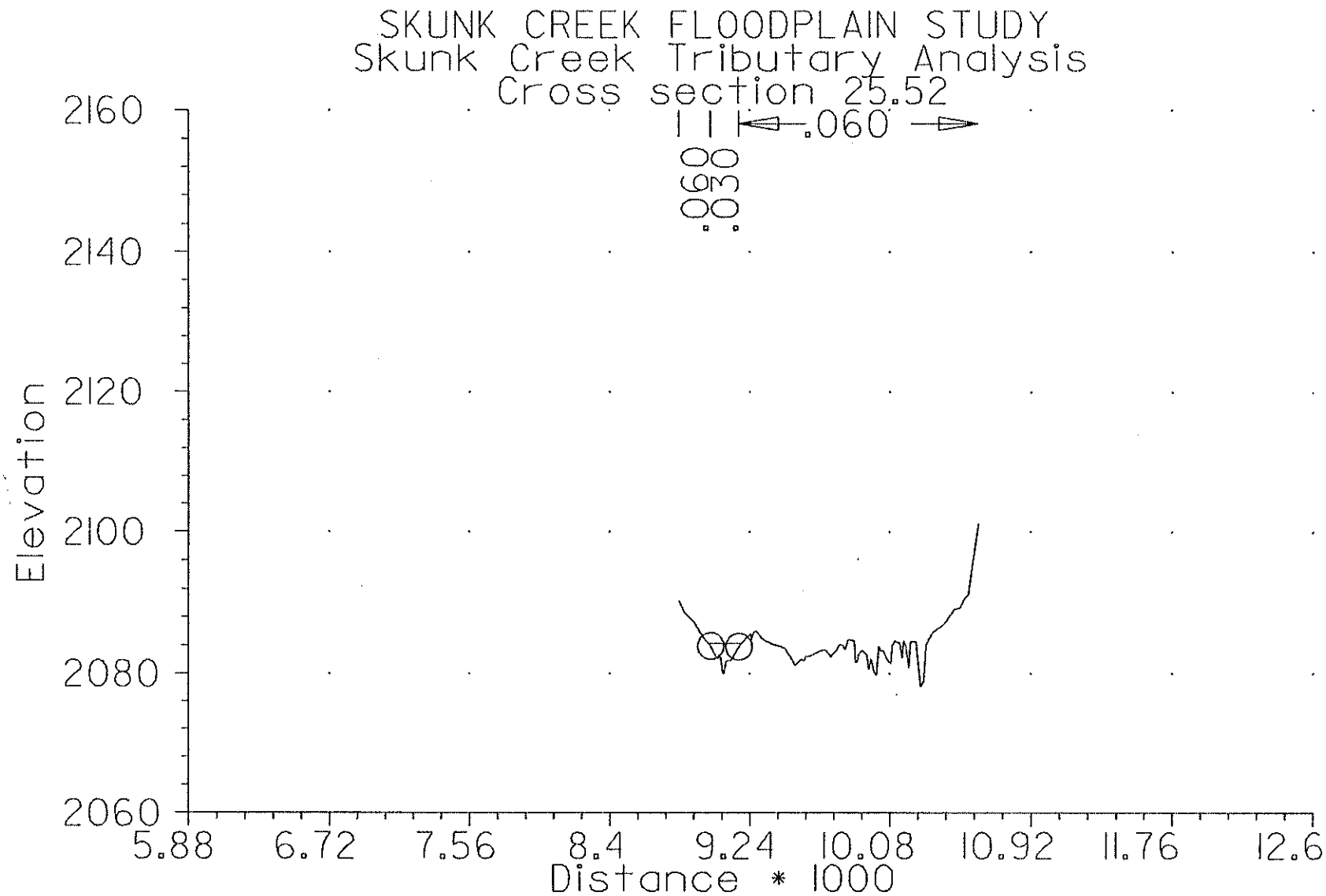
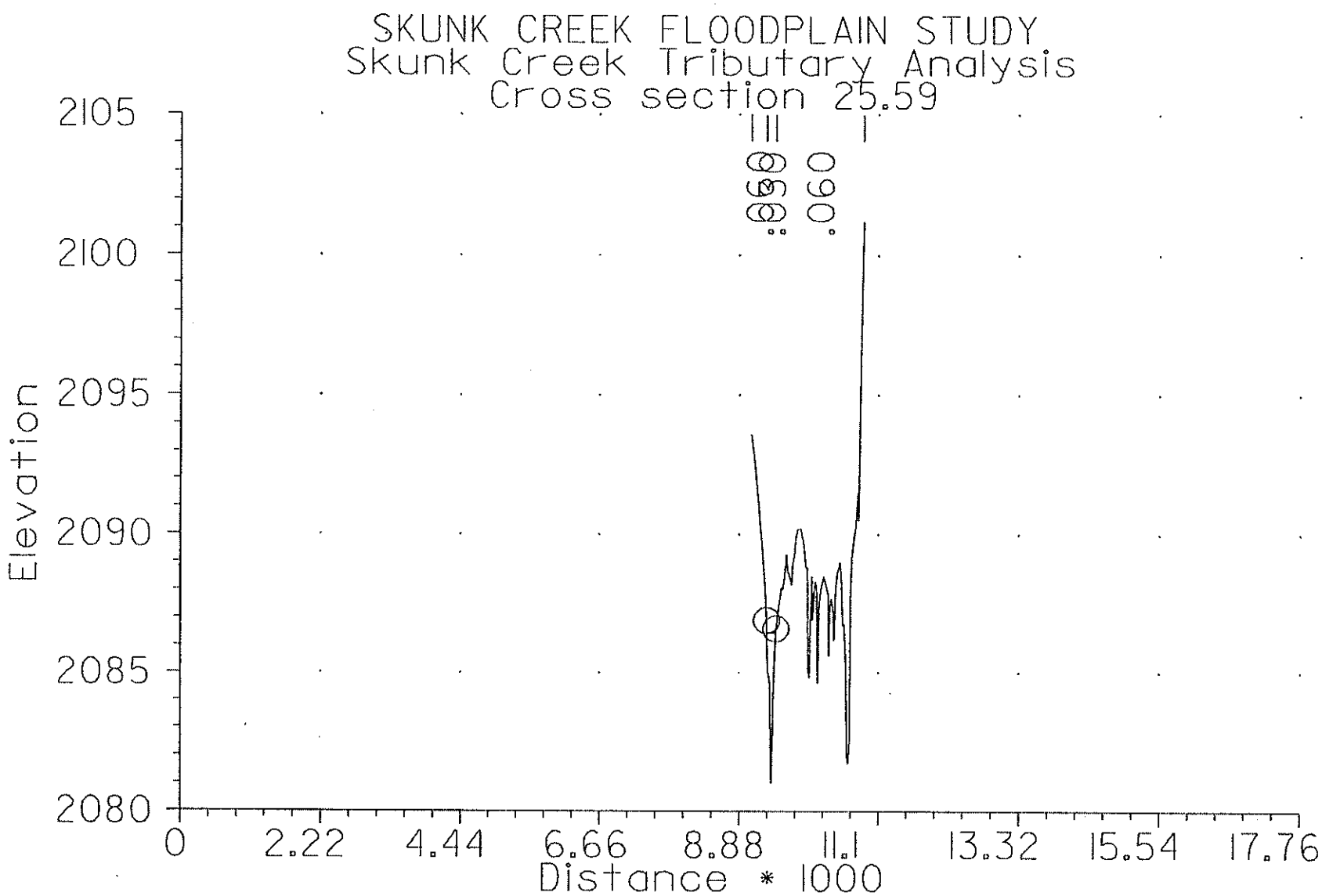
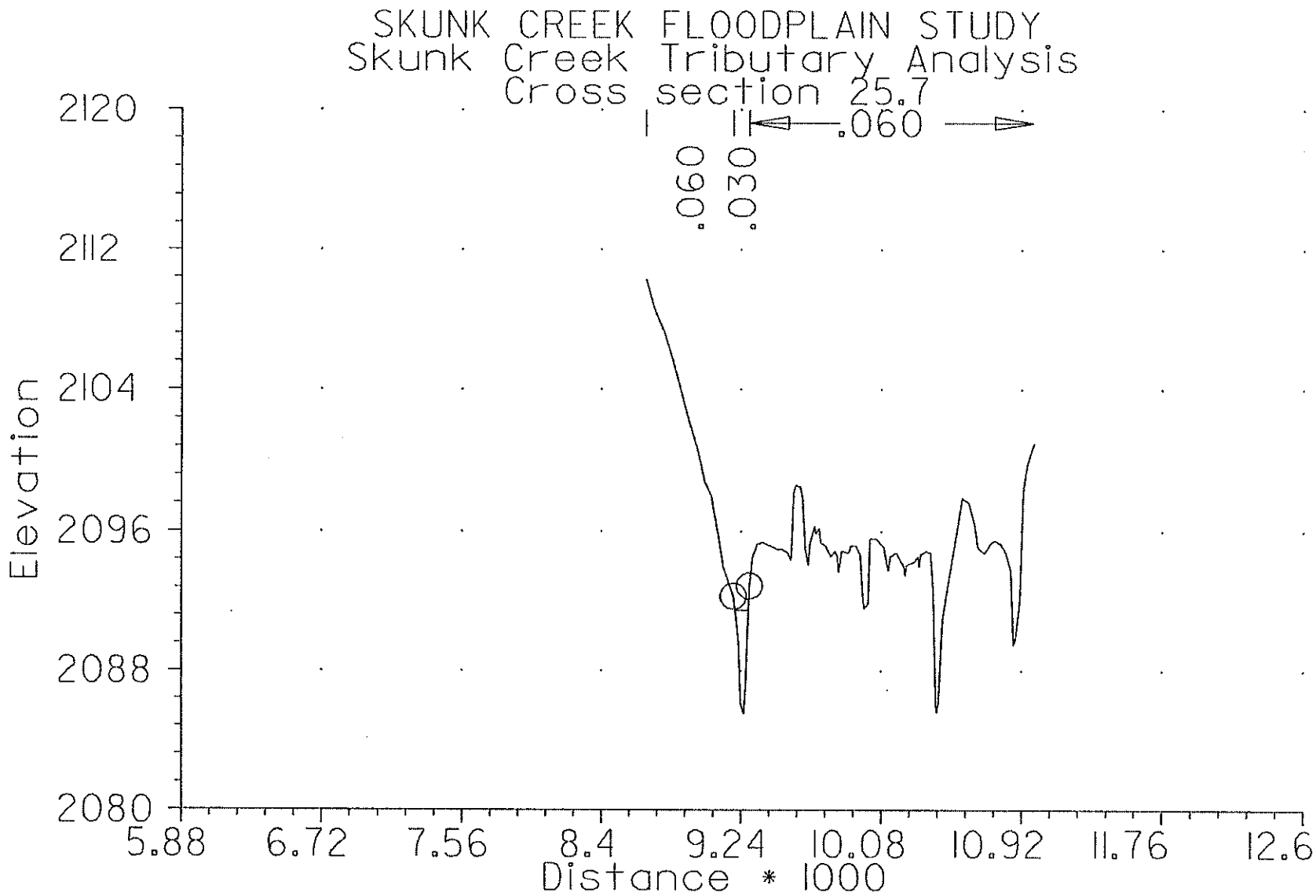
Skunk Creek Tributary Analysis
Cross section 25.42
.060
.030
.060
2104
2096
2088
2080
2072
2064
Elevation
8.8
8.96
9.12
9.28
9.44
9.6
9.76
9.92
10.08
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Skunk Creek Tributary Analysis
Cross section 25.52
.060
.030
.030
Elevation
2160
2140
2120
2100
2080
2060
5.88
6.72
7.56
8.4
9.24
10.08
10.92
11.76
12.6
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Skunk Creek Tributary Analysis
Cross section 25.59
Elevation
2105
2100
2095
2090
2085
2080
0
2.22
4.44
6.66
8.88
11.1
13.32
15.54
17.76
Distance * 1000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Skunk Creek Tributary Analysis
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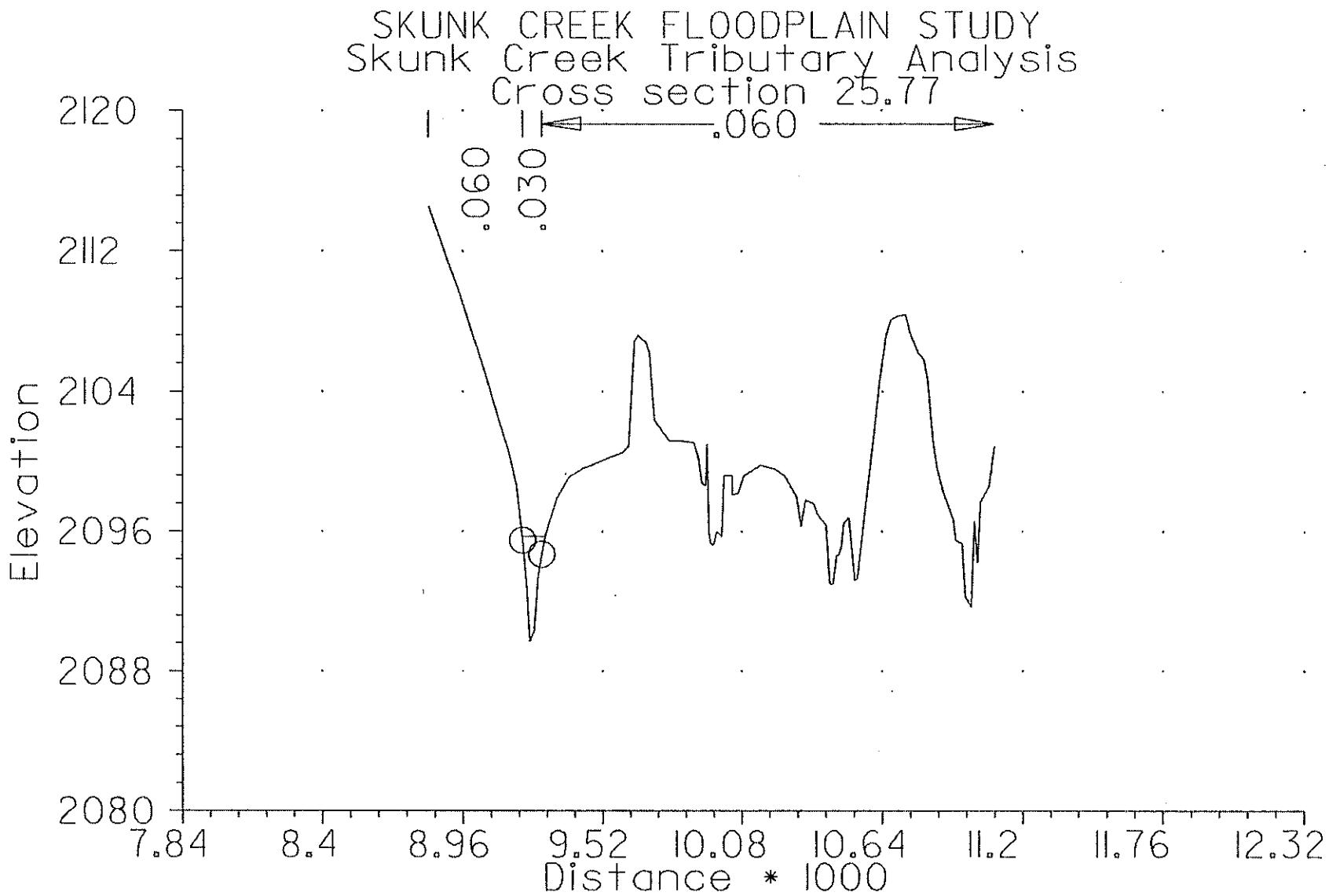
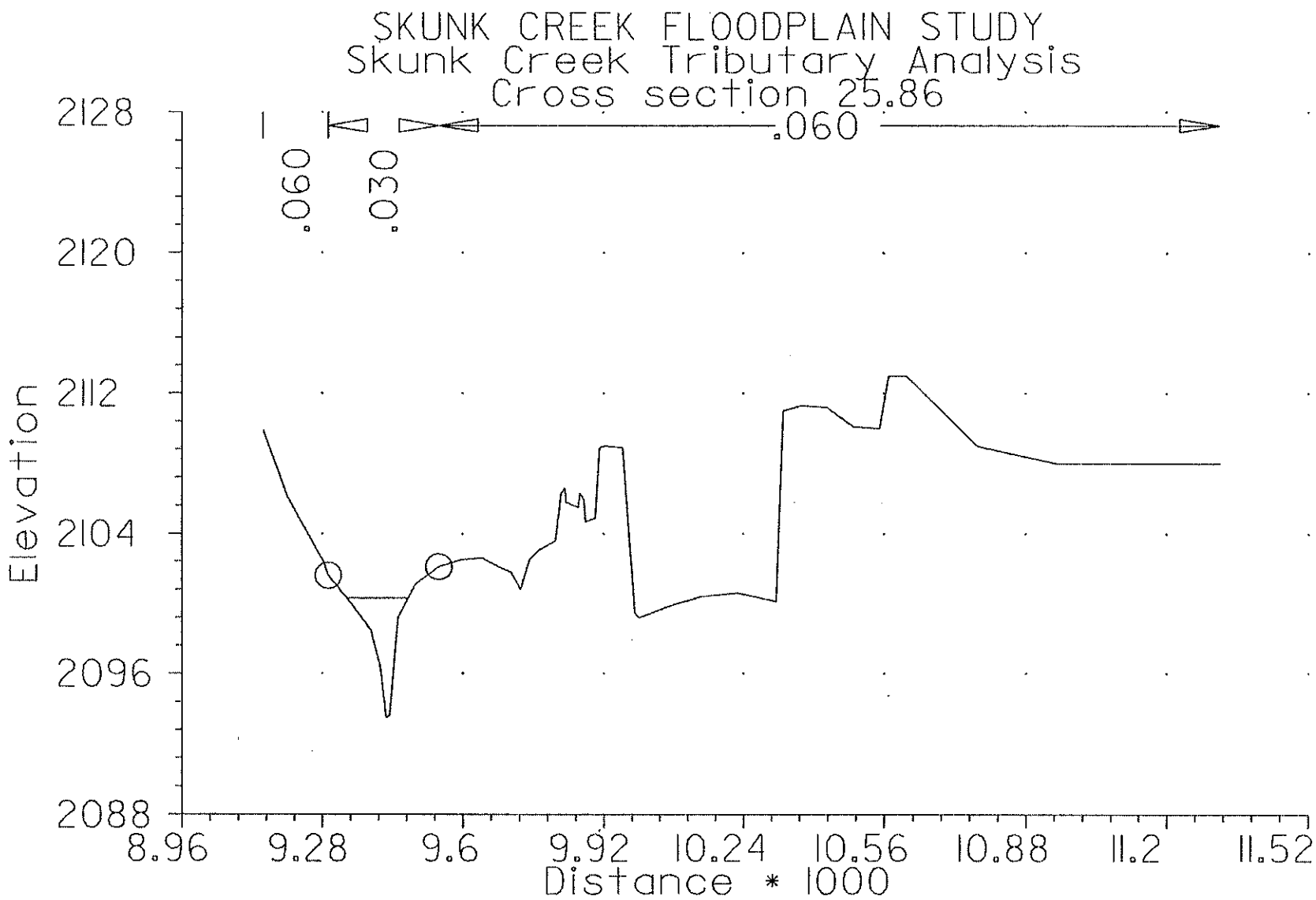
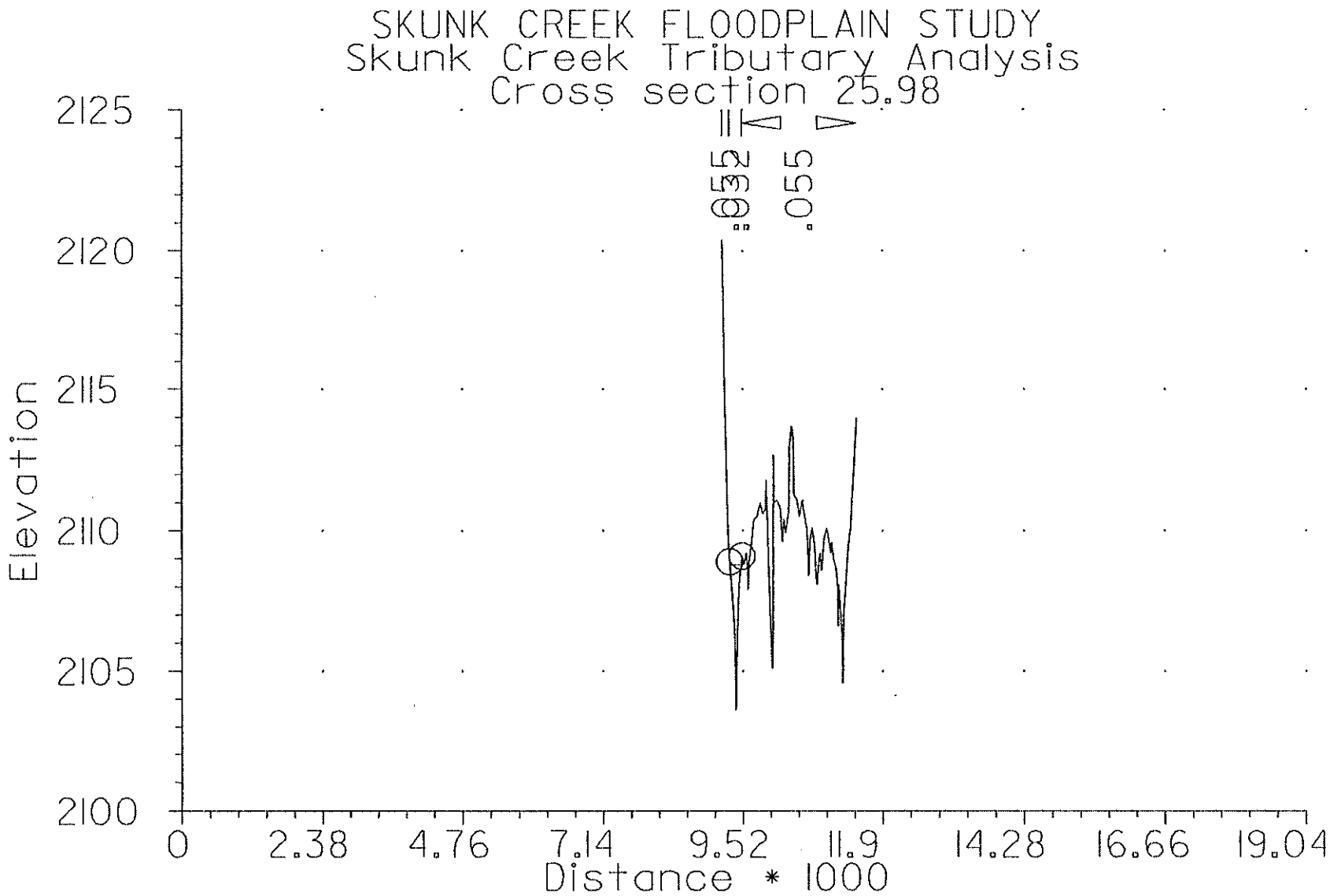
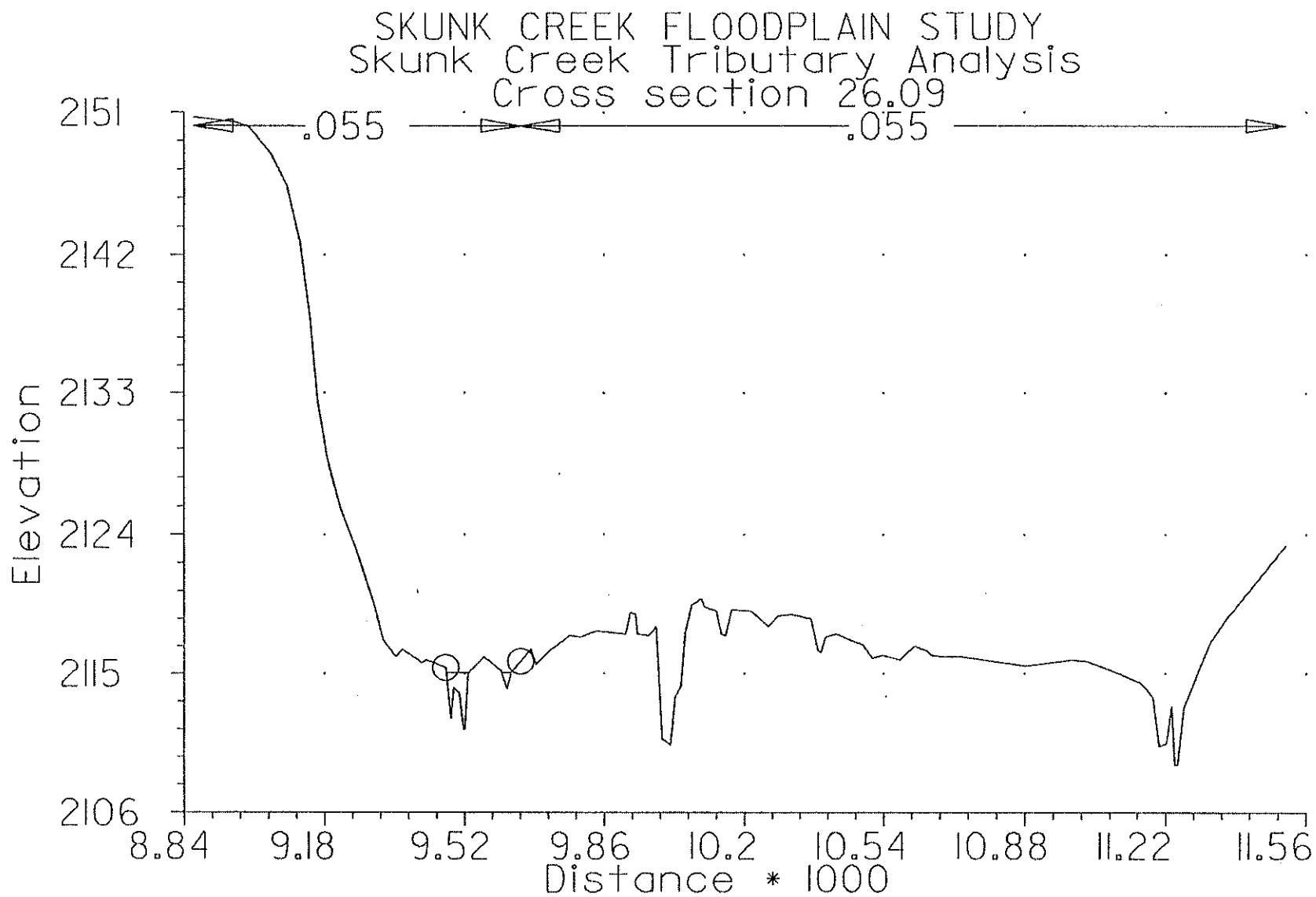
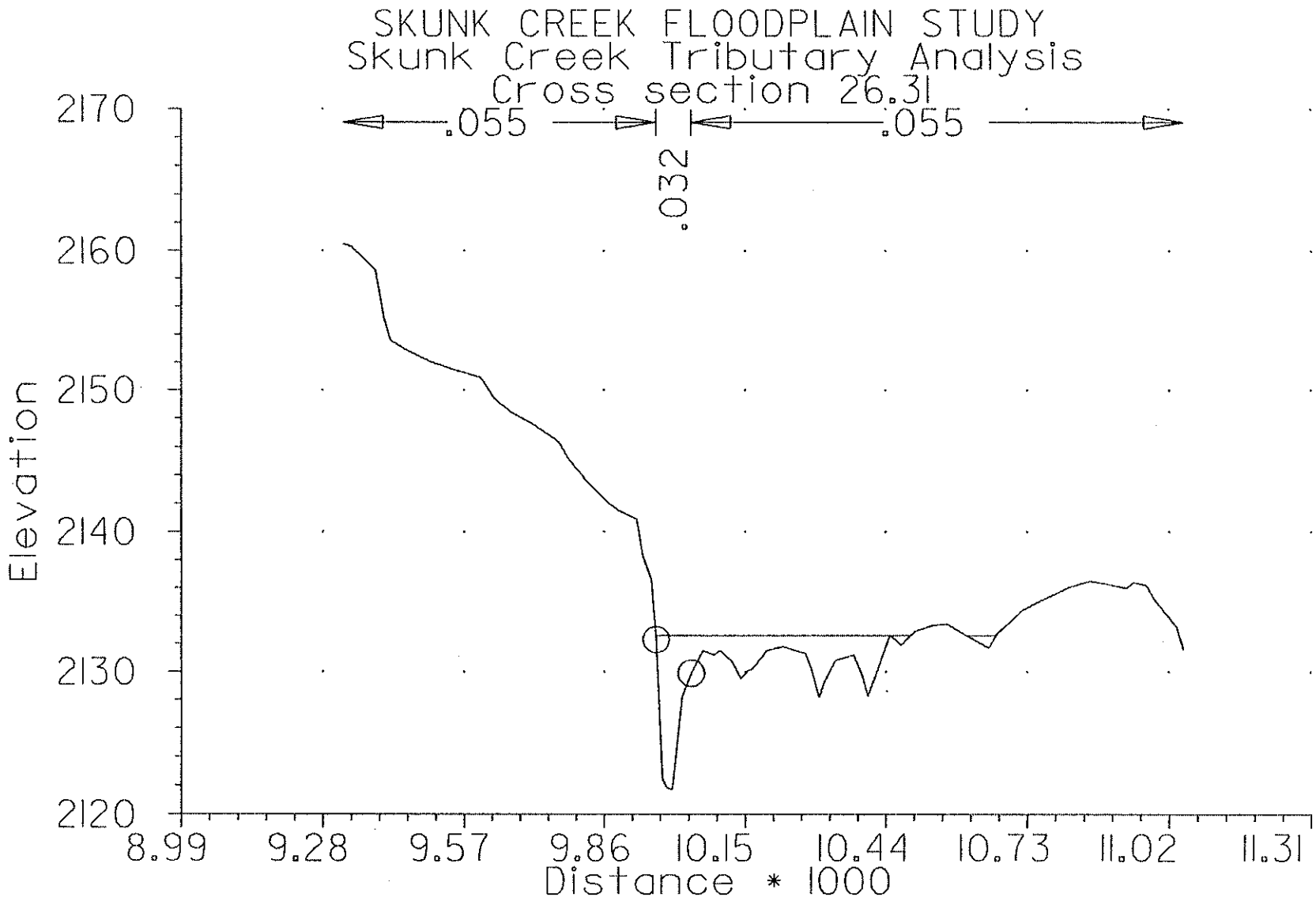
.060
.030
2120
2112
2104
2096
2088
2080
Elevation
5.88
6.72
7.56
8.4
9.24
10.08
10.92
11.76
12.6
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Skunk Creek Tributary Analysis
Cross section 25.77
.060
.060
.030
Elevation
2120
2112
2104
2096
2088
2080
7.84
8.4
8.96
9.52
10.08
10.64
11.2
11.76
12.32
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Skunk Creek Tributary Analysis
Cross section 25.86
.060
.060
.030
2128
2120
2112
2104
2096
2088
Elevation
8.96
9.28
9.6
9.92
10.24
10.56
10.88
11.2
11.52
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Skunk Creek Tributary Analysis
Cross section 25.98
.055
.055
Elevation
2125
2120
2115
2110
2105
2100
0
2.38
4.76
7.14
9.52
11.9
14.28
16.66
19.04
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Skunk Creek Tributary Analysis
Cross section 26.09
.055
.055
2151
2142
2133
2124
2115
2106
Elevation
8.84
9.18
9.52
9.86
10.2
10.54
10.88
11.22
11.56
Distance * 1000


SKUNK CREEK FLOODPLAIN STUDY
Skunk Creek Tributary Analysis
Cross section 26.31
.055
.032
.055
Elevation
2170
2160
2150
2140
2130
2120
8.99
9.28
9.57
9.86
10.15
10.44
10.73
11.02
11.31
Distance * 1000

Appendix C

MONTGOMERY WATSON

```
1*****************************************
 *  HEC-2 WATER SURFACE PROFILES          *
 *                                        *
 *  Version   4.6.2:  May 1991            *
 *                                        *
 *  RUN DATE    25APR97    TIME   14:06:09 *
 *****************************************

                                                                                  ***************************************
                                                                                  *  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
1
   25APR97      14:06:09                                                                                          PAGE    1


                                                                                THIS RUN EXECUTED 25APR97    14:06:09
 ************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.2:  May 1991
 ************************************


T1       SKUNK CREEK FLOODPLAIN DELINEATION
T2       SPLIT FLOW ANALYSIS  100 YR EVENT       DATE: 10-96
T3       HOSKIN ENGINEERING CONSULTANTS   FILE:ROBHWY.H2I

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0         2                           -1

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     -1                  -1                                                                     15


    VARIABLE CODES FOR SUMMARY PRINTOUT

     38        43         1         8        42         3         2        26         5        39
     53         4        54

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

    -10       -10

NC     .059      .042      .033       .1         .3
QT       1      3600
         CAREFREE HIGHWAY ROAD CROSSING
         A SINGLE 60 INCH CMP CROSSES THE HIGHWAY AT THIS LOCATION.
         CAPACITY OF CULVERT HAS BEEN IGNORED
         SPLIT FLOW OF 3,600 CFS ESTIMATED FROM MATCHING CROSS-SECTION STA 1739
ET                 9.1                                                                                  11267     12177
X1    16.87        43      11644     12099
GR     1687      9175     1685.7      9256     1685.5      9279     1684.7      9373     1683.5      9468
GR   1683.4      9554     1683.2      9635     1683.3      9701     1684.5      9777     1685.6      9885
GR   1685.7      9908     1673.2      9948     1673.5     10000     1673.5     10014     1674.4     10028
GR   1674.3     10102     1674.2     10171     1672.6     10243     1671.2     10280     1685.8     10337
GR   1685.6     10365     1685.2     10454     1683.1     10561     1681.7     10662     1679.9     10745
GR   1679.7     10831     1679.7     10902     1679.5     10966     1679.9     11058     1679.6     11136
GR   1679.9     11267     1680.1     11338     1679.7     11402     1679.2     11503     1678.8     11575
GR   1678.6     11644     1678.1     11715     1678.0     11798     1677.7     11859     1677.8     11957
GR   1678.2     12043     1678.4     12099     1678.3     12177
1
   25APR97      14:06:09                                                                                          PAGE    2


ET                 9.1                                                                                  10928     12564
X1    16.96        91      11712     12244       800       910       900
GR   1685.3      9506     1684.9      9512     1684.9      9562     1683.3      9581     1679.9      9590
GR   1679.2      9614     1679.1      9652     1678.4      9689     1677.8      9727     1678.5      9746
GR   1678.3      9775     1677.8      9799     1676.9      9881     1678.1      9893     1684.2      9914
GR   1684.0      9932     1677.1      9949     1677.7      9972     1676.7      9985     1675.3      9992
GR   1675.3     10000     1675.7     10014     1675.4     10051     1677.6     10074     1678.1     10092
GR   1679.4     10108     1679.2     10136     1679.5     10173     1679.0     10202     1679.4     10220
GR   1679.0     10234     1679.5     10238     1684.2     10250     1684.6     10288     1685.3     10342
GR   1685.9     10384     1685.8     10428     1685.2     10463     1684.5     10482     1682.3     10514
GR   1681.4     10534     1682.1     10545     1682.5     10560     1684.2     10582     1684.8     10622
GR   1684.7     10649     1685.1     10672     1685.5     10706     1685.5     10737     1685.8     10779
GR   1686.3     10814     1686.5     10834     1688.1     10878     1688.8     10903     1688.8     10928
GR   1688.2     10985     1688.3     11016     1688.3     11054     1687.8     11117     1687.6     11181
GR   1687.7     11237     1687.6     11314     1687.4     11379     1687.5     11452     1687.3     11512
GR   1686.8     11591     1685.9     11650     1685.6     11686     1684.9     11712     1683.0     11765
GR   1682.4     11798     1682.4     11834     1682.7     11878     1683.4     11896     1683.6     11949
GR   1680.0     11976     1680.7     11994     1679.2     12001     1679.1     12011     1682.1     12028
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GR   1683.5      12050     1682.9      12083     1683.6      12101     1682.7      12165     1683.5      12199
GR   1684.9      12244     1685.0      12310     1685.1      12378     1685.7      12455     1686.0      12564
GR     1686      12588

ET                 9.1                                                                        11172       12631
X1    17.06        99      11977       12342       600        800       750
GR   1693.1       9396     1693.1       9429     1694.6       9451      1694       9469     1692.7       9483
     1690.1       9500     1688.3       9528      1688       9575     1686.9       9591     1683.2       9614
      1682        9646     1686.4       9662     1685.8       9683     1686.6       9692      1686        9722
     1684.7       9734     1685.9       9754      1686       9791     1685.3       9818     1683.1       9830
GR   1682.1       9868     1683.2       9889     1682.9       9898     1684.9       9923     1685.2       9947
GR   1683.5       9956     1681.7       9985     1679.9       9992     1679.7      10008     1682.3      10014
GR   1681.8      10034     1677.9      10052     1677.6      10069     1679.1      10076     1685.3      10090
GR   1687.6      10108     1689.1      10133     1689.8      10173     1689.2      10243     1688.5      10314
GR   1687.9      10337     1688.6      10365     1687.9      10412     1687.8      10470      1687       10492
GR   1688.5      10529     1687.5      10540     1688.1      10559     1688.4      10598     1688.7      10647
GR   1689.7      10671     1690.4      10732     1690.6      10787     1690.7      10842      1691       10899
GR     1691      10962     1690.8      11019      1691       11074      1691       11123     1691.2      11172
GR   1690.8      11226     1690.6      11287     1690.5      11327     1690.2      11411     1689.7      11476
GR   1689.5      11519     1688.3      11564     1686.9      11573     1688.2      11581     1688.8      11596
GR   1688.2      11658     1686.5      11695     1689.2      11753     1689.8      11799     1690.1      11858
GR   1690.9      11909     1691.5      11940     1691.7      11977     1691.2      12023     1690.3      12065
GR   1690.1      12087     1689.3      12097     1689.9      12114      1688       12120      1690       12131
GR   1686.6      12148     1686.5      12160     1690.5      12185     1690.5      12215     1688.7      12241
GR   1690.5      12265     1690.9      12303     1691.6      12342     1691.6      12400     1691.1      12447
GR   1691.1      12499     1691.4      12546     1691.8      12604     1692.1      12631

NC     .048        .048      .046        .1         .3
ET                 9.1                                                                        11003       12640
X1    17.18        99      12297       12407       630        660       730
GR     1696       9490     1697.3       9502     1697.3       9524     1696.7       9540     1697.5       9548
GR     1697       9590     1695.8       9637     1694.2       9670      1695       9680     1694.7       9691
GR   1693.9       9697     1694.6       9712     1694.2       9740     1693.4       9789     1692.3       9814
GR   1691.1       9826     1692.1       9838     1692.4       9859     1691.5       9904     1690.9       9962
GR   1690.9       9978     1685.7      10000     1685.6      10019     1686.6      10034     1689.1      10044
1
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GR   1690.8      10065     1690.9      10082     1689.9      10128     1689.1      10138     1685.8      10148
GR   1685.8      10175     1684.6      10185     1686.3      10200     1685.1      10212     1689.4      10231
GR   1691.9      10254      1694       10284     1695.2      10319     1695.6      10362     1695.6      10400
GR   1695.2      10432     1694.1      10449     1693.9      10505     1693.6      10552     1693.7      10569
GR   1693.3      10602     1692.4      10634     1692.9      10656     1692.9      10706     1694.1      10761
GR     1695      10775     1695.7      10808     1695.8      10839     1695.6      10896     1695.6      10955
GR   1696.1      11003     1695.4      11058     1696.1      11085     1696.6      11116     1696.2      11167
GR     1696      11215     1695.8      11248     1695.3      11280     1694.9      11328     1694.4      11371
GR   1694.1      11424     1692.8      11469      1693       11486     1692.7      11520     1693.1      11534
     1693.3      11566     1693.5      11608     1693.4      11655     1693.5      11702     1693.7      11737
      1694       11780     1694.7      11819     1694.5      11858     1694.5      11904     1694.6      11941
GR   1695.7      11977      1696       12031     1696.1      12074     1696.5      12131     1696.8      12186
GR   1696.2      12231     1696.2      12258     1696.3      12297     1693.7      12312     1692.8      12326
GR   1693.9      12340     1692.6      12349     1695.5      12374     1696.3      12407     1696.3      12450
GR   1696.1      12488     1697.2      12532     1697.9      12590     1698.2      12640
        WATER SURFACES MATCH WITH MAIN CHANNEL FROM THIS POINT UPSTREAM
        ISLAND FORMS FROM THIS POINT DOWNSTREAM WITH 3600 CFS DIVERSION

ET                 9.1                                                                        10722       12204
X1    17.30        99      11798       11875       590        590       590
GR   1710.4       9123     1709.8       9148     1711.2       9170     1711.7       9204     1710.6       9219
GR   1709.9       9242     1708.2       9260     1706.5       9300     1705.2       9338     1703.1       9381
GR   1704.5       9413     1704.5       9451     1703.3       9493     1702.3       9521     1701.2       9570
GR     1700       9618      1699       9627     1699.2       9648      1698       9679      1699       9686
GR   1698.3       9717     1697.4       9761     1696.8       9765     1697.6       9773     1697.4       9803
GR   1697.5       9836     1699.4       9861     1699.4       9871     1697.6       9893     1697.6       9934
GR   1697.2       9970     1690.8       9995     1690.9      10000     1691.2      10028     1692.5      10058
GR   1692.2      10084     1695.8      10098     1697.2      10124     1697.9      10156     1696.5      10170
GR   1695.9      10182     1698.3      10199     1699.2      10229      1699       10247     1697.6      10259
GR   1697.2      10277     1697.9      10288      1697       10310     1694.3      10328     1697.2      10341
GR   1698.4      10367     1697.1      10374     1698.2      10390     1697.1      10454     1698.2      10462
GR   1698.5      10490     1699.1      10524     1700.2      10537     1700.1      10572      1701       10604
GR   1701.2      10633     1700.8      10688     1701.1      10722     1700.3      10800     1699.5      10880
GR   1699.2      10927     1699.5      10968     1699.4      11021     1699.9      11080     1699.9      11127
GR   1699.6      11158     1699.8      11178     1699.8      11210     1699.9      11261     1700.4      11306
GR   1700.7      11368     1700.6      11425     1700.8      11471     1700.7      11527     1700.6      11577
GR   1701.4      11617     1702.2      11650     1703.1      11686     1702.3      11714     1701.4      11754
GR   1700.3      11798     1699.6      11825     1696.6      11836     1697.3      11844     1697.8      11862
GR   1700.9      11875     1700.9      11915     1700.5      11939     1701.3      11973     1701.8      11995
GR     1702      12038     1702.2      12089     1702.2      12143     1702.3      12204

ET                 9.1                                                                        10591       11829
X1    17.39        73       9893       10179       465        530      500.0
GR   1713.9       9128     1709.7       9156     1709.2       9177     1709.5       9183     1708.9       9207
GR   1709.6       9217     1709.1       9253     1709.2       9281     1708.9       9312     1707.8       9371
GR   1706.6       9394     1707.1       9403     1707.1       9424     1706.6       9439     1705.2       9458
GR   1704.7       9481     1704.3       9504     1704.6       9537     1704.4       9578     1705.3       9611
GR   1705.5       9640     1704.7       9662     1705.2       9687     1705.8       9731     1705.7       9758
GR   1704.4       9791     1704.0       9825     1703.4       9873     1703.0       9893     1702.2       9912
GR   1696.7       9927     1697.4       9941     1701.3       9968     1695.7       9985     1695.7      10000
     1699.4      10030     1699.2      10067     1699.9      10079     1701.7      10104     1700.9      10123
     1697.4      10136     1697.2      10157     1702.3      10179     1701.4      10210     1699.4      10221
GR   1700.4      10228     1701.9      10252     1702.1      10263     1702.8      10284     1702.9      10310
GR   1702.3      10333     1702.9      10359     1702.3      10415     1702.8      10453     1703.2      10499
1
   25APR97      14:06:09                                                                                    PAGE    4
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GR   1702.8     10542     1703.4     10591     1702.6     10629     1702.8     10673     1703.0     10746
GR   1703.3     10809     1703.2     10867     1703.0     10927      1704      11130      1704      11150
GR     1704     11175      1705      11360      1704      11595      1704      11640      1706      11780
GR     1706     12000      1706      12035      1704      12095

QT        1     27300
                 9.1                                                                      9404      11597
       .06      .060       .042        .1        .3
     17.48        56       9893     10073       429       429      429.4
GR   1716.9      9386     1716.7      9404    1714.5      9422     1711.8      9441     1710.3      9466
GR   1709.4      9486     1708.4      9505    1707.0      9520     1706.7      9530     1708.4      9538
GR   1707.3      9595     1706.9      9625    1707.5      9651     1707.3      9687     1706.4      9717
GR   1705.7      9748     1706.2      9766    1705.9      9814     1706.6      9836     1706.6      9893
GR   1703.6      9922     1702.6      9943    1701.1      9949     1700.4     10000     1701.5     10011
GR   1701.4     10022     1702.2     10030    1702.1     10044     1701.3     10056     1705.4     10073
GR   1707.3     10092     1706.4     10110    1706.5     10150     1706.8     10158     1706.7     10199
GR   1704.8     10215     1706.2     10239    1706.5     10304     1706.7     10350     1707.2     10403
GR   1707.2     10454     1707.5     10492    1707.4     10526     1706.5     10574     1706.5     10605
GR     1708     10855      1708      11020      1708      11110      1708      11120      1706      11160
GR     1704     11175      1704      11190      1706      11200      1708      11265      1710      11505
GR     1712     11700
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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=     16.87          CWSEL=   1679.16

STA=   11510.   11575.   11644.   12099.   12177.
  PER Q=       .3      1.7     91.0      6.9
   AREA=     11.6     31.7    515.1     63.1
    VEL=      1.0      1.9      6.4      4.0
  DEPTH=       .2       .5      1.1       .8

FLOW DISTRIBUTION FOR SECNO=     16.96          CWSEL=   1684.70

STA=   11718.   12244.
  PER Q=    100.0
   AREA=    984.2
    VEL=      3.7
  DEPTH=      1.9

FLOW DISTRIBUTION FOR SECNO=     17.06          CWSEL=   1689.87

STA=   11453.   11476.   11519.   11564.   11573.   11581.   11596.   11658.   11695.   11753.   11799.   11814.   12342.
  PER Q=       .0       .6      4.8      3.9      3.6      2.8     11.7     19.2     20.9      1.0       .0     31.5
   AREA=      2.0     11.8     43.8     20.5     18.6     20.6     85.2     93.4    117.4     17.2       .5    143.4
    VEL=       .8      1.7      3.9      6.9      7.0      4.9      4.9      7.4      6.4      2.1       .4      7.9
  DEPTH=       .1       .3      1.0      2.3      2.3      1.4      1.4      2.5      2.0       .4       .0      1.2

FLOW DISTRIBUTION FOR SECNO=     17.18          CWSEL=   1695.60

STA=   11043.   11424.   11469.   11486.   11520.   11534.   11566.   11608.   11655.   11702.   11737.   11780.   11858.
  PER Q=      7.4      8.5      4.7      9.7      3.9      7.2      8.2      8.8      8.8      5.8      5.7      5.0
   AREA=    139.3     96.2     45.7     93.1     37.6     76.4     91.9    100.5    100.5     69.6     74.7     86.8
    VEL=      1.9      3.2      3.7      3.7      3.7      3.4      3.2      3.2      3.2      3.0      2.8      2.1
  DEPTH=       .4      2.1      2.7      2.7      2.7      2.4      2.2      2.1      2.1      2.0      1.7      1.1

STA=   11858.   11941.   11973.   12407.
  PER Q=      4.9       .5     10.7
   AREA=     88.4     16.0    134.0
    VEL=      2.0      1.2      2.9
  DEPTH=      1.1       .5      1.8
```



```
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


FLOW DISTRIBUTION FOR SECNO=     17.30          CWSEL=   1700.88

STA=   10743.   10880.   10927.   10968.   11021.   11080.   11127.   11158.   11210.   11261.   11368.   11798.   11875.
  PER Q=      8.6      9.6      8.4      9.7      8.4      4.6      3.8      6.3      5.4      3.7      1.8     29.2
   AREA=     95.5     72.1     62.9     76.0     72.9     46.3     35.2     58.4     52.8     53.8     50.1    167.3
    VEL=      3.2      4.8      4.8      4.6      4.2      3.6      3.9      3.9      3.7      2.5      1.3      6.3
  DEPTH=       .7      1.5      1.5      1.4      1.2      1.0      1.1      1.1      1.0       .5       .1      2.2

STA=   11875.   11955.
  PER Q=       .3
   AREA=      7.6
    VEL=      1.2
  DEPTH=       .1

FLOW DISTRIBUTION FOR SECNO=     17.39          CWSEL=   1704.98

STA=   10591.   10179.   10629.   10673.   10746.   10809.   10867.   10927.   11130.   11357.   11595.   11709.
  PER Q=       .0      7.0     10.5     15.0     10.5      8.8     10.4     23.7      6.0      4.3      3.9
```

AREA=	.0	75.4	100.5	152.2	115.6	100.6	113.1	301.3	133.9	113.9	78.2
VEL=	.0	3.3	3.8	3.5	3.3	3.1	3.3	2.8	1.6	1.4	1.8
DEPTH=	.0	.2	2.3	2.1	1.8	1.7	1.9	1.5	.6	.5	.7

FLOW DISTRIBUTION FOR SECNO= 17.48 CWSEL= 1709.23

STA=	9489.	9687.	9766.	9836.	9893.	10073.	10150.	10239.	10350.	10492.	10605.	10855.	11160.
PER Q=	3.8	3.7	3.6	2.2	50.5	3.2	4.4	4.8	3.8	3.5	6.1	4.1	
AREA=	327.9	229.0	218.2	149.9	1250.8	208.7	267.5	308.2	295.8	254.6	494.9	415.1	
VEL=	3.1	4.4	4.5	4.1	11.0	4.1	4.5	4.2	3.5	3.7	3.4	2.7	
DEPTH=	1.7	2.9	3.1	2.6	6.9	2.7	3.0	2.8	2.1	2.3	2.0	1.4	

STA=	11160.	11190.	11413.
PER Q=	3.1	3.3	
AREA=	141.9	278.0	
VEL=	6.0	3.2	
DEPTH=	4.7	1.2	

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THIS RUN EXECUTED 25APR97 14:06:09

****
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

HOSKIN ENGINEERING CONSU

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	DEPTH	ELMIN	EG	CRIWS	VCH	10*KS	XLCH	SSTA	TOPWID	ENDST
*	16.870	3600.00	1679.16	7.96	1671.20	1679.75	1679.16	6.36	169.07	.00	11510.41	666.59	12177.00
*	16.960	3600.00	1684.70	9.40	1675.30	1684.90	.00	3.66	28.22	900.00	11717.69	519.76	12237.45
*	17.060	3600.00	1689.87	12.27	1677.60	1690.53	1689.87	7.92	252.01	750.00	11453.35	481.97	12256.66
	17.180	3600.00	1695.60	11.00	1684.60	1695.73	.00	2.88	38.10	730.00	11043.27	810.18	12377.61
*	17.300	3600.00	1700.88	10.08	1690.80	1701.22	1700.88	6.29	136.48	590.00	10742.97	988.05	11955.36
*	17.390	3600.00	1704.98	9.28	1695.70	1705.10	.00	.00	49.24	500.00	10591.00	1111.34	11708.91
*	17.480	27300.00	1709.23	8.83	1700.40	1710.29	1709.23	11.03	73.84	429.40	9489.24	1923.33	11412.57

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 16.870 PROFILE= 1 CRITICAL DEPTH ASSUMED

WARNING SECNO= 16.960 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

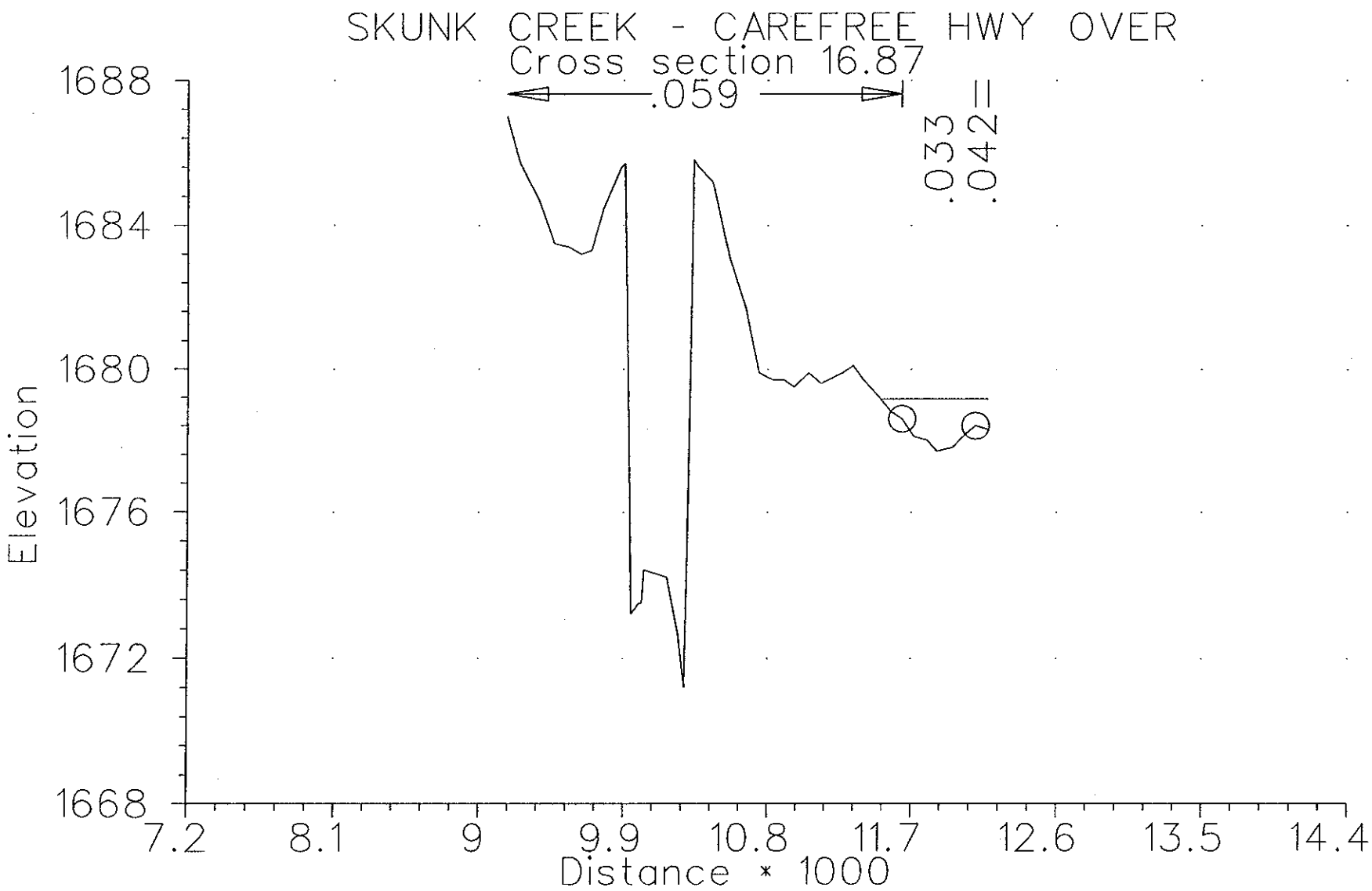
CAUTION SECNO= 17.060 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 17.060 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 17.060 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

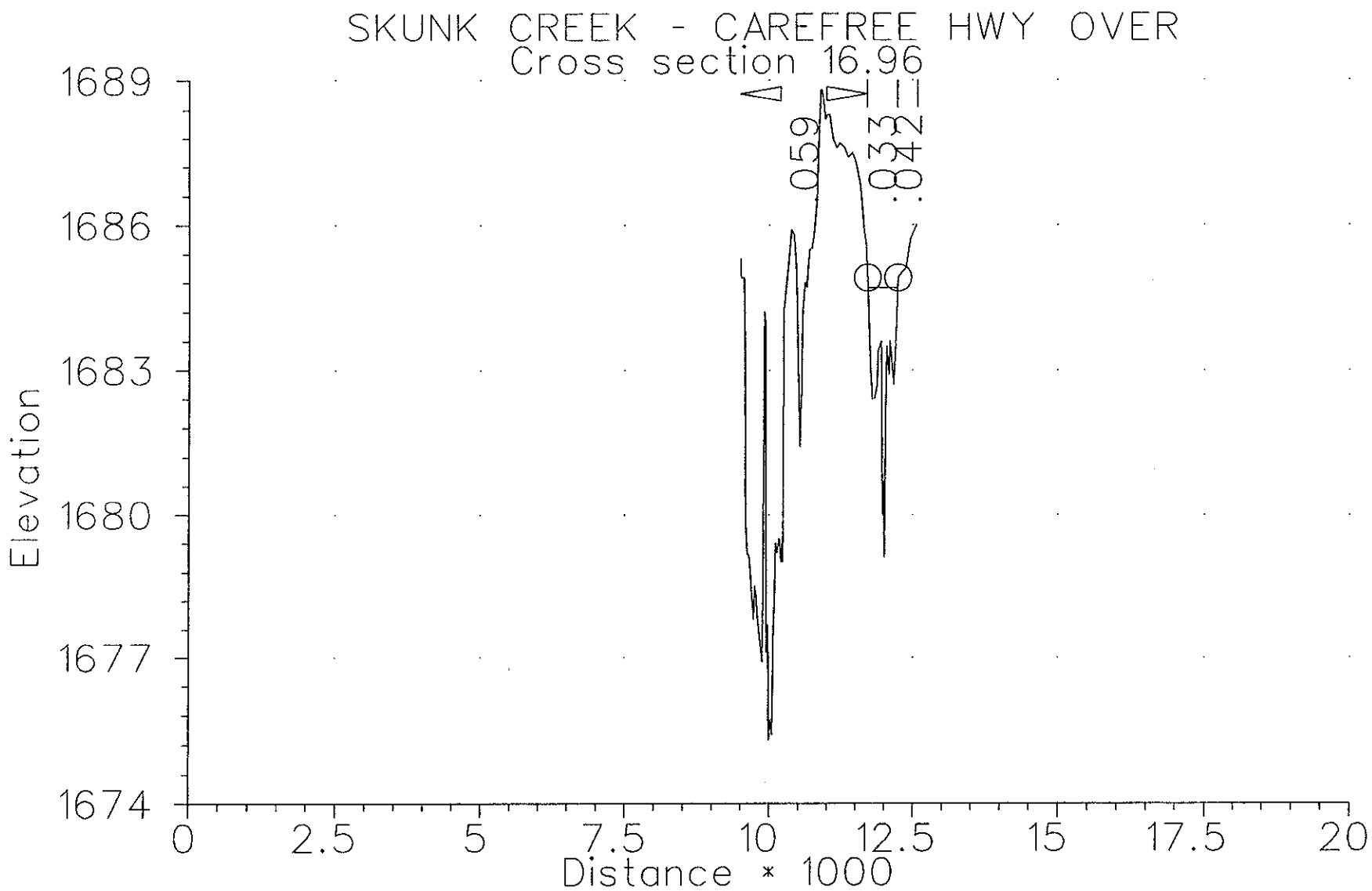
WARNING SECNO= 17.180 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

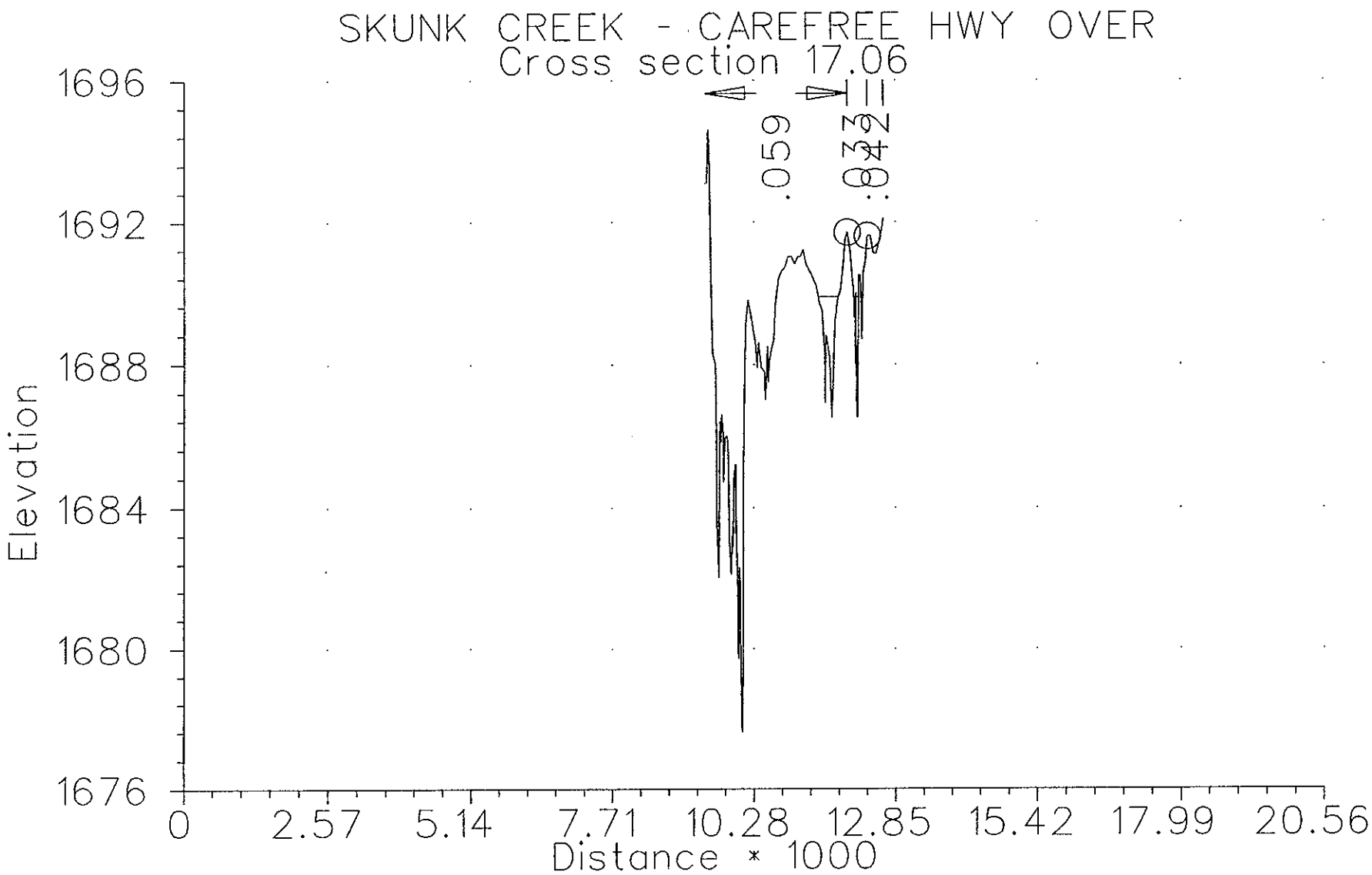
CAUTION SECNO= 17.300 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 17.300 PROFILE= 1 MINIMUM SPECIFIC ENERGY

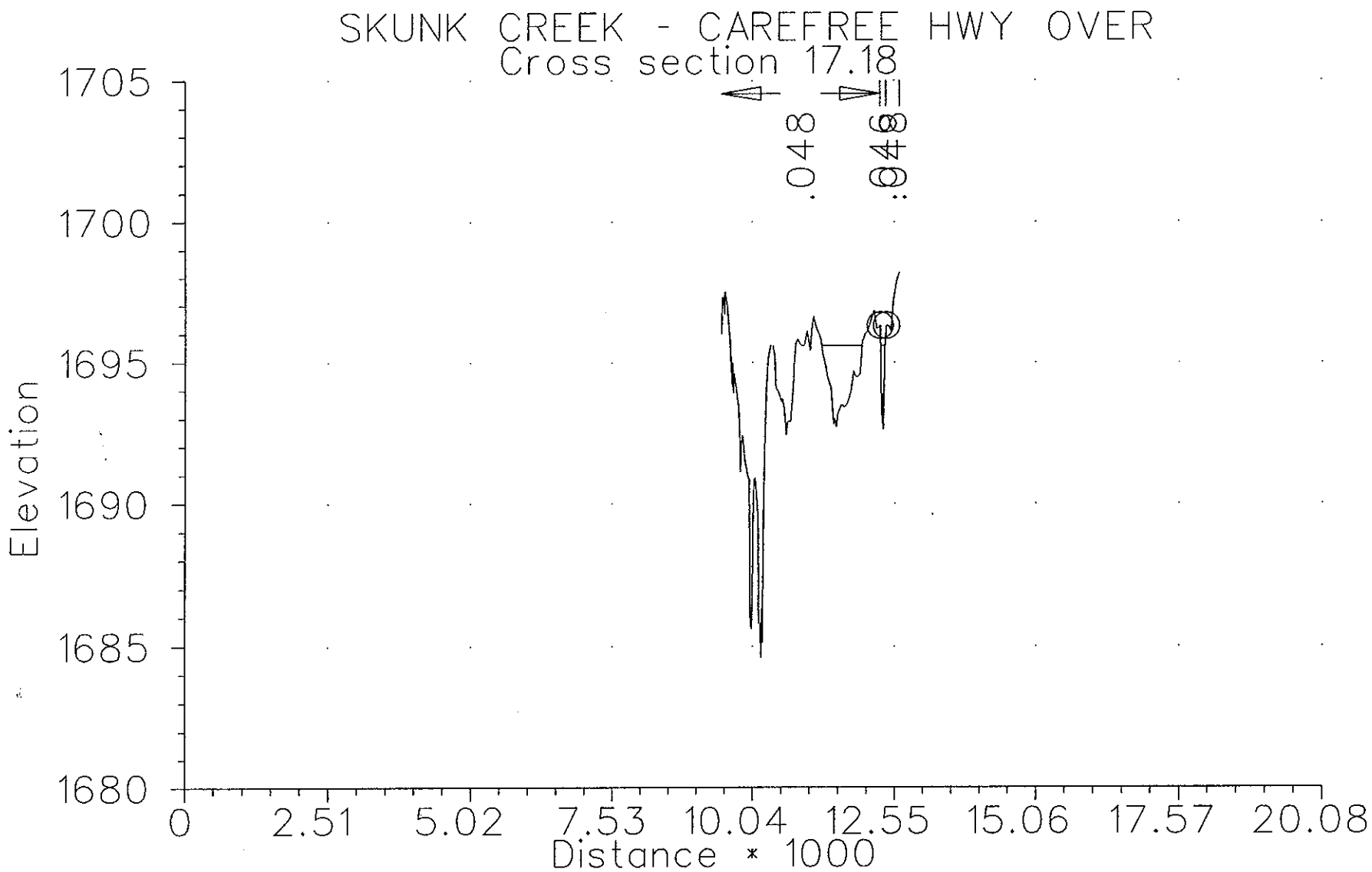
WARNING SECNO= 17.390 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

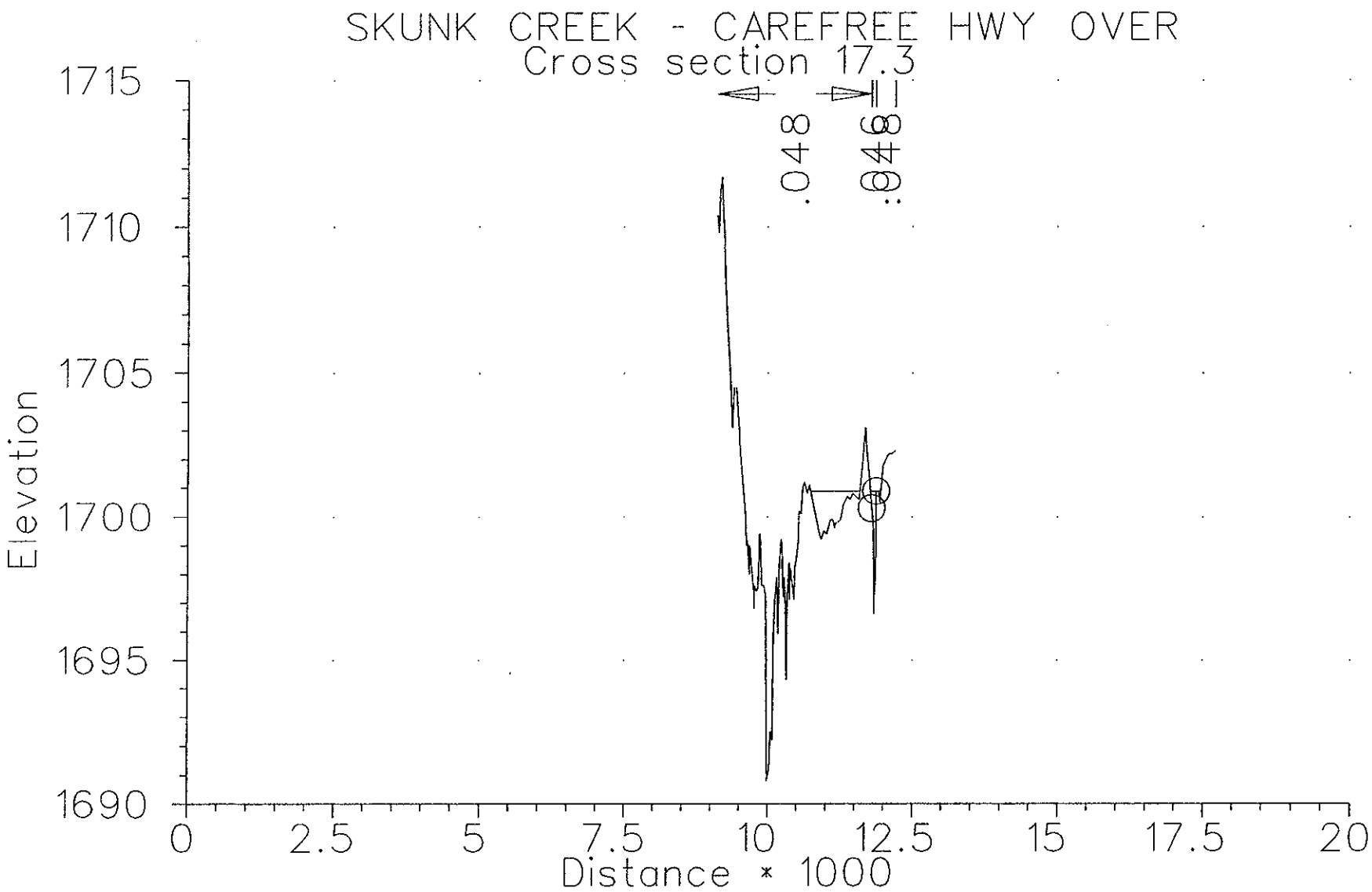
CAUTION SECNO= 17.480 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 17.480 PROFILE= 1 MINIMUM SPECIFIC ENERGY

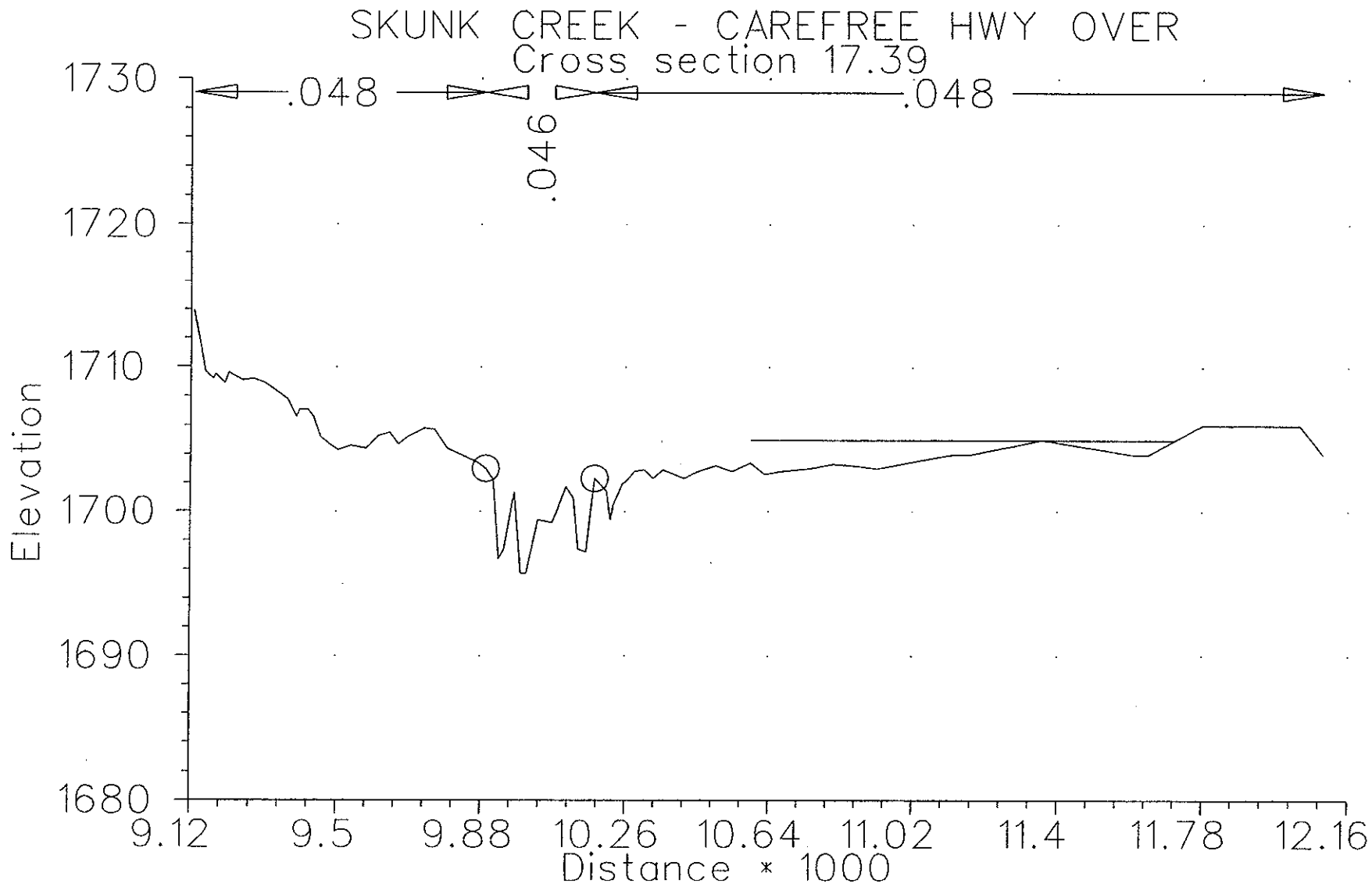

SKUNK CREEK - CAREFREE HWY OVER
Cross section 16.87
.059
.033
.042
1688
1684
1680
1676
1672
1668
Elevation
7.2
8.1
9
9.9
10.8
11.7
12.6
13.5
14.4
Distance * 1000

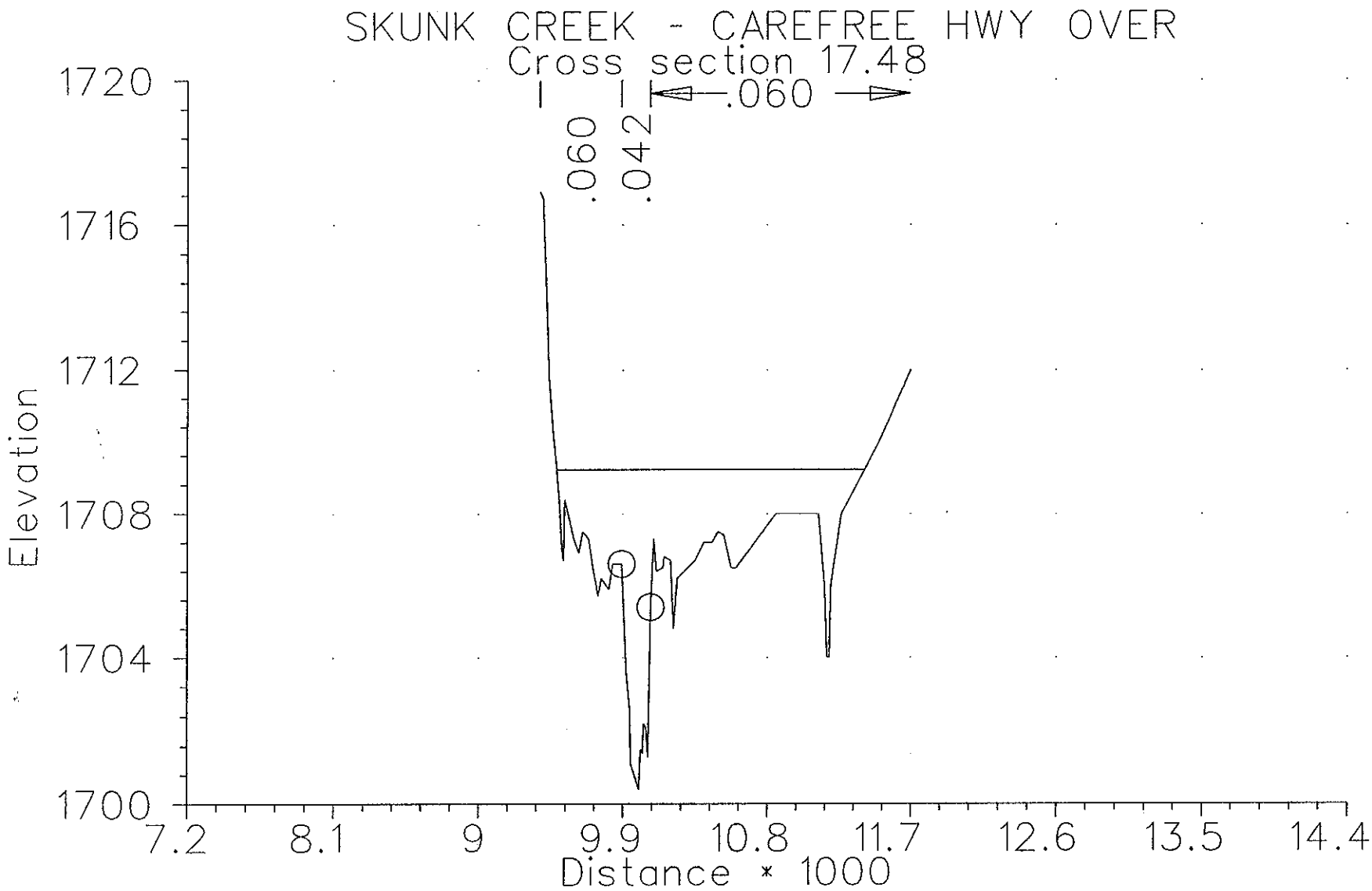

SKUNK CREEK - CAREFREE HWY OVER
Cross section 16.96
.059
.833
.842
1689
1686
1683
1680
1677
1674
Elevation
0
2.5
5
7.5
10
12.5
15
17.5
20
Distance * 1000


SKUNK CREEK - CAREFREE HWY OVER
Cross section 17.06
.059
.073
.082
.111
1696
1692
1688
1684
1680
1676
Elevation
0
2.57
5.14
7.71
10.28
12.85
15.42
17.99
20.56
Distance * 1000


SKUNK CREEK - CAREFREE HWY OVER
Cross section 17.18
.048
.046
1705
1700
1695
1690
1685
1680
Elevation
0
2.51
5.02
7.53
10.04
12.55
15.06
17.57
20.08
Distance * 1000


SKUNK CREEK - CAREFREE HWY OVER
Cross section 17.3
.048
.046
1715
1710
1705
1700
1695
1690
Elevation
0
2.5
5
7.5
10
12.5
15
17.5
20
Distance * 1000


SKUNK CREEK - CAREFREE HWY OVER
Cross section 17.39
.048
.046
.048
1730
1720
1710
1700
1690
1680
Elevation
9.12
9.5
9.88
10.26
10.64
11.02
11.4
11.78
12.16
Distance * 1000


SKUNK CREEK - CAREFREE HWY OVER
Cross section 17.48
.060
.060
.042
1720
1716
1712
1708
1704
1700
Elevation
7.2
8.1
9
9.9
10.8
11.7
12.6
13.5
14.4
Distance * 1000

Appendix C

MONTGOMERY WATSON

```
1*****************************************                    ************************************
 *  HEC-2 WATER SURFACE PROFILES           *                    *  U.S. ARMY CORPS OF ENGINEERS      *
 *                                         *                    *  HYDROLOGIC ENGINEERING CENTER     *
 *  Version   4.6.2;  May 1991             *                    *  609 SECOND STREET, SUITE D        *
 *                                         *                    *  DAVIS, CALIFORNIA 95616-4687      *
 *  RUN DATE    25APR97    TIME   14:08:17 *                    *          (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
1
   25APR97      14:08:17                                                                          PAGE    1


                                                                   THIS RUN EXECUTED 25APR97    14:08:17
 ************************************
  HEC-2 WATER SURFACE PROFILES

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


 T1      SKUNK CREEK FLOODPLAIN DELINEATION
 T2      SPLIT FLOW ANALYSIS  100 YR EVENT       DATE: 8-96
 T3      HOSKIN ENGINEERING CONSULTANTS   FILE:TRIBCAP.H2I

 J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

        0         2                           -1

 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IEW       CHNIM     ITRACE

      -1                  -1                                                                     15

     VARIABLE CODES FOR SUMMARY PRINTOUT

      38        43         1         8        42         3         2        26         5        39
      53         4        54

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

     -10       -10

 QT        1       7600
 NC     .025       .025       .025        .3        .5
 ET                 9.1                                                                    7780      7940
         SPILLWAY THALWEG AT STA 7860
         CROSS-SECTION NUMBERS DO NOT REPRESENT RIVER MILES FOR THIS SPLIT FLOW
 X1    13.00          8      7780      7940
 GR   1527.0       7780     1518.5    7780.5    1518.5    7939.5    1527.0      7940    1527.0      9820
 GR   1518.5     9820.5     1518.5   10064.5    1527.0     10065

 ET                 9.1                                                                    7780      7940
 X1    13.02          8      7780      7940       120       120       120
 GR   1527.0       7780      1519    7780.5      1519    7939.5    1527.0      7940    1527.0      9820
 GR     1519     9820.5      1519   10064.5    1527.0     10065

 NC      .04        .04       .04        .3        .5
 ET                 9.1                                                                    7428      7840
 X1    13.04         20      7475      7829       100       100       100
 GR   1531.2       7311    1526.9      7365    1526.6      7377    1527.8      7428      1527      7475
 GR   1526.6       7516    1520.1      7540    1519.5      7577    1519.3      7631    1519.6      7648
 GR   1518.7       7682      1519      7704    1518.1      7758    1518.4      7790    1520.6      7803
 GR   1526.7       7829    1527.1      7840    1526.9      7898    1526.2      7917      1531      7961
1
   25APR97      14:08:17                                                                          PAGE    2


 NC     .069       .069       .04        .1        .3
 ET                 9.1                                                                    9680     10138
 X1    13.06         21      9964     10030       260       110       190
 GR     1530       8988      1528      9154      1526      9267      1524      9397      1522      9587
 GR   1521.8       9599      1522      9614      1522      9658    1522.4      9683      1522      9701
 GR     1520       9833      1520      9845    1521.4      9912      1520      9964    1519.5     10000
 GR     1520      10030      1520     10040      1522     10070      1526     10091      1528     10116
 GR     1530      10138

 ET                 9.1                                                                    9515     10119
 NC     .038       .038      .052
 X1    13.07         11      9921     10115       325       325       325
 GR   1530.2       9515      1530      9535      1528      9655      1526      9784      1524      9849
 GR     1522       9921      1520      9998    1519.8     10048      1520     10093      1530     10115
```

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GR     1532      10119

NC     .038       .038       .050        .1         .3
ET                 9.1                                                                          7732       8775
       CROSS-SECTION THALWEG AT STA 8465
X1    13.08         65       8409       8465        610        610        610
GR     1532       7732       1530       7863       1528       7933       1526       8065       1525       8114
GR   1524.5       8264       1524       8409     1522.2       8469     1522.5       8605     1522.2       8621
GR   1522.8       8775     1522.9       8828       1523       8862     1522.5       8926     1521.9       8955
GR   1520.4       8966     1522.5       9024     1524.4       9127       1524       9197     1524.1       9265
GR   1524.4       9305       1524       9386     1524.3       9436     1523.7       9447     1523.6       9533
GR   1524.2       9615     1523.4       9651     1522.6       9720     1520.4       9740     1522.2       9755
GR   1522.9       9781     1524.6       9805     1520.9       9821       1521       9836     1522.2       9847
GR     1523       9886     1522.2       9978     1518.5       9992     1518.2      10002     1518.8      10008
GR   1522.4      10023       1522      10070     1521.1      10078       1522      10090       1522      10106
GR     1520      10131     1521.5      10160     1523.5      10182     1523.9      10210     1524.3      10274
GR   1524.7      10346       1526      10460     1525.8      10512     1524.4      10555     1524.5      10575
GR     1526      10616       1528      10679     1525.4      10700     1524.8      10712     1524.7      10749
GR   1526.3      10757     1526.5      10782     1523.3      10798     1525.3      10812     1525.8      10854

ET                 9.1                                                                          7863       9421
X1    13.16         58       8551       8791        440        500        540
GR     1534       7863       1532       8128       1530       8316       1528       8551     1526.2       8641
GR   1526.1       8760     1526.1     8760.1     1526.1     8760.2     1526.1     8760.3     1526.1     8760.4
GR     1528       8791     1528.3       8868       1528       8888       1526       8946       1525       9139
GR     1526       9169     1526.2       9219       1526       9255     1525.3       9389       1526       9405
GR   1526.5       9421       1526       9442     1525.5       9459       1526       9481     1526.4       9632
GR     1526       9721       1525       9736       1526       9751       1528       9929     1528.3       9936
GR     1528       9943       1526       9953       1524       9963       1522       9981     1521.5       9991
GR     1522      10001       1524      10043     1524.5      10093       1524      10148       1523      10163
GR     1524      10215       1523      10220       1524      10225       1525      10235       1524      10245
GR   1523.2      10250       1524      10255       1526      10273     1526.2      10288       1526      10303
GR   1525.8      10323       1526      10349       1528      10669     1528.4      10724       1528      10754
GR   1527.5      10764       1528      10773     1529.8      10793
       CROSS-SECTION AT WHICH FLOWS TO CAP OVERCHUTES 1 AND 2 RECOMBINE.
       WSEL MATCHES AT THIS CROSS-SECTION
       CROSS-SECTION THALWEG AT STA 8650
1
   25APR97      14:08:17                                                                                    PAGE    3


ET                 9.1                                                                          8217       9537
X1    13.28         65       9484      10110        390        610        600
GR     1536       8217     1534.9       8297     1534.2       8552     1534.3       8677       1534       8812
GR     1532       8979       1530       9107     1529.3       9165       1530       9205       1532       9255
GR   1532.2       9337     1531.5       9390     1531.5       9439     1530.1       9484     1525.7       9507
GR   1526.0       9523     1529.8       9537     1530.1       9605     1530.9       9671     1530.2       9682
GR   1530.4       9709     1531.2       9726     1531.3       9776     1530.4       9840     1529.7       9851
GR   1530.9       9901     1531.6       9962     1530.6       9975     1522.9       9991     1522.6      10000
GR   1522.9      10034     1530.4      10052     1530.6      10083     1527.4      10097     1531.2      10110
GR   1531.0      10143     1531.2      10169     1532.3      10193     1532.9      10222     1532.2      10250
GR   1532.2      10302     1532.2      10347     1531.6      10363     1532.0      10389     1531.1      10421
GR   1531.1      10475     1531.1      10529     1529.7      10581     1530.3      10594     1530.6      10634
GR   1530.0      10654     1530.5      10667     1529.9      10697     1531.7      10727     1532.2      10771
GR   1532.9      10840     1533.5      10884     1533.9      10956     1533.3      10961     1534.6      10969
GR   1534.9      10995     1534.0      11002     1533.5      11019     1534.9      11025     1535.4      11065

QT        1      23300
X1    13.40         73       9670      10319        650        590      670.6
GR     1540       8520       1538       8940       1536       9105       1535       9155       1536       9197
GR   1536.2       9202       1536       9212     1535.9     9214.5       1536       9217     1536.5       9287
GR     1536       9359     1535.5       9414       1536       9474     1537.5       9641     1537.6       9670
GR   1536.4       9692     1534.6       9719     1527.4       9732     1530.8       9748     1532.1       9770
GR   1530.0       9782     1534.1       9800     1533.9       9820     1535.3       9840     1534.9       9849
GR   1535.8       9866     1536.5       9908     1537.1       9939     1536.9       9968     1535.2       9980
GR   1529.0       9994     1528.7      10000     1529.7      10010     1534.5      10033     1534.1      10063
GR   1534.3      10084     1534.3      10102     1536.0      10133     1536.4      10164     1535.0      10177
GR   1535.9      10194     1535.2      10209     1526.8      10246     1528.5      10252     1529.1      10269
GR   1537.1      10289     1537.5      10319     1536.6      10361     1535.1      10379     1535.3      10395
GR   1536.0      10422     1535.1      10447     1535.7      10465     1535.8      10514     1535.1      10539
GR   1535.0      10600     1535.4      10653     1535.5      10687     1535.0      10726     1534.3      10744
GR   1534.4      10772     1535.1      10797     1534.7      10833     1535.5      10874     1535.5      10910
GR   1535.1      10944     1534.7      11001     1535.1      11027     1539.0      11043     1538.8      11070
GR   1537.4      11080     1540.1      11101     1539.6      11142
1
   25APR97      14:08:17                                                                                    PAGE    4

    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=     13.00          CWSEL=   1522.63

STA=    7780.    7940.
  PER Q=    100.0
  AREA=    657.8
   VEL=     11.6
 DEPTH=      4.1

FLOW DISTRIBUTION FOR SECNO=     13.02          CWSEL=   1524.01

STA=    7780.    7940.
  PER Q=    100.0
```

```
  AREA=    797.2
   VEL=      9.5
 DEPTH=      5.0

FLOW DISTRIBUTION FOR SECNO=     13.04          CWSEL=   1525.68

 STA=    7519.    7829.
 PER Q=    100.0
 AREA=   1851.4
   VEL=      4.1
 DEPTH=      6.1

FLOW DISTRIBUTION FOR SECNO=     13.06          CWSEL=   1525.99

STA=    9680.    9683.    9701.    9833.    9845.    9912.    9964.   10030.   10040.   10070.   10091.
  PER Q=      .2      2.3     26.1      3.2     14.6     11.3     32.7      2.7      5.9       .9
   AREA=    10.8     68.2    658.6     71.9    354.4    275.0    411.8     59.9    149.7     41.8
    VEL=     1.4      2.5      3.0      3.4      3.1      3.1      6.0      3.4      3.0      1.6
  DEPTH=     3.6      3.8      5.0      6.0      5.3      5.3      6.2      6.0      5.0      2.0

FLOW DISTRIBUTION FOR SECNO=     13.07          CWSEL=   1526.76

STA=    9735.    9784.    9849.    9921.   10115.
  PER Q=      .3      4.6     18.1     77.1
   AREA=    18.4    114.1    270.4   1144.6
    VEL=     1.1      3.1      5.1      5.1
  DEPTH=      .4      1.8      3.8      6.1

1
  25APR97      14:08:17                                                                                PAGE    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        WIN        ELMIN      SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST


FLOW DISTRIBUTION FOR SECNO=     13.08          CWSEL=   1527.74

STA=    7950.    8065.    8114.    8264.    8409.    8469.    8605.    8621.    8775.
  PER Q=     1.1      2.3     11.6     14.5      9.6     28.0      3.3     29.6
   AREA=    99.8    109.7    448.4    505.9    278.3    732.9     86.2    806.8
    VEL=      .9      1.6      2.0      2.2      2.6      2.9      2.9      2.8
  DEPTH=      .9      2.2      3.0      3.5      4.6      5.4      5.4      5.2

FLOW DISTRIBUTION FOR SECNO=     13.16          CWSEL=   1528.21

STA=    8526.    8551.    8791.    8847.    8888.    8946.    9139.    9169.    9219.    9255.    9389.    9405.    9421.
  PER Q=      .0     14.6       .0       .0      2.9     37.4      5.8      6.4      4.6     23.6      2.8      1.7
   AREA=     2.7    382.9      6.0      1.6     70.5    524.2     81.5    105.8     76.2    343.9     41.1     31.5
    VEL=      .6      2.9       .6       .6      3.2      5.4      5.4      4.6      4.6      5.2      5.2      4.1
  DEPTH=      .1      1.6       .1       .0      1.2      2.7      2.7      2.1      2.1      2.6      2.6      2.0

FLOW DISTRIBUTION FOR SECNO=     13.28          CWSEL=   1532.56

STA=    8932.    8979.    9107.    9165.    9205.    9255.    9337.    9390.    9439.    9484.   10110.
  PER Q=      .3     14.9     19.1     13.2      5.8      1.3      1.7      3.0      6.4     34.2
   AREA=    13.2    199.9    168.9    116.5     78.1     37.9     37.7     52.0     79.3    279.9
    VEL=     1.8      5.7      8.6      8.6      5.7      2.5      3.4      4.4      6.2      9.3
  DEPTH=      .3      1.6      2.9      2.9      1.6       .5       .7      1.1      1.8      5.3

FLOW DISTRIBUTION FOR SECNO=     13.40          CWSEL=   1537.55

STA=    8977.    9155.    9287.    9414.    9641.    9656.   10319.   10447.   10539.   10600.   10687.   10744.   10797.
  PER Q=     3.2      3.7      3.4      3.6       .0     49.4      3.7      3.7      3.6      4.4      3.4      4.3
   AREA=   202.0    207.1    192.9    242.1       .4   2222.5    190.8    179.6    152.6    196.1    142.0    159.7
    VEL=     3.7      4.2      4.1      3.4       .3      5.2      4.5      4.7      5.6      5.2      5.6      6.3
  DEPTH=     1.1      1.6      1.5      1.1       .0      3.4      1.5      2.0      2.5      2.3      2.5      3.0

STA=   10797.   10874.   10944.   11001.   11081.
  PER Q=     4.7      3.3      3.8      1.9
   AREA=   196.0    150.4    151.2     81.5
    VEL=     5.6      5.0      5.8      5.4
  DEPTH=     2.5      2.1      2.7      1.0

1
  25APR97      14:08:17                                                                                PAGE    6


                                                                    THIS RUN EXECUTED 25APR97     14:08:17
 ************************************
 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


HOSKIN ENGINEERING CONSULTANTS

SUMMARY PRINTOUT
```

	SECNO	Q	CWSEL	DEPTH	ELMIN	EG	CRIWS	VCH	10*KS	XLCH	SSTA	TOPWID	ENDST
*	13.000	7600.00	1522.63	4.13	1518.50	1524.70	1522.63	11.55	60.86	.00	7780.26	159.49	7939.74
	13.020	7600.00	1524.01	5.01	1519.00	1525.42	.00	9.53	32.52	120.00	7780.19	159.62	7939.81
	13.040	7600.00	1525.68	7.58	1518.10	1525.94	.00	4.11	11.11	100.00	7519.39	305.28	7824.67
*	13.060	7600.00	1525.99	6.49	1519.50	1526.27	.00	6.04	23.00	190.00	9680.00	410.94	10090.94
	13.070	7600.00	1526.76	6.96	1519.80	1527.14	.00	5.12	28.92	325.00	9735.29	372.58	10107.86
*	13.080	7600.00	1527.74	9.54	1518.20	1527.84	.00	.00	5.83	610.00	7950.22	824.78	8775.00
*	13.160	7600.00	1528.21	6.71	1521.50	1528.57	.00	2.89	50.80	540.00	8525.58	868.34	9421.00
*	13.280	7600.00	1532.56	9.96	1522.60	1533.44	1532.56	9.30	116.45	600.00	8932.08	604.92	9537.00
*	13.400	23300.00	1537.55	10.75	1526.80	1537.95	.00	5.18	59.69	670.60	8976.95	2047.62	11081.18

1

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 13.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

WARNING SECNO= 13.040 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

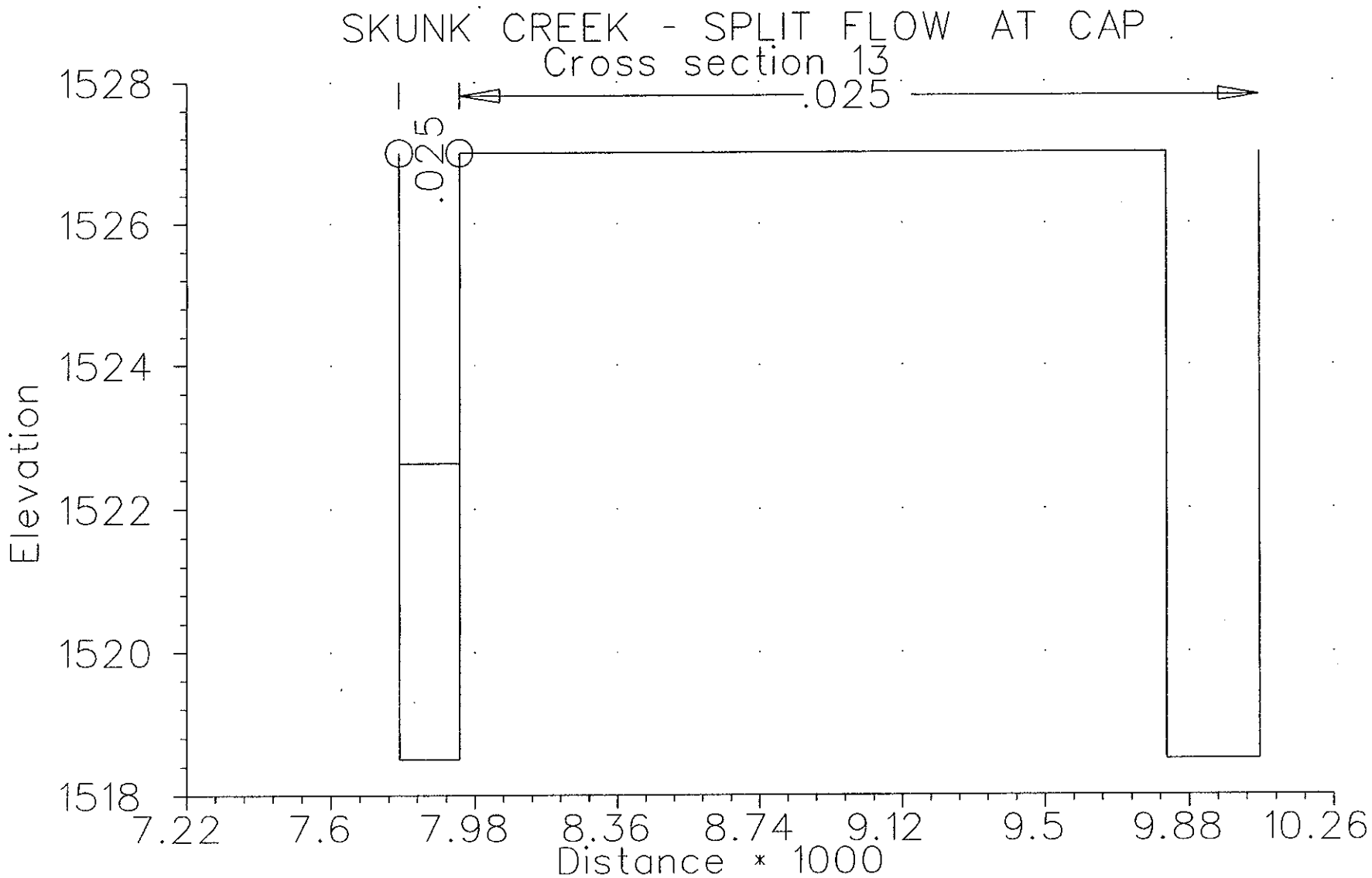
WARNING SECNO= 13.060 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

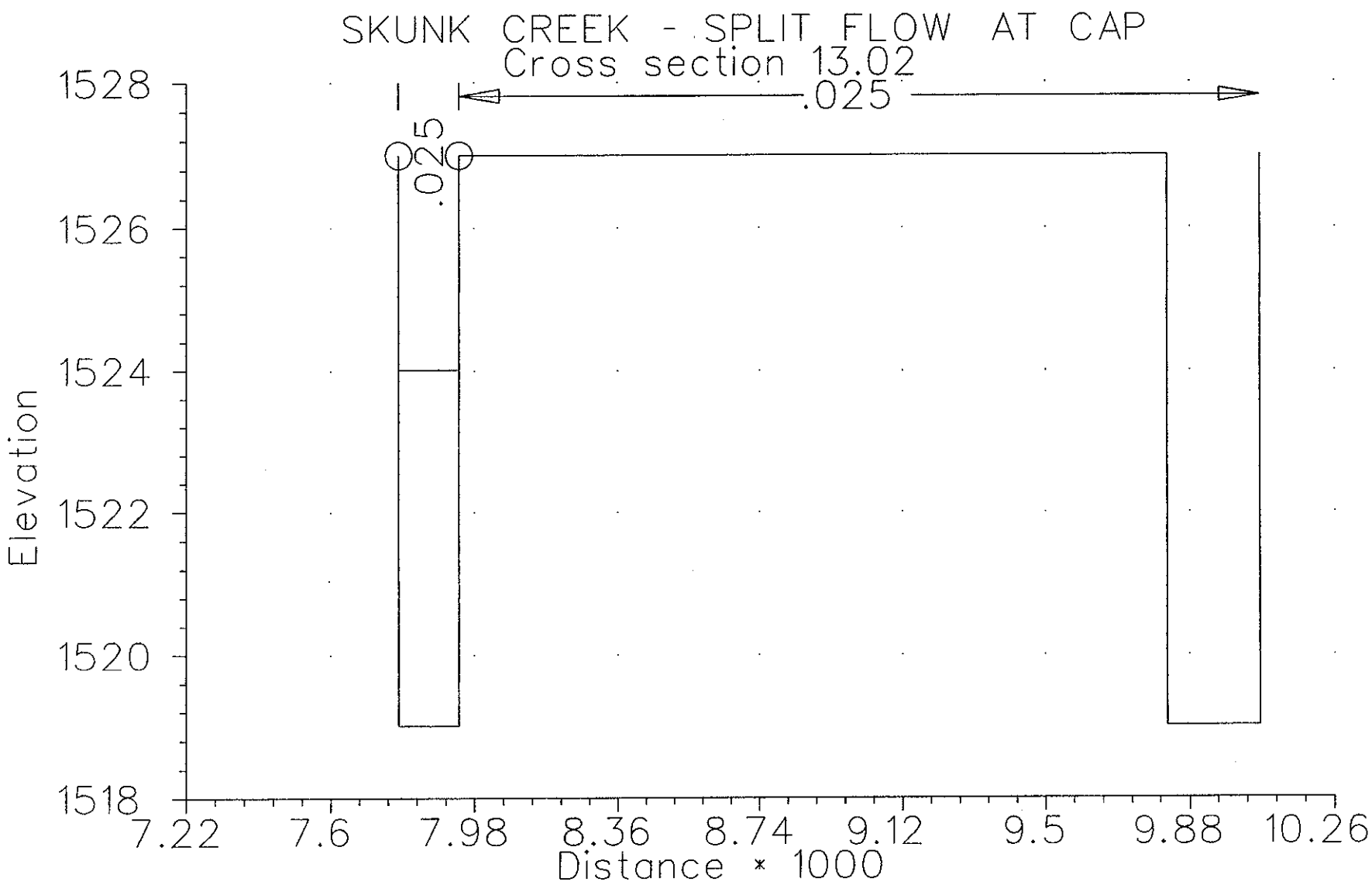
WARNING SECNO= 13.080 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

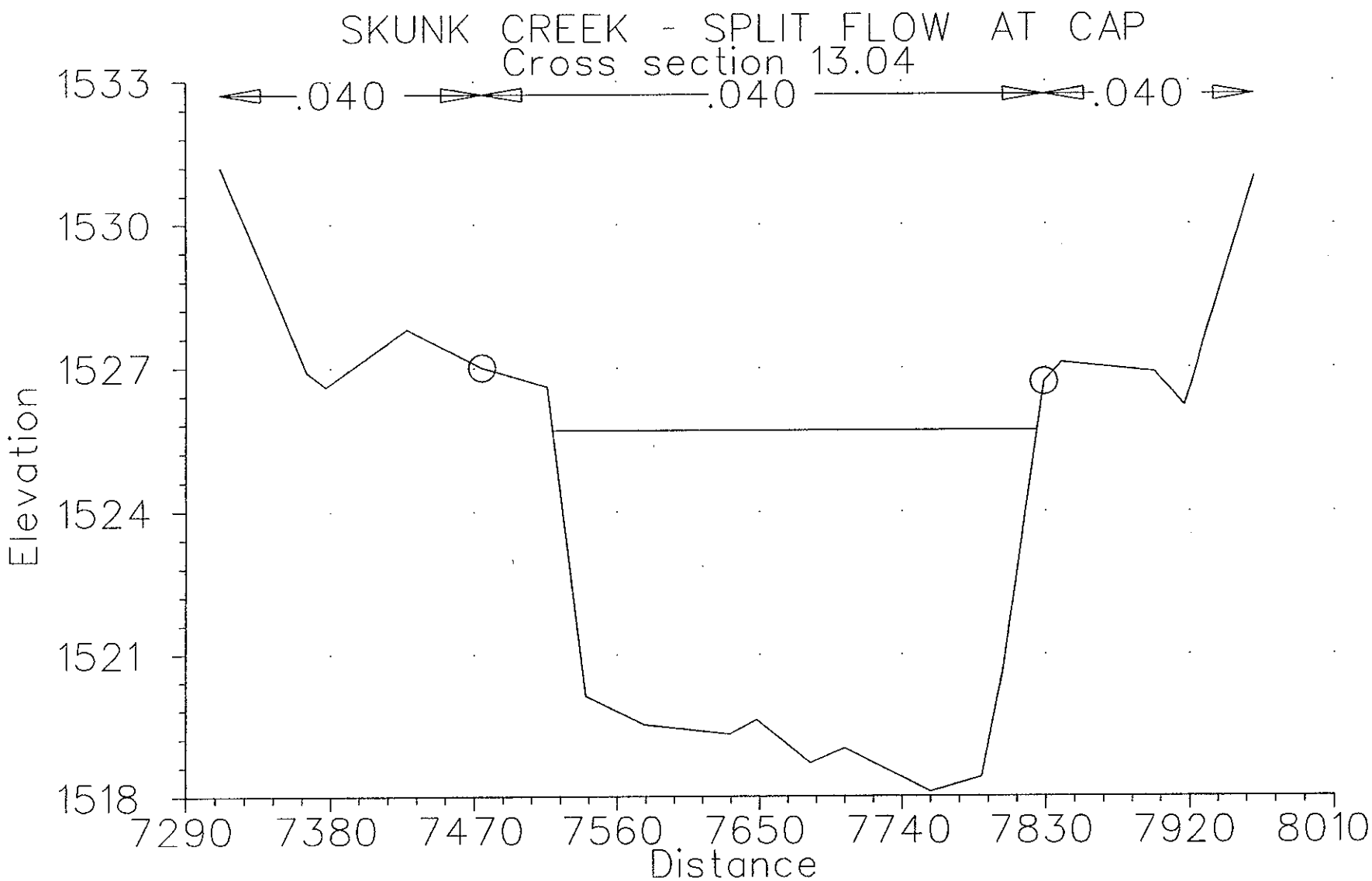
WARNING SECNO= 13.160 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 13.280 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 13.280 PROFILE= 1 MINIMUM SPECIFIC ENERGY

WARNING SECNO= 13.400 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE


SKUNK CREEK - SPLIT FLOW AT CAP
Cross section 13
.025
.025
1528
1526
1524
1522
1520
1518
Elevation
7.22
7.6
7.98
8.36
8.74
9.12
9.5
9.88
10.26
Distance * 1000


SKUNK CREEK - SPLIT FLOW AT CAP
Cross section 13.02
.025
.025
1528
1526
1524
1522
1520
1518
Elevation
7.22
7.6
7.98
8.36
8.74
9.12
9.5
9.88
10.26
Distance * 1000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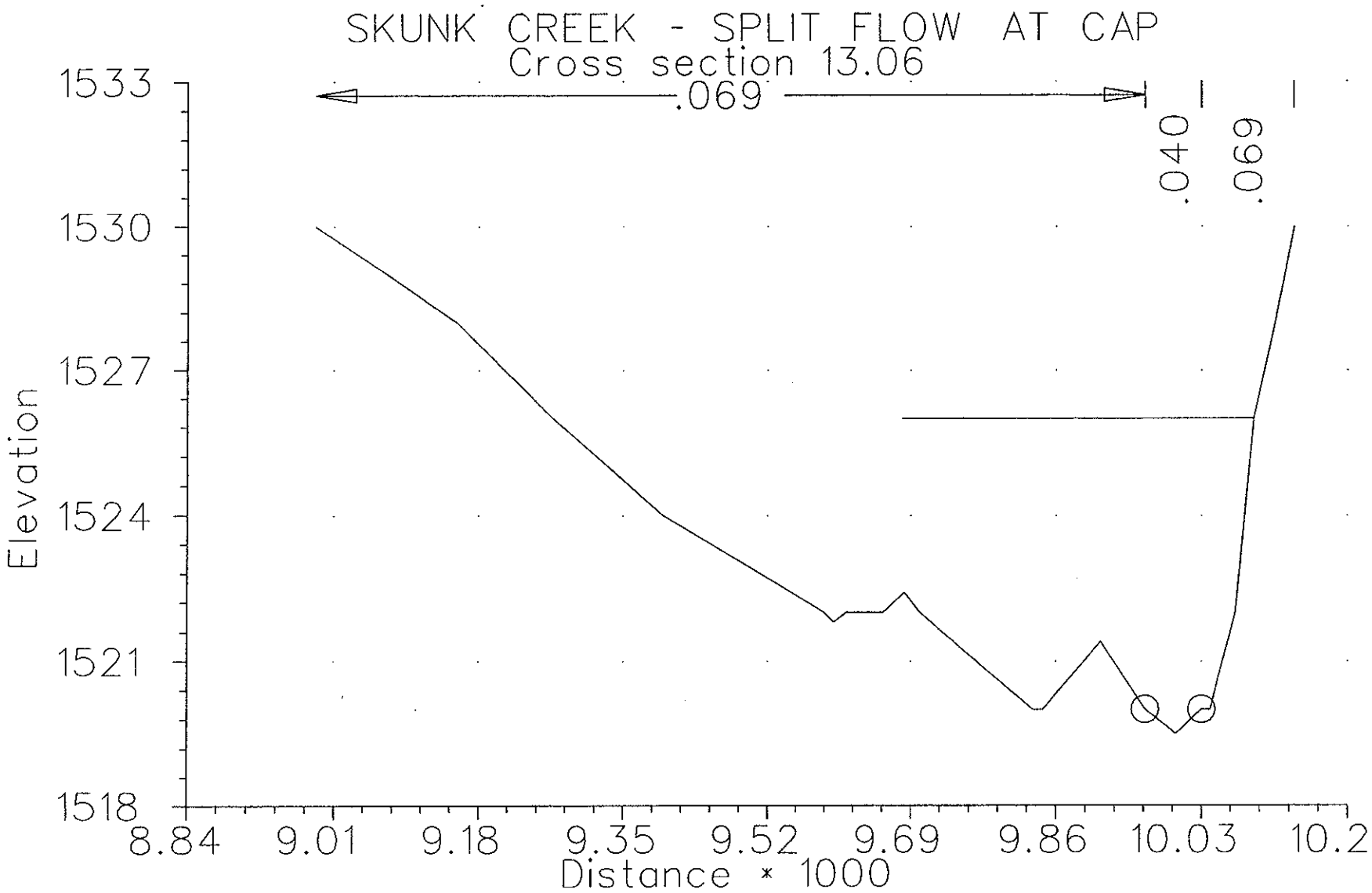
Cross section 13.04
.040
.040
.040
1533
1530
1527
1524
1521
1518
Elevation
7290
7380
7470
7560
7650
7740
7830
7920
8010
Distance


SKUNK CREEK - SPLIT FLOW AT CAP
Cross section 13.06
.069
.040
.069
1533
1530
1527
1524
1521
1518
Elevation
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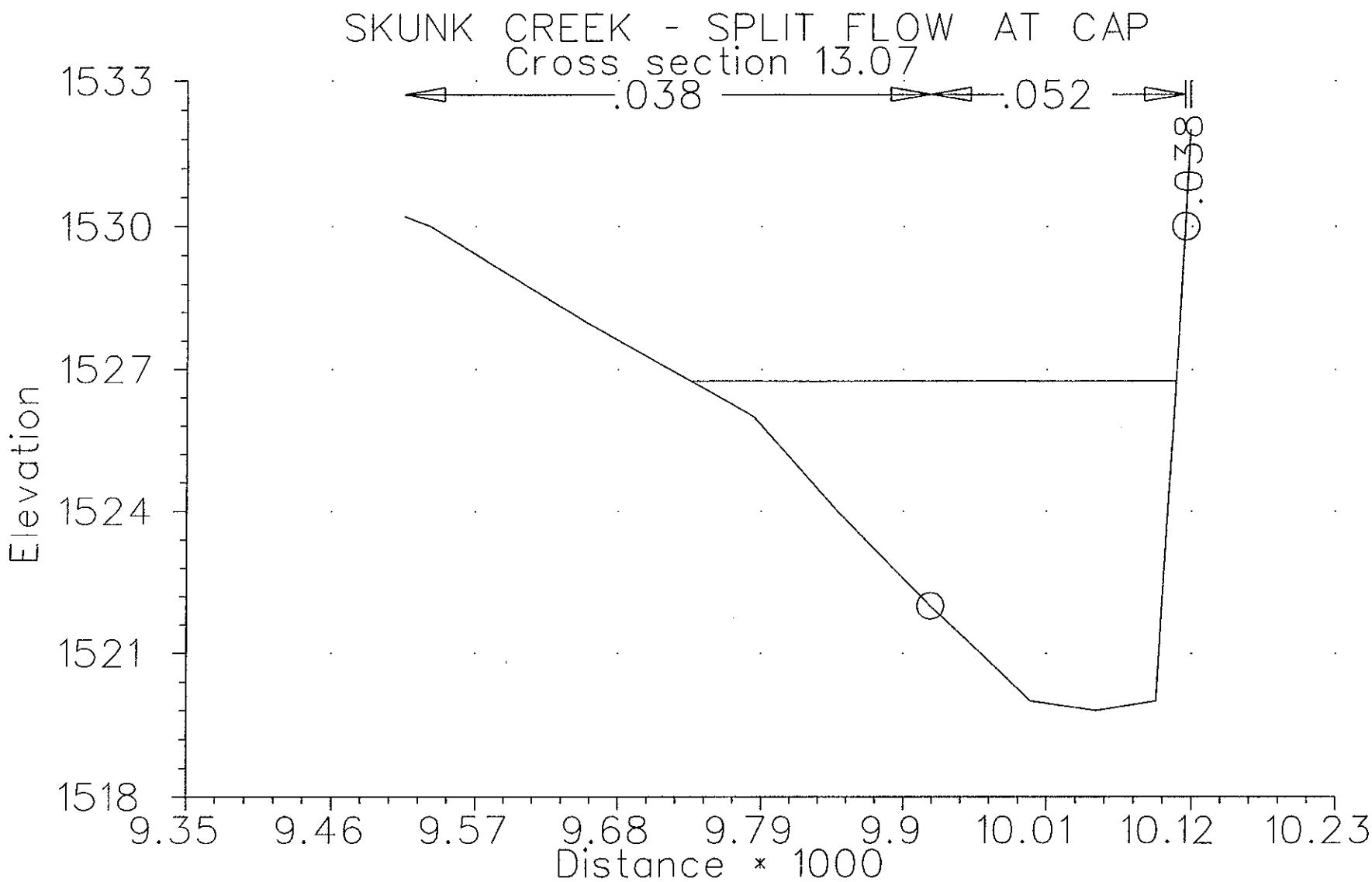
9.01
9.18
9.35
9.52
9.69
9.86
10.03
10.2
Distance * 1000


SKUNK CREEK - SPLIT FLOW AT CAP
Cross section 13.07
.038
.052
.038
1533
1530
1527
1524
1521
1518
Elevation
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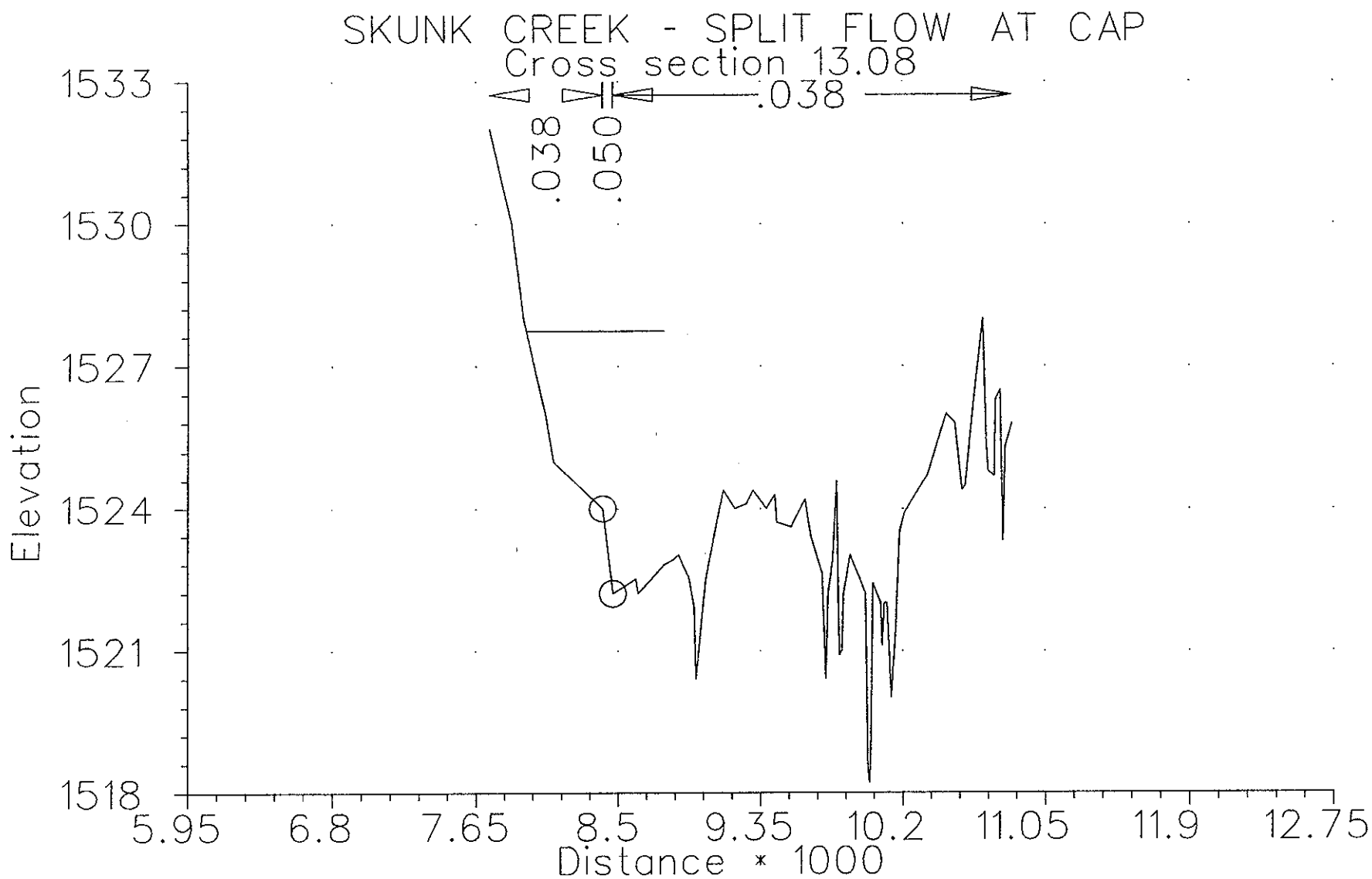
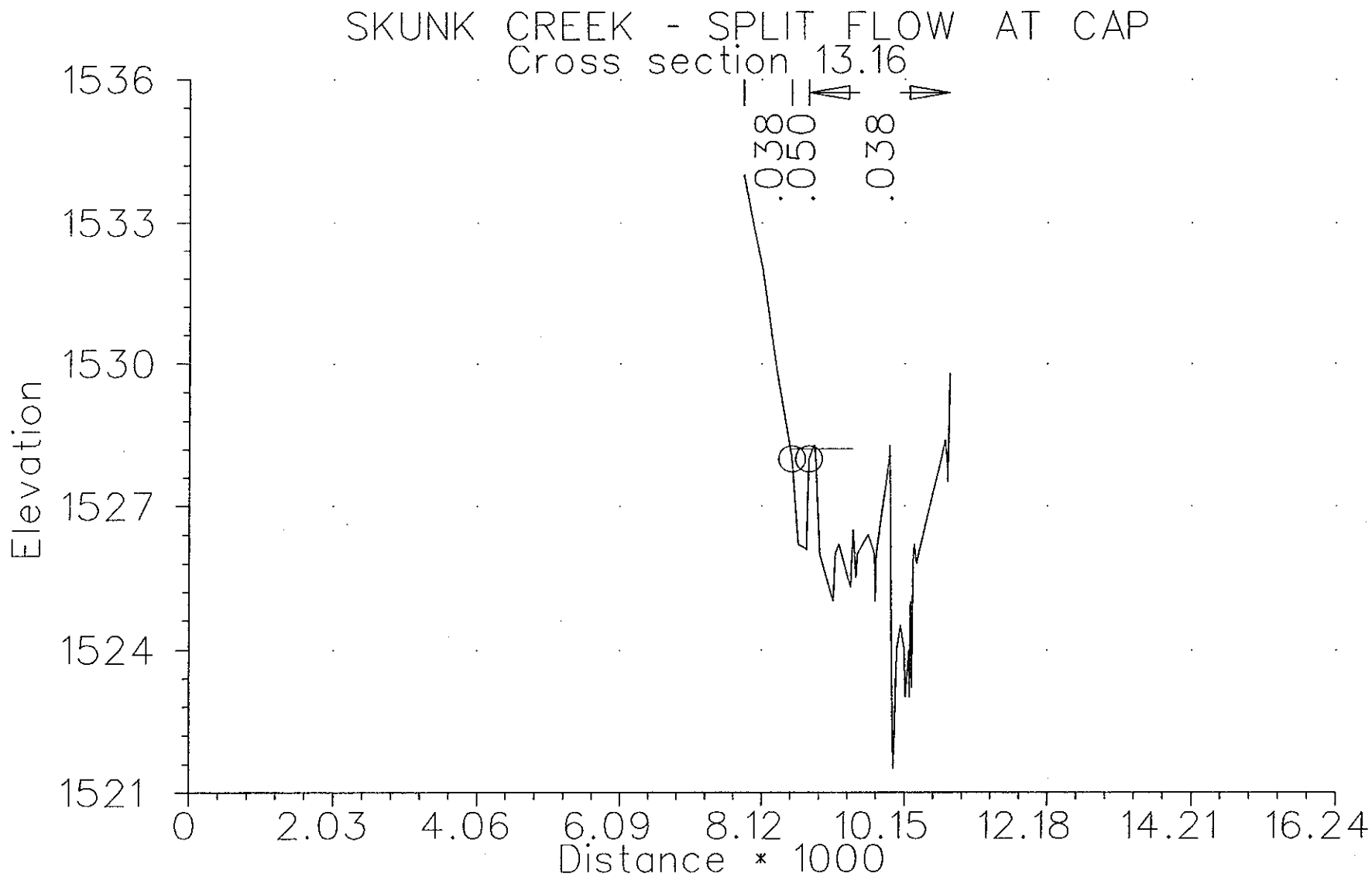
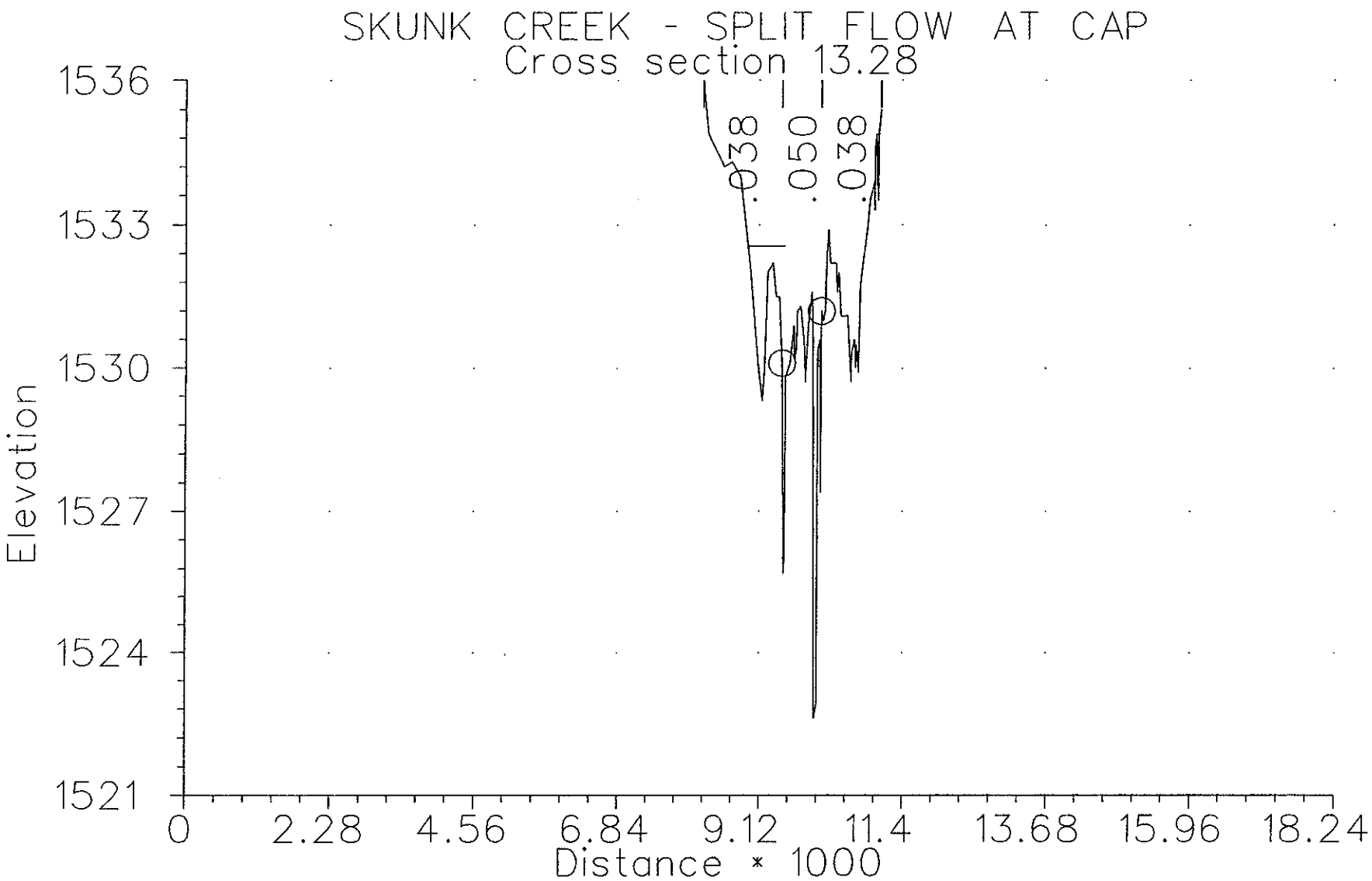
9.68
9.79
9.9
10.01
10.12
10.23
Distance * 1000


SKUNK CREEK - SPLIT FLOW AT CAP
Cross section 13.08
.038
.038
.050
1533
1530
1527
1524
1521
1518
Elevation
5.95
6.8
7.65
8.5
9.35
10.2
11.05
11.9
12.75
Distance * 1000


SKUNK CREEK - SPLIT FLOW AT CAP
Cross section 13.16
.038
.050
.038
1536
1533
1530
1527
1524
1521
Elevation
0
2.03
4.06
6.09
8.12
10.15
12.18
14.21
16.24
Distance * 1000


SKUNK CREEK - SPLIT FLOW AT CAP
Cross section 13.28
.038
.050
.038
1536
1533
1530
1527
1524
1521
Elevation
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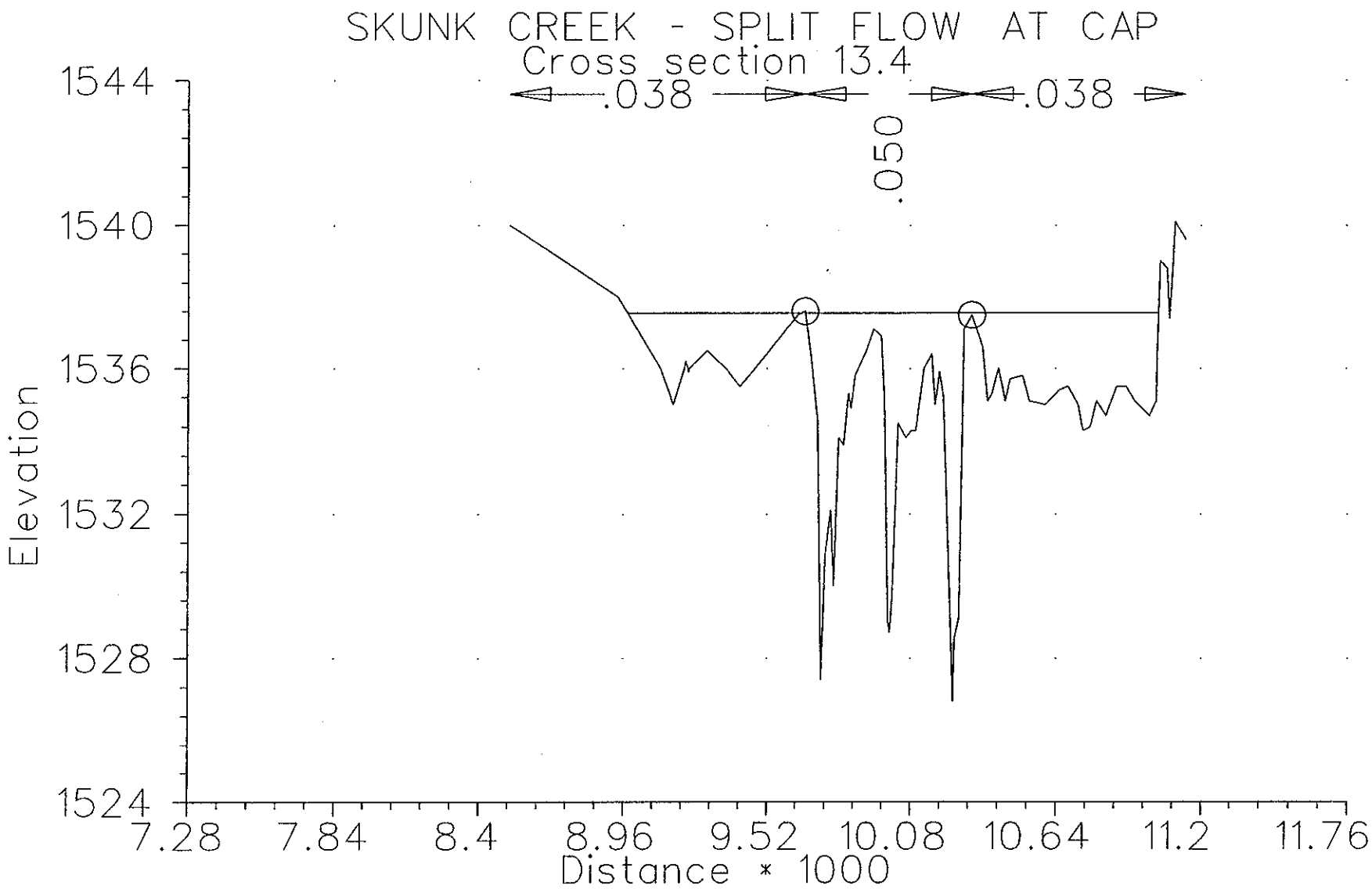
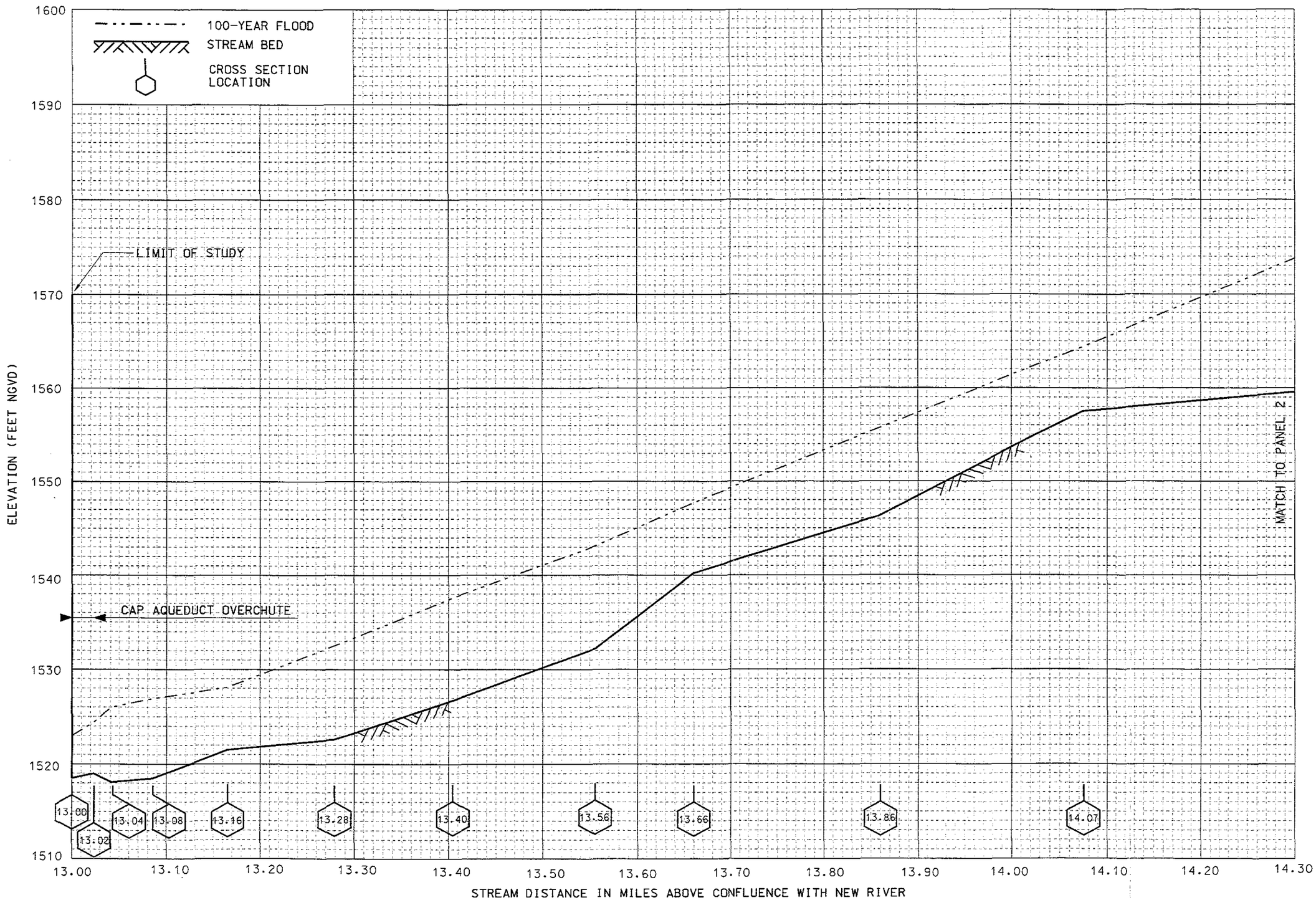
2.28
4.56
6.84
9.12
11.4
13.68
15.96
18.24
Distance * 1000


SKUNK CREEK - SPLIT FLOW AT CAP
Cross section 13.4
.038
.038
.050
1544
1540
1536
1532
1528
1524
Elevation
7.28
7.84
8.4
8.96
9.52
10.08
10.64
11.2
11.76
Distance * 1000

Appendix D

MONTGOMERY WATSON



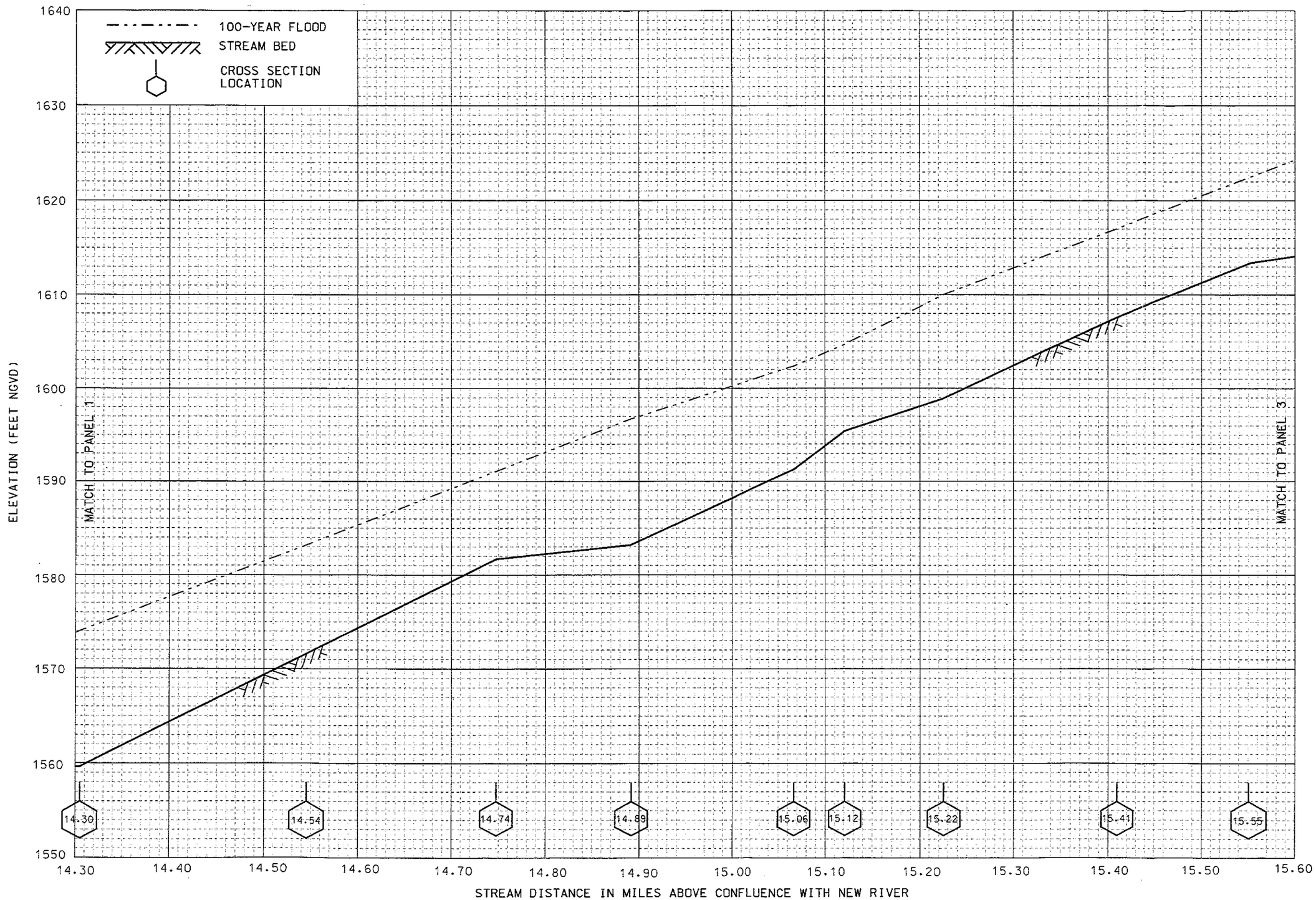
FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ

PANEL 1



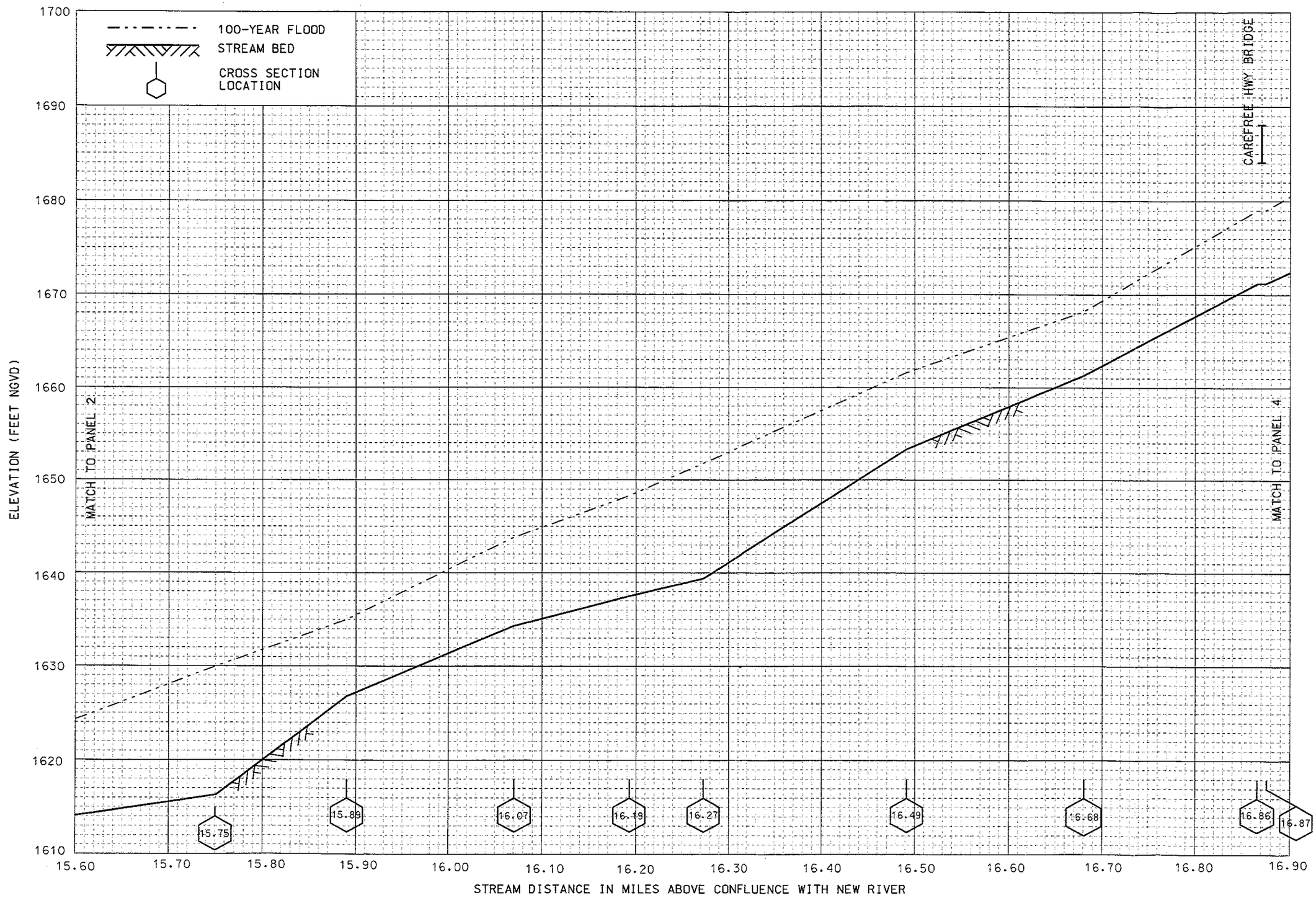
FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ

PANEL 2



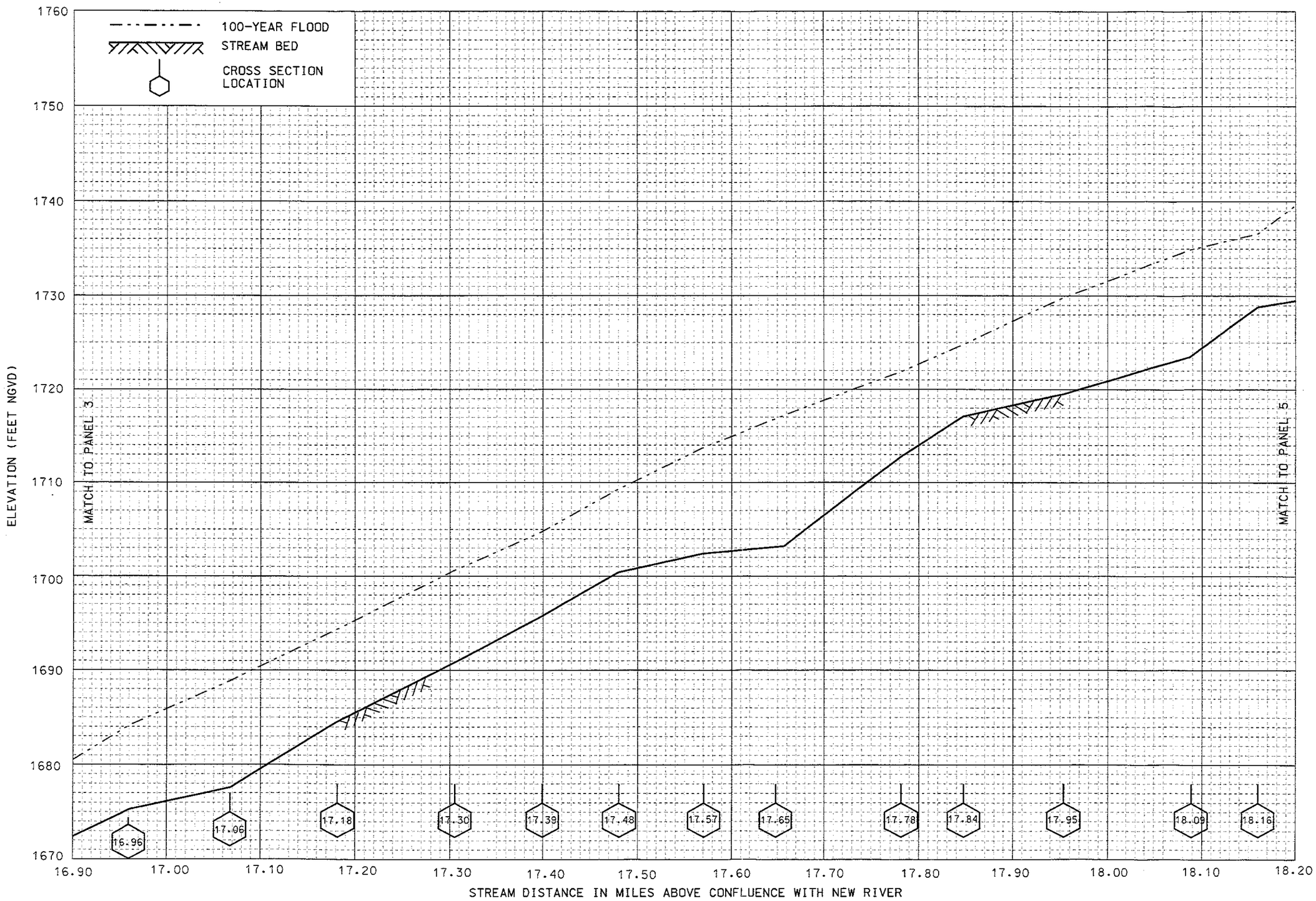
FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ

PANEL 3



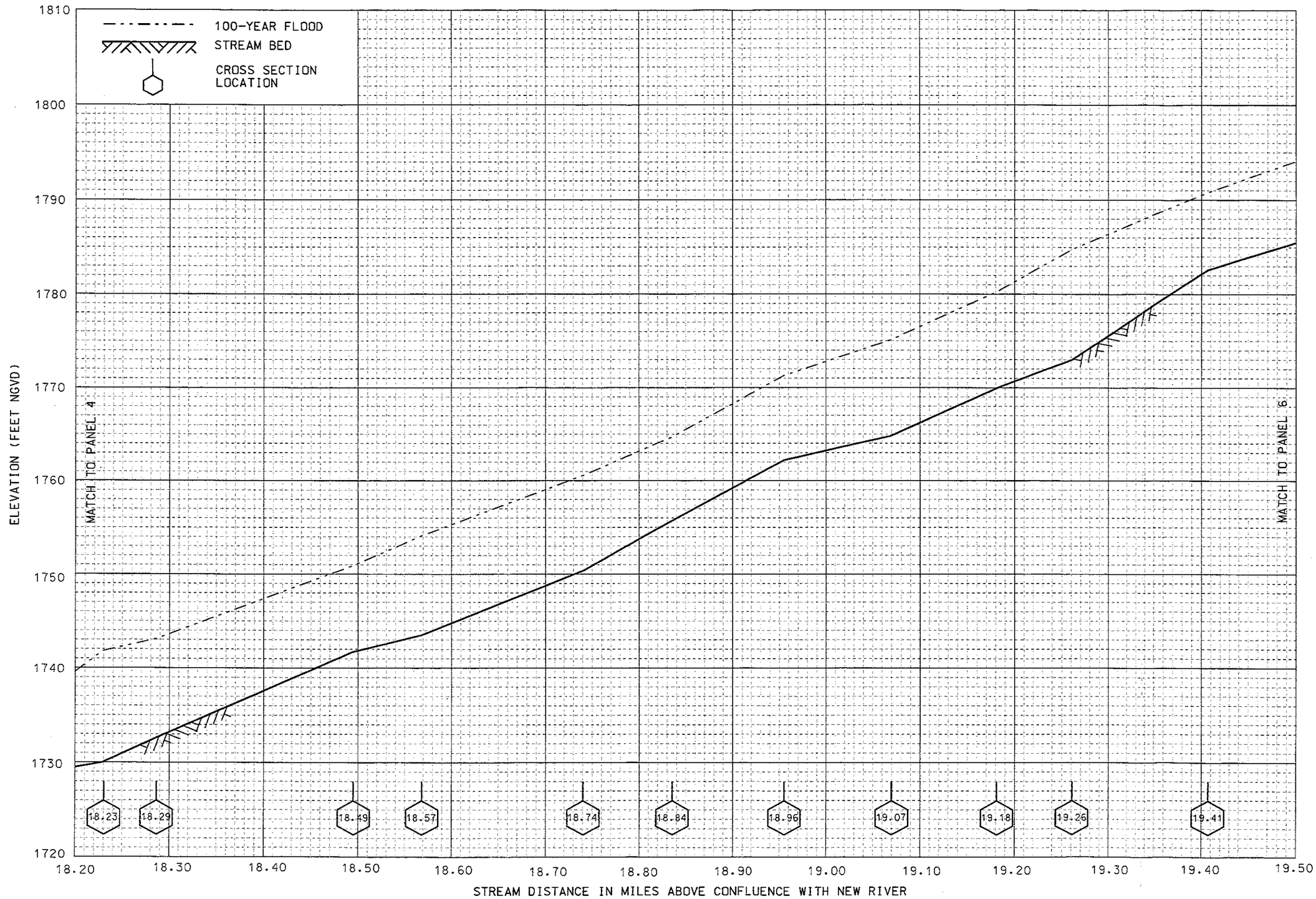
FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ

PANEL 4



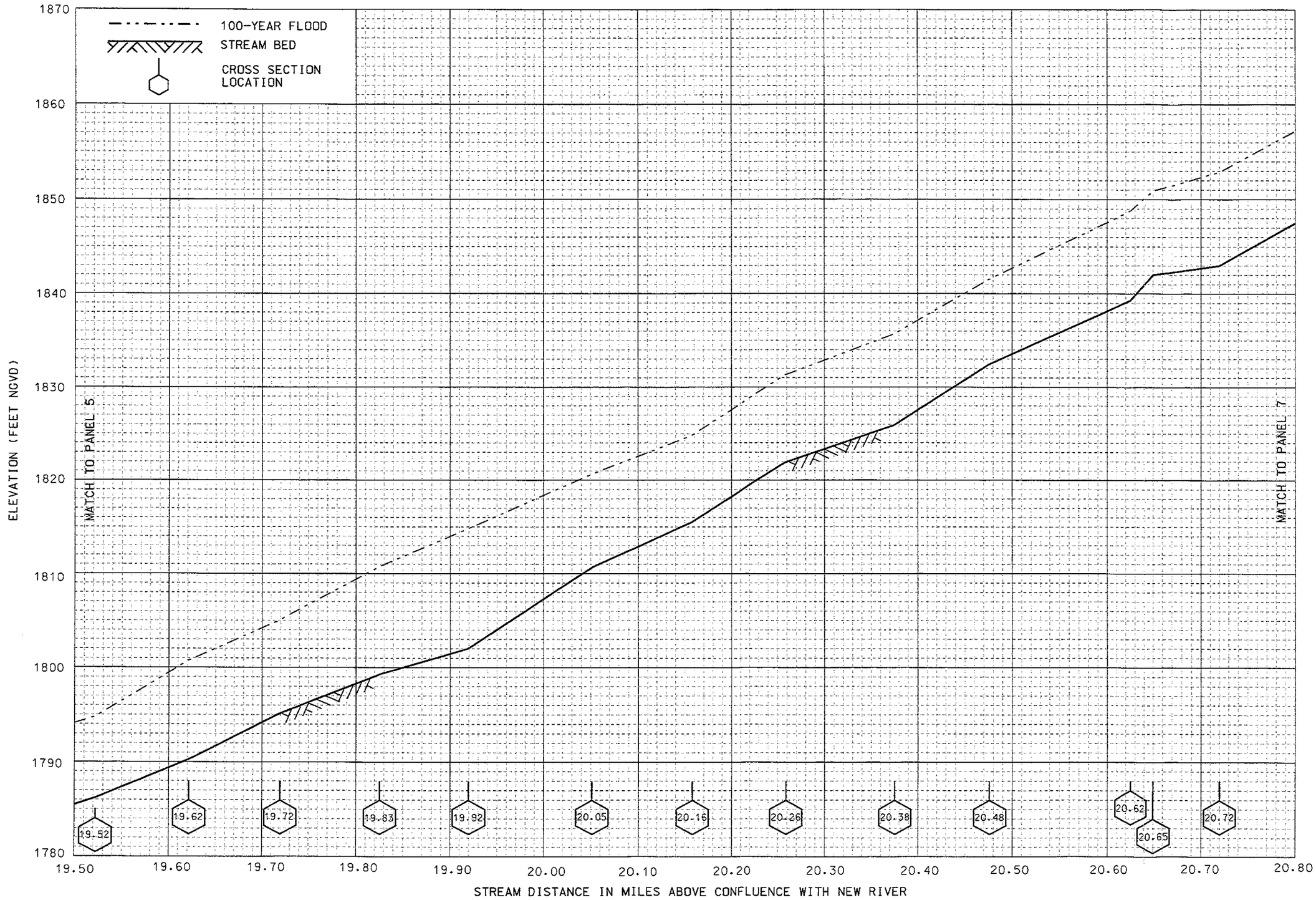
FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ

PANEL 5



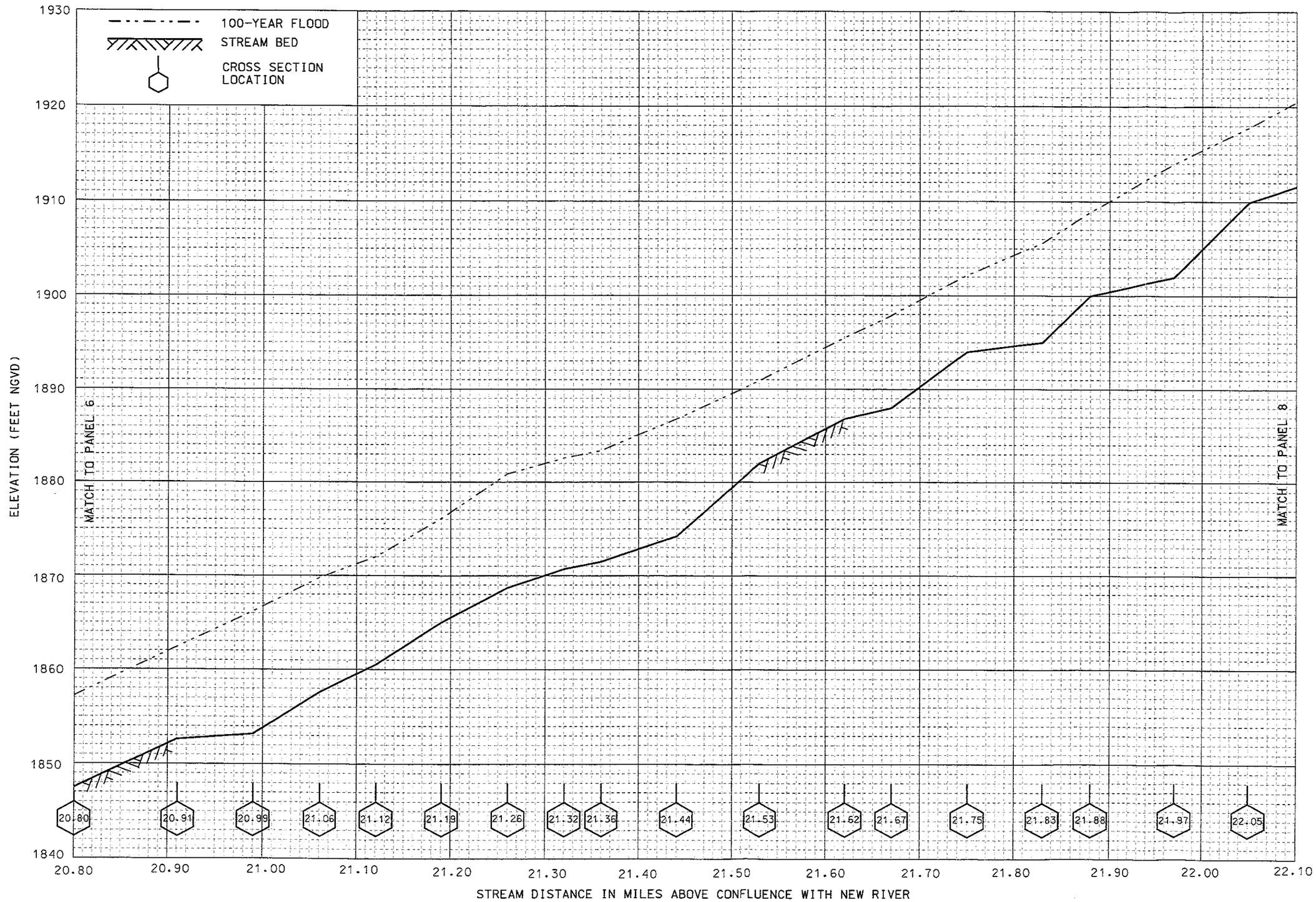
FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ

PANEL 6



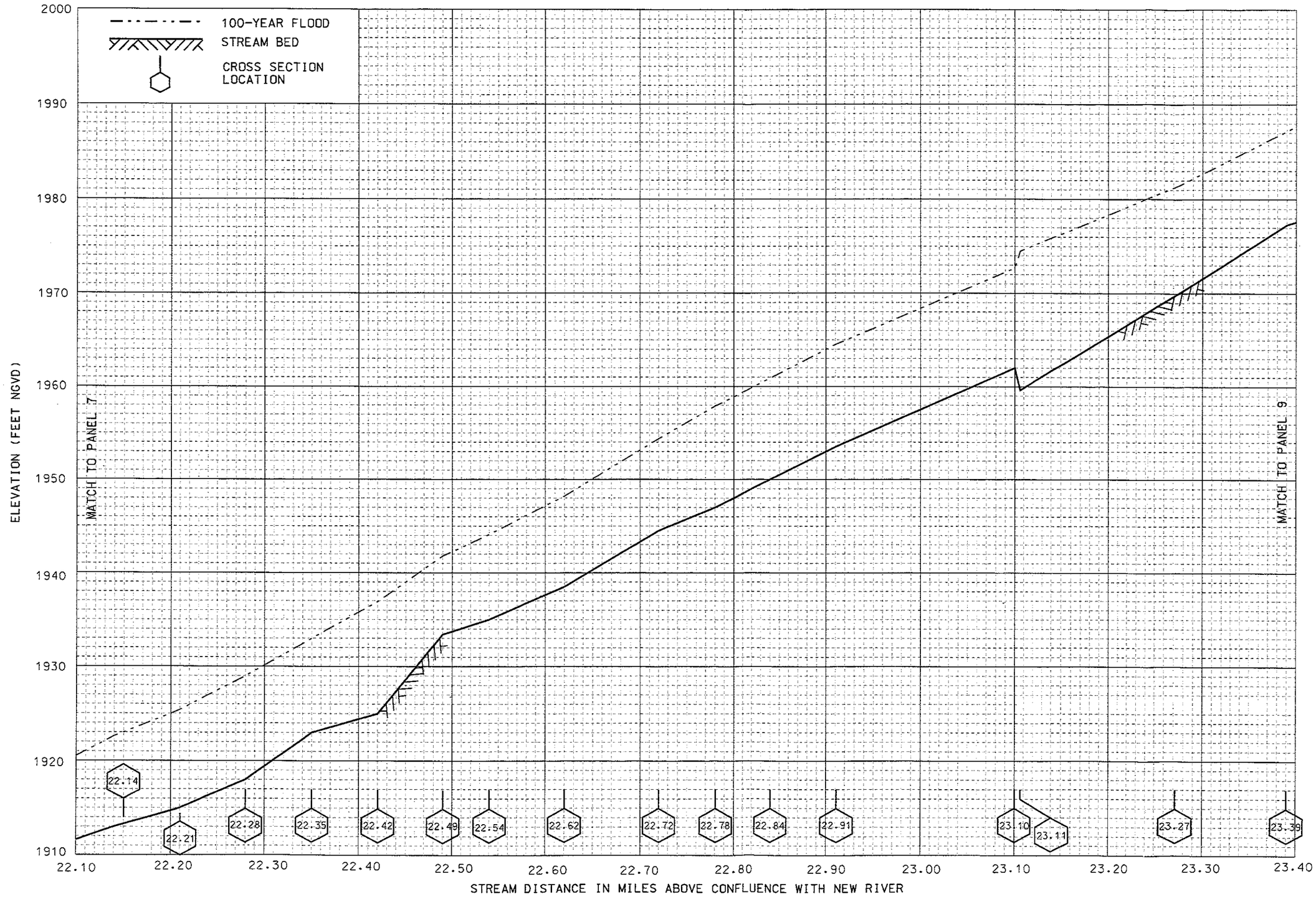
FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ

PANEL 7



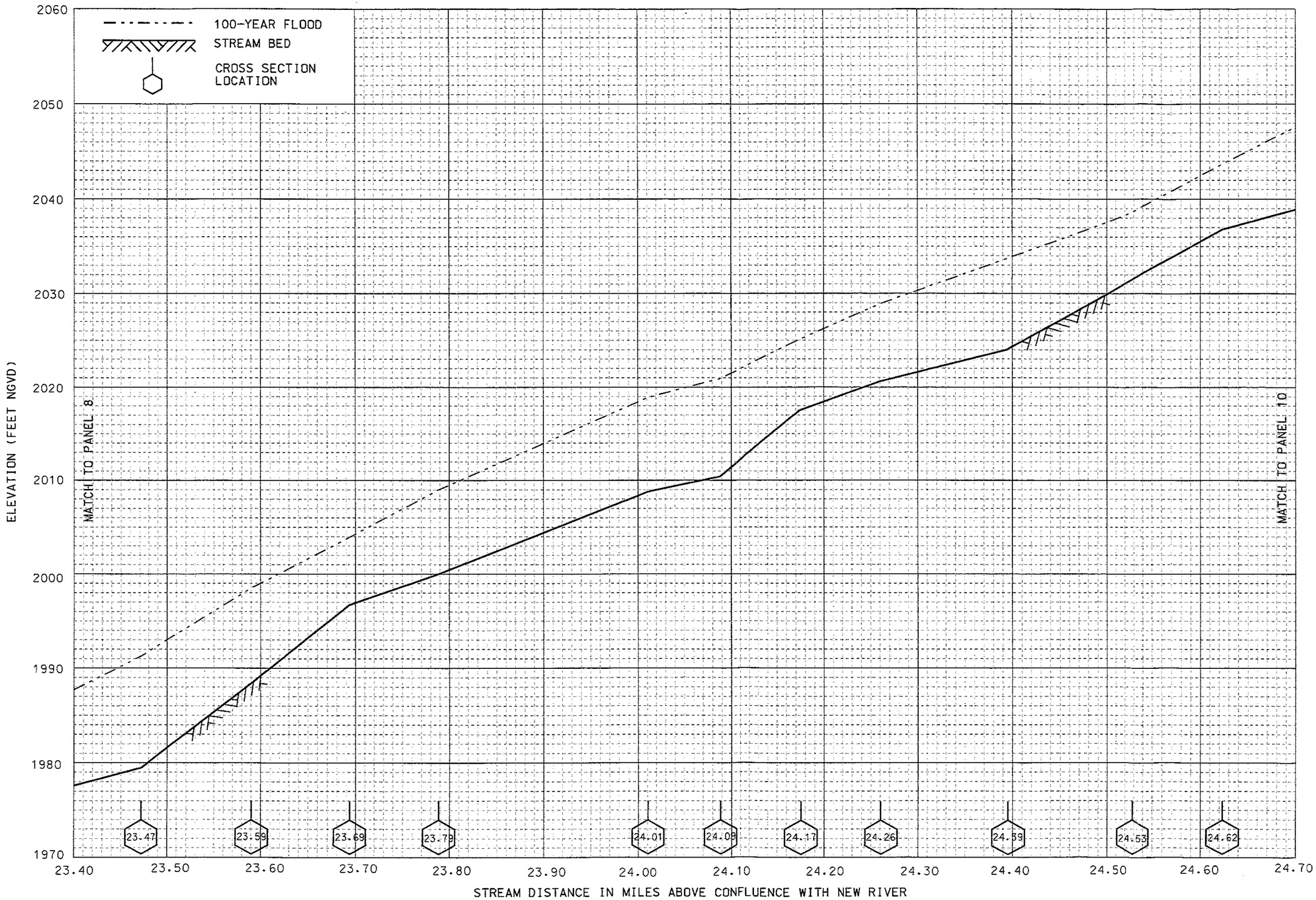
FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ

PANEL 8



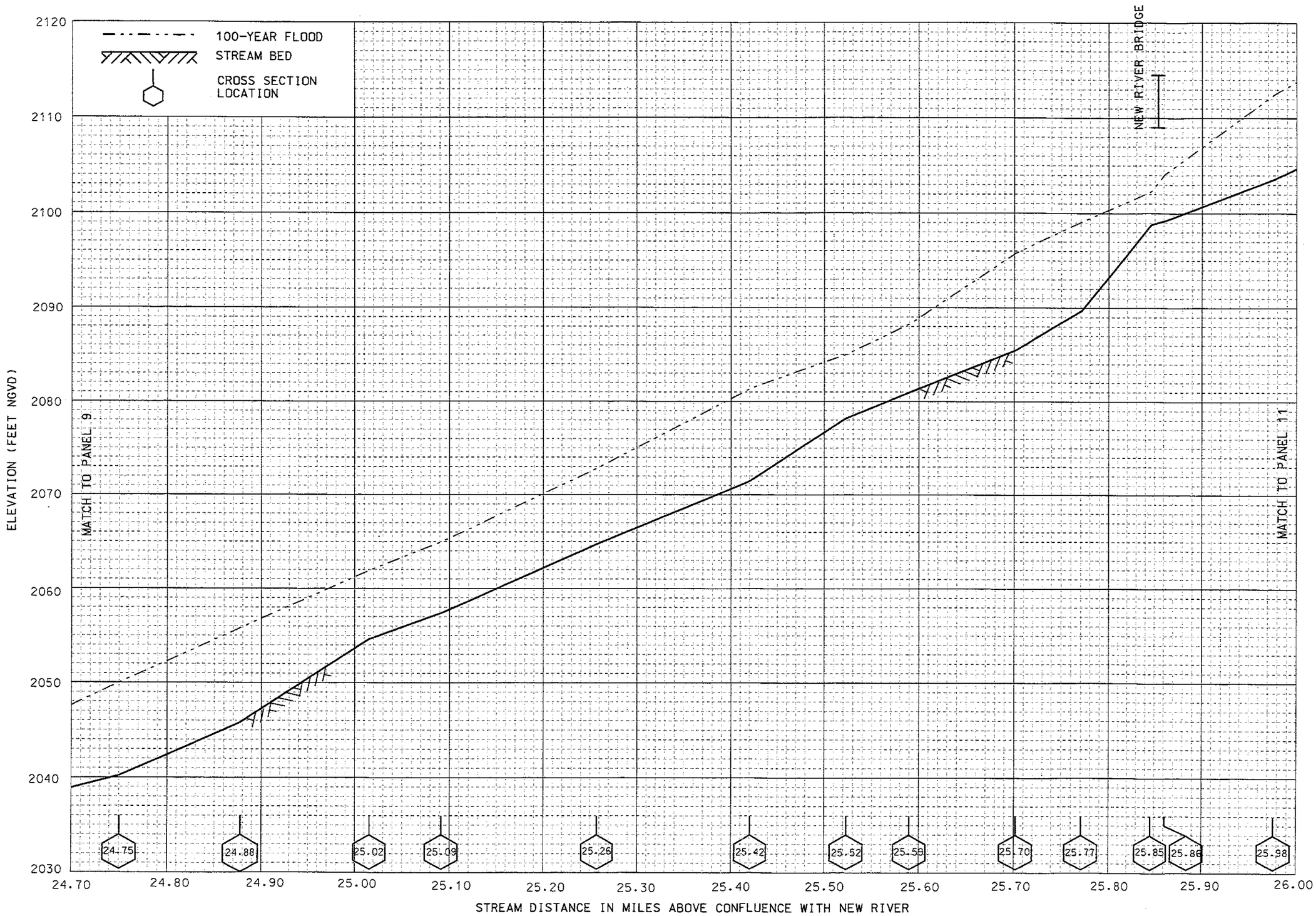
FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ

PANEL 9



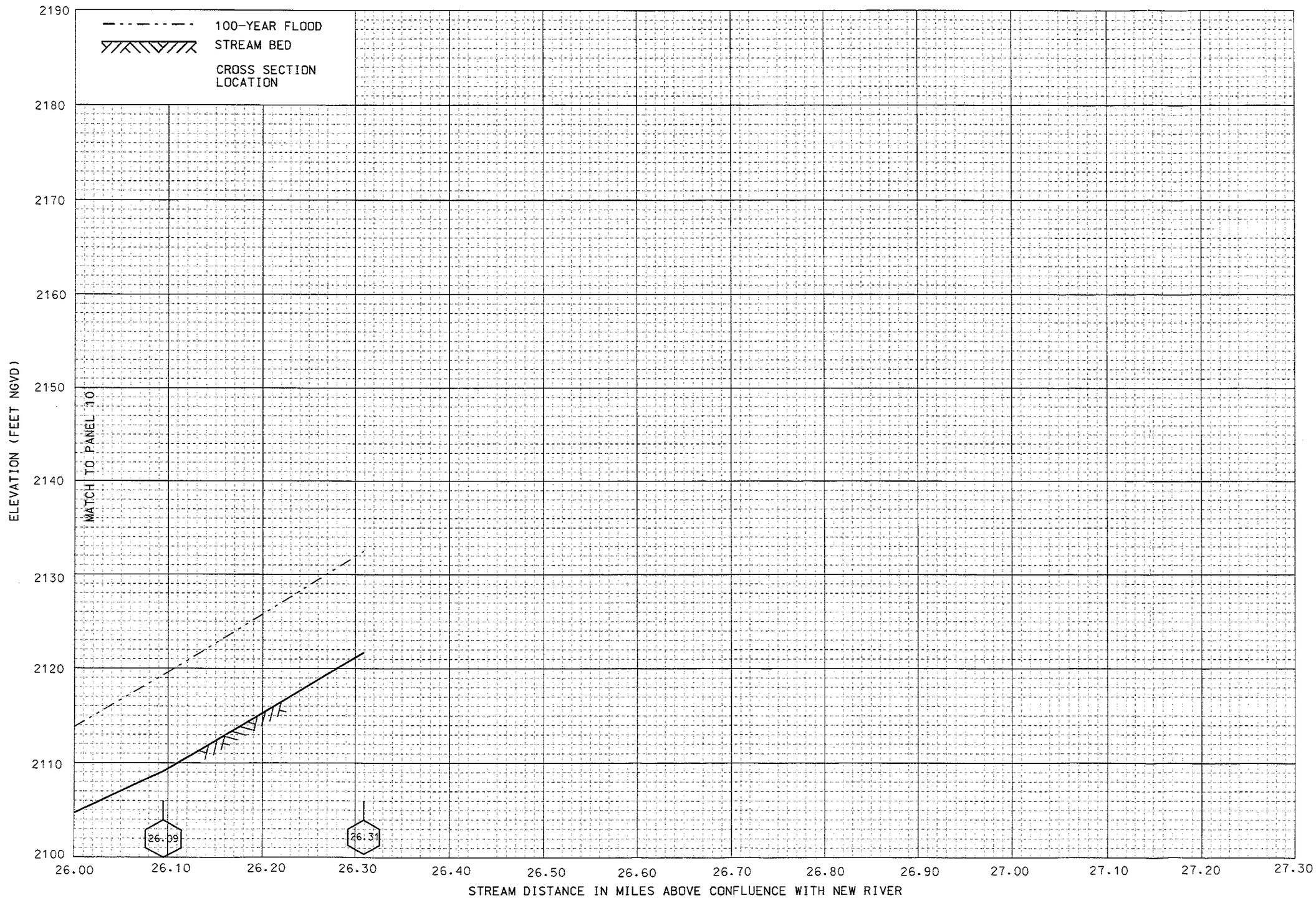
FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ

PANEL 10



FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ

PANEL 11

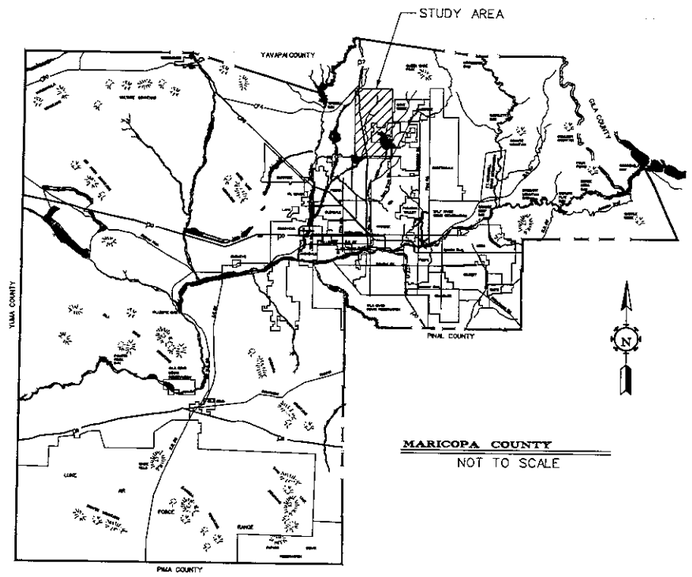
Appendix E

MONTGOMERY WATSON

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK FLOODPLAIN DELINEATION STUDY

F.C.D. CONTRACT NO. 95-16

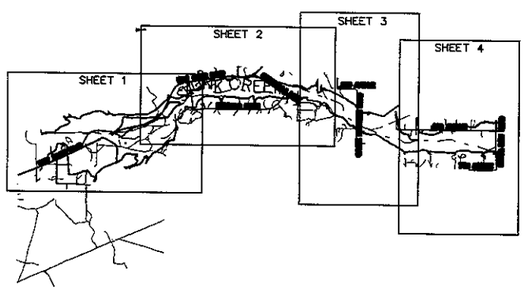


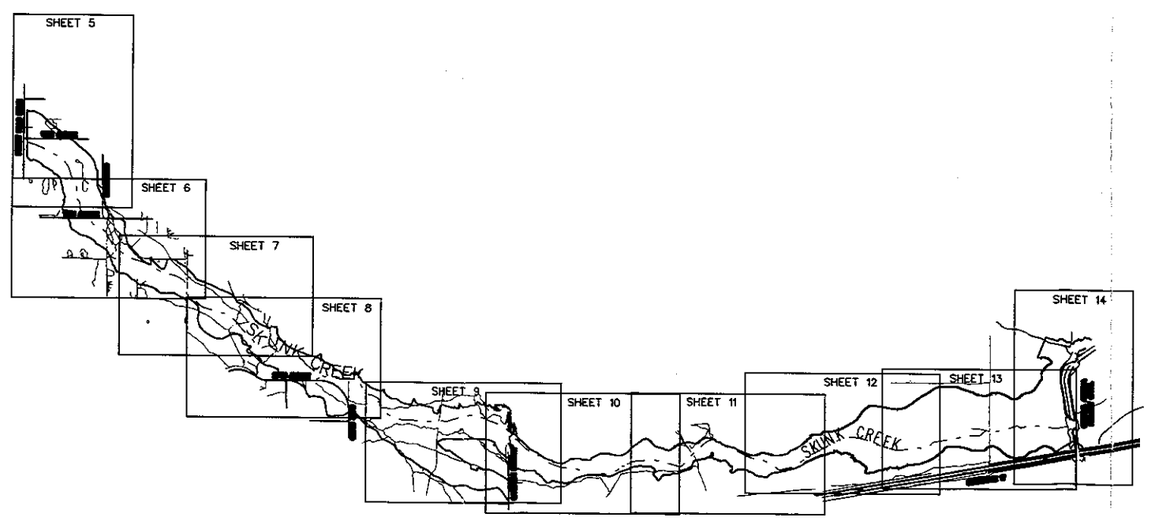
LOCATION MAP

DATUM

HORIZONTAL: NATIONAL AMERICAN DATUM OF 1983.

VERTICAL: NATIONAL GEODETIC VERTICAL DATUM OF 1929.





NOTE:

FLOODPLAIN LIMITS IN THIS STUDY ARE PLOTTED AT EACH HEC-2 CROSS SECTION ON THE BASIS OF STARTING (SSTA) AND ENDING (ENDST) STATIONS UNLESS THERE IS AN INEFFECTIVE FLOW AREA OR A CONFLICT WITH TOPOGRAPHIC CONTOURS, IN WHICH CASE, THE CONTOURS TAKE PRECEDENCE.

FLOOD CONTROL DISTRICT of MARICOPA COUNTY

AERIAL MAPPING

Kenny Aerial Mapping, Inc.
1130 W. Fillmore
Phoenix, AZ 85007

GROUND CONTROL

Collins/Pino Consulting Engineers, Inc.
3800 N. Central Avenue, Suite 200
Phoenix, AZ 85012

HYDROLOGY

Montgomery Watson
6245 N. 24th Parkway, Suite 208
Phoenix, AZ 85016

HYDRAULICS

Montgomery Watson
6245 N. 24th Parkway, Suite 208
Phoenix, AZ 85016

LEGEND

SHEET LIMITS	
100-YEAR FLOODPLAIN	
HYDRAULIC BASE LINE	

	BY	DATE
DESIGN	CCB	7/97
DESIGN CHK.	FKD	7/97
PLANS	CCB	7/97
PLANS CHK.	FKD	7/97
SUBMITTED BY:		DATE:

MONTGOMERY WATSON
Phoenix, Arizona

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK

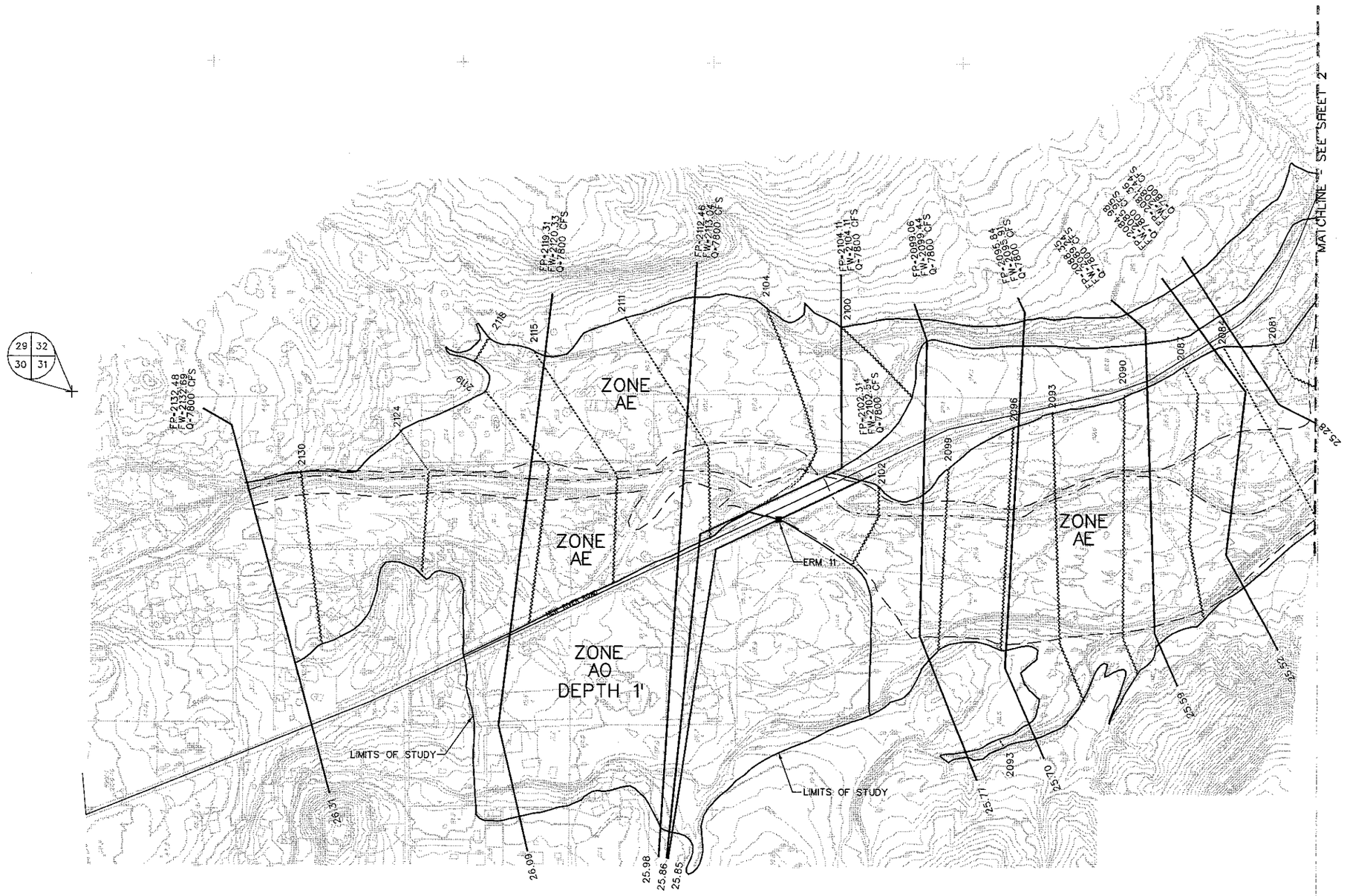
COVER SHEET

RECOMMENDED BY: DATE:

APPROVED BY: DATE:

CHIEF ENGINEER AND GENERAL MANAGER

SHEET OF



FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FLOOD DELINEATION STUDY OF SKUNK CREEK

F.C.D. CONTRACT NO. 95-16

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
CROSS SECTION	25.45 FP-100 Yr WSEL / FW-Floodway WSEL / Q - 100 Year Flow
ELEVATION REFERENCE MARK	ERM3
BASE FLOOD ELEVATIONS	1221
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

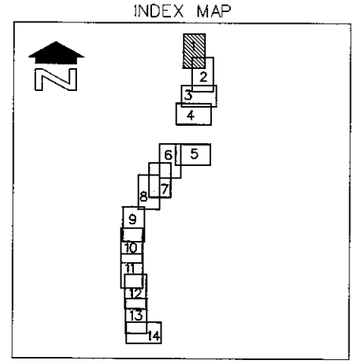
ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION
ERM*11	2111.51	2½" BRASS CAP. MARICOPA COUNTY HIGHWAY DEPARTMENT AT NEW SKUNK CREEK BRIDGE ON TOP OF WEST BARRIER WALL, 21.9'± FROM SOUTH END OF BARRIER WALL.

NOTES

INDEX MAP



N

200' 0' 200' 400'

SCALE: 1" = 200'

CONTOUR INTERVAL - 2' FEET

MONTGOMERY WATSON

Phoenix, Arizona

	BY	DATE
DESIGN	CCB	7/97
DESIGN CHK.	FKD	7/97
PLANS	CCB	7/97
PLANS CHK.	FKD	7/97

SUBMITTED BY: DATE:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

RECOMMENDED BY: DATE

APPROVED BY: DATE

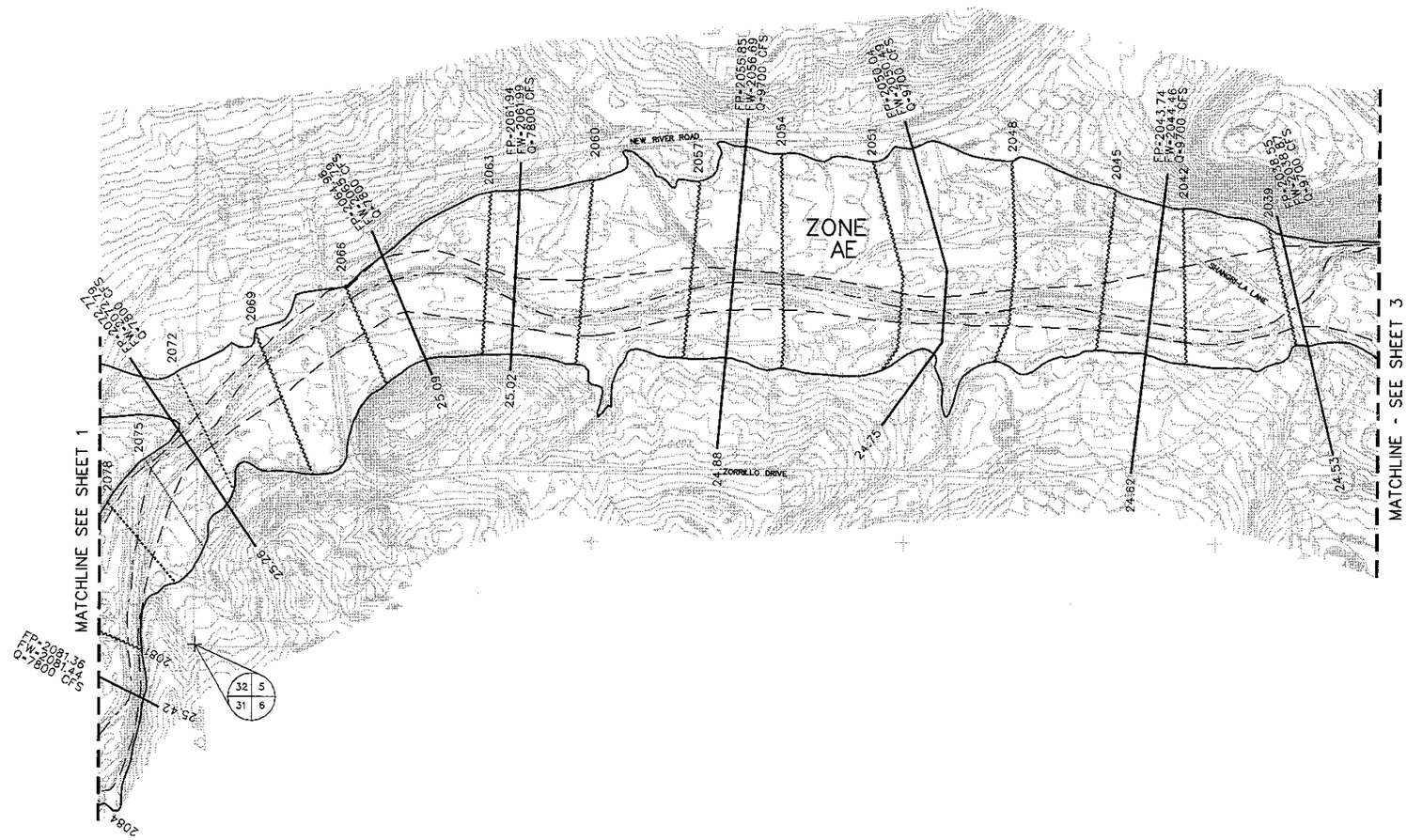
CHIEF ENGINEER AND GENERAL MANAGER

SHEET 1 OF 14

KENNEY AERIAL MAPPING COMPANY, INC
PHOTOGRAMMETRY
DECEMBER 1995 AND MAY 1996

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS 1" = 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS AND BASED ON GROUND CONTROL SURVEY DATA PROVIDED BY KENNEY AERIAL MAPPING COMPANY, INC.

REVISED 5/98 PER FCDMC



FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FLOOD DELINEATION STUDY OF SKUNK CREEK

F.C.D. CONTRACT NO. 95-16

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
CROSS SECTION	25.45 FP-100 Yr WSEL / FW-Floodway WSEL / Q - 100 Year Flow
ELEVATION REFERENCE MARK	ERM3 ■
BASE FLOOD ELEVATIONS	1221
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

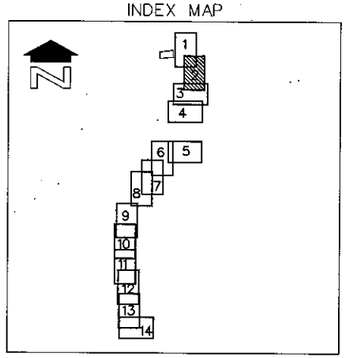
ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION

NOTES

INDEX MAP



N

200' 0' 200' 400'

SCALE: 1" = 200'

CONTOUR INTERVAL = 2 FEET

MONTGOMERY WATSON

Phoenix, Arizona

	BY	DATE
DESIGN	CCB	7/97
DESIGN CHK.	FKD	7/97
PLANS	CCB	7/97
PLANS CHK.	FKD	7/97

SUBMITTED BY: DATE:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

RECOMMENDED BY: DATE

APPROVED BY: DATE

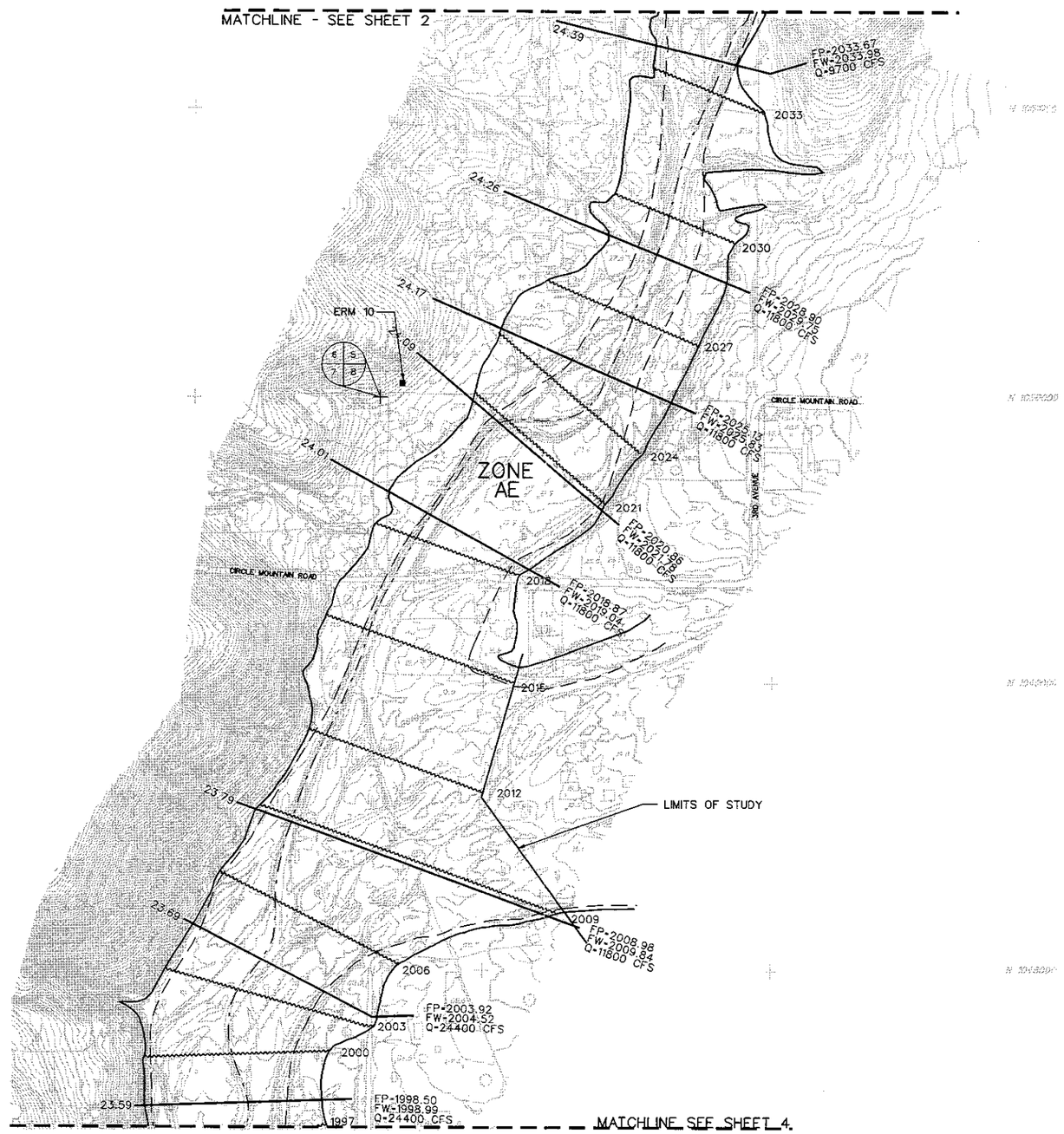
CHIEF ENGINEER AND GENERAL MANAGER

SHEET 2 OF 14

KENNEY AERIAL MAPPING COMPANY, INC
PHOTOGRAMMETRY
DECEMBER 1995 AND MAY 1996

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS
1"= 200.' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS AND BASED ON GROUND CONTROL SURVEY
DATA PROVIDED BY KENNEY AERIAL MAPPING COMPANY, INC.

REVISED 5/98 PER FCDMC



FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FLOOD DELINEATION STUDY OF SKUNK CREEK

F.C.D. CONTRACT NO. 95-16

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
CROSS SECTION	25.45 FP=100 Yr WSEL / FW=Floodway WSEL / Q = 100 Year Flow
ELEVATION REFERENCE MARK	ERM3
BASE FLOOD ELEVATIONS	1221
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

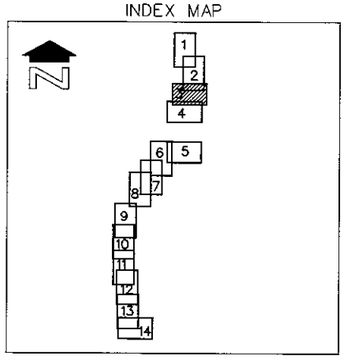
ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION
ERM=10	2038.52	2½" BRASS CAP, U.S.G.L.O, T6N, R3E, SECTION 6, SECTION 5, SECTION 7, SECTION 8; 1.2'± ABOVE NATURAL GROUND.

NOTES

INDEX MAP



200' 0' 200' 400'

SCALE: 1"= 200'

CONTOUR INTERVAL = 2' FEET

MONTGOMERY WATSON

Phoenix, Arizona

	BY	DATE
DESIGN	CCB	7/97
DESIGN CHK.	FKD	7/97
PLANS	CCB	7/97
PLANS CHK.	FKD	7/97

SUBMITTED BY: DATE:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

RECOMMENDED BY: DATE

APPROVED BY: DATE

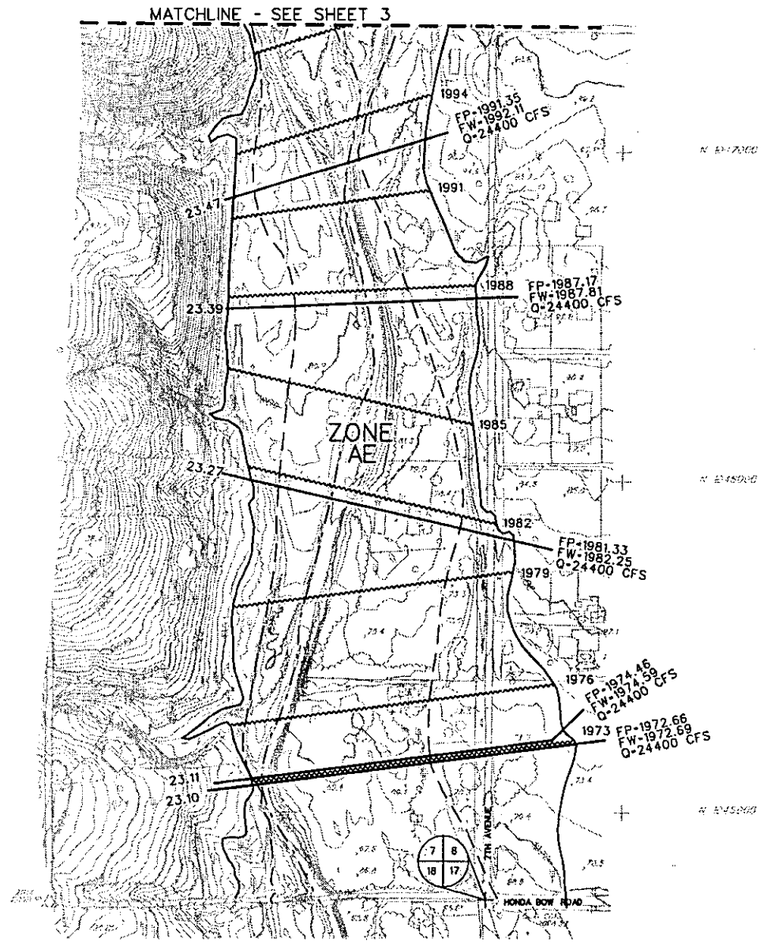
CHIEF ENGINEER AND GENERAL MANAGER

SHEET 3 OF 14

KENNEY AERIAL MAPPING COMPANY, INC
PHOTGRAMMETRY
DECEMBER 1995 AND MAY 1996

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS
1"= 200.'HORIZONTAL SCALE AND 2' CONTOUR INTERVALS AND BASED ON GROUND CONTROL SURVEY
DATA PROVIDED BY KENNEY AERIAL MAPPING COMPANY, INC.

REVISED 5/98 PER FCDMC



FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FLOOD DELINEATION STUDY OF SKUNK CREEK

F.C.D. CONTRACT NO. 95-16

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
CROSS SECTION	25.45 FP-100 Yr WSEL / FW-Floodway WSEL / Q - 100 Year Flow
ELEVATION REFERENCE MARK	ERM3
BASE FLOOD ELEVATIONS	1221
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

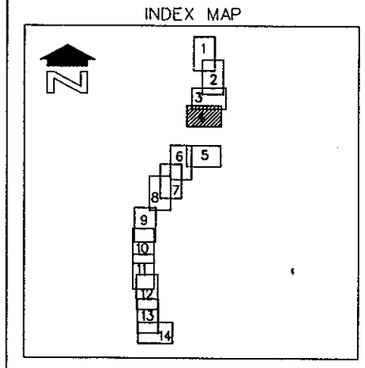
ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION

NOTES

INDEX MAP



N

200' 0' 200' 400'

SCALE: 1" = 200'

CONTOUR INTERVAL = 2' FEET

MONTGOMERY WATSON
Phoenix, Arizona

	BY	DATE
DESIGN	CCB	7/97
DESIGN CHK.	FKD	7/97
PLANS	CCB	7/97
PLANS CHK.	FKD	7/97
SUBMITTED BY:		DATE:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

RECOMMENDED BY: DATE

APPROVED BY: DATE

CHIEF ENGINEER AND GENERAL MANAGER

SHEET 4 OF 14

KENNEY AERIAL MAPPING COMPANY, INC
PHOTOGRAMMETRY
DECEMBER 1995 AND MAY 1996

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS
1" = 200.' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS AND BASED ON GROUND CONTROL SURVEY
DATA PROVIDED BY KENNEY AERIAL MAPPING COMPANY, INC.

REVISED 5/98 PER FCDMC

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FLOOD DELINEATION STUDY OF SKUNK CREEK

F.C.D. CONTRACT NO. 95-16

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
CROSS SECTION	25.45 FP-100 Yr WSEL / FW-Floodway WSEL / Q - 100 Year Flow
ELEVATION REFERENCE MARK	ERM3
BASE FLOOD ELEVATIONS	1221
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

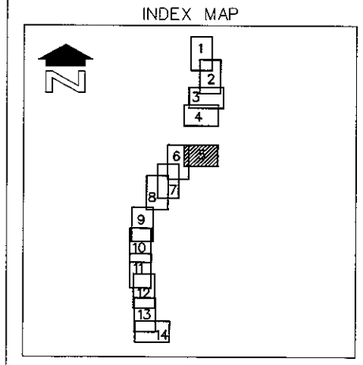
ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION

NOTES

INDEX MAP



200' 0' 200' 400'

SCALE: 1" = 200'

CONTOUR INTERVAL - 2' FEET

MONTGOMERY WATSON

Phoenix, Arizona

	BY	DATE
DESIGN	CCB	7/97
DESIGN CHK.	FKD	7/97
PLANS	CCB	7/97
PLANS CHK.	FKD	7/97

SUBMITTED BY: DATE:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

RECOMMENDED BY: DATE

APPROVED BY: DATE

CHIEF ENGINEER AND GENERAL MANAGER

SHEET 5 OF 14

KENNEY AERIAL MAPPING COMPANY, INC
PHOTOGRAMMETRY
DECEMBER 1995 AND MAY 1996

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS
1" = 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS AND BASED ON GROUND CONTROL SURVEY
DATA PROVIDED BY KENNEY AERIAL MAPPING COMPANY, INC.

REVISED 5/98 PER FCDMC

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FLOOD DELINEATION STUDY OF SKUNK CREEK

F.C.D. CONTRACT NO. 95-16

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
CROSS SECTION	25.45 FP-100 Yr WSEL / FW-Floodway WSEL / Q - 100 Year Flow
ELEVATION REFERENCE MARK	ERM3
BASE FLOOD ELEVATIONS	1221
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

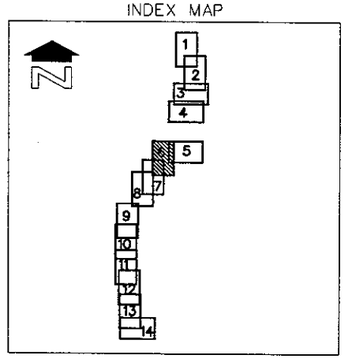
ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION

NOTES

INDEX MAP



200' 0' 200' 400'

SCALE: 1" = 200'

CONTOUR INTERVAL = 2' FEET

MONTGOMERY WATSON

Phoenix, Arizona

	BY	DATE
DESIGN	CCB	7/97
DESIGN CHK.	FKD	7/97
PLANS	CCB	7/97
PLANS CHK.	FKD	7/97
SUBMITTED BY:		DATE:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

RECOMMENDED BY: DATE

APPROVED BY: DATE

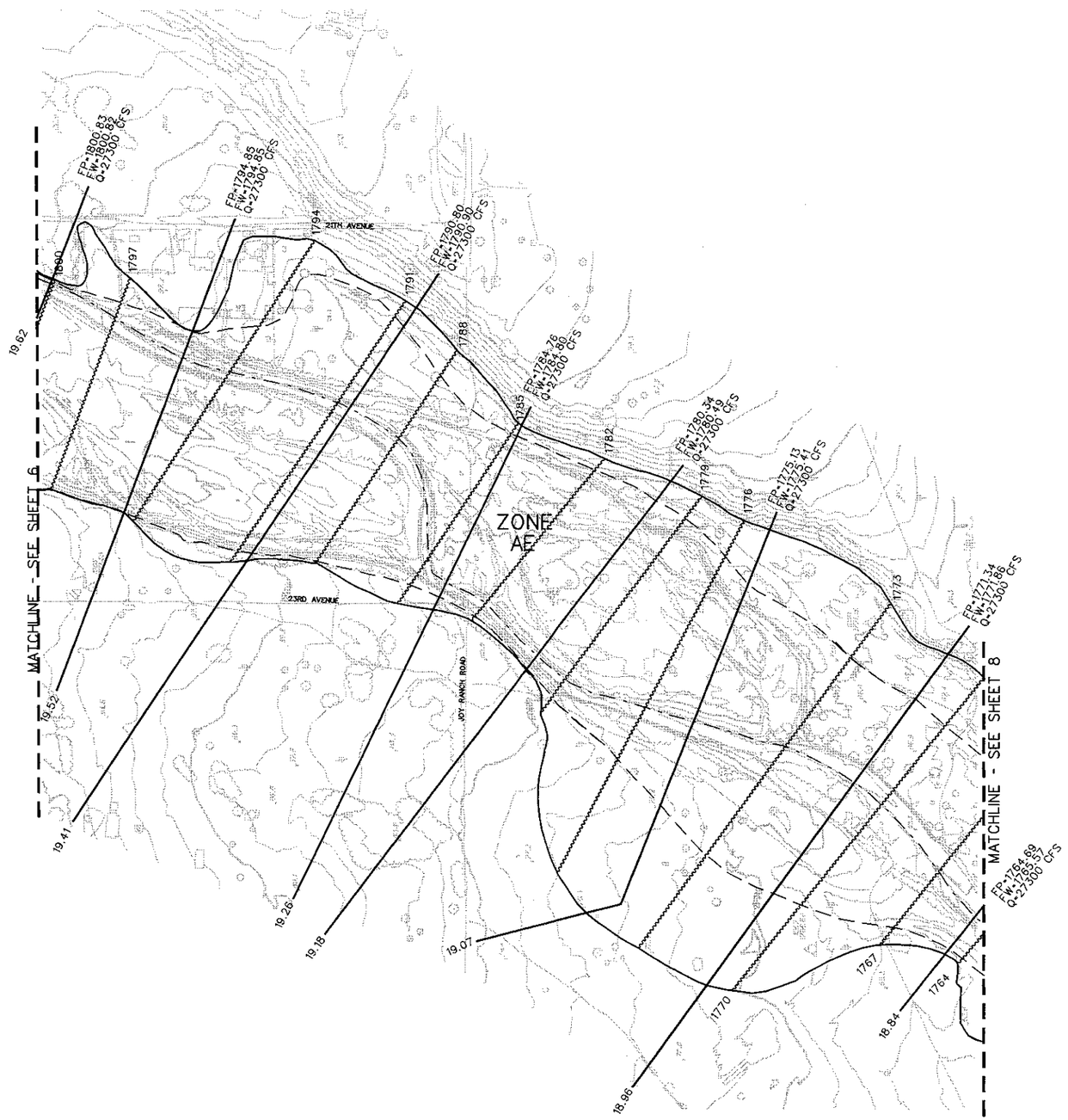
CHIEF ENGINEER AND GENERAL MANAGER

SHEET 6 OF 14

KENNEY AERIAL MAPPING COMPANY, INC
PHOTOGRAMMETRY
DECEMBER 1995 AND MAY 1996

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS
1" = 200', HORIZONTAL SCALE AND 2' CONTOUR INTERVALS AND BASED ON GROUND CONTROL SURVEY
DATA PROVIDED BY KENNEY AERIAL MAPPING COMPANY, INC.

REVISED 5/98 PER FCDMC



FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FLOOD DELINEATION STUDY OF SKUNK CREEK

F.C.D. CONTRACT NO. 95-16

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
CROSS SECTION	25.45 FP-100 Yr WSEL / FW-Floodway WSEL / Q - 100 Year Flow
ELEVATION REFERENCE MARK	ERM3
BASE FLOOD ELEVATIONS	1221
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

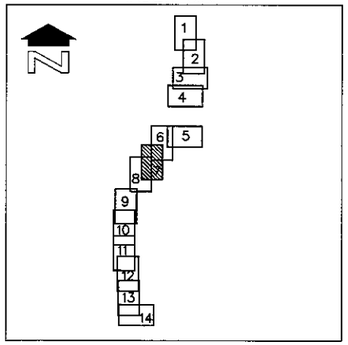
ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION

NOTES

INDEX MAP



N

200' 0' 200' 400'

SCALE: 1" = 200'

CONTOUR INTERVAL = 2' FEET

MONTGOMERY WATSON

Phoenix, Arizona

	BY	DATE
DESIGN	CCB	7/97
DESIGN CHK.	FKD	7/97
PLANS	CCB	7/97
PLANS CHK.	FKD	7/97

SUBMITTED BY: DATE:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

RECOMMENDED BY: DATE

APPROVED BY: DATE

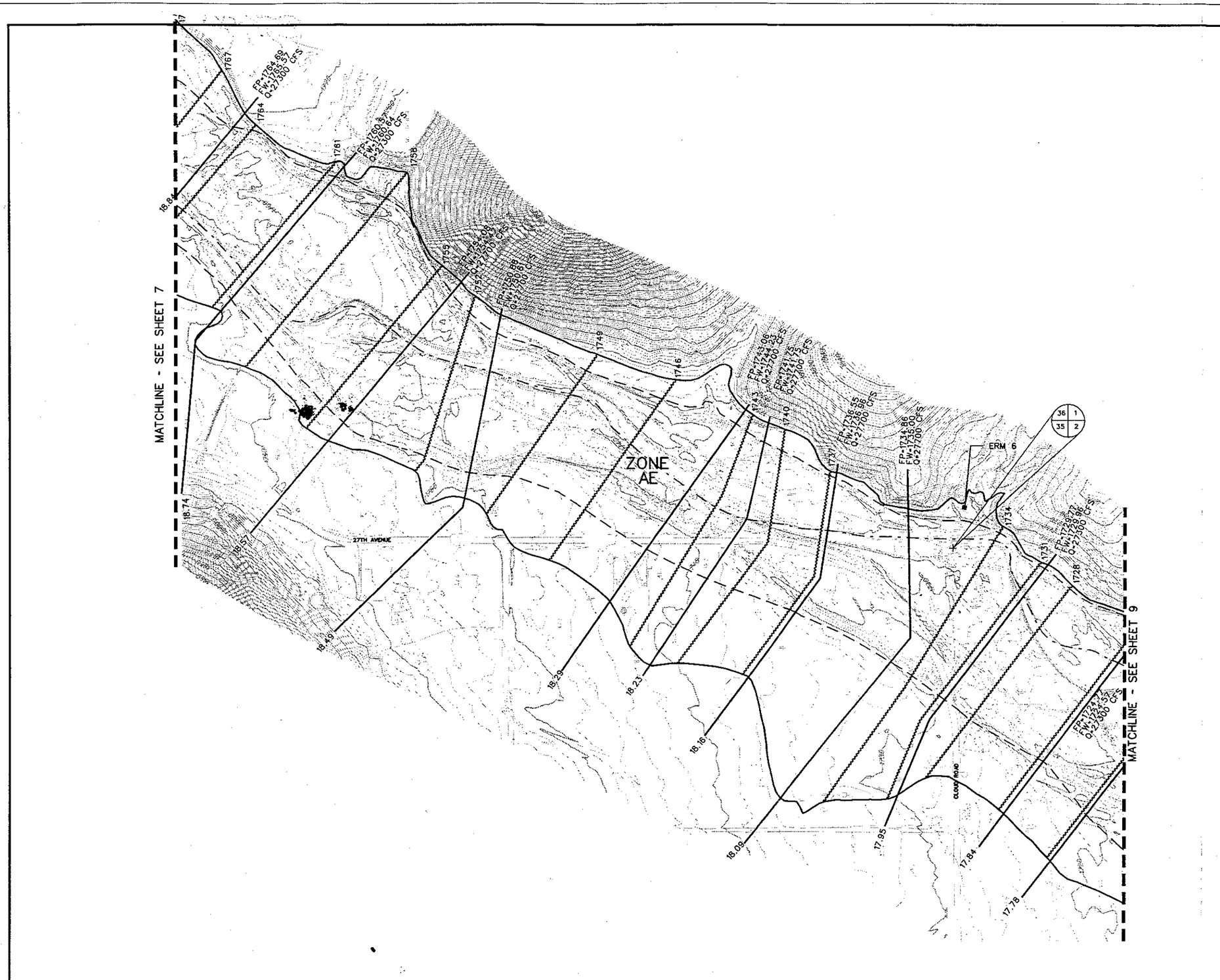
CHIEF ENGINEER AND GENERAL MANAGER

SHEET 7 OF 14

KENNEY AERIAL MAPPING COMPANY, INC
PHOTOGRAMMETRY
DECEMBER 1995 AND MAY 1996

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS
1" = 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS AND BASED ON GROUND CONTROL SURVEY
DATA PROVIDED BY KENNEY AERIAL MAPPING COMPANY, INC.

REVISED 5/98 PER FCDMC



FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FLOOD DELINEATION STUDY OF SKUNK CREEK

F.C.D. CONTRACT NO. 95-16

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
CROSS SECTION	25.45 FP-100 Yr WSEL / FW-Floodway WSEL / Q - 100 Year Flow
ELEVATION REFERENCE MARK	ERM3 ■
BASE FLOOD ELEVATIONS	1221
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

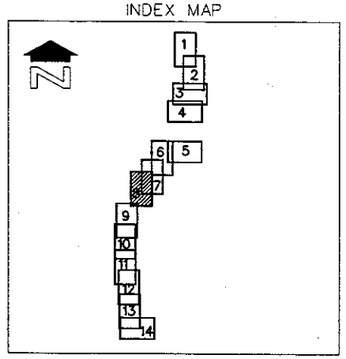
ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION
ERM•6	1731.88	2½" BRASS CAP. 1933 USGLO SURVEY, T6N, R2E, SECTION 35, SECTION 2, SECTION 1, W.C., T5N, R2E, 0.8± ABOVE NATURAL GROUND.

NOTES

INDEX MAP



N

200' 0' 200' 400'

SCALE: 1" = 200'

CONTOUR INTERVAL = 2 FEET

MONTGOMERY WATSON
Phoenix, Arizona

	BY	DATE
DESIGN	CCB	7/97
DESIGN CHK.	FKD	7/97
PLANS	CCB	7/97
PLANS CHK.	FKD	7/97

SUBMITTED BY: DATE:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

RECOMMENDED BY: DATE

APPROVED BY: DATE

CHIEF ENGINEER AND GENERAL MANAGER

SHEET 8 OF 14

REVISED 5/98 PER FCDMC

KENNEY AERIAL MAPPING COMPANY, INC
PHOTOGRAMMETRY
DECEMBER 1995 AND MAY 1996

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS
1" = 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS AND BASED ON GROUND CONTROL SURVEY
DATA PROVIDED BY KENNEY AERIAL MAPPING COMPANY, INC.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FLOOD DELINEATION STUDY OF SKUNK CREEK

F.C.D. CONTRACT NO. 95-16

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
CROSS SECTION	25.45 FP-100 Yr WSEL / FW-Floodway WSEL / Q - 100 Year Flow
ELEVATION REFERENCE MARK	ERM3 ■
BASE FLOOD ELEVATIONS	1221
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

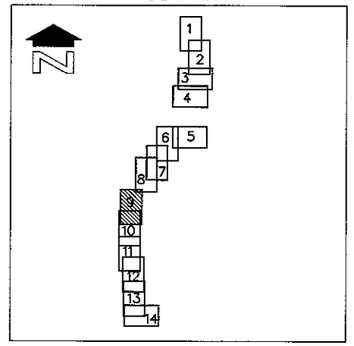
ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION

NOTES

INDEX MAP



N

200' 0' 200' 400'

SCALE: 1" = 200'

CONTOUR INTERVAL = 2 FEET

MONTGOMERY WATSON
Phoenix, Arizona

	BY	DATE
DESIGN	CCB	7/97
DESIGN CHK.	FKD	7/97
PLANS	CCB	7/97
PLANS CHK.	FKD	7/97

SUBMITTED BY: DATE:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

RECOMMENDED BY: DATE

APPROVED BY: DATE

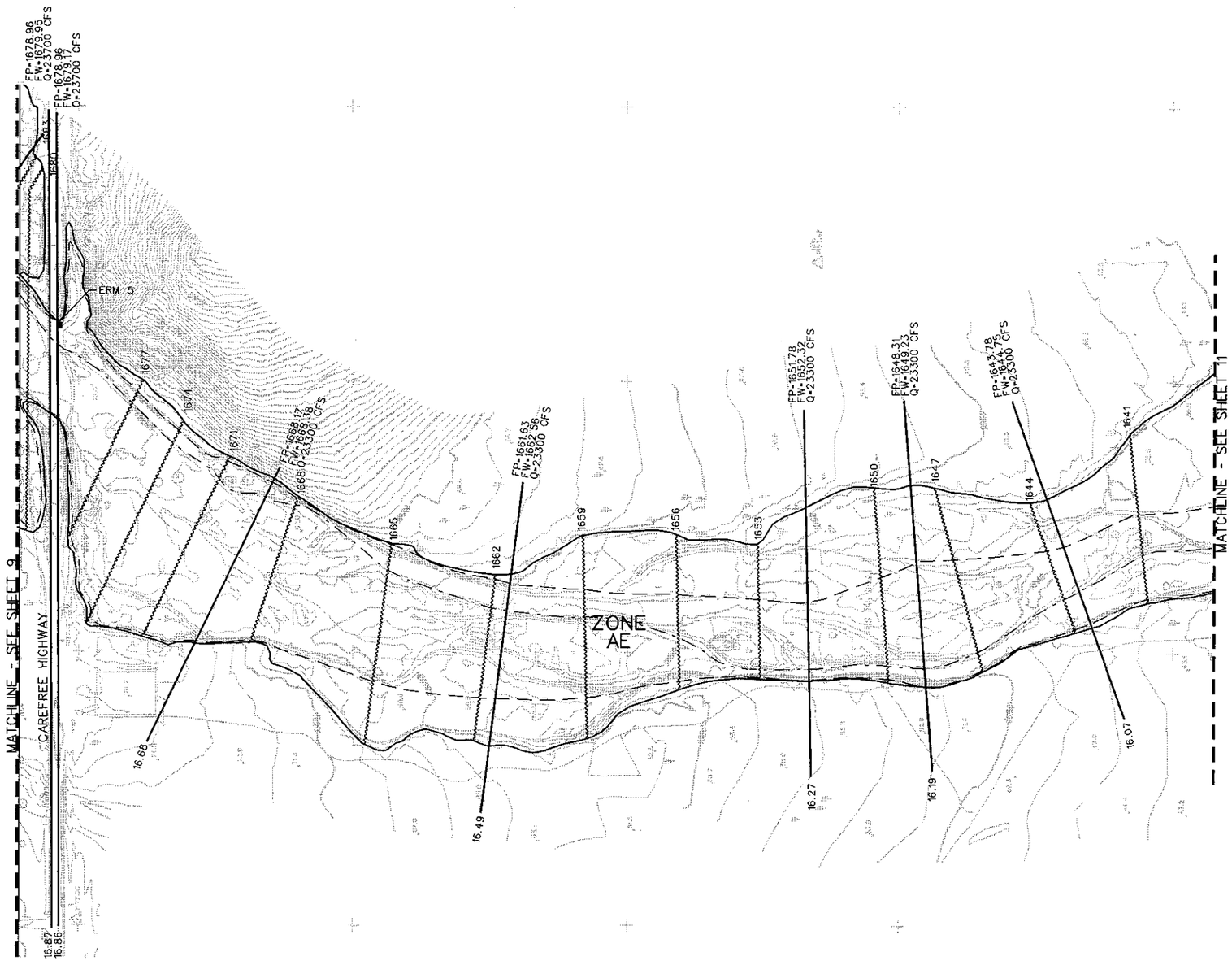
CHIEF ENGINEER AND GENERAL MANAGER

SHEET 9 OF 14

KENNEY AERIAL MAPPING COMPANY, INC
PHOTOGRAMMETRY
DECEMBER 1995 AND MAY 1996

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS
1" = 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS AND BASED ON GROUND CONTROL SURVEY
DATA PROVIDED BY KENNEY AERIAL MAPPING COMPANY, INC.

REVISED 5/98 PER FCDMC



FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FLOOD DELINEATION STUDY OF SKUNK CREEK

F.C.D. CONTRACT NO. 95-16

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
CROSS SECTION	25.45 FP-100 Yr WSEL / FW-Floodway WSEL / Q - 100 Year Flow
ELEVATION REFERENCE MARK	ERM3
BASE FLOOD ELEVATIONS	1221
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

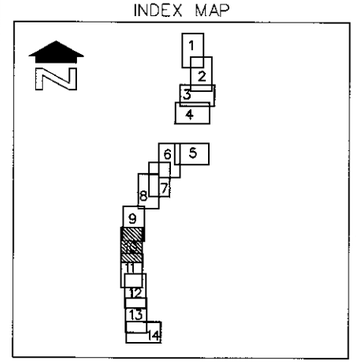
ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION
ERM-5	1688.65	3" ALUMINUM CAP. TOP OF EAST END OF NORTH CONCRETE ABUTMENT TO SKUNK CREEK BRIDGE (CAREFREE HIGHWAY), STAMPED A.D.O.T. HIGHWAY DIV. 1689-66.

NOTES

INDEX MAP



N

200' 0' 200' 400'

SCALE: 1" = 200'

CONTOUR INTERVAL = 2' FEET

MONTGOMERY WATSON

Phoenix, Arizona

	BY	DATE
DESIGN	CCB	7/97
DESIGN CHK.	FKD	7/97
PLANS	CCB	7/97
PLANS CHK.	FKD	7/97

SUBMITTED BY: DATE:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

RECOMMENDED BY: DATE

APPROVED BY: DATE

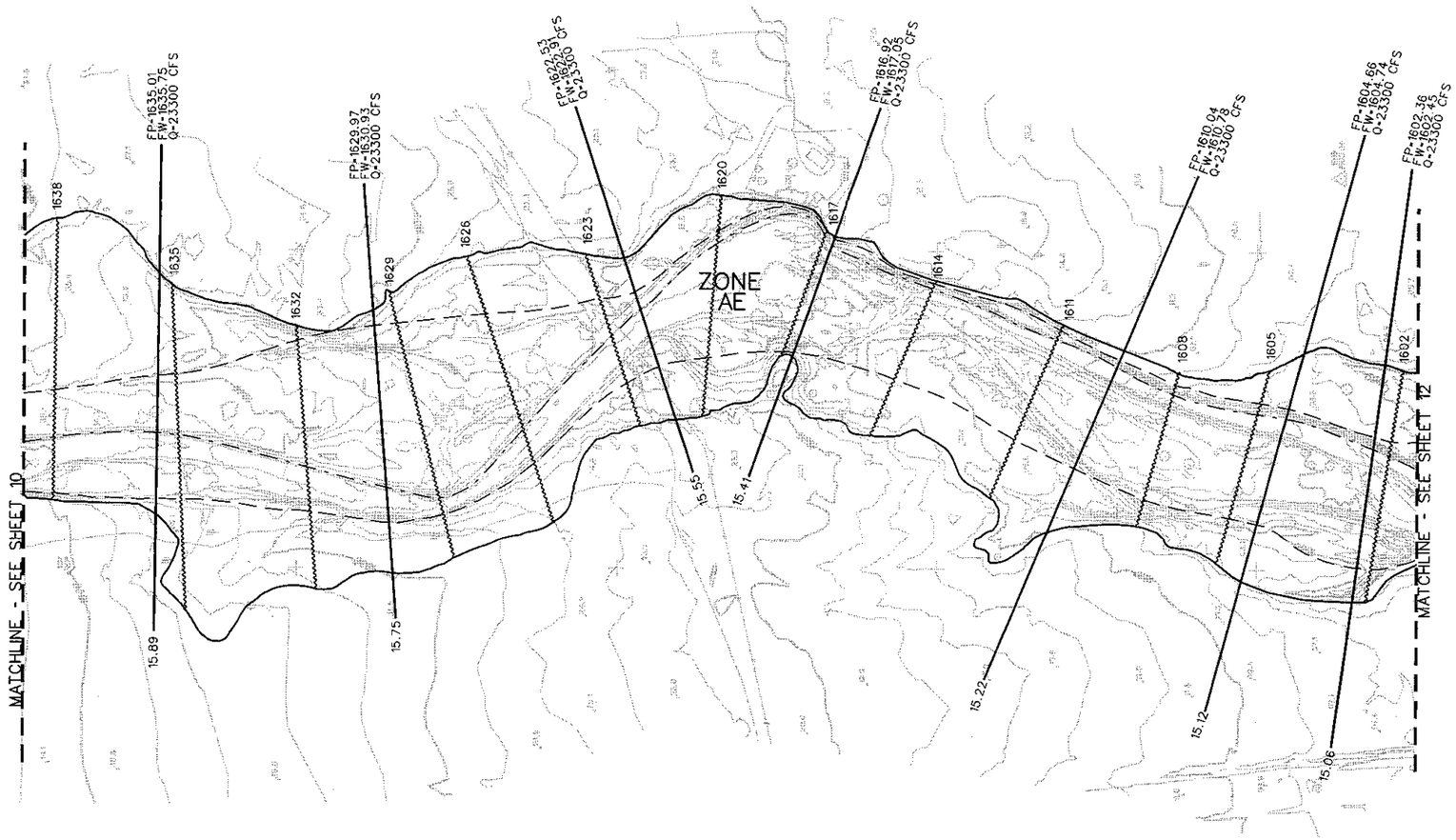
CHIEF ENGINEER AND GENERAL MANAGER

SHEET 10 OF 14

KENNEY AERIAL MAPPING COMPANY, INC
PHOTOGRAMMETRY
DECEMBER 1995 AND MAY 1996

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS
1"= 200.'HORIZONTAL SCALE AND 2' CONTOUR INTERVALS AND BASED ON GROUND CONTROL SURVEY
DATA PROVIDED BY KENNEY AERIAL MAPPING COMPANY, INC.

REVISED 5/98 PER FCDMC



FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FLOOD DELINEATION STUDY OF SKUNK CREEK

F.C.D. CONTRACT NO. 95-16

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
CROSS SECTION	25.45 FP-100 Yr WSEL / FW-Floodway WSEL / Q - 100 Year Flow
ELEVATION REFERENCE MARK	ERM3
BASE FLOOD ELEVATIONS	1221
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

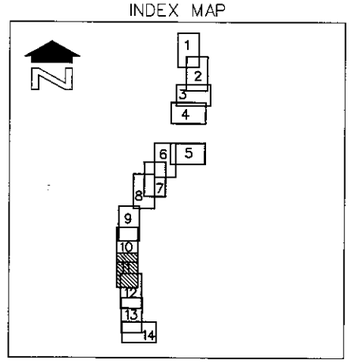
ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION

NOTES

INDEX MAP



N

200' 0' 200' 400'

SCALE: 1" = 200'

CONTOUR INTERVAL - 2' FEET

MONTGOMERY WATSON

Phoenix, Arizona

	BY	DATE
DESIGN	CCB	7/97
DESIGN CHK.	FKD	7/97
PLANS	CCB	7/97
PLANS CHK.	FKD	7/97

SUBMITTED BY: DATE:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

RECOMMENDED BY: DATE

APPROVED BY: DATE

CHIEF ENGINEER AND GENERAL MANAGER

SHEET 11 OF 14

KENNEY AERIAL MAPPING COMPANY, INC
PHOTOGRAMMETRY
DECEMBER 1995 AND MAY 1996

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS 1" = 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS AND BASED ON GROUND CONTROL SURVEY DATA PROVIDED BY KENNEY AERIAL MAPPING COMPANY, INC.

REVISED 5/98 PER FCDMC

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FLOOD DELINEATION STUDY OF SKUNK CREEK

F.C.D. CONTRACT NO. 95-16

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
CROSS SECTION	25.45 FP=100 Yr WSEL, FW=Floodway WSEL, Q = 100 Year Flow
ELEVATION REFERENCE MARK	ERM3
BASE FLOOD ELEVATIONS	1221
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

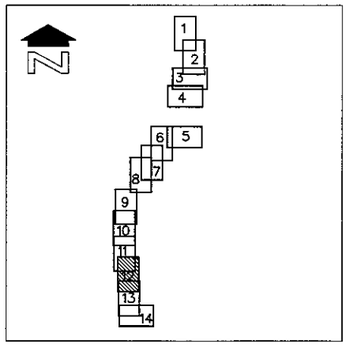
ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION

NOTES

INDEX MAP



200' 0' 200' 400'

SCALE: 1" = 200'

CONTOUR INTERVAL = 2 FEET

MONTGOMERY WATSON

Phoenix, Arizona

	BY	DATE
DESIGN	CCB	7/97
DESIGN CHK.	FKD	7/97
PLANS	CCB	7/97
PLANS CHK.	FKD	7/97
SUBMITTED BY:		DATE:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

RECOMMENDED BY: DATE

APPROVED BY: DATE

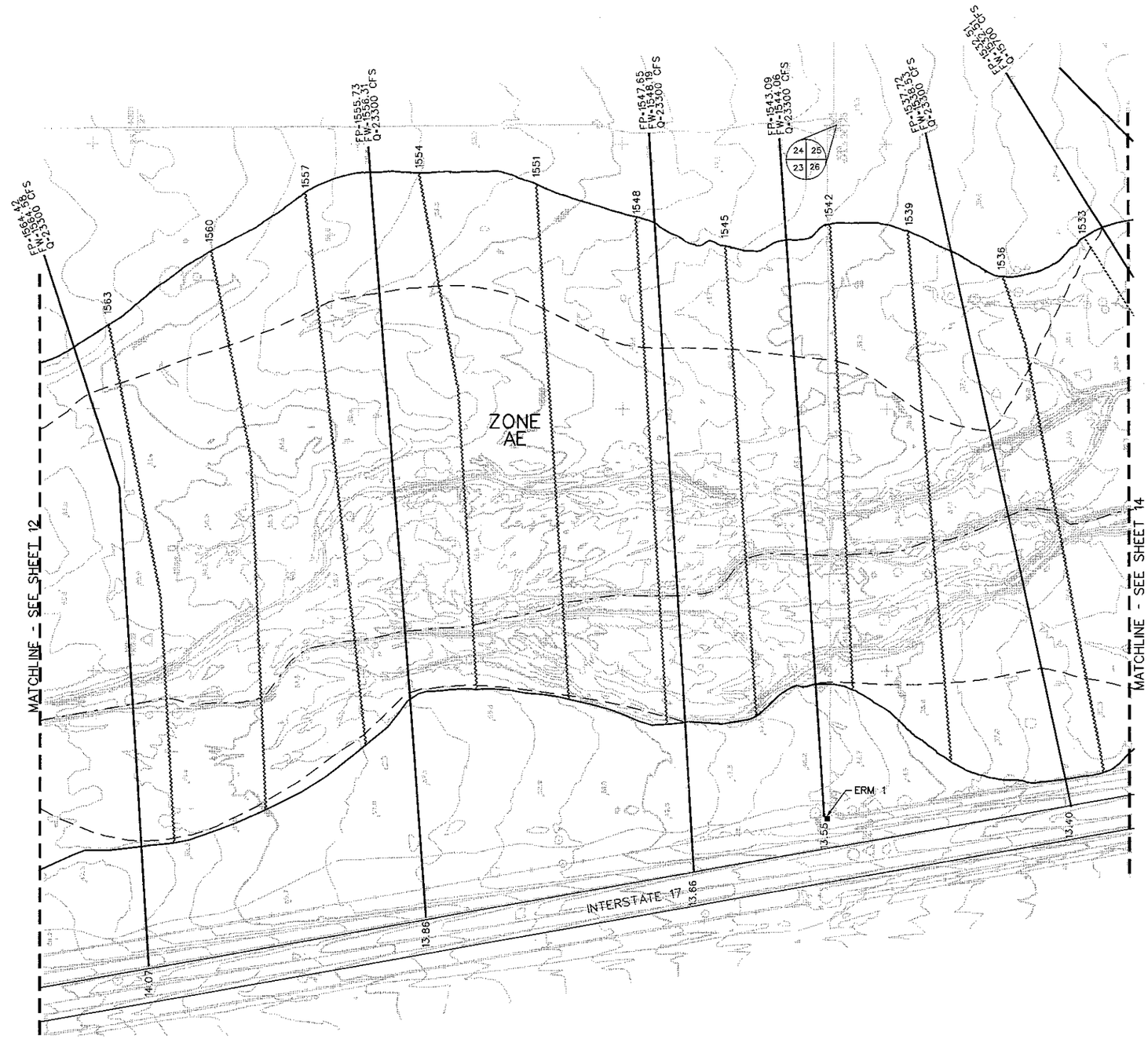
CHIEF ENGINEER AND GENERAL MANAGER

SHEET 12 OF 14

KENNEY AERIAL MAPPING COMPANY, INC
PHOTOGRAMMETRY
DECEMBER 1995 AND MAY 1996

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS.
1" = 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS AND BASED ON GROUND CONTROL SURVEY
DATA PROVIDED BY KENNEY AERIAL MAPPING COMPANY, INC.

REVISED 5/98 PER FCDMC



FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FLOOD DELINEATION STUDY OF SKUNK CREEK

F.C.D. CONTRACT NO. 95-16

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
CROSS SECTION	25.45 FP-100 Yr WSEL / FW-Floodway WSEL / Q - 100 Year Flow
ELEVATION REFERENCE MARK	ERM3 ■
BASE FLOOD ELEVATIONS	1221
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

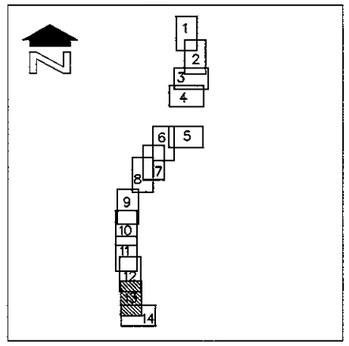
ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION
ERM#1	1544.06	3" ALUMINUM CAP ARIZONA HIGHWAY DEPARTMENT, SET IN CONC., NORTH BOUND FRONTAGE ROAD, HWY 17 STA. P.O.S.L. 1061+3.6, 0.3'± ABOVE NORMAL GROUND, EAST OF FRONTAGE ROAD.

NOTES

INDEX MAP



N

200' 0' 200' 400'

SCALE: 1" = 200'

CONTOUR INTERVAL - 2' FEET

MONTGOMERY WATSON
Phoenix, Arizona

	BY	DATE
DESIGN	CCB	7/97
DESIGN CHK.	FKD	7/97
PLANS	CCB	7/97
PLANS CHK.	FKD	7/97
SUBMITTED BY:		DATE:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

RECOMMENDED BY: DATE

APPROVED BY: DATE

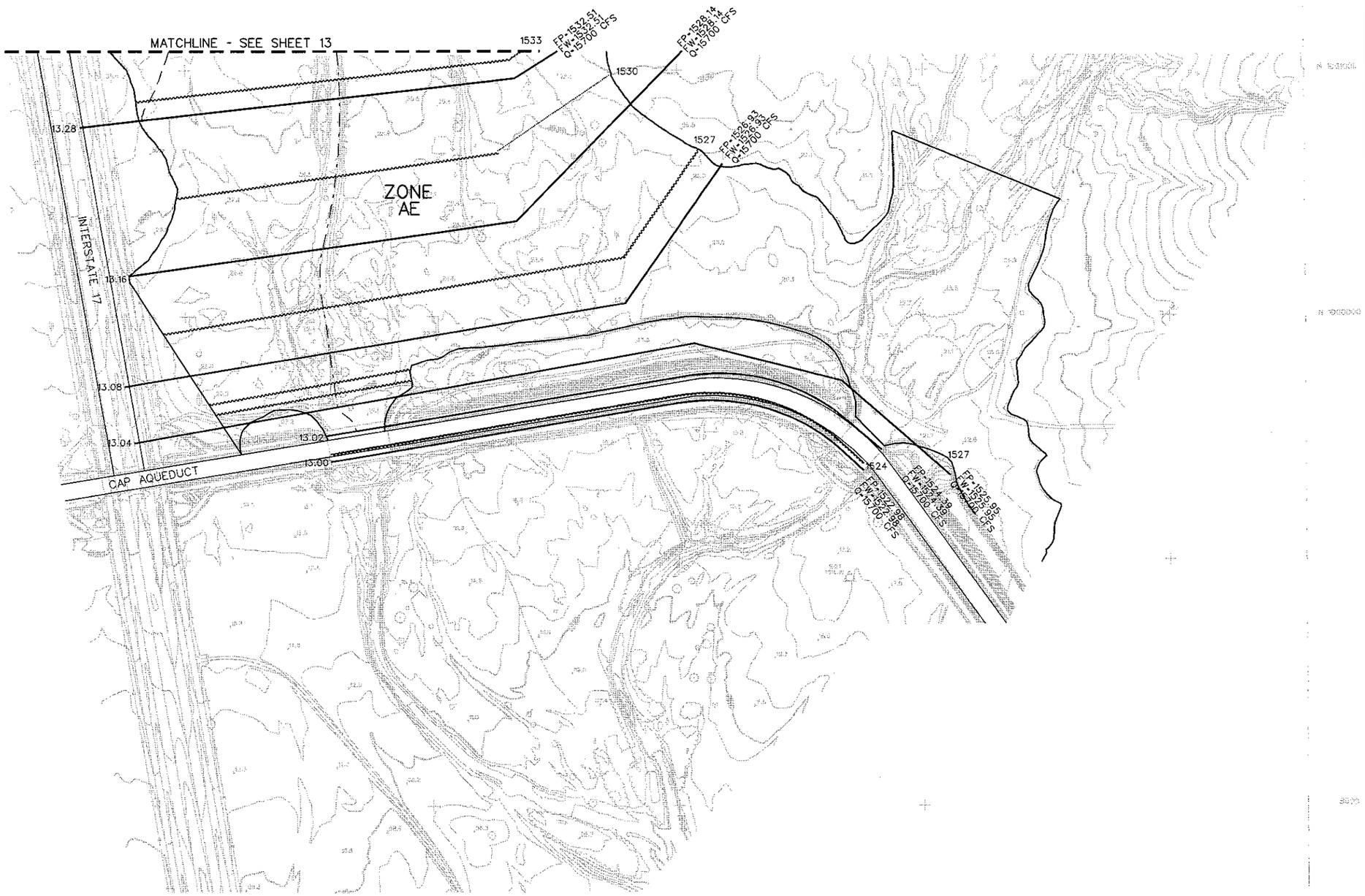
CHIEF ENGINEER AND GENERAL MANAGER

SHEET 13 OF 14

KENNEY AERIAL MAPPING COMPANY, INC
PHOTOGRAMMETRY
DECEMBER 1995 AND MAY 1996

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS 1" = 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS AND BASED ON GROUND CONTROL SURVEY DATA PROVIDED BY KENNEY AERIAL MAPPING COMPANY, INC.

REVISED 5/98 PER FCDMC



FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FLOOD DELINEATION STUDY OF SKUNK CREEK

F.C.D. CONTRACT NO. 95-16

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
CROSS SECTION	25.45 FP-100 Yr WSEL / FW-Floodway WSEL / Q - 100 Year Flow
ELEVATION REFERENCE MARK	ERM3
BASE FLOOD ELEVATIONS	1221
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

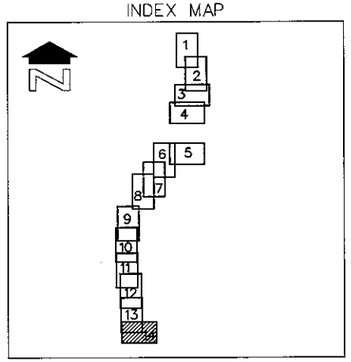
ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION

NOTES

INDEX MAP



200' 0' 200' 400'

SCALE: 1" = 200'

CONTOUR INTERVAL = 2 FEET

MONTGOMERY WATSON

Phoenix, Arizona

	BY	DATE
DESIGN	CCB	7/97
DESIGN CHK.	FKD	7/97
PLANS	CCB	7/97
PLANS CHK.	FKD	7/97

SUBMITTED BY: DATE:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

RECOMMENDED BY: DATE

APPROVED BY: DATE

CHIEF ENGINEER AND GENERAL MANAGER

SHEET 14 OF 14

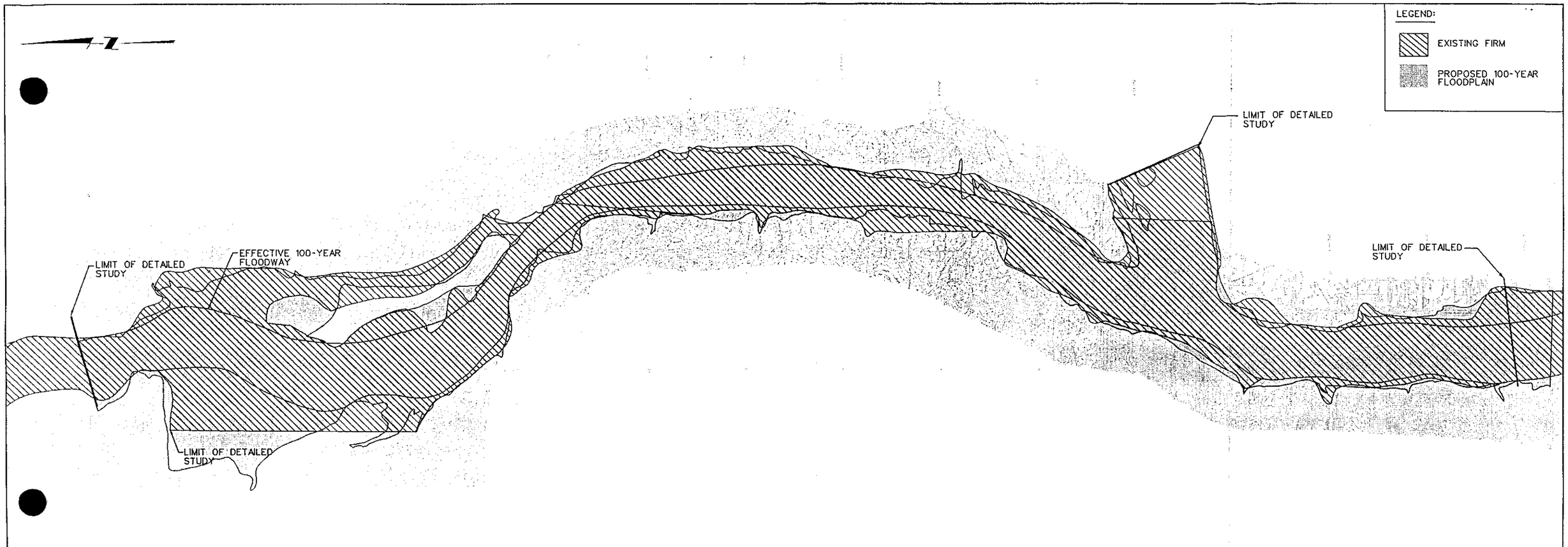
KENNEY AERIAL MAPPING COMPANY, INC
PHOTOGRAMMETRY
DECEMBER 1995 AND MAY 1996

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS.
1" = 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS AND BASED ON GROUND CONTROL SURVEY
DATA PROVIDED BY KENNEY AERIAL MAPPING COMPANY, INC.

REVISED 5/98 PER FCDMC

Appendix F

MONTGOMERY WATSON



REV	DATE	BY	DESCRIPTION

SCALE: 1"=1000'

WARNING: 0 ½ — IF THIS BAR DOES NOT MEASURE ½" THEN DRAWING IS NOT TO SCALE.

DESIGNED
DRAWN
CHECKED

SUBMITTED
LAURIE T. MILLER — 20934 — PROJECT ENGINEER — R. C. E. NO. — DATE

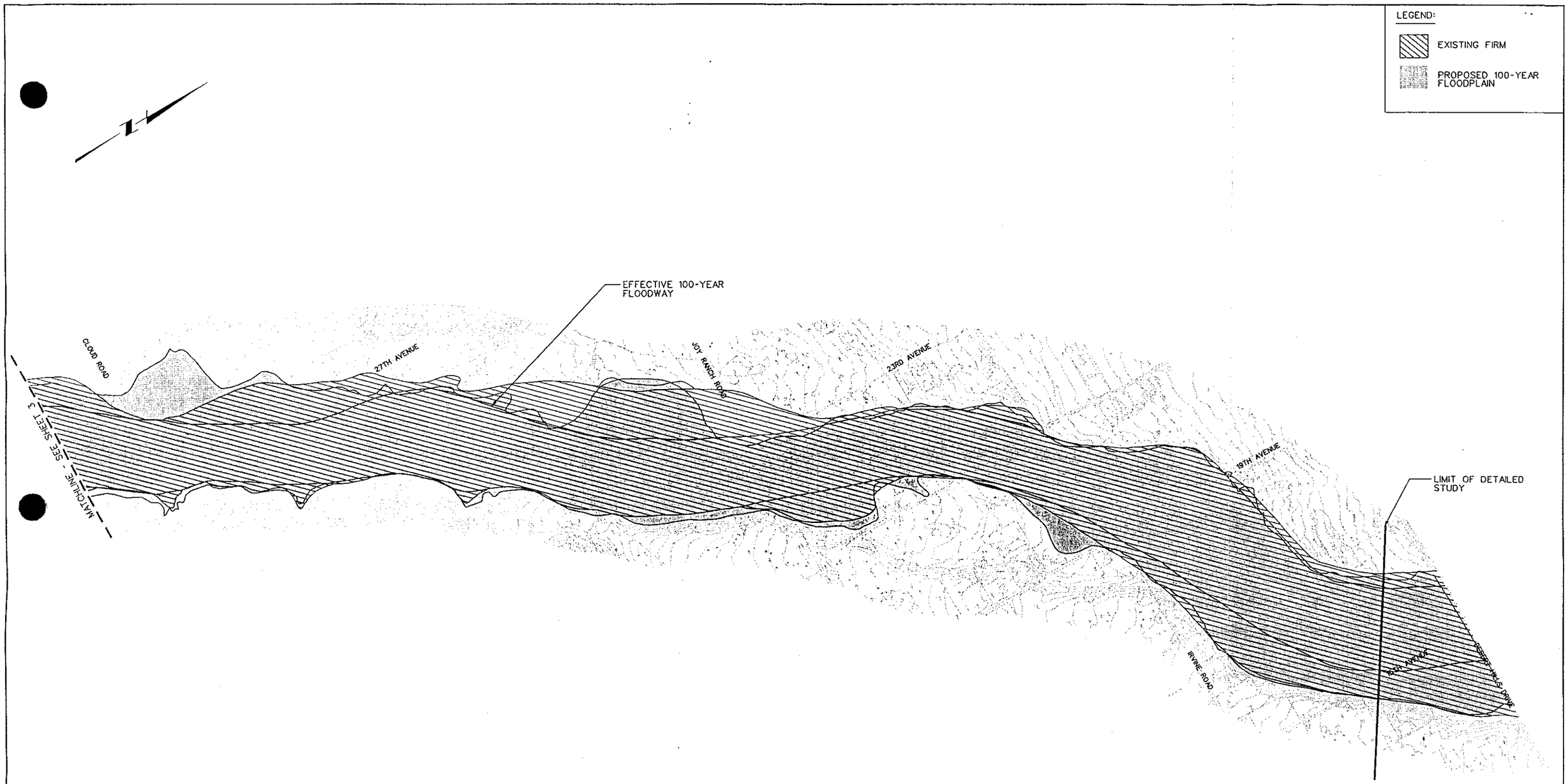
RECOMMENDED
FRED K. DUREN, JR. — 12250 — MONTGOMERY WATSON — R. C. E. NO. — DATE

MONTGOMERY WATSON
Phoenix, Arizona

MONTGOMERY WATSON
6245 N. 24TH PARKWAY, SUITE 208
PHOENIX, AZ. 85016-2030
(602) 954-6781

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FLOODPLAIN DELINEATION STUDY
SKUNK CREEK
FCDMC CONTRACT NO. 95-16

SHEET 1 OF 4 SHEETS



REV	DATE	BY	DESCRIPTION

SCALE: 1"=1000'

WARNING: 0 ½ — IF THIS BAR DOES NOT MEASURE ½" THEN DRAWING IS NOT TO SCALE.

DESIGNED
DRAWN
CHECKED

SUBMITTED: LAURIE T. MILLER — PROJECT ENGINEER — R. C. E. NO. 20934 — DATE

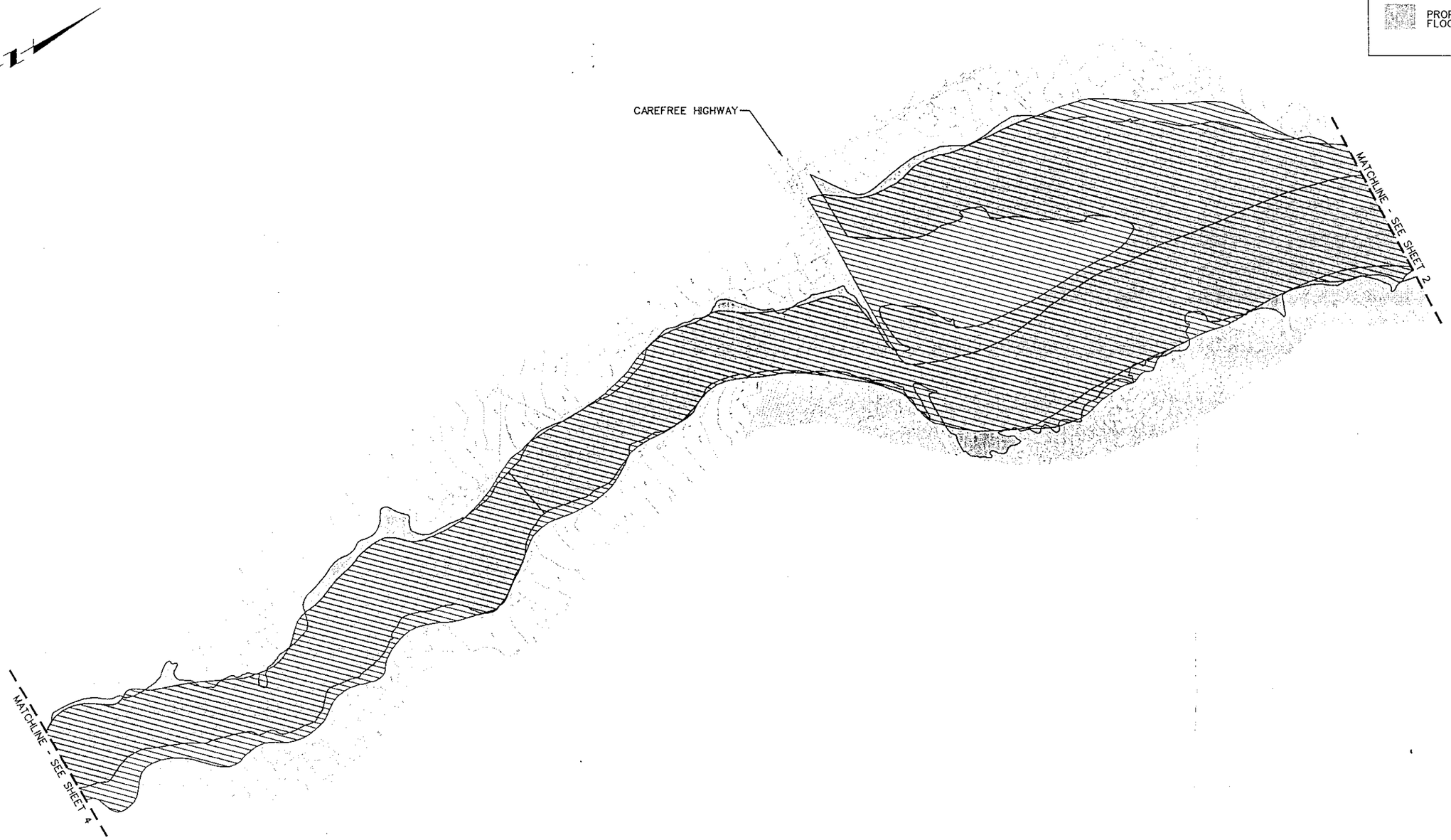
RECOMMENDED: FRED K. DUREN, JR. — MONTGOMERY WATSON — R. C. E. NO. 12250 — DATE

MONTGOMERY WATSON
Phoenix, Arizona

MONTGOMERY WATSON
6245 N. 24TH PARKWAY, SUITE 208
PHOENIX, AZ. 85016-2030
(602) 954-6781

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FLOODPLAIN DELINEATION STUDY
SKUNK CREEK
FCDMC CONTRACT NO. 95-16

SHEET 2 OF 4 SHEETS



REV	DATE	BY	DESCRIPTION

SCALE: 1"=1000'

WARNING: 0 ½ — IF THIS BAR DOES NOT MEASURE ½" THEN DRAWING IS NOT TO SCALE.

DESIGNED
DRAWN
CHECKED

SUBMITTED
LAURIE T. MILLER — 20934 — PROJECT ENGINEER — R. C. E. NO. — DATE

RECOMMENDED
FRED K. DUREN, JR. — 12250 — MONTGOMERY WATSON — R. C. E. NO. — DATE

MONTGOMERY WATSON
Phoenix, Arizona

MONTGOMERY WATSON
6245 N. 24TH PARKWAY, SUITE 208
PHOENIX, AZ. 85016-2030
(602) 954-6781

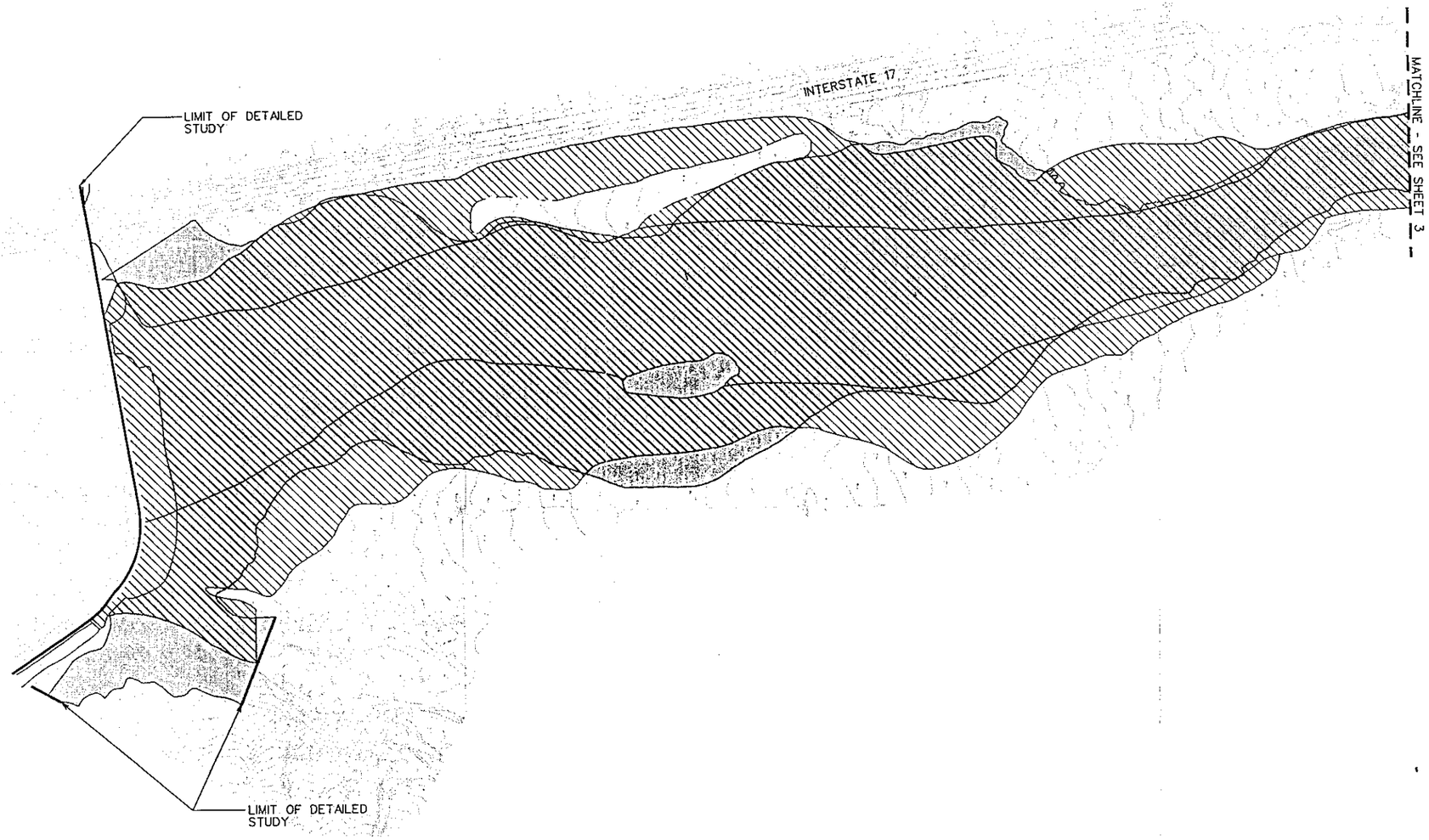
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FLOODPLAIN DELINEATION STUDY
SKUNK CREEK
FCDMC CONTRACT NO. 95-16

SHEET 3 OF 4 SHEETS

LEGEND:

EXISTING FIRM

PROPOSED 100-YEAR FLOODPLAIN



REV	DATE	BY	DESCRIPTION

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SHEET 4 OF 4 SHEETS