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SKUNK CREEK
FLOODPLAIN REDELINEATION AND HYDRAULIC ANALYSIS

APRIL 25, 1996
REVISED NOVEMBER 20, 1996

Prepared for:
Del Webb Corporation

For Submittal to:
Maricopa County Flood Control District

Registered Professional Engineer
CERTIFICATE NO.
10274
LEONARD J.
ERIE, II
Date Signed 20NOV96
ARIZONA, U.S.A.

Prepared by:

Erie and Associates, Inc.
3120 North 24th Street
Phoenix, Arizona 85016

EA# 1474.02

Erie & Associates, Inc.
CONSULTING ENGINEERS
3120 N. 24th St. / Phoenix, Arizona 85016 / (602) 954-6399

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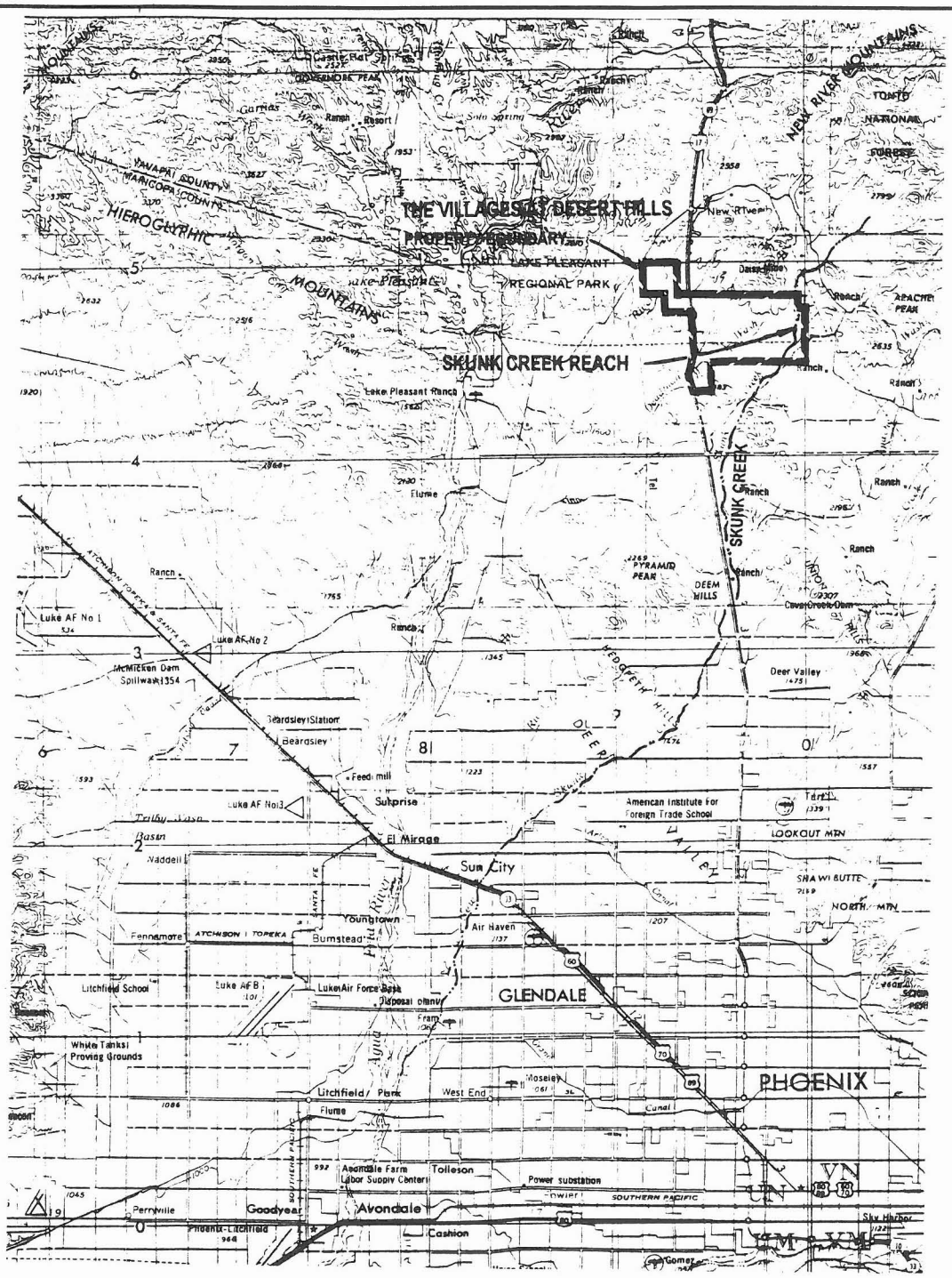
LOCATION/DESCRIPTION

The purpose of this study is to redelineate the reach of Skunk Creek within a portion of Sections 17, 18, 19, 20 and 30 of Township 6 North, Range 6 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona. The property comprises part of the eastern portion of a 5,661 acre master planned development entitled ***The Villages at Desert Hills***, located within the unincorporated area of Northern Maricopa County. The redelineation is based on new more accurate topo for the study reach.

Skunk Creek is a major wash that flows intermittently through the Eastern portion of The Villages at Desert Hills, in a North-South direction. A location map is included as Plate 1. The original Federal Emergency Management Agency (FEMA) floodplain varies in width from 800 feet to 2000 feet. The Skunk Creek Floodplain within the property is designated as Zone A3 or an area of 100 year floods, base flood elevations and flood hazard factors determined, per Flood Insurance Rate Map Number 04013C0780F(effective date: September 30, 1995).

FEMA hydrology for the study reach is used unaltered in this study. The Maricopa County Flood Control District (MCFCD), is re-studying a much larger reach of Skunk Creek in an independent hydrologic and hydraulic study. The MCFCD has agreed to incorporate the results of this study into their work on future submittals.



SKUNK CREEK			
FLOODPLAIN REDELINEATION			
SCALE NTS	JOB NO 1474.02	DATE APR1996	PLATE 1

Erie & Associates, Inc.
CONSULTING ENGINEERS
Phoenix, Arizona 85016 / (602) 954-6399

HYDRAULICS

A water surface profile analysis was generated by using the United States Army Corps of Engineers' (USCE) HEC-2 computer program, version 4.6.2, dated May 1991, as implemented by Haestad Methods, Inc. Water surface profiles were calculated for the aforementioned reach of Skunk Creek, based on hydrology done for the original Flood Insurance Study(FIS).

Original Flood Insurance Study

The original Skunk Creek Floodplain delineation was generated by Harris-Toups Associates, based on 20 foot contour interval mapping. A 100 year frequency storm discharge of 28,100 cubic feet per second was used in computing the water surface profile within the property boundaries. Cross-sections were identified by river mileage values measured along the thalweg of the channel. Overbank roughness coefficients of 0.045 to 0.050, and channel roughness coefficients of 0.043 to 0.048, were used, within the property boundaries. The first original FIS Study cross-section downstream of the property is cross-section P identified as cross-section 20.39. Plate 2 shows the original cross-sections, new topo mapping, and new cross-sections. The original HEC-2 input and output is included as Appendix C.

Topographic Mapping/Floodplains

The original Skunk Creek Floodplain includes area that, per this study, was found not to lie within designated floodplain boundaries. The 2 foot contour interval mapping at a scale of 1 inch = 100 feet, used in this study, provides for a more accurate analysis in water surface profile computations. Verification of this topo is included in a separate report as Appendix D. The mapping accuracy is according to the criteria set in the FEMA 37 Flood Insurance Study Guidelines and Specifications for Study Contractors, Federal Emergency Management Agency, January 1995.

The report states that selected HEC-2 cross-sections were field verified to be within the accuracy limits required by FEMA for 2 foot contour mapping.

Manning Roughness Coefficients

A field trip was arranged to evaluate the Manning's n-values through the project reach. Based on the field observations, as shown in the site photos included in Plate 3, and using engineering judgment, it became obvious that the n-values were different than what was used in the current FIS. The n factors used with photos from the field trip are included as Plate 3, photos 1 thru 7.

Plate 3 - Site Photograph 1: At Desert Hills Drive and Skunk Creek looking downstream.

Plate 3 - Site Photograph 2: At Desert Hills Drive and Skunk Creek looking upstream.

n=0.038

Plate 3 - Site Photograph 3: South of Desert Hills Drive, 160 yards along the channel, in the right overbank, about 40 yards from the channel.

n=0.06

Plate 3 - Site Photograph 4: North of Desert Hills Drive looking upstream.

n=0.038

Plate 3 - Site Photograph 5: North of Desert Hills Drive looking downstream.

Plate 3 - Site Photograph 6:

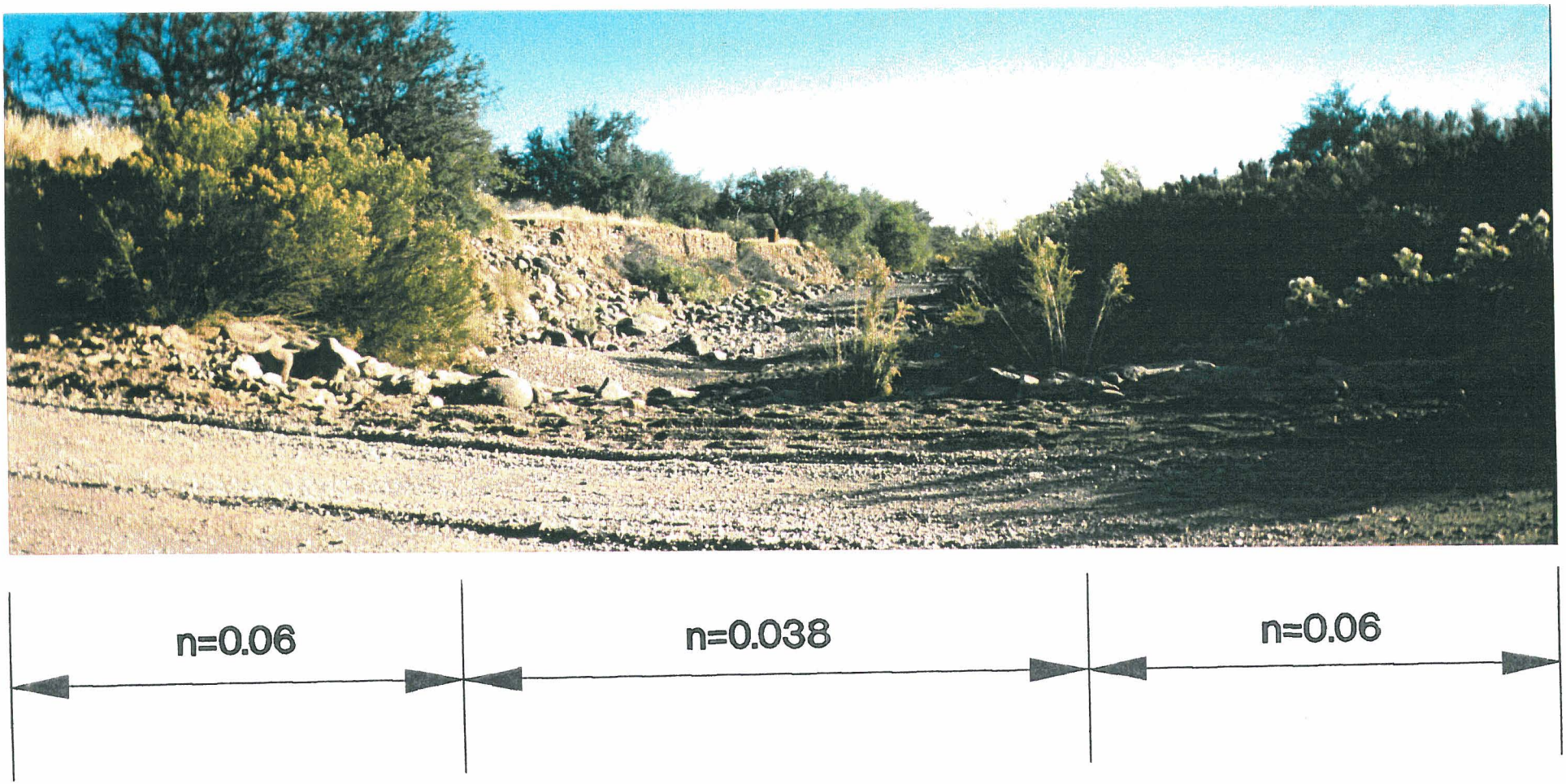
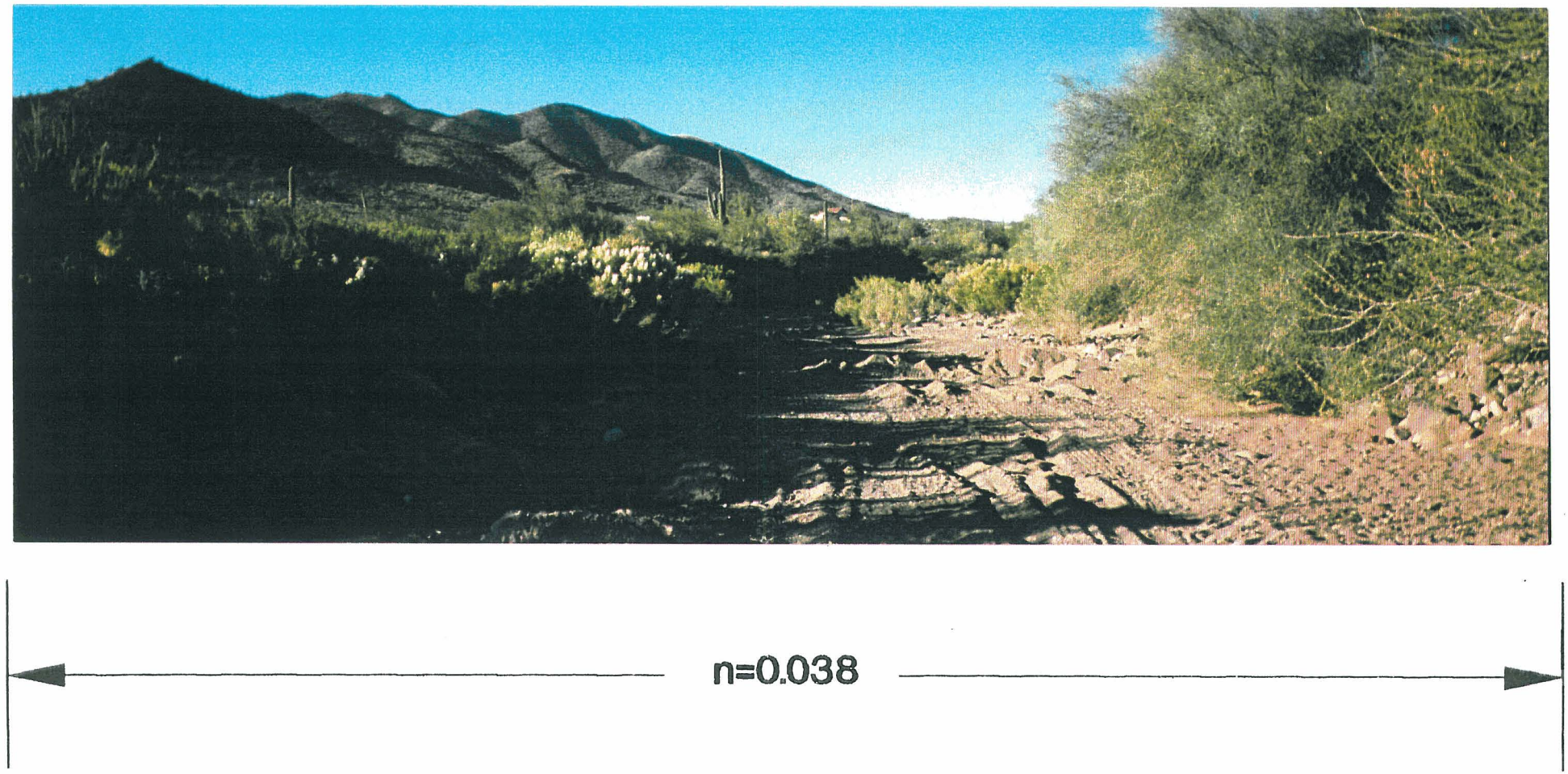


Plate 3 - Site Photograph 7:



Criteria outlined in the Maricopa County Flood Control Districts' ***Estimated Manning's Roughness Coefficients for Stream Channels and Flood Plains in Maricopa County, Arizona*** was used in re-estimating values for the Skunk Creek roughness coefficients. The criteria consists of determining a base value for the channel or floodplain bed material and applying adjustments to it according to various roughness coefficients such as vegetation and obstructions to flow. This is more appropriately represented by the equation given below.

$$n = n_b + n_1 + n_2 + n_3$$

where

n_b = base value of n for a straight uniform channel
n_1 = adjustment value for surface irregularities
n_2 = adjustment value for obstruction
n_3 = adjustment value for vegetation

Table 1 summarizes the base roughness coefficient values as well as the adjustment roughness coefficient values used in the channel and overbanks. Assumptions made in the estimation of the revised roughness coefficients include:

for channels:

- channels with slightly eroded or scoured side slopes
- few scattered obstructions, which include debris deposits, stumps, exposed roots logs, piers, or isolated boulders, that occupy less than 5 percent of the cross-sectional area
- dense growth of weeds where the average depth of flow is at least two times the height of the vegetation

for overbanks:

- slight erosion and scour
- appreciable obstructions that occupy 15 to 20 percent of the cross sectional area
- grass or weeds where the average depth of flow is from one to two times the height of the vegetation

***n* factor**	**CHANNEL**	**OVERBANK**
n_b	0.03(cobbles 2.5" to 10")	0.028(coarse gravel)
n_1	0.003(minor degree of irreg.)	0.001(minor degree of irreg.)
n_2	0.002(negligible obstructions)	0.020(appreciable obstructions)
n_3	0.003(small vegetation)	0.010(med. vegetation)

Table 1 - Manning Roughness Coefficient estimation.

Therefore, the composite roughness coefficients equal 0.038 and 0.060 for channel and overbank, respectively, as used in this study. These n factors were verified in the field with MCFCD personnel at the start of this study. Plate 2, Floodplain work maps, show the cross-sections.

Channel Cross - Sections

The original FEMA channel cross-section locations were used in this study, while additional cross-sections were added in between to more accurately estimate the water surface profile of the Skunk Creek Reach within the subject property boundaries. Plate 2, FEMA Workmaps, show the cross-sections. Original cross-section spacing intervals ranged from 1200 feet to 2000 feet. These intervals were reduced to no greater than 500 feet for this study with cross-sections added at channel grade breaks, alignment changes, and key locations along the study reach.

FEMA Cross - Sections

The original FEMA channel cross-section data was used at the upstream and downstream limits of the Skunk Creek Reach within the subject project boundaries. Two of the existing FEMA cross-sections (sec. 22.81 & sec. 23.09) were used to allow the project study to tie into the existing FEMA backwater analysis. At the downstream limit of the project study, an existing FEMA cross-section (sec. 20.39) water surface was used as the starting water surface elevation. This allowed the downstream and upstream limits of the project study to tie into the existing FEMA study.

Results

The results of the hydraulic analysis are summarized in Table 2 for both the "with" and "without" floodway conditions. Water surface elevations and the upstream and downstream FEMA cross-sections match the prior study results within the limits of accuracy of the study. The results are also plotted on the hydraulic work maps(Plate 2). HEC-2 input and output is included as Appendix B.

FEMA forms for the study reach are included as Appendix A.

CROSS SECTION IDENTIFICATION	WATER SURFACE ELEVATIONS WITHOUT FLOODWAY	WATER SURFACE ELEVATIONS WITH FLOODWAY
20.39	1849.75	1850.51
20.46	1852.93	1853.63
20.54	1857.24	1858.02
20.65	1862.49	1862.92
20.73	1866.25	1866.95
20.80	1869.95	1870.02
20.86	1871.91	1872.87
20.93	1876.21	1876.43
21.00	1880.26	1880.37
21.06	1882.27	1882.77
21.10	1883.29	1883.79
21.16	1887.05	1887.02
21.24	1890.88	1891.04
21.33	1895.63	1895.69
21.38	1897.93	1898.86
21.46	1902.30	1902.34
21.54	1905.68	1905.79
21.59	1908.90	1908.89
21.68	1914.16	1914.54
21.76	1917.92	1918.60
21.85	1922.57	1922.97
21.92	1925.49	1926.21
21.99	1929.03	1929.52
22.06	1933.11	1933.50
22.13	1937.01	1937.57
22.20	1941.86	1942.33
22.25	1944.17	1945.15
22.33	1948.26	1949.20
22.43	1954.46	1955.07
22.49	1957.97	1958.80
22.55	1961.02	1961.92
22.62	1964.63	1965.28
22.81	1972.47	1972.60
23.09	1984.37	1985.07

APPENDIX A - FEMA FORMS

FEDERAL EMERGENCY MANAGEMENT AGENCY **REVISION REQUESTOR AND COMMUNITY OFFICIAL FORM**	*O.M.B. Burden No. 3067-0148* *Expires July 31, 1997*	*FEMA USE ONLY*

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 2.13 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

1. OVERVIEW

1. The basis for this revision request is (are): *(check all that apply)*
   - ☐ Physical change
     - ☐ Existing
     - ☐ Proposed
   - ☐ Improved methodology
   - ☒ Improved data
   - ☒ Floodway revision
   - ☐ Other _____

   Explain _____

2. Flooding Source: _____
3. Project Name/Identifier: _____
4. FEMA zone designations affected: _____
   (example: A, AH, AO, A1-A30, A99, AE, V, V1-30, VE, B, C, D, X)
5. The NFIP map panel(s) affected for all impacted communities is (are):

Community No.	Community Name	County	State	Map No.	Panel No.	Effective Date
EX: 480301	Katy,City	Harris, Fort Bend	TX	480301	0005D	02/08/83
480287	Harris County	Harris	TX	48201C	0220G	09/28/90
040037	Maricopa Co.	Maricopa	AZ	04013C	0780F	09/30/95

6. The area of revision encompasses the following types of flooding, structures, and associated disciplines: *(check all that apply)*

Types of Flooding
- ☒ Riverine
- ☐ Coastal
- ☐ Alluvial Fan
- ☐ Shallow Flooding *(e.g. Zones AO and AH)*
- ☐ Lakes

Affected by wind/wave action
- ☐ Yes
- ☐ No

Structures
- ☐ Channelization
- ☐ Levee/Floodwall
- ☐ Bridge/Culvert
- ☐ Dam
- ☐ Coastal
- ☐ Fill
- ☐ Pump Station
- ☐ None
- ☐ Channel Relocation
- ☐ Excavation
- ☐ Other *(describe)*

Disciplines*
- ☒ Water Resources
  - ☐ Hydrology
  - ☒ Hydraulics
  - ☐ Sediment Transport
  - ☐ Interior Drainage
- ☐ Structural
- ☐ Geotechnical
- ☐ Land Surveying
- ☐ Other *(describe)*

☐ Other(describe) _____ _____ _____

* **Attach completed "Certification by Registered Professional Engineer and/or Land Surveyor" Form for each discipline checked. (Form 2)**

2. FLOODWAY INFORMATION

7. Does the affected flooding source have a floodway designated on the effective FIRM or FBFM? ☒ Yes ☐ No
8. Does the revised floodway delineation differ from that shown on the effective FIRM or FBFM ☒ Yes ☐ No

   If yes, give reason: A more accurate analysis is obtained using the two foot contour interval maps.

Attach copy of either a public notice distributed by the community stating the community's intent to revise the floodway or a statement by the community that it has notified all affected property owners and affected adjacent jurisdictions.

9. Does the State have jurisdiction over the floodway or its adoption by communities participating in the NFIP? ☐ Yes ☒ No

If yes, attach a copy of a letter notifying the appropriate State agency of the floodway revision and documentation of the approval of the revised floodway by the appropriate State agency.

3. PROPOSED ENCROACHMENTS

10. With floodways:

    1A. Does the revision request involve fill, new construction, substantial improvement, or other development in the floodway? ☐ Yes ☒ No

    1B. If yes, does the development cause the 100-year water surface elevation to increase at any location by more than 0.000 feet? ☐ Yes ☐ No

11. Without floodways:

    2A. Does the revision request involve fill, new construction, substantial improvement, or other development in the 100-year floodplain? ☐ Yes ☒ No

    2B. If yes, does the cumulative effect of all development that has occurred since the effective SFHA was originally identified cause the 100-year water surface elevation to increase at any location by more than one foot (*or other surcharge limit if community or state has adopted more stringent criteria*)? ☐ Yes ☐ No

If the answer to either Items 1B or 2B is yes, please provide documentation that all requirements of Section 65.12 of the NFIP regulations have been met, regarding evaluation of alternatives, notice to individual legal property owners, concurrence of CEO, and certification that no insurable structures are impacted.

4. REVISION REQUESTOR ACKNOWLEDGMENT

12. Having read NFIP Regulations, 44 CFR Ch. I, parts 59, 60, 61, and 72, I believe that the proposed revision ☒ is ☐ is not in compliance with the requirements of the aforementioned NFIP Regulations.

5. COMMUNITY OFFICIAL ACKNOWLEDGMENT

13. Was this revision request reviewed by the community for compliance with the community's adopted floodplain management ordinances? ☒ Yes ☐ No

14. Does this revision request have the endorsement of the community? ☒ Yes ☐ No

If no to either of the above questions, please explain: _____

Please note that community acknowledgment and /or notification is required for all requests as outlined in Section 65.4 (b) of the NFIP Regulations.

6. OPERATION AND MAINTENANCE

15. Does the physical change involve a flood control structure (e.g., levees, floodwalls, channelization, basins, dams)? ☐ Yes ☒ No

    If yes, please provide the following information for each of the new flood control structures:

    A. Inspection of the flood control project will be conducted periodically by _____ (entity) _____ with a maximum interval of _____ months between inspections.

    B. Based on the results of scheduled periodic inspections, appropriate maintenance of the flood control facilities will be conducted by _____ (entity) to ensure the integrity and degree of flood protection of the structure.

    C. A formal plan of operation, including documentation of the flood warning system, specific actions and assignments of responsibility by individual name or title, and provisions for testing the plan at intervals not less than one year, ☐ has ☐ has not been prepared for the flood control structure.

D. The community is willing to assume responsibility for ☐ performing ☐ overseeing compliance with the maintenance and operation plans of the _____
(Name)

flood control structure. If not performed promptly by an owner other than the community, the community will provide the necessary services without cost to the Federal government.

Attach operation and maintenance plans

7. REQUESTED RESPONSE FROM FEMA

16. After examining the pertinent NFIP regulations and reviewing the document entitled "Appeals, Revisions, and Amendments to Flood Insurance Maps: A guide for Community Officials," dated January 1990, this request is for a:

_____	a.	CLOMR	A letter from FEMA commenting on whether a proposed project, if built as proposed, would justify a map revision *(LOMR or PMR)*, or proposed hydrology changes *(see 44 CFR Ch. I, Parts 60, 65, and 72)*.
X	b.	LOMR	A letter from FEMA officially revising the current NFIP map to show changes to floodplains, floodways, or flood elevations. LOMRs typically depict decreased flood hazards. *(See 44 CFR Ch. I Parts 60 and 65.)*
_____	c.	PMR	A reprinted NFIP map incorporating changes to floodplains, floodways, or flood elevations. Because of the time and cost involved to change, reprint, and redistribute an NFIP map, a PMR is usually processed when a revision reflects increased flood hazards or large-scope changes. *(See 44 CFR Ch. I, Parts 60 and 65.)*
_____	d.	Other:	Describe_____

8. FORMS INCLUDED

17. Form 2 entitled, "Certification By Registered Professional Engineer and/or Land Surveyor" must be submitted.

The following forms should be included with this request if (check the included forms):

• Hydrologic analysis for flooding source differs from that used to develop FIRM	☐ Hydrologic Analysis Form (Form 3)
• Hydraulic analysis for riverine flooding differs from that used to develop FIRM	☒ Riverine Hydraulic Analysis Form (Form 4)
• The request is based on updated topographic information or a revised floodplain or floodway delineation is requested	☒ Riverine /Coastal Mapping Form (Form 5)
• The request involves any type of channel modification	☐ Channelization Form (Form 6)
• The request involves new bridge or culvert or revised analysis of an existing bridge or culvert	☐ Bridge/Culvert Form (Form 7)
• The request involves a new revised levee/floodwall system	☐ Levee/Floodwall System Analysis Form (Form 8)
• The request involves analysis of coastal flooding	☐ Coastal Analysis Form (Form 9)
• The request involves coastal structures credited as providing protection from the 100-year flood	☐ Coastal Structures (Form 10)
• The request involves an existing, proposed, or modified dam	☐ Dam Form (Form 11)
• The request involves structures credited as providing protection from the 100-year flood on an alluvial fan	☐ Alluvial Fan Flooding Form (Form 12)

9. INITIAL REVIEW FEE

18. The minimum initial review fee for the appropriate request category has been included. ☒ Yes ☐ No

Initial fee amount: $ 2300.00

Check or money order only. Make check or money order payable to : **National Flood Insurance Program.** If paying by Visa or Mastercard please refer to the credit card information form which follows this form.

or

19. This request is for a project that is for public benefit and is primarily intended for flood loss reduction to insurable structures in identified flood hazard areas which were in existence prior to the commencement of construction of the flood control project. ☒ Yes ☐ No

or

20. This request is to correct map errors, to include the effects of natural changes within the areas of special flood hazard, or solely to provide more detailed data. ☒ Yes ☐ No

Note: I understand that my signature indicates that all information submitted in support of this request is correct.

Signature of Revision Requester

Len Erie, P.E., President

Printed Name and Title of Revision Requester

Erie & Associates

Company Name

954-6399 — 2309 96

Telephone No. — Date

Note: Signature indicates that the community understands, from the revision requester, the impacts of the revision on flooding conditions in the community.

Signature of Community Official

Printed Name and Title of Community Official

Community Name

Date

Does this request impact any other communities? ☐ Yes ☒ No

If yes, attach letters from all affected jurisdictions acknowledging revision request and approving changes to floodway, if applicable.

Note: Although a photograph of physical changes is not required, it may be helpful for FEMA's review.

FEDERAL EMERGENCY MANAGEMENT AGENCY **CERTIFICATION BY REGISTERED PROFESSIONAL ENGINEER AND/OR LAND SURVEYOR FORM**	*O.M.B. Burden No. 3067-0148* *Expires July 31, 1997*	*FEMA USE ONLY*

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average . 23 hour per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067- 0148), Washington, DC 20503.

1. This certification is in accordance with 44 CFR Ch. I, Section 65.2
2. I am licensed with an expertise in Water resources, surface, and subsurface
   [example: water resources *(hydrology, hydraulics, sediment transport, interior drainage)** structural, geotechnical, land surveying.]
3. I have 26 years experience in the expertise listed above.
4. I have ☒ prepared ☒ reviewed the attached supporting data and analyses related to my expertise.
5. I ☒ have ☐ have not visited and physically viewed the project.
6. In my opinion, the following analyses and /or designs, is/are being certified:

   Analysis of Skunk Creek reach described in study.
7. Base upon the following review, the modifications in place have been constructed in general accordance with plans and specifications.

   N/A

   Basis for above statement: (check all that apply)

   a. ☐ Viewed all phases of actual construction.

   b. ☐ Compared plans and specifications with as-built survey information.

   c. ☐ Examined plans and specifications and compared with completed projects.

   d. ☐ Other _____
8. All information submitted in support of this request is correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Name: Len Erie, P.E., L.S.
(please print or type)

Title: President/Erie & Associates, Inc.
(please print or type)

Registration No. 10274 Expiration Date: 12/31/96

State AZ

Type of License Civil Engineering

Signature

23 OCT 96
Date

Seal
(Optional)

*Specify Subdiscipline

Note: Insert not applicable (N/A) when statement does not apply.

FEDERAL EMERGENCY MANAGEMENT AGENCY **RIVERINE HYDRAULIC ANALYSIS FORM**	*O.M.B. Burden No. 3067-0148* *Expires July 31, 1997*	FEMA USE ONLY

PUBLIC BURDEN DISCLOSURE NOTICE

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

Community Name: Maricopa County

Flooding Source: Skunk Creek
(One form for each flooding source)

Project Name/Identifier: Skunk Creek Floodplain Redelineation

1. REACH TO BE REVISED

Downstream limit: 20.39

Upstream limit: 23.09

2. EFFECTIVE FIS

☐ Not studied

☐ Studied by approximate methods

Downstream limit of study _____

Upstream limit of study _____

☐ Studied by detailed methods

Downstream limit of study _____

Upstream limit of study _____

☒ Floodway delineated

Downstream limit of Floodway _____

Upstream limit of Floodway _____

3. HYDRAULIC ANALYSIS

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

☐ Not studied in FIS

☐ Improved hydrologic data/analysis. Explain: _____

☒ Improved hydraulic analysis. Explain: The original roughness coefficients were inaccurate for a channel consisting of characteristics shown in picture in analysis. Maps used in this study provide more accurate analysis of the study. New, more detailed mapping is used (2' contour intervals vs 4' on effective FIS).

☐ Flood control structure. Explain: _____

☐ Other. Explain: _____

3. RIVERINE HYDRAULIC ANALYSIS FORM
Models Submitted

For areas which have detailed flooding:

Full input and output listings along with files on diskette (if available) for each of the models listed below (items 1, 2, 3, 4, and 5) and summary of the source of input parameters used in the models must be provided. The summary must include a complete description of any changes made from model to model (e.g. duplicate effective model to corrected effective model) At a minimum, the Duplicate Effective (item 1) and the Revised or Post-Project Conditions (item 4) models must be submitted. See instructions for directions on when other models may be required.

For areas which do not have detailed flooding:

Only the 100-year flood profile is required. A hydraulic model is not required for areas which do not have detailed flooding; however, BFEs may not be added to the revised FIRM. If a hydraulic model is developed for the area, items 3 and 4 described below must be submitted.

If hydraulic models are not developed, hydraulic analyses for existing or pre-project conditions and revised or post-project conditions must be submitted. All calculations must be submitted for these analyses. (See item 6 below)

1. Duplicate Effective Model — Natural ☒ Floodway ☒

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

2. Corrected Effective Model — Natural ☐ Floodway ☐

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

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

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

4. Revised or Post-Project Conditions Model — Natural ☒ Floodway ☒

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

5. Other: Please attach a sheet describing all other models submitted. — Natural ☐ Floodway ☐

6. Hydraulic Analyses (Only if Hydraulic Models are not developed)

Please attach all calculations for the existing or pre-project conditions and the revised or post-project conditions. Proceed to Form 5, "Riverine/Coastal Mapping Form".

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

1. Discharges:

	Upstream Limit	Downstream Limit
10-year		
50-year		
100-year	23,800.00	28,100.00
500-year		

Attach diagram showing changes in 100-year discharge
No changes to the 100 year discharge from effective FIS.

2. Explain how the starting water surface elevations were determined
The starting water surface elevation was taken from the effective FIS study.

3. Give range of friction loss coefficients (*Manning's "N"*) Channel 0.038

Overbanks 0.06

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

Location	FIS	Revised
Sec. 20.39	0.045, 0.045, 0.043	0.06, 0.06, 0.038
Through		
Sec. 21.24	0.050, 0.050, 0.048	0.06, 0.06, 0.038

Explain: A field trip was arranged to evaluate the Manning's n-values through the project reach. Based on the field observations and engineering judgement, it became obvious that the n-values were different than what was used in current FIS.

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

Cross-section geometry data was determined using a new topographic survey with additional cross-sections added per the attached exhibits.

5. Were natural channel banks selected as the location of the left and right channel banks in the model?

☒ Yes ☐ No If no, explain why not:

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

The reach lengths for the channel and overbanks were determined by scaling on the topographic map.

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

1. Do the results indicate:

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

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

c. Critical depth? ..... ☒ Yes ☐ No

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

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

2. What is the maximum change in energy gradient between cross-sections? 11.81

Specify location ..... Between Sec. 22.81 & 23.09

3. What is the distance between the cross-sections in 2 above? ..... 1478'

4. What is the maximum distance between cross-sections? 1478

Specify location ..... Between Sec. 23.09 & 22.81

5. Floodway determination

a. What is the maximum surcharge allowed by the community or State? ..... 1.0 foot

b. What is the maximum surcharge for the revised conditions? ..... 0.98 foot

Specify location ..... Sec. 22.25

c. What is the maximum velocity? ..... 15.54 fps

Specify location ..... Sec. 22.43

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

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

Explain: The maximum surcharge is -0.03 at Sec. 21.16. Corrections could not be made because it causes other sections to rise over 1 foot.

List for 1c:	Critical Depth
Sections	Sections
20.39	21.59
20.65	21.76
20.73	22.25
20.80	22.43
20.86	22.49
20.93	22.55
21.00	22.62

Explanation: Results sec 1.c.
Critical depth is calculated in the HEC-2 program as a conservative estimate of the water surface elevation.

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

If Yes, explain:

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

If yes, please attach a list of the locations where the increases occur, state whether or not the increases are located on the requestor's property, and provide an explanation of the reason for the increases. *(For example: State if the increase is due to fill placed within the floodway fringe or placed within the currently adopted floodway limits)*

All sections increase through the study reach due to more accurate topography map. The cross-sections are listed on the water surface elevation check.

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

6. REVISED FIRM/FBFM AND FLOOD PROFILES

A. The revised water surface elevations tie into those computed by the effective FIS Model *(10-, 50-, 100-, and 500-year)*, downstream of the project at cross-section 20.39 within 0.00 feet *(vertical)* and upstream of the project at cross section 23.09 within 0.29 feet *(vertical)*.

B. The revised floodway elevations tie into those computed by the effective FIS model, dowstream of the project at cross section 20.39 within 0.00 feet *(vertical)* and upstream of the project at cross section 23.09 within 0.64 feet *(vertical)*.

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

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

Proceed to Riverine /Coastal Mapping Form

FLOODWAY DATA TABLE

	FLOODWAY			WATER SURFACE ELEVATION		
STATION	WIDTH	SECTION AREA	MEAN VELOCITY	WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
20.390	850	3731	7.5	1850.6	1849.8	0.8
20.730	665	3450	8.1	1866.9	1866.2	0.7
21.000	745	2753	10.2	1880.4	1880.3	0.1
21.240	700	3242	8.7	1891.1	1890.9	0.2
21.590	1520	3314	8.5	1908.9	1908.9	0.0
21.850	1125	3931	7.1	1923.0	1922.6	0.4
22.060	1100	3470	8.1	1933.5	1933.1	0.4
22.250	698	3380	8.3	1961.9	1961.0	0.9
22.620	730	3488	6.8	1965.3	1964.6	0.7
22.810	600	2664	8.9	1972.6	1972.5	0.1

FEDERAL EMERGENCY MANAGMENT AGENCY

WATER SURFACE ELEVATION CHECK

COMMUNITY NAME	FLOODIND SOURCE	PROJECT NAME /IDENTIFIER
Maricopa County	Skunk Creek	Skunk Creek Floodplain Redelineation

	EFFECTIVE			DUPLICATE EFFECTIVE			CORRECTED EFFECTIVE			EXISTING/PRE-PROJECT			REVISED/PROJECT		
SECNO	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]
20.39	1849.75	1850.51	0.76										1849.75	1850.51	0.76
20.46													1852.93	1853.63	0.70
20.54													1857.24	1858.02	0.78
20.65													1862.49	1862.92	0.43
20.73	1865.24	1865.53	0.29										1866.25	866.95	0.70
20.80													1869.95	1870.02	0.07
20.86													1871.91	1872.87	0.96
20.93													1876.21	1876.43	0.22
21.00	1878.69	1879.25	0.56										1880.26	1880.37	0.11
21.06													1882.27	1882.77	0.50
21.10													1883.29	1883.79	0.50
21.16													1887.05	1887.02	-0.03
21.24	1889.13	1889.57	0.44										1890.88	1891.04	0.16

COMMENTS:

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

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

FEDERAL EMERGENCY MANAGMENT AGENCY

WATER SURFACE ELEVATION CHECK

COMMUNITY NAME	FLOODIND SOURCE	PROJECT NAME /IDENTIFIER
Maricopa County	Skunk Creek	Skunk Creek Floodplain Redelineation

	EFFECTIVE			DUPLICATE EFFECTIVE			CORRECTED EFFECTIVE			EXISTING/PRE-PROJECT			REVISED/PROJECT		
SECNO	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]
21.33													1895.63	1895.69	0.06
21.38													1897.93	1898.86	0.93
21.46													1902.30	1902.34	0.04
21.54													1905.68	1905.79	0.11
21.59	1907.37	1907.20	-0.17										1908.90	1908.89	-0.01
21.68													1914.16	1914.54	0.38
21.76													1917.92	1918.60	0.68
21.85	1921.67	1922.10	0.43										1922.57	1922.97	0.40
21.92													1925.49	1926.21	0.72
21.99													1929.03	1929.52	0.49
22.06	1932.24	1932.42	0.18										1933.11	1933.50	0.39
22.13													1937.01	1937.57	0.56
22.20													1941.86	1942.33	0.47

COMMENTS:

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

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

FEDERAL EMERGENCY MANAGMENT AGENCY

WATER SURFACE ELEVATION CHECK

COMMUNITY NAME	FLOODIND SOURCE	PROJECT NAME /IDENTIFIER
Maricopa County	Skunk Creek	Skunk Creek Floodplain Redelineation

	EFFECTIVE			DUPLICATE EFFECTIVE			CORRECTED EFFECTIVE			EXISTING/PRE-PROJECT			REVISED/PROJECT		
SECNO	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]
22.25	1940.55	1941.01	0.46										1944.17	1945.15	0.98
22.33													1948.26	1949.20	0.94
22.43													1954.46	1955.07	0.61
22.49													1957.97	1958.80	0.83
22.55													1961.02	1961.92	0.90
22.62	1963.09	1962.90	0.19										1964.63	1965.28	0.65
22.81	1972.81	1973.49	0.68										1972.47	1972.60	0.13
23.09	1984.08	1984.43	0.35										1984.37	1985.07	0.70

COMMENTS:

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

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

FEDERAL EMERGENCY MANAGEMENT AGENCY **RIVERINE/COASTAL MAPPING FORM**	*O.M.B. Burden No. 3067-0148* *Expires July 31, 1997*	*FEMA USE ONLY*

PUBLIC BURDEN DISCLOSURE NOTICE

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

Community Name: Maricopa County

Flooding Source: Skunk Creek

Project Name/Identifier: Skunk Creek Floodplain Redelineation

1. MAPPING CHANGES

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

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

If any of the items above are marked no or N/A, please explain:

500 year floodplain boundaries are not applicable.

2. What is the source and date of the updated topographic information *(example: orthophoto maps, July 1985; field survey, May 1979, beach profiles, June 1987, etc.)*? New topo mapping dated 1986 & 1995. See attached info on topo.

3. What is the scale and contour interval of the following workmaps?
   a. Effective FIS 1"=100' scale 4 foot Contour interval
   b. Revision Request 1"=100' scale 2 foot Contour interval

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

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

Attach additional pages if needed.

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

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

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

Location is as shown on the mapping based on more detailed contour mapping intervals the floodplain could be defined more accurately.

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

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

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

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

If yes, explain:

They have shifted within the study reach.

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

If no, explain:

8. Manual or digital map submission:

☒ Manual

☒ Digital

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

2. EARTH FILL PLACEMENT

1. The fill is: ☒ Existing ☐ Proposed

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

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

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

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

      If yes, justify steeper slopes _____

      _____

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

      If no, describe erosion protection provided _____

      _____

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

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

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

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

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

   If yes, attach the coastal structures form.

APPENDIX B - HEC-2 Floodplain/Floodway Input and Output

```
T1      SKUNK CREEK WATER SURFACE PROFILE ANALYSIS FOR FLOODPLAIN REDELINEATION T1      039
T2      WITHIN PROPERTY BOUNDARIES OF DEL WEBB'S THE VILLAGES AT DESERT HILLS   T2      040
T3      FLOODPLAIN DELINEATION                                                  T3      041
T4      FILE NAME:          SKUNKCK.HC2                                         T4      042
T5      CREATED BY:         SHERRICK CAMPBELL, EIT/DARLENE WRIGHT, EIT          T5      043
T6      DATE:               DECEMBER 18, 1996                                   T6      044
T7                                                                              T7      045
J1      0       2       0       0       0       0       0       0 1849.75       J1      018
J2      1               -1                                                      J2      019
J3    110     115     150     200                                               J3      020
QT      2   28100   28100                                                       QT      034
NC 0.045   0.045   0.043     0.3     0.5                                       NC      029
ET                    9.1                                             9500   10350ET  014
X1 20.39      23    9500   10340                                               X1      053
GR  1864    8950    1860    9140    1848    9220  1846.5    9300    1847    9430GR  015
GR  1845    9500    1847    9660    1847    9940    1844    9950    1842    9970GR  015
GR  1842   10000    1842   10020    1844   10030    1848   10110    1848   10210GR  015
GR  1844   10310    1844   10340    1843   10360    1844   10370    1848   10420GR  015
GR  1852   10600    1856   10830    1860   11100                                GR      015
*                                                                               *       001
NC  0.06    0.06   0.038     0.3     0.5                                       NC      029
ET                    7.1                            4500    5310               ET      014
X1 20.46      36    4910    5170     475     320   369.6                       X1      053
GR  1855    4055    1854    4060    1853    4095  1852.9    4122    1852    4212GR  015
GR  1851    4265  1850.8    4290    1851    4350    1851    4430    1850    4455GR  015
GR  1849    4460    1848    4480    1848    4490    1849    4550    1850    4625GR  015
GR  1850    4720    1850    4750    1851    4810    1852    4910    1851    4960GR  015
GR  1844    4990    1843    4995    1844    5020    1846    5040    1847    5075GR  015
GR  1850    5085    1850    5140    1851    5160    1852    5170    1852    5230GR  015
GR  1851    5270    1850    5370    1849    5390    1850    5470    1854    5534GR  015
GR  1856    5610                                                                GR      015
*                                                                               *       001
ET          9.1     7.1                            4500    5160    4240    5500ET  014
X1 20.54      32    4907    5160     460     575   422.4                       X1      053
GR  1859    3860    1858    3895  1857.4    3925  1857.2    3980    1857    4030GR  015
GR  1856    4070    1855    4240    1854    4300    1854    4350    1853    4385GR  015
GR  1852    4415    1851    4440    1852    4450    1853    4585    1855    4907GR  015
GR  1854    4937    1852    4950    1850    4980    1848    4990  1847.5    5000GR  015
GR  1848    5027    1850    5070    1852    5083    1854    5118  1855.3    5160GR  015
GR1854.3    5205    1855    5300    1854    5350    1853    5385    1854    5465GR  015
GR  1856    5530    1860    5645                                                GR      015
*                                                                               *       001
ET          9.1     7.1                            4550    5220    4090    5475ET  014
X1 20.65      33    4810    5090     570     480   580.8                       X1      053
GR  1864    3740  1862.7    3790  1863.2    3845    1862    3915  1861.5    3950GR  015
GR  1862    3965  1863.2    4090    1862    4200    1862    4360    1862    4425GR  015
GR  1858    4560    1858    4625  1860.7    4810    1860    4830    1858    4850GR  015
GR1857.5    4865    1858    4875  1858.2    4885    1858    4900    1856    4950GR  015
GR  1854    4965  1852.6    5000    1854    5030    1858    5042    1860    5050GR  015
GR1860.9    5090  1860.5    5210    1860    5275  1858.5    5330    1860    5385GR  015
GR  1861    5475    1864    5520    1866    5545                                GR      015
*                                                                               *       001
ET          9.1     7.1                            4390    5060    3955    5605ET  014
X1 20.73      41    4695    5060     400   430.5   422.4                       X1      053
GR  1870    3490    1868    3540  1866.2    3580  1866.7    3660  1866.2    3800GR  015
GR  1868    3955    1866    4145    1864    4330  1862.8    4380  1863.2    4390GR  015
GR  1862    4425    1861    4440    1862    4465  1861.3    4500    1862    4520GR  015
GR1863.6    4580  1863.3    4615    1864    4645  1864.2    4695    1864    4730GR  015
GR  1862    4870    1861    4880    1860    4920    1858    4945    1856    4965GR  015
GR  1854    4995  1853.2    5000    1854    5005    1860    5020  1864.7    5060GR  015
GR  1866    5125  1866.2    5165    1866    5220    1864    5280    1864    5315GR  015
GR  1866    5390    1870    5470    1872    5480    1874    5505    1876    5565GR  015
GR  1878    5605                                                                GR      015
*                                                                               *       001
ET          9.1     7.1                            4380    5075    3875    5475ET  014
X1 20.80      36    4892    5045     340     380   369.6                       X1      053
GR  1870    3540  1869.5    3560    1870    3605    1870    3670  1869.5    3730GR  015
GR  1870    3750    1872    3825  1872.3    3875    1872    3975    1870    4080GR  015
GR  1868    4220    1866    4345  1864.8    4400    1866    4430  1866.4    4475GR  015
GR  1866    4520  1865.5    4545    1866    4560    1867    4610  1866.3    4670GR  015
GR1867.4    4775    1866    4830    1866    4892    1864    4920    1862    4930GR  015
GR  1860    4960    1858    4990  1857.6    5000    1858    5012    1860    5022GR  015
GR  1866    5045    1868    5075  1869.2    5095  1868.3    5145    1870    5375GR  015
GR  1872    5475                                                                GR      015
*                                                                               *       001
ET          9.1     7.1                            4350    5125    3950    5580ET  014
X1 20.86      31    4850    5125     260     370   316.8                       X1      053
GR  1880    3410    1876    3480    1874    3535  1872.3    3595    1872    3735GR  015
GR  1874    3910    1874    4025    1872    4160    1870    4280    1868    4325GR  015
GR1866.5    4365    1868    4410  1869.7    4450    1868    4555  1869.3    4675GR  015
GR1869.1    4715    1870    4770    1870    4850    1868    4910    1866    4930GR  015
GR  1864    4945    1862    4960  1860.5    4990    1862    5020    1864    5035GR  015
GR  1866    5055    1868    5080    1870    5125    1872    5185    1874    5420GR  015
GR  1876    5580                                                                GR      015
*                                                                               *       001
ET          9.1     7.1                            4200    5100    4050    5700ET  014
X1 20.93      31    4950    5100     360   355.5   369.6                       X1      053
GR  1876    3690  1875.2    3800    1875    3940    1876    4050    1874    4155GR  015
GR  1872    4225    1870    4240  1869.7    4250    1870    4260    1872    4300GR  015
GR  1874    4330  1874.4    4420    1874    4490  1872.5    4650  1872.9    4845GR  015
GR  1872    4950    1870    4970    1868    4980    1866    4988    1865    5000GR  015
GR  1866    5010    1868    5080    1870    5090    1872    5100    1874    5120GR  015
GR  1876    5200    1878    5270    1878    5365  1877.3    5480    1878    5535GR  015
GR  1880    5700                                                                GR      015
*                                                                               *       001
ET          9.1     7.1                            4310    5055    4025    5600ET  014
X1 21.00      38    4910    5055     420     370   369.6                       X1      053
GR  1887    3610    1886    3650  1885.2    3723    1884    3857  1883.2    3890GR  015
GR  1884    4025    1882    4125    1880    4220    1878    4225  1875.3    4260GR  015
GR  1876    4275    1878    4310    1879    4365  1878.4    4410  1879.8    4500GR  015
GR1879.8    4515    1878    4655    1877    4685  1877.6    4730  1876.5    4820GR  015
GR1876.6    4860    1876    4880    1875    4910    1874    4935    1870    4965GR  015
GR1868.7    5000    1870    5045    1878    5055    1880    5090    1880    5120GR  015
GR  1880    5365  1878.3    5400  1878.4    5430  1879.5    5490    1880    5540GR  015
GR1880.7    5600    1882    5715    1884    5850                                GR      015
*                                                                               *       001
ET          9.1     7.1                            4450    5100    4035    5485ET  014
X1 21.06      33    4825    5050     230     310   316.8                       X1      053
```

```
GR1887.3    3660    1886    3740  1884.3    3930    1885    4040    1884    4125GR          015
GR  1882    4200    1880    4275    1878    4280  1876.4    4290    1878    4310GR          015
GR  1880    4410  1880.7    4500    1880    4570  1878.8    4640  1879.8    4700GR          015
GR  1878    4825    1872    4855  1871.2    4870    1872    4880    1874    4890GR          015
GR  1876    4900  1876.5    4920    1876    4940    1874    4950    1872    4965GR          015
GR1870.7    5000    1872    5015    1878    5050    1880    5065    1882    5105GR          015
GR1883.5    5190  1883.9    5230    1884    5585                              GR          015
*                                                                              *          001
ET           9.1     7.1                            4400    5105    4070    5425ET          014
X1 21.10      28    4895    5025     205     220   211.2                      X1          053
GR  1888    3755    1886    4110    1884    4225    1882    4320    1880    4330GR          015
GR1879.2    4350    1880    4400  1881.5    4490    1881    4620    1880    4750GR          015
GR  1878    4755    1876    4760  1874.2    4770    1876    4800    1878    4810GR          015
GR  1878    4895    1876    4915    1874    4970    1872    4980  1871.5    5000GR          015
GR  1872    5015    1878    5025    1880    5030    1882    5040    1884    5105GR          015
GR  1886    5310  1886.8    5430    1887    5500                              GR          015
*                                                                              *          001
ET           9.1     7.1                            4500    5100    4110    5290ET          014
X1 21.16      28    4910    5010     422     422     422                      X1          053
GR  1890    4110    1888    4250    1886    4330    1885    4510    1884    4575GR          015
GR  1880    4590    1879    4600    1880    4620    1882    4630  1882.5    4670GR          015
GR  1882    4720    1880    4765  1877.5    4795    1880    4805    1881    4830GR          015
GR  1880    4845    1879    4855    1880    4865    1882    4910    1880    4930GR          015
GR  1878    4980  1874.2    5000    1880    5010    1882    5020    1884    5030GR          015
GR  1886    5060    1888    5165    1889    5290                              GR          015
*                                                                              *          001
ET           9.1     7.1                            4617    5317    4585    5515ET          014
X1 21.24      37    4900    5080     475     475     475                      X1          053
GR1892.5    4565    1892    4585    1890    4640    1888    4690    1884    4695GR          015
GR  1882    4710    1884    4715  1884.5    4730    1884    4755  1883.3    4770GR          015
GR  1886    4780    1887    4840  1887.7    4900    1886    4925  1885.3    4940GR          015
GR  1886    4950    1886    4990    1884    4995    1883    5000    1884    5010GR          015
GR  1885    5035    1884    5040    1882    5060    1884    5070    1888    5080GR          015
GR1889.4    5130    1888    5155    1884    5175  1882.5    5195    1884    5210GR          015
GR  1884    5220    1886    5240    1888    5270    1890    5295    1892    5345GR          015
GR1891.5    5390  1894.1    5515                                              GR          015
*                                                                              *          001
ET           9.1     7.1                            4415    5255    4220    5630ET          014
X1 21.33      39    4815    5255     525     250   475.2                      X1          053
GR  1906    4220    1904    4250    1900    4320  1886.8    4365  1886.8    4395GR          015
GR  1888    4400    1890    4415    1892    4430    1892    4465    1894    4510GR          015
GR  1894    4565    1892    4590    1888    4615    1892    4640    1894    4670GR          015
GR1894.7    4725    1894    4750  1893.3    4780    1894    4815    1892    4890GR          015
GR1890.1    4910    1892    4940    1890    4965    1888    5000    1890    5025GR          015
GR  1892    5050  1893.8    5090    1890    5155    1888    5170    1890    5185GR          015
GR  1892    5235    1894    5255  1894.3    5310    1894    5355  1892.2    5425GR          015
GR  1894    5482  1894.8    5525  1895.5    5630    1897    5800              GR          015
*                                                                              *          001
ET                   7.1                            4265    5320                ET          014
X1 21.38      55    4980    5300     280     370     264                      X1          053
GR  1910    4060    1908    4130    1906    4140    1900    4180    1900    4212GR          015
GR  1888    4220    1888    4230    1890    4250    1892    4260    1894    4290GR          015
GR  1896    4320  1894.9    4375  1897.6    4435    1898    4480    1898    4560GR          015
GR  1896    4585    1894    4605    1892    4625  1898.6    4633    1892    4645GR          015
GR  1894    4660    1896    4695    1896    4725    1894    4785  1892.6    4800GR          015
GR  1894    4805    1896    4830    1898    4930    1896    4980    1890    4990GR          015
GR1888.5    5000    1890    5007    1892    5025    1894    5085  1895.3    5140GR          015
GR  1894    5185    1892    5190    1892    5205    1894    5220  1894.8    5240GR          015
GR  1894    5255  1893.8    5270    1894    5275    1896    5300  1897.7    5400GR          015
GR  1898    5530  1898.3    5565    1898    5585    1898    5600    1900    5705GR          015
GR  1902    5840    1904    5950    1906    6015    1908    6085    1910    6175GR          015
*                                                                              *          001
ET                   7.1                            3970    5300                ET          014
X1 21.46      41    4780    5085     408     320   422.4                      X1          053
GR  1910    3860    1900    3900    1898    3970    1900    4020  1900.9    4060GR          015
GR  1900    4070  1899.3    4080    1900    4110    1900    4145  1900.8    4180GR          015
GR1900.8    4230    1900    4290    1898    4310    1896    4365    1894    4380GR          015
GR  1896    4390    1898    4415  1899.9    4480    1898    4505  1897.3    4510GR          015
GR  1898    4515    1900    4575  1901.6    4660  1901.8    4685  1900.8    4755GR          015
GR  1900    4780    1898    4815  1896.1    4907    1898    4940    1896    4982GR          015
GR1895.1    5000    1896    5015    1898    5025    1900    5085    1898    5157GR          015
GR1897.1    5160    1898    5175    1900    5265    1902    5280  1902.2    5300GR          015
GR  1904    5615                                                              GR          015
*                                                                              *          001
ET                   7.1                            3694    5165                ET          014
X1 21.54      50    4795    5045   442.2   422.4   422.4                      X1          053
GR  1915    3630    1910    3652    1909    3680    1905    3697    1900    3705GR          015
GR  1895    3720    1899    3745    1900    3815    1904    3837    1905    3850GR          015
GR  1905    3876    1905    3952    1906    4005    1906    4075    1906    4115GR          015
GR  1904    4180    1902    4205    1902    4240    1900    4255    1902    4270GR          015
GR  1904    4290    1904    4320    1902    4325    1902    4340    1906    4355GR          015
GR  1906    4395    1906    4445    1906    4535  1905.3    4565    1906    4620GR          015
GR1906.5    4740    1906    4785    1904    4795    1902    4830    1900    4850GR          015
GR  1900    4885    1900    4910    1902    4955    1900    4965    1898    4970GR          015
GR  1898    4975  1897.3    5000    1898    5005    1900    5015    1902    5030GR          015
GR  1904    5045    1904    5115  1903.1    5130    1904    5150    1906    5205GR          015
*                                                                              *          001
ET                   7.1                            3750    5200                ET          014
X1 21.59      49    4950    5070   240.7   297.2     264                      X1          053
GR  1920    3655    1906    3700    1906    3720    1904    3740    1903    3750GR          015
GR  1902    3760    1901    3790    1900    3805    1901    3830    1905    3850GR          015
GR  1907    3860    1908    3935    1908    3970  1908.7    4025  1908.2    4080GR          015
GR1908.9    4110    1908    4135    1906    4185    1905    4195    1906    4210GR          015
GR1905.2    4240    1906    4250  1906.5    4260    1906    4285    1904    4300GR          015
GR1902.3    4310    1904    4340    1906    4355    1908    4375  1909.4    4475GR          015
GR1909.3    4605  1909.6    4805    1908    4830    1906    4855  1904.3    4865GR          015
GR1905.8    4885    1906    4915    1906    4950    1904    4965    1902    4970GR          015
GR1900.5    4980  1900.5    5000    1902    5015  1904.5    5040    1906    5070GR          015
GR1906.7    5150    1908    5180    1910    5250    1911    5350              GR          015
*                                                                              *          001
ET                   7.1                            3900    5040                ET          014
X1 21.68      44    4878    5040   450.3   450.3   475.2                      X1          053
GR  1925    3740    1920    3780    1915    3805    1910    3826    1907    3835GR          015
GR  1906    3850    1906    3863    1906    3883    1905    3895    1902    3915GR          015
GR  1905    3935    1909    3945    1910    3990    1912    4030  1912.5    4070GR          015
GR  1912    4125    1910    4190  1911.1    4250    1910    4320    1908    4370GR          015
GR  1910    4380    1908    4410    1910    4425    1912    4460    1910    4490GR          015
GR  1912    4500    1914    4525  1914.6    4730    1914    4830    1912    4878GR          015
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GR  1946    3700    1944    3780    1942    3990    1938    4025    1937    4040GR          015
GR  1936    4070    1935    4080    1937    4095    1938    4115    1940    4133GR          015
GR  1945    4178    1945    4230    1943    4268    1940    4310    1938    4338GR          015
GR1937.5    4350    1938    4395    1939    4415    1940    4440    1940    4460GR          015
GR  1940    4485    1940    4503  1940.7    4515    1940    4565  1939.6    4578GR          015
GR  1940    4583    1941    4645    1942    4670  1942.6    4690    1942    4705GR          015
GR  1941    4720  1940.4    4730    1942    4745    1942    4765    1943    4805GR          015
GR  1944    4900    1944    4932    1942    4952    1940    4967    1936    4980GR          015
GR  1936    5013    1940    5045    1942    5055    1942    5072    1942    5085GR          015
GR  1944    5095    1944    5113    1942    5140    1942    5155  1942.5    5172GR          015
GR  1942    5185    1940    5212    1938    5225    1938    5237    1940    5245GR          015
GR  1942    5255    1944    5330  1944.8    5420    1946    5650                GR          015
*                                                                               *           001
ET                    7.1                           4470    5105                ET          014
X1 22.33      32    4970    5095   335.4     390   422.4                        X1          053
GR  1952    4125    1950    4340    1945    4420    1940    4455    1940    4525GR          015
GR1938.5    4530    1940    4550    1942    4565    1944    4610    1945    4660GR          015
GR1946.0    4750    1946    4770  1946.0    4790  1946.5    4905  1946.0    4970GR          015
GR  1940    4980  1938.6    4990  1938.6    5010    1940    5020    1942    5055GR          015
GR  1944    5060    1946    5095    1946    5180    1944    5190    1944    5200GR          015
GR  1946    5240    1948    5255  1947.5    5300    1948    5400  1948.4    5475GR          015
GR  1950    5600    1952    5740                                                GR          015
*                                                                               *           001
ET                    7.1                           4475    5050                ET          014
X1 22.43      32    4950    5050     620     450     528                        X1          053
GR  1960    4165    1957    4230    1956    4290    1954    4400    1952    4430GR          015
GR  1950    4440    1948    4450    1945    4460    1948    4480    1949    4540GR          015
GR  1950    4560  1950.7    4610    1950    4665    1949    4680    1949    4690GR          015
GR  1950    4700  1951.0    4730    1951    4785  1950.3    4800    1952    4850GR          015
GR  1952    4930    1950    4950    1946    4980  1944.5    5000  1944.5    5020GR          015
GR  1946    5040    1950    5050    1950    5070    1952    5087    1954    5120GR          015
GR1954.6    5195    1956    5275                                                GR          015
*                                                                               *           001
ET                    7.1                           4499    5025                ET          014
X1 22.49      41    4880    5025     330     310   316.8                        X1          053
GR  1960    4200  1955.5    4300    1955    4310    1954    4357    1953    4390GR          015
GR  1953    4410    1954    4435  1954.2    4450  1954.0    4460    1953    4480GR          015
GR  1952    4510  1952.5    4520    1952    4530    1954    4540    1953    4570GR          015
GR  1952    4580    1953  4580.5    1953    4590    1954    4600    1954    4620GR          015
GR  1954    4670    1956    4690    1957    4720    1956    4750  1954.8    4780GR          015
GR  1956    4810  1956.2    4840    1956    4870    1954    4880    1952    4900GR          015
GR  1950    4965    1948    4980    1947    4985    1947    5010    1948    5010GR          015
GR  1950    5020    1954    5025    1956    5030  1957.5    5085    1958    5125GR          015
GR  1960    5450                                                                GR          015
*                                                                               *           001
ET                    7.1                           4490    5150                ET          014
X1 22.55      33    4930    5060     295     310   316.8                        X1          053
GR  1962    4140    1961    4195    1960    4240    1959    4270    1958    4310GR          015
GR  1957    4380    1956    4390  1955.5    4410    1956    4420    1957    4440GR          015
GR  1958    4510    1957    4550  1956.7    4590    1956    4660    1956    4690GR          015
GR  1958    4700  1958.2    4720  1959.8    4785    1958    4830    1959    4880GR          015
GR  1958    4900    1956    4930    1954    4940    1952    4965    1950    4985GR          015
GR  1950    5000    1952    5010    1954    5040    1956    5060    1958    5100GR          015
GR  1960    5125    1961    5165    1962    5295                                GR          015
*                                                                               *           001
QT     2   23800   23800                                                        QT          034
ET                    7.1                           4450    5192                ET          014
X1 22.62      39    4912    5192     370     370     370                        X1          053
GR  1970    3772    1969    3806    1968    3932    1966    4108    1964    4274GR          015
GR  1962    4360    1960    4434  1959.5    4442    1960    4452    1961    4480GR          015
GR  1962    4530  1962.5    4585    1962    4636    1960    4646    1961    4651GR          015
GR  1960    4660  1960.5    4672    1960    4686    1958    4690    1958    4702GR          015
GR  1960    4718    1962    4834  1962.5    4888    1962    4912    1960    4968GR          015
GR  1958    4976  1953.5    5000    1954    5024    1956    5030    1958    5034GR          015
GR  1960    5078  1960.5    5108    1960    5124    1962    5192    1964    5202GR          015
GR  1966    5232    1968    5262    1970    5300    1972    5440                GR          015
*                                                                               *           001
NC 0.050   0.050   0.048   0.300   0.500                                        NC          029
ET                    9.1                                                 9450  10050ET     014
X1 22.81      25    9450   10050    1000    1000    1003                        X1          053
GR  1996    8260    1980    8430    1978    8470    1978    8680    1976    8820GR          015
GR  1972    9090  1969.5    9320  1969.5    9380    1970    9450    1969    9500GR          015
GR  1969    9600    1969    9900    1968    9950    1964    9980    1962    9985GR          015
GR  1962   10000    1962   10030    1964   10040    1972   10050    1976   10130GR          015
GR  1980   10200    1984   10210    1988   10250    1992   10300    1996   10380GR          015
*                                                                               *           001
ET                    9.1                                                 9800  10430ET     014
X1 23.09      22    9900   10170    1380    1450    1478                        X1          053
GR  2000    8680    1996    8780    1992    9190    1992    9320    1988    9660GR          015
GR  1984    9690    1980    9710  1980.5    9770  1980.5    9870    1982    9900GR          015
GR  1980    9940    1976    9980    1975   10000    1976   10020    1980   10040GR          015
GR  1980   10110    1981   10170    1981   10270    1980   10330    1978   10410GR          015
GR  1980   10430    2004   10475                                                GR          015
*                                                                               *           001
EJ                                                                              EJ          012
T1      SKUNK CREEK WATER SURFACE PROFILE ANALYSIS FOR FLOODPLAIN REDELINEATION T1          039
T2      WITHIN PROPERTY BOUNDARIES OF DEL WEBB'S THE VILLAGES AT DESERT HILLS   T2          040
T3      FLOODWAY DELINEATION                                                    T3          041
T4      FILE NAME:          SKUNKCK.HC2                                         T4          042
T5      CREATED BY:         SHERRICK CAMPBELL, EIT/DARLENE WRIGHT, EIT          T5          043
T6      DATE:               DECEMBER 18, 1996                                   T6          044
T7                                                                              T7          045
J1      0       3       0       0       0       0       0       0 1850.51       J1          018
J2      2              -1                                                       J2          019
ER                                                                              ER          013
```

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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    19DEC96    TIME   16:22:08  *                                                  *          (916) 756-1104
*
 *****************************************
*************************************
```

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


THIS RUN EXECUTED 19DEC96 16:22:08

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

 Version   4.6.2;  May 1991
*************************************
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```
T1      SKUNK CREEK WATER SURFACE PROFILE ANALYSIS FOR FLOODPLAIN REDELINEATION
T2      WITHIN PROPERTY BOUNDARIES OF DEL WEBB'S THE VILLAGES AT DESERT HILLS
T3      FLOODPLAIN DELINEATION
T4      FILE NAME:          SKUNKCK.HC2
T5      CREATED BY:         SHERRICK CAMPBELL, EIT/DARLENE WRIGHT, EIT
T6      DATE:               DECEMBER 18, 1996
T7
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	2	0	0	0	0	0	0	1849.75	

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

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

	110	115	150	200
QT	2	28100	28100	

```
NC    0.045      0.045      0.043        0.3         0.5
ET                            9.1                                                                                  9500       10350
X1    20.39         23       9500      10340
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

NC     0.06       0.06      0.038        0.3         0.5
ET                            7.1                                          4500       5310
X1    20.46         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
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ET                 9.1        7.1                                          4500       5160       4240       5500
X1    20.54         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

ET                 9.1        7.1                                          4550       5220       4090       5475
X1    20.65         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
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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	20.73	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	20.80	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	20.86	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	20.93	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	21.00	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	21.06	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	21.10	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	21.16	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	21.24	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	21.33	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	21.38	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	21.46	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	21.54	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	21.59	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	21.68	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	21.76	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	21.85	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	21.92	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	21.99	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	22.06	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	22.13	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	22.20	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	22.25	59	4932	5095	210.7	220	264			
GR	1946	3700	1944	3780	1942	3990	1938	4025	1937	4040

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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    22.33         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    22.43         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    22.49         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
1
   19DEC96      16:22:08                                                                                  PAGE     9

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    22.55         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      23800      23800
ET                           7.1                                           4450       5192
X1    22.62         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    22.81         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

ET                           9.1                                                                   9800      10430
X1    23.09         22       9900      10170       1380       1450       1478
GR     2000       8680       1996       8780       1992       9190       1992       9320       1988       9660
GR     1984       9690       1980       9710     1980.5       9770     1980.5       9870       1982       9900
GR     1980       9940       1976       9980       1975      10000       1976      10020       1980      10040
GR     1980      10110       1981      10170       1981      10270       1980      10330       1978      10410
GR     1980      10430       2004      10475
1
   19DEC96      16:22:08                                                                                  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

 *PROF 1
0

 CCHV=      .300 CEHV=      .500
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*SECNO 20.390
   20.390      7.75   1849.75       .00   1849.75   1850.41       .66       .00       .00   1845.00
  28100.0    4921.7   20072.9    3105.4     862.7    3025.0     443.9        .0        .0   1844.00
     .00      5.70      6.64      7.00      .045      .043      .045      .000   1842.00   9208.33
 .006689        0.        0.        0.         0         0         0       .00   1290.42  10498.75

CCHV=     .300 CEHV=     .500
*SECNO 20.460

3301 HV CHANGED MORE THAN HVINS

   20.460      9.93   1852.93   1852.91       .00   1854.25      1.33      3.51       .33   1852.00
  28100.0   10185.4   13932.0    3982.6    1837.8    1168.6     766.7      37.0      12.5   1852.00
     .01      5.54     11.92      5.19      .060      .038      .060      .000   1843.00   4114.65
 .012630      475.      370.      320.         3        11         0       .00   1402.19   5516.84

*SECNO 20.540

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.54

3470 ENCROACHMENT STATIONS=     4240.0    5500.0  TYPE=      1  TARGET=     1260.000
   20.540      9.74   1857.24       .00       .00   1858.00       .76      3.57       .17   1855.00
  28100.0   11031.5   13203.3    3865.2    2484.2    1450.9    1017.8      84.3      27.2   1855.30
     .03      4.44      9.10      3.80      .060      .038      .060      .000   1847.50   4240.00
 .005295      460.      422.      575.         1         0         0       .00   1260.00   5500.00

*SECNO 20.650

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
1
   19DEC96      16:22:08                                                                                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

3470 ENCROACHMENT STATIONS=     4090.0    5475.0  TYPE=      1  TARGET=     1385.000
   20.650      9.89   1862.49   1862.49       .00   1863.94      1.46      3.90       .35   1860.70
  28100.0    6561.3   17631.0    3907.7    1328.2    1511.6     894.8     139.5      43.4   1860.90
     .05      4.94     11.66      4.37      .060      .038      .060      .000   1852.60   4155.35
 .009449      570.      581.      480.         2         5         0       .00   1319.65   5475.00

*SECNO 20.730

3470 ENCROACHMENT STATIONS=     3955.0    5605.0  TYPE=      1  TARGET=     1650.000
   20.730     13.05   1866.25       .00       .00   1867.58      1.33      3.60       .04   1864.20
  28100.0    6941.4   20302.7     855.9    1470.3    1932.6     320.8     175.0      55.7   1864.70
     .06      4.72     10.51      2.67      .060      .038      .060      .000   1853.20   4121.28
 .007873      400.      422.      431.         2         0         0       .00   1273.71   5394.99

*SECNO 20.800
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     3875.0    5475.0  TYPE=      1  TARGET=     1600.000
   20.800     12.35   1869.95   1869.95       .00   1871.47      1.52      2.38       .09   1866.00
  28100.0   10650.8   16621.0     828.2    2517.2    1342.4     361.1     207.5      66.2   1866.00
     .07      4.23     12.38      2.29      .060      .038      .060      .000   1857.60   4083.20
 .005606      340.      370.      380.         3        10         0       .00   1285.63   5368.82

*SECNO 20.860

3470 ENCROACHMENT STATIONS=     3950.0    5580.0  TYPE=      1  TARGET=     1630.000
   20.860     11.41   1871.91       .00       .00   1873.43      1.52      1.96       .00   1870.00
  28100.0    8670.1   19313.0     116.9    1865.3    1676.4      55.0     233.3      73.8   1870.00
     .08      4.65     11.52      2.13      .060      .038      .060      .000   1860.50   4165.15
 .007824      260.      317.      370.         2         0         0       .00   1017.28   5182.43

*SECNO 20.930
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     4050.0    5700.0  TYPE=      1  TARGET=     1650.000
   20.930     11.21   1876.21   1876.21       .00   1877.70      1.49      2.52       .01   1872.00
  28100.0   11906.7   15712.2     481.1    2733.4    1254.0     161.4     265.6      82.8   1872.00
     .09      4.36     12.53      2.98      .060      .038      .060      .000   1865.00   4050.00
 .006107      360.      370.      356.         4         6         0       .00   1157.24   5207.24

1
   19DEC96      16:22:08                                                                                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

*SECNO 21.000
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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

21.000	12.24	1880.94	1880.94	.00	1882.60	1.66	2.16	.08	1875.00
28100.0	8590.6	17971.5	1537.9	2149.1	1425.6	680.4	304.1	94.7	1878.00
.11	4.00	12.61	2.26	.060	.038	.060	.000	1868.70	4175.41
.005076	420.	370.	370.	20	8	0	.00	1424.59	5600.00

*SECNO 21.060

3470 ENCROACHMENT STATIONS= 4035.0 5485.0 TYPE= 1 TARGET= 1450.000

21.060	12.00	1882.70	.00	.00	1884.00	1.31	1.30	.10	1878.00
28100.0	6841.5	20894.3	364.2	1972.3	1998.7	136.8	330.3	102.0	1878.00
.11	3.47	10.45	2.66	.060	.038	.060	.000	1870.70	4173.97
.003930	230.	317.	310.	3	0	0	.00	970.36	5144.33

*SECNO 21.100

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 4070.0 5425.0 TYPE= 1 TARGET= 1355.000

21.100	11.95	1883.45	.00	.00	1885.34	1.90	1.05	.29	1878.00
28100.0	11423.1	16417.7	259.2	2173.7	1192.4	81.0	348.4	106.3	1878.00
.12	5.26	13.77	3.20	.060	.038	.060	.000	1871.50	4251.05
.006588	205.	211.	220.	2	0	0	.00	836.12	5087.17

*SECNO 21.160

3470 ENCROACHMENT STATIONS= 4110.0 5290.0 TYPE= 1 TARGET= 1180.000

21.160	12.66	1886.86	.00	.00	1888.43	1.57	2.98	.10	1882.00
28100.0	15991.5	11293.1	815.4	2434.9	823.2	172.6	381.7	114.3	1880.00
.13	6.57	13.72	4.72	.060	.038	.060	.000	1874.20	4295.52
.007607	422.	422.	422.	4	0	0	.00	809.74	5105.26

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 21.240

3470 ENCROACHMENT STATIONS= 4585.0 5515.0 TYPE= 1 TARGET= 930.000

21.240	8.95	1890.95	.00	.00	1892.46	1.50	4.01	.02	1887.70
28100.0	8776.7	12963.5	6359.8	1217.8	1056.4	904.8	417.7	122.6	1888.00
.15	7.21	12.27	7.03	.060	.038	.060	.000	1882.00	4613.82
.009427	475.	475.	475.	3	0	0	.00	704.99	5318.80

*SECNO 21.330

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 4220.0 5630.0 TYPE= 1 TARGET= 1410.000

21.330	8.79	1895.59	.00	.00	1896.55	.96	3.93	.16	1894.00
28100.0	9293.6	16954.1	1852.4	1579.4	1871.1	556.3	454.8	132.3	1894.00
.16	5.88	9.06	3.33	.060	.038	.060	.000	1886.80	4335.05
.007816	525.	475.	250.	3	0	0	.00	1294.95	5630.00

*SECNO 21.380

3265 DIVIDED FLOW

21.380	9.94	1897.94	1897.59	.00	1899.33	1.39	2.57	.21	1896.00
28100.0	11933.2	15851.2	315.7	1817.5	1414.5	122.1	478.5	140.8	1896.00
.17	6.57	11.21	2.58	.060	.038	.060	.000	1888.00	4213.37
.011448	280.	264.	370.	4	8	0	.00	1198.62	5505.35

*SECNO 21.460

3301 HV CHANGED MORE THAN HVINS

21.460	8.30	1902.30	.00	.00	1903.14	.84	3.65	.16	1900.00
28100.0	11307.9	13769.6	3022.5	2418.1	1467.6	644.1	515.1	152.7	1900.00
.19	4.68	9.38	4.69	.060	.038	.060	.000	1894.00	3890.81
.007100	408.	422.	320.	2	0	0	.00	1426.41	5317.22

*SECNO 21.540

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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   21.540      10.69   1905.69   1905.46       .00   1907.34      1.65      3.80       .40   1904.00
  28100.0   11598.4   15646.4     855.2    1575.4    1276.8     231.7     553.0     164.7   1904.00
     .20       7.36     12.25      3.69      .060      .038      .060      .000   1895.00   3694.09
 .011243       442.      422.      422.         4        12         0       .00    979.32   5196.34

*SECNO 21.590

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   21.590       8.98   1908.98   1908.98       .00   1910.46      1.48      2.88       .05   1906.00
  28100.0   17171.3    9653.5    1275.2    2436.9     707.8     276.4     571.8     170.9   1906.00
     .21       7.05     13.64      4.61      .060      .038      .060      .000   1900.00   3690.42
 .011521       241.      264.      297.         2        10         0       .00   1154.43   5214.37

*SECNO 21.680

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

   21.680      12.09   1914.09       .00       .00   1914.88       .79      4.21       .21   1912.00
  28100.0   19726.3    6906.5    1467.2    3079.5     741.0     414.1     611.8     183.1   1912.00
     .23       6.41      9.32      3.54      .060      .038      .060      .000   1902.00   3808.81
 .007527       450.      475.      450.         2         0         0       .00   1188.64   5255.54

*SECNO 21.760

3265 DIVIDED FLOW

   21.760       7.94   1917.84       .00       .00   1919.06      1.22      3.96       .22   1918.00
  28100.0   18488.8    8373.6    1237.6    2813.1     649.0     284.9     649.3     195.5   1916.00
     .24       6.57     12.90      4.34      .060      .038      .060      .000   1909.90   3667.16
 .012908       400.      422.      470.         2         0         0       .00   1426.32   5317.15
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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 21.850

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

   21.850       9.68   1922.68       .00       .00   1923.30       .63      4.06       .18   1922.00
  28100.0   20386.0    5958.0    1756.0    3786.3     634.3     510.0     693.2     210.5   1922.00
     .26       5.38      9.39      3.44      .060      .038      .060      .000   1913.00   3713.32
 .006695       451.      475.      300.         3         0         0       .00   1625.57   5343.79

*SECNO 21.920

3265 DIVIDED FLOW

   21.920      10.46   1925.46       .00       .00   1926.40       .94      2.94       .15   1924.00
  28100.0   23974.7    4096.7      28.6    3374.5     375.9      13.2     727.0     221.8   1924.00
     .27       7.10     10.90      2.16      .060      .038      .060      .000   1915.00   3351.79
 .011690       331.      370.      379.         2         0         0       .00   1257.06   5068.19

*SECNO 21.990

3265 DIVIDED FLOW

   21.990      11.06   1929.06       .00       .00   1930.41      1.35      3.80       .21   1930.00
  28100.0   22597.6    5468.1      34.3    2619.9     460.8      19.5     752.2     229.6   1930.00
     .28       8.63     11.87      1.76      .060      .038      .060      .000   1918.00   3739.31
 .011891       312.      370.      473.         2         0         0       .00    863.89   5223.47

*SECNO 22.060

3265 DIVIDED FLOW

   22.060      10.09   1933.09       .00       .00   1934.06       .96      3.53       .12   1932.00
  28100.0   23147.4    4101.9     850.8    3140.6     378.3     378.7     780.8     238.2   1932.00
     .29       7.37     10.84      2.25      .060      .038      .060      .000   1923.00   3925.93
 .008244       359.      370.      280.         2         0         0       .00   1307.19   5477.77
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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 22.130

3265 DIVIDED FLOW
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    22.130      12.02   1937.02       .00       .00   1938.26      1.24      4.07       .14   1938.00
   28100.0   20612.7    5512.5    1974.9    2405.1     492.4     473.6     815.8     249.6   1938.00
       .31      8.57     11.19      4.17      .060      .038      .060      .000   1925.00   4067.85
   .011470      436.      370.      370.         1         0         0       .00   1127.55   5690.49

*SECNO 22.200

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     4098.0    5825.0  TYPE=      1  TARGET=     1727.000
    22.200       8.46   1941.86       .00       .00   1942.58       .71      4.16       .16   1941.50
   28100.0   19010.8    5506.6    3582.6    2951.6     691.1     549.6     850.0     260.0   1941.50
       .32      6.44      7.97      6.52      .060      .038      .060      .000   1933.40   4098.00
   .009693      410.      370.      340.         3         0         0       .00   1207.10   5305.10

*SECNO 22.250

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     4230.0    5330.0  TYPE=      1  TARGET=     1100.000
    22.250       9.17   1944.17       .00       .00   1945.53      1.35      2.63       .32   1944.00
   28100.0   15710.6    9139.7    3249.7    2103.4     726.9     512.7     869.2     265.8   1944.00
       .33      7.47     12.57      6.34      .060      .038      .060      .000   1935.00   4245.75
   .014252      211.      264.      220.         2         0         0       .00   1084.25   5330.00

*SECNO 22.330
    22.330       9.76   1948.26       .00       .00   1949.58      1.32      4.04       .01   1946.00
   28100.0   15819.9   10281.6    1998.6    2323.5     819.3     496.5     898.3     274.8   1946.00
       .34      6.81     12.55      4.03      .060      .038      .060      .000   1938.50   4367.86
   .008604      335.      422.      390.         2         0         0       .00   1080.66   5448.52

*SECNO 22.430
1
   19DEC96      16:22:08                                                                                PAGE   17

    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

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    22.430       9.97   1954.47   1954.47       .00   1956.41      1.95      5.09       .32   1950.00
   28100.0   14490.4   12557.0    1052.6    2245.2     826.5     210.1     944.4     287.1   1950.00
       .36      6.45     15.19      5.01      .060      .038      .060      .000   1944.50   4374.42
   .009170      620.      528.      450.         2         5         0       .00    803.72   5178.14

*SECNO 22.490
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    22.490      10.97   1957.97   1957.97       .00   1959.90      1.93      2.85       .01   1954.00
   28100.0   11983.3   15866.4     250.2    2138.8    1133.7      91.2     969.2     293.3   1954.00
       .37      5.60     13.99      2.74      .060      .038      .060      .000   1947.00   4245.02
   .008477      330.      317.      310.         2         8         0       .00    877.91   5122.93

*SECNO 22.550
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    22.550      11.02   1961.02   1961.02       .00   1962.81      1.78      2.44       .04   1956.00
   28100.0   11944.2   15085.4    1070.4    2364.2    1087.7     232.2     993.7     299.7   1956.00
       .38      5.05     13.87      4.61      .060      .038      .060      .000   1950.00   4193.87
   .007461      295.      317.      310.         2         5         0       .00    973.82   5167.68

*SECNO 22.620

3301 HV CHANGED MORE THAN HVINS

    22.620      11.13   1964.63       .00       .00   1965.63      1.00      2.59       .23   1962.00
   23800.0    9265.5   14487.8      46.7    2037.9    1504.3      19.1    1024.5     308.1   1962.00
       .39      4.55      9.63      2.45      .060      .038      .060      .000   1953.50   4222.49
   .006495      370.      370.      370.         3         0         0       .00    988.82   5211.31

CCHV=      .300 CEHV=      .500
*SECNO 22.810
    22.810      10.47   1972.47       .00       .00   1973.31       .85      7.64       .05   1970.00
   23800.0    3697.5   20100.1       2.3     770.1    2584.6       2.2    1104.0     330.9   1972.00
       .43      4.80      7.78      1.07      .050      .048      .050      .000   1962.00   9058.55
   .009076     1000.     1003.     1000.         4         0         0       .00   1000.77  10059.32

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   19DEC96      16:22:08                                                                                PAGE   18

    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 23.090
    23.090       9.37   1984.37       .00       .00   1985.20       .83     11.88       .01   1982.00
   23800.0    4801.9   11301.7    7696.4     778.2    1413.0    1127.2    1215.2     359.9   1981.00
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      .48      6.17      8.00      6.83      .050      .048      .050      .000   1975.00   9687.14
  .007371     1380.     1478.     1450.         4         0         0       .00    751.08  10438.21
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T1      SKUNK CREEK WATER SURFACE PROFILE ANALYSIS FOR FLOODPLAIN REDELINEATION
T2      WITHIN PROPERTY BOUNDARIES OF DEL WEBB'S THE VILLAGES AT DESERT HILLS
T3      FLOODWAY DELINEATION
T4      FILE NAME:          SKUNKCK.HC2
T5      CREATED BY:         SHERRICK CAMPBELL, EIT/DARLENE WRIGHT, EIT
T6      DATE:               DECEMBER 18, 1996
T7

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

       0        3        0        0        0        0        0        0   1850.51

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 20.390

3470 ENCROACHMENT STATIONS=     9500.0   10350.0  TYPE=      1  TARGET=      850.000
   20.390      8.51   1850.51       .00   1849.75   1851.39       .88       .00       .00   1845.00
  28100.0        .0   27639.9     460.1        .0    3663.4      67.6        .0        .0   1844.00
      .00       .00      7.54      6.81      .000      .043      .045      .000   1842.00   9500.00
  .006757        0.        0.        0.         0         0         0       .00    850.00  10350.00

CCHV=     .300 CEHV=     .500
*SECNO 20.460

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     4500.0    5310.0  TYPE=      1  TARGET=      810.000
   20.460     10.63   1853.63   1853.63   1852.93   1855.50      1.87      3.44       .50   1852.00
  28100.0    9151.5   17589.0    1359.5    1417.9    1352.1     296.6      30.3       7.5   1852.00
      .01      6.45     13.01      4.58      .060      .038      .060      .000   1843.00   4500.00
  .012380      475.      370.      320.         2        11         0       .00    810.00   5310.00

*SECNO 20.540

3470 ENCROACHMENT STATIONS=     4500.0    5160.0  TYPE=      1  TARGET=      660.000
   20.540     10.61   1858.11       .00   1857.24   1859.52      1.41      3.88       .14   1855.00
  28100.0    9575.7   18524.3        .0    1782.7    1669.7        .0      63.9      15.2 100000.00
      .02      5.37     11.09       .00      .060      .038      .000      .000   1847.50   4500.00
  .006623      460.      422.      575.         3         0         0       .00    660.00   5160.00

*SECNO 20.650
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     4550.0    5220.0  TYPE=      1  TARGET=      670.000
   20.650     10.35   1862.95   1862.95   1862.49   1864.86      1.91      4.57       .25   1860.70
  28100.0    6362.0   20508.7    1229.3    1036.4    1642.0     295.2     106.0      23.8   1860.90
      .04      6.14     12.49      4.16      .060      .038      .060      .000   1852.60   4550.00
  .009705      570.      581.      480.         2         6         0       .00    670.00   5220.00
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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 20.730

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     4390.0    5060.0  TYPE=      1  TARGET=      670.000
   20.730     13.73   1866.93       .00   1866.25   1868.20      1.27      3.15       .19   1864.20
  28100.0    6439.7   21660.3        .0    1269.9    2182.4        .0     136.6      30.2 100000.00
      .05      5.07      9.92       .00      .060      .038      .000      .000   1853.20   4390.00
  .006024      400.      422.      431.         2         0         0       .00    670.00   5060.00

*SECNO 20.800

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

3470 ENCROACHMENT STATIONS= 4380.0 5075.0 TYPE= 1 TARGET= 695.000

20.800	12.42	1870.02	1870.02	1869.95	1872.05	2.03	2.30	.38	1866.00	
28100.0	9253.9	18477.4	368.6	1896.7	1352.6	90.6	164.3	35.7	1866.00	
.06	4.88	13.66	4.07	.060	.038	.060	.000	1857.60	4380.00	
.006755	340.	370.	380.	3	10	0	.00	695.00	5075.00	

*SECNO 20.860

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 4350.0 5125.0 TYPE= 1 TARGET= 775.000

20.860	12.36	1872.86	.00	1871.91	1874.02	1.16	1.71	.26	1870.00	
28100.0	8755.5	19344.5	.0	1988.1	1936.8	.0	188.3	40.4	100000.00	
.07	4.40	9.99	.00	.060	.038	.000	.000	1860.50	4350.00	
.004918	260.	317.	370.	3	0	0	.00	775.00	5125.00	

*SECNO 20.930

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

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

3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 4200.0 5100.0 TYPE= 1 TARGET= 900.000

20.930	11.17	1876.17	1876.17	1876.21	1877.88	1.72	2.14	.28	1872.00	
28100.0	11680.7	16419.3	.0	2447.5	1247.8	.0	220.1	47.4	100000.00	
.08	4.77	13.16	.00	.060	.038	.000	.000	1865.00	4200.00	
.007030	360.	370.	356.	20	10	0	.00	900.00	5100.00	

*SECNO 21.000
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

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

21.000	12.39	1881.09	1881.09	1880.94	1883.29	2.20	2.54	.24	1875.00	
28100.0	8093.6	20006.4	.0	1844.9	1448.2	.0	252.3	55.1	100000.00	
.09	4.39	13.81	.00	.060	.038	.000	.000	1868.70	4310.00	
.006135	420.	370.	370.	20	8	0	.00	745.00	5055.00	

*SECNO 21.060

3301 HV CHANGED MORE THAN HVINS

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

21.060	12.85	1883.55	.00	1882.70	1884.85	1.30	1.29	.27	1878.00	
28100.0	5416.9	22173.1	509.9	1503.4	2191.5	161.9	274.9	59.2	1878.00	
.10	3.60	10.12	3.15	.060	.038	.060	.000	1870.70	4450.00	
.003255	230.	317.	310.	3	0	0	.00	650.00	5100.00	

*SECNO 21.100

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

21.100	12.73	1884.23	.00	1883.45	1885.83	1.60	.83	.15	1878.00	
28100.0	11379.6	16306.7	413.7	2218.8	1294.7	139.0	292.9	62.5	1878.00	
.11	5.13	12.60	2.98	.060	.038	.060	.000	1871.50	4400.00	
.004941	205.	211.	220.	2	0	0	.00	705.00	5105.00	

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 21.160

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

21.160	12.60	1886.80	.00	1886.86	1888.55	1.75	2.64	.08	1882.00	
28100.0	15693.0	11586.7	820.3	2168.3	817.1	166.9	325.8	68.8	1880.00	
.12	7.24	14.18	4.92	.060	.038	.060	.000	1874.20	4500.00	
.008207	422.	422.	422.	3	0	0	.00	600.00	5100.00	

*SECNO 21.240

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

21.240	9.19	1891.19	.00	1890.95	1892.55	1.36	3.88	.12	1887.70	
28100.0	8810.4	12875.6	6414.0	1285.3	1099.5	961.4	361.3	75.9	1888.00	
.13	6.85	11.71	6.67	.060	.038	.060	.000	1882.00	4617.00	
.008140	475.	475.	475.	3	0	0	.00	700.00	5317.00	

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*SECNO 21.330
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      4415.0    5255.0  TYPE=      1  TARGET=      840.000
    21.330       8.83   1895.63   1895.63   1895.59   1897.35      1.71      4.61       .18   1894.00
   28100.0    6339.6   21760.4        .0    1063.5    1892.1        .0     394.5      84.0 100000.00
       .15       5.96     11.50       .00      .060      .038      .000      .000   1886.80   4415.00
   .012467       525.      475.      250.         3        10         0       .00    840.00   5255.00


*SECNO 21.380

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      4265.0    5320.0  TYPE=      1  TARGET=     1055.000
    21.380      10.89   1898.89       .00   1897.94   1900.07      1.18      2.56       .16   1896.00
   28100.0   10147.5   17742.4     210.2    2081.5    1718.5      54.5     415.8      90.0   1896.00
       .15       4.87     10.32      3.86      .060      .038      .060      .000   1888.00   4265.00
   .007496       280.      264.      370.         2         0         0       .00   1055.00   5320.00


*SECNO 21.460
1
   19DEC96       16:22:08                                                                                    PAGE   24

    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=      3970.0    5300.0  TYPE=      1  TARGET=     1330.000
    21.460       8.32   1902.32       .00   1902.30   1903.24       .93      3.10       .08   1900.00
   28100.0   10620.3   14326.5    3153.3    2191.5    1473.2     647.2     453.8     101.1   1900.00
       .17       4.85      9.72      4.87      .060      .038      .060      .000   1894.00   3970.00
   .007589       408.      422.      320.         2         0         0       .00   1330.00   5300.00


*SECNO 21.540

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      3694.0    5165.0  TYPE=      1  TARGET=     1471.000
    21.540      10.80   1905.80   1905.44   1905.69   1907.36      1.56      3.80       .32   1904.00
   28100.0   11624.8   15593.1     882.0    1641.5    1304.7     227.3     491.0     112.5   1904.00
       .18       7.08     11.95      3.88      .060      .038      .060      .000   1895.00   3694.00
   .010388       442.      422.      422.         4        12         0       .00    972.21   5165.00


*SECNO 21.590

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      3750.0    5200.0  TYPE=      1  TARGET=     1450.000
    21.590       9.04   1909.04   1909.04   1908.98   1910.67      1.63      2.86       .04   1906.00
   28100.0   16577.8   10145.9    1376.3    2277.9     715.0     281.2     509.7     118.5   1906.00
       .19       7.28     14.19      4.90      .060      .038      .060      .000   1900.00   3750.00
   .012309       241.      264.      297.         3         9         0       .00   1085.64   5200.00


*SECNO 21.680

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      3900.0    5040.0  TYPE=      1  TARGET=     1140.000
1
   19DEC96       16:22:08                                                                                    PAGE   25

    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


    21.680      12.64   1914.64       .00   1914.09   1915.68      1.04      4.83       .18   1912.00
   28100.0   19055.1    9044.9        .0    2922.9     828.0        .0     546.4     130.1 100000.00
       .21       6.52     10.92       .00      .060      .038      .000      .000   1902.00   3900.00
   .009106       450.      475.      450.         1         0         0       .00   1140.00   5040.00


*SECNO 21.760

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      3765.0    5090.0  TYPE=      1  TARGET=     1325.000
    21.760       8.63   1918.53       .00   1917.84   1919.70      1.17      3.95       .06   1918.00
   28100.0   18924.7    9175.3        .0    3110.9     738.7        .0     581.7     141.1 100000.00
       .22       6.08     12.42       .00      .060      .038      .000      .000   1909.90   3765.00
   .010372       400.      422.      470.         3         0         0       .00   1249.39   5090.00


*SECNO 21.850

3470 ENCROACHMENT STATIONS=      4050.0    5175.0  TYPE=      1  TARGET=     1125.000
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    21.850      10.03   1923.03       .00   1922.68   1923.97       .94      4.21       .07   1922.00
   28100.0   19149.1    7447.8    1503.2    3001.4     679.1     322.2     622.2     153.3   1922.00
      .24      6.38     10.97      4.67      .060      .038      .060      .000   1913.00   4050.00
  .008335      451.      475.      300.         2         0         0       .00   1125.00   5175.00

 *SECNO 21.920

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=     3700.0    5070.0  TYPE=      1  TARGET=     1370.000
    21.920      11.19   1926.19       .00   1925.46   1927.27      1.07      3.23       .06   1924.00
   28100.0   22833.3    5179.0      87.7    3109.6     442.3      27.8     651.7     161.9   1924.00
      .25      7.34     11.71      3.15      .060      .038      .060      .000   1915.00   3700.00
  .010865      331.      370.      379.         2         0         0       .00   1112.04   5070.00

 *SECNO 21.990

 3265 DIVIDED FLOW

1
   19DEC96       16:22:08                                                                                                PAGE   26

    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=     3918.0    5067.0  TYPE=      1  TARGET=     1149.000
    21.990      11.55   1929.55       .00   1929.06   1930.92      1.37      3.50       .15   1930.00
   28100.0   22231.2    5868.8        .0    2543.2     510.8        .0     676.1     169.1 100000.00
      .26      8.74     11.49       .00      .060      .038      .000      .000   1918.00   3918.00
  .010777      312.      370.      473.         2         0         0       .00    835.99   5064.30

 *SECNO 22.060

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=     4000.0    5100.0  TYPE=      1  TARGET=     1100.000
    22.060      10.47   1933.47       .00   1933.09   1934.63      1.16      3.65       .06   1932.00
   28100.0   23131.7    4918.4      50.0    3013.6     404.3      26.1     703.0     176.3   1932.00
      .27      7.68     12.16      1.91      .060      .038      .060      .000   1923.00   4000.00
  .009498      359.      370.      280.         2         0         0       .00    932.53   5100.00

 *SECNO 22.130

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=     4100.0    5080.0  TYPE=      1  TARGET=      980.000
    22.130      12.58   1937.58       .00   1937.02   1938.78      1.20      4.13       .02   1938.00
   28100.0   22151.2    5948.8        .0    2699.1     556.7        .0     735.8     185.2   1938.00
      .28      8.21     10.69       .00      .060      .038      .000      .000   1925.00   4100.00
  .010025      436.      370.      370.         2         0         0       .00    864.88   5063.64

 *SECNO 22.200

 3470 ENCROACHMENT STATIONS=     4192.0    5110.0  TYPE=      1  TARGET=      918.000
    22.200       8.91   1942.31       .00   1941.86   1943.38      1.08      4.57       .04   1941.50
   28100.0   20047.2    8052.8        .0    2684.4     793.4        .0     766.8     193.4 100000.00
      .30      7.47     10.15       .00      .060      .038      .000      .000   1933.40   4192.00
  .013146      410.      370.      340.         3         0         0       .00    918.00   5110.00

 *SECNO 22.250
1
   19DEC96       16:22:08                                                                                                PAGE   27

    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=     4372.0    5095.0  TYPE=      1  TARGET=      723.000
    22.250      10.04   1945.04       .00   1944.17   1946.84      1.80      3.09       .36   1944.00
   28100.0   16058.3   12041.7        .0    2098.1     868.3        .0     783.4     197.6 100000.00
      .30      7.65     13.87       .00      .060      .038      .000      .000   1935.00   4372.00
  .013794      211.      264.      220.         2         0         0       .00    723.00   5095.00

 *SECNO 22.330

 3470 ENCROACHMENT STATIONS=     4470.0    5105.0  TYPE=      1  TARGET=      635.000
    22.330      10.67   1949.17       .00   1948.26   1950.68      1.51      3.76       .09   1946.00
   28100.0   15919.5   12057.2     123.3    2365.8     932.5      31.6     809.5     203.1   1946.00
      .31      6.73     12.93      3.90      .060      .038      .060      .000   1938.50   4470.00
  .007688      335.      422.      390.         2         0         0       .00    635.00   5105.00

 *SECNO 22.430

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

3470 ENCROACHMENT STATIONS=     4475.0    5050.0  TYPE=      1  TARGET=      575.000
    22.430      10.44   1954.94   1954.94   1954.47   1957.17      2.23      4.97       .36   1950.00
   28100.0   14378.8   13721.2        .0    2125.4     873.7        .0     852.6     211.5 100000.00
       .33       6.77     15.71       .00      .060      .038      .000      .000   1944.50   4475.00
   .009696      620.      528.      450.         2         8         0       .00    575.00   5050.00


*SECNO 22.490
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     4499.0    5025.0  TYPE=      1  TARGET=      526.000
    22.490      11.76   1958.76   1958.76   1957.97   1961.26      2.50      2.99       .13   1954.00
   28100.0    9458.5   18641.5        .0    1531.9    1247.0        .0     874.1     215.6 100000.00
       .34       6.17     14.95       .00      .060      .038      .000      .000   1947.00   4499.00
   .008887      330.      317.      310.         2         8         0       .00    526.00   5025.00


1
   19DEC96      16:22:08                                                                                    PAGE   28

    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 22.550

3470 ENCROACHMENT STATIONS=     4490.0    5150.0  TYPE=      1  TARGET=      660.000
    22.550      11.76   1961.76       .00   1961.02   1963.82      2.06      2.43       .13   1956.00
   28100.0    9793.9   16819.0    1487.1    1794.5    1183.3     295.2     895.3     219.7   1956.00
       .34       5.46     14.21      5.04      .060      .038      .060      .000   1950.00   4490.00
   .007004      295.      317.      310.         3         0         0       .00    660.00   5150.00


*SECNO 22.620

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     4450.0    5192.0  TYPE=      1  TARGET=      742.000
    22.620      11.90   1965.40       .00   1964.63   1966.30       .90      2.14       .35   1962.00
   23800.0    8476.4   15323.7        .0    1897.1    1722.9        .0     924.6     225.7 100000.00
       .36       4.47      8.89       .00      .060      .038      .000      .000   1953.50   4450.00
   .004696      370.      370.      370.         3         0         0       .00    742.00   5192.00


CCHV=     .300 CEHV=     .500
*SECNO 22.810

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .61


3470 ENCROACHMENT STATIONS=     9450.0   10050.0  TYPE=      1  TARGET=      600.000
    22.810      10.48   1972.48       .00   1972.47   1973.79      1.31      7.28       .20   1970.00
   23800.0         .0   23800.0        .0        .0    2590.6        .0     996.0     241.1 100000.00
       .39        .00      9.19       .00      .000      .048      .000      .000   1962.00   9450.00
   .012709     1000.     1003.     1000.         3         0         0       .00    600.00  10050.00


*SECNO 23.090

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.49


3470 ENCROACHMENT STATIONS=     9800.0   10430.0  TYPE=      1  TARGET=      630.000
1
   19DEC96      16:22:08                                                                                    PAGE   29

    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


    23.090      10.16   1985.16       .00   1984.37   1985.95       .79     12.01       .16   1982.00
   23800.0    2607.9   12519.9    8672.2     443.3    1622.7    1311.1    1096.3     261.8   1981.00
       .45       5.88      7.72      6.61      .050      .048      .050      .000   1975.00   9800.00
   .005703     1380.     1478.     1450.         3         0         0       .00    630.00  10430.00


1
   19DEC96      16:22:08                                                                                    PAGE   30


                                                                                THIS RUN EXECUTED 19DEC96     16:22:14
*************************************
 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


FLOODPLAIN DELINEATION
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SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	20.390	1849.75	.00	1850.41	1290.42	4921.68	20072.94	3105.38	.00	.00	9500.00	10340.00	.00
	20.390	1850.51	.76	1851.39	850.00	.00	27639.86	460.14	850.00	9500.00	9500.00	10340.00	10350.00
	20.460	1852.93	.00	1854.25	1402.19	10185.38	13932.03	3982.60	.00	.00	4910.00	5170.00	.00
*	20.460	1853.63	.71	1855.50	810.00	9151.53	17589.01	1359.46	810.00	4500.00	4910.00	5170.00	5310.00
*	20.540	1857.24	.00	1858.00	1260.00	11031.51	13203.25	3865.23	1260.00	4240.00	4907.00	5160.00	5500.00
	20.540	1858.11	.86	1859.52	660.00	9575.71	18524.29	.00	660.00	4500.00	4907.00	5160.00	5160.00
*	20.650	1862.49	.00	1863.94	1319.65	6561.33	17631.00	3907.67	1385.00	4090.00	4810.00	5090.00	5475.00
*	20.650	1862.95	.47	1864.86	670.00	6362.00	20508.66	1229.34	670.00	4550.00	4810.00	5090.00	5220.00
	20.730	1866.25	.00	1867.58	1273.71	6941.35	20302.70	855.95	1650.00	3955.00	4695.00	5060.00	5605.00
	20.730	1866.93	.69	1868.20	670.00	6439.69	21660.31	.00	670.00	4390.00	4695.00	5060.00	5060.00
*	20.800	1869.95	.00	1871.47	1285.63	10650.76	16621.05	828.19	1600.00	3875.00	4892.00	5045.00	5475.00
*	20.800	1870.02	.07	1872.05	695.00	9253.92	18477.44	368.64	695.00	4380.00	4892.00	5045.00	5075.00
	20.860	1871.91	.00	1873.43	1017.28	8670.10	19313.01	116.89	1630.00	3950.00	4850.00	5125.00	5580.00
	20.860	1872.86	.95	1874.02	775.00	8755.47	19344.53	.00	775.00	4350.00	4850.00	5125.00	5125.00
*	20.930	1876.21	.00	1877.70	1157.24	11906.72	15712.17	481.11	1650.00	4050.00	4950.00	5100.00	5700.00
*	20.930	1876.17	-.04	1877.88	900.00	11680.66	16419.34	.00	900.00	4200.00	4950.00	5100.00	5100.00
*	21.000	1880.94	.00	1882.60	1424.59	8590.57	17971.51	1537.93	1575.00	4025.00	4910.00	5055.00	5600.00
*	21.000	1881.09	.16	1883.29	745.00	8093.56	20006.44	.00	745.00	4310.00	4910.00	5055.00	5055.00
	21.060	1882.70	.00	1884.00	970.36	6841.47	20894.29	364.24	1450.00	4035.00	4825.00	5050.00	5485.00
	21.060	1883.55	.86	1884.85	650.00	5416.93	22173.13	509.94	650.00	4450.00	4825.00	5050.00	5100.00
	21.100	1883.45	.00	1885.34	836.12	11423.07	16417.69	259.25	1355.00	4070.00	4895.00	5025.00	5425.00
	21.100	1884.23	.79	1885.83	705.00	11379.55	16306.74	413.71	705.00	4400.00	4895.00	5025.00	5105.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	21.160	1886.86	.00	1888.43	809.74	15991.49	11293.07	815.44	1180.00	4110.00	4910.00	5010.00	5290.00
	21.160	1886.80	-.06	1888.55	600.00	15693.03	11586.67	820.29	600.00	4500.00	4910.00	5010.00	5100.00
	21.240	1890.95	.00	1892.46	704.99	8776.67	12963.49	6359.85	930.00	4585.00	4900.00	5080.00	5515.00
	21.240	1891.19	.24	1892.55	700.00	8810.43	12875.60	6413.97	700.00	4617.00	4900.00	5080.00	5317.00
	21.330	1895.59	.00	1896.55	1294.95	9293.58	16954.07	1852.36	1410.00	4220.00	4815.00	5255.00	5630.00
*	21.330	1895.63	.05	1897.35	840.00	6339.56	21760.45	.00	840.00	4415.00	4815.00	5255.00	5255.00
	21.380	1897.94	.00	1899.33	1198.62	11933.15	15851.16	315.69	.00	.00	4980.00	5300.00	.00
	21.380	1898.89	.95	1900.07	1055.00	10147.48	17742.35	210.16	1055.00	4265.00	4980.00	5300.00	5320.00
	21.460	1902.30	.00	1903.14	1426.41	11307.93	13769.56	3022.51	.00	.00	4780.00	5085.00	.00
	21.460	1902.32	.02	1903.24	1330.00	10620.25	14326.45	3153.29	1330.00	3970.00	4780.00	5085.00	5300.00
	21.540	1905.69	.00	1907.34	979.32	11598.45	15646.40	855.16	.00	.00	4795.00	5045.00	.00
	21.540	1905.80	.11	1907.36	972.21	11624.84	15593.11	882.04	1471.00	3694.00	4795.00	5045.00	5165.00
*	21.590	1908.98	.00	1910.46	1154.43	17171.27	9653.51	1275.22	.00	.00	4950.00	5070.00	.00
*	21.590	1909.04	.06	1910.67	1085.64	16577.82	10145.86	1376.32	1450.00	3750.00	4950.00	5070.00	5200.00
	21.680	1914.09	.00	1914.88	1188.64	19726.32	6906.47	1467.21	.00	.00	4878.00	5040.00	.00
	21.680	1914.64	.54	1915.68	1140.00	19055.12	9044.88	.00	1140.00	3900.00	4878.00	5040.00	5040.00

21.760	1917.84	.00	1919.06	1426.32	18488.83	8373.62	1237.56	.00	.00	4960.00	5090.00	.00
21.760	1918.53	.69	1919.70	1249.39	18924.65	9175.34	.00	1325.00	3765.00	4960.00	5090.00	5090.00
21.850	1922.68	.00	1923.30	1625.57	20385.98	5958.04	1755.98	.00	.00	4930.00	5055.00	.00
21.850	1923.03	.35	1923.97	1125.00	19149.06	7447.78	1503.16	1125.00	4050.00	4930.00	5055.00	5175.00
21.920	1925.46	.00	1926.40	1257.06	23974.69	4096.72	28.60	.00	.00	4960.00	5050.00	.00
21.920	1926.19	.73	1927.27	1112.04	22833.27	5178.99	87.74	1370.00	3700.00	4960.00	5050.00	5070.00
21.990	1929.06	.00	1930.41	863.89	22597.59	5468.07	34.34	.00	.00	4955.00	5067.00	.00
21.990	1929.55	.50	1930.92	835.99	22231.22	5868.78	.00	1149.00	3918.00	4955.00	5067.00	5067.00
22.060	1933.09	.00	1934.06	1307.19	23147.38	4101.88	850.75	.00	.00	4972.00	5040.00	.00
22.060	1933.47	.38	1934.63	932.53	23131.67	4918.35	49.98	1100.00	4000.00	4972.00	5040.00	5100.00
22.130	1937.02	.00	1938.26	1127.55	20612.67	5512.48	1974.86	.00	.00	4940.00	5070.00	.00
22.130	1937.58	.55	1938.78	864.88	22151.15	5948.85	.00	980.00	4100.00	4940.00	5070.00	5080.00
22.200	1941.86	.00	1942.58	1207.10	19010.81	5506.58	3582.61	1727.00	4098.00	4880.00	5110.00	5825.00
22.200	1942.31	.44	1943.38	918.00	20047.25	8052.75	.00	918.00	4192.00	4880.00	5110.00	5110.00
22.250	1944.17	.00	1945.53	1084.25	15710.64	9139.71	3249.66	1100.00	4230.00	4932.00	5095.00	5330.00
22.250	1945.04	.87	1946.84	723.00	16058.26	12041.74	.00	723.00	4372.00	4932.00	5095.00	5095.00
22.330	1948.26	.00	1949.58	1080.66	15819.88	10281.55	1998.57	.00	.00	4970.00	5095.00	.00
22.330	1949.17	.91	1950.68	635.00	15919.48	12057.24	123.28	635.00	4470.00	4970.00	5095.00	5105.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
* 22.430	1954.47	.00	1956.41	803.72	14490.39	12556.99	1052.62	.00	.00	4950.00	5050.00	.00
* 22.430	1954.94	.47	1957.17	575.00	14378.81	13721.19	.00	575.00	4475.00	4950.00	5050.00	5050.00
* 22.490	1957.97	.00	1959.90	877.91	11983.34	15866.42	250.24	.00	.00	4880.00	5025.00	.00
* 22.490	1958.76	.78	1961.26	526.00	9458.52	18641.48	.00	526.00	4499.00	4880.00	5025.00	5025.00
* 22.550	1961.02	.00	1962.81	973.82	11944.17	15085.41	1070.43	.00	.00	4930.00	5060.00	.00
22.550	1961.76	.74	1963.82	660.00	9793.85	16819.02	1487.13	660.00	4490.00	4930.00	5060.00	5150.00
22.620	1964.63	.00	1965.63	988.82	9265.54	14487.78	46.69	.00	.00	4912.00	5192.00	.00
22.620	1965.40	.78	1966.30	742.00	8476.35	15323.65	.00	742.00	4450.00	4912.00	5192.00	5192.00
22.810	1972.47	.00	1973.31	1000.77	3697.55	20100.13	2.33	.00	.00	9450.00	10050.00	.00
* 22.810	1972.48	.02	1973.79	600.00	.00	23800.00	.00	600.00	9450.00	9450.00	10050.00	10050.00
23.090	1984.37	.00	1985.20	751.08	4801.92	11301.71	7696.37	.00	.00	9900.00	10170.00	.00
* 23.090	1985.16	.79	1985.95	630.00	2607.91	12519.85	8672.24	630.00	9800.00	9900.00	10170.00	10430.00

FLOODPLAIN DELINEATION

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
20.390	.00	.00	.00	1842.00	28100.00	1849.75	.00	1850.41	66.89	6.64	4331.61	3435.84
20.390	.00	.00	.00	1842.00	28100.00	1850.51	.00	1851.39	67.57	7.54	3731.00	3418.38
20.460	369.60	.00	.00	1843.00	28100.00	1852.93	1852.91	1854.25	126.30	11.92	3773.07	2500.33
* 20.460	369.60	.00	.00	1843.00	28100.00	1853.63	1853.63	1855.50	123.80	13.01	3066.61	2525.52
* 20.540	422.40	.00	.00	1847.50	28100.00	1857.24	.00	1858.00	52.95	9.10	4952.96	3861.68
20.540	422.40	.00	.00	1847.50	28100.00	1858.11	.00	1859.52	66.23	11.09	3452.40	3452.86

*	20.650	580.80	.00	.00	1852.60	28100.00	1862.49	1862.49	1863.94	94.49	11.66	3734.63 2890.75
*	20.650	580.80	.00	.00	1852.60	28100.00	1862.95	1862.95	1864.86	97.05	12.49	2973.59 2852.41
	20.730	422.40	.00	.00	1853.20	28100.00	1866.25	.00	1867.58	78.73	10.51	3723.63 3166.93
	20.730	422.40	.00	.00	1853.20	28100.00	1866.93	.00	1868.20	60.24	9.92	3452.33 3620.47
*	20.800	369.60	.00	.00	1857.60	28100.00	1869.95	1869.95	1871.47	56.06	12.38	4220.73 3753.09
*	20.800	369.60	.00	.00	1857.60	28100.00	1870.02	1870.02	1872.05	67.55	13.66	3339.95 3418.96
	20.860	316.80	.00	.00	1860.50	28100.00	1871.91	.00	1873.43	78.24	11.52	3596.62 3176.77
	20.860	316.80	.00	.00	1860.50	28100.00	1872.86	.00	1874.02	49.18	9.99	3924.96 4006.96
*	20.930	369.60	.00	.00	1865.00	28100.00	1876.21	1876.21	1877.70	61.07	12.53	4148.80 3595.91
*	20.930	369.60	.00	.00	1865.00	28100.00	1876.17	1876.17	1877.88	70.30	13.16	3695.29 3351.44
*	21.000	369.60	.00	.00	1868.70	28100.00	1880.94	1880.94	1882.60	50.76	12.61	4255.11 3944.18
*	21.000	369.60	.00	.00	1868.70	28100.00	1881.09	1881.09	1883.29	61.35	13.81	3293.15 3587.45
	21.060	316.80	.00	.00	1870.70	28100.00	1882.70	.00	1884.00	39.30	10.45	4107.83 4482.56
	21.060	316.80	.00	.00	1870.70	28100.00	1883.55	.00	1884.85	32.55	10.12	3856.84 4924.90
	21.100	211.20	.00	.00	1871.50	28100.00	1883.45	.00	1885.34	65.88	13.77	3447.14 3461.96
	21.100	211.20	.00	.00	1871.50	28100.00	1884.23	.00	1885.83	49.41	12.60	3652.48 3997.65
	21.160	422.00	.00	.00	1874.20	28100.00	1886.86	.00	1888.43	76.07	13.72	3430.68 3221.89
	21.160	422.00	.00	.00	1874.20	28100.00	1886.80	.00	1888.55	82.07	14.18	3152.32 3101.77
	21.240	475.00	.00	.00	1882.00	28100.00	1890.95	.00	1892.46	94.27	12.27	3178.96 2894.16
	21.240	475.00	.00	.00	1882.00	28100.00	1891.19	.00	1892.55	81.40	11.71	3346.19 3114.59
	21.330	475.20	.00	.00	1886.80	28100.00	1895.59	.00	1896.55	78.16	9.06	4006.83 3178.46
*	21.330	475.20	.00	.00	1886.80	28100.00	1895.63	1895.63	1897.35	124.67	11.50	2955.64 2516.70
	21.380	264.00	.00	.00	1888.00	28100.00	1897.94	1897.59	1899.33	114.48	11.21	3354.17 2626.33
	21.380	264.00	.00	.00	1888.00	28100.00	1898.89	.00	1900.07	74.96	10.32	3854.48 3245.54
	21.460	422.40	.00	.00	1894.00	28100.00	1902.30	.00	1903.14	71.00	9.38	4529.78 3334.92
	21.460	422.40	.00	.00	1894.00	28100.00	1902.32	.00	1903.24	75.89	9.72	4311.84 3225.64

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA .01K
	21.540	422.40	.00	.00	1895.00	28100.00	1905.69	1905.46	1907.34	112.43	12.25	3083.92 2650.12
	21.540	422.40	.00	.00	1895.00	28100.00	1905.80	1905.44	1907.36	103.88	11.95	3173.54 2757.03
*	21.590	264.00	.00	.00	1900.00	28100.00	1908.98	1908.98	1910.46	115.21	13.64	3421.12 2617.95
*	21.590	264.00	.00	.00	1900.00	28100.00	1909.04	1909.04	1910.67	123.09	14.19	3274.04 2532.80
	21.680	475.20	.00	.00	1902.00	28100.00	1914.09	.00	1914.88	75.27	9.32	4234.61 3238.91
	21.680	475.20	.00	.00	1902.00	28100.00	1914.64	.00	1915.68	91.06	10.92	3750.94 2944.75
	21.760	422.40	.00	.00	1909.90	28100.00	1917.84	.00	1919.06	129.08	12.90	3747.04 2473.28
	21.760	422.40	.00	.00	1909.90	28100.00	1918.53	.00	1919.70	103.72	12.42	3849.60 2759.09
	21.850	475.20	.00	.00	1913.00	28100.00	1922.68	.00	1923.30	66.95	9.39	4930.60 3434.24
	21.850	475.20	.00	.00	1913.00	28100.00	1923.03	.00	1923.97	83.35	10.97	4002.67 3077.91
	21.920	369.60	.00	.00	1915.00	28100.00	1925.46	.00	1926.40	116.90	10.90	3763.64 2598.93
	21.920	369.60	.00	.00	1915.00	28100.00	1926.19	.00	1927.27	108.65	11.71	3579.73 2695.77
	21.990	369.60	.00	.00	1918.00	28100.00	1929.06	.00	1930.41	118.91	11.87	3100.24 2576.93
	21.990	369.60	.00	.00	1918.00	28100.00	1929.55	.00	1930.92	107.77	11.49	3053.99 2706.83

	22.060	369.60	.00	.00	1923.00	28100.00	1933.09	.00	1934.06	82.44	10.84	3897.62
3094.87												
	22.060	369.60	.00	.00	1923.00	28100.00	1933.47	.00	1934.63	94.98	12.16	3444.00
2883.25												
	22.130	369.60	.00	.00	1925.00	28100.00	1937.02	.00	1938.26	114.70	11.19	3371.15
2623.79												
	22.130	369.60	.00	.00	1925.00	28100.00	1937.58	.00	1938.78	100.25	10.69	3255.73
2806.55												
	22.200	369.60	.00	.00	1933.40	28100.00	1941.86	.00	1942.58	96.93	7.97	4192.24
2854.12												
	22.200	369.60	.00	.00	1933.40	28100.00	1942.31	.00	1943.38	131.46	10.15	3477.79
2450.84												
	22.250	264.00	.00	.00	1935.00	28100.00	1944.17	.00	1945.53	142.52	12.57	3343.07
2353.77												
	22.250	264.00	.00	.00	1935.00	28100.00	1945.04	.00	1946.84	137.94	13.87	2966.49
2392.59												
	22.330	422.40	.00	.00	1938.50	28100.00	1948.26	.00	1949.58	86.04	12.55	3639.35
3029.32												
	22.330	422.40	.00	.00	1938.50	28100.00	1949.17	.00	1950.68	76.88	12.93	3329.93
3204.77												
*	22.430	528.00	.00	.00	1944.50	28100.00	1954.47	1954.47	1956.41	91.70	15.19	3281.83
2934.45												
*	22.430	528.00	.00	.00	1944.50	28100.00	1954.94	1954.94	1957.17	96.96	15.71	2999.08
2853.66												
*	22.490	316.80	.00	.00	1947.00	28100.00	1957.97	1957.97	1959.90	84.77	13.99	3363.69
3051.99												
*	22.490	316.80	.00	.00	1947.00	28100.00	1958.76	1958.76	1961.26	88.87	14.95	2778.92
2980.81												
*	22.550	316.80	.00	.00	1950.00	28100.00	1961.02	1961.02	1962.81	74.61	13.87	3684.05
3253.18												
	22.550	316.80	.00	.00	1950.00	28100.00	1961.76	.00	1963.82	70.04	14.21	3272.99
3357.69												
	22.620	370.00	.00	.00	1953.50	23800.00	1964.63	.00	1965.63	64.95	9.63	3561.29
2953.25												
	22.620	370.00	.00	.00	1953.50	23800.00	1965.40	.00	1966.30	46.96	8.89	3620.00
3472.93												
	22.810	1003.00	.00	.00	1962.00	23800.00	1972.47	.00	1973.31	90.76	7.78	3356.80
2498.16												
*	22.810	1003.00	.00	.00	1962.00	23800.00	1972.48	.00	1973.79	127.09	9.19	2590.64
2111.20												

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA
.01K												
	23.090	1478.00	.00	.00	1975.00	23800.00	1984.37	.00	1985.20	73.71	8.00	3318.33
2772.09												
*	23.090	1478.00	.00	.00	1975.00	23800.00	1985.16	.00	1985.95	57.03	7.72	3377.08
3151.43												

FLOODPLAIN DELINEATION

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	20.390	28100.00	1849.75	.00	.00	.00	1290.42	.00
	20.390	28100.00	1850.51	.76	.00	.76	850.00	.00
	20.460	28100.00	1852.93	.00	3.18	.00	1402.19	369.60
*	20.460	28100.00	1853.63	.71	3.12	.71	810.00	369.60
*	20.540	28100.00	1857.24	.00	4.32	.00	1260.00	422.40
	20.540	28100.00	1858.11	.86	4.47	.86	660.00	422.40
*	20.650	28100.00	1862.49	.00	5.24	.00	1319.65	580.80
*	20.650	28100.00	1862.95	.47	4.85	.47	670.00	580.80
	20.730	28100.00	1866.25	.00	3.76	.00	1273.71	422.40
	20.730	28100.00	1866.93	.69	3.98	.69	670.00	422.40
*	20.800	28100.00	1869.95	.00	3.71	.00	1285.63	369.60
*	20.800	28100.00	1870.02	.07	3.09	.07	695.00	369.60
	20.860	28100.00	1871.91	.00	1.96	.00	1017.28	316.80
	20.860	28100.00	1872.86	.95	2.84	.95	775.00	316.80
*	20.930	28100.00	1876.21	.00	4.29	.00	1157.24	369.60
*	20.930	28100.00	1876.17	-.04	3.30	-.04	900.00	369.60
*	21.000	28100.00	1880.94	.00	4.73	.00	1424.59	369.60
*	21.000	28100.00	1881.09	.16	4.93	.16	745.00	369.60
	21.060	28100.00	1882.70	.00	1.76	.00	970.36	316.80
	21.060	28100.00	1883.55	.86	2.46	.86	650.00	316.80
	21.100	28100.00	1883.45	.00	.75	.00	836.12	211.20
	21.100	28100.00	1884.23	.79	.68	.79	705.00	211.20
	21.160	28100.00	1886.86	.00	3.41	.00	809.74	422.00
	21.160	28100.00	1886.80	-.06	2.57	-.06	600.00	422.00

	21.240	28100.00	1890.95	.00	4.09	.00	704.99	475.00
	21.240	28100.00	1891.19	.24	4.39	.24	700.00	475.00
	21.330	28100.00	1895.59	.00	4.64	.00	1294.95	475.20
*	21.330	28100.00	1895.63	.05	4.44	.05	840.00	475.20
	21.380	28100.00	1897.94	.00	2.36	.00	1198.62	264.00
	21.380	28100.00	1898.89	.95	3.25	.95	1055.00	264.00
	21.460	28100.00	1902.30	.00	4.35	.00	1426.41	422.40
	21.460	28100.00	1902.32	.02	3.43	.02	1330.00	422.40

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	21.540	28100.00	1905.69	.00	3.39	.00	979.32	422.40
	21.540	28100.00	1905.80	.11	3.48	.11	972.21	422.40
*	21.590	28100.00	1908.98	.00	3.30	.00	1154.43	264.00
*	21.590	28100.00	1909.04	.06	3.24	.06	1085.64	264.00
	21.680	28100.00	1914.09	.00	5.11	.00	1188.64	475.20
	21.680	28100.00	1914.64	.54	5.59	.54	1140.00	475.20
	21.760	28100.00	1917.84	.00	3.75	.00	1426.32	422.40
	21.760	28100.00	1918.53	.69	3.89	.69	1249.39	422.40
	21.850	28100.00	1922.68	.00	4.84	.00	1625.57	475.20
	21.850	28100.00	1923.03	.35	4.50	.35	1125.00	475.20
	21.920	28100.00	1925.46	.00	2.79	.00	1257.06	369.60
	21.920	28100.00	1926.19	.73	3.16	.73	1112.04	369.60
	21.990	28100.00	1929.06	.00	3.59	.00	863.89	369.60
	21.990	28100.00	1929.55	.50	3.36	.50	835.99	369.60
	22.060	28100.00	1933.09	.00	4.04	.00	1307.19	369.60
	22.060	28100.00	1933.47	.38	3.92	.38	932.53	369.60
	22.130	28100.00	1937.02	.00	3.93	.00	1127.55	369.60
	22.130	28100.00	1937.58	.55	4.10	.55	864.88	369.60
	22.200	28100.00	1941.86	.00	4.84	.00	1207.10	369.60
	22.200	28100.00	1942.31	.44	4.73	.44	918.00	369.60
	22.250	28100.00	1944.17	.00	2.31	.00	1084.25	264.00
	22.250	28100.00	1945.04	.87	2.73	.87	723.00	264.00
	22.330	28100.00	1948.26	.00	4.09	.00	1080.66	422.40
	22.330	28100.00	1949.17	.91	4.13	.91	635.00	422.40
*	22.430	28100.00	1954.47	.00	6.21	.00	803.72	528.00
*	22.430	28100.00	1954.94	.47	5.77	.47	575.00	528.00
*	22.490	28100.00	1957.97	.00	3.51	.00	877.91	316.80
*	22.490	28100.00	1958.76	.78	3.82	.78	526.00	316.80
*	22.550	28100.00	1961.02	.00	3.05	.00	973.82	316.80
	22.550	28100.00	1961.76	.74	3.00	.74	660.00	316.80
	22.620	23800.00	1964.63	.00	3.60	.00	988.82	370.00
	22.620	23800.00	1965.40	.78	3.64	.78	742.00	370.00
	22.810	23800.00	1972.47	.00	7.84	.00	1000.77	1003.00
*	22.810	23800.00	1972.48	.02	7.08	.02	600.00	1003.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	23.090	23800.00	1984.37	.00	11.91	.00	751.08	1478.00
*	23.090	23800.00	1985.16	.79	12.68	.79	630.00	1478.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO=     20.460  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     20.460  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     20.540  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     20.650  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     20.650  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     20.650  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     20.650  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     20.800  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     20.800  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     20.800  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     20.800  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     20.930  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     20.930  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     20.930  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     20.930  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     20.930  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION SECNO=     21.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     21.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     21.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     21.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     21.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     21.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     21.330  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     21.330  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     21.590  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     21.590  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     21.590  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     21.590  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     22.430  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     22.430  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     22.430  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     22.430  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     22.490  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     22.490  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     22.490  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     22.490  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     22.550  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     22.550  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     22.810  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO=     23.090  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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Floodway width summary: FLOODPLAIN DELINEATION
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
20.390	.76	850.00	9500.00	420.00	9920.00	430.00	10350.00
20.460	.71	810.00	4500.00	540.00	5040.00	270.00	5310.00
20.540	.86	660.00	4500.00	533.50	5033.50	126.50	5160.00
20.650	.47	670.00	4550.00	400.00	4950.00	270.00	5220.00
20.730	.69	670.00	4390.00	487.50	4877.50	182.50	5060.00
20.800	.07	695.00	4380.00	588.50	4968.50	106.50	5075.00
20.860	.95	775.00	4350.00	637.50	4987.50	137.50	5125.00
20.930	-.04	900.00	4200.00	825.00	5025.00	75.00	5100.00
21.000	.16	745.00	4310.00	672.50	4982.50	72.50	5055.00
21.060	.86	650.00	4450.00	487.50	4937.50	162.50	5100.00
21.100	.79	705.00	4400.00	560.00	4960.00	145.00	5105.00
21.160	-.06	600.00	4500.00	460.00	4960.00	140.00	5100.00
21.240	.24	700.00	4617.00	373.00	4990.00	327.00	5317.00
21.330	.05	840.00	4415.00	620.00	5035.00	220.00	5255.00
21.380	.95	1055.00	4265.00	875.00	5140.00	180.00	5320.00
21.460	.02	1330.00	3970.00	962.50	4932.50	367.50	5300.00
21.540	.11	1471.00	3694.00	1226.00	4920.00	245.00	5165.00
21.590	.06	1450.00	3750.00	1260.00	5010.00	190.00	5200.00
21.680	.54	1140.00	3900.00	1059.00	4959.00	81.00	5040.00
21.760	.69	1325.00	3765.00	1260.00	5025.00	65.00	5090.00
21.850	.35	1125.00	4050.00	942.50	4992.50	182.50	5175.00
21.920	.73	1370.00	3700.00	1305.00	5005.00	65.00	5070.00
21.990	.50	1149.00	3918.00	1093.00	5011.00	56.00	5067.00
22.060	.38	1100.00	4000.00	1006.00	5006.00	94.00	5100.00
22.130	.55	980.00	4100.00	905.00	5005.00	75.00	5080.00
22.200	.44	918.00	4192.00	803.00	4995.00	115.00	5110.00
22.250	.87	723.00	4372.00	641.50	5013.50	81.50	5095.00
22.330	.91	635.00	4470.00	562.50	5032.50	72.50	5105.00
22.430	.47	575.00	4475.00	525.00	5000.00	50.00	5050.00
22.490	.78	526.00	4499.00	453.50	4952.50	72.50	5025.00
22.550	.74	660.00	4490.00	505.00	4995.00	155.00	5150.00
22.620	.78	742.00	4450.00	602.00	5052.00	140.00	5192.00
22.810	.02	600.00	9450.00	300.00	9750.00	300.00	10050.00
23.090	.79	630.00	9800.00	235.00	10035.00	395.00	10430.00

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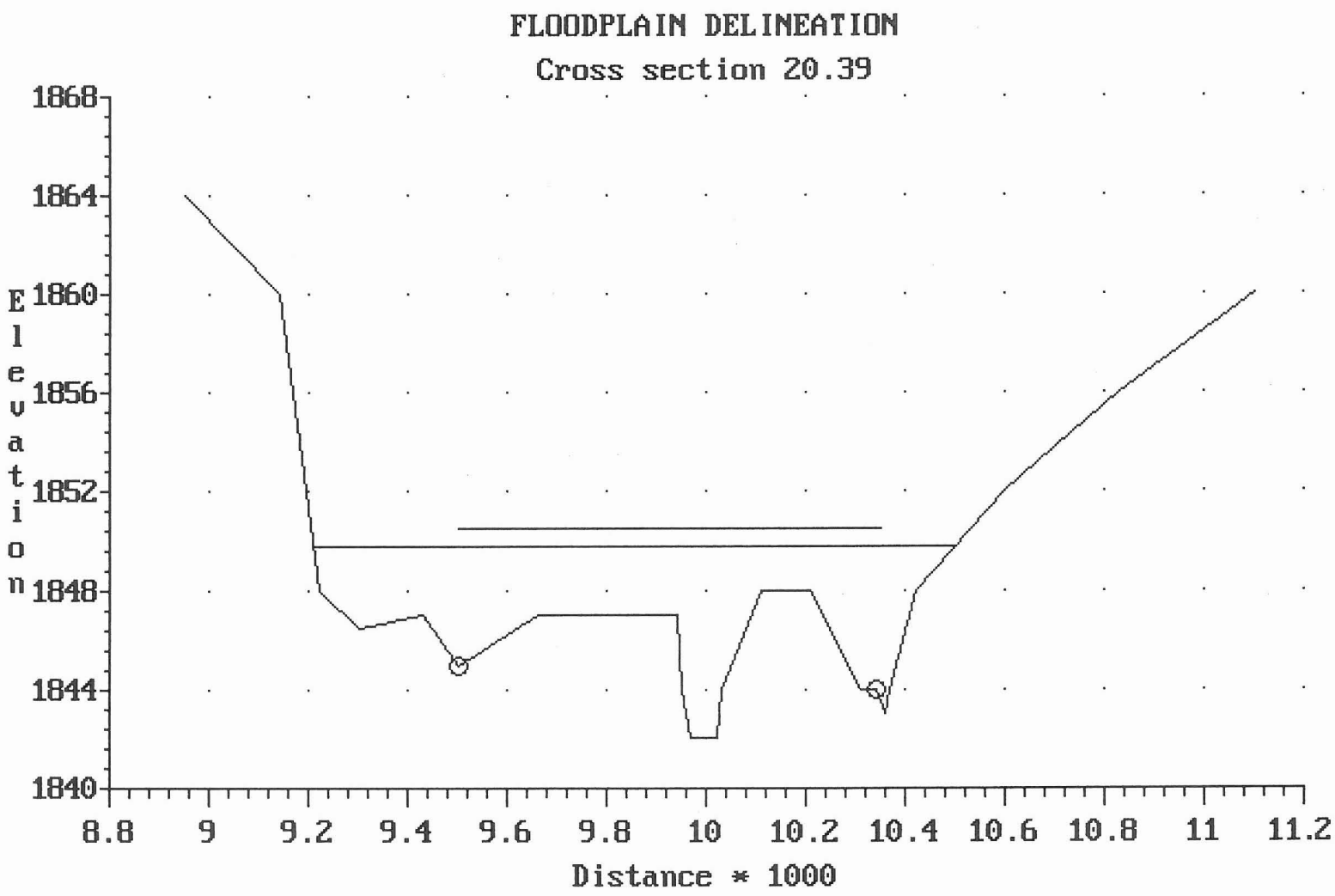
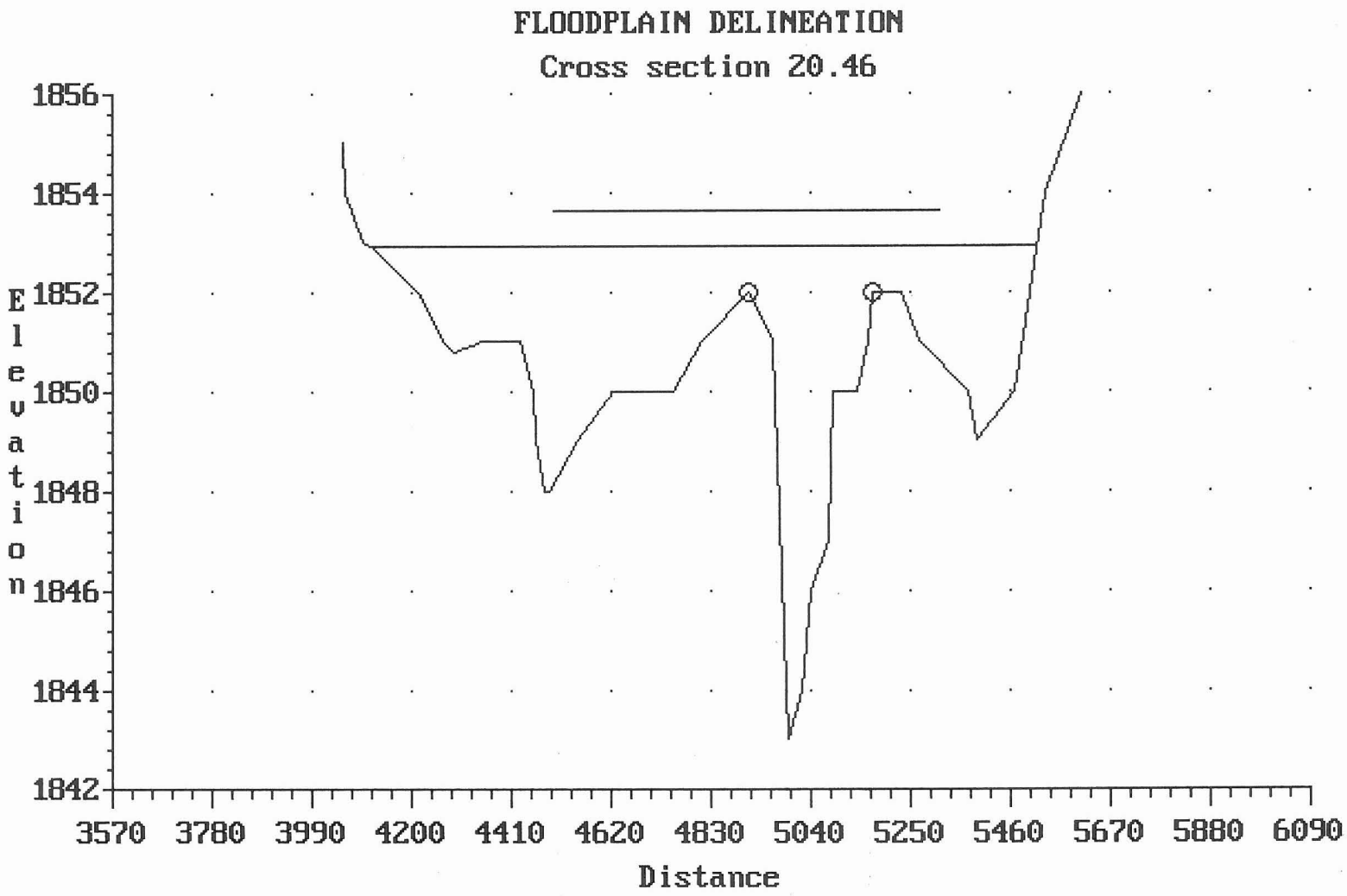
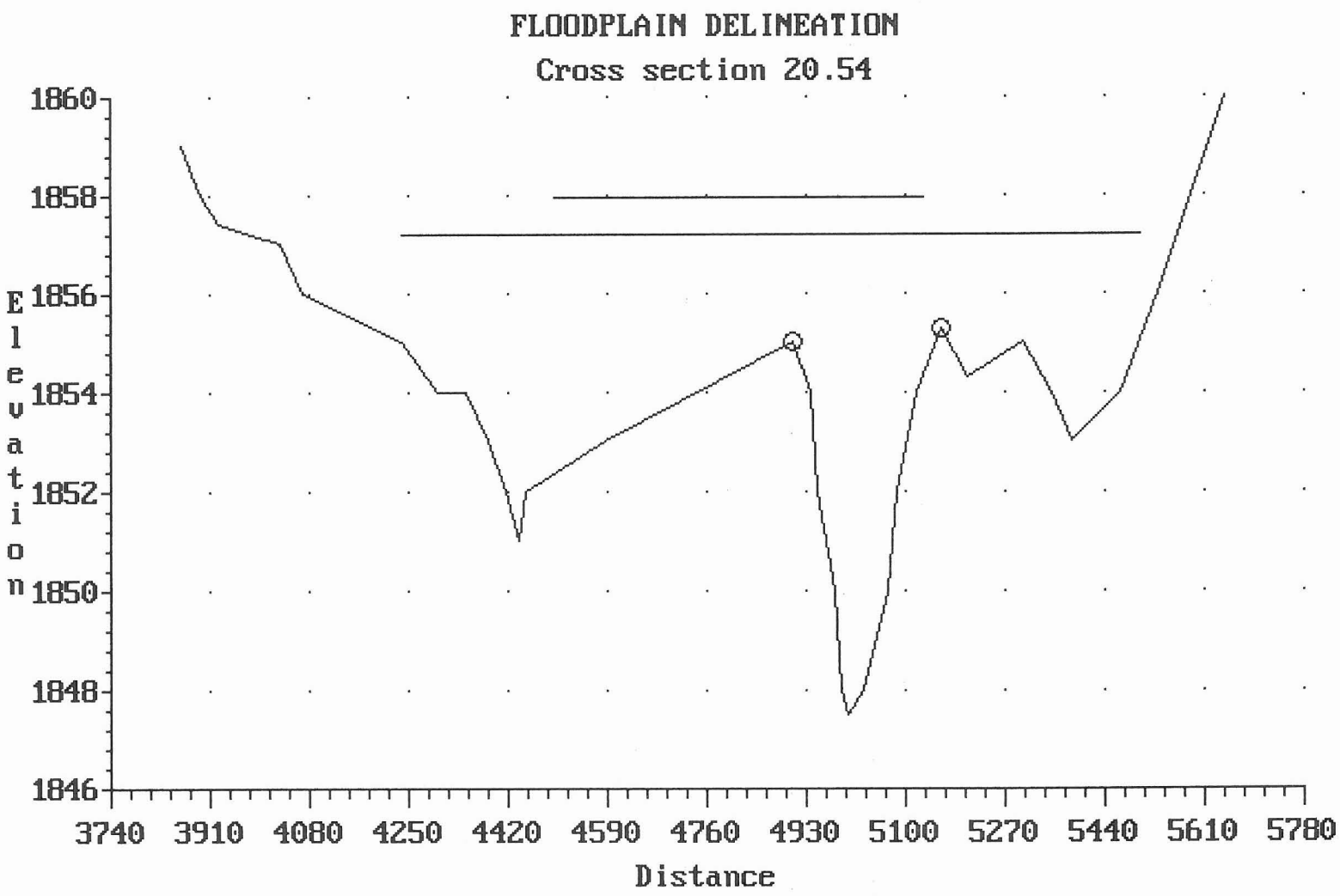
FLOODWAY DATA, FLOODPLAIN DELINEATION
PROFILE NO. 2

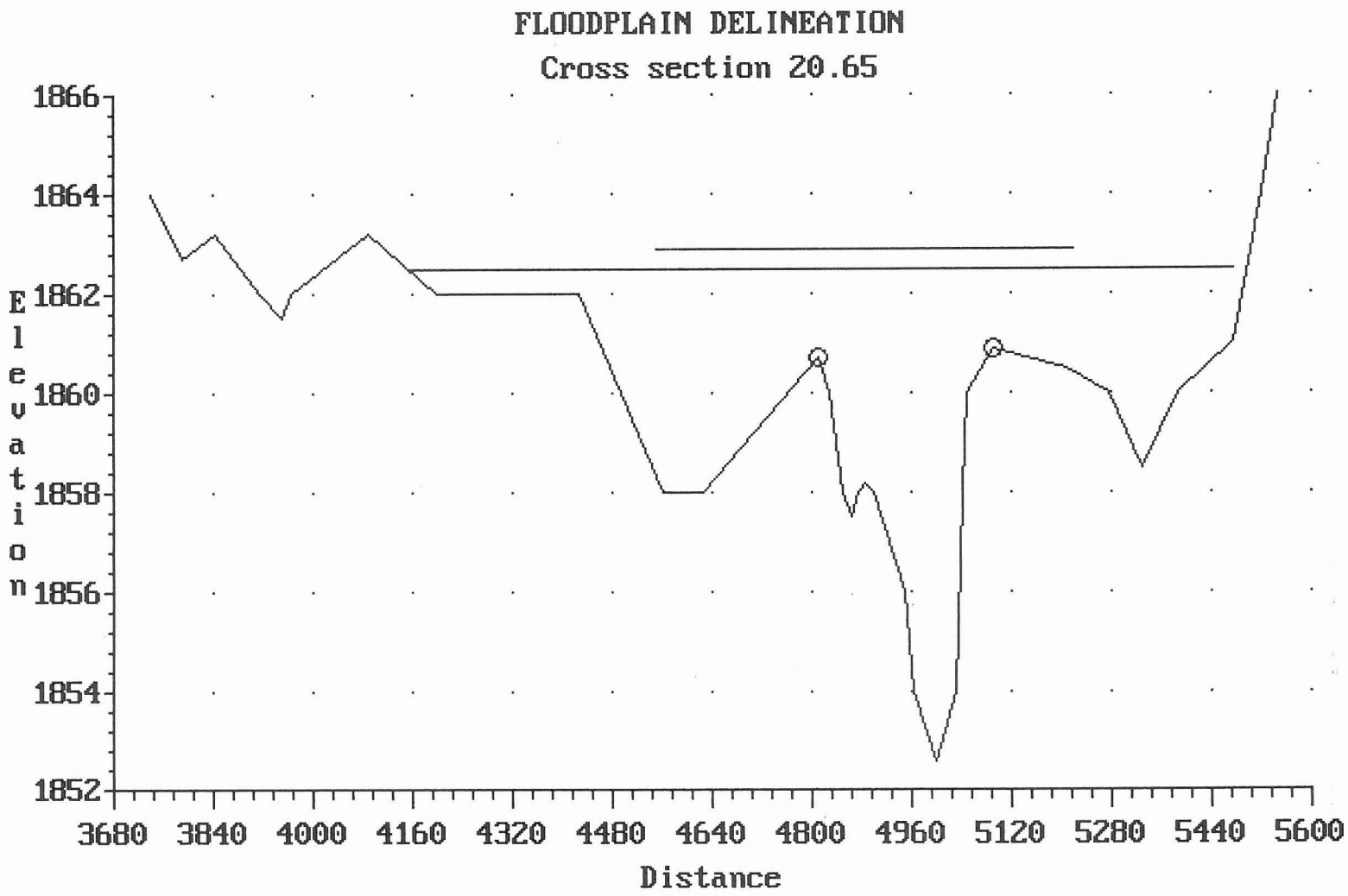
STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
20.390	850.	3731.	7.5	1850.6	1849.8	.8
20.460	810.	3067.	9.2	1853.6	1852.9	.7
20.540	660.	3452.	8.1	1858.1	1857.2	.9
20.650	670.	2974.	9.4	1863.0	1862.5	.5
20.730	670.	3452.	8.1	1866.9	1866.2	.7
20.800	695.	3340.	8.4	1870.1	1870.0	.1
20.860	775.	3925.	7.2	1872.9	1871.9	1.0
20.930	900.	3695.	7.6	1876.2	1876.2	.0
21.000	745.	3293.	8.5	1881.1	1880.9	.2
21.060	650.	3857.	7.3	1883.6	1882.7	.9
21.100	705.	3652.	7.7	1884.2	1883.4	.8

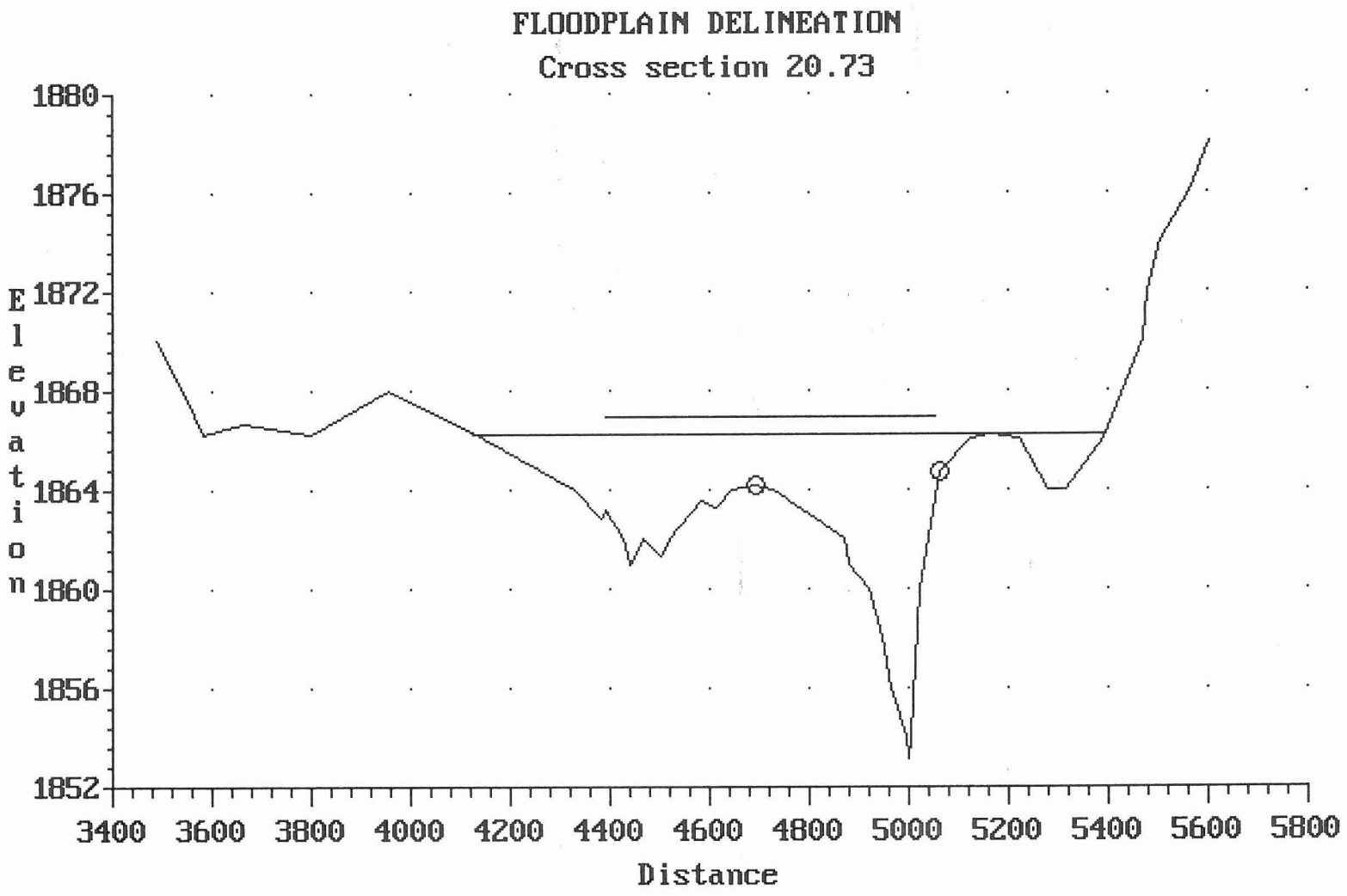
21.160	600.	3152.	8.9	1886.8	1886.9	-.1
21.240	700.	3346.	8.4	1891.2	1891.0	.2
21.330	840.	2956.	9.5	1895.6	1895.6	.0
21.380	1055.	3854.	7.3	1898.8	1897.9	.9
21.460	1330.	4312.	6.5	1902.3	1902.3	.0
21.540	1471.	3174.	8.9	1905.8	1905.7	.1
21.590	1450.	3274.	8.6	1909.1	1909.0	.1
21.680	1140.	3751.	7.5	1914.6	1914.1	.5
21.760	1325.	3850.	7.3	1918.5	1917.8	.7
21.850	1125.	4003.	7.0	1923.1	1922.7	.4
21.920	1370.	3580.	7.8	1926.2	1925.5	.7
21.990	1146.	3054.	9.2	1929.6	1929.1	.5
22.060	1100.	3444.	8.2	1933.5	1933.1	.4
22.130	964.	3256.	8.6	1937.6	1937.0	.6
22.200	918.	3478.	8.1	1942.3	1941.9	.4
22.250	723.	2966.	9.5	1945.1	1944.2	.9
22.330	635.	3330.	8.4	1949.2	1948.3	.9
22.430	575.	2999.	9.4	1955.0	1954.5	.5
22.490	526.	2779.	10.1	1958.8	1958.0	.8
22.550	660.	3273.	8.6	1961.7	1961.0	.7
22.620	742.	3620.	6.6	1965.4	1964.6	.8
22.810	600.	2591.	9.2	1972.5	1972.5	.0
23.090	630.	3377.	7.0	1985.2	1984.4	.8

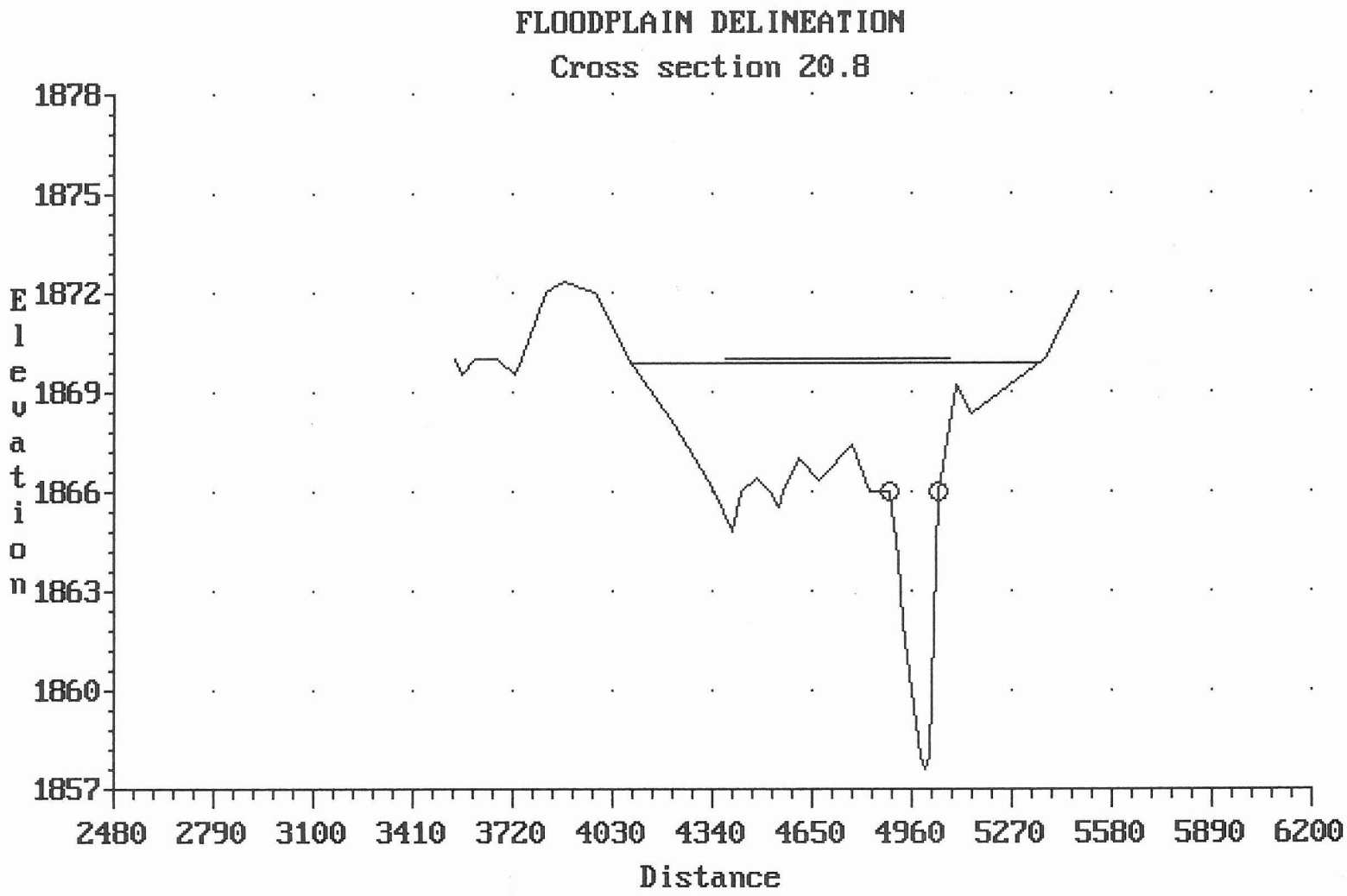

FLOODPLAIN DELINEATION
Cross section 20.39
Elevation
1868
1864
1860
1856
1852
1848
1844
1840
8.8
9
9.2
9.4
9.6
9.8
10
10.2
10.4
10.6
10.8
11
11.2
Distance * 1000

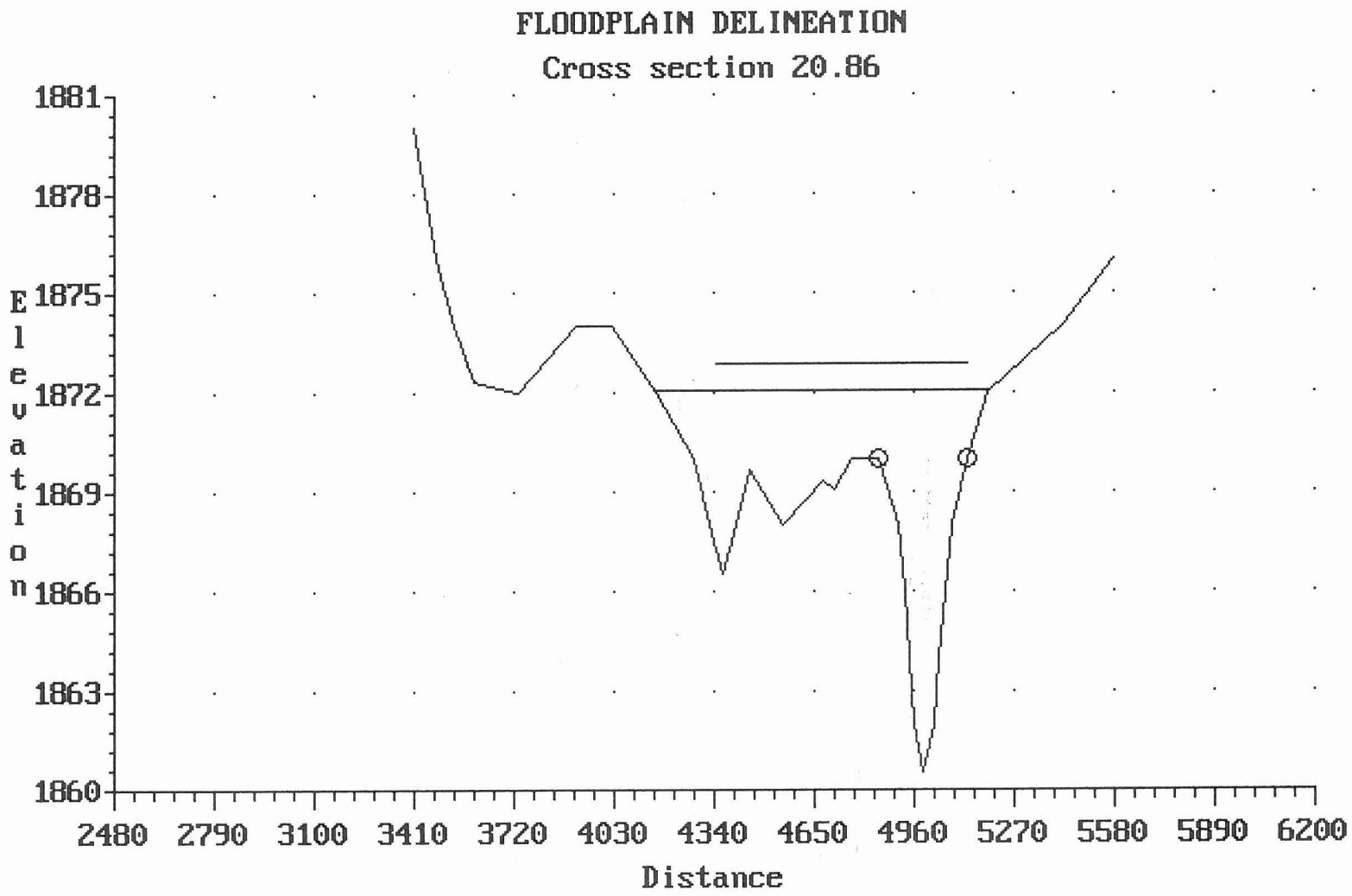

FLOODPLAIN DELINEATION
Cross section 20.46
Elevation
1856
1854
1852
1850
1848
1846
1844
1842
3570
3780
3990
4200
4410
4620
4830
5040
5250
5460
5670
5880
6090
Distance

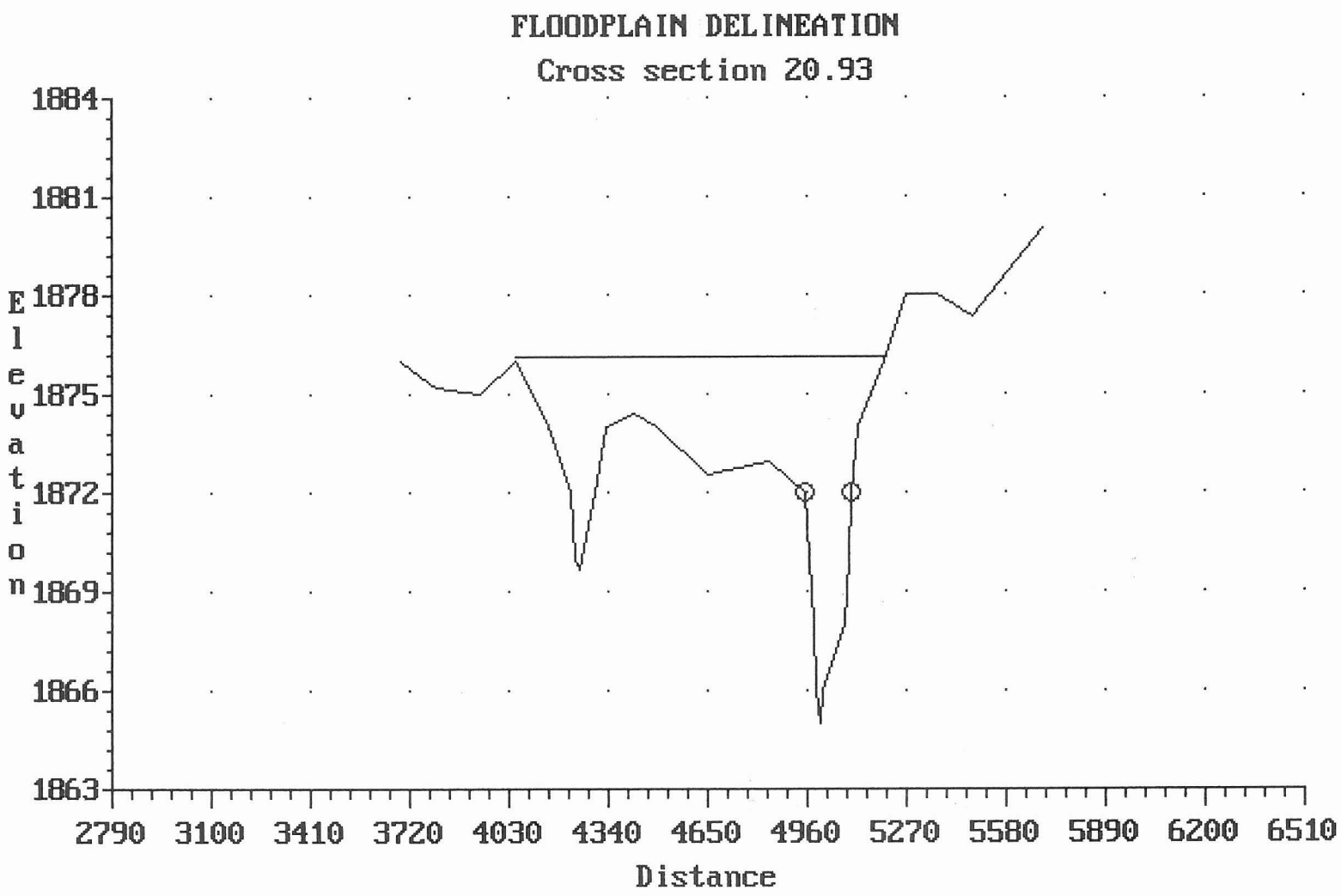

FLOODPLAIN DELINEATION
Cross section 20.54
Elevation
1860
1858
1856
1854
1852
1850
1848
1846
3740
3910
4080
4250
4420
4590
4760
4930
5100
5270
5440
5610
5780
Distance

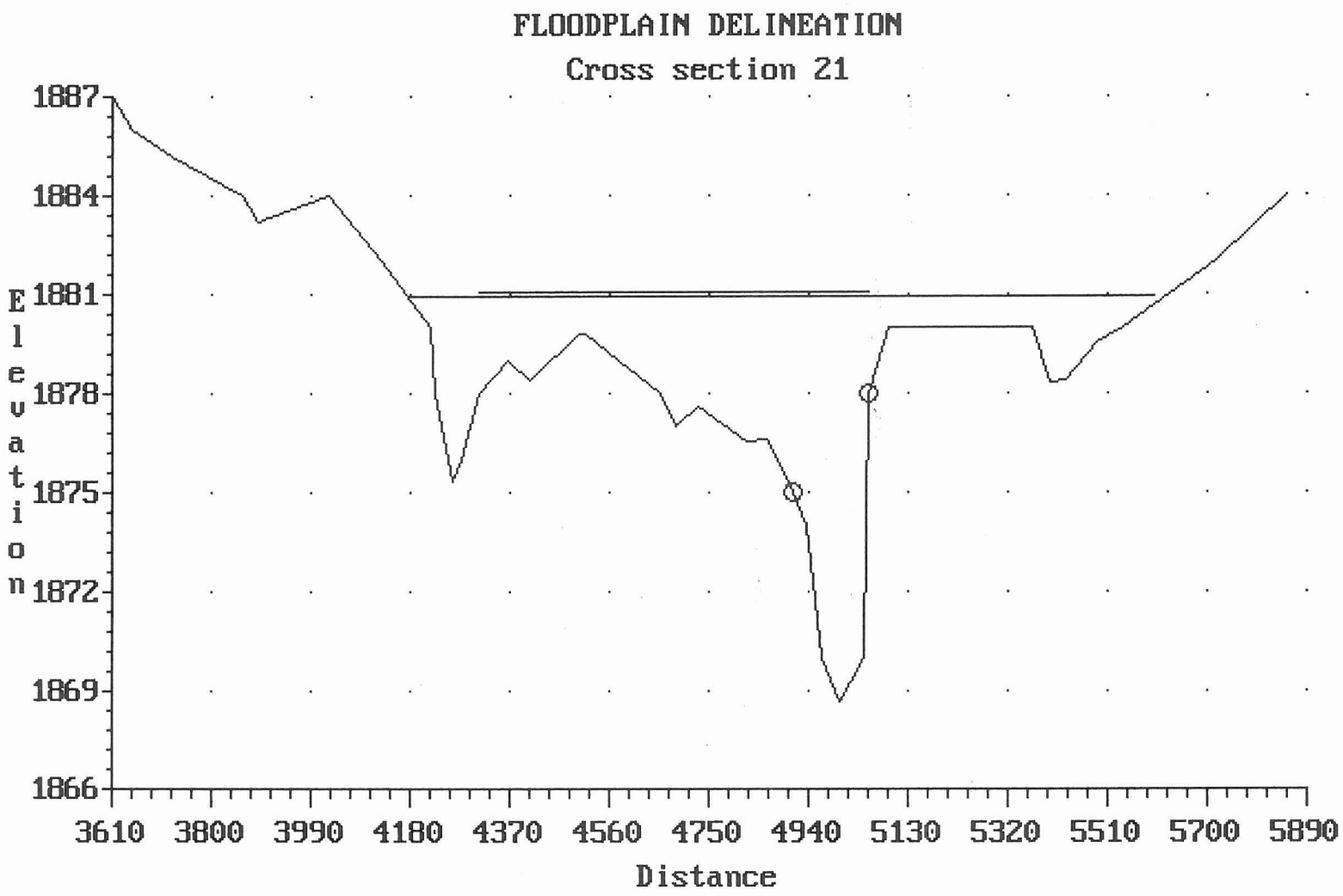

FLOODPLAIN DELINEATION
Cross section 20.65
Elevation
1866
1864
1862
1860
1858
1856
1854
1852
3680
3840
4000
4160
4320
4480
4640
4800
4960
5120
5280
5440
5600
Distance

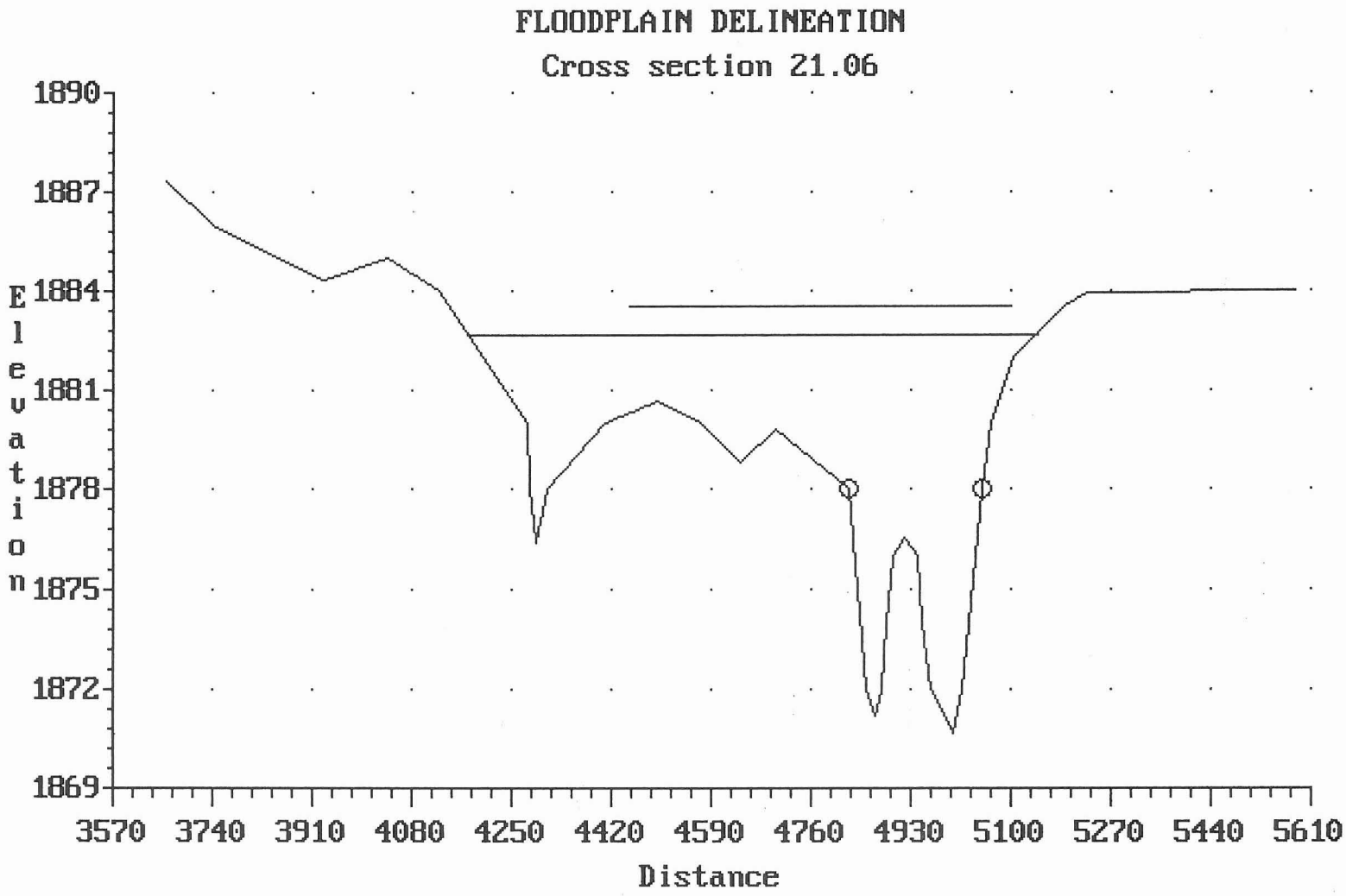

FLOODPLAIN DELINEATION
Cross section 20.73
Elevation
1880
1876
1872
1868
1864
1860
1856
1852
3400
3600
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
Distance

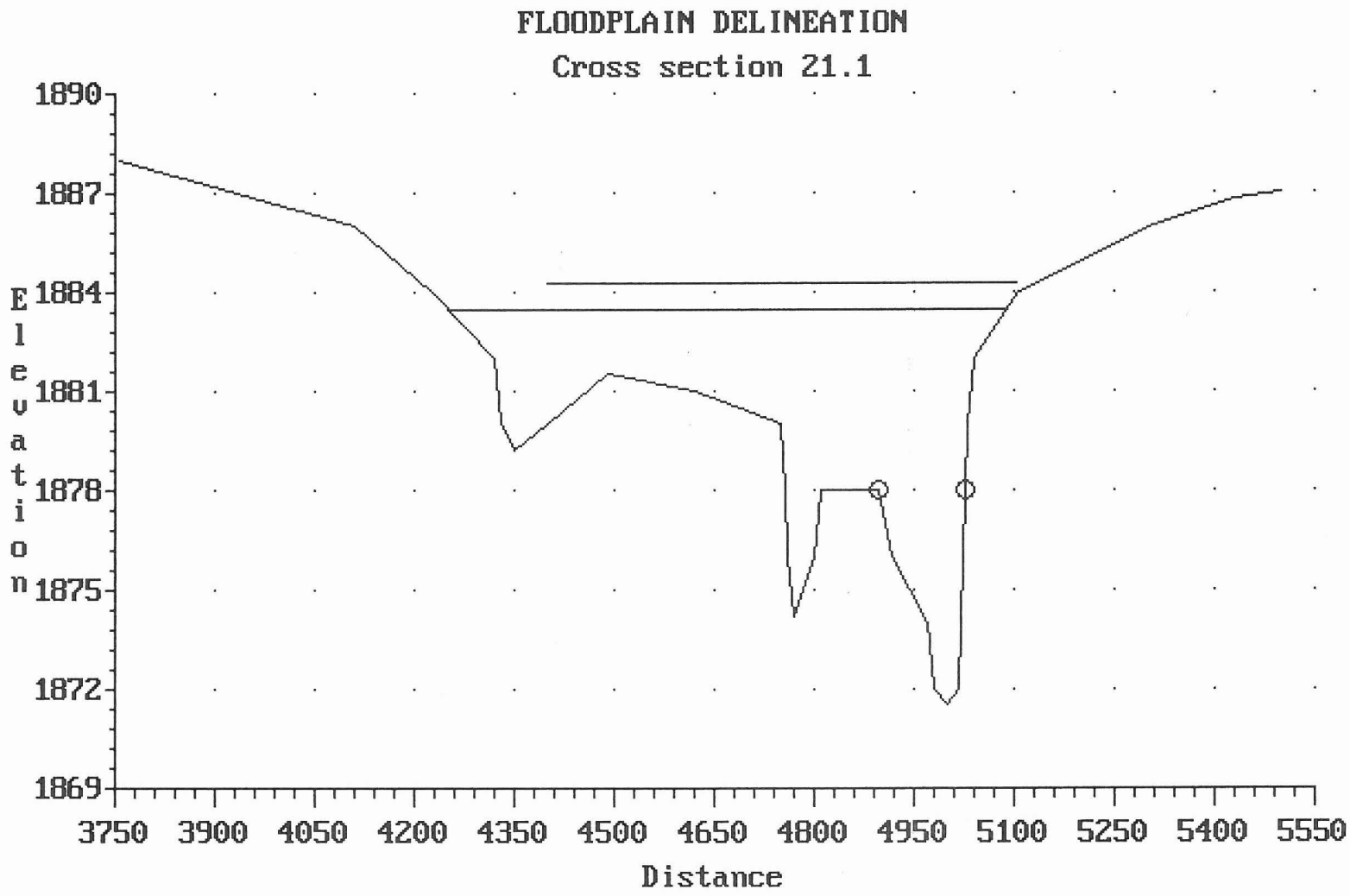

FLOODPLAIN DELINEATION
Cross section 20.8
Elevation
1878
1875
1872
1869
1866
1863
1860
1857
2480
2790
3100
3410
3720
4030
4340
4650
4960
5270
5580
5890
6200
Distance

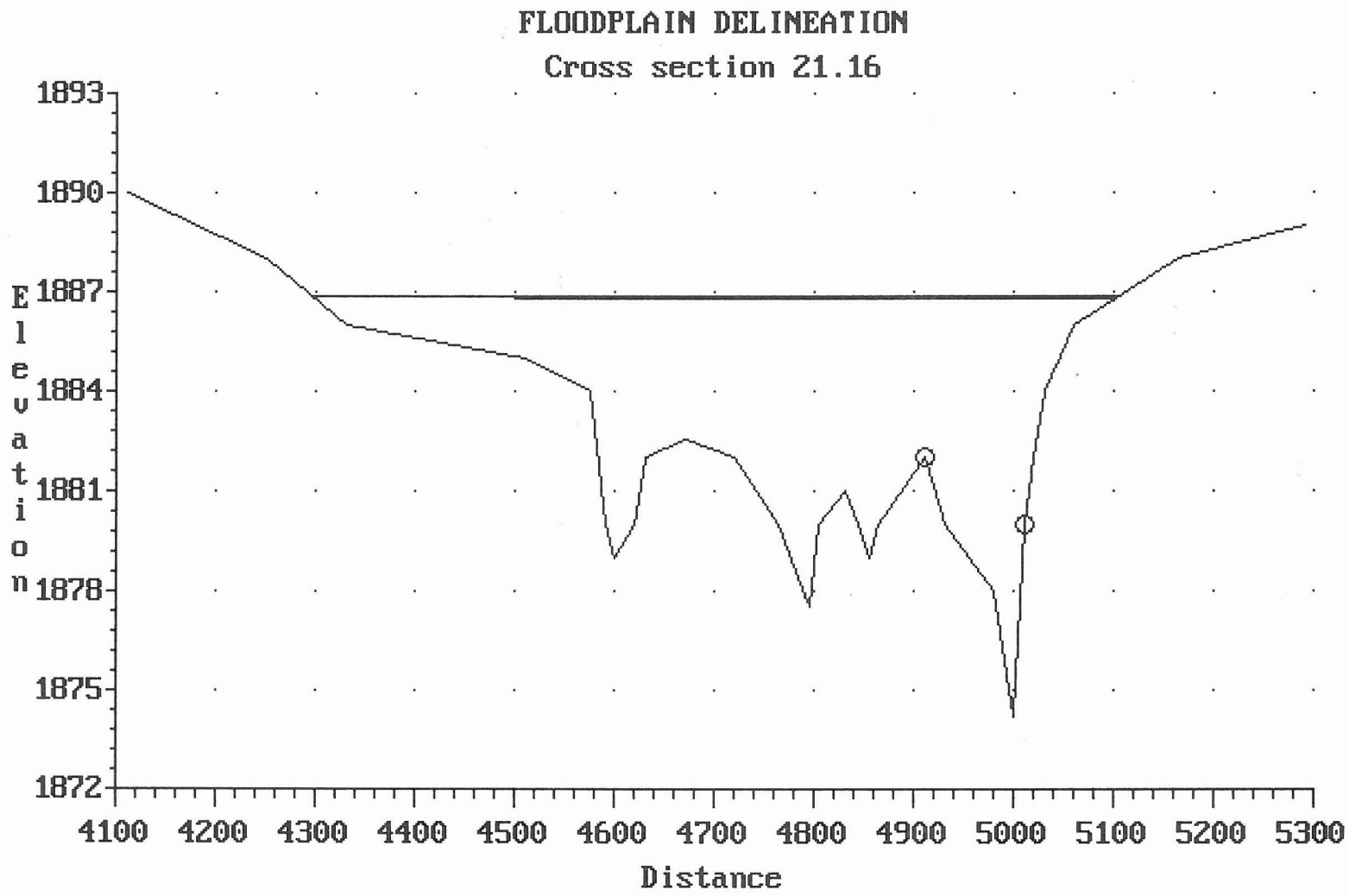

FLOODPLAIN DELINEATION
Cross section 20.86
Elevation
1881
1878
1875
1872
1869
1866
1863
1860
2480
2790
3100
3410
3720
4030
4340
4650
4960
5270
5580
5890
6200
Distance

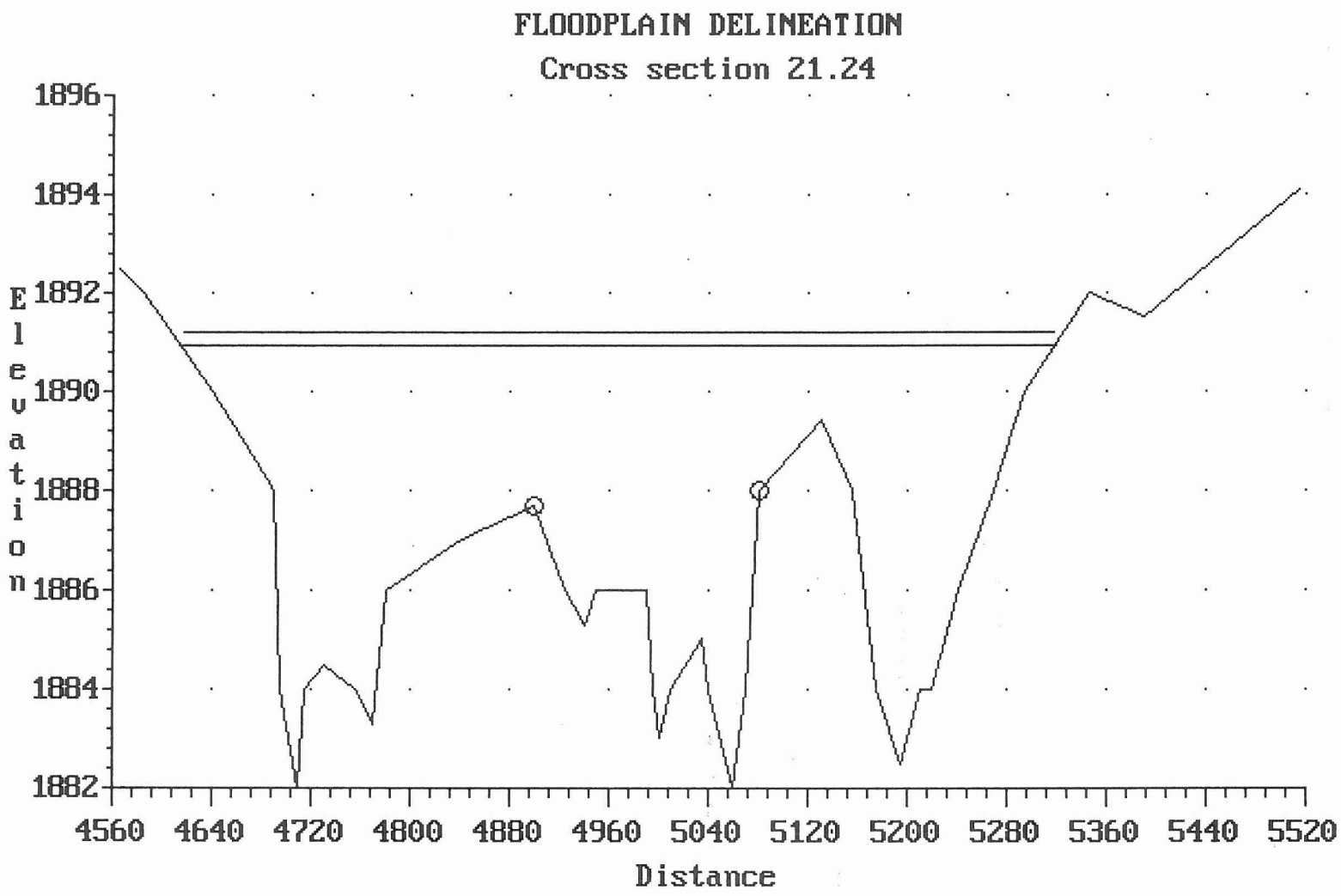

FLOODPLAIN DELINEATION
Cross section 20.93
Elevation
1884
1881
1878
1875
1872
1869
1866
1863
2790
3100
3410
3720
4030
4340
4650
4960
5270
5580
5890
6200
6510
Distance

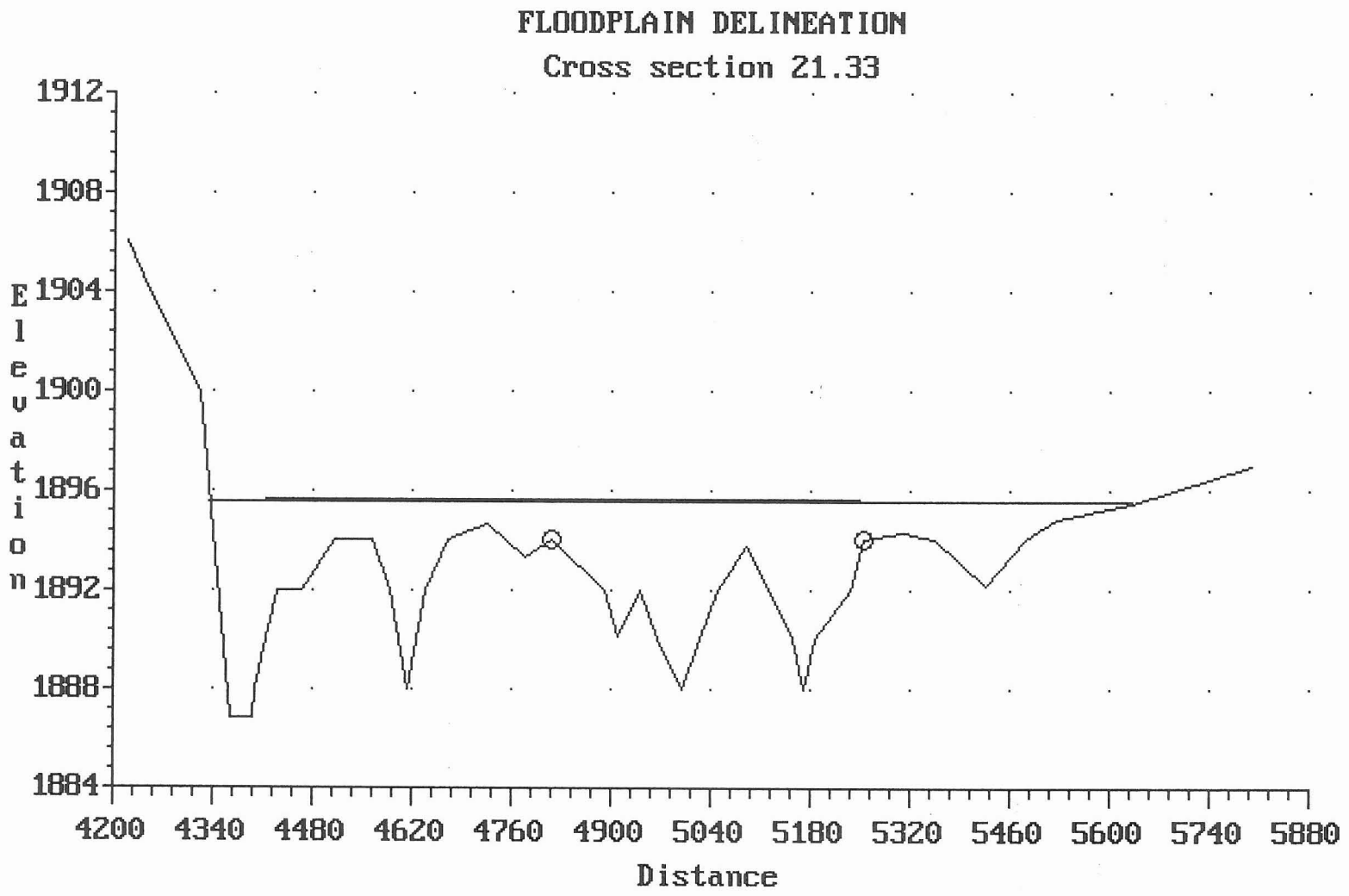

FLOODPLAIN DELINEATION
Cross section 21
1887
1884
1881
1878
1875
1872
1869
1866
Elevation
3610
3800
3990
4180
4370
4560
4750
4940
5130
5320
5510
5700
5890
Distance

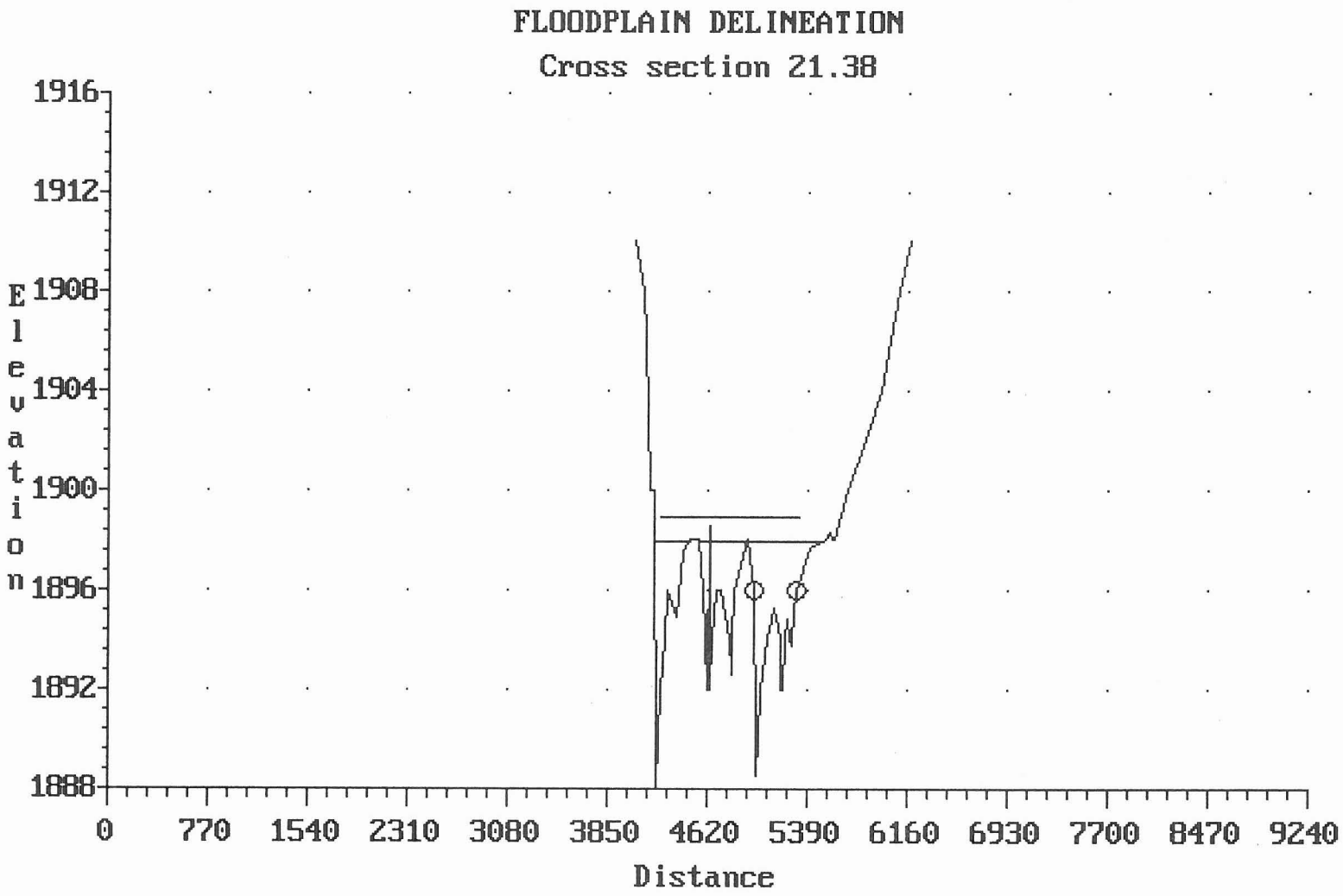

FLOODPLAIN DELINEATION
Cross section 21.06
1890
1887
1884
1881
1878
1875
1872
1869
Elevation
3570
3740
3910
4080
4250
4420
4590
4760
4930
5100
5270
5440
5610
Distance

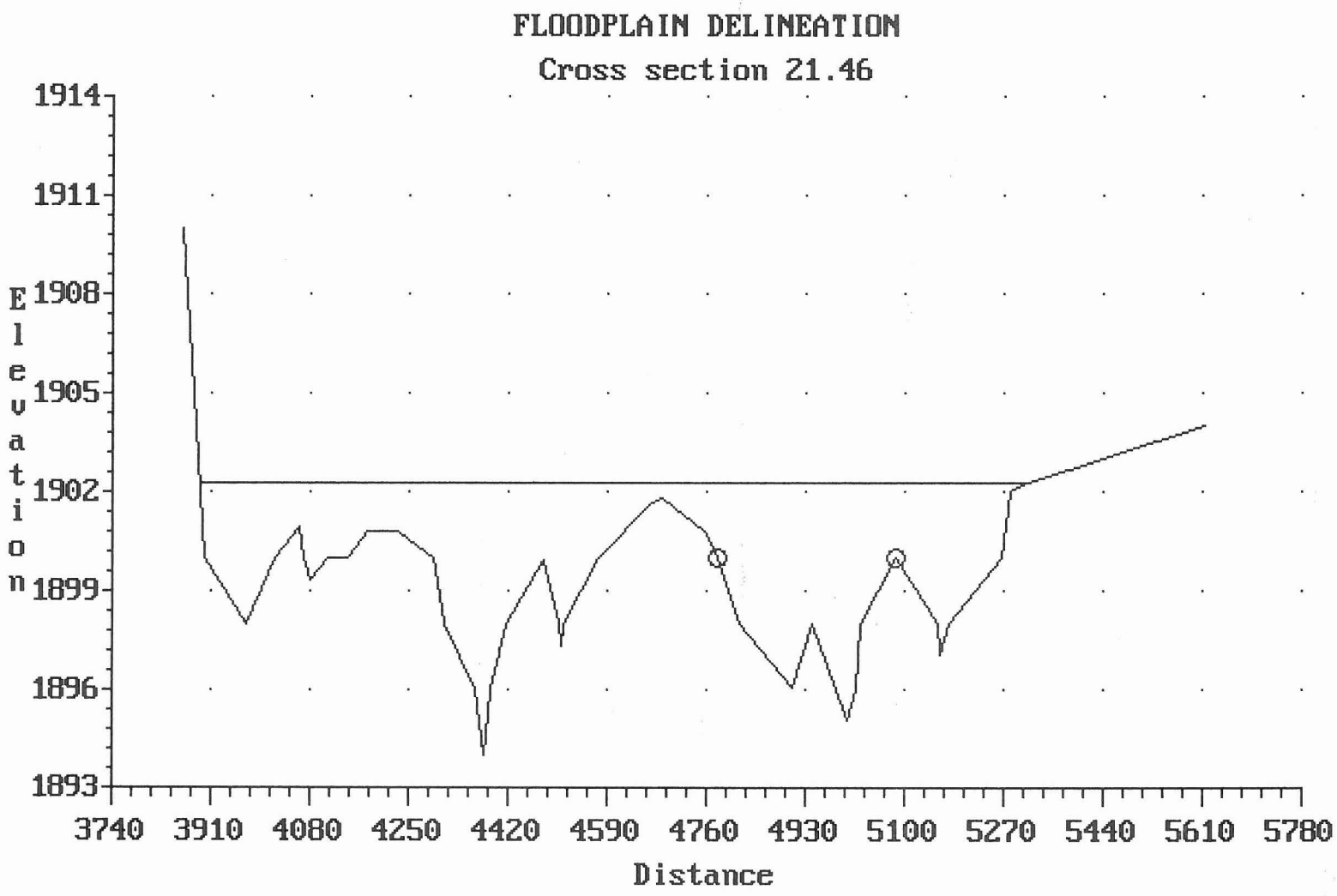

FLOODPLAIN DELINEATION
Cross section 21.1
Elevation
1890
1887
1884
1881
1878
1875
1872
1869
3750
3900
4050
4200
4350
4500
4650
4800
4950
5100
5250
5400
5550
Distance

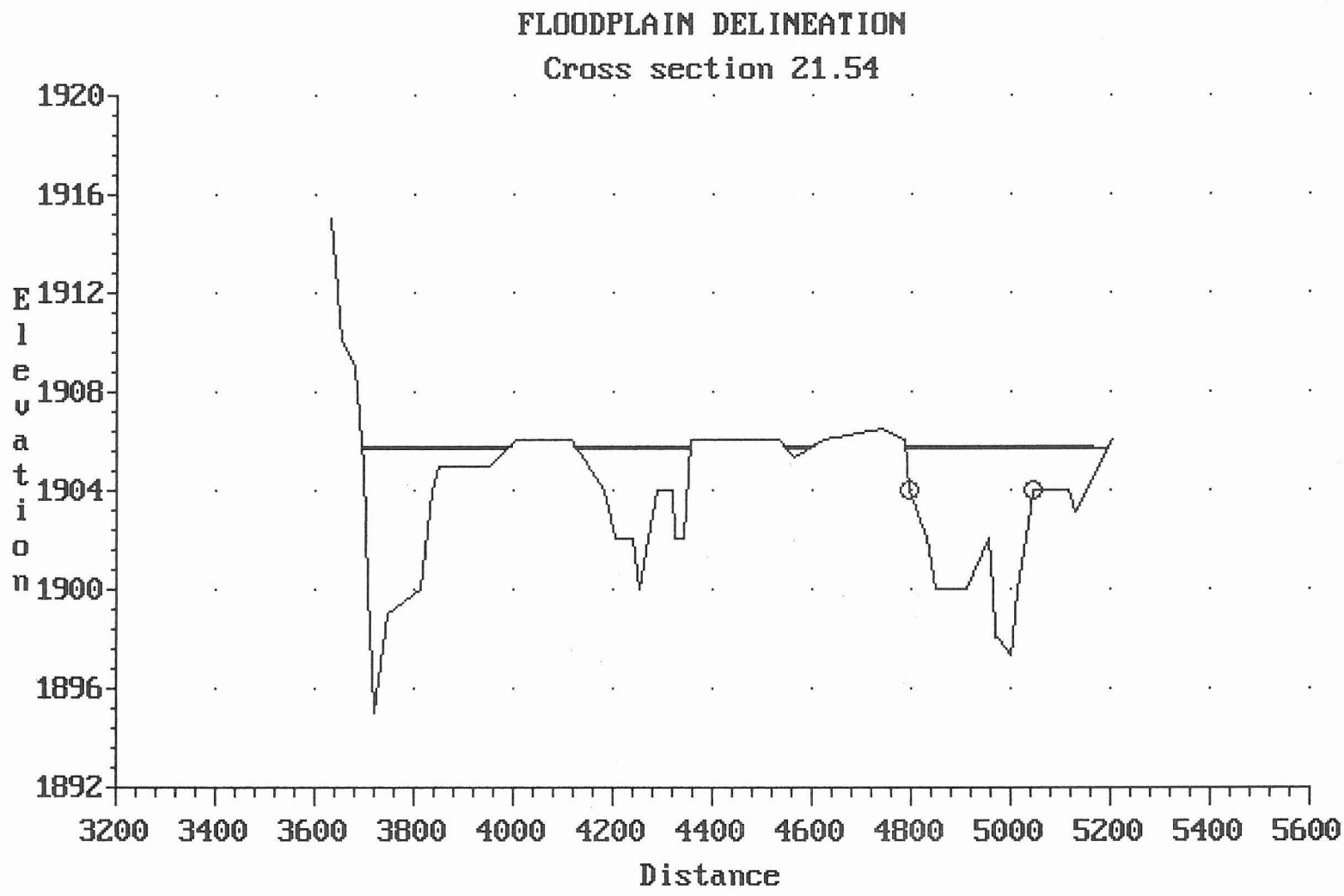

FLOODPLAIN DELINEATION
Cross section Z1.16
1893
1890
1887
1884
1881
1878
1875
1872
Elevation
4100
4200
4300
4400
4500
4600
4700
4800
4900
5000
5100
5200
5300
Distance

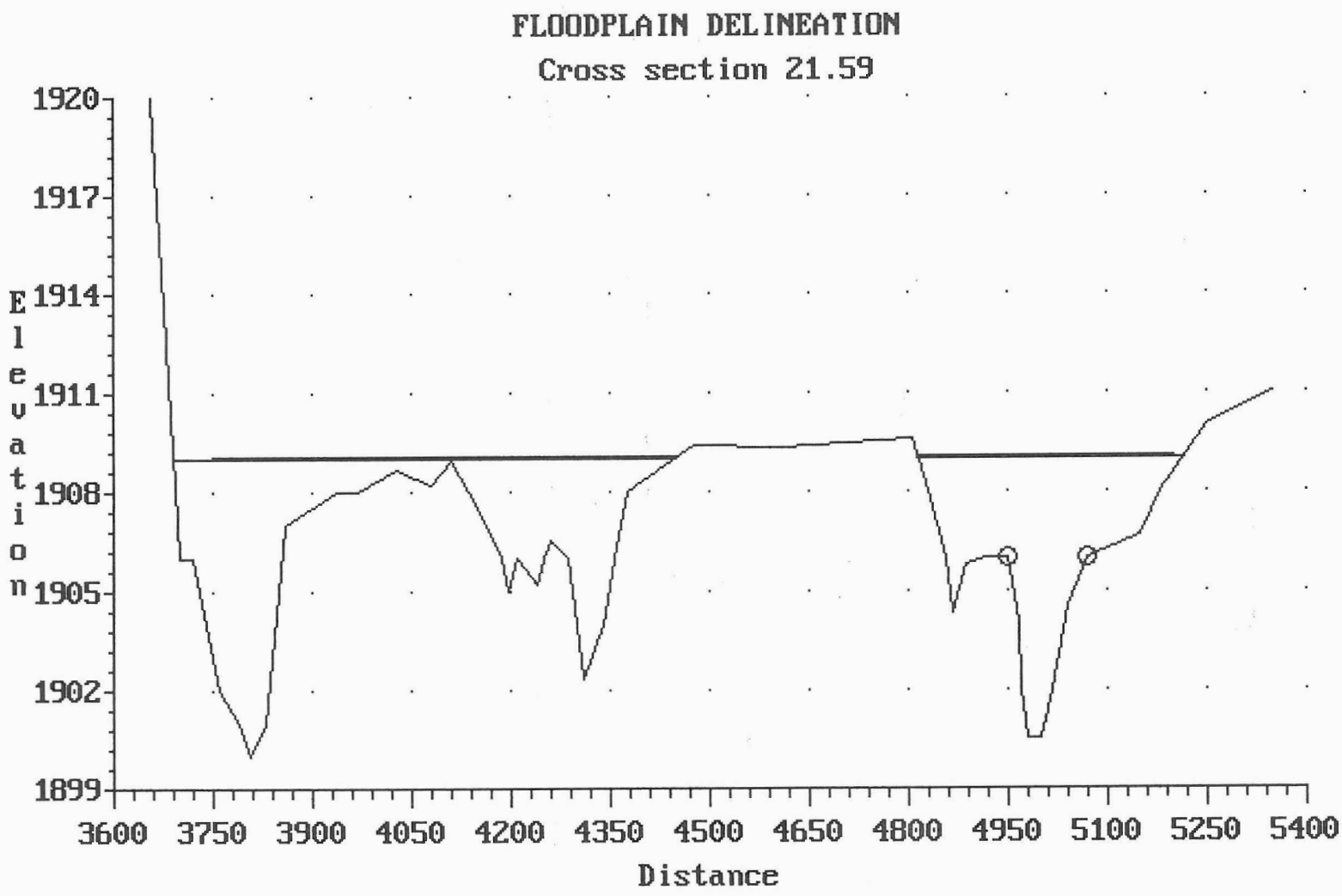

FLOODPLAIN DELINEATION
Cross section 21.24
Elevation
1896
1894
1892
1890
1888
1886
1884
1882
4560
4640
4720
4800
4880
4960
5040
5120
5200
5280
5360
5440
5520
Distance

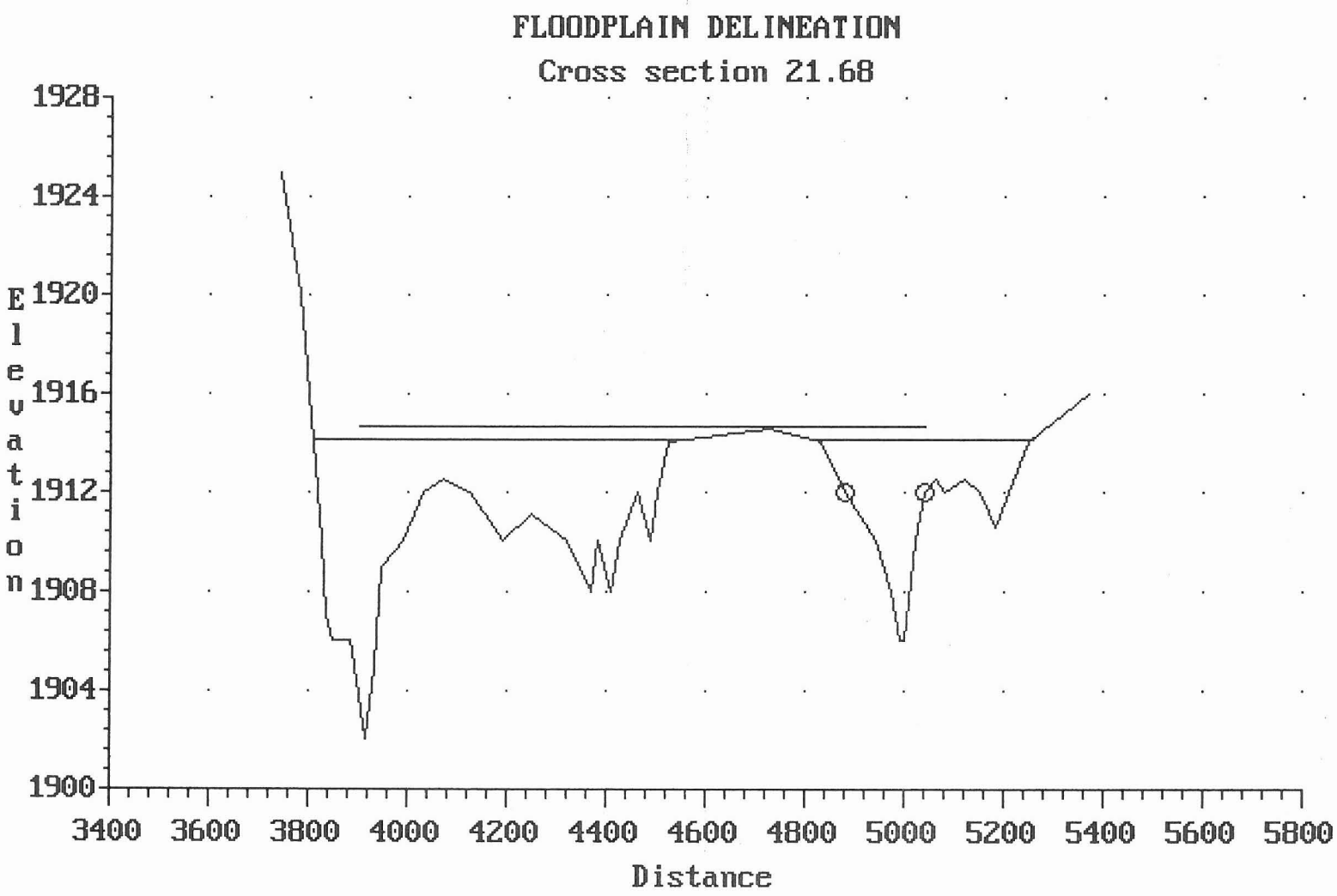

FLOODPLAIN DELINEATION
Cross section 21.33
Elevation
1912
1908
1904
1900
1896
1892
1888
1884
4200
4340
4480
4620
4760
4900
5040
5180
5320
5460
5600
5740
5880
Distance

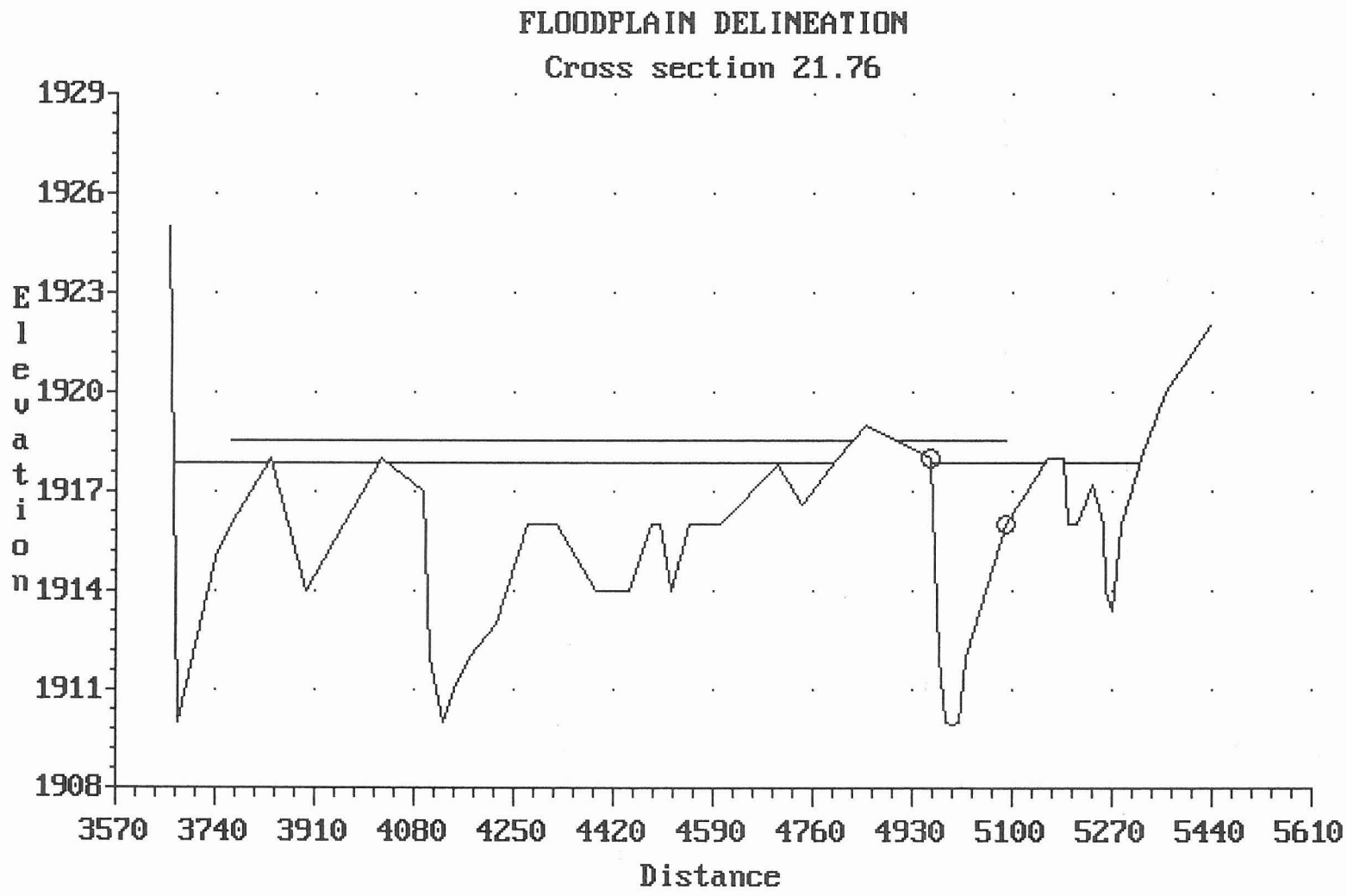

FLOODPLAIN DELINEATION
Cross section 21.38
Elevation
1916
1912
1908
1904
1900
1896
1892
1888
0
770
1540
2310
3080
3850
4620
5390
6160
6930
7700
8470
9240
Distance

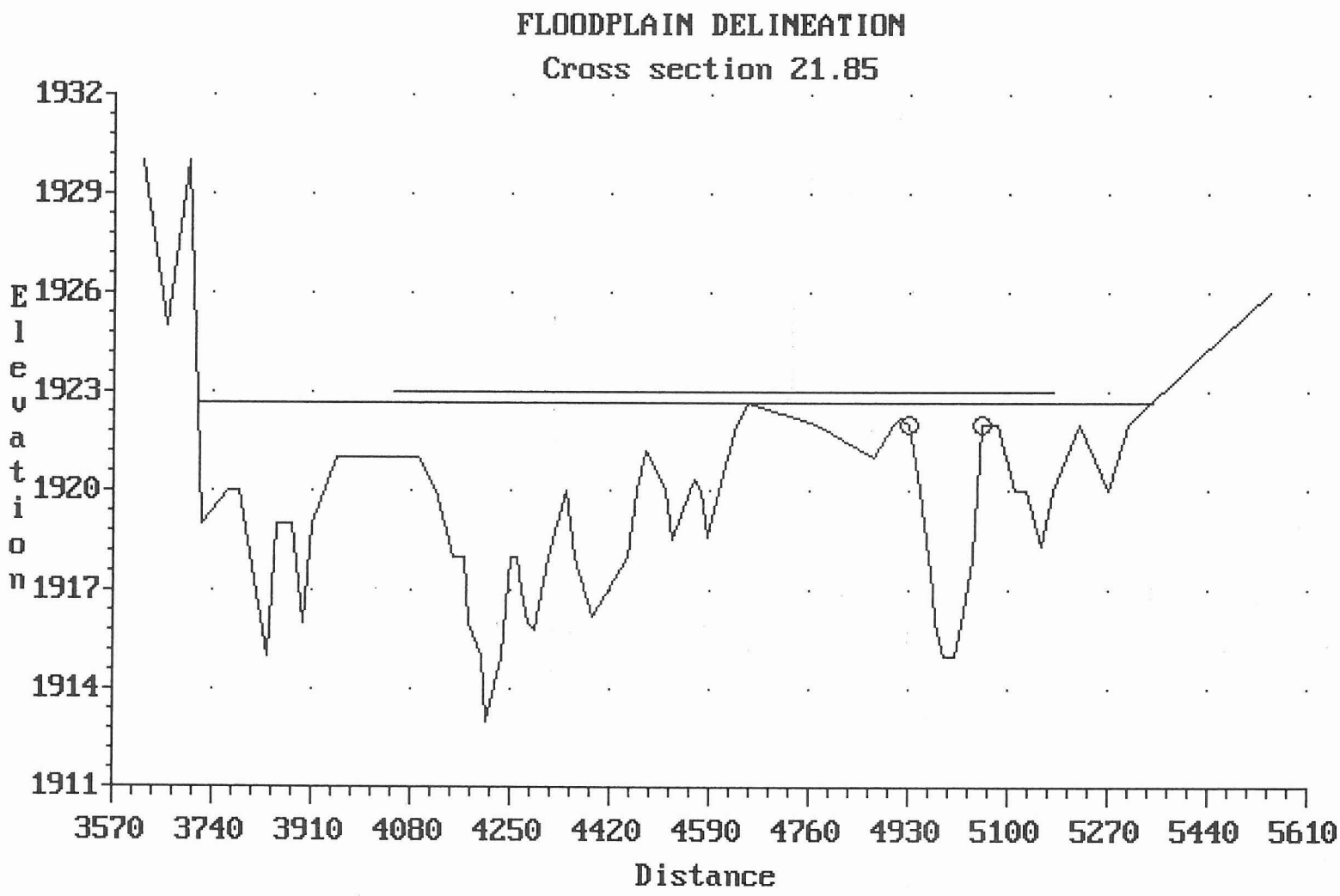

FLOODPLAIN DELINEATION
Cross section 21.46
Elevation
1914
1911
1908
1905
1902
1899
1896
1893
3740
3910
4080
4250
4420
4590
4760
4930
5100
5270
5440
5610
5780
Distance

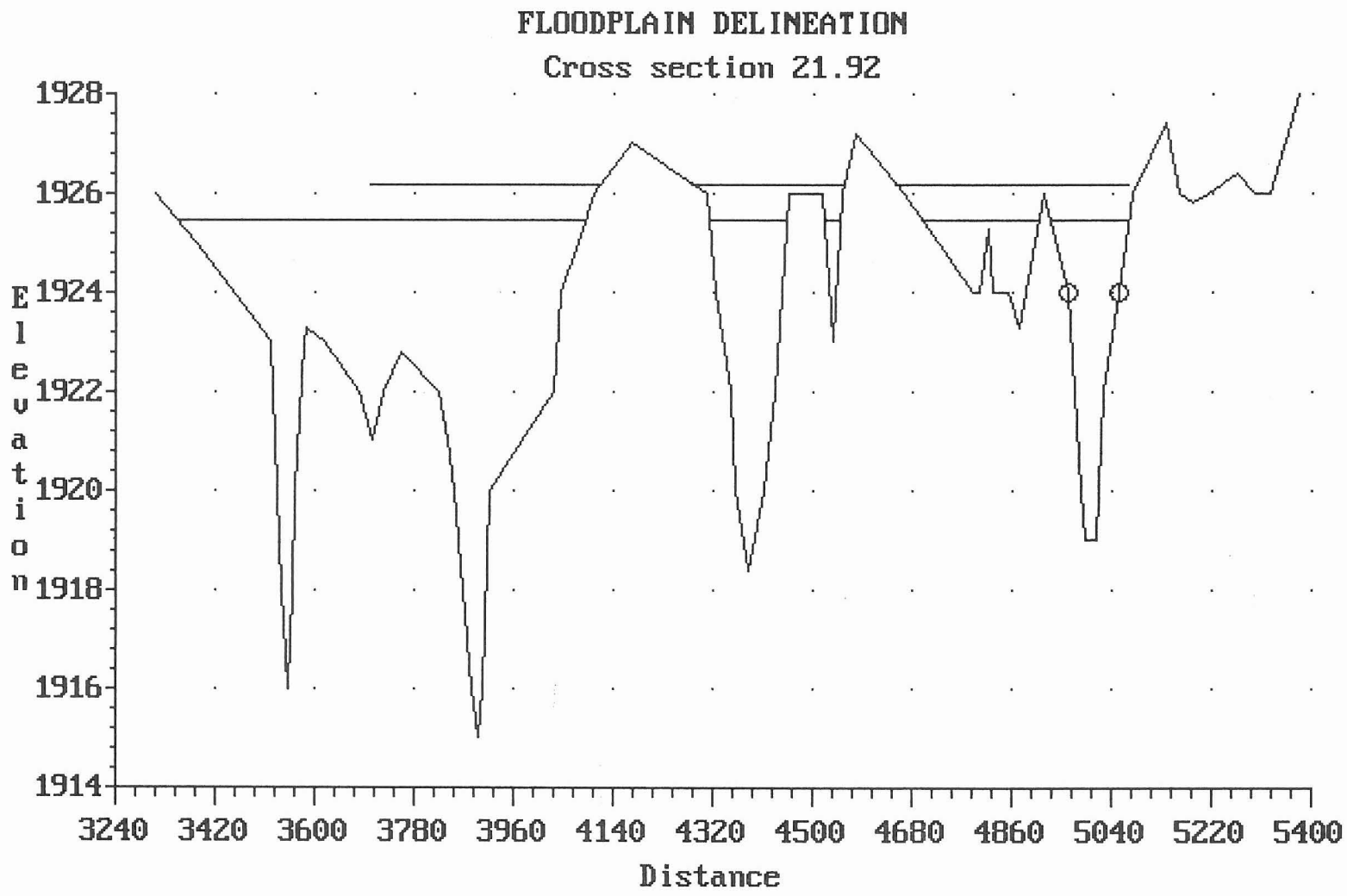

FLOODPLAIN DELINEATION
Cross section 21.54
Elevation
1920
1916
1912
1908
1904
1900
1896
1892
3200
3400
3600
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
Distance

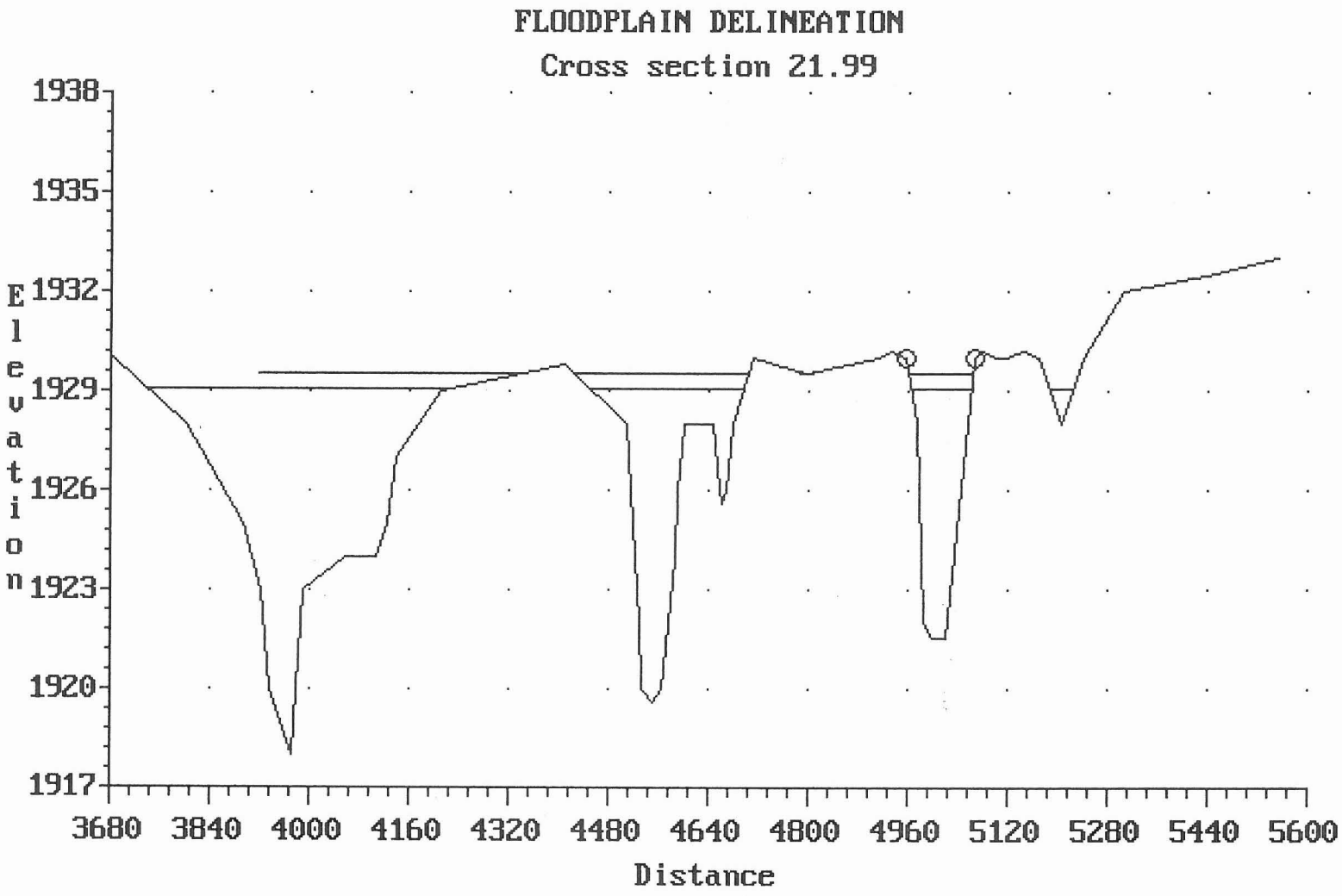

FLOODPLAIN DELINEATION
Cross section 21.59
Elevation
1920
1917
1914
1911
1908
1905
1902
1899
3600
3750
3900
4050
4200
4350
4500
4650
4800
4950
5100
5250
5400
Distance

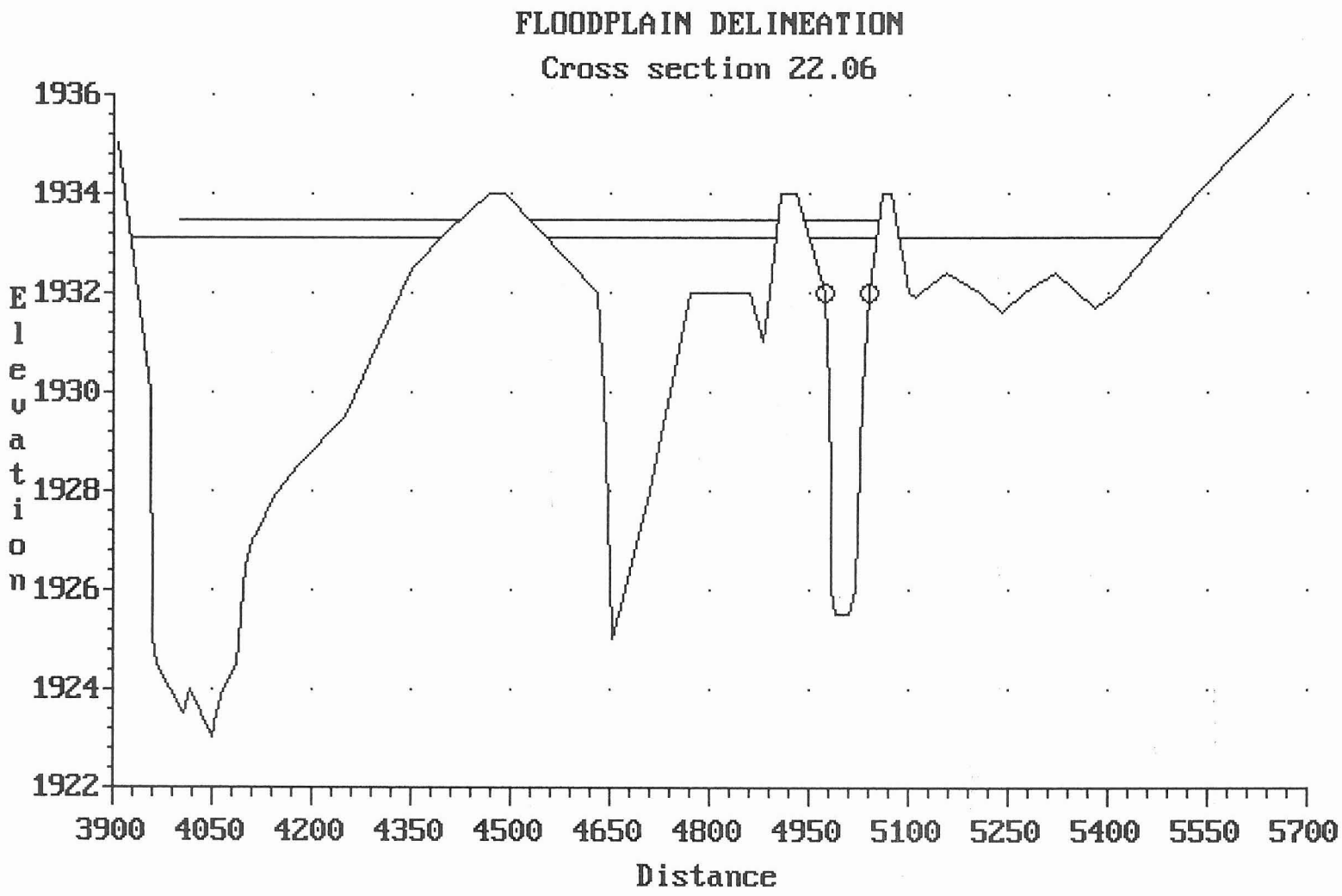

FLOODPLAIN DELINEATION
Cross section 21.68
Elevation
1928
1924
1920
1916
1912
1908
1904
1900
3400
3600
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
Distance

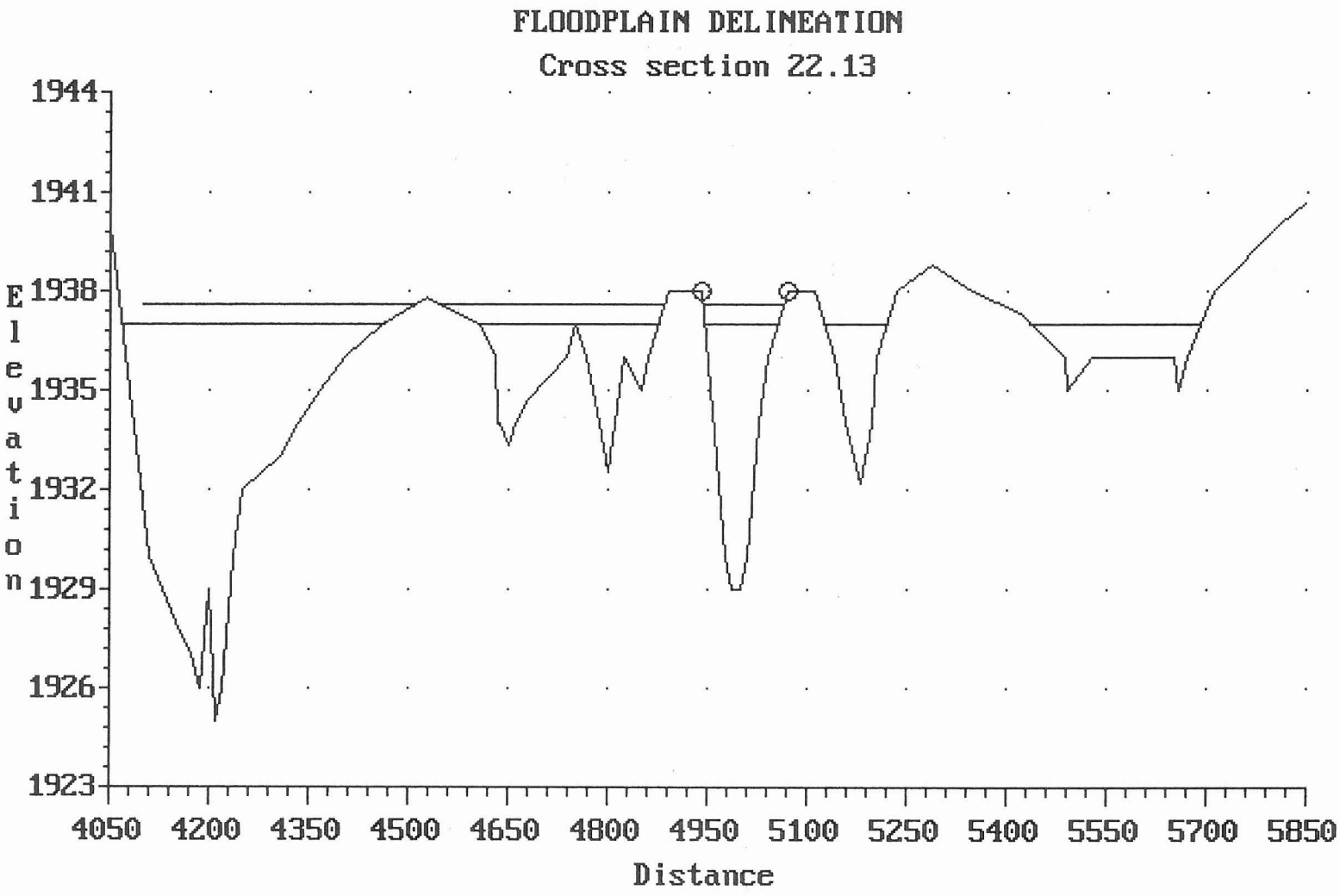

FLOODPLAIN DELINEATION
Cross section 21.76
Elevation
1929
1926
1923
1920
1917
1914
1911
1908
3570
3740
3910
4080
4250
4420
4590
4760
4930
5100
5270
5440
5610
Distance

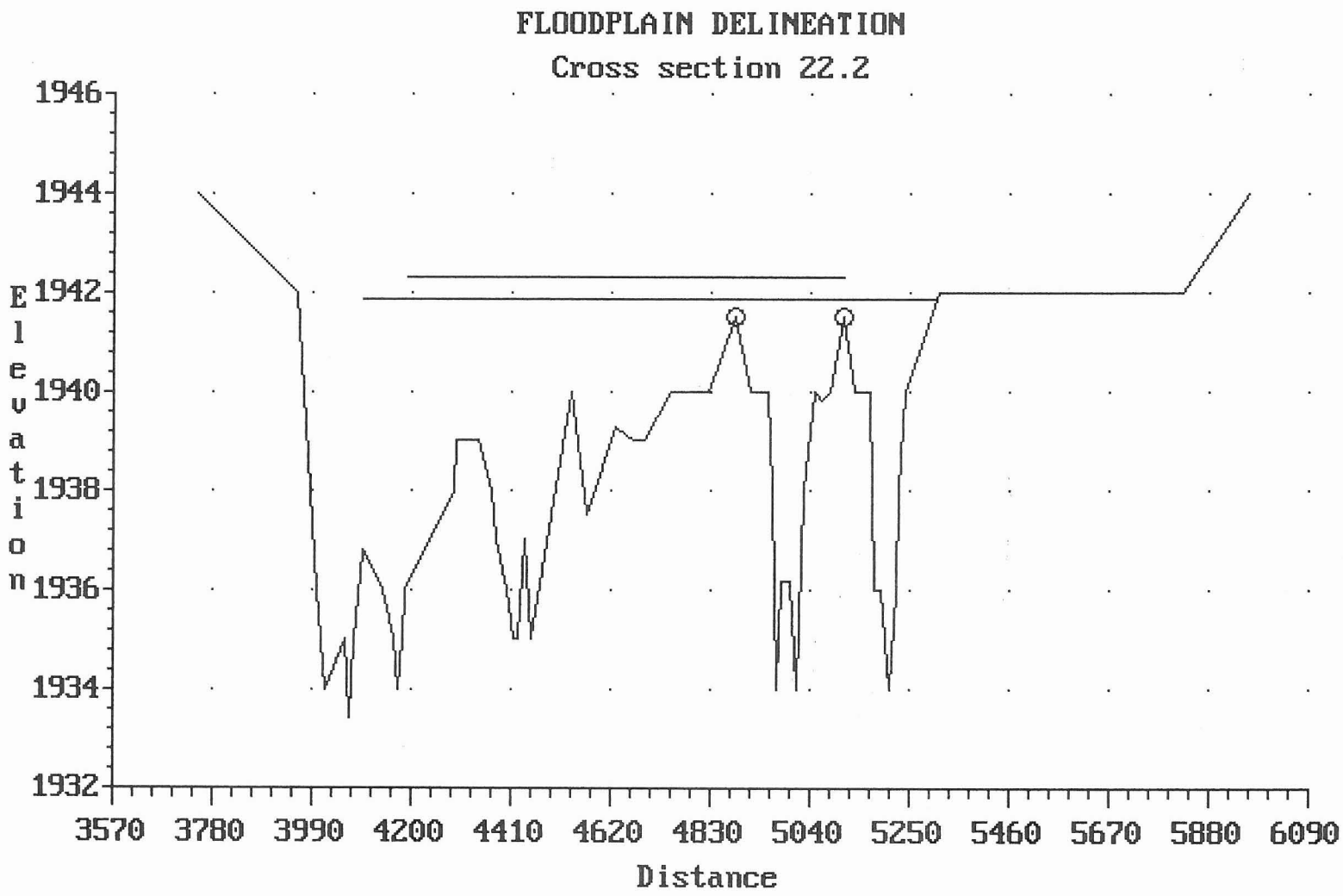

FLOODPLAIN DELINEATION
Cross section 21.85
1932
1929
1926
1923
1920
1917
1914
1911
Elevation
3570
3740
3910
4080
4250
4420
4590
4760
4930
5100
5270
5440
5610
Distance

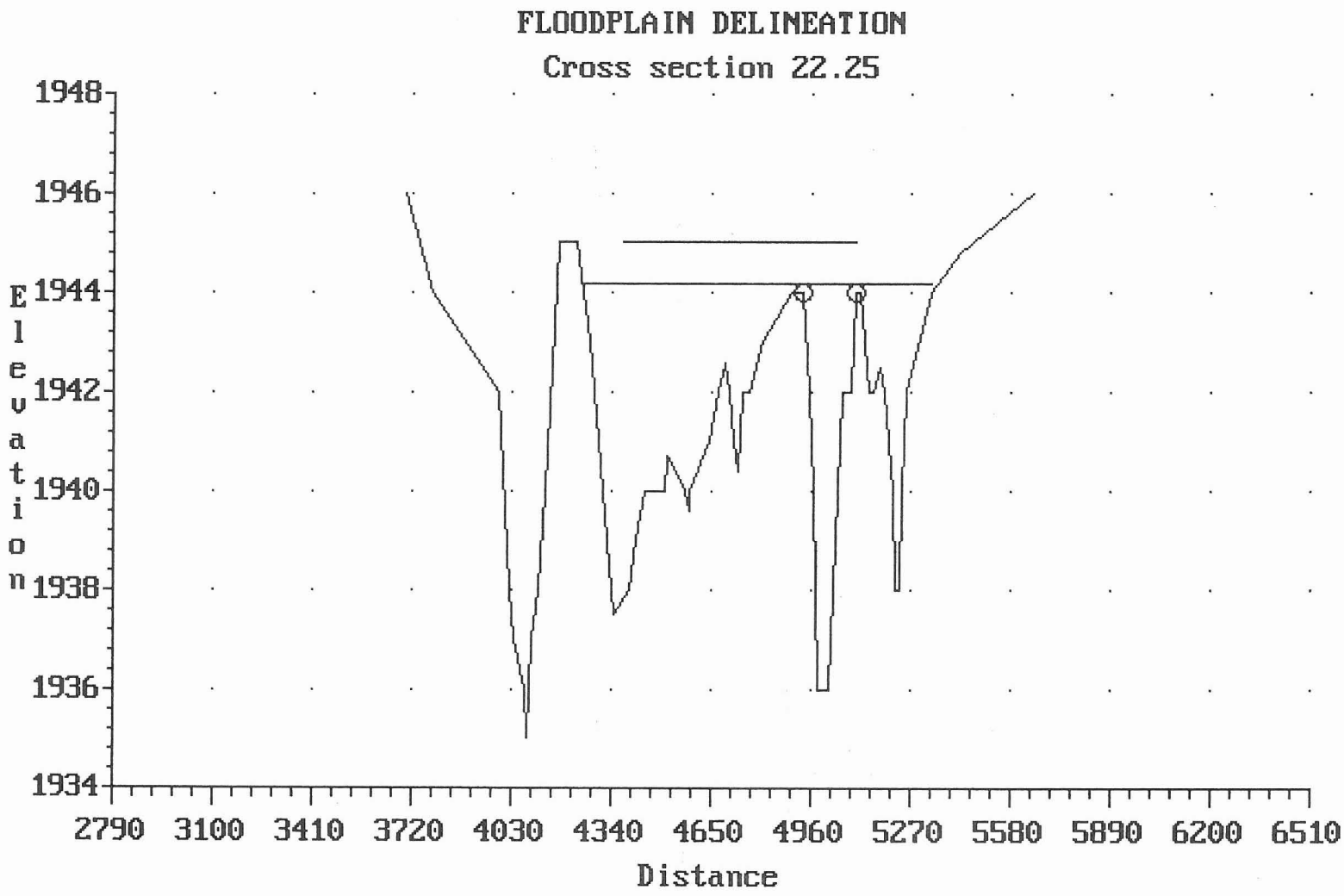

FLOODPLAIN DELINEATION
Cross section 21.92
Elevation
1928
1926
1924
1922
1920
1918
1916
1914
3240
3420
3600
3780
3960
4140
4320
4500
4680
4860
5040
5220
5400
Distance

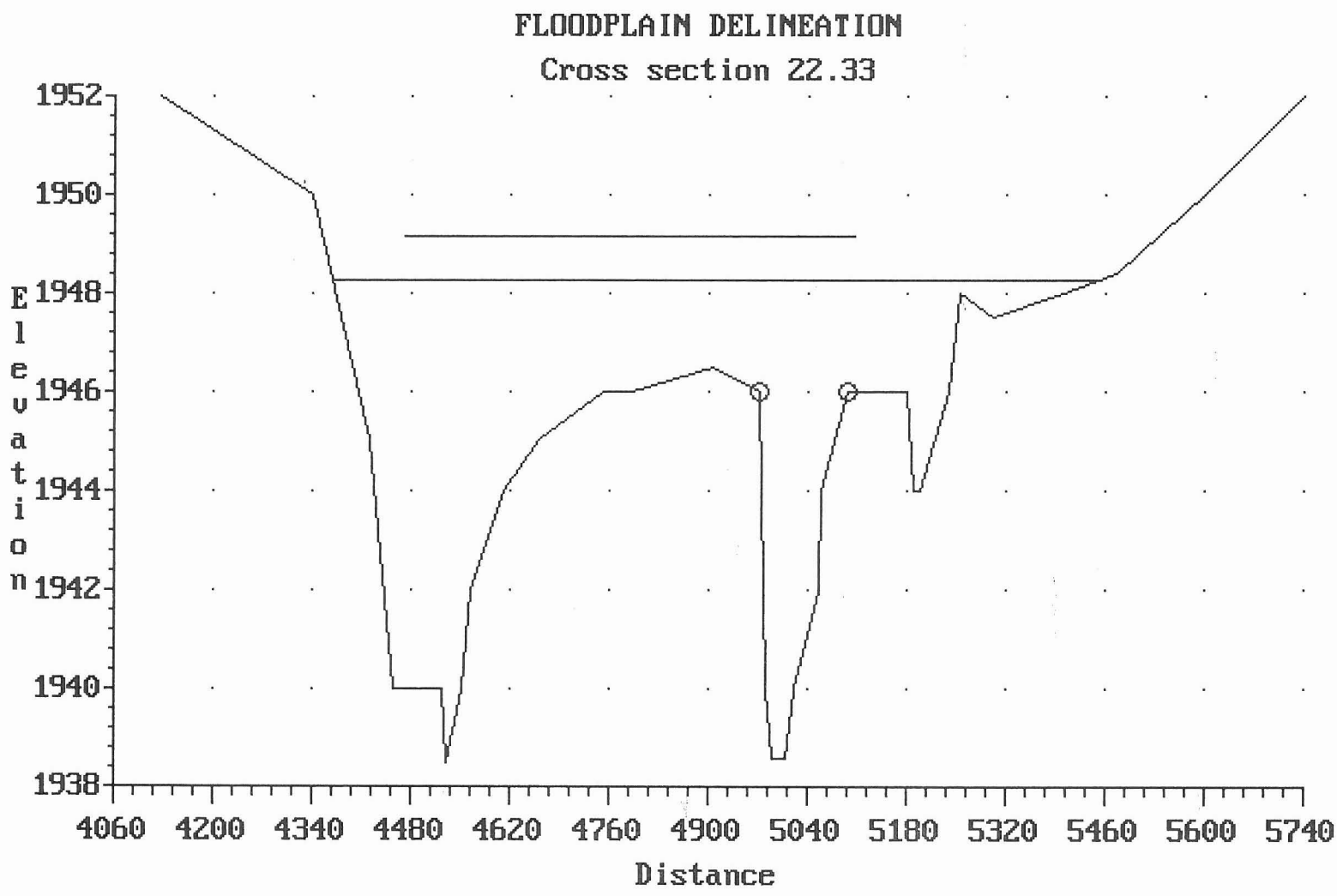

FLOODPLAIN DELINEATION
Cross section 21.99
Elevation
1938
1935
1932
1929
1926
1923
1920
1917
3680
3840
4000
4160
4320
4480
4640
4800
4960
5120
5280
5440
5600
Distance

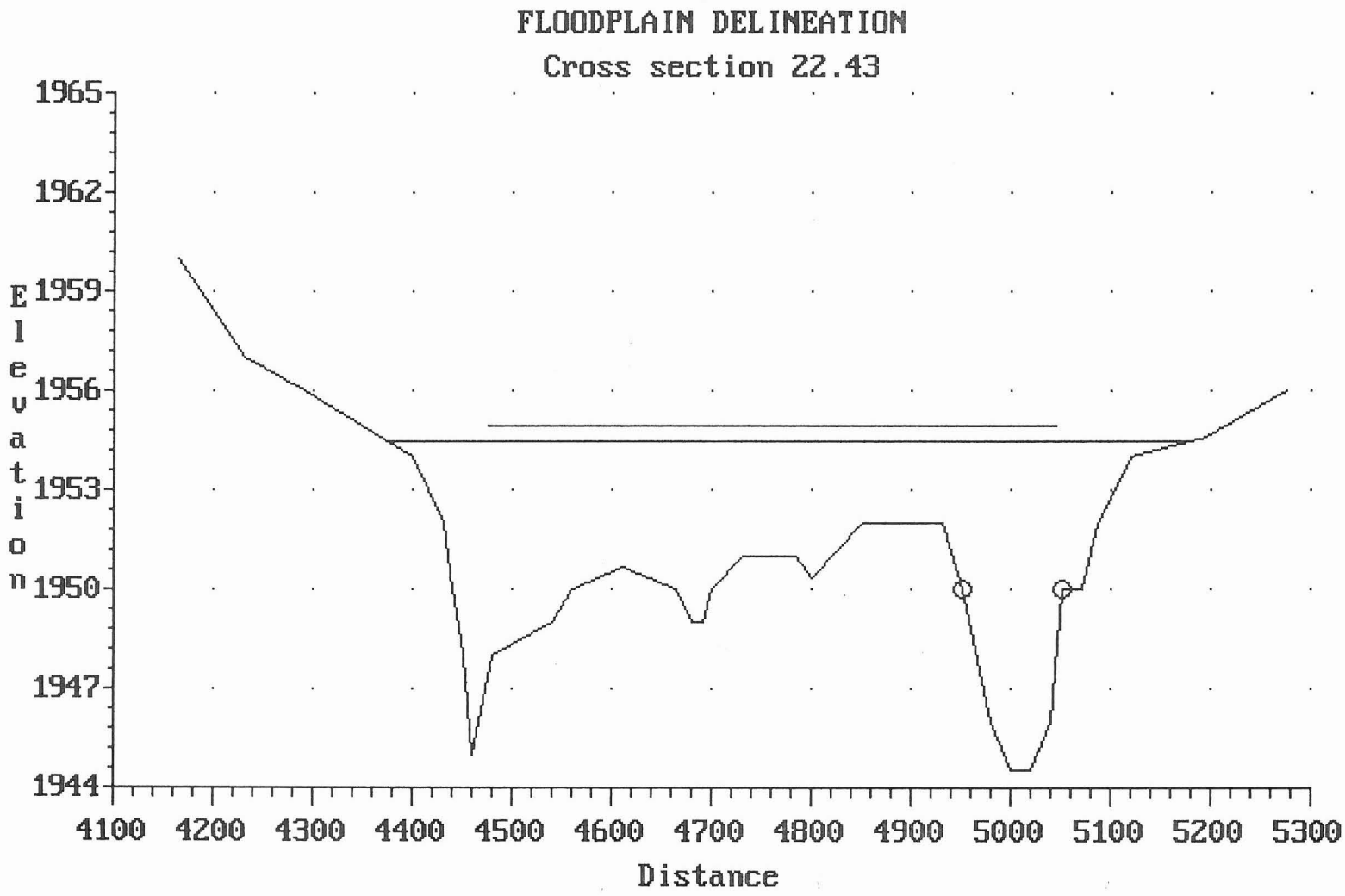

FLOODPLAIN DELINEATION
Cross section 22.06
Elevation
1936
1934
1932
1930
1928
1926
1924
1922
3900
4050
4200
4350
4500
4650
4800
4950
5100
5250
5400
5550
5700
Distance

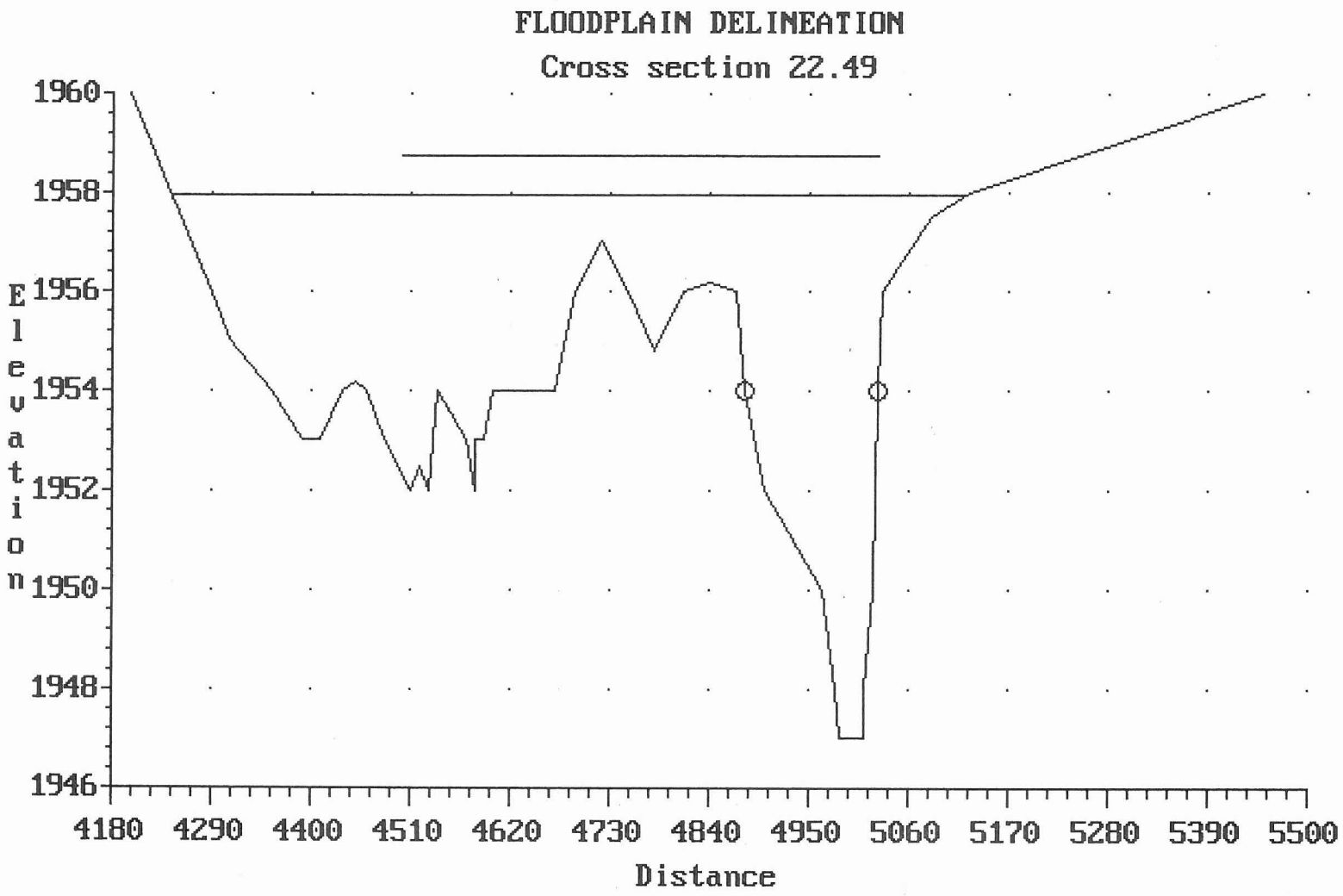

FLOODPLAIN DELINEATION
Cross section 22.13
Elevation
1944
1941
1938
1935
1932
1929
1926
1923
4050
4200
4350
4500
4650
4800
4950
5100
5250
5400
5550
5700
5850
Distance

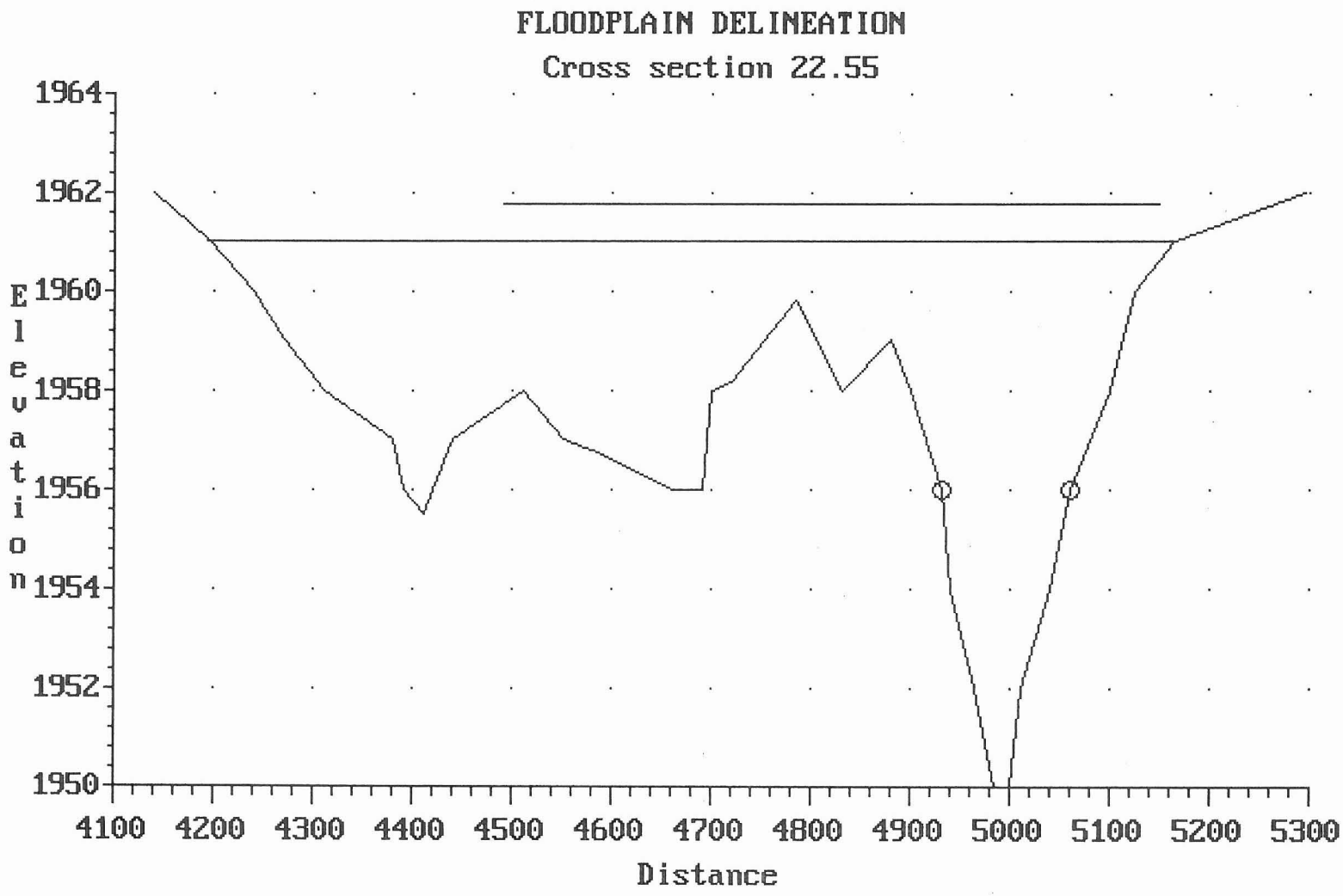

FLOODPLAIN DELINEATION
Cross section 22.2
Elevation
1946
1944
1942
1940
1938
1936
1934
1932
3570
3780
3990
4200
4410
4620
4830
5040
5250
5460
5670
5880
6090
Distance

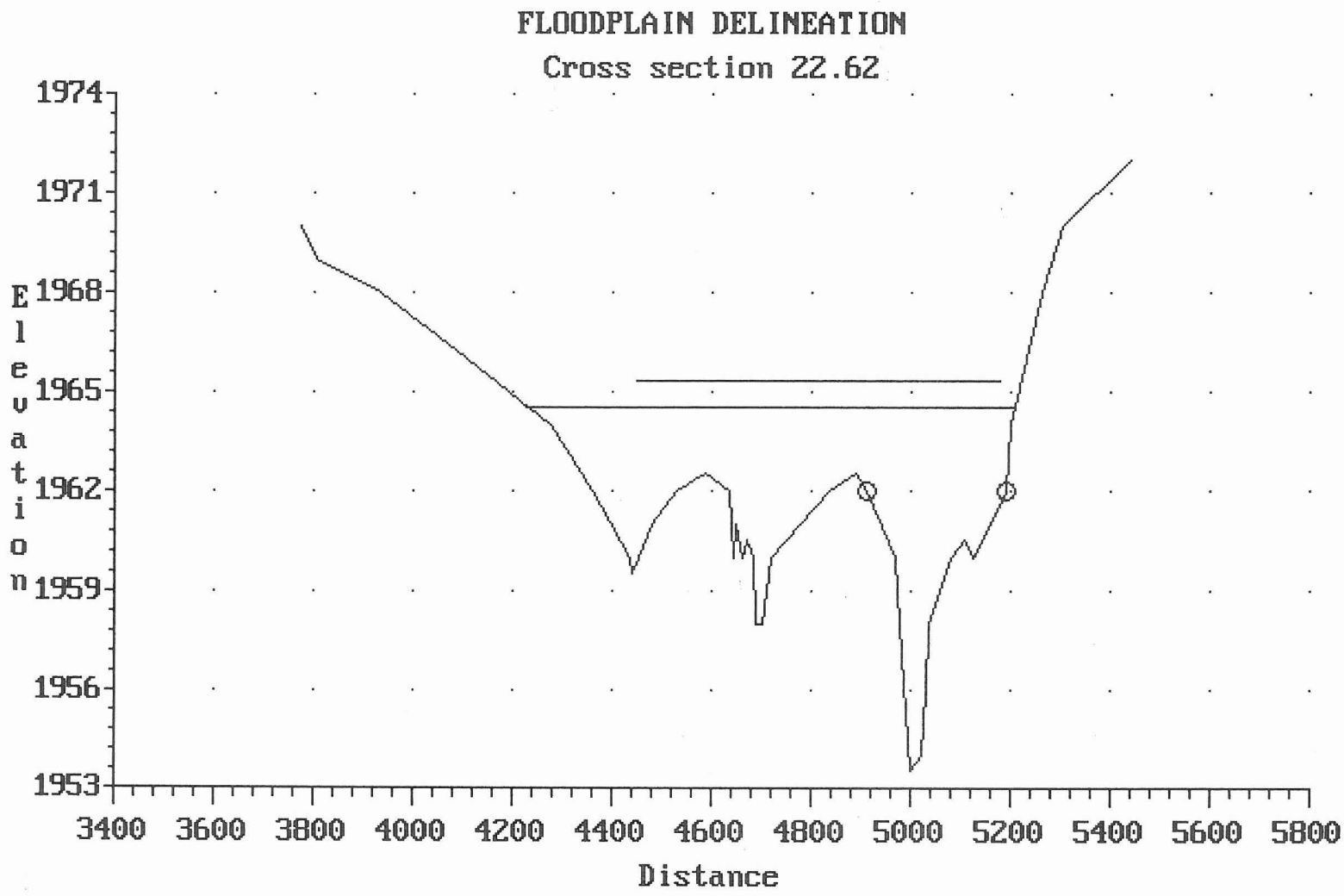

FLOODPLAIN DELINEATION
Cross section 22.25
Elevation
1948
1946
1944
1942
1940
1938
1936
1934
2790
3100
3410
3720
4030
4340
4650
4960
5270
5580
5890
6200
6510
Distance

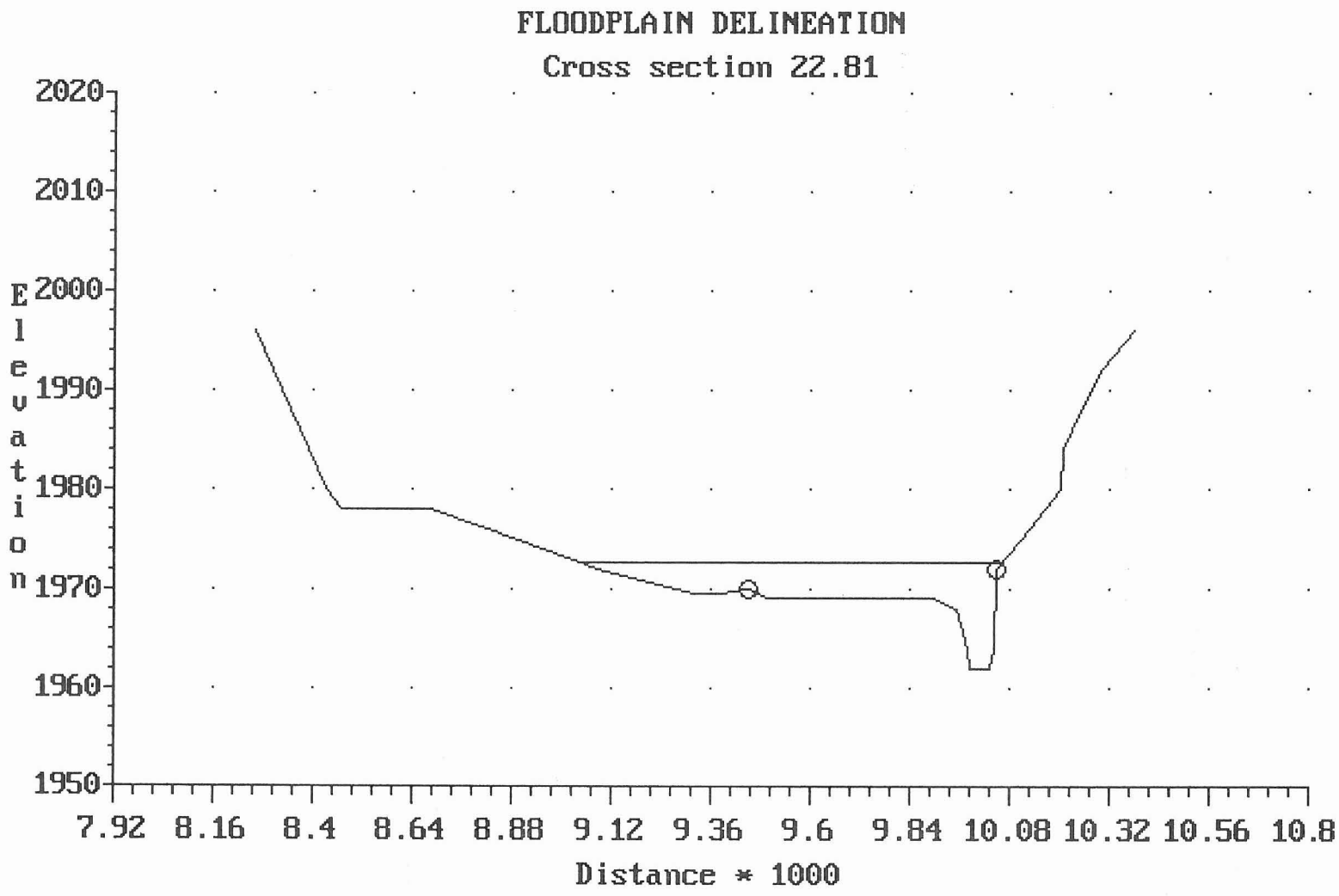

FLOODPLAIN DELINEATION
Cross section 22.33
Elevation
1952
1950
1948
1946
1944
1942
1940
1938
4060
4200
4340
4480
4620
4760
4900
5040
5180
5320
5460
5600
5740
Distance

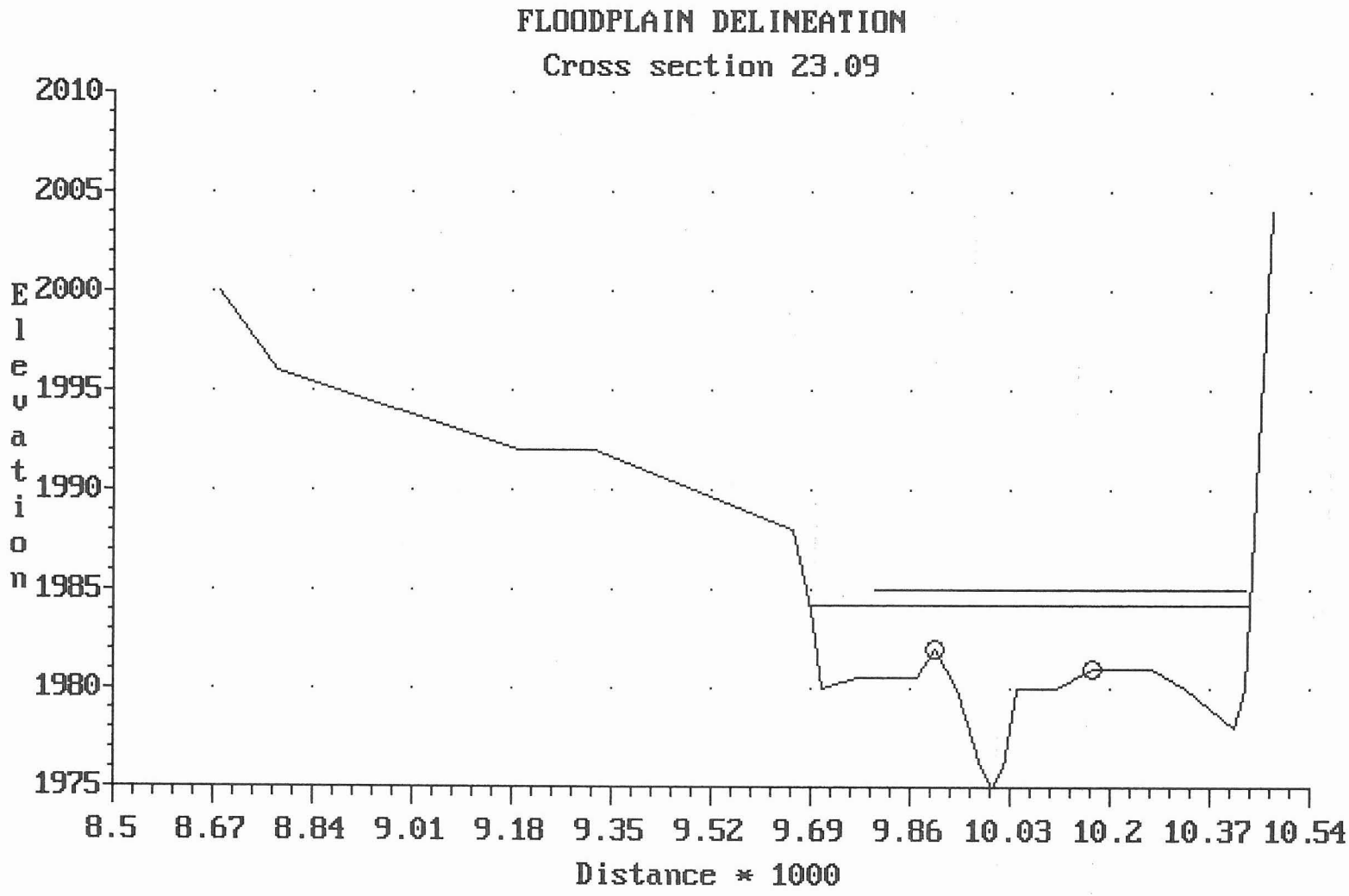

FLOODPLAIN DELINEATION
Cross section 22.43
Elevation
1965
1962
1959
1956
1953
1950
1947
1944
4100
4200
4300
4400
4500
4600
4700
4800
4900
5000
5100
5200
5300
Distance


FLOODPLAIN DELINEATION
Cross section 22.49
Elevation
1960
1958
1956
1954
1952
1950
1948
1946
4180
4290
4400
4510
4620
4730
4840
4950
5060
5170
5280
5390
5500
Distance


FLOODPLAIN DELINEATION
Cross section 22.55
Elevation
1964
1962
1960
1958
1956
1954
1952
1950
4100
4200
4300
4400
4500
4600
4700
4800
4900
5000
5100
5200
5300
Distance


FLOODPLAIN DELINEATION
Cross section 22.62
Elevation
1974
1971
1968
1965
1962
1959
1956
1953
3400
3600
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
Distance


FLOODPLAIN DELINEATION
Cross section 22.81
Elevation
2020
2010
2000
1990
1980
1970
1960
1950
7.92
8.16
8.4
8.64
8.88
9.12
9.36
9.6
9.84
10.08
10.32
10.56
10.8
Distance * 1000


FLOODPLAIN DELINEATION
Cross section 23.09
Elevation
2010
2005
2000
1995
1990
1985
1980
1975
8.5
8.67
8.84
9.01
9.18
9.35
9.52
9.69
9.86
10.03
10.2
10.37
10.54
Distance * 1000

APPENDIX C - Existing FEMA Input/Output

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

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


T1      SKUNK CREEK WASH
T2      100 YEAR FLOODPLAIN
T3      SKUNK CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0        4                           .01                                   1679

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      1                 -1


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     38        43         1         2        26        39        21        22        27        28
     53        54                  38        13        14        15        55        26        56
     63         1        52         4        42        57                  38        39        33
      3        10        11        12         5         7         8        16        17        18
               110                 200

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

    -10       -10

NC     .037      .037      .035      .300      .500
QT       5     14600     21400     31300     40800     31300
ET                                                       9.1                                  9690      10400
         SECTIONS STATIONED LEFT TO RIGHT LOOKING DOWNSTREAM  FLOWLINE AT 10000
X1    16.69        15      9770     10120
GR     1700      8330      1696      8700      1692      9070      1688      9360      1684      9560
GR     1680      9650      1676      9770      1673     10000    1672.5     10120      1676     10310
GR     1680     10450    1680.5     10810      1680     11810      1680     12970      1692     13750
```

NC	.045	.045	.043	.300	.500					
ET						9.1			9550	10450
X1	16.87	30	9550	10030	900	900	900			
GR	1716	8470	1712	8630	1708	8820	1704	8920	1700	9200
GR	1696	9420	1692	9460	1688	9550	1684	9580	1688	9620
GR	1684	9780	1687.5	9870	1684	9960	1682	10000	1684	10020
GR	1688	10030	1690	10160	1688	10470	1684	10500	1688	10530
GR	1690.5	11130	1691	11470	1688	11660	1690	11720	1687	11840
GR	1690	12000	1687	12200	1690	12300	1692	12670	1692	13000
ET						9.1			9576	10525
X1	17.1	26	9820	10460	1200	1250	1214			
GR	1720	8730	1716	8900	1712	9060	1712	9190	1708	9220
GR	1704	9300	1704	9450	1700	9680	1700	9820	1696	9930
GR	1694	10000	1696	10020	1700	10460	1701	10700	1700	10820
GR	1699	10850	1699	10970	1700	11040	1698	11080	1700	11120
GR	1700.5	11430	1704	11720	1700	11820	1698	11840	1700	11880
GR	1702.5	12240								
ET						9.1			9530	10400
X1	17.3	19	9900	10150	1050	1170	1056			
GR	1720	9340	1712	9510	1708	9900	1704	9970	1702	10000
GR	1704	10050	1708	10080	1710	10150	1708	10200	1707	10215
GR	1708	10230	1711	10300	1711	10960	1708	11120	1707	11130
GR	1708	11160	1712	11610	1713	11750	1713	12010		
NC	.050	.050	.048	.300	.500					
ET						9.1			9650	10600
X1	17.56	25	9960	10490	1180	1550	1373			
GR	1740	9560	1720	9620	1716	9660	1715	9680	1716	9700
GR	1720	9810	1720	9960	1716	9980	1712	9985	1711	10000
GR	1712	10030	1716	10190	1714	10220	1716	10260	1720	10340
GR	1720	10390	1716	10400	1715	10430	1716	10450	1720	10490
GR	1720	10740	1724	11030	1728	11460	1732	11600	1736	11660
ET						9.1			9960	10790
X1	17.78	24	9960	10790	1150	1130	1162			
GR	1760	9880	1740	9950	1736	9960	1722	9980	1722	10015
GR	1724	10020	1726	10120	1728	10170	1728	10410	1727	10490
GR	1725	10520	1728	10540	1728	10670	1723	10710	1723	10730
GR	1728	10750	1732	10790	1732	11320	1736	11670	1740	11840
GR	1744	12010	1748	12200	1752	12330	1760	12460		
ET						9.1			9610	10220
X1	18.06	22	9610	10220	1370	1250	1478			
GR	1760	9510	1744	9580	1740	9610	1736	9670	1735	9675
GR	1736	9680	1739	9730	1738	9860	1739	9900	1736	9950
GR	1733	10000	1736	10060	1740	10120	1736	10150	1734	10160
GR	1736	10170	1740	10220	1742	10380	1744	10780	1748	11040
GR	1752	11370	1760	11550						

T						9.1			9930	10840
1	18.34	25	9930	10840	1500	1600	1478			
GR	1780	9890	1760	9920	1752	9930	1748	9970	1746	9980
GR	1746	10020	1748	10050	1752	10220	1748	10265	1747	10280
R	1747	10310	1748	10320	1752	10550	1752	10670	1750	10680
GR	1750	10710	1752	10720	1752	10790	1750	10800	1750	10830
GR	1752	10840	1756	11020	1760	11200	1764	11280	1780	11450
T	5	13100	19100	28100	36000	28100				
ET						9.1			9450	10220
1	18.72	16	9450	10220	1820	1800	2006			
R	1780	9350	1776	9420	1768	9450	1766	9460	1764	9960
GR	1760	9980	1760	10000	1764	10020	1764	10160	1768	10220
GR	1766	10350	1768	10500	1768	10620	1772	10940	1776	11430
R	1780	11760								
ET						9.1			9260	10050
1	18.95	26	9260	10050	1200	1200	1214			
R	1796	8870	1792	9090	1788	9130	1784	9180	1780	9260
GR	1776	9350	1774	9370	1776	9400	1778	9420	1776	9460
GR	1774	9480	1776	9510	1780	9650	1780	9850	1776	9900
R	1772	9950	1771.5	9970	1771.5	10000	1771.5	10010	1772	10030
GR	1780	10050	1782	10300	1780.5	10550	1784	10880	1788	11310
GR	1792	11680								
T						9.1			9900	10580
X1	19.16	41	9900	10580	1100	1040	1109			
GR	1805.5	9220	1808	9330	1804	9410	1800	9450	1796	9490
R	1788	9600	1787	9650	1787	9720	1788	9770	1789.5	9840
GR	1788	9900	1785	9930	1785	9970	1786	9980	1786	10000
GR	1784	10020	1784	10030	1784.5	10060	1784	10160	1782	10170
R	1784	10190	1786	10260	1784	10330	1783	10340	1784	10360
R	1785	10380	1784	10400	1786	10460	1784	10510	1782	10520
GR	1782	10560	1784	10565	1788	10580	1792	10690	1793	10820
R	1792.5	10960	1793	11060	1792	11130	17920	11180	1796	11580
R	1800	11700								
MC	.045	.045	.043	.300	.500					
T						9.1			9960	10660
1	19.38	27	9960	10660	1180	1150	1162			
GR	1820	8750	1816	8870	1812	8930	1808	8970	1804	9050
R	1800	9690	1800	9730	1802	9890	1800	9960	1792	9980
R	1792	10000	1792	10010	1796	10020	1798	10050	1798	10150
GR	1796	10180	1794	10310	1796	10350	1799	10410	1796	10500
GR	1796	10630	1800	10660	1804	10840	1808	11030	1812	11240
R	1816	11470	1816.5	11660						
ET						9.1			9650	10380
1	19.58	23	9650	10380	1110	1100	1056			
R	1832	8320	1828	8670	1820	8810	1816	8940	1815	9070
GR	1813	9140	1813.5	9530	1812	9650	1809	9740	1810	9800
R	1808	9880	1806	9970	1804.5	9980	1804.5	10000	1804.5	10020
R	1808	10040	1808	10140	1805	10180	1808	10250	1812	10380

```
GR     1816      10510       1820      10680       1824      11080

ET                                                  9.1                                  8920      10090
X1    19.92         34       8920      10090       1330       1810       1795
GR     1840       8430       1836       8590       1828       8670       1824       8820    1820.5       8850
GR     1824       8920       1824       9000       1822       9020       1824       9030       1824       9200
GR     1822       9220       1822       9250       1824       9280       1823       9380       1823       9550
GR     1820       9600       1820       9620       1824       9630       1824       9660       1824       9690
GR     1822       9730       1823       9800       1823       9890       1822       9940       1820       9970
GR     1816       9980     1815.5      10000       1816      10015       1820      10030       1824      10090
GR     1828      10110       1832      10200       1836      10500       1840      10640

ET                                                  9.1                                  9300      10100
X1    20.23         35       9310      10070       1670       1630       1637
GR   1851.5       8120       1852       8240       1854       8430       1854       8610       1852       8770
GR     1848       8870       1844       8900       1840       8960       1838       9000       1840       9310
GR     1840       9430       1837       9460       1838       9470     1839.5       9560       1840       9600
GR   1840.5       9640       1840       9670       1835       9680       1835       9710       1836       9751
GR     1840       9820       1836       9950       1834       9960       1834      10000       1834      10020
GR     1836      10030       1840      10050       1838      10070       1838      10130       1840      10170
GR     1844      10290       1848      10530       1852      10870       1856      11090       1860      11300

ET                                                  9.1                                  9500      10350
X1    20.39         23       9500      10340       1100        550        845
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

ET                                                  9.1                                  9330      10110
X1    20.73         31       9440      10110       1800       1650       1795
GR     1876       8350       1872       8450       1868       8560       1865       8640       1865       8710
GR     1865       8780       1866       8970       1865       9060       1866       9120       1864       9230
GR     1862       9440       1861       9480       1862       9540       1863       9720       1860       9930
GR     1856       9960       1855       9970       1855      10000       1856      10015       1860      10020
GR     1864      10040       1865      10110       1865      10220       1864      10280     1863.5      10300
GR     1864      10320       1864      10380       1868      10420       1872      10490       1876      10570
GR     1880      10720

ET                                                  9.1                                  9370      10070
X1       21         23       9400      10070       1290       1530       1426
GR     1884       8300       1880       8670       1878       8720       1879       8830       1879       9120
GR     1876       9200       1873       9240       1876       9400       1876       9800       1875       9920
GR     1872       9940     1868.5       9960     1868.5      10000     1865.5      10030       1876      10060
GR     1878      10070       1877      10330       1880      10590       1884      10840       1888      10950
GR     1892      11040       1896      11300       1900      11520

NC     .050       .050       .048       .300       .500
ET                                                  9.1                                  9570      10230
```

X1	21.24	29	9570	10230	1370	1250	1267			
R	1900	8930	1896	9110	1892	9470	1888	9570	1884	9660
R	1882	9680	1884	9700	1883	9730	1884	9740	1885.5	9800
GR	1884	9850	1886	9880	1886	9930	1884	9950	1884	9970
GR	1880	9990	1879.5	10000	1880	10010	1884	10030	1887	10060
R	1884	10090	1880	10110	1880	10130	1884	10170	1888	10230
GR	1892	10450	1892	10710	1896	10930	1900	11100		
T						9.1			8665	10080
1	21.59	34	8665	10080	2075	1550	1848			
GR	1920	8580	1912	8650	1908	8665	1904	8690	1900	8700
GR	1898	8720	1900	8740	1900.5	8760	1900	8780	1899.5	8790
R	1900	8810	1904	8820	1906	8890	1905	8950	1905.5	9040
GR	1904	9210	1903	9220	1904	9240	1901.5	9260	1901.5	9290
GR	1904	9300	1904.5	9340	1906	9380	1907	9680	1904	9820
R	1903	9940	1900	9980	1900	10020	1903.5	10050	1904	10080
GR	1908	10260	1912	10430	1916	10590	1920	10700		
T						9.1			8720	10050
1	21.85	50	8720	10050	1400	1300	1373			
GR	1940.5	8560	1936	8600	1928	8650	1924	8690	1920	8720
GR	1919	8760	1919	8800	1917	8850	1918	8870	1917	8900
R	1920	8980	1921	9070	1920	9130	1916	9220	1914	9230
GR	1914	9260	1916	9265	1920	9330	1920	9370	1916	9380
GR	1915	9390	1915	9430	1916	9435	1920	9490	1920.5	9520
R	1920	9565	1919.5	9590	1920	9620	1921.5	9690	1921	9890
R	1920	9930	1916	9970	1913	9980	1913	10000	1913	10015
GR	1916	10020	1920	10050	1920	10140	1918.5	10180	1919	10250
GR	1920	10320	1923	10480	1923	10560	1922.5	10640	1923	10700
R	1924	10800	1928	11200	1932	11300	1936	11390	1940	11630
ET						9.1			8960	10070
1	22.06	34	8960	10070	930	1300	1109			
GR	1940	8870	1969	8960	1924	9000	1920.5	9040	1920.5	9080
GR	1924	9100	1928	9200	1932	9450	1933	9520	1933	9590
R	1932	9630	1928	9650	1924	9660	1923	9665	1932	9680
R	1924	9685	1928	9740	1932	9890	1932	9950	1928	9970
GR	1925.5	9980	1928.5	10000	1928.5	10020	1928	10040	1930.5	10070
GR	1930.5	10180	1929	10230	1929.5	10300	1930	10400	1932	10560
R	1936	10980	1940	11040	1944	11090	1948	11200		
ET						9.1			9050	10280
1	22.25	38	9050	10250	1050	960	1003			
R	1960	8930	1948	9000	1966	9040	1940	9050	1936	9055
GR	1932	9070	1931	9080	1932	9100	1934	9150	1933	9210
GR	1936	9290	1936.5	9480	1940	9570	1944	9950	1940	9965
R	1936	9970	1934	9975	1934	10000	1934	10020	1936	10035
GR	1940	10040	1942	10100	1940	10200	1936	10220	1936	10240
GR	1940	10250	1943.5	10450	1943	10650	1943	10740	1944	10780
R	1944	10890	1944.5	10920	1944.5	10940	1948	11000	1952	11150
GR	1952	11270	1956	11350	1960	11600				

[illegible]	5	11100	16200	23800	30000	23800				
[illegible]						9.1			9450	10180
X1	22.62	31	9700	10180	2300	1800	1954			
GR	1984	8680	1980	8720	1972	8800	1968.5	8870	1969.5	8920
[illegible]	1968	8980	1964	9310	1960	9440	1959.5	9450	1960	9470
GR	1961.5	9530	1961	9630	1960	9700	1957	9720	1960	9740
GR	1960.5	9770	1961	9930	1960	9950	1956	9970	1954	9980
[illegible]	1954	10000	1954	10030	1956	10040	1959	10120	1960	10180
[illegible]	1964	10200	1968	10260	1972	10420	1976	10520	1980	10640
GR	1984	10740								
[illegible]						9.1			9450	10050
X1	22.81	25	9450	10050	1000	1000	1003			
GR	1996	8260	1980	8430	1978	8470	1978	8680	1976	8820
[illegible]	1972	9090	1969.5	9320	1969.5	9380	1970	9450	1969	9500
[illegible]	1969	9600	1969	9900	1968	9950	1964	9980	1962	9985
GR	1962	10000	1962	10030	1964	10040	1972	10050	1976	10130
[illegible]	1980	10200	1984	10210	1988	10250	1992	10300	1996	10380
ET						9.1			9800	10430
Y1	23.09	22	9900	10170	1380	1450	1478			
[illegible]	2000	8680	1996	8780	1992	9190	1992	9320	1988	9660
GR	1984	9690	1980	9710	1980.5	9770	1980.5	9870	1982	9900
GR	1980	9940	1976	9980	1975	10000	1976	10020	1980	10040
[illegible]	1980	10110	1981	10170	1981	10270	1980	10330	1978	10410
[illegible]	1980	10430	2004	10475						
[illegible]						9.1			9680	10100
[illegible]	23.42	29	9680	10100	1250	1700	1742			
GR	2020	8450	2008	8580	2008	8610	2008.5	8720	2008	8800
GR	2004	8910	2003.5	8930	2003.5	9050	2004	9070	2005.5	9150
[illegible]	2005.5	9310	2004	9450	2001	9530	2001	9610	2000	9680
[illegible]	1996	9720	1994	9750	1996	9780	1998	9800	1998	9920
GR	1997	9960	1997	10000	1997	10030	1999	10100	1999	10170
[illegible]	1997	10230	2000	10250	2004	10280	2020	10330		
QT	5	5870	8590	12600	16000	12600				
ET						9.1			9670	10130
[illegible]	23.72	17	9670	10130	1600	1600	1584			
GR	2020	9520	2016	9670	2012	9700	2011	9705	2011	9750
GR	2012	9760	2015	9940	2012	9960	2008.5	9970	2008.5	10000
[illegible]	2008.5	10030	2012	10040	2016	10130	2020	10270	2054	10330
[illegible]	2032	10380	2040	10420						
[illegible]						9.1			9960	10170
[illegible]	23.98	20	9960	10170	1280	1270	1373			
GR	2044	9530	2040	9650	2036	9680	2032	9730	2028	9760
GR	2027	9780	2026	9860	2024	9900	2023	9915	2024	9930
[illegible]	2025	9940	2024	9960	2020	9970	2020	10000	2020	10030
[illegible]	2024	10170	2028	10330	2032	10480	2036	10540	2040	10600

ET						9.1			9650	10170
X1	24.31	20	9680	10060	1760	1650	1742			
GR	2068	9500	2060	9530	2052	9575	2048	9600	2044	9620
GR	2040	9680	2039	9690	2039	9770	2040	9780	2041	9800
GR	2041	9950	2040	9970	2038	9980	2038	10000	2038	10050
GR	2040	10060	2044	10160	2052	10270	2060	10470	2064	10590
ET						9.1			9820	10160
X1	24.55	25	9970	10050	1360	1260	1267			
GR	2080	9310	2072	9390	2060	9460	2056	9540	2054	9590
GR	2054	9650	2053	9730	2053	9820	2052	9970	2048	9980
GR	2046	9990	2046	10000	2046	10020	2048	10035	2052	10050
GR	2052	10150	2050	10190	2052	10210	2056	10280	2060	10330
GR	2064	10410	2068	10540	2072	10570	2076	10640	2080	10670
QT	5	4390	6400	9390	11800	9390				
ET						9.1			9970	10250
X1	24.78	21	9970	10040	1250	1150	1214			
GR	2100	9460	2092	9530	2088	9590	2084	9600	2084	9690
GR	2080	9730	2076	9830	2072	9870	2068	9890	2064	9960
GR	2060	9970	2058	9975	2058	10000	2059	10030	2060	10040
GR	2062	10120	2063	10210	2062	10270	2064	10280	2080	10320
GR	2100	10390								
ET						9.1			9890	10190
X1	24.99	29	9950	10060	1450	1000	1109			
GR	2100	8820	2096	8910	2092	8990	2088	9100	2087	9150
GR	2084	9320	2080	9430	2081.5	9580	2083	9650	2082	9750
GR	2080	9820	2076	9840	2075	9870	2075	9900	2074	9920
GR	2075	9950	2072	9970	2068	9980	2067.5	9985	2067.5	10000
GR	2067.5	10020	2068	10025	2072	10040	2075	10060	2075	10120
GR	2076	10230	2080	10260	2084	10300	2100	10400		
NC	.050	.050	.035	.300	.500					
ET						9.1			9940	10650
X1	25.27	40	9940	10190	900	1650	1478			
GR	2108	8640	2104	8750	2100	8950	2096	9050	2092	9220
GR	2088	9330	2084	9400	2082	9415	2084	9430	2088	9530
GR	2089.5	9680	2090	9700	2090	9720	208935	9770	2089.5	9940
GR	2088	9980	2086	9990	2086	10000	2086	10015	2088	10020
GR	2088	10045	2087.5	10060	2088	10075	2088.5	10110	2088	10130
GR	2086	10150	2088	10190	2088	10280	2086	10420	2087.5	10500
GR	2087	10600	2084	10620	2083	10625	2083	10645	2084	10650
GR	2088	10660	2092	10740	2096	10810	2100	10840	2108	10940
ET						9.1			9950	10700
X1	25.48	34	9950	10050	1050	1120	1109			
GR	2120	8720	2116	8830	2112	8970	2108	9040	2104	9090
GR	2100	9210	2096	9300	2092	9330	2091.5	9335	2092	9340
GR	2096	9380	2099	9550	2098	9630	2100	9690	2102	9750
GR	2102	9950	2100	9970	2096.5	9990	2096.5	10000	2096	10020
GR	2100	10030	2101.5	10050	2101	10100	2101.5	10220	2100	10330
GR	2096	10500	2096	10550	2093	10570	2096	10640	2093	10680

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GR     2096      10730       2100      10750       2104      10780       2107      10840

QT        5       3370       4910       7200       9200       7200
ET                                                            9.1                            9700      10350
          FLOODWAY TERMINATES ABOVE THIS SECTION
X1    25.77         32       9960      10140       1500       1520       1531
GR     2140       9090       2136       9110       2132       9160       2128       9250       2124       9270
GR     2120       9340     2118.5       9390     2118.5       9460       2116       9520       2120       9630
GR   2118.5       9740     2118.5       9790       2119       9840       2119       9910       2120       9920
GR     2121       9930       2121       9960       2120       9975     2116.5       9980       2116      10000
GR   2116.5      10030       2120      10100       2122      10140       2122      10240       2120      10280
GR     2120      10300     2120.5      10330       2120      10350     2118.5      10380       2120      10420
GR     2120      10500     2121.5      10600

X1    25.92         26       9980      10040        830        780        792
GR     2147       9280     2145.5       9470     2145.5       9750       2144       9860       2140       9955
GR     2136       9960       2132       9980       2124       9990       2123       9995       2123      10000
GR     2123      10015       2124      10020       2128      10040       2130      10060       2131      10140
GR   2129.5      10170       2130      10240       2130      10310       2128      10340       2129      10390
GR     2128      10430     2131.5      10530       2131      10650       2132      10680       2136      10790
GR     2138      10870

X1    26.14         25       9990      10025       1150       1120       1162
GR     2160       9260       2156       9370       2152       9460       2148       9510       2148       9560
GR     2144       9630       2140       9655       2144       9720     2144.5       9770       2144       9830
GR     2140       9950       2140       9965       2143       9975       2140       9990       2137       9995
GR     2137      10000       2137      10020       2140      10025       2140      10050       2142      10100
GR     2141      10210       1144      10280       2148      10285       2152      10310       2155      10490

X1     26.3         19       9980      10020        930        890        910
GR     2160       9120       2156       9320       2152       9325     2151.5       9330       2452       9335
GR     2155       9400       2156       9480       2157       9550       2157       9610       2156       9640
GR     2152       9730       2150       9770       2151       9870       2151       9970       2148       9980
GR     2148      10000       2148      10020       2160      10040       2162      10120

X1    26.48         30       9970      10030        830       1000        950
GR     2171       8900       2168       9130       2168       9260       2164       9290       2162       9300
GR     2162       9340       2164       9360       2165       9380       2165       9500       2165       9530
GR   2164.5       9570       2165       9600       2163       9630       2164       9660     2164.5       9720
GR     2164       9770     2161.2       9810       2161       9840       2162       9890       2161       9950
GR     2160       9970     2159.5       9980     2159.5      10000     2159.5      10020       2160      10025
GR     2164      10030       2168      10085       2173      10120       2176      10180       2180      10230

X1    26.72         35       9960      10035       1230       1250       1267
GR     2196       8580       2192       8700       2188       8850       2184       9020     2183.5       9040
GR     2184       9060     2185.5       9180       2184       9300     2185.5       9360       2184       9430
GR     2180       9460       2184       9490       2184       9590       2181       9620       1181       9730
GR   2181.5       9770       2180       9800       2180       9940       2176       9960       2174       9980
GR     2174      10000       2174      10020       2176      10035       2176      10070       2178      10120
GR     2176      10160       2175      10180       2175      10190       2176      10210       2180      10220
GR     2182      10250       2180      10270     2179.5      10290       2184      10470       2186      10670
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X1	26.89	20	9960	10040	880	950	898			
GR	2200	9510	2196	9550	2195	9640	2195	9750	2192	9800
GR	2188	9880	2187	9890	2188	9900	2188.5	9930	2188	9960
GR	2184	10000	2184	10020	2188	10040	2190	10080	2188	10120
GR	2186	10150	2188	10170	2192	10350	2196	10400	2200	10460
X1	27	25	9960	10050	600	580	581			
GR	2220	9020	2216	9100	2212	9250	2208	9270	2204	9350
GR	2200	9480	2196	9840	2192	9910	2191	9920	2192	9930
GR	2193.5	9960	2191	9980	2191	10000	2191	10020	2196	10050
GR	2197.5	10100	2197.5	10170	2196	10210	2194	10230	2196	10270
GR	2200	10380	2204	10430	2208	10470	2212	10520	2220	10720
QT	5	1730	2500	3650	4600	3650				
X1	27.32	18	9960	10010	1700	1600	1690			
GR	2236.5	9560	2236	9595	2232	9600	2228	9620	2224	9670
GR	2222	9720	2222	9830	2220	9860	2218	9890	2218	9960
GR	2216	9980	2216	10000	2216	10010	2220	10040	2224	10170
GR	2228	10260	2262	10340	2234	10370				
X1	27.51	19	9980	10025	1120	880	1003			
GR	2252	9510	2248	9610	2244	9710	2240	9760	2236	9860
GR	2232	9980	2230.5	9990	2230.5	10000	2230.5	10020	2232	10025
GR	2235	10040	2235	10060	2234	10090	2234	10130	2236	10160
GR	2240	10190	2244	10220	2248	10270	2250	10460		
X1	27.64	15	9980	10050	680	720	686			
GR	2264	9760	2260	9790	2256	9820	2252	9850	2248	9890
GR	2244	9980	2240	9990	2239.5	10000	2239.5	10020	2244	10050
GR	2248	10140	2252	10300	2256	10340	2260	10400	2264	10540
X1	27.76	20	9980	10040	600	650	634			
GR	2280	9520	2276	9680	2272	9710	2268	9780	2264	9850
GR	2260	9880	2262	9930	2260	9950	2256	9970	2252	9980
GR	2249	9990	2249	10000	2249	10020	2252	10040	2256	10060
GR	2260	10070	2264	10370	2268	10430	2272	10520	2274	10600

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T1      SKUNK CREEK WASH
T2      100 YEAR FLOODWAY
T3      SKUNK CREEK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

     -10        6                          .01                                1680

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

     15                 -1
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HEC-2 WATER SURFACE PROFILES

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

SKUNK CREEK

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
*	16.690	31300.00	1678.78	1678.78	12.10	0.00	9770.00	10120.00	0.00	0.00	9686.54	10407.37
*	16.690	31300.00	1678.77	1678.77	12.12	0.00	9770.00	10120.00	9690.00	10400.00	9690.00	10400.00
*	16.870	31300.00	1690.08	1690.08	9.55	900.00	9550.00	10030.00	0.00	0.00	9503.31	12313.91
*	16.870	31300.00	1690.69	1690.69	11.23	900.00	9550.00	10030.00	9550.00	10450.00	9550.00	10450.00
	17.100	31300.00	1701.67	0.00	8.06	1214.00	9820.00	10460.00	0.00	0.00	9583.87	12120.75
	17.100	31300.00	1702.64	0.00	8.57	1214.00	9820.00	10460.00	9576.00	10525.00	9576.00	10525.00
*	17.300	31300.00	1711.84	1711.84	10.72	1056.00	9900.00	10150.00	0.00	0.00	9525.92	11591.63
*	17.300	31300.00	1712.41	1712.41	12.59	1056.00	9900.00	10150.00	9530.00	10400.00	9530.00	10400.00
	17.560	31300.00	1721.77	0.00	7.51	1373.00	9960.00	10490.00	0.00	0.00	9614.69	10868.28
*	17.560	31300.00	1722.43	0.00	6.95	1373.00	9960.00	10490.00	9650.00	10600.00	9650.00	10600.00
*	17.780	31300.00	1730.98	0.00	9.32	1162.00	9960.00	10790.00	0.00	0.00	9967.17	10779.78
*	17.780	31300.00	1730.63	0.00	10.15	1162.00	9960.00	10790.00	9960.00	10790.00	9967.66	10776.37
*	18.060	31300.00	1743.53	0.00	7.65	1478.00	9610.00	10220.00	0.00	0.00	9583.56	10685.13
*	18.060	31300.00	1744.02	0.00	7.62	1478.00	9610.00	10220.00	9610.00	10220.00	9610.00	10220.00
	18.340	31300.00	1754.16	0.00	8.15	1478.00	9930.00	10840.00	0.00	0.00	9927.30	10937.17
*	18.340	31300.00	1754.16	0.00	8.23	1478.00	9930.00	10840.00	9930.00	10840.00	9930.00	10840.00
	18.720	28100.00	1769.51	0.00	6.55	2006.00	9450.00	10220.00	0.00	0.00	9444.35	10740.54
	18.720	28100.00	1769.88	0.00	6.96	2006.00	9450.00	10220.00	9450.00	10220.00	9450.00	10220.00
*	18.950	28100.00	1780.61	1780.61	10.12	1214.00	9260.00	10050.00	0.00	0.00	9247.81	10560.32
*	18.950	28100.00	1780.73	0.00	9.80	1214.00	9260.00	10050.00	9260.00	10050.00	9260.00	10050.00
*	19.160	28100.00	1790.41	0.00	6.34	1109.00	9900.00	10580.00	0.00	0.00	9566.98	10646.04
*	19.160	28100.00	1790.61	0.00	6.84	1109.00	9900.00	10580.00	9900.00	10580.00	9900.00	10580.00

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
	19.380	28100.00	1799.96	1799.96	11.08	1162.00	9960.00	10660.00	0.00	0.00	9960.11	10659.68
*	19.380	28100.00	1799.96	1799.96	11.09	1162.00	9960.00	10660.00	9960.00	10660.00	9960.11	10659.67
	19.580	28100.00	1812.89	0.00	8.30	1056.00	9650.00	10380.00	0.00	0.00	9578.39	10409.09
	19.580	28100.00	1812.90	0.00	8.30	1056.00	9650.00	10380.00	9650.00	10380.00	9650.00	10380.00
	19.920	28100.00	1826.07	0.00	6.39	1795.00	8920.00	10090.00	0.00	0.00	8742.50	10100.33
	19.920	28100.00	1826.27	0.00	6.69	1795.00	8920.00	10090.00	8920.00	10090.00	8920.00	10090.00
	20.230	28100.00	1841.22	1841.05	8.68	1637.00	9310.00	10070.00	0.00	0.00	8941.71	10206.57
	20.230	28100.00	1841.71	1841.61	9.83	1637.00	9310.00	10070.00	9300.00	10100.00	9300.00	10100.00
*	20.390	28100.00	1849.75	0.00	6.63	845.00	9500.00	10340.00	0.00	0.00	9208.32	10498.85
	20.390	28100.00	1850.51	0.00	7.54	845.00	9500.00	10340.00	9500.00	10350.00	9500.00	10350.00
	20.730	28100.00	1865.24	1865.11	9.37	1795.00	9440.00	10110.00	0.00	0.00	8633.40	10392.48
	20.730	28100.00	1865.53	0.00	9.31	1795.00	9440.00	10110.00	9330.00	10110.00	9330.00	10110.00
	21.000	28100.00	1878.69	0.00	7.43	1426.00	9400.00	10070.00	0.00	0.00	8702.73	10476.54
	21.000	28100.00	1879.25	0.00	8.79	1426.00	9400.00	10070.00	9370.00	10070.00	9370.00	10070.00
	21.240	28100.00	1889.13	0.00	8.79	1267.00	9570.00	10230.00	0.00	0.00	9541.84	10291.96
	21.240	28100.00	1889.57	0.00	8.10	1267.00	9570.00	10230.00	9570.00	10230.00	9570.00	10230.00
	21.590	28100.00	1907.37	0.00	6.23	1848.00	8665.00	10080.00	0.00	0.00	8668.91	10231.88
	21.590	28100.00	1907.20	0.00	6.84	1848.00	8665.00	10080.00	8665.00	10080.00	8669.97	10080.00
	21.850	28100.00	1921.67	0.00	6.70	1373.00	8720.00	10050.00	0.00	0.00	8707.55	10408.54
	21.850	28100.00	1922.10	0.00	6.64	1373.00	8720.00	10050.00	8720.00	10050.00	8720.00	10050.00
	22.060	28100.00	1932.24	0.00	6.53	1109.00	8960.00	10070.00	0.00	0.00	8992.68	10585.19
	22.060	28100.00	1932.42	0.00	7.34	1109.00	8960.00	10070.00	8960.00	10070.00	8992.52	10070.00
	22.250	28100.00	1940.55	0.00	8.47	1003.00	9050.00	10250.00	0.00	0.00	9049.79	10281.35
	22.250	28100.00	1941.01	0.00	7.62	1003.00	9050.00	10250.00	9050.00	10280.00	9050.00	10280.00
	22.620	23800.00	1963.09	1962.78	9.30	1954.00	9700.00	10180.00	0.00	0.00	9339.48	10195.46
	22.620	23800.00	1962.90	1962.83	10.31	1954.00	9700.00	10180.00	9450.00	10180.00	9450.00	10180.00
	22.810	23800.00	1972.81	0.00	7.05	1003.00	9450.00	10050.00	0.00	0.00	9035.03	10066.29
	22.810	23800.00	1973.49	0.00	7.43	1003.00	9450.00	10050.00	9450.00	10050.00	9450.00	10050.00
	23.090	23800.00	1984.08	0.00	8.61	1478.00	9900.00	10170.00	0.00	0.00	9689.38	10437.66
	23.090	23800.00	1984.43	0.00	8.96	1478.00	9900.00	10170.00	9800.00	10430.00	9800.00	10430.00
	23.420	23800.00	2001.96	2001.58	9.75	1742.00	9680.00	10100.00	0.00	0.00	9504.27	10264.74
	23.420	23800.00	2002.62	2001.89	10.67	1742.00	9680.00	10100.00	9680.00	10100.00	9680.00	10100.00
	23.720	12600.00	2017.04	0.00	6.04	1584.00	9670.00	10130.00	0.00	0.00	9630.96	10166.44
	23.720	12600.00	2017.32	0.00	5.71	1584.00	9670.00	10130.00	9670.00	10130.00	9670.00	10130.00

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
*	23.980	12600.00	2026.64	0.00	9.85	1373.00	9960.00	10170.00	0.00	0.00	9808.58	10275.71
*	23.980	12600.00	2026.67	0.00	11.45	1373.00	9960.00	10170.00	9960.00	10170.00	9960.00	10170.00
	24.310	12600.00	2043.93	0.00	7.19	1742.00	9680.00	10060.00	0.00	0.00	9621.08	10158.21
*	24.310	12600.00	2044.31	0.00	6.51	1742.00	9680.00	10060.00	9650.00	10170.00	9650.00	10164.28
	24.550	12600.00	2054.79	0.00	10.97	1267.00	9970.00	10050.00	0.00	0.00	9570.27	10258.81
*	24.550	12600.00	2055.14	2055.14	12.86	1267.00	9970.00	10050.00	9820.00	10160.00	9820.00	10160.00
	24.780	9390.00	2065.25	0.00	9.74	1214.00	9970.00	10040.00	0.00	0.00	9938.06	10283.13
	24.780	9390.00	2066.17	0.00	8.21	1214.00	9970.00	10040.00	9970.00	10250.00	9970.00	10250.00
*	24.990	9390.00	2076.73	2076.73	10.66	1109.00	9950.00	10060.00	0.00	0.00	9836.37	10235.45
*	24.990	9390.00	2076.69	2076.69	11.21	1109.00	9950.00	10060.00	9890.00	10190.00	9890.00	10190.00
	25.270	9390.00	2088.93	0.00	4.15	1478.00	9940.00	10190.00	0.00	0.00	9304.37	10678.64
*	25.270	9390.00	2089.86	0.00	5.26	1478.00	9940.00	10190.00	9940.00	10650.00	9940.00	10650.00
	25.480	9390.00	2097.98	0.00	5.83	1109.00	9950.00	10050.00	0.00	0.00	9255.45	10739.90
*	25.480	9390.00	2098.90	0.00	8.30	1109.00	9950.00	10050.00	9950.00	10700.00	9976.29	10700.00
*	25.770	7200.00	2120.08	2120.08	8.79	1531.00	9960.00	10140.00	0.00	0.00	9338.57	10505.45
*	25.770	7200.00	2121.04	2121.04	9.24	1531.00	9960.00	10140.00	9700.00	10350.00	9700.00	10350.00
*	25.920	7200.00	2131.47	2131.47	10.38	792.00	9980.00	10040.00	0.00	0.00	9980.66	10664.12
*	25.920	7200.00	2131.53	2131.53	10.12	792.00	9980.00	10040.00	0.00	0.00	9980.59	10665.90
*	26.140	7200.00	2132.81	0.00	0.00	1162.00	9990.00	10025.00	0.00	0.00	10210.58	10284.92
*	26.140	7200.00	2132.79	0.00	0.00	1162.00	9990.00	10025.00	0.00	0.00	10210.58	10284.92
*	26.300	7200.00	2153.61	2153.61	12.71	910.00	9980.00	10020.00	0.00	0.00	9322.99	10029.35
*	26.300	7200.00	2153.61	2153.61	12.71	910.00	9980.00	10020.00	0.00	0.00	9322.99	10029.35
*	26.480	7200.00	2164.36	2164.36	11.32	950.00	9970.00	10030.00	0.00	0.00	9287.28	10034.98
*	26.480	7200.00	2164.36	2164.36	11.33	950.00	9970.00	10030.00	0.00	0.00	9287.29	10034.96
*	26.720	7200.00	2165.82	0.00	0.00	1267.00	9960.00	10035.00	0.00	0.00	9621.67	9769.37
*	26.720	7200.00	2165.82	0.00	0.00	1267.00	9960.00	10035.00	0.00	0.00	9621.67	9769.37
*	26.890	7200.00	2190.43	2190.43	10.92	898.00	9960.00	10040.00	0.00	0.00	9831.43	10279.29
*	26.890	7200.00	2190.43	2190.43	10.92	898.00	9960.00	10040.00	0.00	0.00	9831.43	10279.29
*	27.000	7200.00	2196.44	2196.44	11.13	581.00	9960.00	10050.00	0.00	0.00	9800.82	10281.97
*	27.000	7200.00	2196.44	2196.44	11.13	581.00	9960.00	10050.00	0.00	0.00	9800.82	10281.97
*	27.320	3650.00	2220.45	2220.45	10.71	1690.00	9960.00	10010.00	0.00	0.00	9853.28	10054.57
*	27.320	3650.00	2220.45	2220.45	10.71	1690.00	9960.00	10010.00	0.00	0.00	9853.28	10054.57
*	27.510	3650.00	2235.73	2235.73	10.26	1003.00	9980.00	10025.00	0.00	0.00	9868.18	10155.91
*	27.510	3650.00	2235.73	2235.73	10.26	1003.00	9980.00	10025.00	0.00	0.00	9868.18	10155.91

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
*	27.640	3650.00	2245.50	2245.50	10.88	686.00	9980.00	10050.00	0.00	0.00	9946.29	10083.71
*	27.640	3650.00	2245.50	2245.50	10.88	686.00	9980.00	10050.00	0.00	0.00	9946.29	10083.71
*	27.760	3650.00	2254.65	2254.65	12.10	634.00	9980.00	10040.00	0.00	0.00	9973.37	10053.25
*	27.760	3650.00	2254.65	2254.65	12.10	634.00	9980.00	10040.00	0.00	0.00	9973.37	10053.25

SKUNK CREEK

SUMMARY PRINTOUT

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFKWS	TOPWID	ELMIN	ALPHA
*	16.690	575.11	20675.51	10049.38	4.95	12.10	10.08	1692.00	1678.78	-0.22	720.82	1672.50	1.05
	16.690	582.60	20658.38	10059.02	5.07	12.12	10.14	1692.00	1678.77	-0.01	710.00	1672.50	1.05
*	16.870	165.43	20831.45	10303.13	3.41	9.55	4.39	1692.00	1690.08	0.00	2310.08	1682.00	1.44
*	16.870	0.00	27823.78	3476.22	0.00	11.23	5.02	1692.00	1690.69	0.62	900.00	1682.00	1.18
	17.100	1207.73	21127.55	8964.72	3.84	8.06	4.34	1702.50	1701.67	0.00	2285.78	1694.00	1.27
	17.100	2690.57	27792.60	816.83	4.88	8.57	5.01	1702.50	1702.64	0.97	949.00	1694.00	1.09
	17.300	3458.22	15964.13	11877.65	4.82	10.72	5.03	1713.00	1711.84	0.00	2065.70	1702.00	1.51
*	17.300	5916.19	20551.94	4831.87	6.37	12.59	7.29	1713.00	1712.41	0.57	870.00	1702.00	1.27
	17.560	5721.98	23931.46	1646.56	5.27	7.51	2.96	1736.00	1721.77	0.00	1253.59	1711.00	1.16
*	17.560	5885.68	24519.99	894.33	4.97	6.95	3.36	1736.00	1722.43	0.66	950.00	1711.00	1.08
*	17.780	0.00	31300.00	0.00	0.00	9.32	0.00	1760.00	1730.98	0.00	812.60	1722.00	1.00
*	17.780	0.00	31300.00	0.00	0.00	10.15	0.00	1760.00	1730.63	-0.35	808.71	1722.00	1.00
*	18.060	146.76	29105.12	2048.12	3.15	7.65	3.22	1760.00	1743.53	0.00	1101.57	1733.00	1.13
*	18.060	0.00	31300.00	0.00	0.00	7.62	0.00	1760.00	1744.02	0.50	610.00	1733.00	1.00
	18.340	7.86	30958.45	333.69	2.70	8.15	3.18	1780.00	1754.16	0.00	1009.87	1746.00	1.03
*	18.340	0.00	31300.00	0.00	0.00	8.23	0.00	1780.00	1754.16	0.01	910.00	1746.00	1.00
	18.720	7.55	24569.43	3523.02	1.77	6.55	3.62	1780.00	1769.51	0.00	1296.19	1760.00	1.11
	18.720	0.00	28100.00	0.00	0.00	6.96	0.00	1780.00	1769.88	0.37	770.00	1760.00	1.00
*	18.950	7.09	28047.63	45.28	1.91	10.12	1.83	1792.00	1780.61	0.00	906.95	1771.50	1.02
	18.950	0.00	28100.00	0.00	0.00	9.80	0.00	1792.00	1780.73	0.12	790.00	1771.50	1.00
*	19.160	2769.52	25162.16	168.32	3.54	6.34	2.12	1800.00	1790.41	0.00	1079.06	1782.00	1.10
*	19.160	0.00	28100.00	0.00	0.00	6.84	0.00	1800.00	1790.61	0.20	680.00	1782.00	1.00
*	19.380	0.00	28100.00	0.00	0.00	11.08	0.00	1816.50	1799.96	0.00	699.58	1792.00	1.00
*	19.380	0.00	28100.00	0.00	0.00	11.09	0.00	1816.50	1799.96	0.00	699.56	1792.00	1.00
*	19.580	53.62	28024.60	21.78	1.67	8.30	1.67	1824.00	1812.89	0.00	830.70	1804.50	1.02
*	19.580	0.00	28100.00	0.00	0.00	8.30	0.00	1824.00	1812.90	0.01	730.00	1804.50	1.00
	19.920	2746.26	25324.52	29.22	5.95	6.39	2.74	1840.00	1826.07	0.00	1357.83	1815.50	1.00
	19.920	0.00	28100.00	0.00	0.00	6.69	0.00	1840.00	1826.27	0.21	1170.00	1815.50	1.00
*	20.230	5163.75	20651.97	2284.27	6.55	8.68	7.51	1851.50	1841.22	0.00	1264.86	1834.00	1.04
*	20.230	90.09	27025.69	984.22	5.18	9.83	8.85	1860.00	1841.71	0.49	800.00	1834.00	1.00
*	20.390	4922.52	20072.57	3104.91	5.70	6.63	6.99	1860.00	1849.75	0.00	1290.54	1842.00	1.01
*	20.390	0.00	27640.08	459.92	0.00	7.54	6.80	1860.00	1850.51	0.76	850.00	1842.00	1.00

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFKWS	TOPWID	ELMIN	ALPHA
	20.730	3134.47	24166.87	798.66	5.59	9.37	3.72	1876.00	1865.24	0.00	1461.92	1855.00	1.13
	20.730	2349.25	25750.75	0.00	7.11	9.31	0.00	1880.00	1865.53	0.29	780.00	1855.00	1.02
	21.000	6425.45	20399.63	1274.92	6.65	7.43	2.94	1884.00	1878.69	0.00	1441.55	1865.50	1.10
	21.000	685.42	27414.58	0.00	6.47	8.79	0.00	1900.00	1879.25	0.56	700.00	1865.50	1.01
	21.240	32.01	27997.54	70.45	2.02	8.79	2.02	1900.00	1889.13	0.00	750.12	1879.50	1.02
	21.240	0.00	28100.00	0.00	0.00	8.10	0.00	1900.00	1889.57	0.43	660.00	1879.50	1.00
	21.590	0.00	27072.79	1027.22	0.00	6.23	4.01	1920.00	1907.37	0.00	1562.98	1898.00	1.02
	21.590	0.00	28100.00	0.00	0.00	6.84	0.00	1920.00	1907.20	-0.17	1410.03	1898.00	1.00
	21.850	29.89	24395.77	3674.34	2.89	6.70	5.45	1940.00	1921.67	0.00	1700.99	1913.00	1.02
	21.850	0.00	28100.00	0.00	0.00	6.64	0.00	1940.00	1922.10	0.44	1330.00	1913.00	1.00
	22.060	0.00	23992.97	4107.03	0.00	6.53	4.21	1940.00	1932.24	0.00	1438.90	1920.50	1.07
	22.060	0.00	28100.00	0.00	0.00	7.34	0.00	1948.00	1932.42	0.17	942.55	1920.50	1.00
	22.250	0.00	28089.04	10.96	0.03	8.47	1.27	1960.00	1940.55	0.00	774.62	1931.00	1.00
	22.250	0.00	28049.83	50.17	0.00	7.62	2.22	1960.00	1941.01	0.47	856.35	1931.00	1.01
	22.620	4376.59	19317.09	106.31	5.74	9.30	4.45	1984.00	1963.09	0.00	855.98	1954.00	1.10
*	22.620	3349.95	20450.05	0.00	6.39	10.31	0.00	1984.00	1962.90	-0.19	730.00	1954.00	1.08
	22.810	4087.88	19703.25	8.87	4.49	7.05	1.34	1996.00	1972.81	0.00	1031.25	1962.00	1.09
*	22.810	0.00	23800.00	0.00	0.00	7.43	0.00	1996.00	1973.49	0.68	600.00	1962.00	1.00
	23.090	4680.12	11465.78	7654.10	6.55	8.61	7.31	2000.00	1984.08	0.00	748.28	1975.00	1.04
	23.090	2466.50	12793.18	8540.32	6.65	8.96	7.61	2004.00	1984.43	0.35	630.00	1975.00	1.03
	23.420	722.92	19060.45	4016.63	3.76	9.75	7.59	2020.00	2001.96	0.00	760.46	1994.00	1.09
	23.420	0.00	23800.00	0.00	0.00	10.67	0.00	2020.00	2002.62	0.65	420.00	1994.00	1.00
	23.720	28.00	12545.86	26.13	1.38	6.04	1.38	2020.00	2017.04	0.00	535.48	2008.50	1.03
	23.720	0.00	12600.00	0.00	0.00	5.71	0.00	2040.00	2017.32	0.28	460.00	2008.50	1.00
*	23.980	1285.62	10784.26	530.12	5.34	9.85	3.80	2040.00	2026.64	0.00	467.12	2020.00	1.19
*	23.980	0.00	12600.00	0.00	0.00	11.45	0.00	2040.00	2026.67	0.02	210.00	2020.00	1.00
	24.310	485.60	11304.31	810.09	4.20	7.19	4.20	2064.00	2043.93	0.00	537.13	2038.00	1.07
*	24.310	480.21	11194.80	924.99	4.83	6.51	3.99	2064.00	2044.31	0.37	514.28	2038.00	1.05
	24.550	2858.21	6344.68	3397.11	4.31	10.97	5.91	2080.00	2054.79	0.00	688.54	2046.00	1.54
*	24.550	2426.13	7791.83	2382.04	6.13	12.86	6.85	2080.00	2055.14	0.35	340.00	2046.00	1.36
	24.780	205.07	4602.59	4582.34	4.43	9.74	5.89	2100.00	2065.25	0.00	345.08	2058.00	1.22
	24.780	0.00	4400.95	4989.05	0.00	8.21	5.66	2100.00	2066.17	0.91	280.00	2058.00	1.11
*	24.990	916.03	7565.08	908.89	4.55	10.66	3.78	2100.00	2076.73	0.00	399.08	2067.50	1.43
*	24.990	649.78	7916.83	823.39	5.14	11.21	4.17	2100.00	2076.69	-0.04	300.00	2067.50	1.32

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFKWS	TOPWID	ELMIN	ALPHA
	25.270	3820.17	1352.87	4216.96	5.22	4.15	4.32	2108.00	2088.93	0.00	1042.35	2082.00	1.03
*	25.270	0.00	2908.57	6481.43	0.00	5.26	4.75	2108.00	2089.86	0.93	710.00	2082.00	1.01
	25.480	3492.52	352.82	5544.66	7.04	5.83	6.77	2107.00	2097.98	0.00	604.24	2091.50	1.00
	25.480	0.00	863.14	8526.86	0.00	8.30	8.51	2107.00	2098.90	0.92	374.18	2091.50	1.00
	25.770	4131.54	2893.45	175.01	4.75	8.79	2.61	2121.50	2120.08	0.00	895.38	2116.00	1.37
	25.770	2682.28	4321.23	196.49	5.40	9.24	2.77	2121.50	2121.04	0.96	511.57	2116.00	1.29
*	25.920	0.00	4083.52	3116.48	0.00	10.38	3.35	2138.00	2131.47	0.00	675.59	2123.00	2.23
	25.920	0.00	4018.55	3181.45	0.00	10.12	3.29	2138.00	2131.53	0.06	685.31	2123.00	2.23
*	26.140	0.00	0.00	7200.00	0.00	0.00	0.20	2155.00	2132.81	0.00	74.35	1144.00	1.00
	26.140	0.00	0.00	7200.00	0.00	0.00	0.20	2155.00	2132.79	-0.02	74.35	1144.00	1.00
*	26.300	4214.84	2852.45	132.71	5.56	12.71	5.06	2210.00	2153.61	0.00	342.65	2148.00	1.62
	26.300	4215.21	2852.07	132.72	5.56	12.71	5.06	2210.00	2153.61	0.00	342.67	2148.00	1.62
*	26.480	4079.61	3119.55	0.84	5.43	11.32	0.93	2171.00	2164.36	0.00	475.09	2159.50	1.47
*	26.480	4078.81	3120.35	0.83	5.43	11.33	0.93	2171.00	2164.36	0.00	474.68	2159.50	1.47
	26.720	7200.00	0.00	0.00	0.10	0.00	0.00	2186.00	2165.82	0.00	147.70	1181.00	1.00
*	26.720	7200.00	0.00	0.00	0.10	0.00	0.00	2186.00	2165.82	0.00	147.70	1181.00	1.00
	26.890	1077.59	4305.86	1816.55	4.34	10.92	4.34	2250.00	2190.43	0.00	447.87	2184.00	1.71
*	26.890	1077.59	4305.86	1816.55	4.34	10.92	4.34	2250.00	2190.43	0.00	447.87	2184.00	1.71
	27.000	2535.87	4332.74	331.38	6.53	11.13	3.51	2220.00	2196.44	0.00	347.27	2191.00	1.32
	27.000	2535.87	4332.74	331.38	6.53	11.13	3.51	2220.00	2196.44	0.00	347.27	2191.00	1.32
	27.320	1086.03	2168.33	395.64	5.02	10.71	5.16	2234.00	2220.45	0.00	201.29	2216.00	1.45
	27.320	1086.03	2168.33	395.64	5.02	10.71	5.16	2234.00	2220.45	0.00	201.29	2216.00	1.45
*	27.510	781.39	2299.13	569.49	3.75	10.26	3.23	2250.00	2235.73	0.00	287.73	2230.50	1.97
*	27.510	781.39	2299.13	569.49	3.75	10.26	3.23	2250.00	2235.73	0.00	287.73	2230.50	1.97
*	27.640	57.59	3534.82	57.59	2.28	10.88	2.28	2264.00	2245.50	0.00	137.42	2239.50	1.21
*	27.640	57.59	3534.82	57.59	2.28	10.88	2.28	2264.00	2245.50	0.00	137.42	2239.50	1.21
*	27.760	29.83	3558.31	61.86	3.40	12.10	3.52	2274.00	2254.65	0.00	79.88	2249.00	1.10
*	27.760	29.83	3558.31	61.86	3.40	12.10	3.52	2274.00	2254.65	0.00	79.88	2249.00	1.10

SKUNK CREEK

SUMMARY PRINTOUT

	SECNO	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
*	16.690	0.00	0.00	1680.80	2.02	0.00	0.00	98.08	0.00	6.28	37.00	35.00	37.00
*	16.690	0.00	0.00	1680.80	2.03	0.00	0.00	98.80	0.00	6.27	37.00	35.00	37.00
*	16.870	900.00	10.56	1691.12	1.04	9.00	0.29	101.92	76.45	8.08	45.00	43.00	45.00
*	16.870	900.00	10.56	1692.48	1.78	9.77	0.07	119.83	61.78	8.69	0.00	43.00	45.00
	17.100	1214.00	9.88	1702.45	0.77	11.25	0.08	83.17	211.72	7.67	45.00	43.00	45.00
	17.100	1214.00	9.88	1703.69	1.05	11.00	0.22	70.67	161.36	8.64	45.00	43.00	45.00
	17.300	1056.00	7.58	1712.94	1.10	9.42	0.16	89.35	333.47	9.84	45.00	43.00	45.00
*	17.300	1056.00	7.58	1714.27	1.86	9.24	0.40	109.04	249.39	10.41	45.00	43.00	45.00
	17.560	1373.00	6.55	1722.53	0.76	9.49	0.10	54.32	483.51	10.77	50.00	48.00	50.00
*	17.560	1373.00	6.55	1723.09	0.66	8.46	0.36	40.48	375.92	11.43	50.00	48.00	50.00
*	17.780	1162.00	9.47	1732.33	1.35	9.50	0.30	137.51	592.35	8.98	0.00	48.00	0.00
*	17.780	1162.00	9.47	1732.23	1.60	8.67	0.47	181.74	483.23	8.63	0.00	48.00	0.00
	18.060	1478.00	7.44	1744.38	0.86	11.91	0.15	53.32	723.78	10.53	50.00	48.00	50.00
*	18.060	1478.00	7.44	1744.92	0.90	12.48	0.21	48.61	605.26	11.02	0.00	48.00	0.00
	18.340	1478.00	8.80	1755.18	1.02	10.72	0.08	103.45	867.24	8.16	50.00	48.00	50.00
	18.340	1478.00	8.80	1755.22	1.05	10.22	0.08	106.05	739.45	8.16	0.00	48.00	0.00
	18.720	2006.00	6.98	1770.11	0.61	14.81	0.12	54.35	1063.46	9.51	50.00	48.00	50.00
	18.720	2006.00	6.98	1770.63	0.75	15.32	0.09	55.95	919.94	9.88	0.00	48.00	0.00
*	18.950	1214.00	9.47	1782.20	1.59	11.42	0.49	201.29	1168.20	9.11	50.00	48.00	50.00
	18.950	1214.00	9.47	1782.22	1.49	11.22	0.37	180.92	1016.15	9.23	0.00	48.00	0.00
*	19.160	1109.00	9.47	1790.98	0.58	8.48	0.30	40.00	1265.20	8.41	50.00	48.00	50.00
*	19.160	1109.00	9.47	1791.33	0.73	8.88	0.23	44.95	1104.96	8.61	0.00	48.00	0.00
*	19.380	1162.00	8.61	1801.87	1.91	8.68	0.66	185.77	1363.62	7.96	0.00	43.00	0.00
*	19.380	1162.00	8.61	1801.87	1.91	9.39	0.59	186.06	1193.56	7.96	0.00	43.00	0.00
	19.580	1056.00	11.84	1813.96	1.07	11.84	0.25	74.99	1435.84	8.39	45.00	43.00	45.00
*	19.580	1056.00	11.84	1813.97	1.07	11.86	0.25	75.06	1265.30	8.40	0.00	43.00	0.00
	19.920	1795.00	6.13	1826.69	0.63	12.60	0.13	67.51	1595.05	10.57	45.00	43.00	45.00
	19.920	1795.00	6.13	1826.97	0.69	12.88	0.11	68.65	1421.59	10.77	0.00	43.00	0.00
	20.230	1637.00	11.30	1842.27	1.05	15.37	0.21	138.41	1744.04	7.22	45.00	43.00	45.00
	20.230	1637.00	11.30	1843.19	1.49	15.83	0.40	146.28	1554.63	7.71	45.00	43.00	45.00
	20.390	845.00	9.47	1850.41	0.66	8.02	0.12	66.74	1822.04	7.75	45.00	43.00	45.00
	20.390	845.00	9.47	1851.39	0.88	8.02	0.18	67.43	1618.20	8.51	0.00	43.00	45.00

	SECNO	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
	20.730	1795.00	7.24	1866.48	1.23	15.78	0.29	122.49	1979.44	10.24	45.00	43.00	45.00
	20.730	1795.00	7.24	1866.83	1.30	15.23	0.21	110.11	1758.84	10.53	45.00	43.00	0.00
	21.000	1426.00	7.36	1879.48	0.79	12.87	0.13	70.88	2100.58	13.19	45.00	43.00	45.00
	21.000	1426.00	7.36	1880.43	1.19	13.57	0.03	83.88	1861.63	13.75	45.00	43.00	0.00
	21.240	1267.00	11.05	1890.33	1.20	10.65	0.20	99.24	2209.02	9.63	50.00	48.00	50.00
	21.240	1267.00	11.05	1890.58	1.02	10.10	0.05	75.69	1959.11	10.07	0.00	48.00	0.00
	21.590	1848.00	10.01	1907.96	0.59	17.45	0.18	90.53	2374.37	9.37	0.00	48.00	50.00
	21.590	1848.00	10.01	1907.93	0.73	17.26	0.09	118.15	2119.82	9.20	0.00	48.00	0.00
	21.850	1373.00	10.92	1922.33	0.67	14.33	0.04	122.83	2514.30	8.67	50.00	48.00	50.00
	21.850	1373.00	10.92	1922.79	0.69	14.85	0.01	99.32	2251.19	9.10	0.00	48.00	0.00
	22.060	1109.00	6.76	1932.85	0.61	10.50	0.02	72.15	2632.11	11.74	0.00	48.00	50.00
	22.060	1109.00	6.76	1933.25	0.84	10.39	0.08	88.51	2353.78	11.92	0.00	48.00	0.00
	22.250	1003.00	10.47	1941.66	1.11	8.56	0.25	103.15	2723.40	9.55	50.00	48.00	50.00
	22.250	1003.00	10.47	1941.91	0.90	8.63	0.03	83.67	2440.51	10.01	0.00	48.00	50.00
	22.620	1954.00	11.77	1964.28	1.19	22.58	0.04	128.45	2865.15	9.09	50.00	48.00	50.00
*	22.620	1954.00	11.77	1964.41	1.51	22.19	0.30	169.37	2581.86	8.90	50.00	48.00	0.00
	22.810	1003.00	7.98	1973.51	0.69	9.08	0.15	67.30	2940.77	10.81	50.00	48.00	50.00
*	22.810	1003.00	7.98	1974.35	0.86	9.75	0.20	63.01	2647.56	11.49	0.00	48.00	0.00
	23.090	1478.00	8.80	1985.03	0.95	11.40	0.13	92.28	3054.06	9.08	50.00	48.00	50.00
	23.090	1478.00	8.80	1985.50	1.06	11.04	0.10	91.37	2750.66	9.43	50.00	48.00	50.00
	23.420	1742.00	10.91	2003.30	1.34	18.08	0.19	127.75	3163.57	7.96	50.00	48.00	50.00
	23.420	1742.00	10.91	2004.39	1.77	18.54	0.35	130.86	2851.03	8.62	0.00	48.00	0.00
	23.720	1584.00	9.15	2017.61	0.56	14.07	0.23	51.34	3250.84	8.54	50.00	48.00	50.00
	23.720	1584.00	9.15	2017.82	0.51	13.06	0.38	42.71	2931.68	8.82	0.00	48.00	0.00
*	23.980	1373.00	8.38	2027.99	1.34	9.99	0.39	112.52	3306.97	6.64	50.00	48.00	50.00
*	23.980	1373.00	8.38	2028.70	2.04	10.11	0.76	156.17	2983.78	6.67	0.00	48.00	0.00
	24.310	1742.00	10.33	2044.68	0.75	16.51	0.18	81.27	3373.81	5.93	50.00	48.00	50.00
*	24.310	1742.00	10.33	2044.92	0.62	15.80	0.43	59.33	3046.54	6.31	50.00	48.00	50.00
	24.550	1267.00	6.31	2055.94	1.15	11.06	0.20	92.37	3428.34	8.79	50.00	48.00	50.00
*	24.550	1267.00	6.31	2056.98	1.84	10.41	0.61	119.10	3096.45	9.14	50.00	48.00	50.00
	24.780	1214.00	9.88	2066.24	0.99	10.25	0.05	78.12	3471.01	7.25	50.00	48.00	50.00
	24.780	1214.00	9.88	2066.92	0.75	9.62	0.33	52.52	3134.26	8.17	0.00	48.00	50.00
*	24.990	1109.00	8.57	2078.20	1.47	9.70	0.24	100.74	3501.87	9.23	50.00	48.00	50.00
*	24.990	1109.00	8.57	2078.39	1.70	8.06	0.47	112.42	3164.56	9.19	50.00	48.00	50.00

	SECNO	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
	25.270	1478.00	9.81	2089.27	0.34	10.73	0.34	61.92	3552.14	6.93	50.00	35.00	50.00
*	25.270	1478.00	9.81	2090.23	0.38	11.45	0.40	53.65	3216.79	7.86	0.00	35.00	50.00
	25.480	1109.00	8.57	2098.71	0.73	9.24	0.19	122.65	3594.95	6.48	50.00	35.00	50.00
*	25.480	1109.00	8.57	2100.02	1.12	9.41	0.37	150.89	3255.56	7.40	0.00	35.00	50.00
*	25.770	1531.00	16.00	2120.77	0.69	18.59	0.01	123.11	3640.77	4.08	50.00	35.00	50.00
*	25.770	1531.00	16.00	2122.01	0.97	20.32	0.05	115.35	3292.87	5.04	50.00	35.00	50.00
*	25.920	792.00	8.84	2132.49	1.02	6.08	0.17	51.48	3664.56	8.47	0.00	35.00	50.00
*	25.920	792.00	8.84	2132.49	0.96	5.68	0.00	48.49	3314.76	8.53	0.00	35.00	50.00
*	26.140	1162.00	-842.51	2132.81	0.00	0.00	0.31	0.01	4154.33	988.81	0.00	0.00	50.00
*	26.140	1162.00	-842.51	2132.79	0.00	0.00	0.29	0.01	3805.03	988.79	0.00	0.00	50.00
*	26.300	910.00	1103.30	2154.89	1.28	0.00	0.64	89.85	4540.55	5.61	50.00	35.00	50.00
*	26.300	910.00	1103.30	2154.89	1.28	0.00	0.64	89.79	4191.23	5.61	50.00	35.00	50.00
*	26.480	950.00	12.11	2165.48	1.12	8.19	0.05	96.20	4560.70	4.86	50.00	35.00	50.00
*	26.480	950.00	12.11	2165.48	1.12	8.20	0.05	96.35	4211.37	4.86	50.00	35.00	50.00
*	26.720	1267.00	-772.30	2165.82	0.00	0.00	0.34	0.00	5602.18	984.82	50.00	0.00	0.00
*	26.720	1267.00	-772.30	2165.82	0.00	0.00	0.34	0.00	5252.84	984.82	50.00	0.00	0.00
*	26.890	898.00	1116.93	2191.65	1.23	0.00	0.61	79.65	6347.96	6.43	50.00	35.00	50.00
*	26.890	898.00	1116.93	2191.65	1.23	0.00	0.61	79.65	5998.63	6.43	50.00	35.00	50.00
*	27.000	581.00	12.05	2197.84	1.40	5.17	0.09	98.42	6360.99	5.44	50.00	35.00	50.00
*	27.000	581.00	12.05	2197.84	1.40	5.17	0.09	98.42	6011.65	5.44	50.00	35.00	50.00
*	27.320	1690.00	14.79	2221.67	1.22	16.62	0.05	98.92	6387.40	4.45	50.00	35.00	50.00
*	27.320	1690.00	14.79	2221.67	1.22	16.62	0.05	98.92	6038.07	4.45	50.00	35.00	50.00
*	27.510	1003.00	14.46	2236.83	1.10	8.36	0.04	69.45	6400.33	5.23	50.00	35.00	50.00
*	27.510	1003.00	14.46	2236.83	1.10	8.36	0.04	69.45	6050.99	5.23	50.00	35.00	50.00
*	27.640	686.00	13.12	2247.28	1.78	5.32	0.34	86.63	6408.14	6.00	50.00	35.00	50.00
*	27.640	686.00	13.12	2247.28	1.78	5.32	0.34	86.63	6058.80	6.00	50.00	35.00	50.00
*	27.760	634.00	14.98	2256.87	2.22	5.86	0.22	99.03	6413.20	5.65	50.00	35.00	50.00
*	27.760	634.00	14.98	2256.87	2.22	5.86	0.22	99.03	6063.86	5.65	50.00	35.00	50.00

SKUNK CREEK

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	16.690	1678.78	-0.22	1680.80	720.82	575.11	20675.51	10049.38	0.00	0.00	9770.00	10120.00	0.00
*	16.690	1678.77	-0.01	1680.80	710.00	582.60	20658.38	10059.02	710.00	9690.00	9770.00	10120.00	10400.00
*	16.870	1690.08	0.00	1691.12	2310.08	165.43	20831.45	10303.13	0.00	0.00	9550.00	10030.00	0.00
*	16.870	1690.69	0.62	1692.48	900.00	0.00	27823.78	3476.22	900.00	9550.00	9550.00	10030.00	10450.00
	17.100	1701.67	0.00	1702.45	2285.78	1207.73	21127.55	8964.72	0.00	0.00	9820.00	10460.00	0.00
	17.100	1702.64	0.97	1703.69	949.00	2690.57	27792.60	816.83	949.00	9576.00	9820.00	10460.00	10525.00
*	17.300	1711.84	0.00	1712.94	2065.70	3458.22	15964.13	11877.65	0.00	0.00	9900.00	10150.00	0.00
*	17.300	1712.41	0.57	1714.27	870.00	5916.19	20551.94	4831.87	870.00	9530.00	9900.00	10150.00	10400.00
	17.560	1721.77	0.00	1722.53	1253.59	5721.98	23931.46	1646.56	0.00	0.00	9960.00	10490.00	0.00
*	17.560	1722.43	0.66	1723.09	950.00	5885.68	24519.99	894.33	950.00	9650.00	9960.00	10490.00	10600.00
*	17.780	1730.98	0.00	1732.33	812.60	0.00	31300.00	0.00	0.00	0.00	9960.00	10790.00	0.00
*	17.780	1730.63	-0.35	1732.23	808.71	0.00	31300.00	0.00	830.00	9960.00	9960.00	10790.00	10790.00
*	18.060	1743.53	0.00	1744.38	1101.57	146.76	29105.12	2048.12	0.00	0.00	9610.00	10220.00	0.00
*	18.060	1744.02	0.50	1744.92	610.00	0.00	31300.00	0.00	610.00	9610.00	9610.00	10220.00	10220.00
	18.340	1754.16	0.00	1755.18	1009.87	7.86	30958.45	333.69	0.00	0.00	9930.00	10840.00	0.00
*	18.340	1754.16	0.01	1755.22	910.00	0.00	31300.00	0.00	910.00	9930.00	9930.00	10840.00	10840.00
	18.720	1769.51	0.00	1770.11	1296.19	7.55	24569.43	3523.02	0.00	0.00	9450.00	10220.00	0.00
	18.720	1769.88	0.37	1770.63	770.00	0.00	28100.00	0.00	770.00	9450.00	9450.00	10220.00	10220.00
*	18.950	1780.61	0.00	1782.20	906.95	7.09	28047.63	45.28	0.00	0.00	9260.00	10050.00	0.00
*	18.950	1780.73	0.12	1782.22	790.00	0.00	28100.00	0.00	790.00	9260.00	9260.00	10050.00	10050.00
*	19.160	1790.41	0.00	1790.98	1079.06	2769.52	25162.16	168.32	0.00	0.00	9900.00	10580.00	0.00
*	19.160	1790.61	0.20	1791.33	680.00	0.00	28100.00	0.00	680.00	9900.00	9900.00	10580.00	10580.00
*	19.380	1799.96	0.00	1801.87	699.58	0.00	28100.00	0.00	0.00	0.00	9960.00	10660.00	0.00
*	19.380	1799.96	0.00	1801.87	699.56	0.00	28100.00	0.00	700.00	9960.00	9960.00	10660.00	10660.00
*	19.580	1812.89	0.00	1813.96	830.70	53.62	28024.60	21.78	0.00	0.00	9650.00	10380.00	0.00
*	19.580	1812.90	0.01	1813.97	730.00	0.00	28100.00	0.00	730.00	9650.00	9650.00	10380.00	10380.00
	19.920	1826.07	0.00	1826.69	1357.83	2746.26	25324.52	29.22	0.00	0.00	8920.00	10090.00	0.00
	19.920	1826.27	0.21	1826.97	1170.00	0.00	28100.00	0.00	1170.00	8920.00	8920.00	10090.00	10090.00
*	20.230	1841.22	0.00	1842.27	1264.86	5163.75	20651.97	2284.27	0.00	0.00	9310.00	10070.00	0.00
*	20.230	1841.71	0.49	1843.19	800.00	90.09	27025.69	984.22	800.00	9300.00	9310.00	10070.00	10100.00
*	20.390	1849.75	0.00	1850.41	1290.54	4922.52	20072.57	3104.91	0.00	0.00	9500.00	10340.00	0.00
*	20.390	1850.51	0.76	1851.39	850.00	0.00	27640.08	459.92	850.00	9500.00	9500.00	10340.00	10350.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
0.730	1865.24	0.00	1866.48	1461.92	3134.47	24166.87	798.66	0.00	0.00	9440.00	10110.00	0.00
20.730	1865.53	0.29	1866.83	780.00	2349.25	25750.75	0.00	780.00	9330.00	9440.00	10110.00	10110.00
.1.000	1878.69	0.00	1879.48	1441.55	6425.45	20399.63	1274.92	0.00	0.00	9400.00	10070.00	0.00
21.000	1879.25	0.56	1880.43	700.00	685.42	27414.58	0.00	700.00	9370.00	9400.00	10070.00	10070.00
1.240	1889.13	0.00	1890.33	750.12	32.01	27997.54	70.45	0.00	0.00	9570.00	10230.00	0.00
1.240	1889.57	0.43	1890.58	660.00	0.00	28100.00	0.00	660.00	9570.00	9570.00	10230.00	10230.00
1.590	1907.37	0.00	1907.96	1562.98	0.00	27072.79	1027.22	0.00	0.00	8665.00	10080.00	0.00
1.590	1907.20	-0.17	1907.93	1410.03	0.00	28100.00	0.00	1415.00	8665.00	8665.00	10080.00	10080.00
21.850	1921.67	0.00	1922.33	1700.99	29.89	24395.77	3674.34	0.00	0.00	8720.00	10050.00	0.00
1.850	1922.10	0.44	1922.79	1330.00	0.00	28100.00	0.00	1330.00	8720.00	8720.00	10050.00	10050.00
22.060	1932.24	0.00	1932.85	1438.90	0.00	23992.97	4107.03	0.00	0.00	8960.00	10070.00	0.00
2.060	1932.42	0.17	1933.25	942.55	0.00	28100.00	0.00	1110.00	8960.00	8960.00	10070.00	10070.00
22.250	1940.55	0.00	1941.66	774.62	0.00	28089.04	10.96	0.00	0.00	9050.00	10250.00	0.00
2.250	1941.01	0.47	1941.91	856.35	0.00	28049.83	50.17	1230.00	9050.00	9050.00	10250.00	10280.00
22.620	1963.09	0.00	1964.28	855.98	4376.59	19317.09	106.31	0.00	0.00	9700.00	10180.00	0.00
22.620	1962.90	-0.19	1964.41	730.00	3349.95	20450.05	0.00	730.00	9450.00	9700.00	10180.00	10180.00
2.810	1972.81	0.00	1973.51	1031.25	4087.88	19703.25	8.87	0.00	0.00	9450.00	10050.00	0.00
22.810	1973.49	0.68	1974.35	600.00	0.00	23800.00	0.00	600.00	9450.00	9450.00	10050.00	10050.00
3.090	1984.08	0.00	1985.03	748.28	4680.12	11465.78	7654.10	0.00	0.00	9900.00	10170.00	0.00
23.090	1984.43	0.35	1985.50	630.00	2466.50	12793.18	8540.32	630.00	9800.00	9900.00	10170.00	10430.00
3.420	2001.96	0.00	2003.30	760.46	722.92	19060.45	4016.63	0.00	0.00	9680.00	10100.00	0.00
.420	2002.62	0.65	2004.39	420.00	0.00	23800.00	0.00	420.00	9680.00	9680.00	10100.00	10100.00
.720	2017.04	0.00	2017.61	535.48	28.00	12545.86	26.13	0.00	0.00	9670.00	10130.00	0.00
.720	2017.32	0.28	2017.82	460.00	0.00	12600.00	0.00	460.00	9670.00	9670.00	10130.00	10130.00
.980	2026.64	0.00	2027.99	467.12	1285.62	10784.26	530.12	0.00	0.00	9960.00	10170.00	0.00
.980	2026.67	0.02	2028.70	210.00	0.00	12600.00	0.00	210.00	9960.00	9960.00	10170.00	10170.00
24.310	2043.93	0.00	2044.68	537.13	485.60	11304.31	810.09	0.00	0.00	9680.00	10060.00	0.00
.310	2044.31	0.37	2044.92	514.28	480.21	11194.80	924.99	520.00	9650.00	9680.00	10060.00	10170.00
24.550	2054.79	0.00	2055.94	688.54	2858.21	6344.68	3397.11	0.00	0.00	9970.00	10050.00	0.00
.550	2055.14	0.35	2056.98	340.00	2426.13	7791.83	2382.04	340.00	9820.00	9970.00	10050.00	10160.00
24.780	2065.25	0.00	2066.24	345.08	205.07	4602.59	4582.34	0.00	0.00	9970.00	10040.00	0.00
24.780	2066.17	0.91	2066.92	280.00	0.00	4400.95	4989.05	280.00	9970.00	9970.00	10040.00	10250.00
.990	2076.73	0.00	2078.20	399.08	916.03	7565.08	908.89	0.00	0.00	9950.00	10060.00	0.00
24.990	2076.69	-0.04	2078.39	300.00	649.78	7916.83	823.39	300.00	9890.00	9950.00	10060.00	10190.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	25.270	2088.93	0.00	2089.27	1042.35	3820.17	1352.87	4216.96	0.00	0.00	9940.00	10190.00	0.00
*	25.270	2089.86	0.93	2090.23	710.00	0.00	2908.57	6481.43	710.00	9940.00	9940.00	10190.00	10650.00
	25.480	2097.98	0.00	2098.71	604.24	3492.52	352.82	5544.66	0.00	0.00	9950.00	10050.00	0.00
*	25.480	2098.90	0.92	2100.02	374.18	0.00	863.14	8526.86	750.00	9950.00	9950.00	10050.00	10700.00
*	25.770	2120.08	0.00	2120.77	895.38	4131.54	2893.45	175.01	0.00	0.00	9960.00	10140.00	0.00
*	25.770	2121.04	0.96	2122.01	511.57	2682.28	4321.23	196.49	650.00	9700.00	9960.00	10140.00	10350.00
*	25.920	2131.47	0.00	2132.49	675.59	0.00	4083.52	3116.48	0.00	0.00	9980.00	10040.00	0.00
*	25.920	2131.53	0.06	2132.49	685.31	0.00	4018.55	3181.45	0.00	0.00	9980.00	10040.00	0.00
*	26.140	2132.81	0.00	2132.81	74.35	0.00	0.00	7200.00	0.00	0.00	9990.00	10025.00	0.00
*	26.140	2132.79	-0.02	2132.79	74.35	0.00	0.00	7200.00	0.00	0.00	9990.00	10025.00	0.00
*	26.300	2153.61	0.00	2154.89	342.65	4214.84	2852.45	132.71	0.00	0.00	9980.00	10020.00	0.00
*	26.300	2153.61	0.00	2154.89	342.67	4215.21	2852.07	132.72	0.00	0.00	9980.00	10020.00	0.00
*	26.480	2164.36	0.00	2165.48	475.09	4079.61	3119.55	0.84	0.00	0.00	9970.00	10030.00	0.00
*	26.480	2164.36	0.00	2165.48	474.68	4078.81	3120.35	0.83	0.00	0.00	9970.00	10030.00	0.00
*	26.720	2165.82	0.00	2165.82	147.70	7200.00	0.00	0.00	0.00	0.00	9960.00	10035.00	0.00
*	26.720	2165.82	0.00	2165.82	147.70	7200.00	0.00	0.00	0.00	0.00	9960.00	10035.00	0.00
*	26.890	2190.43	0.00	2191.65	447.87	1077.59	4305.86	1816.55	0.00	0.00	9960.00	10040.00	0.00
*	26.890	2190.43	0.00	2191.65	447.87	1077.59	4305.86	1816.55	0.00	0.00	9960.00	10040.00	0.00
*	27.000	2196.44	0.00	2197.84	347.27	2535.87	4332.74	331.38	0.00	0.00	9960.00	10050.00	0.00
*	27.000	2196.44	0.00	2197.84	347.27	2535.87	4332.74	331.38	0.00	0.00	9960.00	10050.00	0.00
*	27.320	2220.45	0.00	2221.67	201.29	1086.03	2168.33	395.64	0.00	0.00	9960.00	10010.00	0.00
*	27.320	2220.45	0.00	2221.67	201.29	1086.03	2168.33	395.64	0.00	0.00	9960.00	10010.00	0.00
*	27.510	2235.73	0.00	2236.83	287.73	781.39	2299.13	569.49	0.00	0.00	9980.00	10025.00	0.00
*	27.510	2235.73	0.00	2236.83	287.73	781.39	2299.13	569.49	0.00	0.00	9980.00	10025.00	0.00
*	27.640	2245.50	0.00	2247.28	137.42	57.59	3534.82	57.59	0.00	0.00	9980.00	10050.00	0.00
*	27.640	2245.50	0.00	2247.28	137.42	57.59	3534.82	57.59	0.00	0.00	9980.00	10050.00	0.00
*	27.760	2254.65	0.00	2256.87	79.88	29.83	3558.31	61.86	0.00	0.00	9980.00	10040.00	0.00
*	27.760	2254.65	0.00	2256.87	79.88	29.83	3558.31	61.86	0.00	0.00	9980.00	10040.00	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO=     16.690  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     16.690  PROFILE=  2  CRITICAL DEPTH ASSUMED

CAUTION SECNO=     16.870  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     16.870  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     16.870  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     16.870  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     17.300  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     17.300  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     17.300  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     17.300  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     17.560  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     17.780  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     17.780  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     18.060  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     18.060  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     18.340  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     18.950  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     18.950  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=     18.950  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     19.160  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     19.160  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     19.380  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     19.380  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     19.380  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     19.380  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     19.580  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     19.580  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     20.230  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     20.230  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     20.390  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     20.390  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     22.620  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     22.810  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     23.980  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     23.980  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO=     24.310  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     24.550  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     24.550  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     24.990  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     24.990  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     24.990  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     24.990  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     25.270  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     25.480  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     25.770  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.770  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     25.770  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.770  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     25.920  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.920  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     25.920  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     25.920  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     26.140  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     26.140  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     26.300  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     26.300  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     26.300  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     26.300  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     26.300  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     26.300  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     26.480  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     26.480  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     26.480  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     26.480  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     26.720  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     26.720  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     26.890  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     26.890  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     26.890  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     26.890  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     26.890  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     26.890  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     27.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     27.000  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     27.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     27.000  PROFILE=  2  MINIMUM SPECIFIC ENERGY
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CAUTION SECNO=     27.320  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     27.320  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     27.320  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     27.320  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     27.510  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     27.510  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     27.510  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     27.510  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     27.640  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     27.640  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     27.640  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     27.640  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     27.760  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     27.760  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     27.760  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     27.760  PROFILE=  2  MINIMUM SPECIFIC ENERGY
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FLOODWAY DATA, SKUNK CREEK
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
16.690	710.	2811.	11.1	1678.8	1678.8	0.0
16.870	900.	3169.	9.9	1690.7	1690.1	0.6
17.100	949.	3958.	7.9	1702.7	1701.7	1.0
17.300	870.	3224.	9.7	1712.4	1711.8	0.6
17.560	950.	4982.	6.3	1722.5	1721.8	0.7
17.780	809.	3084.	10.1	1730.7	1731.0	-0.3
18.060	610.	4109.	7.6	1744.0	1743.5	0.5
18.340	910.	3801.	8.2	1754.2	1754.2	0.0
18.720	770.	4037.	7.0	1769.9	1769.5	0.4
18.950	790.	2867.	9.8	1780.7	1780.6	0.1
19.160	680.	4109.	6.8	1790.6	1790.4	0.2
19.380	700.	2534.	11.1	1800.0	1800.0	0.0
19.580	730.	3384.	8.3	1812.9	1812.9	0.0
19.920	1170.	4202.	6.7	1826.3	1826.1	0.2
20.230	800.	2878.	9.8	1841.7	1841.2	0.5
20.390	850.	3733.	7.5	1850.6	1849.8	0.8
20.730	780.	3097.	9.1	1865.5	1865.2	0.3
21.000	700.	3225.	8.7	1879.3	1878.7	0.6
21.240	660.	3470.	8.1	1889.5	1889.1	0.4
21.590	1410.	4106.	6.8	1907.2	1907.4	-0.2
21.850	1330.	4229.	6.6	1922.1	1921.7	0.4
22.060	1077.	3830.	7.3	1932.4	1932.2	0.2
22.250	1230.	3704.	7.6	1941.0	1940.5	0.5
22.620	730.	2507.	9.5	1962.9	1963.1	-0.2
22.810	600.	3202.	7.4	1973.5	1972.8	0.7
23.090	630.	2921.	8.1	1984.5	1984.1	0.4
23.420	420.	2231.	10.7	2002.7	2002.0	0.7
23.720	460.	2205.	5.7	2017.3	2017.0	0.3
23.980	210.	1100.	11.4	2026.6	2026.6	0.0
24.310	514.	2049.	6.1	2044.3	2043.9	0.4
24.550	340.	1349.	9.3	2055.1	2054.8	0.3
24.780	280.	1418.	6.6	2066.2	2065.3	0.9
24.990	300.	1030.	9.1	2076.7	2076.7	0.0
25.270	710.	1916.	4.9	2089.8	2088.9	0.9
25.480	724.	1105.	8.5	2098.9	2098.0	0.9
25.770	650.	1035.	7.0	2121.1	2120.1	1.0
25.920	685.	1364.	5.3	2131.6	2131.5	0.1
26.140	74.	36756.	0.2	2132.8	2132.8	0.0
26.300	706.	1009.	7.1	2153.6	2153.6	0.0
26.480	748.	1028.	7.0	2164.4	2164.4	0.0
26.720	148.	72731.	0.1	2165.8	2165.8	0.0
26.890	448.	1061.	6.8	2190.4	2190.4	0.0

FLOODWAY DATA, SKUNK CREEK
PROFILE NO. 2

STATION	------- FLOODWAY ------- WIDTH	SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
27.000	481.	872.	8.3	2196.4	2196.4	0.0
27.320	201.	495.	7.4	2220.4	2220.4	0.0
27.510	288.	609.	6.0	2235.7	2235.7	0.0
27.640	137.	375.	9.7	2245.5	2245.5	0.0

APPENDIX D - Topo Verification Study

THE VILLAGES AT DESERT HILLS
Skunk Creek Floodplain
Topo Verification

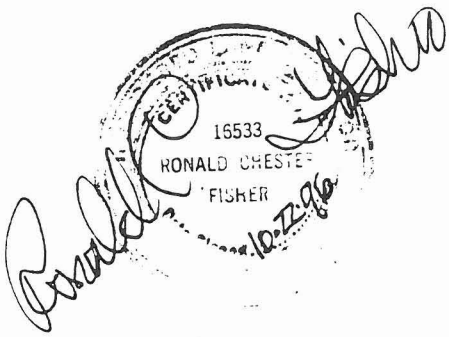
Point	Station	Description	Elevation [Flown]	Elevation *[Existing]	Northing	Easting
Section 20.54						
1	50+00.00	centerline	-	-	1034243.809	646803.7557
2	49+72.46		1848	1848.20	1034255.62	646778.8736
3	49+29.49	overbank	1850	1848.30	1034274.019	646740.035
4	49+15.85		1852	1852.15	1034280.935	646728.2439
5	48+79.75		1854	1853.70	1034296.947	646695.8885
	48+01.3	floodway	-	-		
6	46+50.87		1854	1853.80	1034398.046	646490.5416
7	45+35.04		1854	1853.75	1034448.891	646386.4713
	45+08.01	floodplain			1034461.79	646362.62
8	44+74.6		1856	1855.90	1034475.506	646332.2106
9	44+52.5		1858	1857.35	1034485.403	646312.4469
10	44+37.86		-	1857.65	1034492.153	646299.4435
11	50+17.08		1850	1850.70	1034236.196	646819.0424
12	50+33.04	overbank	-	1851.80	1034228.803	646833.1923
13	50+61.42		1854	1854.10	1034216.479	646858.7587
14	53+90.03		1853	1853.30	1034071.917	647153.8705
	55+04.09	floodway				
15	55+29.58		1852	1851.80	1034009.685	647278.7746
16	55+73.24		1852	1852.50	1033990.109	647317.7943
17	56+01.77		1853	1853.60	1033974.36	647351.8738
	56+19.35		-	-		
18	56+85.69		1854	1854.50	1033941.094	647419.0127
19	57+42.85		1855	1855.10	1033914.898	647469.825
	57+57.10	floodplain			1033910.00	647484.00
20	59+01.30		1856	1856.30	1033841.537	647620.3495
21	59+47.37		1857	1857.30	1033825.177	647653.6175
22	60+84.19		1858	1858.15	1033764.929	647776.4503
23	61+17.12		1859	1859.00	1033750.583	647806.0903
24	61+32.18		-	1859.75	1033743.649	647819.4685
Section 21.24						
25	50+00.00	centerline	-	1885.00	1037294.426	648749.8983
26	49+91.93		1884	1885.80	1037298.658	648743.4262
27	49+61.88		1884	1884.80	1037314.601	648717.9592
28	49+31.61		1884	1881.40	1037330.836	648692.4137
29	49+21.09	overbank	1888	1888.00	1037336.648	648683.6343
30	48+45.07		1888	1887.90	1037376.874	648619.1282
31	48+24.78		1884	Dense Brush	1037388.003	648602.1646
32	47+96.69		1884	Dense Brush	1037403.451	648578.4621
33	47+60.23		1886	Dense Brush	1037422.136	648547.4768
34	47+31.67		1888	Dense Brush	1037437.927	648523.5729
35	47+05.83		1890	Dense Brush	1037451.444	648501.5391
	46+87.01	floodway				
36	46+76.54	floodplain	-	-	1037466.684	648476.5214
37	50+12.05	overbank	1886	1885.40	1037287.624	648760.7956
38	50+53.02		1886	1883.70	1037265.851	648795.1747
39	50+73.66		1886	1886.70	1037255.191	648812.6416

40	52+25.77		1886	1883.50	1037174.025	648941.2914
41	52+30.74		1884	1882.90	1037171.056	648946.1994
42	52+47.33		1884	1883.50	1037162.576	648959.5551
43	52+09.38		1884	1883.30	1037139.54	648995.9320
44	52+96.82		-	1881.85	1037136.088	649001.3656
45	53+07.84		1884	1881.70	1037130.3	649010.7371
46	53+16.77		1888	1887.55	1037125.426	649018.2248
47	53+58.34		1890	1888.35	1037103.271	649053.4025
	53+76.93	floodway				
48	53+79.86		-	1889.60	1037091.873	649071.657
	53+88.09	floodplain				
Section 21.68						
49	50+00.00	centerline	1906	1905.50	1039567.684	648816.7851
50	49+60.66	overbank	1910	1910.30	1039573.587	648798.5791
	49+78.37	floodway				
51	49+80.93		1912	1911.40	1039576.476	648778.4448
	49+37.64	floodplain			1039854.85	648755.7100
52	49+21.35		1912	1910.00	1039585.393	648740.1587
53	48+90.94		1912	1911.00	1039592.485	648710.5832
54	48+53.10		1912	1910.80	1039600.997	648673.7151
55	47+86.28		1912	1911.40	1039616.398	648608.6895
56	47+47.17		1914	1912.40	1039625.314	648570.606
57	50+28.28		1908	1906.70	1039561.075	648844.2807
58	50+60.07		1910	1908.40	1039553.982	648875.2742
	50+66.00	overbank	-	-		
59	51+22.56		1912	1910.90	1039539.728	648936.1107
60	51+71.58		1914	1912.70	1039528.426	648983.8104
61	54+73.98		1914	1912.90	1039473.918	649281.083
62	55+00.41		1912	1911.05	1039469.875	649307.2061
63	55+77.45		1910	1909.30	1039458.555	649383.4106
64	56+07.67		1908	1907.30	1039453.473	649413.1996
65	56+31.02		1908	1907.60	1039450.008	649436.2919
66	56+83.18		1910	1909.50	1039441.692	649487.7877
67	58+10.52		1910	1909.50	1039422.287	649613.6405
68	58+90.21		1912	1911.20	1039410.043	649692.3852
69	59+71.61		1912	1911.50	1039397.107	649772.7463
70	60+06.16		1910	1909.20	1039392.024	649806.9228
71	60+59.01		1909	1909.50	1039383.708	649859.1114
72	60+70.21		1905	1909.55	1039382.091	649870.1957
73	60+88.24		1902	1900.90	1039379.088	649887.9767
	60+97.68	floodway				
74	61+06.73		1905	1905.20	1039376.085	649906.2196
	61+17.06	floodplain			1039647.97	649916.54
75	61+38.40		1906	1907.40	1039371.927	649937.6251
76	61+84.78		1910	1907.30	1039364.072	649983.3478
77	62+00.13		1915	1914.70	1039362.224	649998.5887
Section 21.85						
78	50+00.00	centerline	-	1913.90	1040345.991	649064.3823
79	49+82.30		1916	1915.70	1040347.898	649045.8601
80	49+56.79	overbank	1918	1917.70	1040350.895	649020.5282
81	49+48.34		1920	1918.20	1040351.44	649012.0843
82	49+40.82		1922	1919.80	1040353.348	649004.7299
83	49+18.14		1922	1919.60	1040355.255	648982.1219
	48+48.42	floodway	-	-		
84	48+92.36		1920	1918.00	1040358.253	648956.5176

85	48+70.43		1920	1917.90	1040360.705	648934.7268
86	48+26.03		1920	1917.80	1040365.61	648890.6004
87	47+84.70		1922	1916.20	1040369.697	648849.4701
88	47+37.27		1920	1915.40	1040375.147	648802.3474
	47+34.38	floodplain			1040648.67	648799.02
89	46+94.28		1922	1915.90	1040379.507	648759.5829
90	46+67.28		1922	1916.00	1040383.049	648733.1615
91	46+38.54		-	1917.30	1040386.592	648704.2887
92	50+23.63		1916	1913.70	1040343.811	649086.9903
	50+25.00	overbank	-	-		
93	50+44.47		1918	1916.70	1040341.358	649107.6916
94	50+52.20		1920	1918.70	1040339.996	649115.3184
95	50+71.34		1922	1919.20	1040338.361	649134.3854
96	51+06.41		1922	1919.50	1040334.546	649169.2507
97	52+30.55		1922	1920.50	1040320.922	649292.6413
98	53+62.73		1922	1920.50	1040306.086	649423.9886
99	53+93.34		1920	1918.80	1040301.828	649454.3128
100	54+24.95		1920	1918.50	1040298.103	649485.701
101	54+84.29		1920	1918.00	1040292.249	649544.7533
102	55+35.69		1920	1918.70	1040286.394	649595.8256
103	55+47.44		1918	1917.20	1040285.33	649607.5296
104	56+38.53		1918	1917.10	1040275.534	649698.0883
105	56+52.00		1920	1918.80	1040274.154	649711.4869
106	56+78.78		1920	1919.60	1040271	649738.0871
107	56+99.63		1916	1915.20	1040268.437	649758.7761
108	57+20.23		1916	1915.30	1040266.269	649779.268
109	57+42.04		1918	1917.70	1040263.904	649800.9422
110	57+68.61		1915	1912.00	1040260.947	649827.3453
111	77+92.54		1913	1911.50	1040258.779	649851.187
112	58+06.86		1915	1912.60	1040256.808	649865.3737
113	58+49.09		1919	1918.50	1040252.077	649907.3428
114	58+90.28		1920	1919.80	1040247.938	649948.3268
115	59+09.61		1922	1920.90	1040244.981	649967.4394
	59+55.89	floodway				
116	60+51.87		1922	1920.25	1040230	650108.9128
117	60+69.73		1920	1919.55	1040227.832	650126.6462
118	61+02.63		1916	1916.60	1040224.284	650159.3546
119	61+47.70		1919	1918.85	1040218.765	650204.0822
120	61+68.13		1916	1915.50	1040216.4	650224.3772
121	61+85.49		1918	1917.60	1040215.217	650241.7165
122	62+17.65		1920	1920.10	1040211.275	650273.6367
123	62+35.47		1920	1919.50	1040209.501	650291.3701
124	62+96.16		1920	1919.50	1033756.671	647793.0548
125	63+21.90	floodplain	1922	1921.50	1040474.12	650376.62
Section 22.33						
	49+80.00	overbank	-	-		
126	49+78.86		1940	1938.00	1042697.708	649657.6154
	49+65.00	floodway	-	-		
127	49+47.31		1942	1939.80	1042697.708	649626.0676
128	49+24.22		1946	1942.82	1042697.179	649602.9796
129	48+28.65		1946	1944.40	1042695.376	649507.4291
130	48+09.90		1944	1941.90	1042696.03	649488.6703
131	47+88.41		1944	1942.70	1042695.159	649466.0356
132	47+60.34		1946	1944.40	1042694.578	649438.7577
133	47+36.86		1948	1945.70	1042695.159	649414.672

	45+31.32	floodplain			1042691.62	649209.14
	50+00.00	centerline	-	-		
134	50+17.33		1940	1937.60	1042698.396	649696.0888
135	50+29.23	overbank	1946	1946.20	1042697.829	649707.9952
136	51+99.07		1946	1945.50	1042701.232	649877.8029
137	52+37.63		1946	1945.60	1042701.799	649916.3569
138	53+30.34		1945	1944.80	1042703.217	650009.0566
139	53+79.09		1944	1943.70	1042703.217	650057.8161
140	54+47.43		1940	1937.90	1042704.919	650126.136
141	54+73.51		1940	1942.20	1042704.919	650152.2167
	55+18.22	floodway	-	-		
142	55+68.77		1945	1944.80	1042706.337	650247.4678
143	55+93.16		1947	1946.40	1042706.904	650271.8475
144	56+09.03	floodplain	1948	1947.60	1042706.991	650289.02
145	56+34.69		1950	1949.30	1042707.33	650313.3825
146	56+54.41		1950	1949.50	1042708.135	650333.0886
Section 22.62						
147	50+00.00	centerline	-	-	1044147.091	649253.3145
148	49+77.09		1956	Access Denial	1044143.441	649230.6931
149	49+66.50		1958	Access Denial	1044141.434	649220.2946
150	49+25.29	overbank	1960	Access Denial	1044134.864	649179.6126
151	48+69.48		1960	Access Denial	1044125.921	649124.5187
152	48+41.88		1960	Access Denial	1044121.176	649097.3366
153	48+16.00	floodway	1962	Access Denial	1044116.979	649071.7963
154	48+03.81		1964	Access Denial	1044115.614	649059.6604
	47+93.67	floodplain	-	-	1044112.71	649046.36
155	50+25.40		1958	Access Denial	1044150.902	649278.4343
156	50+32.32	overbank	1960	Access Denial	1044152.328	649285.2042
157	50+84.16		1962	Access Denial	1044161.952	649336.1564
158	51+62.48		1962	Access Denial	1044174.428	649413.4755
159	52+74.18		1960	1959.50	1044193.319	649523.575
160	53+02.36		1960	1957.10	1044197.953	649551.3671
161	53+53.10		1962	1961.30	1044205.739	649601.5066
162	54+50.21		1962	1961.50	1044221.891	649697.2646
163	55+28.55		1960	1959.60	1044234.143	649774.6506
164	55+47.23	floodway	1960	1957.70	1044237.485	649793.0227
165	55+88.96		1961	1960.60	1044244.168	649834.221
166	56+16.36		1962		1045042.783	648759.7796
167	56+99.48		1964		1045046.242	648782.3266
168	57+30.01		1964.3		1045051.362	648815.663
	57+46.35	floodplain		-	1044112.71	649046.36

* Existing elevations field verified by Castro - Fleet - Fisher Engineenng, Inc.



SKUNK CREEK
FLOODPLAIN REDELINEATION
AND HYDRAULIC ANALYSIS

APRIL 25/1996

REVISED { NOV 20/1996
DEC 5/1996
DEC 19/1996 }

TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
263-1100
BLUE STAKE CENTER
CALL COLLECT

NO SCALE

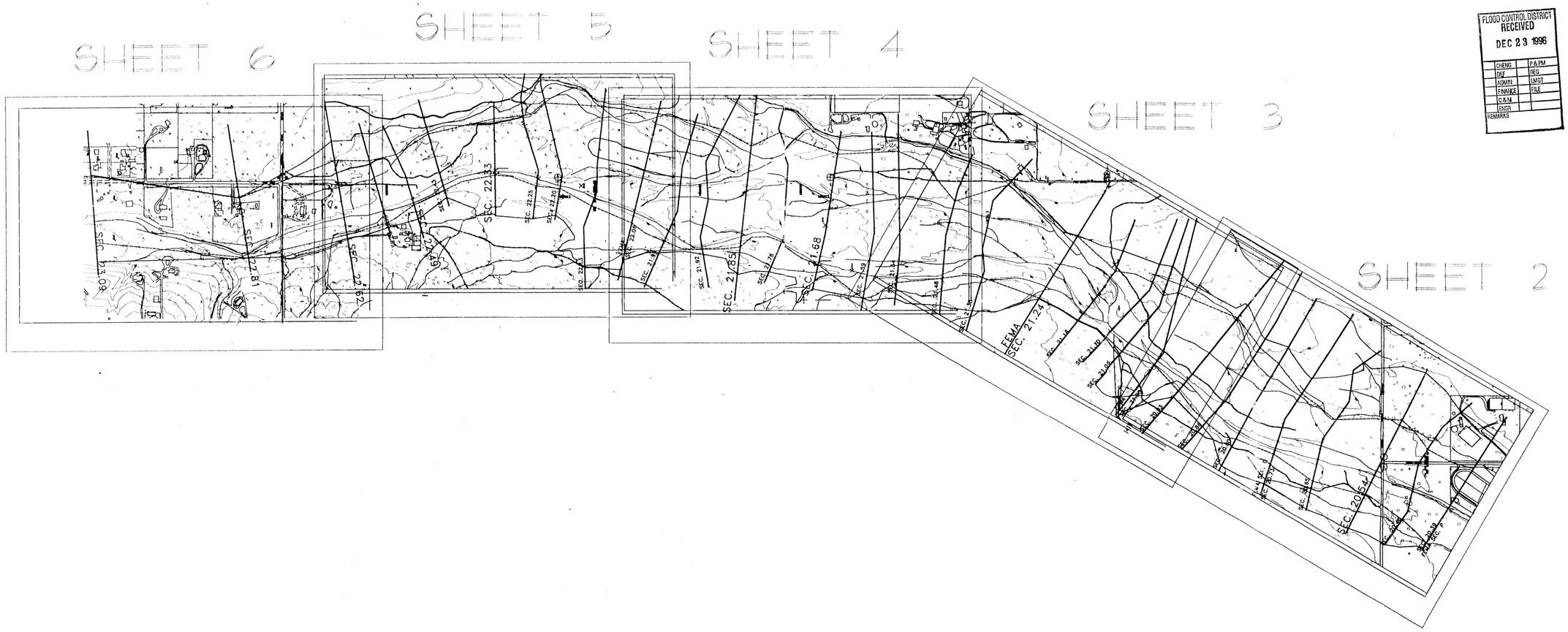
NOTE:

DATE FLOWN DECEMBER, 1986
BY: MARKHURD CORPORATION

ADDITIONAL TOPO FLOWN OCTOBER, 1995
BY: KENNEY AERIAL MAPPING, PHOENIX, AZ

TOPO VERIFIED JUNE, 1996
BY: CASTRO FLEET FISHER ENGINEERING, INC
PHOENIX, AZ

COMPILED FROM INFORMATION PROVIDED BY:
ERIE & ASSOCIATES
PHOENIX, AZ



FLOOD CONTROL DISTRICT
RECEIVED
DEC 23 1996

CHENG.	P.& PM
DSF	REG
ADMIN.	LMGT.
FINANCE	FILE
O.& M.	
ENGR.	
REMARKS	

THE VILLAGES AT DESERT HILLS

CASTRO • FLEET • FISHER ENGINEERING INC.
4250 EAST CAMELBACK RD., SUITE 410K • PHOENIX, ARIZONA 85018 • PH. (602) 264-3335

REVISIONS

NO.	DATE	
1	9-29-96	LEN ERIE - FLOODWAY & FLOODPLAIN
2	11-22-96	LEN ERIE - FLOODWAY & FLOODPLAIN
3	12-2-96	MARICOPA COUNTY - FLOODWAY & FLOODPLAIN
4	12-17-96	MARICOPA COUNTY - FINAL

DRAWN	D.A.W.
CHECKED	S.C.H.
DATE	7/15/96
G.C.	R.C.F.

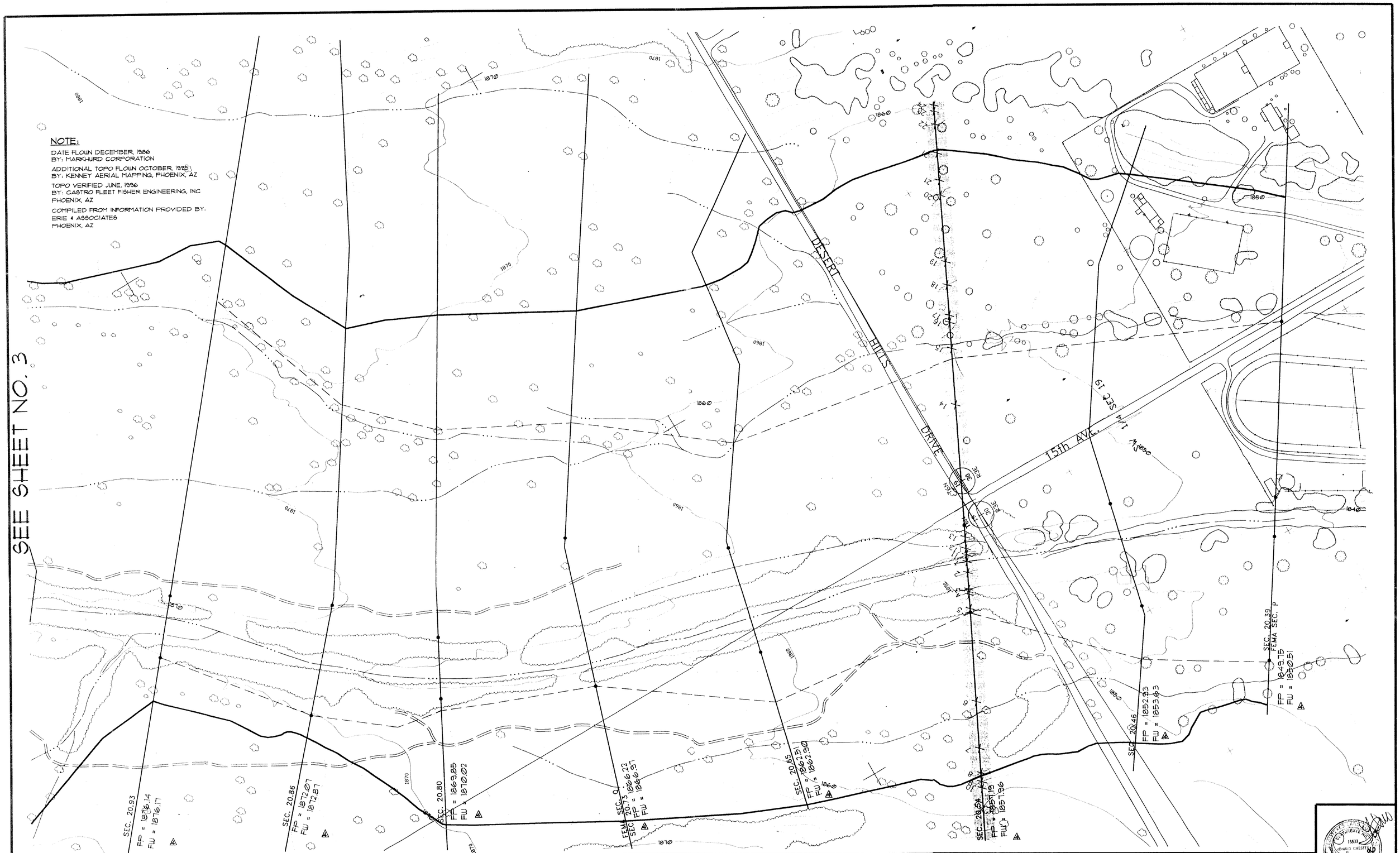
SKUNK CREEK FLOODPLAIN DELINEATION

REGISTERED PROFESSIONAL ENGINEER
16533
RONALD CHESTER FISHER
ARIZONA U.S.A.

SHEET 1 OF 9

JOB NO. 22-29

TOPOVERED.DWG



		NO.	DATE	REVISIONS
DRAWN	D.A.W.	3	9/29/96	LEN ERIE - LOODPLAIN & FLOODWAY
CHECKED	B.C.H.	2	11/22/96	LEN ERIE - LOODPLAIN & FLOODWAY
DATE	7/15/96	1	12/2/96	MARICOPA CUNTY - FLOODPLAIN & FLOODWAY
Q.C.	R.C.F.	0	12/17/96	MARICOPA CUNTY - FINAL

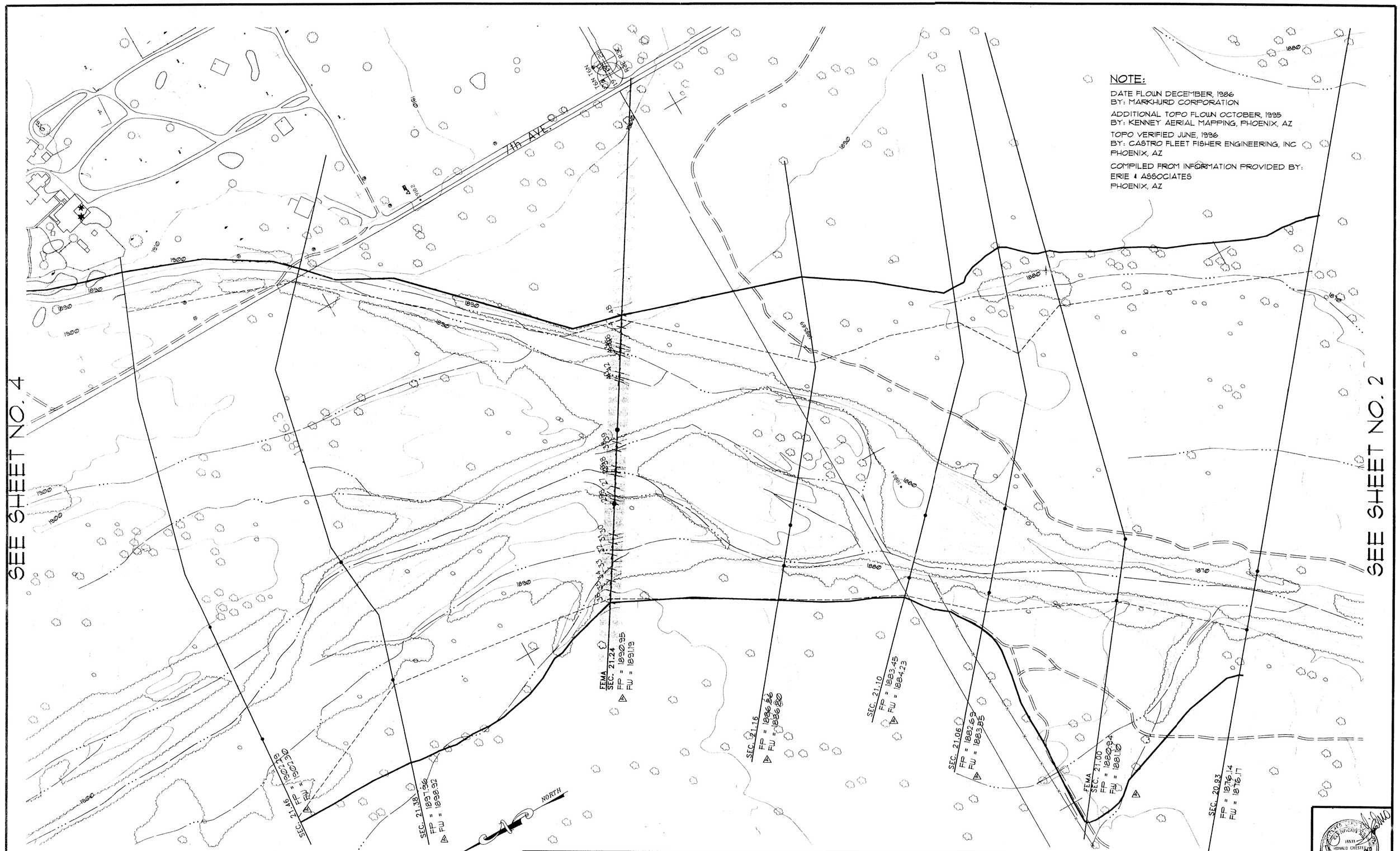
SKUNK CREEK FLOODPLAIN DELINEATION

THE VILLAGES AT DESERT HILLS

CASTRO • FLEET • FISHER ENGINEERING INC.
4250 EAST CAMELBACK RD., SUITE 410K • PHOENIX, ARIZONA 85018 • PH. (602) 264-3335

SHEET 2 OF 9

22-29-01



LEGEND

- FLOODPLAIN LIMITS
- FLOODWAY LIMITS
- OVERBANK LOCATIONS
- PROJECT STATION CONTROL LINE (STA. 50+00)

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

		NO.	DATE	REVISIONS
DRAWN	D.A.W.	1	9/29/96	LEN ERIE - FLOODPLAIN & FLOODWAY
CHECKED	S.C.H.	2	11/22/96	LEN ERIE - FLOODPLAIN & FLOODWAY
DATE	7/15/96	3	12/2/96	MARICOPA COUNTY - FLOODPLAIN & FLOODWAY
Q.C.	R.C.F.	4	12/17/96	MARICOPA COUNTY - FINAL

SKUNK CREEK FLOODPLAIN DELINEATION

THE VILLAGES AT DESERT HILLS

CASTRO • FLEET • FISHER ENGINEERING INC.
4250 EAST CAMELBACK RD., SUITE 410K • PHOENIX, ARIZONA 85018 • PH. (602) 264-3335

CERTIFICATE 16533 RONALD CHESTER FISHER ARIZONA

SHEET 3 OF 9

JOB NO. 22-29-01

NOTE:

DATE FLOWN DECEMBER, 1986
BY: MARKHURD CORPORATION

ADDITIONAL TOPO FLOWN OCTOBER, 1995
BY: KENNEY AERIAL MAPPING, PHOENIX, AZ

TOPO VERIFIED JUNE, 1996
BY: CASTRO FLEET FISHER ENGINEERING, INC
PHOENIX, AZ

COMPILED FROM INFORMATION PROVIDED BY:
ERIE & ASSOCIATES
PHOENIX, AZ

NORTH

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

LEGEND

- FLOODPLAIN LIMITS
- FLOODWAY LIMITS
- OVERBANK LOCATIONS
- PROJECT STATION CONTROL LINE (STA. 50+00)

		NO.	DATE	REVISIONS
DRAWN	D.A.W.	1	8/29/96	LEN ERIE - FLOODPLAIN & FLOODWAY
CHECKED	B.C.H.	2	11/22/96	LEN ERIE - FLOODPLAIN & FLOODWAY
DATE	7/15/96	3	12/2/96	MARICOPA COUNTY - FLOODPLAIN & FLOODWAY
G.C.	R.C.F.	4	12/17/96	MARICOPA COUNTY - FINAL

SKUNK CREEK FLOODPLAIN DELINEATION

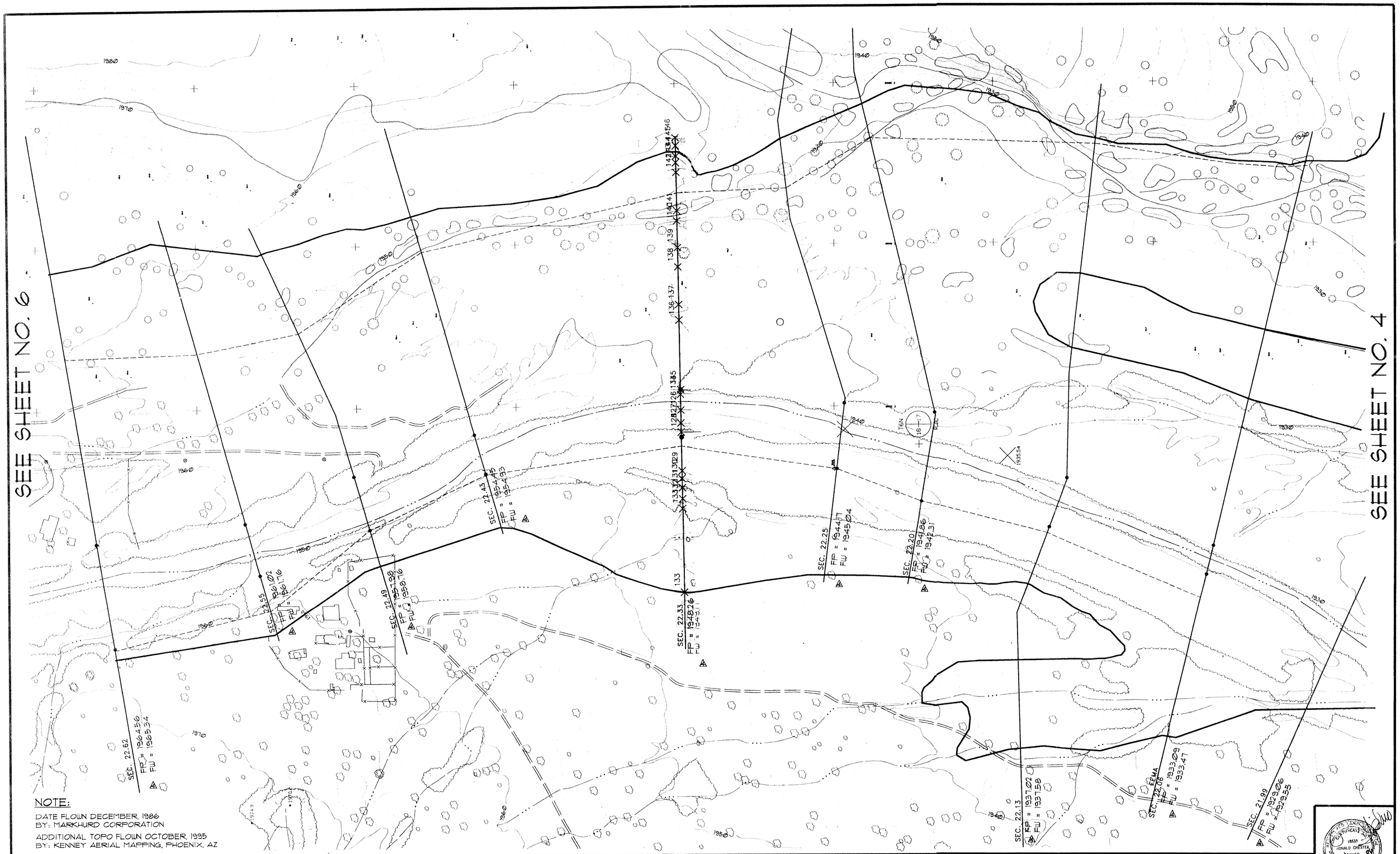
THE VILLAGES AT DESERT HILLS

CASTRO • FLEET • FISHER ENGINEERING INC.
4250 EAST CAMELBACK RD., SUITE 410K • PHOENIX, ARIZONA 85018 PH. (602) 264-3335

16540 CHALD CHESTER FISHER 12-20-96

SHEET 4 OF 9

JOB NO. 22-29-01



NOTE:

DATE FLOWN DECEMBER, 1986
BY: MARKHURD CORPORATION

ADDITIONAL TOPO FLOWN OCTOBER, 1995
BY: KENNEY AERIAL MAPPING, PHOENIX, AZ

TOPO VERIFIED JUNE, 1996
BY: CASTRO FLEET FISHER ENGINEERING, INC
PHOENIX, AZ

COMPILED FROM INFORMATION PROVIDED BY:
ERIE & ASSOCIATES
PHOENIX, AZ

NORTH

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

LEGEND

- FLOODPLAIN LIMITS
- FLOODWAY LIMITS
- OVERBANK LOCATIONS
- PROJECT STATION CONTROL LINE (STA. 50+00)

		NO.	DATE	REVISIONS
DRAWN	D.A.W.	1	8/29/96	LEN ERIE - FLOODPLAIN & FLOODWAY
CHECKED	B.C.H.	2	11/22/96	LEN ERIE - FLOODPLAIN & FLOODWAY
DATE	7/15/96	3	12/2/96	MARICOPA CNTY - FLOODPLAIN & FLOODWAY
G.C.	R.C.F.	4	12/17/96	MARICOPA CNTY - FINAL

SKUNK CREEK FLOODPLAIN DELINEATION

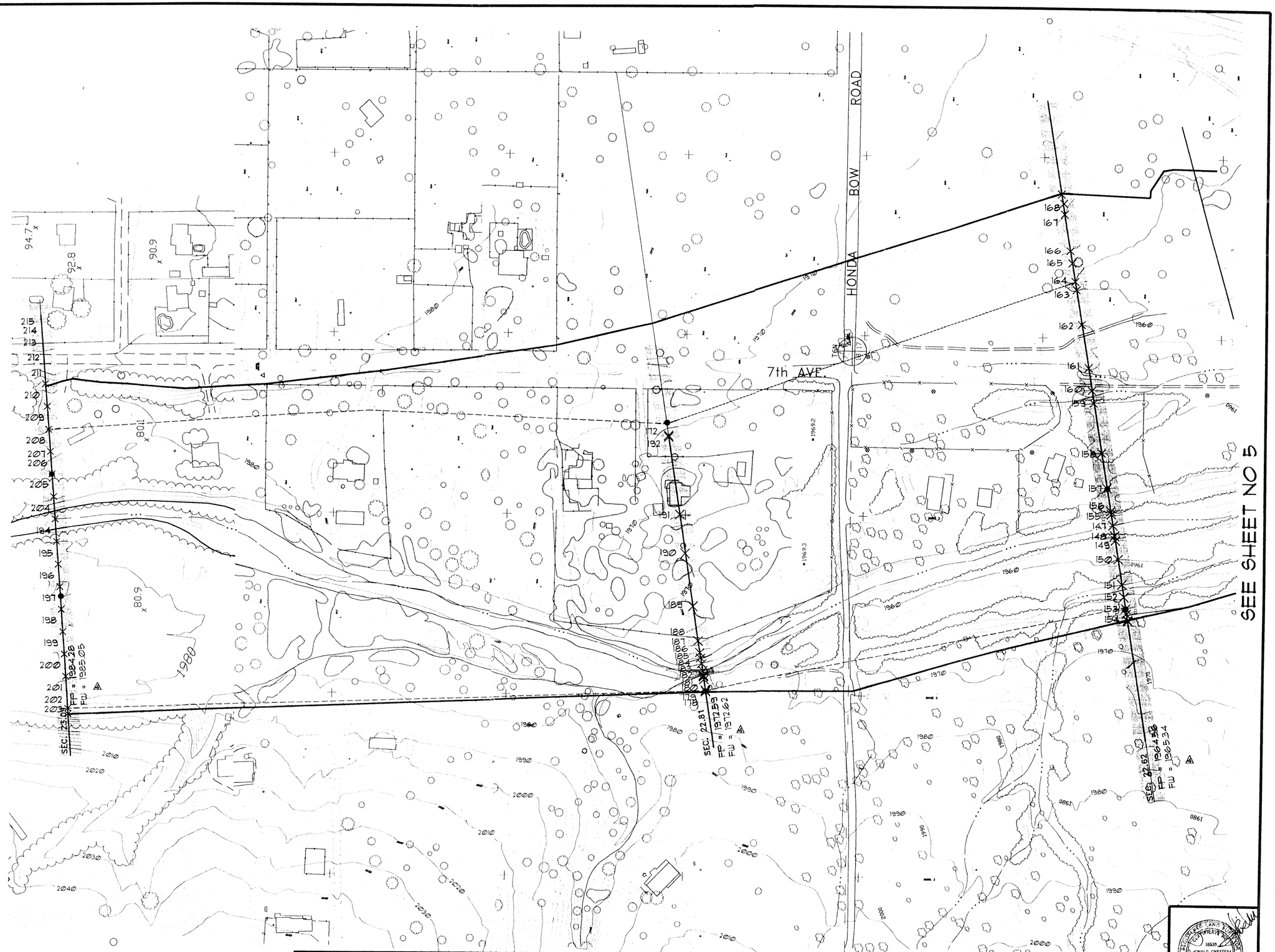
THE VILLAGES AT DESERT HILLS

CASTRO • FLEET • FISHER ENGINEERING INC.
4250 EAST CAMELBACK RD., SUITE 410K • PHOENIX, ARIZONA 85018 • PH. (602) 264-3335

CERTIFICATE 18633 DONALD CHESTER FISHER ARIZONA U.S.A.

SHEET 5 OF 9

JOB NO. 22-29-01



NORTH

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

NOTE:

DATE FLOWN DECEMBER, 1986
BY: MARKHURD CORPORATION

ADDITIONAL TOPO FLOWN OCTOBER, 1995
BY: KENNEY AERIAL MAPPING, PHOENIX, AZ

TOPO VERIFIED JUNE, 1996
BY: CASTRO FLEET FISHER ENGINEERING, INC
PHOENIX, AZ

COMPILED FROM INFORMATION PROVIDED BY
ERIE & ASSOCIATES
PHOENIX, AZ

LEGEND

- FLOODPLAIN LIMITS
- FLOODWAY LIMITS
- OVERBANK LOCATIONS
- PROJECT STATION CONTROL LINE (STA. 50+00)

		NO.	DATE	REVISIONS
DRAWN	D.A.W.	1	9/29/96	LEN ERIE - FLOODPLAIN & FLOODWAY
CHECKED	B.C.H.	2	11/22/96	LEN ERIE - FLOODPLAIN & FLOODWAY
DATE	7/15/96	3	12/2/96	MARICOPA COUNT - FLOODPLAIN & FLOODWAY
Q.C.	R.C.F.	4	12/17/96	MARICOPA COUNT - FINAL

SKUNK CREEK FLOODPLAIN DELINEATION

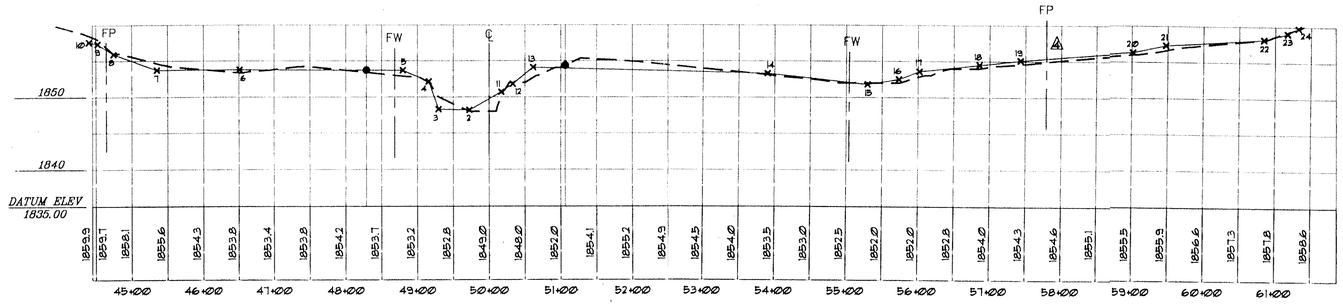
THE VILLAGES AT DESERT HILLS

CASTRO • FLEET • FISHER ENGINEERING INC.
4250 EAST CAMELBACK RD., SUITE 410K • PHOENIX, ARIZONA 85018 • PH. (602) 264-3335

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
16533
DONALD CHESTER FISHER
ARIZONA U.S.A.

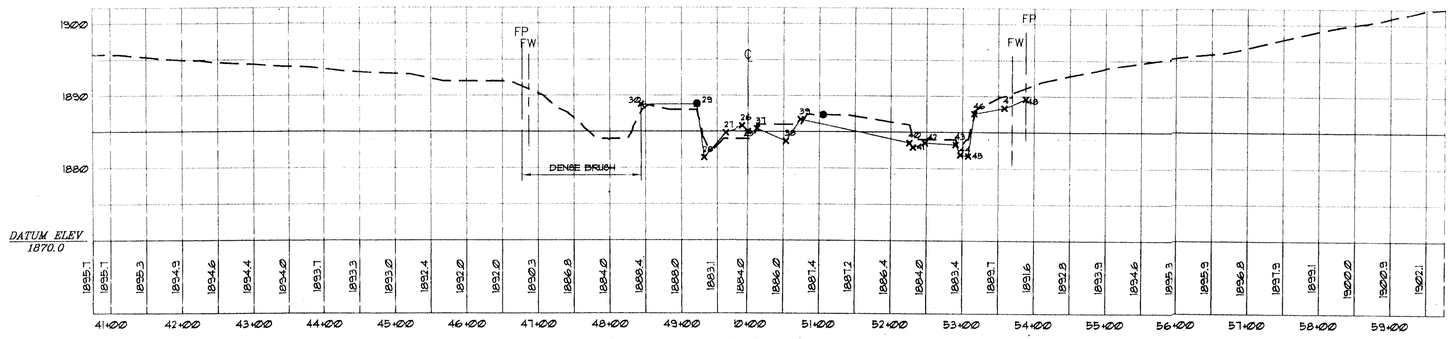
SHEET
6 OF 9

JOB NO.
22-29-01



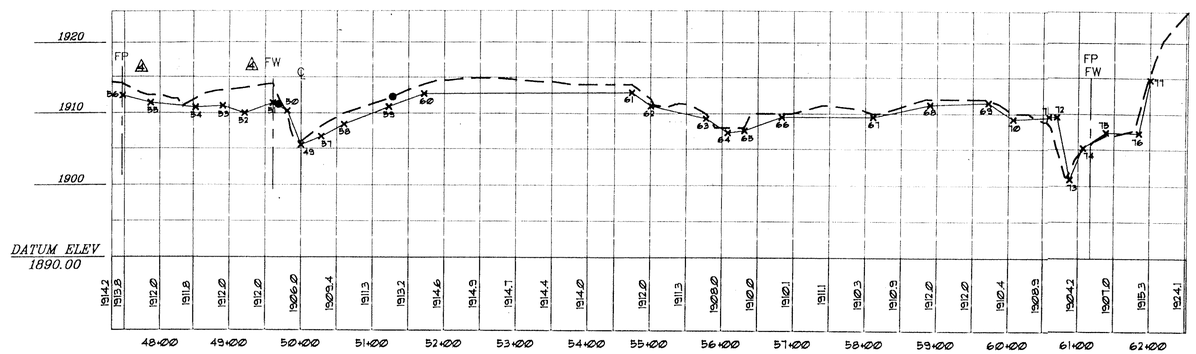
SECTION 20.54

(SEE SHEET 2)



SECTION 21.24

(SEE SHEET 3)



SECTON 21.68

(SEE SHEET 4)

LEGEND

℄	CENTERLINE OF WASH
FW	FLOODWAY
FP	FLOODPLAIN
●	OVER BANK
— — —	EXISTING GROUND (FLOWN)
× 52	FIELD SURVEY DATA POINT

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
HORIZONTAL 1 inch = 100 ft.
VERTICAL 1 inch = 10 ft.

		NO.	DATE	REVISIONS
DRAWN	D.A.W.	1	3/29/96	LEN ERIE - FLOODPLAIN & FLOODWAY
CHECKED	B.C.H.	2	11/22/96	LEN ERIE - FLOODPLAIN & FLOODWAY
DATE	7/18/96	3	12/2/96	MARICOPA COUN - FLOODPLAIN & FLOODWAY
Q.C.	R.C.F.	4	12/17/96	MARICOPA COUN - FINAL

SKUNK CREEK
FLOODPLAIN DELINEATION

THE VILLAGES AT DESERT HILLS

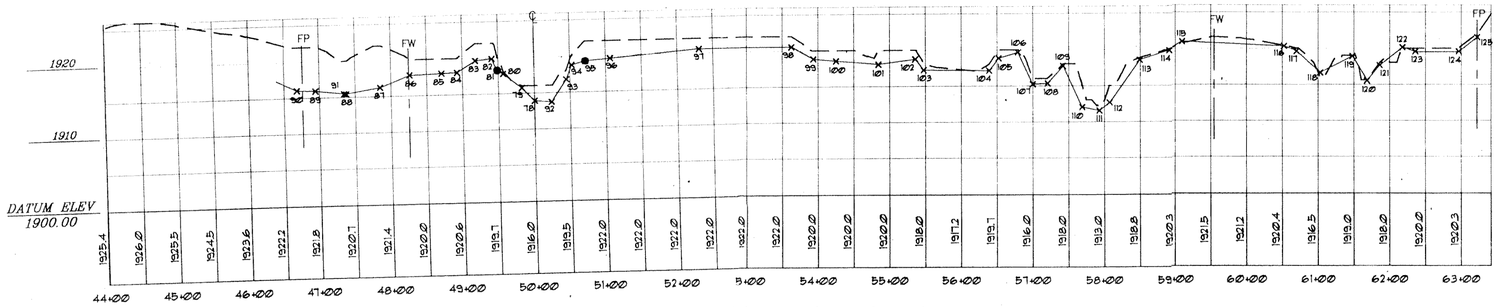
CASTRO • FLEET • FISHER ENGINEERING INC.
4250 EAST CAMELBACK RD., SUITE 410K • PHOENIX, ARIZONA 85018 PH. (602) 264-3335

REGISTERED LAND SURVEYOR 16531 DONALD CHESTER FISHER 12-17-96

SHEET 7 OF 9

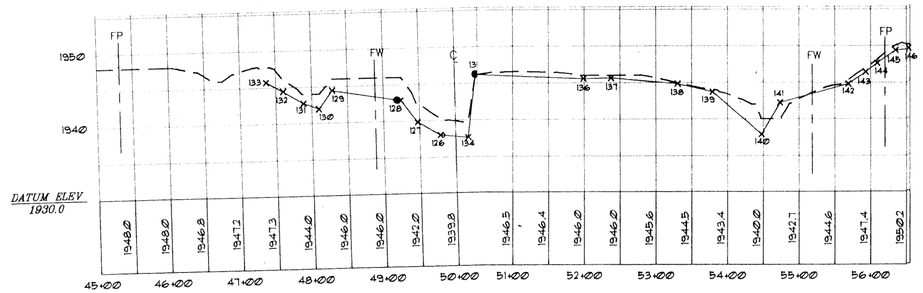
JOB NO. 22-29-01

TOPO-VERTDWG



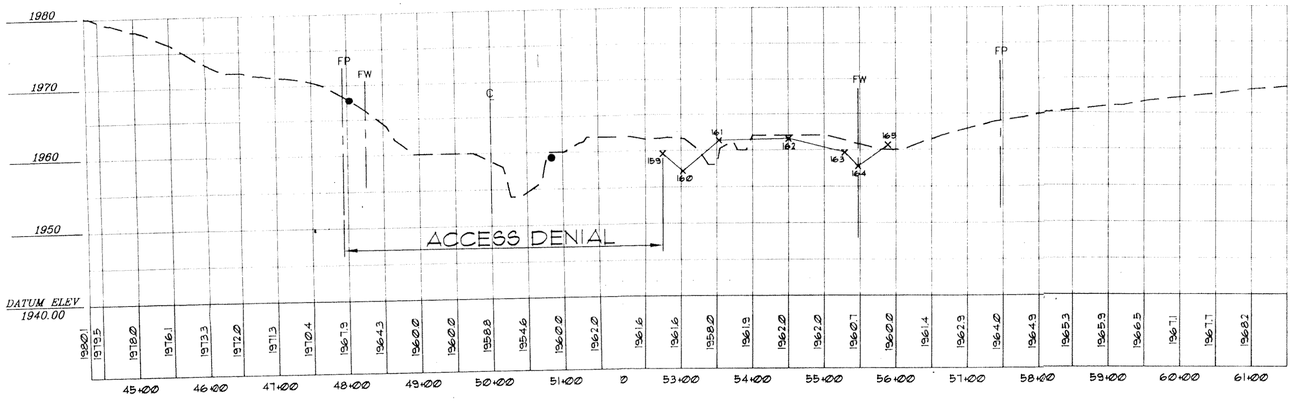
SECTION 21.85

(SEE SHEET 4)



SECTION 22.33

(SEE SHEET 5)



SECION 22.62

(SE SHEET 6)

LEGEND

℄	CENTERLINE OF WASH
FW	FLOODWAY
FP	FLOODPLAIN
●	OVER BANK
~ ~ ~	EXTSTING GROUND (FLOWN)
X 199	FIELD SURVEY DATA POINT

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
HORIZONTAL 1 inch = 100 ft.
VERTICAL 1 inch = 10 ft.

		NO.	DATE	REVISIONS
DRAWN	D.A.W.	1	9/29/96	LEN ERFLOODPLAIN & FLOODWAY
CHECKED	B.C.H.	2	11/22/96	LEN ERFLOODPLAIN & FLOODWAY
DATE	7/15/96	3	12/2/96	MARICOUNTY - FLOODPLAIN & FLOODWAY
Q.C.	R.C.F.	4	12/17/96	MARICOUNTY - FINAL

SKUNCREEK
FLOODPLAIIDELINEATION

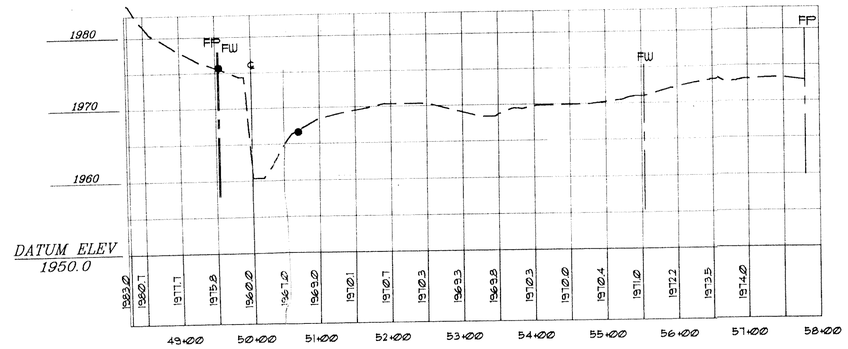
THE VILLAGES AT DESERT HILLS

CASTRO • FLEET • FISHER ENGINEERING INC.
4250 EAST CAMELBACK RD., SUITE 410K • PHOENIX, ARIZONA 85018 PH. (602) 264-3335

CERTIFICATE NO. 16533 RONALD CHESTER FISHER 12-17-96

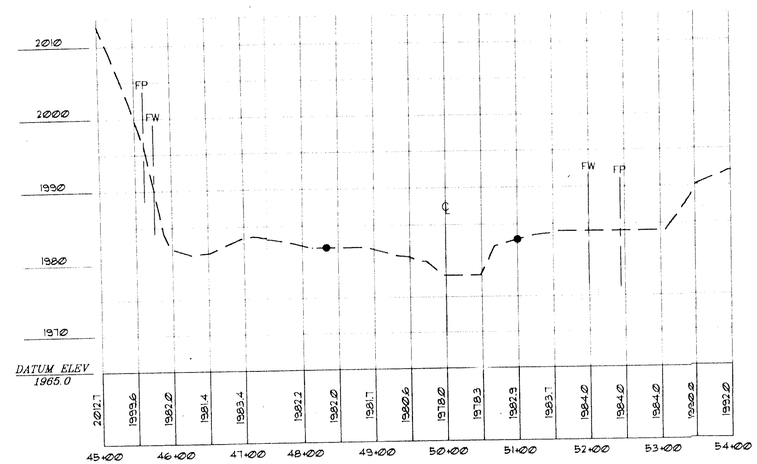
SHEET
8 OF 9

JOB NO. 22-29-01



SECTION 22.81

(SEE SHEET 6)



SECTION 23.09

(SEE SHEET 6)

LEGEND

℄	CENTERLINE OF WASH
OB	OVER BANK
FW	FLOODWAY
FP	FLOODPLAIN
●	OVER BANK
— — —	EXISTING GROUND (FLOWN)
X 1973	FIELD SURVEY DATA POINT

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
HORIZONTAL 1 inch = 100 Ft.
VERTICAL 1 inch = 10 Ft.

		NO.	DATE	REVISIONS
DRAWN	D.A.W.	1	8/29/96	LEN ERIE FLOODPLAIN & FLOODWAY
CHECKED	S.C.H.	2	11/22/96	LEN ERIE FLOODPLAIN & FLOODWAY
DATE	7/15/96	3	12/2/96	MARICOPA CNTY - FLOODPLAIN & FLOODWAY
Q.C.	R.C.F.	4	12/11/96	MARICOPA CNTY - FINAL

SKUNK CREEK
FLOODPLAIN DELINEATION

THE VILLAGES AT DESERT HILLS

CASTRO • FLEET • FISHER ENGINEERING INC.
4250 EAST CAMELBACK RD., SUITE 410K • PHOENIX, ARIZONA 85018 PH. (602) 264-3335

REGISTERED LAND SURVEYOR CERTIFICATE 16533 DONALD CHESTER FISHER 12-10-96

SHEET 9 OF 9

JOB NO. 22-29-01