PADELFORD WASH
FLOODPLAIN DELINEATION STUDY
FCDMC NO. 99-12
TECHNICAL DATA NOTEBOOK

HYDRAULIC ANALYSIS RESULTS
(T.D.N. SECTION 5)
(VOLUME 3 OF 4)

FEBRUARY 2001
REVISED June 13, 2002

PREPARED FOR:
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
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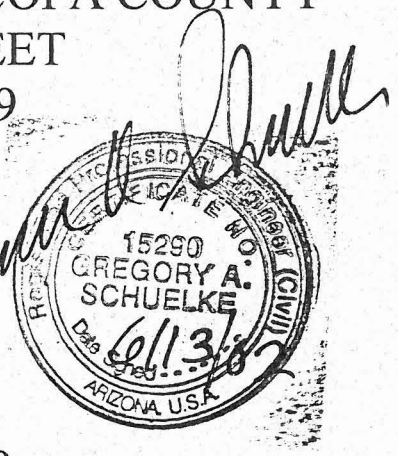
PHOENIX, ARIZONA 85009



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A-N West, Inc. No. 7158-07

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INTRODUCTION

A-N West was contracted by the Flood Control District of Maricopa County (FCDMC) to obtain detailed mapping, prepare hydrology and perform the hydraulic analysis for the 100-year storm floodplain delineation of Padelford Wash between State Route 74 and Central Arizona Canal.

The data in support of this study has been compiled in four volumes of the Technical Data Notebook (T.D.N.) as summarized below.

T.D.N. Volume 1 of 4 Base Technical Data Notebook with correspondence, Scope of Work, Survey Notes Draft F.I.S. Report.

T.D.N. Volume 2 of 4 – Hydrology Report – Including watershed Maps, Hard and Digital Input Report – Including Hard and Digital Input/Output and Draft 200 scale work maps.

T.D.N. Volume 3 of 4 – Hydraulic Analysis Results Report – Including HEC-RAS Model and Digital input/output and Draft 200 Scale Work Maps.

T.D.N. Volume 4 of 4 – Field Reconnaissance with Photos of the structures and (N) Value Estimations, As-Built Plans etc. and Hydraulic Parameter Estimation Summary.

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Computer Files on CDROM (In Back Cover)

HEC-RAS Input/Output

1. Padelford Wash and Tribs. A – C

a.) Padelford . F01
b.) Padelford. G01
c.) Padelford. O01
d.) Padelford. P01
e.) Padelford. Prj.
f.) Padelford. R01
g.) Padelford. Rep

2. Split 1 Wash

a.) Split 1. F01
b.) Split 1. G01
c.) Split 1. O01
d.) Split 1. P01
e.) Split 1. Prj.
f.) Split 1. R01
g. Split 1. Rep

3. Split 2 Wash

a.) Split 2. F01
b.) Split 2. G01
c.) Split 2. O01
d.) Split 2. P01
e.) Split 2. Prj.
f.) Split 2. R01
g. Split 2. Rep

4. Split 3 Wash

a.) Split 3A. F01
b.) Split 3A. G01
c.) Split 3A. O02
d.) Split 3A. P02
e.) Split 3A. Prj.
f.) Split 3A. R01
g. Split 3A. Rep
h. Split 3A. G02
i. Split 3A. P01

5. Split 4 Wash

a.) Split 4. F01
b.) Split 4. G01
c.) Split 4. O01
d.) Split 4. P01
e.) Split 4. Prj.
f.) Split 4. R01
g. Split 4. Rep

6. Split 5 Wash

a.) Split 5. F01
b.) Split 5. G01
c.) Split 5. O01
d.) Split 5. P01
e.) Split 5. Prj.
f.) Split 5. R01
g. Split 5. Rep

1.0 METHOD DESCRIPTION

The detailed Hydraulic Analysis of the 100-year storm Floodplain involved the following identified washes between the CAP Canal and State Route 74 in the Padelford Wash Watershed;

Wash I.D.	Length
Main Padelford Wash	5.5 Miles
Trib. 'A'	2.0 Miles
Trib. 'B'	0.9 Miles
Trib. 'C'	1.3 Miles
Split 1	2.1 Miles
Split 2	2.2 Miles
Split 3	2.4 Miles
Split 4	0.8 Miles
Split 5	1.1 Miles
Total	**18.3 Miles**

Figure 1, Location map shows the general location of the study. Plate 1, shows limits of detailed 2 ft. C.I. and 10' C.I. mapping (Ref. 12) obtained for this study. Plate 1 also shows the location of the detail study washes.

The floodplain delineation study hydraulic analysis was performed utilizing the HEC-RAS computer model, version 2.2 (Ref. 14).

The 100-year discharges were established by A-N West and are described in detail in the separate report volume, T.D.N. Section 4.0 Hydrology (Ref. 14).

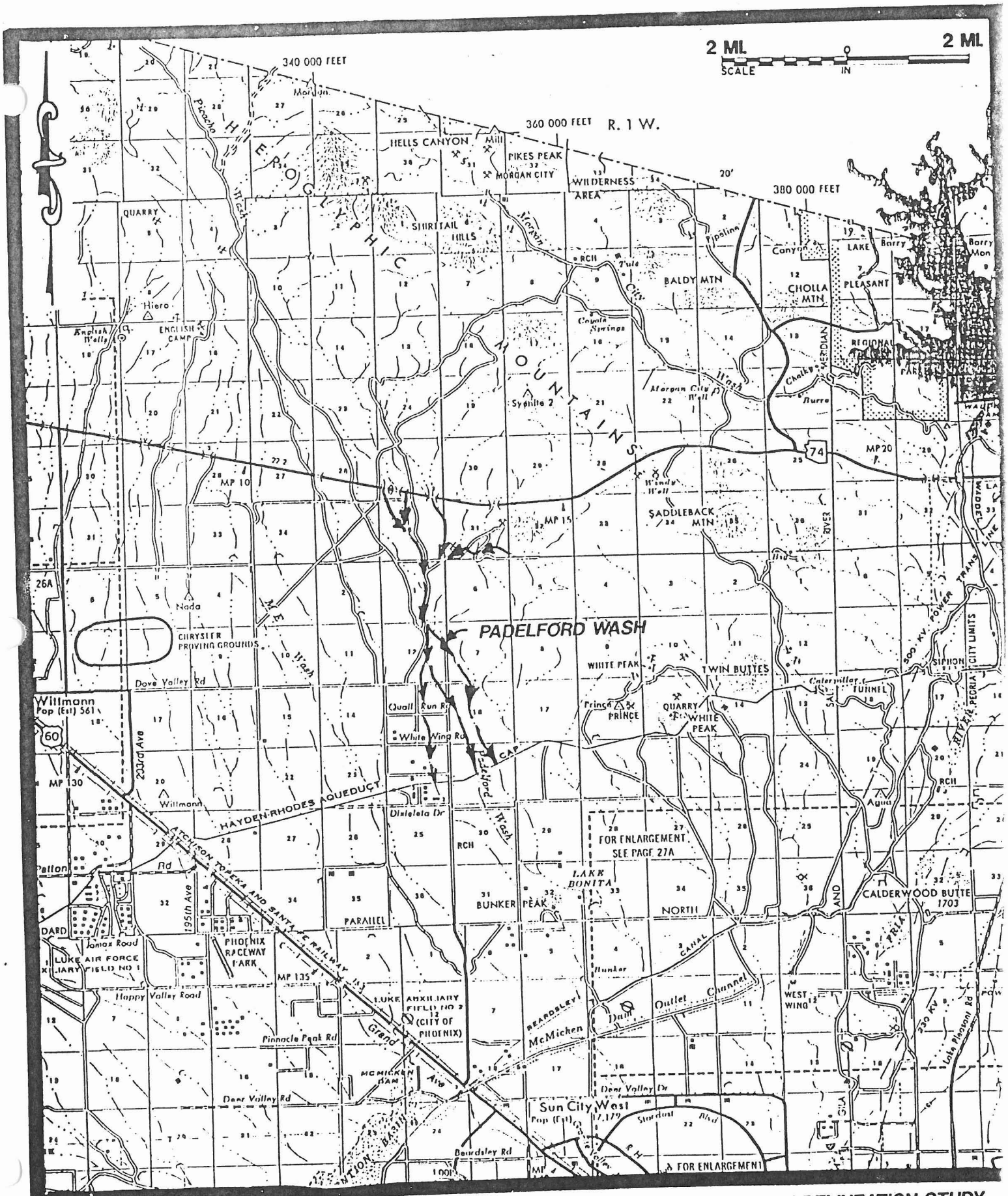
Manning's 'N' values and, culvert structures on State Route 74 and overchute structures on the CAP Canal were inventoried and summarized in the Field Reconnaissance and Hydraulic Parameter Estimation Summary Report (Ref. 11).

One HEC-RAS model was used to model the Main Padelford Wash from the down stream limit at the CAP Canal to the upstream limit. This model had three junctions established to join to Tribs 'A', 'B', and 'C'.

The subcritical flow regime only option of HEC-RAS was utilized for defining the 100-year floodplain per FEMA requirements.

The starting water surface elevations for each end of Splits 1-5 and Main Padelford Wash and the upstream end of Tribs. 'A'-'C' were based on the slope area or normal depth method.

The starting water surface elevations three junctions of the Tribs. 'A'-'C' were based on the computed water surface elevation of the cross-section at the respective junctions.



EXPLANATION

STUDY WASH

PADELFORD WASH FLOODPLAIN DELINEATION STUDY
FCD NO.99-12

LOCATION MAP

FIGURE 1

A-N WEST INC.
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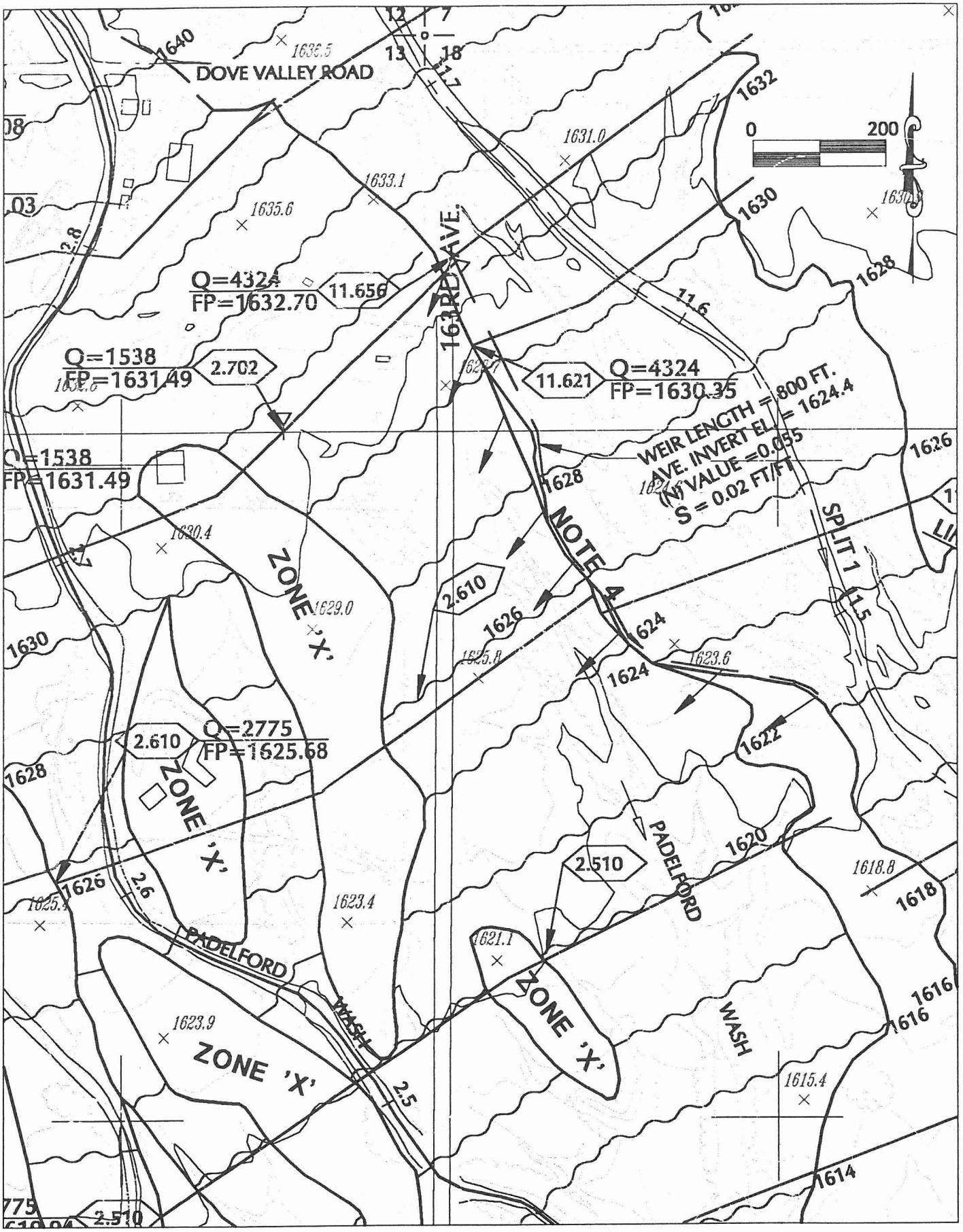

FCD NO. 99-12	SPLIT 1 BREAKOUT (NEAR SEC. 11.523)	
	FIGURE 2	JOB NO: 7158-07

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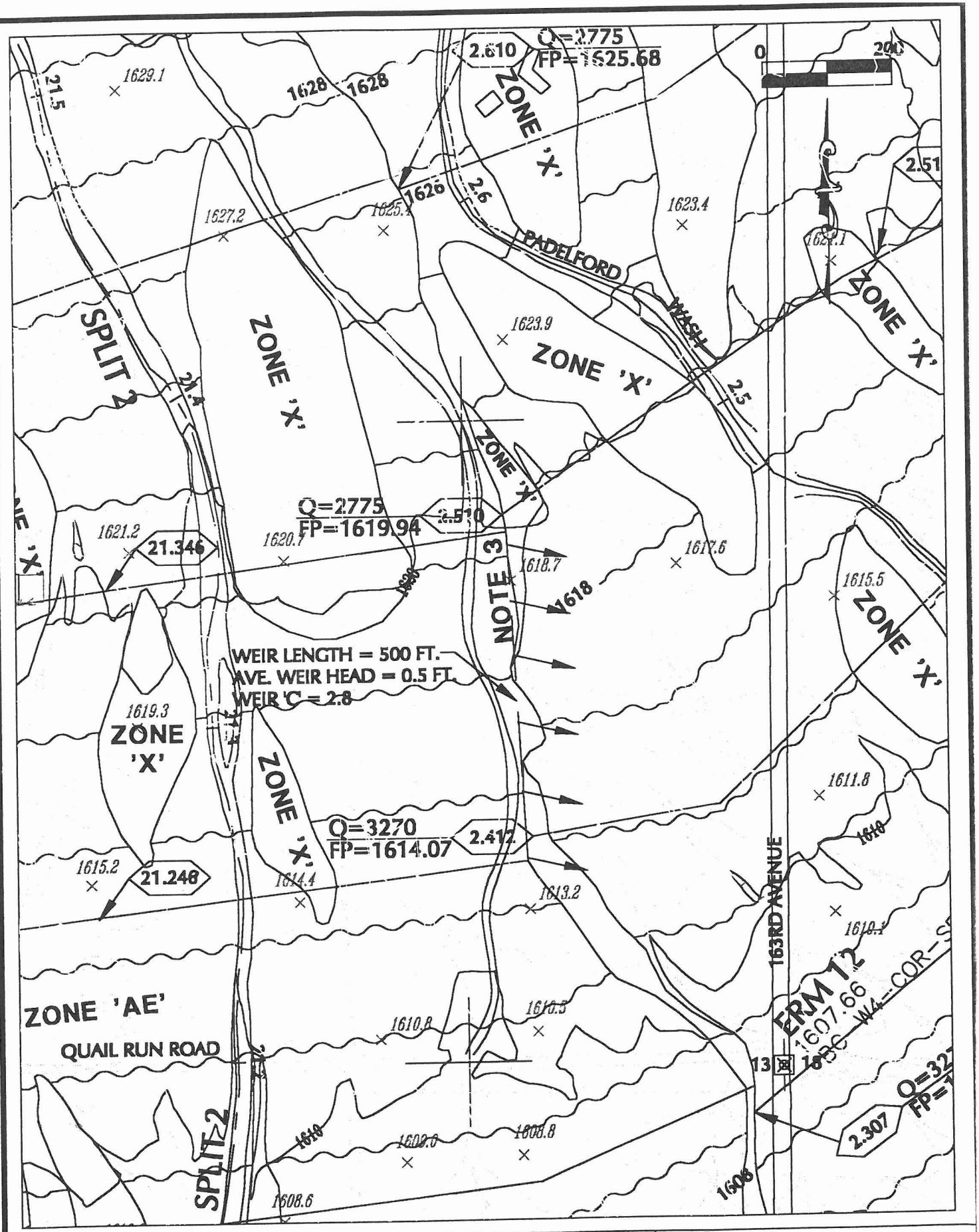

FCD NO. 99-12	SPLIT 2 BREAKOUT (SEC. 21.248 TO 21.346)	A-N WEST INC. Consulting Engineers 7600 N. 15th. St., Suite 200 Phoenix, AZ 85020 Ph: 602.861.2200 Email: phoenix@anwestinc.com
	FIGURE 3 | JOB NO: 7158-07	

2.0 WORK STUDY MAPS

The 200 scale work study maps are under separate cover. These maps utilize a standard sheet border, legend format established by the FCDMC for floodplain delineation studies.

3.0 PARAMETER ESTIMATION

3.1 ROUGHNESS COEFFICIENTS

Manning's 'N' values were estimated and summarized under separate report (Ref. 11) by A-N West.

The channel 'N' values were estimated to range from 0.037 to 0.040. A constant overbank 'N' value of 0.065 was estimated.

3.2 EXPANSION AND CONTRACTION COEFFICIENTS

A constant expansion and contraction coefficient of 0.1 and 0.3 respectively was utilized throughout the study.

4.0 CROSS-SECTION DESCRIPTION

Cross-Sections for the hydraulic analysis were digitized from the detailed mapping (Ref. 12) and were coded from left to right looking down stream with station 10,000 at the hydraulic baseline.

The cross-section I.D. numbers are in river miles increasing upstream with the starting river miles I.D. assumed to be 1.0, 10.0, 20.0, 30.0, 30.0 and 50.0 of the inlet face of CAP overchute headwall for the respective Main Padelford Wash, Split 1, Split 2, Split 3, Split 4, and Split 5 washes.

The cross-section plots from HEC-RAS model are included in the Appendix showing channel bank limits, 'N' values, blocked out areas.

5.0 MODELING CONSIDERATIONS

5.1 HYDRAULIC JUMP AND DROP ANALYSIS

The mixed regime HEC-RAS analysis was reviewed to note where both the Froude Number of the channel and cross-section exceeded 1.0 to determine where flow passed from subcritical to supercritical and potentially involved a hydraulic jump;

On Padelford Wash and Tribs. "A" – "C", there were 7 cross-sections out of 116, that Froude Nos. exceeded 1.0 at sections 3.30 and 6.45 of the Main Wash, Sections 0.744 and 1.180 of Trib. 'C', Section 0.763 of Trib. 'B' and Section 0.294 and 1.045 of Trib. 'A'. Only at Section's 0.744 and 1.16 of Trib. 'C' did the Froude No. exceed 1.3, and became significant enough that a hydraulic jump might occur.

Split 1, Wash had four cross-sections with Froude No's over 1.0.

Split 2, Wash had seven cross-sections with Froude No's. over 1.0.

Split 3, Wash had six cross-sections with Froude No's over 1.0.

Split 4, Wash had one cross-section with Froude No. over 1.0.

Split 5, Wash had one cross-section with Froude No. over 1.0.

The floodplain was modeled conservatively, as subcritical only, for purposes of defining water surface elevations and floodplain widths.

5.2 BRIDGES AND CULVERTS

Three sets of box culverts were modeled in the HEC-RAS model at the upstream intersections of Tribs. 'A', 'B' and 'C' with State Route 74. The Field Reconnaissance Report (Ref. 11) has copies of ADOT As-Built Plans for S.R. 74, photos of the structures, and field surveyed inverts on mapping datum of the structures. The road and structures were built in 1971.

The storage vs. discharge relationship upstream of these structures was modeled in the Hydrology Report. (Ref. 14)

5.3 LEVEES AND DIKES

The Central Arizona Project (CAP) Canal at the downstream limits of the study project involves a levee which causes water to be impounded upstream of the canal as it is drained across the canal by six sets of one-three 72-inch I.D. steel overchute structures. The discharge vs. storage routing at this levee was modeled in the Hydrology Report (Ref. 14) and the hydraulic analysis of the overchute structures is presented in the Reconnaissance Report (Ref. 11).

The CAP Canal was built in 1979, by the Bureau of Reclamation. The Canal and levees are operated and maintained by the Central Arizona Project. As-Builts of the levee including design specifications for compaction are in the Reconnaissance Report (Ref. 11).

The HEC-RAS Floodplain analysis did not model these overchute structures as the one set of individual overchutes does not by itself influence or control the starting water surface condition of Splits 1 – 5 or the Main Padelford Wash.

5.4 ISLAND AND SPLIT FLOWS

There are approximately (30) significant islands primarily in the area of Split Flows, between the CAP Canal and the Split Apex, 3400 ft. north of the Dove Valley Road alignment, identified on the delineated floodplain mapping. There are a number of less significant islands that were not delineated.

The Hydrology Report (Ref. 14) contains a discussion with HEC-RAS model rating curve data for six significant Split flow relationships modeled in the HEC-1 model to define discharges to various split flow washes.

Figure 2 shows one of the six splitflows modeled in the Hydrology Model, where significant weir flow from SPLIT 1 wash from 200-ft. downstream of Section 11.523 to Section 11.621, was identified as breaking over a ridgeline and leaving SPLIT 1 Wash and reentering the Main Padelford Wash. This flow split was also analyzed in the HEC-1model, by using a rating curve of water surface elevation versus discharge for SPLIT 1 from the detailed HEC-RAS model and a water surface elevation versus discharge rating curve based on a normal depth flow estimate over an estimated 800 ft length of breakout area which further assumed an average invert elevation of 1,624.4, "n" value of 0.055 and longitudinal slope of 0.02 ft/ft.

Another less significant split flow shown on Figure 3 was identified and addressed in the HEC-RAS model, but not in the Hydrology Report. On the Split 2 Wash between Section 21.248 and 21.346, an approximate 500 ft. long ridge between these sections was identified. This weir had an average 0.5 ft. of water surface above the existing ground which using the weir equation and a weir coefficient of 2.8 resulted in 495 cfs. This 495 cfs was removed at section 21.248 of Split 2 and added to the adjacent Main Padelford Wash at Section 2.412.

Other Split Flows were identified but were not considered as significant as those modeled and were too numerous to model.

5.5 INEFFECTIVE FLOW AREAS

Several ineffective areas separated by ridges, were blocked out as ineffective. The cross-section plots in Appendices show these areas.

One area, separated by a ridge that was considered partially ineffective occurs on the east side of SPLIT 1, Sections 11.816 to 12.066 and Padelford Wash Section 3.205 to 3.254. The area east of this ridge and below the top of ridge was considered ineffective, but flow above the ridgeline elevation was considered effective.

5.6 SUPERCRITICAL FLOW

Several supercritical Flow areas were identified as described in Section 5.1.

5.6.1 FLOODWAY MODELING

5.7 PROBLEMS ENCOUNTERED DURING THE STUDY

5.7.1 SPECIAL PROBLEMS AND SOLUTIONS

SPECIAL PROBLEMS REPORT – SPLIT FLOW AND UNCONFINED FLOW

An attempt has been made to analyze the study flood plains in detail. The HEC-RAS model using the detailed contour mapping was used to develop rating curve analysis of energy grade elevation versus discharge for five significant flow splits, where the washes split with approximately matching flowline elevations. These rating curves were input to the HEC-1 model as part of the hydrologic analysis to determine discharges.

Based on the numerous flow splits, discussed in Section 5.4, as well as numerous divided flow areas and areas where water is not contained within cross-sections, A-N West does not believe that a detailed floodplain/floodway can be obtained through FEMA from approximately the point 3,400 ft north of Dove Valley Road to the CAP Canal.

5.7.2 MODELING WARNING AND ERROR MESSAGES

In the area upstream of the split apex, 3,400 ft upstream of Dove Valley Road, approximately 20% of the cross-sections had messages indicating a velocity head change of more than 0.5 ft., which may indicate a need for additional cross-sections. The washes in this area are contained to the cross-sections. Cross-Sections were taken on average at 500 ft intervals and additional cross-sections are not considered necessary to improve the model accuracy.

In the area downstream of the split apex., there were numerous warnings of cross-sections needing to be extended vertically for the computed water surface. The extended cross-sections warning is related to the split flow identification and analysis and most of the extended cross-section messages occur where split flow was addressed. Where other extended cross-sections occur, the breakout of flow was considered minimal.

5.8 CALIBRATION

No special calibration analysis was made of the model as there were no historic events to compare.

5.9 FINAL RESULTS

5.9.1 HYDRAULIC ANALYSIS RESULTS

The following Appendices contain hard copy HEC-RAS printouts and cross-section plots as well as digital data files.

5.9.2 VERIFICATION OF RESULTS

No special verification analysis was made as there was no other study results to compare with other than peak discharges and ponding at the CAP, which were compared in the separate Hydrology Report.

5.10 BIBLIOGRAPHY AND REFERENCES

1. Hydrologic Design Manual for Maricopa County, Arizona, Dated: September 1990, with Revisions Dated: January 1995.

2. HEC-1 Flood Hydrograph Package Computer Model Version 4.1, June 1998, U.S. Corps of Engineers, Hydrologic Engineering Center, Davis California 85616-4617.

3. U.S.G.S. 7.5 minute services Quandrangle Mapping, Garfias Mountain (1964, Hieroglyphic Mts., W.W., Arizona (1965, Photo Rev. 1981) and Baldy Mtn. (1964 Photo Rev. 1981).

4. ADOT State Route 74 (S.R. 74) Highway As-Built Plan, As-Built Date 10/07/71, Project No. S-434-503.

5. Central Arizona Project, Bureau of Reclamation Granite Reef Aqueduct, Reach 9 Drainage Cross-Structures Location Mapping and Flood Routing and Unit Hydrograph Summary, Dated September 1975.

6. Wittman Area Drainage Master Study (ADMS) Part A Hydrology and Hydraulics and Part B Stormwater Management Plans, Report by WLB Group, March 10, 1989 for Flood Control District of Maricopa County, FCDMC).

7. Flood Insurance Rate Map (FIRM) Panels 710 and 720 of 4350, Map Revised September 4, 1994, FEMA.

8. Drainage Design Management System for Windows (DDMSW) Computer Program by FCDMC, Version 1.5.

9. Soil Survey for Aguila/Carefree Area Part of Maricopa and Pinal Counties, Arizona by USDA, Soil Conservation Service (SCS). Date: 1978.

10. Digital Aerial Photo of Study Watershed from FCDMC HIS Database at Scale of 1" = 2,000' ±.

11. "Field Reconnaissance and Hydraulic Parameter Estimation Summary", (Technical Data Notebook Section 4.4) For Padelford Wash Floodplain Delineation Study, FCDMC No. 99-12 by A-N West, Inc. Date 9/11/00, A-N West, Inc.

12. Project Detailed 2 and 10 foot Contour Interval 200 Scale Mapping Flown 10/28/99 and 2/20/99 by Cooper Aerial Surveys Company, Phoenix, AZ, with Ground Control by Aztec Engineering, Inc., Phoenix, AZ for A-N West, Inc.

13. ADOT "Highway Drainage Design Manual, Hydrology, No. FHWAS-AZ93-281, March 1993.

14. Hydrology Report for Padelford Wash Floodplain Delineation Study, FCD No. 99-12, Date December 1999, Revised October 13, 2000, November 17, 2000 by A-N West, Inc. Job No. 7158-07.

15. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-RAS, River Analysis System, Version 202, September 1998.

16. "Estimated Manning's Roughness Coefficients for Stream Channel and Floodplains in Maricopa County, AZ", By U.S.G.S. Water Resources Division by B.W. Thompson and H.W. Hialmarson, April 1991.

HEC-RAS September 1998 Version 2.2
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X    X
X     X  X        X           X   X     X    X   X
XXXXXXX  XXXX     X       XXX XXXX      XXXXXX   XXXX
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X     X  XXXXXX    XXXX       X    X    X    X   XXXXX
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PROJECT DATA
Project Title: Padelford Wash
Project File : padelford.prj
Run Date and Time: 3/25/2002 2:04:26 PM

Project in English units

Project Description:
PADELFORD WASH AND TRIBUTARIES, TRIB.A, TRIB. B AND TRIB. C FCDMC NO. 99-12.
DISCHARGES ARE FROM 100-YR-24 HR. STORM AS DETERMINED FROM PADELFORD WASH FLOODPLAIN DELINEATION STUDY HYDROLOGY.
DOWNSTREAM LIMIT IS AT CAP STA.
272+35 A 3 BARREL 72 INCH I.D. STEEL PIPE X 222.3 FT. LONG OVERCHUTE STRUCTURE WITH CONC. INLET HEADWALL WITH I.E.=1539.90 AND OUTLET I.E.=1538.47.
CROSS-SECTIONS ARE CODED FROM LT. TO RT. LOOKING D/S WITH STA. 10000 AT THE HYD. BASELINE.
SECTION I.D.'S ARE IN RIVER MILES INCREASING U/S WITH R.M. NO. 1.0 AT THE INLET FACE OF THE CAP STRUCTURES.
STARTING WSEL'S AT U/S AND D/S ARE BY SLOPE-AREA METHOD. , HOWEVER PONDING AT THE U/S SIDE OF THE CAP CANAL MAY CAUSE BACKWATER .

PLAN DATA

Plan Title: Padelford Wash
Plan File : n:\Files\7158-07\Hec-Ras\8TH SET\padelford.p01

Geometry Title: Padelford Wash
Geometry File : n:\Files\7158-07\Hec-Ras\8TH SET\padelford.g01

Flow Title : Padelford Wash
Flow File : n:\Files\7158-07\Hec-Ras\8TH SET\padelford.f01

Plan Summary Information:
Number of: Cross Sections = 114 Multiple Openings = 0
Culverts = 3 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculation tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

FLOW DATA

Flow Title: Padelford Wash
Flow File : n:\Files\7158-07\Hec-Ras\8TH SET\padelford.f01

Flow Data (cfs)

River	Reach	RS	PF 1
PADELFORD WASH	REACH M3	6.540	1624
PADELFORD WASH	REACH M3	6.053	2347
PADELFORD WASH	REACH M3	5.675	3972
PADELFORD WASH	REACH M3	5.416	5263
PADELFORD WASH	TRIB 'B'	0.854	4522
PADELFORD WASH	TRIB 'C'	1.264	2135
PADELFORD WASH	TRIB 'C'	1.180	4353
PADELFORD WASH	TRIB 'C'	0.939	4637
PADELFORD WASH	TRIB 'C'	0.370	4733
PADELFORD WASH	REACH M2	5.120	9063
PADELFORD WASH	REACH M2	4.722	13396
PADELFORD WASH	REACH M1	4.624	13396
PADELFORD WASH	REACH M1	3.968	13776
PADELFORD WASH	REACH M1	3.584	9012
PADELFORD WASH	REACH M1	3.393	5863
PADELFORD WASH	REACH M1	3.156	1538
PADELFORD WASH	REACH M1	2.610	2775
PADELFORD WASH	REACH M1	2.412	3270
PADELFORD WASH	REACH M1	2.098	3187
TRIB. A2	REACH A2	1.998	1163
TRIB. A2	REACH A2	1.685	1215
TRIB.A	REACH A1	1.045	5722
TRIB.A	REACH A1	0.674	5722
TRIB.A	REACH A1	0.198	5775
TRIB.A	REACH A2	1.998	1163
TRIB.A	REACH A2	1.685	1215

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
TRIB.A	REACH A2	PF 1	Normal S = .01	
PADELFORD WASH	REACH M3	PF 1	Normal S = .01	
PADELFORD WASH	TRIB 'B'	PF 1	Normal S = .01	
PADELFORD WASH	TRIB 'C'	PF 1	Normal S = .01	
PADELFORD WASH	REACH M1	PF 1		Normal S = .006

GEOMETRY DATA

Geometry Title: Padelford Wash
Geometry File : n:\Files\7158-07\Hec-Ras\8TH SET\padelford.g01

Reach Connection Table

River	Reach	Upstream Boundary	Downstream Boundary
TRIB.A	REACH A2		TRIB. B
TRIB.A	REACH A1	TRIB. B	TRIB.A
PADELFORD WASH	REACH M3		TRIB. C
PADELFORD WASH	TRIB 'B'		TRIB. B
PADELFORD WASH	TRIB 'C'		TRIB. C
PADELFORD WASH	REACH M2	TRIB. C	TRIB.A
PADELFORD WASH	REACH M1	TRIB.A	

JUNCTION INFORMATION

Name: TRIB. B
Description: TRIB. B JUNCTION TO TRIB.A.
Energy computation Method

Length across Junction River	Reach		Tributary River	Reach	Length	Angle
TRIB.A	REACH A2	to TRIB.A	REACH A1		517.44	
PADELFORD WASH	TRIB 'B'	to TRIB.A	REACH A1		491.04	

Name: TRIB. C
Description: TRIB.C JUNCTION W/PADELFORD W.
Energy computation Method

Length across Junction River	Reach		Tributary River	Reach	Length	Angle
PADELFORD WASH	REACH M3	to PADELFORD WASH	REACH M2		406.56	
PADELFORD WASH	TRIB 'C'	to PADELFORD WASH	REACH M2		511	

Name: TRIB.A
Description: JUNCTION TRIB. A TO PADELFORD W.
Energy computation Method

Length across Junction River	Reach		Tributary River	Reach	Length	Angle
TRIB.A	REACH A1	to PADELFORD WASH	REACH M1		1050	
PADELFORD WASH	REACH M2	to PADELFORD WASH	REACH M1		517.44	

CROSS SECTION RIVER: TRIB.A
REACH: REACH A2 RS: 1.998

INPUT
Description: TRIB.A .SEC. 1.998. THIS SECTION IS UPSTREAM LIMIT OF DETAIL
STUDY OF TRIBUTARY 'A' AT S.R.74.
ADOT S.R. 74 STA. 642+63 HAS
(3) 10 FT. (SPAN) X 8 FT. (RISE) X 70 FT. LONG BOX CULVERTS
DOWNSTREAM OF THIS CROSS SECTION . THE CULVERTS HAVE WINGWALLS AT

U/S AND D/S ENDS OF 30 TO 45 DEGREE FLARE ANGLE WITH NO PIER OR SOFFIT ROUNDING . NO SIGNIFICANT SEDIMENT DEPOSITION IN CULVERTS WAS OBSERVED.

Station Elevation Data num= 15

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9958.36	1880.49	9963.15	1880.71	9966.98	1876.04	9968.77	1878.15	9970.6	1872.8
9987.11	1873.2	9993.76	1873.31	10000	1873.41	10002.75	1873.45	10009.69	1873.33
10011.92	1873.31	10014.75	1873.25	10022.2	1878.66	10028.7	1880.01	10040.34	1881.71

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9958.36	.065	9968.77	.037	10022.2	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9968.77	10022.2	90	90.1	90 .1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
9958.36	9968.77	1878.15

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1879.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1878.77	Reach Len. (ft)	90.00	90.10	90.00
Crit W.S. (ft)	1875.93	Flow Area (sq ft)	2.33	272.34	0.03
E.G. Slope (ft/ft)	0.001469	Area (sq ft)	2.33	272.34	0.03
Q Total (cfs)	1163.00	Flow (cfs)	1.36	1161.64	0.00
Top Width (ft)	57.98	Top Width (ft)	4.03	53.43	0.52
Vel Total (ft/s)	4.23	Avg. Vel. (ft/s)	0.58	4.27	0.12
Max Chl Dpth (ft)	5.97	Hydr. Depth (ft)	0.58	5.10	0.05
Conv. Total (cfs)	30348.7	Conv. (cfs)	35.4	30313.2	0.1
Length Wtd. (ft)	90.10	Wetted Per. (ft)	4.32	59.02	0.53
Min Ch El (ft)	1872.80	Shear (lb/sq ft)	0.05	0.42	0.00
Alpha	1.01	Stream Power (lb/ft s)	0.03	1.80	0.00
Frctn Loss (ft)		Cum Volume (acre-ft)	5.27	17.58	5.01
C & E Loss (ft)		Cum SA (acres)	2.81	6.62	3.67

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9958.36	9968.77	1.36	2.33	4.32	0.12	0.58	0.58
LB 9968.77	9995.48	646.43	147.32	30.55	55.58	5.51	4.39
9995.48	RB 10022.20	515.21	125.01	28.48	44.30	4.68	4.12
10022.20	10040.34	0.00	0.03	0.53	0.00	0.05	0.12

CULVERT RIVER: TRIB.A
REACH: REACH A2 RS: 1.996

INPUT
Description:
Distance from Upstream XS = 25
Deck/Roadway Width = 40
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 3

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
9850	1882		10000	1883.22		11020	1885	

Upstream Bridge Cross Section Data
Station Elevation Data num= 15

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9958.36	1880.49	9963.15	1880.71	9966.98	1876.04	9968.77	1878.15	9970.6	1872.8
9987.11	1873.2	9993.76	1873.31	10000	1873.41	10002.75	1873.45	10009.69	1873.33
10011.92	1873.31	10014.75	1873.25	10022.2	1878.66	10028.7	1880.01	10040.34	1881.71

```
Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9958.36    .065 9968.77    .037 10022.2    .065

Bank Sta: Left   Right    Coeff Contr.   Expan.
       9968.77 10022.2             .1       .3
Blocked Obstructions      num=       1
   Sta L   Sta R    Elev
 9958.36 9968.77 1878.15

Downstream  Deck/Roadway Coordinates
    num=       3
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
    9850    1882           10000 1883.22           11020    1885

Downstream Bridge Cross Section Data
Station Elevation Data     num=      17
     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev
 9955.93  1879.7 9956.81  1879.7 9971.33  1879.6 9975.27 1879.62 9978.82 1879.93
 9984.08 1878.24 9984.66 1873.38 9985.85 1871.21 9999.31 1871.55   10000 1871.57
10015.43 1871.9610016.08 1876.6210023.17 1877.5810023.64 1877.5310024.75 1877.81
10032.91 1880.1910038.15 1880.49

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9955.93    .065 9984.08    .03710016.08    .065

Bank Sta: Left   Right    Coeff Contr.   Expan.
       9984.0810016.08             .1       .3

Upstream Embankment side slope             =       2 horiz. to 1.0 vertical
Downstream Embankment side slope           =       2 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins        =    1882
Energy head used in spillway design        =
Spillway height used in design             =
Weir crest shape                           = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
Culvert #1           Box       8      10
FHWA Chart # 8 - flared wingwalls
FHWA Scale # 1 - Wingwall flared 30 to 75 deg.
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    n Value   Entrance Loss Coef   Exit Loss Coef
                 10      70       .012                  .4                1
Number of Barrels =  3
Upstream   Elevation =  1872.93
Centerline Stations
    Sta.    Sta.    Sta.
    9989   10000   10011
Downstream Elevation =  1871.66
Centerline Stations
    Sta.    Sta.    Sta.
    9989   10000   10011

CULVERT OUTPUT    Profile #PF 1
Culvert ID : Culvert #1

  Culv Q (cfs)           1163.00   Culv Vel In (ft/s)       10.77
  # Barrels                    3   Culv Vel Out (ft/s)      15.55
  Q Barrel (cfs)          387.67   Culv Inv El Up (ft)    1872.93
  E.G. US. (ft)          1879.05   Culv Inv El Dn (ft)    1871.66
  W.S. US. (ft)          1878.77   Culv Frctn Ls (ft)        0.42
  Delta EG (ft)             2.16   Culv Ext Lss (ft)         1.02
  Delta WS (ft)             3.62   Culv Ent Lss (ft)         0.72
  E.G. IC (ft)           1878.61   Q Weir (cfs)
  E.G. OC (ft)           1879.05   Weir Sta Lft (ft)
```

Culvert Control	Outlet	Weir Sta Rgt (ft)	
Culv WS In (ft)	1876.53	Weir Submerg	
Culv WS Out (ft)	1874.15	Weir Max Depth (ft)	
Culv Nml Depth (ft)	1.88	Weir Avg Depth (ft)	
Culv Crt Depth (ft)	3.60	Wr Flw Area (sq ft)	
Culv Ful Lngh (ft)		Min Top Rd (ft)	1882.88

Note: The flow in the culvert is entirely supercritical.

CROSS SECTION RIVER: TRIB.A
REACH: REACH A2 RS: 1.981

INPUT
Description: TRIB.A SEC. 1.981. THIS SECTION IS D/S OF 3-10FT.X8FTX 70FT BOX CULVERTS UNDER S.R.74.

Station Elevation Data num= 17

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9955.93	1879.7	9956.81	1879.7	9971.33	1879.6	9975.27	1879.62	9978.82	1879.93
9984.08	1878.24	9984.66	1873.38	9985.85	1871.21	9999.31	1871.55	10000	1871.57
10015.43	1871.96	10016.08	1876.62	10023.17	1877.58	10023.64	1877.53	10024.75	1877.81
10032.91	1880.19	10038.15	1880.49						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9955.93	.065	9984.08	.037	10016.08	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9984.08	10016.08	126	124.69	125	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1876.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.75	Wt. n-Val.		0.037	
W.S. Elev (ft)	1875.15	Reach Len. (ft)	126.00	124.69	125.00
Crit W.S. (ft)	1875.15	Flow Area (sq ft)		109.62	
E.G. Slope (ft/ft)	0.016435	Area (sq ft)		109.62	
Q Total (cfs)	1163.00	Flow (cfs)		1163.00	
Top Width (ft)	31.42	Top Width (ft)		31.42	
Vel Total (ft/s)	10.61	Avg. Vel. (ft/s)		10.61	
Max Chl Dpth (ft)	3.94	Hydr. Depth (ft)		3.49	
Conv. Total (cfs)	9071.8	Conv. (cfs)		9071.8	
Length Wtd. (ft)	124.80	Wetted Per. (ft)		37.06	
Min Ch El (ft)	1871.21	Shear (lb/sq ft)		3.04	
Alpha	1.00	Stream Power (lb/ft s)		32.20	
Frctn Loss (ft)	2.00	Cum Volume (acre-ft)	5.27	17.18	5.01
C & E Loss (ft)	0.35	Cum SA (acres)	2.81	6.53	3.67

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9984.08	10000.08	621.55	57.03	18.49	53.44	3.65	10.90
10000.08	RB 10016.08	541.45	52.59	18.57	46.56	3.33	10.30

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: TRIB.A
REACH: REACH A2 RS: 1.957

INPUT
Description: TRIB. A SEC. 1.957
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9884.68	1881.8	9892.71	1878.04	9905.57	1874.37	9907.14	1874.35	9920.89	1871.79
9924.12	1871.23	9936.9	1871.24	9947.29	1871.54	9965.53	1872.18	9971.96	1872.38
9985.56	1871.33	9986.77	1871.24	9987.09	1871.15	9994.34	1869.33	10000	1869.62
10005.52	1869.9	10014.65	1870.32	10024.01	1871.06	10028.22	1871.38	10034.5	1871.42
10068.08	1871.47	10071.31	1871.61	10074.16	1871.63	10079.15	1871.69	10089.74	1871.66
10097.92	1871.88	10101.88	1872.41	10112.15	1872.45	10120.03	1873.23	10131.31	1876.32
10138.21	1877.91	10152.89	1880.54	10159.55	1880.88				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9884.68	.065	9971.96	.04	10034.5	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9971.96	10034.5	485 517.44	535	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1873.20	Element			
Vel Head (ft)	0.58	Wt. n-Val.	0.065	0.040	0.065
W.S. Elev (ft)	1872.62	Reach Len. (ft)	485.00	517.44	535.00
Crit W.S. (ft)	1872.62	Flow Area (sq ft)	51.85	117.73	71.47
E.G. Slope (ft/ft)	0.015647	Area (sq ft)	51.85	117.73	71.47
Q Total (cfs)	1163.00	Flow (cfs)	141.44	831.02	190.54
Top Width (ft)	197.41	Top Width (ft)	55.52	62.54	79.35
Vel Total (ft/s)	4.82	Avg. Vel. (ft/s)	2.73	7.06	2.67
Max Chl Dpth (ft)	3.29	Hydr. Depth (ft)	0.93	1.88	0.90
Conv. Total (cfs)	9297.4	Conv. (cfs)	1130.7	6643.4	1523.2
Length Wtd. (ft)		Wetted Per. (ft)	55.66	62.89	79.40
Min Ch El (ft)	1869.33	Shear (lb/sq ft)	0.91	1.83	0.88
Alpha	1.62	Stream Power (lb/ft s)	2.48	12.91	2.34
Frctn Loss (ft)		Cum Volume (acre-ft)	5.20	16.86	4.91
C & E Loss (ft)		Cum SA (acres)	2.73	6.39	3.56

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9884.68	9971.96	141.44	51.85	55.66	12.16	0.93	2.73
LB 9971.96	10003.23	391.31	56.90	31.56	33.65	1.82	6.88
10003.23	RB 10034.50	439.71	60.84	31.32	37.81	1.95	7.23
10034.50	10159.55	190.54	71.47	79.40	16.38	0.90	2.67

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: TRIB.A
REACH: REACH A2 RS: 1.859

INPUT
Description: TRIB.A SEC. 1.859
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9883.88	1875.94	9890.25	1875.42	9904.66	1874.94	9918.43	1874.09	9927.57	1873.12
9938.58	1868.03	9950.8	1862.27	9956.35	1863.45	9959.17	1863.95	9968.63	1863.86
9988.04	1863.48	9992.75	1862.56	9997.66	1861.69	10000	1861.85	10002.96	1862.04
10014.15	1862.63	10017.48	1862.86	10019.88	1863.09	10027.01	1863.48	10032.86	1863.71
10039.34	1863.82	10060.09	1864.29	10064.14	1864.35	10068.81	1864.33	10073.13	1864.33
10075.7	1864.33	10089.43	1864.31	10093.31	1864.28	10093.66	1864.29	10095.54	1864.65
10099.47	1865.35	10151.03	1875.22	10152.76	1875.32				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9883.88	.065	9938.58	.041	10060.09	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9938.58	10060.09	460 459.36	425	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1865.53	Element			
Vel Head (ft)	0.48	Wt. n-Val.		0.040	0.065
W.S. Elev (ft)	1865.05	Reach Len. (ft)	460.00	459.36	425.00
Crit W.S. (ft)		Flow Area (sq ft)		195.88	26.06
E.G. Slope (ft/ft)	0.011661	Area (sq ft)		195.88	26.06
Q Total (cfs)	1163.00	Flow (cfs)		1112.78	50.22
Top Width (ft)	152.90	Top Width (ft)		115.19	37.71
Vel Total (ft/s)	5.24	Avg. Vel. (ft/s)		5.68	1.93
Max Chl Dpth (ft)	3.36	Hydr. Depth (ft)		1.70	0.69
Conv. Total (cfs)	10770.1	Conv. (cfs)		10305.0	465.1
Length Wtd. (ft)	449.38	Wetted Per. (ft)		116.22	37.78
Min Ch El (ft)	1861.69	Shear (lb/sq ft)		1.23	0.50
Alpha	1.13	Stream Power (lb/ft s)		6.97	0.97
Frctn Loss (ft)	6.43	Cum Volume (acre-ft)	4.91	14.99	4.31
C & E Loss (ft)	0.01	Cum SA (acres)	2.42	5.34	2.84

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9938.58	9999.33	511.12	91.33	55.40	43.95	1.68	5.60
9999.33	RB 10060.09	601.66	104.55	60.82	51.73	1.72	5.75
10060.09	10152.76	50.22	26.06	37.78	4.32	0.69	1.93

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: TRIB.A
REACH: REACH A2 RS: 1.772

INPUT
Description: TRIB. A SEC. 1.772
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9924.75	1866.44	9938.62	1862.1	9938.96	1862.01	9939.78	1861.78	9941.6	1861.29
9956.2	1857.98	9963.47	1857.27	9985	1858.07	9986.91	1858.15	9987.31	1858.06
9995.9	1856.27	9998.87	1856.32	10000	1856.34	10010.67	1856.49	10017.71	1857.42
10020.72	1857.85	10023.27	1857.9	10030.1	1858.04	10038.28	1858.21	10041.44	1857.5
10048.6	1856.57	10063.67	1855.89	10065.43	1855.81	10066.4	1855.86	10067.47	1855.77
10079.67	1855.54	10096.76	1858.59	10103.54	1859.67	10124.78	1861.06	10129.04	1861.35

10130.86 1861.6110132.24 1861.810149.81 1864.3510155.55 1865.03

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9924.75	.065	9986.91	.0410038.28		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9986.9110038.28		445 459.36	425	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1859.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.	0.065	0.040	0.065
W.S. Elev (ft)	1858.65	Reach Len. (ft)	445.00	459.36	425.00
Crit W.S. (ft)	1858.34	Flow Area (sq ft)	30.48	72.20	124.71
E.G. Slope (ft/ft)	0.017936	Area (sq ft)	30.48	72.20	124.71
Q Total (cfs)	1163.00	Flow (cfs)	87.13	448.97	626.89
Top Width (ft)	143.86	Top Width (ft)	33.65	51.37	58.84
Vel Total (ft/s)	5.11	Avg. Vel. (ft/s)	2.86	6.22	5.03
Max Chl Dpth (ft)	3.11	Hydr. Depth (ft)	0.91	1.41	2.12
Conv. Total (cfs)	8683.9	Conv. (cfs)	650.6	3352.4	4680.9
Length Wtd. (ft)	447.73	Wetted Per. (ft)	33.78	51.66	59.28
Min Ch El (ft)	1856.27	Shear (lb/sq ft)	1.01	1.56	2.36
Alpha	1.11	Stream Power (lb/ft s)	2.89	9.73	11.84
Frctn Loss (ft)	6.98	Cum Volume (acre-ft)	4.75	13.58	3.58
C & E Loss (ft)	0.01	Cum SA (acres)	2.24	4.46	2.37

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9924.75	9986.91	87.13	30.48	33.78	7.49	0.91	2.86
LB 9986.91	10012.60	358.76	50.28	25.90	30.85	1.96	7.14
10012.60	RB 10038.28	90.21	21.92	25.76	7.76	0.85	4.12
10038.28	10155.55	626.89	124.71	59.28	53.90	2.12	5.03

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: TRIB.A
REACH: REACH A2 RS: 1.685

INPUT
Description: TRIB.A SEC. 1.685
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9881.1	1858.47	9893.36	1857.32	9908.84	1855.94	9913.75	1854.66	9914.73	1854.64
9919.68	1854.67	9935.25	1854.9	9946.28	1854.69	9948.14	1854.68	9950.75	1854.54
9954.05	1854.11	9978.99	1850.96	9984.17	1850.55	9991.72	1849.99	9996.04	1848.03
9997.13	1847.68	10000	1847.8810004.59		1848.210022.76		1849.58	10036.2	1849.97
10039.15	1849.9910046.36		1850.2610054.68		1850.4710063.14		1850.6210077.05		1851.13
10083.92	1850.1410090.64		1849.1710095.58		1850.2110097.88		1850.6810100.61		1850.53
10106.94	1850.2610121.69		1854.0410126.58		1854.9510133.99		1855.2210137.68		1855.43
10139.69	1855.3110141.77		1855.6610156.68		1858.36				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9881.1	.065	9948.14	.0410077.05		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9948.1410077.05		470 543.84	565	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1852.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.		0.040	0.065
W.S. Elev (ft)	1851.58	Reach Len. (ft)	470.00	543.84	565.00
Crit W.S. (ft)	1851.37	Flow Area (sq ft)		175.14	44.98
E.G. Slope (ft/ft)	0.013557	Area (sq ft)		175.14	44.98
Q Total (cfs)	1215.00	Flow (cfs)		1074.87	140.13
Top Width (ft)	138.02	Top Width (ft)		102.98	35.05
Vel Total (ft/s)	5.52	Avg. Vel. (ft/s)		6.14	3.12
Max Chl Dpth (ft)	3.90	Hydr. Depth (ft)		1.70	1.28
Conv. Total (cfs)	10435.1	Conv. (cfs)		9231.6	1203.5
Length Wtd. (ft)	545.84	Wetted Per. (ft)		103.63	35.52
Min Ch El (ft)	1847.68	Shear (lb/sq ft)		1.43	1.07
Alpha	1.13	Stream Power (lb/ft s)		8.78	3.34
Frctn Loss (ft)	7.75	Cum Volume (acre-ft)	4.59	12.28	2.75
C & E Loss (ft)	0.03	Cum SA (acres)	2.07	3.65	1.91

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9948.14	10012.59	576.79	82.67	39.12	47.47	2.15	6.98
10012.59	RB 10077.05	498.08	92.47	64.51	40.99	1.43	5.39
10077.05	10156.68	140.13	44.98	35.52	11.53	1.28	3.12

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: TRIB.A
REACH: REACH A2 RS: 1.582

INPUT
Description: TRIB. A SEC. 1.582
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9862.49	1850.78	9868.2	1850.16	9872.08	1850.16	9892.37	1849.73	9918.24	1849.46
9926.9	1849.24	9931.42	1849.06	9948	1848.35	9954.51	1848.1	9955.97	1847.86
9957.83	1847.55	9987.05	1841.17	9990.8	1840.32	10000	1840.39	10003.74	1840.43
10008.19	1840.47	10012.48	1841.13	10018.07	1842.06	10020.97	1841.73	10030.13	1840.84
10044.17	1842.71	0044.92	1842.81	0045.34	1842.78	10048.1	1842.65	10060.68	1842.07
10063.12	1841.98	10065.11	1842.08	10069.63	1842.62	10070.14	1842.66	10070.41	1842.74
10071.38	1843	10091.78	1848.29	10102.75	1851.61	10104.7	1852.05		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9862.49	.065	9954.51	.041	0044.17	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9954.51 10044.17 490 470.03 460 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1844.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.84	Wt. n-Val.		0.040	0.065
W.S. Elev (ft)	1843.50	Reach Len. (ft)	490.00	470.03	460.00
Crit W.S. (ft)		Flow Area (sq ft)		148.34	30.86
E.G. Slope (ft/ft)	0.014886	Area (sq ft)		148.34	30.86
Q Total (cfs)	1215.00	Flow (cfs)		1125.92	89.08
Top Width (ft)	96.93	Top Width (ft)		67.79	29.14
Vel Total (ft/s)	6.78	Avg. Vel. (ft/s)		7.59	2.89
Max Chl Dpth (ft)	3.18	Hydr. Depth (ft)		2.19	1.06
Conv. Total (cfs)	9958.3	Conv. (cfs)		9228.2	730.1
Length Wtd. (ft)	470.80	Wetted Per. (ft)		68.45	29.31
Min Ch El (ft)	1840.32	Shear (lb/sq ft)		2.01	0.98
Alpha	1.17	Stream Power (lb/ft s)		15.29	2.82

Frctn Loss (ft)	6.41	Cum Volume (acre-ft)	4.59	10.26	2.26
C & E Loss (ft)	0.00	Cum SA (acres)	2.07	2.58	1.49

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9954.51	9999.34	372.61	49.66	23.31	30.67	2.16	7.50
9999.34	RB 10044.17	753.30	98.68	45.14	62.00	2.20	7.63
10044.17	10104.70	89.08	30.86	29.31	7.33	1.06	2.89

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: TRIB.A
REACH: REACH A2 RS: 1.491

INPUT
Description: TRIB. A SEC.1.491
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9847.13	1846.07	9847.59	1846.09	9872.37	1842.91	9881.18	1841.92	9904	1840.72
9934.67	1839.16	9951.14	1836.41	9956.38	1835.7	9957.08	1835.7	9973.79	1835.63
9984.73	1835.55	9991.67	1833.82	9992.12	1833.68	9992.99	1833.65	10000	1833.65
10003.06	1833.65	10006.26	1834.28	10008.01	1834.58	10011.65	1834.26	10013.41	1833.94
10020.18	1833.84	10023.28	1833.67	10024.97	1834.34	10036.55	1837.18	10039.04	1837.02

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9847.13	.065	9984.73	.041	10036.55	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9984.73	10036.55	265	273.43	275	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1837.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.87	Wt. n-Val.	0.065	0.040	0.065
W.S. Elev (ft)	1837.06	Reach Len. (ft)	265.00	273.43	275.00
Crit W.S. (ft)		Flow Area (sq ft)	46.86	136.52	0.01
E.G. Slope (ft/ft)	0.012486	Area (sq ft)	46.86	136.52	0.01
Q Total (cfs)	1215.00	Flow (cfs)	138.67	1076.33	0.00
Top Width (ft)	89.42	Top Width (ft)	37.48	51.33	0.62
Vel Total (ft/s)	6.63	Avg. Vel. (ft/s)	2.96	7.88	0.18
Max Chl Dpth (ft)	3.41	Hydr. Depth (ft)	1.25	2.66	0.02
Conv. Total (cfs)	10873.3	Conv. (cfs)	1241.0	9632.3	0.0
Length Wtd. (ft)	272.33	Wetted Per. (ft)	37.58	52.15	0.66
Min Ch El (ft)	1833.65	Shear (lb/sq ft)	0.97	2.04	0.01
Alpha	1.28	Stream Power (lb/ft s)	2.88	16.09	0.00
Frctn Loss (ft)	3.20	Cum Volume (acre-ft)	4.33	8.72	2.09
C & E Loss (ft)	0.02	Cum SA (acres)	1.86	1.94	1.33

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9847.13	9984.73	138.67	46.86	37.58	11.41	1.25	2.96
LB 9984.73	10010.64	644.45	76.59	26.24	53.04	2.96	8.41

10010.64	RB 10036.55	431.87	59.93	25.91	35.55	2.36	7.21
10036.55	10039.04	0.00	0.01	0.66	0.00	0.02	0.18

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: TRIB.A
REACH: REACH A2 RS: 1.439

INPUT
Description: TRIB. A SEC. 1.439
Station Elevation Data num= 16

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9882.31	1838.37	9892.59	1838.61	9921.57	1836.58	9934.92	1835.63	9938.33	1835.01
9941.09	1834.54	9951.85	1832.51	9962.55	1831.67	9979.49	1831.71	9980.88	1831.47
9990.21	1829.96	10000	1829.89	10000.26	1829.89	10008.95	1830.03	10031.17	1838.13
10041.72	1842.23								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9882.31	.065	9979.49	.037	10031.17	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9979.49	10031.17	425 538.56	535	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1834.71	Element			
Vel Head (ft)	1.03	Wt. n-Val.	0.065	0.037	
W.S. Elev (ft)	1833.68	Reach Len. (ft)	425.00	538.56	535.00
Crit W.S. (ft)		Flow Area (sq ft)	54.34	118.90	
E.G. Slope (ft/ft)	0.011107	Area (sq ft)	54.34	118.90	
Q Total (cfs)	1215.00	Flow (cfs)	179.04	1035.96	
Top Width (ft)	73.31	Top Width (ft)	33.84	39.47	
Vel Total (ft/s)	7.01	Avg. Vel. (ft/s)	3.29	8.71	
Max Chl Dpth (ft)	3.79	Hydr. Depth (ft)	1.61	3.01	
Conv. Total (cfs)	11528.4	Conv. (cfs)	1698.8	9829.6	
Length Wtd. (ft)	529.70	Wetted Per. (ft)	33.98	40.26	
Min Ch El (ft)	1829.89	Shear (lb/sq ft)	1.11	2.05	
Alpha	1.35	Stream Power (lb/ft s)	3.65	17.84	
Frctn Loss (ft)	7.87	Cum Volume (acre-ft)	4.02	7.92	2.09
C & E Loss (ft)	0.02	Cum SA (acres)	1.64	1.65	1.33

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9882.31	9979.49	179.04	54.34	33.98	14.74	1.61	3.29
LB 9979.49	10005.33	813.30	87.32	25.98	66.94	3.38	9.31
10005.33	RB 10031.17	222.67	31.59	14.28	18.33	2.32	7.05

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: TRIB.A
REACH: REACH A2 RS: 1.337

INPUT
Description: TRIB. A SEC. 1.337
Station Elevation Data num= 22

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

```
 9957.19 1831.92 9961.57 1831.84 9964.64 1831.91 9982.84 1827.04 9995.24  1822.5
  9998.7 1822.49   10000 1822.4610004.62 1822.35 10011.6 1823.39 10016.2 1824.14
10034.49 1824.9810035.47 1825.0110035.63 1824.9810036.11 1824.9210041.38 1824.36
10049.67 1823.7110059.87 1823.1810061.77 1823.4110067.83 1824.4110081.26 1826.86
10088.13 1827.0210098.89 1828.64

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9957.19    .065 9982.84     .0410034.49    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9982.8410034.49              525  480.48     425            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1826.81   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.96   Wt. n-Val.                         0.040     0.065
  W.S. Elev (ft)            1825.86   Reach Len. (ft)          525.00    480.48    425.00
  Crit W.S. (ft)            1825.86   Flow Area (sq ft)                  101.56     69.94
  E.G. Slope (ft/ft)       0.021021   Area (sq ft)                       101.56     69.94
  Q Total (cfs)             1215.00   Flow (cfs)                         887.10    327.90
  Top Width (ft)              89.69   Top Width (ft)                      48.42     41.27
  Vel Total (ft/s)             7.08   Avg. Vel. (ft/s)                     8.73      4.69
  Max Chl Dpth (ft)            3.51   Hydr. Depth (ft)                     2.10      1.69
  Conv. Total (cfs)           8380.1   Conv. (cfs)                        6118.5    2261.6
  Length Wtd. (ft)                     Wetted Per. (ft)                    49.17     41.57
  Min Ch El (ft)            1822.35   Shear (lb/sq ft)                     2.71      2.21
  Alpha                        1.23   Stream Power (lb/ft s)              23.68     10.35
  Frctn Loss (ft)                     Cum Volume (acre-ft)      3.76       6.56      1.67
  C & E Loss (ft)                     Cum SA (acres)            1.48       1.11      1.08


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  LB 9982.84   10008.67       594.32      60.33     23.24      48.92      2.67       9.85
  10008.67     RB 10034.49    292.78      41.23     25.94      24.10      1.60       7.10
  10034.49     10098.89       327.90      69.94     41.57      26.99      1.69       4.69


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: TRIB.A
REACH: REACH A2           RS: 1.246

INPUT
Description: TRIB. A SEC. 1.246
Station Elevation Data    num=      38
     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev
 9886.21 1829.43 9887.76 1829.34 9914.32 1827.76 9922.68  1826.2 9927.57 1825.38
 9951.04 1826.57 9954.86 1826.74 9959.09 1827.21 9975.22 1829.11 9982.91 1824.97
 9984.98 1824.05 9986.43 1822.72 9994.88 1814.01   10000 1813.9710001.04 1813.97
10004.22 1813.8910015.63 1815.1510017.61 1815.3410022.87 1816.7310023.61 1816.88
10031.64 1816.0310034.08  1815.810038.52 1816.2810040.96 1816.6210043.74 1816.75
10045.95 1816.93 10054.6 1817.5610061.93 1815.93   10066 1814.9610080.96 1816.82
 10083.4 1817.1510091.35 1816.95 10093.3 1816.9410102.11 1817.9910112.82 1819.37
10114.27 1819.7410130.89 1823.4510132.27 1823.46

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
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```
 9886.21    .065 9975.22     .0410022.87    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9975.2210022.87              500  543.84     525            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1818.87   Element                 Left OB    Channel   Right OB
  Vel Head (ft)               0.74   Wt. n-Val.                         0.040     0.065
  W.S. Elev (ft)           1818.12   Reach Len. (ft)          500.00    543.84    525.00
  Crit W.S. (ft)                     Flow Area (sq ft)                  104.80    121.37
  E.G. Slope (ft/ft)       0.010453  Area (sq ft)                       104.80    121.37
  Q Total (cfs)            1215.00   Flow (cfs)                         843.36    371.64
  Top Width (ft)            112.25   Top Width (ft)                      31.98     80.27
  Vel Total (ft/s)            5.37   Avg. Vel. (ft/s)                     8.05      3.06
  Max Chl Dpth (ft)           4.23   Hydr. Depth (ft)                     3.28      1.51
  Conv. Total (cfs)        11884.0   Conv. (cfs)                        8249.0    3635.0
  Length Wtd. (ft)          540.96   Wetted Per. (ft)                    33.98     80.93
  Min Ch El (ft)           1813.89   Shear (lb/sq ft)                     2.01      0.98
  Alpha                       1.66   Stream Power (lb/ft s)              16.20      3.00
  Frctn Loss (ft)             7.24   Cum Volume (acre-ft)      3.76       5.42      0.73
  C & E Loss (ft)             0.07   Cum SA (acres)            1.48       0.67      0.49

Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)     (ft/s)
  LB 9975.22   9999.04        179.71     25.40       9.90      14.79      3.11      7.07
  9999.04      RB 10022.87    663.65     79.40      24.09      54.62      3.33      8.36
  10022.87     10132.27       371.64    121.37      80.93      30.59      1.51      3.06

Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: TRIB.A
REACH: REACH A2           RS: 1.143

INPUT
Description: TRIB. A SEC. 1.143
Station Elevation Data    num=      26
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
 9858.36 1818.92 9890.25 1814.36 9898.98 1813.16 9907.27 1813.21    9913 1813.31
 9914.76 1812.34 9918.49 1811.22    9927 1808.99 9927.78  1808.8 9928.17 1808.84
 9932.74 1809.36 9939.93 1810.15 9940.88 1810.26 9941.85 1810.36 9956.41 1811.52
 9974.74 1809.76 9982.79 1808.92 9985.56  1808.1 9992.55 1805.64 9999.59  1805.6
   10000  1805.6 10009.5 1805.6210025.77    181610032.74 1820.0910043.84 1820.67
10046.03  1820.9

Manning's n Values        num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
 9858.36    .065 9956.41     .0410032.74    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9956.4110032.74              520  517.44     520            .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 9858.36 9956.41 1811.52

CROSS SECTION OUTPUT    Profile #PF 1
```

E.G. Elev (ft)	1811.55	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.41	Wt. n-Val.		0.040	
W.S. Elev (ft)	1810.15	Reach Len. (ft)	517.44	517.44	517.44
Crit W.S. (ft)	1810.15	Flow Area (sq ft)		127.60	
E.G. Slope (ft/ft)	0.017744	Area (sq ft)		127.60	
Q Total (cfs)	1215.00	Flow (cfs)		1215.00	
Top Width (ft)	45.88	Top Width (ft)		45.88	
Vel Total (ft/s)	9.52	Avg. Vel. (ft/s)		9.52	
Max Chl Dpth (ft)	4.55	Hydr. Depth (ft)		2.78	
Conv. Total (cfs)	9121.2	Conv. (cfs)		9121.2	
Length Wtd. (ft)	517.44	Wetted Per. (ft)		47.80	
Min Ch El (ft)	1805.60	Shear (lb/sq ft)		2.96	
Alpha	1.00	Stream Power (lb/ft s)		28.15	
Frctn Loss (ft)	4.03	Cum Volume (acre-ft)	1.28	2.05	0.00
C & E Loss (ft)	0.00	Cum SA (acres)			

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9956.41	9994.58	301.21	43.85	24.46	24.79	1.84	6.87
9994.58	RB 10032.74	913.79	83.75	23.34	75.21	3.80	10.91

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: TRIB.A
REACH: REACH A1 RS: 1.045

INPUT
Description: TRIB. A SEC. 1.045. THIS SEC. AT CONFLUENCE WITH TRIB. B.
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9701.6	1800.75	9710.75	1800.9	9730.95	1799.93	9734.37	1799.69	9734.89	1799.74
9753.85	1799.29	9759.62	1799.23	9775.29	1799.43	9778.26	1799.53	9785.73	1799.37
9805.31	1798.96	9824.35	1800.15	9826.22	1800.26	9827.04	1800.25	9844.28	1800.23
9851.04	1800.17	9856.05	1799.82	9870.64	1797.79	9881.62	1797.26	9898.75	1796.44
9902.1	1796.94	9930.25	1800.65	9936.61	1800.39	9958.17	1799.92	9977.84	1794.09
9982.09	1793.19	9990.82	1793.22	9994.58	1793.24	9999.03	1793.08	10000	1793.06
10003.42	179310005.71	1793.04	10008.3	1792.8310013.94		1793.4210032.45		1800.69	
10033.67	1801.5410035.75	1801.5310043.35		1801.6510051.87		1801.73			

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9701.6	.065	9958.17	.03710032.45		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9958.1710032.45		310 491.04	505	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1802.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.40	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1801.02	Reach Len. (ft)	310.00	491.04	505.00
Crit W.S. (ft)	1801.02	Flow Area (sq ft)	431.19	434.86	0.08
E.G. Slope (ft/ft)	0.006786	Area (sq ft)	431.19	434.86	0.08
Q Total (cfs)	5722.00	Flow (cfs)	1145.35	4576.61	0.04
Top Width (ft)	331.32	Top Width (ft)	256.57	74.28	0.47
Vel Total (ft/s)	6.61	Avg. Vel. (ft/s)	2.66	10.52	0.49
Max Chl Dpth (ft)	8.19	Hydr. Depth (ft)	1.68	5.85	0.16
Conv. Total (cfs)	69460.1	Conv. (cfs)	13903.6	55556.0	0.5
Length Wtd. (ft)	402.15	Wetted Per. (ft)	257.40	76.64	0.57
Min Ch El (ft)	1792.83	Shear (lb/sq ft)	0.71	2.40	0.06
Alpha	2.06	Stream Power (lb/ft s)	1.89	25.30	0.03
Frctn Loss (ft)	0.96	Cum Volume (acre-ft)	35.82	45.68	40.42
C & E Loss (ft)	0.38	Cum SA (acres)	8.12	7.19	17.63

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9701.60	9958.17	1145.35	431.19	257.40	20.02	1.68	2.66
LB 9958.17	9995.31	2228.06	213.45	38.08	38.94	5.75	10.44
9995.31	RB 10032.45	2348.55	221.40	38.56	41.04	5.96	10.61
10032.45	10051.87	0.04	0.08	0.57	0.00	0.16	0.49

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: TRIB.A
REACH: REACH A1 RS: 0.952

INPUT
Description: TRIB. A SEC. 0.952
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9562.73	1797.56	9574.12	1794.49	9578.95	1793.23	9579.99	1793.01	9580.77	1793
9584.67	1792.97	9603.89	1792.77	9608.25	1792.49	9620.91	1791.98	9634.44	1791.52
9639.26	1791.26	9648.68	1790.51	9654	1790.49	9672.37	1790.26	9680.83	1790.17
9682.42	1790.16	9684.75	1790.27	9702.07	1791.01	9709.75	1791.37	9720.21	1791.67
9729.12	1791.68	9731.52	1791.67	9732.02	1791.61	9745.19	1790.47	9756.26	1790.22
9766.36	1789.85	9782.09	1789.48	9802.1	1789.09	9809.22	1788.91	9826.3	1788.84
9831.55	1789.17	9843.8	1790.11	9845.69	1790.25	9878.77	1789.91	9880.4	1789.89
9880.44	1789.89	9889.63	1790.18	9894.82	1790.16	9919.2	1790.68	9930.25	1790.89

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 9930.97  1790.9 9931.35  1790.9 9938.73 1790.08 9944.91 1790.26  9964.3 1789.86
 9965.47 1789.85 9973.83 1790.26 9977.02 1790.48 9980.79 1790.67  9983.7 1790.78
 9989.32 1790.22 9995.14 1788.78 9996.88 1788.32   10000 1788.3110000.04 1788.31
10012.77 1788.2910016.22 1789.4910018.23 1790.2910046.52 1794.1810048.53 1794.44
10051.55 1794.6910089.28 1797.22 10090.3 1797.66

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9562.73    .065  9983.7    .03710046.52    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        9983.710046.52              380  464.64     465            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1795.54   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.12   Wt. n-Val.               0.065      0.037     0.065
  W.S. Elev (ft)           1795.42   Reach Len. (ft)         380.00     464.64    465.00
  Crit W.S. (ft)                     Flow Area (sq ft)      1986.85     310.99      8.81
  E.G. Slope (ft/ft)       0.001197  Area (sq ft)           1986.85     310.99      8.81
  Q Total (cfs)            5722.00   Flow (cfs)             4473.73    1243.58     4.69
  Top Width (ft)            491.80   Top Width (ft)          413.04      62.82    15.94
  Vel Total (ft/s)            2.48   Avg. Vel. (ft/s)          2.25       4.00     0.53
  Max Chl Dpth (ft)           7.13   Hydr. Depth (ft)          4.81       4.95     0.55
  Conv. Total (cfs)        165376.0  Conv. (cfs)            129298.8    35941.8    135.4
  Length Wtd. (ft)          429.88   Wetted Per. (ft)        413.66      63.70    15.99
  Min Ch El (ft)           1788.29   Shear (lb/sq ft)          0.36       0.36     0.04
  Alpha                       1.21   Stream Power (lb/ft s)    0.81       1.46     0.02
  Frctn Loss (ft)             1.02   Cum Volume (acre-ft)     27.22      41.48    40.37
  C & E Loss (ft)             0.13   Cum SA (acres)            5.74       6.42    17.54


Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9562.73      9983.70       4473.73    1986.85    413.66       78.18      4.81       2.25
  LB 9983.70   10015.11       921.67     202.93     31.81       16.11      6.46       4.54
  10015.11     RB 10046.52    321.91     108.07     31.89        5.63      3.44       2.98
  10046.52     10090.30         4.69       8.81     15.99        0.08      0.55       0.53


Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: TRIB.A
REACH: REACH A1           RS: 0.864

INPUT
Description: TRIB. A SEC. 0.864
Station Elevation Data    num=      65
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  9859.6 1803.71  9864.9 1803.66 9875.43  1800.6 9887.82 1796.71 9896.21  1792.9
 9901.62 1790.74 9912.58 1791.48 9913.58 1791.52 9914.03 1791.58    9920 1791.77
 9921.14  1791.8 9929.82 1791.78 9936.19 1791.72 9940.52 1791.58 9967.93 1791.91
 9975.55 1791.89 9987.83 1784.34 9989.73 1783.17 9994.57 1783.35   10000 1783.41
10013.64 1783.5610025.45 1788.5710029.26 1790.2610030.09 1790.21 10032.4 1790.05
10041.91 1789.8610045.97 1789.7510046.75 1789.9310051.44 1791.8310053.68 1791.76
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10058.94 1791.5510063.58 1790.3310064.86 1790.1210069.23 1789.8210078.24 1789.42
10083.12 1791.2810086.13 1792.2410090.32 1791.9810109.39 1791.7310129.32 1793.77
10133.29 1794.1310134.85 1794.2210142.02 1794.4510170.35 1795.3610174.72 1795.49
10183.83 1795.5310194.49 1794.0210204.96 1793.2210215.93 1792.2410230.73 1791.68
10236.56 1791.6810243.89 1791.6110265.95 1791.2710272.28 1791.5210275.89 1791.49
10282.87 1791.7910294.17 1792.1410312.54 1791.93 10323.5 1792.0410326.37  1791.7
10331.01 1790.8810365.96  1803.710372.71 1806.1610376.53 1806.0610377.75 1806.04

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  9859.6    .065 9967.93    .03710053.68    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9967.9310053.68              508  494.69     478            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1794.39   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                1.37   Wt. n-Val.                0.065      0.037     0.065
  W.S. Elev (ft)            1793.01   Reach Len. (ft)          508.00     494.69    478.00
  Crit W.S. (ft)            1793.01   Flow Area (sq ft)         98.24     477.78    270.23
  E.G. Slope (ft/ft)       0.006911   Area (sq ft)              98.24     477.78    270.23
  Q Total (cfs)             5722.00   Flow (cfs)               228.74    4854.28    638.98
  Top Width (ft)             355.53   Top Width (ft)            71.97      85.75    197.81
  Vel Total (ft/s)             6.76   Avg. Vel. (ft/s)          2.33      10.16      2.36
  Max Chl Dpth (ft)            9.84   Hydr. Depth (ft)          1.37       5.57      1.37
  Conv. Total (cfs)        68828.8    Conv. (cfs)              2751.5    58391.2    7686.2
  Length Wtd. (ft)           490.67   Wetted Per. (ft)          72.45      90.00    199.11
  Min Ch El (ft)            1783.17   Shear (lb/sq ft)          0.59       2.29      0.59
  Alpha                        1.93   Stream Power (lb/ft s)    1.36      23.27      1.38
  Frctn Loss (ft)              3.54   Cum Volume (acre-ft)     18.12      37.27     38.88
  C & E Loss (ft)              0.00   Cum SA (acres)            3.62       5.63     16.39

Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to
         critical depth, the calculated water surface came back below critical depth.  This indicates
         that there is not a valid subcritical answer.  The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)      (sq ft)    (ft)                (ft)      (ft/s)
  9859.60      9967.93        228.74      98.24      72.45      4.00      1.37       2.33
  LB 9967.93   10010.80      3240.96     288.87      45.35     56.64      6.74      11.22
  10010.80     RB 10053.68   1613.32     188.91      44.65     28.20      4.41       8.54
  10053.68     10377.75       638.98     270.23     199.11     11.17      1.37       2.36

Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to
         critical depth, the calculated water surface came back below critical depth.  This indicates
         that there is not a valid subcritical answer.  The program defaulted to critical depth.

CROSS SECTION          RIVER: TRIB.A
REACH: REACH A1          RS: 0.770

INPUT
Description: TRIB. A SEC. 0.770
Station Elevation Data    num=      53
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
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 9942.57 1798.97 9943.17 1798.94 9957.38 1799.27 9957.43 1799.27  9957.5 1799.28
 9966.25 1800.22 9968.88 1799.94 9970.28 1799.87 9984.47 1787.46 9992.09 1778.12
   10000 1778.1710001.02 1778.1710009.82 1778.16 10018.1 1781.65 10023.7 1783.99
10037.09  1784.310040.03  1784.410041.37 1784.5610047.14 1785.6210052.67 1785.46
10057.23 1785.3210088.39 1785.1210090.57 1785.11 10091.4  1785.110097.75 1784.99
10103.58 1784.8910104.72  1784.910131.67 1785.3510148.12 1785.5610153.94 1785.68
10156.01 1785.0310162.02 1782.9610172.55 1783.5510177.23 1783.8410185.55 1784.28
10185.76  1784.310186.76 1784.3110212.92  1784.610214.58 1784.1410218.42 1783.21
10228.16 1784.7310232.36 1785.3210234.58 1785.3510237.79  1785.210239.18 1785.23
10243.72 1785.2210248.06 1784.6710250.22 1784.3110259.53 1785.4210262.19 1786.06
10272.21 1788.86 10282.5  1791.610284.51 1791.79

Manning's n Values        num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
 9942.57    .065 9984.47    .037 10023.7    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9984.47 10023.7              505  499.71     485             .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1788.79   Element                Left OB    Channel   Right OB
  Vel Head (ft)                1.42   Wt. n-Val.                        0.037     0.065
  W.S. Elev (ft)            1787.37   Reach Len. (ft)         505.00    499.71    485.00
  Crit W.S. (ft)            1787.37   Flow Area (sq ft)                 285.54    621.96
  E.G. Slope (ft/ft)       0.007526   Area (sq ft)                      285.54    621.96
  Q Total (cfs)             5722.00   Flow (cfs)                       3423.63   2298.37
  Top Width (ft)             282.33   Top Width (ft)                     39.16    243.18
  Vel Total (ft/s)             6.31   Avg. Vel. (ft/s)                   11.99      3.70
  Max Chl Dpth (ft)            9.25   Hydr. Depth (ft)                    7.29      2.56
  Conv. Total (cfs)         65959.7   Conv. (cfs)                      39465.5   26494.1
  Length Wtd. (ft)           494.35   Wetted Per. (ft)                   44.72    244.51
  Min Ch El (ft)            1778.12   Shear (lb/sq ft)                    3.00      1.20
  Alpha                        2.30   Stream Power (lb/ft s)             35.97      4.42
  Frctn Loss (ft)              4.38   Cum Volume (acre-ft)     17.55     32.93     33.99
  C & E Loss (ft)              0.00   Cum SA (acres)            3.20      4.92     13.98


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to
         critical depth, the calculated water surface came back below critical depth.  This indicates
         that there is not a valid subcritical answer.  The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  LB 9984.47   10004.08      1685.17     145.46     23.93      29.45      7.44       11.59
  10004.08     RB 10023.70   1738.47     140.08     20.79      30.38      7.14       12.41
  10023.70     10284.51      2298.36     621.96    244.51      40.17      2.56        3.70


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to
         critical depth, the calculated water surface came back below critical depth.  This indicates
         that there is not a valid subcritical answer.  The program defaulted to critical depth.

CROSS SECTION          RIVER: TRIB.A
REACH: REACH A1           RS: 0.674

INPUT
Description: TRIB. A SEC. 0.674
Station Elevation Data    num=      61
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9903.29	1792.35	9907.25	1792.23	9915.11	1792.32	9918.71	1791.92	9920.09	1791.76
9928.28	1791.52	9930.51	1791.42	9932.47	1790.49	9958.41	1777.49	9974.99	1777.45
9985.57	1777.57	9990.6	1775.22	9994.51	1773.35	9998.89	1773.65	10000	1773.72
10014.13	1774.61	10021.31	1775.28	10022.8	1775.42	10024.38	1775.22	10030.58	1774.56
10043.4	1777.58	10044.6	1777.91	10045.12	1777.91	10048.56	1778.02	10052.7	1778.1
10055.45	1778.11	10058.65	1777.84	10066.7	1777.26	10070.85	1776.79	10078.13	1775.93
10083.01	1775.79	10087.06	1775.72	10093.6	1775.94	10099.65	1776.01	10111.13	1777.6
10111.74	1777.72	10112.55	1777.62	10121.77	1776.65	10132.23	1776.58	10137.91	1776.5
10144.31	1777.73	10147.12	1778.26	10153.22	1778.38	10173.15	177910	186.87	1778.93
10195.81	1778.94	10198	1778.94	10198.61	1778.92	10212.78	1778.31	10222.79	1777.86
10223.07	1777.85	10223.65	1777.81	10237.55	1776.65	10263.46	1782.65	10265.21	1783.06
10265.75	1783.14	10276.72	178510	293.76	1785.87	10297.08	1786.06	10322.03	1786.27
10322.71	1786.28								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9903.29	.065	9985.57	.037	10044.6	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9985.57	10044.6	512.9 505.76	450	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1781.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.41	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1779.97	Reach Len. (ft)	512.90	505.76	450.00
Crit W.S. (ft)		Flow Area (sq ft)	73.52	291.95	480.77
E.G. Slope (ft/ft)	0.010604	Area (sq ft)	73.52	291.95	480.77
Q Total (cfs)	5722.00	Flow (cfs)	297.06	3447.79	1977.16
Top Width (ft)	298.41	Top Width (ft)	32.10	59.03	207.27
Vel Total (ft/s)	6.76	Avg. Vel. (ft/s)	4.04	11.81	4.11
Max Chl Dpth (ft)	6.62	Hydr. Depth (ft)	2.29	4.95	2.32
Conv. Total (cfs)	55567.8	Conv. (cfs)	2884.8	33482.3	19200.7
Length Wtd. (ft)	479.96	Wetted Per. (ft)	32.69	60.50	208.20
Min Ch El (ft)	1773.35	Shear (lb/sq ft)	1.49	3.19	1.53
Alpha	1.98	Stream Power (lb/ft s)	6.02	37.73	6.29
Frctn Loss (ft)	5.75	Cum Volume (acre-ft)	17.12	29.62	27.85
C & E Loss (ft)	0.12	Cum SA (acres)	3.02	4.36	11.47

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9903.29	9985.57	297.06	73.52	32.69	5.19	2.29	4.04
LB 9985.57	10015.08	2039.52	162.62	30.50	35.64	5.51	12.54
10015.08	RB 10044.60	1408.27	129.33	29.99	24.61	4.38	10.89
10044.60	10322.71	1977.15	480.77	208.20	34.55	2.32	4.11

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: TRIB.A
REACH: REACH A1 RS: 0.578

INPUT
Description: TRIB. A. SEC. 0.578
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9945.29	1786.44	9946.2	1786.46	9959.33	1786.69	9966.12	1786.48	9967.99	1786.46
9972.03	1783.9	9997.51	1768.14	10000	1768.31	10004.99	1768.65	10020.24	1769.9
10032.57	1772.81	10032.74	1772.83	10033.29	1772.85	10039.49	1773.03	10040.23	1773.03
10046.28	1772.49	10053.78	1772.86	10057.83	1772.97	10061.58	1772.95	10077.33	1773.11
10077.98	1772.93	10087.16	1773.11	10114.26	1773.09	10131.32	1772.93	10160.68	1772.95

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10161.56 1772.97 10164.3 1773.1110176.54 1773.7310177.43 1773.7810178.66 1773.76
10189.09 1773.2210195.35 1773.0810220.17 1772.7810229.83 1772.5710239.35 1772.28
 10247.7 1769.3710251.14 1768.2310266.74 1769.7910267.57 1769.8610267.89  1769.9
10274.91 1770.5110280.44 1770.8910293.86 1771.7110294.31 1771.6410300.14 1770.68
10312.04 1771.3410313.45 1771.38 10326.1 1772.1410333.21 1772.5710337.03 1772.56
10358.45 1772.5810366.65 1771.5610369.87 1771.1610374.14 1772.1110396.39 1777.52
10401.12 1777.47 10408.6  1777.510421.14 1779.3710438.07 1781.0810443.14 1781.12

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9945.29    .065 9967.99    .03710039.49    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9967.9910039.49           515.56  492.67     430             .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1775.51   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                1.02   Wt. n-Val.                         0.037     0.065
  W.S. Elev (ft)            1774.49   Reach Len. (ft)          515.56    492.67    430.00
  Crit W.S. (ft)            1774.49   Flow Area (sq ft)                  207.13    750.48
  E.G. Slope (ft/ft)       0.013627   Area (sq ft)                       207.13    750.48
  Q Total (cfs)             5722.00   Flow (cfs)                        2366.06   3355.94
  Top Width (ft)             396.67   Top Width (ft)                      52.24    344.43
  Vel Total (ft/s)             5.98   Avg. Vel. (ft/s)                    11.42      4.47
  Max Chl Dpth (ft)            6.35   Hydr. Depth (ft)                     3.96      2.18
  Conv. Total (cfs)         49017.1   Conv. (cfs)                       20268.7   28748.4
  Length Wtd. (ft)                    Wetted Per. (ft)                    54.46    345.98
  Min Ch El (ft)            1768.14   Shear (lb/sq ft)                     3.24      1.85
  Alpha                        1.84   Stream Power (lb/ft s)              36.96      8.25
  Frctn Loss (ft)                     Cum Volume (acre-ft)      16.69     26.72     21.49
  C & E Loss (ft)                     Cum SA (acres)             2.83      3.71      8.62


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)     (ft/s)
  LB 9967.99    10003.74        817.59      70.80     18.31      14.29      4.29      11.55
  10003.74      RB 10039.49    1548.47     136.33     36.15      27.06      3.81      11.36
  10039.49      10443.14       3355.94     750.48    345.98      58.65      2.18       4.47


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: TRIB.A
REACH: REACH A1           RS: 0.484

INPUT
Description: TRIB. A SEC. 0.484
Station Elevation Data    num=      47
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  9962.7 1776.63 9969.43 1776.89 9972.11 1776.91 9981.53 1777.32 9984.72 1776.89
 9989.99 1766.61 9992.63 1763.03 9995.72 1763.02   10000 1763.0410005.23 1763.06
10017.07 1763.9410017.92 1764.0110020.64 1764.3810033.48 1766.1610038.09 1766.31
 10048.2 1766.6410053.77 1766.2910058.46 1766.1610071.16 1765.6910071.81 1765.66
10072.41 1765.6910083.68 1766.1810089.25 1766.0410097.65 1765.9810097.97 1765.98
10099.51 1765.99 10106.7  1765.710113.79 1765.4410114.41 1765.4610116.29 1765.61
10127.26 1766.5510137.25 1766.6610145.56 1766.7710175.31 1767.2710224.68 1766.52
10240.32  1766.310249.69 1766.2310273.56 1766.2110302.19 1765.8110320.93 1765.35
10329.92 1764.6710339.91 1763.9910356.56 1763.9810360.04 1764.0110362.02 1764.55
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 10369.4 1766.2410396.17 1775.57

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  9962.7    .065 9984.72    .03710038.09    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9984.7210038.09              505  492.68     425            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1769.37   Element                 Left OB    Channel   Right OB
  Vel Head (ft)               0.80    Wt. n-Val.                         0.037     0.065
  W.S. Elev (ft)            1768.57   Reach Len. (ft)          505.00    492.68    425.00
  Crit W.S. (ft)                      Flow Area (sq ft)                  209.69    838.44
  E.G. Slope (ft/ft)        0.010323  Area (sq ft)                       209.69    838.44
  Q Total (cfs)             5722.00   Flow (cfs)                        2159.31   3562.69
  Top Width (ft)             387.11   Top Width (ft)                      49.11    338.00
  Vel Total (ft/s)             5.46   Avg. Vel. (ft/s)                    10.30      4.25
  Max Chl Dpth (ft)            5.55   Hydr. Depth (ft)                     4.27      2.48
  Conv. Total (cfs)         56318.4   Conv. (cfs)                       21252.8   35065.5
  Length Wtd. (ft)           459.87   Wetted Per. (ft)                    52.30    338.83
  Min Ch El (ft)            1763.02   Shear (lb/sq ft)                     2.58      1.59
  Alpha                        1.72   Stream Power (lb/ft s)              26.61      6.78
  Frctn Loss (ft)              4.67   Cum Volume (acre-ft)      16.69     24.37     13.64
  C & E Loss (ft)              0.06   Cum SA (acres)             2.83      3.14      5.25


Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  LB 9984.72    10011.40       1242.51     113.26     25.44      21.71      5.05      10.97
  10011.40      RB 10038.09     916.80      96.43     26.85      16.02      3.61       9.51
  10038.09      10396.17       3562.69     838.44    338.83      62.26      2.48       4.25


Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: TRIB.A
REACH: REACH A1           RS: 0.390

INPUT
Description: TRIB.A SEC. 0.390
Station Elevation Data    num=      57
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
 9927.68   1765.5 9945.04 1762.04 9951.02 1761.28 9953.14 1761.07 9963.18 1760.28
 9980.18 1760.83 9983.03 1760.92  9987.7 1758.81  9992.2 1756.75 9993.63 1756.84
   10000 1757.3110004.51 1757.6310018.86 1757.7110025.85 1757.6510030.88 1758.69
10032.14 1758.9110032.72 1759.2310035.26 1759.8210042.95 1759.5710050.88 1759.59
10061.07 1759.6310066.65 1759.8810068.92 1760.1710072.41 1760.0610073.68 1760.01
10074.98 1759.9210080.87 1759.4310081.66 1759.3610081.97 1759.3810091.74 1759.83
10093.82  1759.610098.93 1759.0110105.99 1759.12 10110.9 1759.0910111.86 1759.24
10120.39 1760.52 10123.1 1760.9410125.67 1760.8210131.38 1760.8710140.15 1761.04
10142.72 1760.9510146.23 1761.0710151.15 1761.2310153.62 1761.0710155.63 1761.05
10171.03 1761.95   10173 1762.0410173.48 1762.08   10193 1761.5110194.82 1761.35
10196.42  1761.410207.87 1762.3410212.11 1763.1410214.58 1763.6110230.19 1766.72
10237.33 1767.9410237.98 1768.02

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
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 9927.68    .065 9983.03    .03710035.26    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9983.0310035.26              460  502.01    515           .1        .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1764.64   Element                Left OB    Channel   Right OB
  Vel Head (ft)               1.41   Wt. n-Val.               0.065      0.037     0.065
  W.S. Elev (ft)           1763.23   Reach Len. (ft)         460.00     502.01    515.00
  Crit W.S. (ft)           1763.23   Flow Area (sq ft)        95.08     275.99    469.92
  E.G. Slope (ft/ft)      0.009980   Area (sq ft)             95.08     275.99    469.92
  Q Total (cfs)            5722.00   Flow (cfs)              361.98    3308.23   2051.79
  Top Width (ft)            273.50   Top Width (ft)           43.95      52.23    177.32
  Vel Total (ft/s)            6.80   Avg. Vel. (ft/s)          3.81      11.99      4.37
  Max Chl Dpth (ft)           6.48   Hydr. Depth (ft)          2.16       5.28      2.65
  Conv. Total (cfs)        57277.8   Conv. (cfs)             3623.4    33115.8   20538.6
  Length Wtd. (ft)          498.76   Wetted Per. (ft)         44.17      53.44    177.76
  Min Ch El (ft)           1756.75   Shear (lb/sq ft)          1.34       3.22      1.65
  Alpha                       1.96   Stream Power (lb/ft s)    5.11      38.57      7.19
  Frctn Loss (ft)             5.11   Cum Volume (acre-ft)     16.14      21.62      7.26
  C & E Loss (ft)             0.10   Cum SA (acres)            2.57       2.56      2.74


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to
         critical depth, the calculated water surface came back below critical depth.  This indicates
         that there is not a valid subcritical answer.  The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.   Hydr D.   Velocity
  (ft)         (ft)            (cfs)      (sq ft)    (ft)               (ft)      (ft/s)
  9927.68      9983.03        361.98      95.08      44.17      6.33      2.16       3.81
  LB 9983.03   10009.14      1690.22     140.48      27.05     29.54      5.38      12.03
  10009.14     RB 10035.26   1618.01     135.51      26.39     28.28      5.19      11.94
  10035.26     10237.98      2051.79     469.92     177.76     35.86      2.65       4.37


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to
         critical depth, the calculated water surface came back below critical depth.  This indicates
         that there is not a valid subcritical answer.  The program defaulted to critical depth.

CROSS SECTION          RIVER: TRIB.A
REACH: REACH A1           RS: 0.294

INPUT
Description: TRIB. A. SEC. 0.294
Station Elevation Data    num=      52
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9682.23 1761.54 9688.33 1760.87 9697.38 1759.79  9704.5 1758.98 9711.65  1758.1
 9737.26 1752.65 9741.16 1751.89 9742.73 1751.97 9755.61 1753.19 9771.92 1753.54
 9782.78 1753.76 9787.44 1753.93  9794.6 1754.31  9802.6 1754.78  9808.5 1755.11
 9814.36 1755.13 9838.28 1755.01 9839.95 1755.01 9840.61 1754.99 9861.15 1754.54
 9886.66 1753.99 9901.65 1753.85 9917.34 1753.72 9923.35 1752.94 9924.75 1752.76
 9928.34 1752.71 9947.74  1752.2  9960.1  1752.1 9967.97 1752.19 9973.69 1752.26
 9985.71  1751.9  9986.6 1751.93 9989.16 1751.78   10000 1751.6110007.83 1751.49
10014.91 1753.0610016.72 1753.4710019.93 1753.59 10058.9 1754.89 10069.9 1754.64
10081.63 1754.4610084.98  1754.510089.54  1753.510092.61  1752.910094.62 1753.24
10099.32 1754.2810106.53 1753.9710109.56 1754.0710115.29 1755.4810128.46 1758.46
10138.55 1761.04 10141.5 1760.86
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Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9682.23	.065	9917.34	.03710019.93		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9917.3410019.93		450 506.88	510	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1757.11	Element			
Vel Head (ft)	1.09	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1756.03	Reach Len. (ft)	450.00	506.88	510.00
Crit W.S. (ft)	1756.03	Flow Area (sq ft)	371.83	385.39	168.20
E.G. Slope (ft/ft)	0.010504	Area (sq ft)	371.83	385.39	168.20
Q Total (cfs)	5722.00	Flow (cfs)	1332.77	3825.67	563.56
Top Width (ft)	396.32	Top Width (ft)	195.95	102.59	97.78
Vel Total (ft/s)	6.18	Avg. Vel. (ft/s)	3.58	9.93	3.35
Max Chl Dpth (ft)	4.54	Hydr. Depth (ft)	1.90	3.76	1.72
Conv. Total (cfs)	55831.3	Conv. (cfs)	13004.2	37328.3	5498.8
Length Wtd. (ft)	487.07	Wetted Per. (ft)	196.49	102.89	98.35
Min Ch El (ft)	1751.49	Shear (lb/sq ft)	1.24	2.46	1.12
Alpha	1.83	Stream Power (lb/ft s)	4.45	24.38	3.76
Frctn Loss (ft)	3.87	Cum Volume (acre-ft)	13.67	17.81	3.49
C & E Loss (ft)	0.11	Cum SA (acres)	1.31	1.67	1.11

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9682.23	9917.34	1332.77	371.83	196.49	23.29	1.90	3.58
LB 9917.34	9968.63	1751.47	182.80	51.36	30.61	3.56	9.58
9968.63	RB 10019.93	2074.20	202.59	51.53	36.25	3.95	10.24
10019.93	10141.50	563.56	168.20	98.35	9.85	1.72	3.35

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: TRIB.A
REACH: REACH A1 RS: 0.198

INPUT
Description: TRIB.A SEC. 0.198
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9505.17	1755.69	9519.76	1753.68	9524.54	1753.37	9552.7	1752.77	9578.82	1752.11
9580.28	1752.05	9588.24	1750.96	9591.13	1750.34	9595.13	1750.69	9611.72	1751.78
9631.13	1746.81	9634.08	1746.02	9638.44	1745.9	9652.96	1745.25	9659.69	1746.22
9669.27	1747.37	9681.49	1747.31	9687.53	1747.28	9689.15	1747.27	9706.4	1747.23
9706.62	1747.23	9707.08	1747.21	9722.93	1746.37	9729.02	1746.52	9731.76	1746.58
9755.7	1746.6	9771.1	1746.57	9807.3	1747.73	9813.42	1747.95	9817.09	1748.02
9821.18	1748.11	9851.92	1748.99	9854.26	1749.05	9856.67	1749.01	9899.26	1748.28
9904.05	1747.6	9905.03	1747.45	9905.65	1747.51	9915.27	1748.3	9929.19	1748.15
9934.19	1748.1	9955.43	1747.87	9958.55	1746.87	9963.56	1744.74	9994.65	1744.29
10000	1744.2710007.02		1744.2510012.84		1744.0610031.58		1751.3810040.29		1754.94

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10055.55 1757.0110066.39 1758.46

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9505.17    .065 9955.43    .03710040.29    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9955.4310040.29                  0       0       0            .1      .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1750.68   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.73   Wt. n-Val.               0.065      0.037
  W.S. Elev (ft)           1749.95   Reach Len. (ft)        1050.00    1050.00    1050.00
  Crit W.S. (ft)                     Flow Area (sq ft)       824.60     346.51
  E.G. Slope (ft/ft)       0.006245  Area (sq ft)            824.60     346.51
  Q Total (cfs)            5775.00   Flow (cfs)             2702.82    3072.18
  Top Width (ft)            409.08   Top Width (ft)          336.58      72.50
  Vel Total (ft/s)            4.93   Avg. Vel. (ft/s)          3.28       8.87
  Max Chl Dpth (ft)           5.89   Hydr. Depth (ft)          2.45       4.78
  Conv. Total (cfs)        73079.3   Conv. (cfs)            34202.6    38876.7
  Length Wtd. (ft)         1050.00   Wetted Per. (ft)        337.40      74.21
  Min Ch El (ft)           1744.06   Shear (lb/sq ft)          0.95       1.82
  Alpha                       1.93   Stream Power (lb/ft s)    3.12      16.14
  Frctn Loss (ft)             9.11   Cum Volume (acre-ft)     10.92       9.97       1.27
  C & E Loss (ft)             0.13   Cum SA (acres)

Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)             (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9505.17      9955.43        2702.82     824.60     337.40      46.80      2.45       3.28
  LB 9955.43   9997.86        2003.40     216.15      43.02      34.69      5.09       9.27
  9997.86      RB 10040.29    1068.78     130.35      31.18      18.51      4.34       8.20

Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M3           RS: 6.540

INPUT
Description: SEC.6.540
Station Elevation Data    num=      38
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9908.92 1818.17 9920.78 1818.23 9925.66 1818.23 9931.21  1818.2 9942.61 1817.15
 9948.03  1816.7 9958.65 1816.03 9958.85 1816.01 9960.61 1815.52 9968.48 1814.52
 9976.53 1813.01 9977.66 1811.39 9979.08 1810.44 9990.83 1810.7110000.01    1811
10000.12    181110000.76 1810.7910002.77 1810.4410006.36 1811.5810013.27 1813.22
10013.58 1813.0310014.32 1813.1610016.46 1813.5810022.85 1813.8110026.07 1814.04
10031.02 1813.6710038.33 1813.1410040.13 1813.1710041.06 1812.8610041.77 1812.99
10043.15 1813.0910047.21 1813.5510059.56 1815.4510063.19 1816.0410082.01 1819.07
10088.26 1819.6210090.18 1819.6310102.39 1820.19

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
```

```
 9908.92    .065 9976.53    .03710016.46    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9976.5310016.46              525   649.4     650            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1816.42   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.95   Wt. n-Val.               0.065      0.037     0.065
  W.S. Elev (ft)           1815.47   Reach Len. (ft)         525.00     649.40    650.00
  Crit W.S. (ft)                     Flow Area (sq ft)        17.26     167.39     71.68
  E.G. Slope (ft/ft)       0.006789  Area (sq ft)             17.26     167.39     71.68
  Q Total (cfs)            1624.00   Flow (cfs)               34.60    1401.03    188.37
  Top Width (ft)             98.67   Top Width (ft)           15.52      39.93     43.22
  Vel Total (ft/s)            6.34   Avg. Vel. (ft/s)          2.00       8.37      2.63
  Max Chl Dpth (ft)           5.03   Hydr. Depth (ft)          1.11       4.19      1.66
  Conv. Total (cfs)        19709.5   Conv. (cfs)             420.0    17003.4    2286.1
  Length Wtd. (ft)          648.11   Wetted Per. (ft)         15.72      41.61     43.50
  Min Ch El (ft)           1810.44   Shear (lb/sq ft)          0.47       1.71      0.70
  Alpha                       1.53   Stream Power (lb/ft s)    0.93      14.27      1.84
  Frctn Loss (ft)             6.09   Cum Volume (acre-ft)     17.31      48.62     20.90
  C & E Loss (ft)             0.05   Cum SA (acres)            8.60       9.56      7.24


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)     (ft/s)
  9908.92      9976.53         34.60      17.26     15.72       2.13      1.11       2.00
  LB 9976.53   9996.50        838.15      94.12     21.10      51.61      4.71       8.91
  9996.50      RB 10016.46    562.88      73.27     20.50      34.66      3.67       7.68
  10016.46     10102.39       188.37      71.68     43.50      11.60      1.66       2.63


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M3           RS: 6.417

INPUT
Description: SEC.6.417
Station Elevation Data    num=      27
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9829.59 1812.04 9843.26 1812.68 9847.36 1812.33 9850.54 1812.08 9871.42 1809.55
 9875.59 1809.08 9876.13 1808.94 9876.76 1808.94 9896.94 1807.91 9903.08 1806.96
 9910.79 1805.53 9921.23 1807.24 9925.53 1808.16 9938.05 1807.94 9948.01 1808.01
 9957.97 1808.59    9968 1809.27 9982.68 1805.55 9985.84 1804.78   10000 1804.82
10008.17 1804.8410009.59 1804.8310010.78 1805.0210022.31 1807.4210026.97 1808.22
10035.01 1808.8310049.72 1812.42

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9829.59    .065    9968    .03710026.97    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          996810026.97              305  229.28     165            .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 9829.59    9968 1809.27

CROSS SECTION OUTPUT    Profile #PF 1
```

E.G. Elev (ft)	1810.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.44	Wt. n-Val.		0.037	0.065
W.S. Elev (ft)	1808.84	Reach Len. (ft)	305.00	229.28	165.00
Crit W.S. (ft)	1808.84	Flow Area (sq ft)		168.42	2.56
E.G. Slope (ft/ft)	0.013899	Area (sq ft)		168.42	2.56
Q Total (cfs)	1624.00	Flow (cfs)		1620.81	3.19
Top Width (ft)	65.38	Top Width (ft)		57.29	8.09
Vel Total (ft/s)	9.50	Avg. Vel. (ft/s)		9.62	1.25
Max Chl Dpth (ft)	4.06	Hydr. Depth (ft)		2.94	0.32
Conv. Total (cfs)	13774.9	Conv. (cfs)		13747.9	27.1
Length Wtd. (ft)	229.07	Wetted Per. (ft)		58.12	8.12
Min Ch El (ft)	1804.78	Shear (lb/sq ft)		2.51	0.27
Alpha	1.02	Stream Power (lb/ft s)		24.20	0.34
Frctn Loss (ft)	2.53	Cum Volume (acre-ft)	17.20	46.11	20.35
C & E Loss (ft)	0.16	Cum SA (acres)	8.50	8.84	6.86

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9968.00	9997.48	759.21	80.14	28.30	46.75	2.88	9.47
9997.48	RB 10026.97	861.60	88.28	29.82	53.05	2.99	9.76
10026.97	10049.72	3.19	2.56	8.12	0.20	0.32	1.25

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M3 RS: 6.373

INPUT
Description: SEC.6.373
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9789.01	1812.22	9797.81	1812.09	9807.79	1812.19	9826.53	1812.04	9834.94	1811.99
9837.51	1811.92	9839.61	1811.96	9847.22	1812.25	9850.38	1812.46	9862	1813.37
9865.61	1813.5	9868.66	1813.31	9881.15	1812.33	9884.24	1811.99	9885.33	1811.93
9885.73	1811.96	9888.33	1811.98	9911.26	1812.1	9921.24	1812.01	9925.01	1811.94
9937.23	1812.03	9942.2	1811.93	9957.41	1810.95	9968.72	1810.34	9975.84	1807.78
9992.51	1802.07	10000	1802.16	10007.17	1802.24	10016.97	1802.21	10017.48	1802.65
10030.43	1804.53	10033.85	1804.93	10038.44	1805.06	10047.36	1805.33	10052.44	1805.38
10080.83	1809.84	10084.52	1810.43	10084.83	1810.44	10085.99	1810.47	10101.31	1810.87
10119.33	1811.13	10132.84	1811.65	10135.15	1811.69	10138.82	1811.79	10153.86	1811.8
10154.98	1811.81	10157.61	1811.74	10164.06	1811.66	10169.48	1811.57	10171.62	1811.71
10176.68	1811.94	10179.53	1811.98						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9789.01	.065	9975.84	.03710052.44		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9975.8410052.44		275 268.18	260	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1807.50	Element			
Vel Head (ft)	0.91	Wt. n-Val.		0.037	0.065
W.S. Elev (ft)	1806.59	Reach Len. (ft)	275.00	268.18	260.00
Crit W.S. (ft)		Flow Area (sq ft)		211.29	4.69
E.G. Slope (ft/ft)	0.008999	Area (sq ft)		211.29	4.69
Q Total (cfs)	1624.00	Flow (cfs)		1616.76	7.24
Top Width (ft)	80.87	Top Width (ft)		73.14	7.73
Vel Total (ft/s)	7.52	Avg. Vel. (ft/s)		7.65	1.54
Max Chl Dpth (ft)	4.52	Hydr. Depth (ft)		2.89	0.61
Conv. Total (cfs)	17119.6	Conv. (cfs)		17043.3	76.3
Length Wtd. (ft)	268.87	Wetted Per. (ft)		74.22	7.82
Min Ch El (ft)	1802.07	Shear (lb/sq ft)		1.60	0.34
Alpha	1.03	Stream Power (lb/ft s)		12.24	0.52
Frctn Loss (ft)	2.15	Cum Volume (acre-ft)	17.20	45.11	20.33
C & E Loss (ft)	0.00	Cum SA (acres)	8.50	8.50	6.83

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9975.84	10014.14	1074.65	125.37	35.59	66.17	3.60	8.57
10014.14	RB 10052.44	542.11	85.92	38.63	33.38	2.24	6.31
10052.44	10179.53	7.24	4.69	7.82	0.45	0.61	1.54

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M3 RS: 6.321

INPUT
Description: SEC.6.321
Station Elevation Data num= 22

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9843.57	1810.31	9850.42	1810.27	9873.01	1810.14	9902.86	1809.74	9905.69	1809.09
9935.03	1802.2	9939.84	1802.19	9941.91	1802.19	9955.46	1802.28	9982.66	1802.41
9994.31	1799.57	9994.49	1799.54	9994.66	1799.52	10000	1799.05	10006.5	1798.48
10010.28	1799.9810019.22		1803.4510033.96		1806.1210036.76		1806.6310062.19		1809.36
10072.8	1810.3310081.44		1810.87						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9843.57	.065	9982.66	.03710019.22		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9982.6610019.22		505.55 504.62	506.67	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1805.35	Element			
Vel Head (ft)	0.91	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1804.44	Reach Len. (ft)	505.55	504.62	506.67
Crit W.S. (ft)		Flow Area (sq ft)	113.10	150.44	2.71
E.G. Slope (ft/ft)	0.007118	Area (sq ft)	113.10	150.44	2.71
Q Total (cfs)	1624.00	Flow (cfs)	342.66	1278.09	3.24
Top Width (ft)	99.21	Top Width (ft)	57.18	36.56	5.47

Vel Total (ft/s)	6.10	Avg. Vel. (ft/s)	3.03	8.50	1.20
Max Chl Dpth (ft)	5.96	Hydr. Depth (ft)	1.98	4.11	0.50
Conv. Total (cfs)	19249.5	Conv. (cfs)	4061.6	15149.5	38.5
Length Wtd. (ft)	504.83	Wetted Per. (ft)	57.44	37.89	5.56
Min Ch El (ft)	1798.48	Shear (lb/sq ft)	0.87	1.76	0.22
Alpha	1.58	Stream Power (lb/ft s)	2.65	14.99	0.26
Frctn Loss (ft)	4.18	Cum Volume (acre-ft)	16.85	44.00	20.31
C & E Loss (ft)	0.01	Cum SA (acres)	8.32	8.16	6.79

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9843.57	9982.66	342.66	113.10	57.44	21.10	1.98	3.03
LB 9982.66	10000.94	636.45	74.57	18.65	39.19	4.08	8.54
10000.94	RB 10019.22	641.65	75.87	19.24	39.51	4.15	8.46
10019.22	10081.44	3.24	2.71	5.56	0.20	0.50	1.20

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M3 RS: 6.225

INPUT
Description: SEC.6.225
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9912.56	1805.25	9923.89	1804.96	9924.34	1804.96	9924.5	1804.89	9924.82	1804.87
9929.41	1804.15	9940.55	1804.12	9942.17	1804.11	9951.08	1801.72	9954.22	1800.94
9956.82	1800.5	9962.31	1799.57	9979.04	1798.69	9980.68	1798.58	9988.35	1796.7
9994.62	1795.18	10000	1795.48	10011.12	1796.08	10013.52	1796.19	10019.42	1797.5
10030.97	1799.86	10034.02	1799.82	10042.78	1799.84	10051.36	1799.51	10054.4	1799.52
10059.66	1798.96	10073.67	1797.45	10084.21	1798.94	10084.52	1798.99	10084.89	1799.06
10085.78	1799.24	10111.89	1804.91	10116.04	1805.38	10126.5	1806.56	10128.31	1806.54
10129.15	1806.53								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9912.56	.065	9980.68	.037	10030.97	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9980.68 10030.97 340 448.8 485 .1 .3
Ineffective Flow num= 1

Sta L	Sta R	Elev
10030.97	10129.15	1799.86

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1801.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.04	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1800.12	Reach Len. (ft)	340.00	448.80	485.00
Crit W.S. (ft)	1800.12	Flow Area (sq ft)	19.88	164.74	64.17
E.G. Slope (ft/ft)	0.009789	Area (sq ft)	19.88	164.74	64.17
Q Total (cfs)	1624.00	Flow (cfs)	42.42	1428.44	153.14
Top Width (ft)	130.77	Top Width (ft)	21.61	50.29	58.87
Vel Total (ft/s)	6.53	Avg. Vel. (ft/s)	2.13	8.67	2.39
Max Chl Dpth (ft)	4.94	Hydr. Depth (ft)	0.92	3.28	1.09
Conv. Total (cfs)	16413.7	Conv. (cfs)	428.7	14437.2	1547.7
Length Wtd. (ft)	440.00	Wetted Per. (ft)	21.69	51.11	59.21
Min Ch El (ft)	1795.18	Shear (lb/sq ft)	0.56	1.97	0.66
Alpha	1.57	Stream Power (lb/ft s)	1.20	17.08	1.58
Frctn Loss (ft)	2.07	Cum Volume (acre-ft)	16.07	42.18	19.92
C & E Loss (ft)	0.22	Cum SA (acres)	7.86	7.65	6.42

```
Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to
         critical depth, the calculated water surface came back below critical depth.  This indicates
         that there is not a valid subcritical answer.  The program defaulted to critical depth.
Warning: The parabolic search method failed to converge on critical depth.  The program will try the
         cross section slice/secant method to find critical depth.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9912.56       9980.68          42.42      19.88      21.69       2.61      0.92       2.13
  LB 9980.68    10005.82        922.72      97.09      25.57      56.82      3.86       9.50
  10005.82      RB 10030.97     505.72      67.65      25.54      31.14      2.69       7.48
  10030.97      10129.15        153.14      64.17      59.21       9.43      1.09       2.39


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to
         critical depth, the calculated water surface came back below critical depth.  This indicates
         that there is not a valid subcritical answer.  The program defaulted to critical depth.
Warning: The parabolic search method failed to converge on critical depth.  The program will try the
         cross section slice/secant method to find critical depth.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M3           RS: 6.140

INPUT
Description: SEC.6.140
Station Elevation Data    num=      48
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9754.35 1801.97 9758.47 1801.54 9760.42  1801.5 9778.83 1801.91 9784.89 1801.81
  9806.3 1800.35 9807.11 1800.29 9807.52 1800.23 9823.88 1797.59 9829.07 1797.69
 9834.35  1797.9 9840.24 1797.19 9849.69 1796.49  9853.1 1796.03  9856.7 1795.77
 9858.73 1795.59 9862.86 1795.83 9876.41 1796.39  9898.7 1796.34 9905.02 1796.34
 9905.09 1796.36 9909.43 1796.41 9920.43  1796.4 9932.61  1796.9 9942.77 1797.26
 9955.89 1795.34 9958.67 1794.82 9958.95 1794.73 9963.71 1794.37  9975.6  1793.2
 9985.51 1795.18 9985.54 1795.19 9985.57 1795.18  9994.6 1793.99   10000 1793.52
10008.48 1792.7710010.07 1792.6310019.48 1796.7310033.61 1802.4310039.73 1805.15
10043.61 1805.3710062.78 1806.3610076.92 1807.0410084.75 1807.1410089.36 1807.11
10109.11  1808.2 10110.3 1808.2210114.82  1808.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9754.35    .065 9942.77    .03710019.48    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9942.7710019.48           391.47  459.36     425             .1       .3
Ineffective Flow     num=       1
   Sta L   Sta R    Elev
 9754.35 9942.77 1797.26

CROSS SECTION OUTPUT    Profile #PF 1
```

E.G. Elev (ft)	1798.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1798.07	Reach Len. (ft)	391.47	459.36	425.00
Crit W.S. (ft)	1796.84	Flow Area (sq ft)	176.90	276.14	2.24
E.G. Slope (ft/ft)	0.002756	Area (sq ft)	176.90	276.14	2.24
Q Total (cfs)	1624.00	Flow (cfs)	271.81	1350.23	1.96
Top Width (ft)	201.94	Top Width (ft)	121.90	76.71	3.33
Vel Total (ft/s)	3.57	Avg. Vel. (ft/s)	1.54	4.89	0.88
Max Chl Dpth (ft)	5.44	Hydr. Depth (ft)	1.45	3.60	0.67
Conv. Total (cfs)	30937.0	Conv. (cfs)	5177.9	25721.6	37.4
Length Wtd. (ft)	454.55	Wetted Per. (ft)	122.09	78.18	3.60
Min Ch El (ft)	1792.63	Shear (lb/sq ft)	0.25	0.61	0.11
Alpha	1.59	Stream Power (lb/ft s)	0.38	2.97	0.09
Frctn Loss (ft)	2.73	Cum Volume (acre-ft)	15.31	39.90	19.55
C & E Loss (ft)	0.13	Cum SA (acres)	7.30	7.00	6.07

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.
Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9754.35	9942.77	271.81	176.90	122.09	16.74	1.45	1.54
LB 9942.77	9981.13	566.75	124.21	38.74	34.90	3.24	4.56
9981.13	RB 10019.48	783.47	151.93	39.44	48.24	3.96	5.16
10019.48	10114.82	1.96	2.24	3.60	0.12	0.67	0.88

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.
Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M3 RS: 6.053

INPUT
Description: SEC.6.053
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9885.73	1800.71	9886.73	1800.62	9891.54	1800.27	9893.52	1800.03	9907.67	1799.7
9909.76	1799.73	9910.07	1799.6	9913.91	1799.48	9924.88	1798.83	9943.18	1796.72
9951.92	1795.63	9954.33	1795.47	9961.43	1794.85	9967.02	1794.61	9971.05	1794.36
9979.63	1791.69	9984.99	1789.62	10000	1789.65	10003.73	1789.65	10012.93	1789.72
10016.59	1789.96	10019	1790.47	10025.39	1791.13	10037	1791.81	10042.66	1792.09
10069.04	1798.94	10069.72	1799.11	10070.34	1799.21	10086.67	1801.46	10106.15	1802.97

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9885.73	.065	9971.05	.03710042.66		.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

9971.0510042.66 360 410.44 429.17 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1795.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.59	Wt. n-Val.		0.037	0.065
W.S. Elev (ft)	1793.94	Reach Len. (ft)	360.00	410.44	429.17
Crit W.S. (ft)	1793.94	Flow Area (sq ft)		229.65	6.61
E.G. Slope (ft/ft)	0.013380	Area (sq ft)		229.65	6.61
Q Total (cfs)	2347.00	Flow (cfs)		2330.76	16.24
Top Width (ft)	77.40	Top Width (ft)		70.27	7.13
Vel Total (ft/s)	9.93	Avg. Vel. (ft/s)		10.15	2.46
Max Chl Dpth (ft)	4.32	Hydr. Depth (ft)		3.27	0.93
Conv. Total (cfs)	20289.9	Conv. (cfs)		20149.5	140.4
Length Wtd. (ft)		Wetted Per. (ft)		71.12	7.37
Min Ch El (ft)	1789.62	Shear (lb/sq ft)		2.70	0.75
Alpha	1.04	Stream Power (lb/ft s)		27.38	1.84
Frctn Loss (ft)		Cum Volume (acre-ft)	14.51	37.24	19.51
C & E Loss (ft)		Cum SA (acres)	6.76	6.23	6.02

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9971.05	10006.86	1257.58	119.81	35.19	53.58	3.48	10.50
10006.86	RB 10042.66	1073.18	109.84	35.93	45.73	3.07	9.77
10042.66	10106.15	16.24	6.61	7.37	0.69	0.93	2.46

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M3 RS: 5.975

INPUT
Description: SEC.5.975
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9811.6	1795.08	9816.48	1795.1	9825.23	1795.12	9826.91	1795.13	9831.08	1794.09
9862.09	1786.29	9870.2	1787.54	9887.82	1789.42	9898.79	1789.46	9908.14	1789.54
9912.27	1789.82	9929.4	1790.59	9931.6	1790.54	9957.25	1789.71	9960.44	1789.64
9962.66	1788.57	9965.61	1788.4	9980.35	1788.05	9996.23	1787.06	10000	1786.84
10002.77	1786.68	10005.1	1787.48	10012.01	1789.78	10016.72	1789.57	10023.85	1789.48
10030.19	1789.67	10035.23	1789.76	10043.95	1788.21	10050.01	1787.56	10054.17	1788.02
10063.22	1789.04	10084.02	1789.76	10085.69	1789.82	10092.02	1789.76	10108.86	1789.59
10119.48	1789.45	10121.23	1789.44	10124.28	1789.53	10139.28	1790.36	10163.36	1791.67
10165.18	1791.96	10168.73	1792.27	10189.45	1795.61	10190.75	1796.14	10192.99	1797.11

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9811.6	.065	9960.44	.037	10012.01	.065

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      9960.4410012.01              500  755.04     600            .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
  9811.6  9929.4 1790.5910035.2310192.99 1789.76

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1791.68   Element                Left OB    Channel   Right OB
  Vel Head (ft)                0.35   Wt. n-Val.               0.065      0.037      0.065
  W.S. Elev (ft)            1791.34   Reach Len. (ft)         500.00     755.04     600.00
  Crit W.S. (ft)            1790.73   Flow Area (sq ft)       238.99     177.07     260.13
  E.G. Slope (ft/ft)       0.004920   Area (sq ft)            238.99     177.07     260.13
  Q Total (cfs)             2347.00   Flow (cfs)              609.08    1123.60     614.32
  Top Width (ft)             315.18   Top Width (ft)          118.41      51.57     145.21
  Vel Total (ft/s)             3.47   Avg. Vel. (ft/s)          2.55       6.35       2.36
  Max Chl Dpth (ft)            5.05   Hydr. Depth (ft)          2.02       3.43       1.79
  Conv. Total (cfs)        33460.5   Conv. (cfs)             8683.4    16018.9     8758.2
  Length Wtd. (ft)           698.98   Wetted Per. (ft)        119.27      52.37     145.54
  Min Ch El (ft)            1786.68   Shear (lb/sq ft)          0.62       1.04       0.55
  Alpha                        1.86   Stream Power (lb/ft s)    1.57       6.59       1.30
  Frctn Loss (ft)              4.70   Cum Volume (acre-ft)     13.52      35.32      18.19
  C & E Loss (ft)              0.11   Cum SA (acres)            6.27       5.65       5.27

Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth.  The program will try the
         cross section slice/secant method to find critical depth.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9811.60      9960.44        609.08     238.99     119.27      25.95      2.02       2.55
  LB 9960.44   9986.22        469.67      79.59      26.05      20.01      3.09       5.90
  9986.22      RB 10012.01    653.93      97.48      26.32      27.86      3.78       6.71
  10012.01     10192.99       614.32     260.13     145.54      26.17      1.79       2.36

Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth.  The program will try the
         cross section slice/secant method to find critical depth.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M3           RS: 5.832

INPUT
Description: SEC.5.832
Station Elevation Data    num=      26
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9884.77 1794.06 9886.41 1793.98 9907.64 1792.69 9915.61 1792.14 9926.03 1791.28
 9944.15 1792.49 9949.03 1792.87 9955.36 1792.58 9966.03  1792.1 9976.57 1784.15
 9989.11 1779.48 9990.16 1779.53 9997.82 1780.14   10000 1780.2910007.09 1780.78
10008.64 1781.06 10009.8 1781.06 10018.6 1781.4210030.89 1783.5310034.46 1784.22
10058.98 1784.5310064.94 1784.6110075.17 1784.9710078.25    1785 10087.7 1787.31
10112.46 1792.98

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
```

```
 9884.77    .065 9976.57    .03710034.46    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9976.5710034.46              410  405.63     400           .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1786.87   Element                Left OB    Channel   Right OB
  Vel Head (ft)               1.45   Wt. n-Val.               0.065      0.037     0.065
  W.S. Elev (ft)           1785.42   Reach Len. (ft)         410.00     405.63    400.00
  Crit W.S. (ft)           1785.34   Flow Area (sq ft)         1.06     230.48     38.66
  E.G. Slope (ft/ft)      0.009765   Area (sq ft)              1.06     230.48     38.66
  Q Total (cfs)            2347.00   Flow (cfs)                1.52    2267.19     78.28
  Top Width (ft)            105.06   Top Width (ft)            1.68      57.89     45.49
  Vel Total (ft/s)            8.69   Avg. Vel. (ft/s)          1.43       9.84      2.02
  Max Chl Dpth (ft)           5.94   Hydr. Depth (ft)          0.63       3.98      0.85
  Conv. Total (cfs)        23751.3   Conv. (cfs)              15.4     22943.7     792.2
  Length Wtd. (ft)          405.23   Wetted Per. (ft)          2.10      59.06     45.55
  Min Ch El (ft)           1779.48   Shear (lb/sq ft)          0.31       2.38      0.52
  Alpha                       1.24   Stream Power (lb/ft s)    0.44      23.40      1.05
  Frctn Loss (ft)             1.70   Cum Volume (acre-ft)     12.15      31.79     16.14
  C & E Loss (ft)             0.33   Cum SA (acres)            5.58       4.70      3.96

Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)      (sq ft)    (ft)                (ft)      (ft/s)
  9884.77      9976.57          1.52       1.06      2.10       0.06      0.63       1.43
  LB 9976.57   10005.52      1408.36     132.68     29.83      60.01      4.58      10.62
  10005.52     RB 10034.46    858.83      97.80     29.23      36.59      3.38       8.78
  10034.46     10112.46        78.28      38.66     45.55       3.34      0.85       2.02

Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M3           RS: 5.754

INPUT
Description: SEC.5.754
Station Elevation Data    num=      29
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9892.72 1789.91 9907.46 1789.07 9927.35 1788.49 9934.66 1786.57 9955.19  1782.2
 9961.43 1782.28 9965.52 1782.29 9971.69 1780.12 9976.25 1778.52 9981.41 1778.28
 9986.22 1778.31   10000 1778.4910004.17 1778.5410007.19 1778.9810015.35  1780.6
10023.44  1780.710051.96 1782.3610054.61 1782.4710064.18 1782.6810071.72 1782.65
10079.18 1782.56 10093.5 1781.5810094.52 1781.4410098.68 1780.3810101.15 1779.73
10101.29 1779.6610132.91 1788.9110135.16 1789.6210142.04 1790.02

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9892.72    .065 9965.52    .03710051.96    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9965.5210051.96              425  420.61     400           .1       .3
Ineffective Flow     num=       1
```

```
   Sta L   Sta R    Elev
10064.1410142.04 1782.86

CROSS SECTION OUTPUT     Profile #PF 1
```

E.G. Elev (ft)	1784.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.36	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1784.47	Reach Len. (ft)	425.00	420.61	400.00
Crit W.S. (ft)	1782.95	Flow Area (sq ft)	35.03	383.63	154.66
E.G. Slope (ft/ft)	0.002329	Area (sq ft)	35.03	383.63	154.66
Q Total (cfs)	2347.00	Flow (cfs)	53.93	1994.33	298.74
Top Width (ft)	173.24	Top Width (ft)	21.01	86.44	65.79
Vel Total (ft/s)	4.09	Avg. Vel. (ft/s)	1.54	5.20	1.93
Max Chl Dpth (ft)	6.19	Hydr. Depth (ft)	1.67	4.44	2.35
Conv. Total (cfs)	48631.7	Conv. (cfs)	1117.5	41324.1	6190.1
Length Wtd. (ft)	417.04	Wetted Per. (ft)	21.25	87.33	66.76
Min Ch El (ft)	1778.28	Shear (lb/sq ft)	0.24	0.64	0.34
Alpha	1.40	Stream Power (lb/ft s)	0.37	3.32	0.65
Frctn Loss (ft)	1.88	Cum Volume (acre-ft)	11.98	28.93	15.25
C & E Loss (ft)	0.10	Cum SA (acres)	5.47	4.03	3.45

```
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth.  The program will try the
         cross section slice/secant method to find critical depth.

FLOW DISTRIBUTION OUTPUT     Profile #PF 1
```

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9892.72	9965.52	53.93	35.03	21.25	2.30	1.67	1.54
LB 9965.52	10008.74	1386.78	238.80	43.93	59.09	5.53	5.81
10008.74	RB 10051.96	607.55	144.83	43.40	25.89	3.35	4.19
10051.96	10142.04	298.74	154.66	66.76	12.73	2.35	1.93

```
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth.  The program will try the
         cross section slice/secant method to find critical depth.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M3           RS: 5.675

INPUT
Description: SEC.5.675
Station Elevation Data    num=      37
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9921.42 1787.97 9925.26 1787.71 9929.51 1787.36 9934.86 1787.05 9944.89 1785.82
 9947.24 1785.64 9949.24 1785.06 9970.24 1779.96 9976.35 1778.39 9986.46 1775.23
 9998.48 1775.38   10000 1775.41 10015.3 1775.7210021.69 1775.8610027.87 1778.17
10029.38 1778.7210033.14 1778.84 10039.6 1778.9710048.38 1778.8810057.67 1778.99
10066.09 1778.2510074.26 1777.81 10080.9 1778.2610092.37 1778.8510093.01 1778.87
10095.11 1779.1710104.07 1780.2510116.53 1780.4610122.41 1780.4210127.87 1780.38
10146.75 1783.81 10156.4 1785.7910157.88 1785.7310160.86 1786.0910173.18 1787.16
10181.06 1787.9310187.84 1788.08

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9921.42    .065 9970.24    .03710029.38    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      9970.2410029.38               500  462.35     410             .1       .3
Ineffective Flow     num=       1
```

```
   Sta L   Sta R     Elev
10057.6710187.84 1778.99
```

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1782.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.36	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1781.50	Reach Len. (ft)	500.00	462.35	410.00
Crit W.S. (ft)	1781.28	Flow Area (sq ft)	4.90	305.12	235.94
E.G. Slope (ft/ft)	0.007638	Area (sq ft)	4.90	305.12	235.94
Q Total (cfs)	3972.00	Flow (cfs)	8.07	3154.92	809.01
Top Width (ft)	170.16	Top Width (ft)	6.35	59.14	104.67
Vel Total (ft/s)	7.28	Avg. Vel. (ft/s)	1.65	10.34	3.43
Max Chl Dpth (ft)	6.27	Hydr. Depth (ft)	0.77	5.16	2.25
Conv. Total (cfs)	45448.7	Conv. (cfs)	92.4	36099.4	9256.9
Length Wtd. (ft)	451.37	Wetted Per. (ft)	6.54	60.34	104.94
Min Ch El (ft)	1775.23	Shear (lb/sq ft)	0.36	2.41	1.07
Alpha	1.65	Stream Power (lb/ft s)	0.59	24.93	3.68
Frctn Loss (ft)	3.79	Cum Volume (acre-ft)	11.78	25.60	13.46
C & E Loss (ft)	0.02	Cum SA (acres)	5.34	3.33	2.66

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9921.42	9970.24	8.07	4.90	6.54	0.20	0.77	1.65
LB 9970.24	9999.81	1432.14	144.28	30.25	36.06	4.88	9.93
9999.81	RB 10029.38	1722.78	160.84	30.09	43.37	5.44	10.71
10029.38	10187.84	809.01	235.94	104.94	20.37	2.25	3.43

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M3 RS: 5.585

INPUT
Description: SEC.5.585
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9957.86	1787.12	9974.87	1780.13	9983.92	1775.96	9993.77	1771.02	10000	1771.34
10003.22	1771.51	10011.06	1772.03	10018.3	1771.54	10019.66	1771.44	10024.74	1772.33
10039.34	1774.85	10061.5	1775.18	10088.47	1775.77	10103.49	1774.84	10107.09	1774.66
10109.39	1774.82	10122.94	1775.96	10130.8	1775.38	10139.32	1774.81	10140.48	1774.77
10142.61	1775.45	10149.69	1778.37	10160.68	1782.2	10169.33	1784.71	10184.61	1785.33
10190.08	1785.63	10193.21	1785.65	10196.1	1785.78				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9957.86	.065	9983.92	.037	10039.34	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9983.92	10039.34	400 404.62	410	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1779.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.55	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1777.50	Reach Len. (ft)	400.00	404.62	410.00
Crit W.S. (ft)	1777.50	Flow Area (sq ft)	2.56	278.34	235.24
E.G. Slope (ft/ft)	0.009279	Area (sq ft)	2.56	278.34	235.24
Q Total (cfs)	3972.00	Flow (cfs)	4.43	3101.79	865.78
Top Width (ft)	166.98	Top Width (ft)	3.33	55.42	108.23
Vel Total (ft/s)	7.70	Avg. Vel. (ft/s)	1.73	11.14	3.68

Max Chl Dpth (ft)	6.48	Hydr. Depth (ft)	0.77	5.02	2.17
Conv. Total (cfs)	41233.7	Conv. (cfs)	46.0	32200.0	8987.7
Length Wtd. (ft)	405.31	Wetted Per. (ft)	3.67	56.93	108.88
Min Ch El (ft)	1771.02	Shear (lb/sq ft)	0.40	2.83	1.25
Alpha	1.69	Stream Power (lb/ft s)	0.70	31.56	4.61
Frctn Loss (ft)	2.93	Cum Volume (acre-ft)	11.74	22.51	11.24
C & E Loss (ft)	0.23	Cum SA (acres)	5.28	2.72	1.66

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9957.86	9983.92	4.43	2.56	3.67	0.11	0.77	1.73
LB 9983.92	10011.63	1669.38	146.43	28.91	42.03	5.28	11.40
10011.63	RB 10039.34	1432.40	131.92	28.02	36.06	4.76	10.86
10039.34	10196.10	865.78	235.24	108.88	21.80	2.17	3.68

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M3 RS: 5.508

INPUT
Description: SEC.5.508
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9766.1	1779.8	9780.47	1779.2	9815.31	1778.41	9822.85	1778.28	9823.53	1778
9833.07	1774.67	9843.64	1770.95	9858.13	1770.84	9860.38	1770.87	9861.4	1770.8
9874.3	1771.34	9875.57	1771.46	9878.73	1772.01	9884.38	1772.96	9887.71	1773.02
9907.8	1772.69	9909.59	1772.78	9915.05	1773.03	9919.87	1773.2	9921.48	1773.25
9938.18	1773.07	9943.45	1773.1	9952.69	1772.41	9959.78	1772.42	9964.53	1772.88
9974.51	1770.57	9980.02	1768.95	10000	1768.59	10002.49	1768.54	10015.77	1768.37
10020.54	1771.41	10022.41	1772.33	10042.63	1772.21	10045.59	1772.19	10047.76	1771.76
10056.15	1769.91	10066.46	1771.53	10070.43	1772.02	10072.13	1772.03	10074.83	1772.01
10081.97	1772.05	10105.49	1772.36	10128.3	1772.79	10136.42	1775.96	10145.6	1779.79
10156.88	1781.03	10161.52	1781.76						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9766.1	.065	9964.53	.03	10022.41	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9964.53 10022.41 280 485.76 500 .1 .3
Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
9766.1	9921.48	1773.25	10022.41	10161.52	1772.33

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1775.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.77	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1774.39	Reach Len. (ft)	280.00	485.76	500.00
Crit W.S. (ft)	1773.99	Flow Area (sq ft)	264.54	284.04	256.47
E.G. Slope (ft/ft)	0.005779	Area (sq ft)	264.54	284.04	256.47
Q Total (cfs)	3972.00	Flow (cfs)	732.69	2459.01	780.30
Top Width (ft)	298.55	Top Width (ft)	130.67	57.88	110.00
Vel Total (ft/s)	4.93	Avg. Vel. (ft/s)	2.77	8.66	3.04
Max Chl Dpth (ft)	6.02	Hydr. Depth (ft)	2.02	4.91	2.33
Conv. Total (cfs)	52251.1	Conv. (cfs)	9638.5	32347.9	10264.8
Length Wtd. (ft)	428.89	Wetted Per. (ft)	131.47	59.48	110.71
Min Ch El (ft)	1768.37	Shear (lb/sq ft)	0.73	1.72	0.84
Alpha	2.04	Stream Power (lb/ft s)	2.01	14.91	2.54
Frctn Loss (ft)	2.57	Cum Volume (acre-ft)	10.51	19.90	8.92
C & E Loss (ft)	0.02	Cum SA (acres)	4.67	2.19	0.63

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9766.10	9964.53	732.69	264.54	131.47	18.45	2.02	2.77
LB 9964.53	9993.47	1022.04	126.99	29.44	25.73	4.39	8.05
9993.47	RB 10022.41	1436.96	157.06	30.04	36.18	5.43	9.15
10022.41	10161.52	780.30	256.47	110.71	19.65	2.33	3.04

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M3 RS: 5.416

INPUT
Description: SEC.5.416
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9668.73	1774.46	9686.5	1773.3	9699.84	1772.78	9719.13	1771.45	9736.88	1769.65
9737.06	1769.63	9737.38	1769.6	9755.76	1767.76	9758.29	1767.98	9766.76	1768.57
9780.3	1768.95	9793.27	1769.23	9798.15	1769.2	9804.69	1769.23	9838.31	1769.35
9876.93	1769.28	9881.6	1769.59	9888.46	1769.97	9895.41	1769.75	9913.05	1769.32
9953.24	1768.4	9959.73	1768.47	9968.71	1767.78	9978.6	1766.74	9988.23	1765.57
9995.74	1764.78	10000	1764.61	10004.92	1764.39	10015	1763.91	10040.88	1782
10041.03	1782.09	10041.16	1782.1	10059.3	1783.69	10070.1	1783.38	10075.01	1783.14

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9668.73	.065	9959.73	.037	10040.88	.065

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
9959.73	10040.88	500	502.79	508	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1772.58	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.95	Wt. n-Val.	0.065	0.037	
W.S. Elev (ft)	1771.63	Reach Len. (ft)	500.00	502.79	508.00
Crit W.S. (ft)		Flow Area (sq ft)	583.54	358.53	
E.G. Slope (ft/ft)	0.006152	Area (sq ft)	583.54	358.53	
Q Total (cfs)	5263.00	Flow (cfs)	1874.00	3389.00	
Top Width (ft)	309.49	Top Width (ft)	243.17	66.32	
Vel Total (ft/s)	5.59	Avg. Vel. (ft/s)	3.21	9.45	
Max Chl Dpth (ft)	7.73	Hydr. Depth (ft)	2.40	5.41	
Conv. Total (cfs)	67102.9	Conv. (cfs)	23893.4	43209.5	

Length Wtd. (ft)	501.99	Wetted Per. (ft)	243.44	68.96	
Min Ch El (ft)	1763.90	Shear (lb/sq ft)	0.92	2.00	
Alpha	1.96	Stream Power (lb/ft s)	2.96	18.87	
Frctn Loss (ft)	3.55	Cum Volume (acre-ft)	7.79	16.31	7.45
C & E Loss (ft)	0.03	Cum SA (acres)	3.47	1.50	0.00

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9668.73	9959.73	1874.00	583.54	243.44	35.61	2.40	3.21
LB 9959.73	10000.30	1932.77	207.48	40.77	36.72	5.11	9.32
10000.30	RB 10040.88	1456.23	151.05	28.19	27.67	5.87	9.64

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M3 RS: 5.320

INPUT
Description: SEC.5.320
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9669.65	1773.31	9669.94	1773.2	9675.29	1771.08	9694.11	1769.53	9700.19	1769.43
9725.04	1768.26	9727.67	1768.29	9732.03	1768.42	9746.44	1768.78	9766.78	1769.33
9766.8	1769.33	9766.85	1769.33	9781.2	1770.81	9786.18	1771.22	9799.89	1767.28
9803.75	1765.97	9820.14	1765.82	9829.68	1765.75	9838.71	1765.91	9839.81	1765.92
9844.54	1765.79	9849.03	1765.64	9855.78	1765.7	9862.43	1765.76	9868.44	1765.74
9893.41	1765.52	9913.79	1765.21	9919.45	1765.18	9925.93	1765.31	9935.32	1765.54
9937.76	1765.15	9944.81	1763.71	9950.24	1764.76	9955.27	1765.72	9968.59	1764.21
9972.38	1763.7	9977.32	1762.41	9981.01	1761.44	10000	1761.78	10025.58	1762.23
10028.39	1762.29	10029.02	1762.29	10029.56	1762.54	10057.45	1776.81	10064.55	1777.44
10076.64	1777.46	10085.16	1777.24						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9669.65	.065	9955.27	.03	710057.45	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9955.27	10057.45	650 649.44	630	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1768.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.30	Wt. n-Val.	0.065	0.037	
W.S. Elev (ft)	1767.69	Reach Len. (ft)	650.00	649.44	630.00
Crit W.S. (ft)		Flow Area (sq ft)	336.17	402.79	
E.G. Slope (ft/ft)	0.008234	Area (sq ft)	336.17	402.79	
Q Total (cfs)	5263.00	Flow (cfs)	1156.26	4106.75	
Top Width (ft)	241.16	Top Width (ft)	156.80	84.36	
Vel Total (ft/s)	7.12	Avg. Vel. (ft/s)	3.44	10.20	
Max Chl Dpth (ft)	6.25	Hydr. Depth (ft)	2.14	4.77	
Conv. Total (cfs)	57998.5	Conv. (cfs)	12742.0	45256.5	
Length Wtd. (ft)	647.90	Wetted Per. (ft)	157.46	86.07	
Min Ch El (ft)	1761.44	Shear (lb/sq ft)	1.10	2.41	
Alpha	1.65	Stream Power (lb/ft s)	3.78	24.53	
Frctn Loss (ft)	3.54	Cum Volume (acre-ft)	2.51	11.92	7.45
C & E Loss (ft)	0.09	Cum SA (acres)	1.17	0.63	0.00

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9969.65	9955.27	1156.25	336.17	157.46	21.97	2.14	3.44
LB 9955.27	10006.36	2562.13	247.22	51.50	48.68	4.84	10.36
10006.36	RB 10057.45	1544.62	155.57	34.57	29.35	4.68	9.93

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M3 RS: 5.197

INPUT
Description: SEC.5.197
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9882.26	1773.59	9900.46	1767.36	9906.6	1767.05	9916.04	1766.51	9918.22	1766.4
9935.81	1767.13	9937.73	1767.21	9958.75	1765.85	9963.21	1765.5	9987.59	1757.56
9993.17	1755.46	9997.83	1755.69	10000	1755.73	10026.52	1756.21	10026.75	1756.2
10026.77	1756.21	10044.81	1760.26	10047.26	1760.41	10055.42	1761.18	10073.15	1761.25
10090.95	1761.25	10096.42	1760.83	10099.65	1760.58	10109.2	1760.77	10114.64	1760.9
10121.56	1761.54	10131.24	1762.31	10152.41	1769.99				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9882.26	.065	9963.21	.037	10044.81	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9963.21	10044.81	360 406.56	430	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1765.35	Element			
Vel Head (ft)	0.99	Wt. n-Val.		0.037	0.065
W.S. Elev (ft)	1764.36	Reach Len. (ft)	406.56	406.56	406.56
Crit W.S. (ft)		Flow Area (sq ft)		510.02	286.01
E.G. Slope (ft/ft)	0.003901	Area (sq ft)		510.02	286.01
Q Total (cfs)	5263.00	Flow (cfs)		4396.99	866.01
Top Width (ft)	170.23	Top Width (ft)		78.11	92.11
Vel Total (ft/s)	6.61	Avg. Vel. (ft/s)		8.62	3.03
Max Chl Dpth (ft)	8.90	Hydr. Depth (ft)		6.53	3.10
Conv. Total (cfs)	84267.5	Conv. (cfs)		70401.5	13866.0
Length Wtd. (ft)	406.56	Wetted Per. (ft)		80.04	92.61
Min Ch El (ft)	1755.46	Shear (lb/sq ft)		1.55	0.75
Alpha	1.46	Stream Power (lb/ft s)		13.38	2.28
Frctn Loss (ft)	2.17	Cum Volume (acre-ft)		3.94	2.83
C & E Loss (ft)	0.05	Cum SA (acres)			

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9963.21	10004.01	1593.35	209.13	38.78	30.27	5.60	7.62
10004.01	RB 10044.81	2803.64	300.89	41.25	53.27	7.37	9.32
10044.81	10152.41	866.01	286.01	92.61	16.45	3.10	3.03

```
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: TRIB 'B'           RS: 0.854

INPUT
Description: TRIB. B. SEC. 0.854
Station Elevation Data    num=      27
     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev
 9838.41 1879.14 9838.48 1879.14 9841.74  1878.6 9853.49 1874.86 9866.85 1870.57
  9904.1 1862.64 9910.11  1861.7 9910.92 1861.23  9912.8 1861.28 9931.53 1861.23
 9957.69 1860.98 9972.03 1859.98 9980.48    1859 9998.27 1864.01   10000 1864.02
10018.77 1864.0310020.48 1864.9810030.72 1869.8410031.71 1870.4410036.24  1870.6
 10044.7    187110048.61 1871.38 10051.6 1871.9210057.49 1872.4610070.57 1872.62
10104.44  1874.6 10106.8 1874.56

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9838.41    .065 9957.69    .03710030.72    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9957.6910030.72              142  142.71     145             .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1870.13   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.33   Wt. n-Val.                0.065      0.037
  W.S. Elev (ft)            1869.80   Reach Len. (ft)          142.00     142.71    145.00
  Crit W.S. (ft)            1865.39   Flow Area (sq ft)        576.56     520.23
  E.G. Slope (ft/ft)       0.001373   Area (sq ft)             576.56     520.23
  Q Total (cfs)             4522.00   Flow (cfs)              1707.75    2814.25
  Top Width (ft)             160.17   Top Width (ft)            87.22      72.94
  Vel Total (ft/s)             4.12   Avg. Vel. (ft/s)          2.96       5.41
  Max Chl Dpth (ft)           10.80   Hydr. Depth (ft)          6.61       7.13
  Conv. Total (cfs)         122036.4   Conv. (cfs)             46087.5    75948.8
  Length Wtd. (ft)            142.71   Wetted Per. (ft)          88.18      75.06
  Min Ch El (ft)            1859.00   Shear (lb/sq ft)          0.56       0.59
  Alpha                        1.27   Stream Power (lb/ft s)    1.66       3.21
  Frctn Loss (ft)                     Cum Volume (acre-ft)      25.30      29.97      4.09
  C & E Loss (ft)                     Cum SA (acres)             9.53       6.41      2.50


FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)             (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9838.41      9957.69        1707.75     576.56      88.18      37.77      6.61       2.96
  LB 9957.69   9994.21        2114.84     342.45      37.14      46.77      9.38       6.18
  9994.21      RB 10030.72     699.41     177.78      37.92      15.47      4.88       3.93


CULVERT                RIVER: PADELFORD WASH
REACH: TRIB 'B'           RS: 0.850

INPUT
Description: ADOT S.R.74 STA. 654+29 AT TRIB. 'B'. EX. (4) 10 FT. X 10 FT. X
             102.5 FT. BOX CULVERTS.
Distance from Upstream XS =       51
Deck/Roadway Width        =       40
Weir Coefficient          =      2.6
Bridge Deck/Roadway Skew  =
Upstream  Deck/Roadway Coordinates
    num=        3
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
    9800  1871.9           10000  1872.5           10200  1873.1
```

```
Upstream Bridge Cross Section Data
Station Elevation Data    num=      27
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9838.41 1879.14 9838.48 1879.14 9841.74  1878.6 9853.49 1874.86 9866.85 1870.57
  9904.1 1862.64 9910.11  1861.7 9910.92 1861.23  9912.8 1861.28 9931.53 1861.23
 9957.69 1860.98 9972.03 1859.98 9980.48    1859 9998.27 1864.01   10000 1864.02
10018.77 1864.0310020.48 1864.9810030.72 1869.8410031.71 1870.4410036.24  1870.6
 10044.7    187110048.61 1871.38 10051.6 1871.9210057.49 1872.4610070.57 1872.62
10104.44  1874.6 10106.8 1874.56

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9838.41    .065 9957.69    .03710030.72    .065

Bank Sta: Left   Right    Coeff Contr.   Expan.
       9957.6910030.72             .1       .3

Downstream  Deck/Roadway Coordinates
    num=       3
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
    9800  1871.9           10000  1872.5           10200  1873.1

Downstream Bridge Cross Section Data
Station Elevation Data    num=      16
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9942.88 1870.73 9944.16 1870.63 9951.53 1870.33 9961.75  1869.7 9971.76 1868.47
 9972.15 1868.49 9982.18 1865.2810000.01 1857.5110005.82 1854.98 10010.4 1855.02
10028.47 1855.7110029.87 1856.9710054.89    187510055.22 1875.0210055.87 1875.03
 10058.6 1875.14

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9942.88    .065 9982.18    .0410055.22    .065

Bank Sta: Left   Right    Coeff Contr.   Expan.
       9982.1810055.22             .1       .3

Upstream Embankment side slope             =       2 horiz. to 1.0 vertical
Downstream Embankment side slope           =       2 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins        =  1871.9
Energy head used in spillway design        =
Spillway height used in design             =
Weir crest shape                           = Broad Crested

Number of Culverts =  1

Culvert Name      Shape      Rise    Span
Culvert #1            Box      10      10
FHWA Chart # 8 - flared wingwalls
FHWA Scale # 1 - Wingwall flared 30 to 75 deg.
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    n Value   Entrance Loss Coef   Exit Loss Coef
                 20   102.5       .012                  .4                1
Number of Barrels =  4
Upstream   Elevation =  1857.65
Centerline Stations
    Sta.    Sta.    Sta.    Sta.
    9974    9985    9996   10007
Downstream Elevation =  1856.42
Centerline Stations
    Sta.    Sta.    Sta.    Sta.
    9994   10005   10016   10027

CULVERT OUTPUT    Profile #PF 1
Culvert ID : Culvert #1

  Culv Q (cfs)           4522.00   Culv Vel In (ft/s)       15.38
```

# Barrels	4	Culv Vel Out (ft/s)	19.44
Q Barrel (cfs)	1130.50	Culv Inv El Up (ft)	1857.65
E.G. US. (ft)	1870.14	Culv Inv El Dn (ft)	1856.42
W.S. US. (ft)	1869.80	Culv Frctn Ls (ft)	0.57
Delta EG (ft)	3.33	Culv Ext Lss (ft)	1.30
Delta WS (ft)	6.04	Culv Ent Lss (ft)	1.47
E.G. IC (ft)	1869.71	Q Weir (cfs)	
E.G. OC (ft)	1870.14	Weir Sta Lft (ft)	
Culvert Control	Outlet	Weir Sta Rgt (ft)	
Culv WS In (ft)	1865.00	Weir Submerg	
Culv WS Out (ft)	1862.23	Weir Max Depth (ft)	
Culv Nml Depth (ft)	4.64	Weir Avg Depth (ft)	
Culv Crt Depth (ft)	7.35	Wr Flw Area (sq ft)	
Culv Ful Lngh (ft)		Min Top Rd (ft)	1872.33

Note: The flow in the culvert is entirely supercritical.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'B' RS: 0.827

INPUT
Description: TRIB. B, SEC. 0.827
Station Elevation Data num= 16

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9942.88	1870.73	9944.16	1870.63	9951.53	1870.33	9961.75	1869.7	9971.76	1868.47
9972.15	1868.49	9982.18	1865.28	10000.01	1857.51	10005.82	1854.98	10010.4	1855.02
10028.47	1855.71	10029.87	1856.97	10054.89		187510055.22	1875.02	10055.87	1875.03
10058.6	1875.14								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9942.88	.065	9982.18	.041	10055.22	.065

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
9982.18	10055.22	338	337.9	338	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1866.81	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.05	Wt. n-Val.		0.040	
W.S. Elev (ft)	1863.76	Reach Len. (ft)	338.00	337.90	338.00
Crit W.S. (ft)	1863.76	Flow Area (sq ft)		322.89	
E.G. Slope (ft/ft)	0.014458	Area (sq ft)		322.89	
Q Total (cfs)	4522.00	Flow (cfs)		4522.00	
Top Width (ft)	53.64	Top Width (ft)		53.64	
Vel Total (ft/s)	14.00	Avg. Vel. (ft/s)		14.00	
Max Chl Dpth (ft)	8.78	Hydr. Depth (ft)		6.02	
Conv. Total (cfs)	37608.1	Conv. (cfs)		37608.1	
Length Wtd. (ft)	337.90	Wetted Per. (ft)		58.16	
Min Ch El (ft)	1854.98	Shear (lb/sq ft)		5.01	
Alpha	1.00	Stream Power (lb/ft s)		70.18	
Frctn Loss (ft)	4.00	Cum Volume (acre-ft)	24.36	28.59	4.09
C & E Loss (ft)	0.41	Cum SA (acres)	9.39	6.20	2.50

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
LB 9982.18	10018.70	2858.40	199.95	34.88	63.21	6.05	14.30
10018.70	RB 10055.22	1663.60	122.94	23.28	36.79	5.97	13.53

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'B' RS: 0.763

INPUT
Description: TRIB. B. SEC. 0.763
Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9960.41	1859.98	9960.72	1859.88	9976.69	1851.48	9980.82	1851.3	9992.8	1850.8
9993.32	1850.77	9994.94	1850.79	10000	1850.86	10019.21	1851.11	10034.91	1854.48
10039.08	1855.42	10046.34	1855.59	10047.3	1855.61	10052.76	1855.23	10064.84	1854.51
10069.43	1854.98	10080.49	1856.12	10088.44	1856.31	10094.95	1856.45	10110.23	1856.18
10111.32	1856.16	10129.65	1856.27	10133.87	1856.29	10136.81	1857.44		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9960.41	.065	9960.72	.041	10039.08	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9960.72	10039.08	505 501.13	495	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
10047.11	10136.81	1855.61

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1858.96	Element			
Vel Head (ft)	1.67	Wt. n-Val.		0.040	0.065
W.S. Elev (ft)	1857.29	Reach Len. (ft)	505.00	501.13	495.00
Crit W.S. (ft)	1857.29	Flow Area (sq ft)		379.23	140.77
E.G. Slope (ft/ft)	0.009886	Area (sq ft)		379.23	140.77
Q Total (cfs)	4522.00	Flow (cfs)		4113.73	408.27
Top Width (ft)	170.78	Top Width (ft)		73.43	97.34
Vel Total (ft/s)	8.70	Avg. Vel. (ft/s)		10.85	2.90
Max Chl Dpth (ft)	6.52	Hydr. Depth (ft)		5.16	1.45
Conv. Total (cfs)	45480.0	Conv. (cfs)		41373.8	4106.2
Length Wtd. (ft)	500.96	Wetted Per. (ft)		75.35	97.66
Min Ch El (ft)	1850.77	Shear (lb/sq ft)		3.11	0.89
Alpha	1.43	Stream Power (lb/ft s)		33.70	2.58
Frctn Loss (ft)	5.31	Cum Volume (acre-ft)	24.36	25.86	3.54
C & E Loss (ft)	0.02	Cum SA (acres)	9.39	5.71	2.12

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

LB 9960.72	9999.90	1903.71	177.18	35.71	42.10	5.17	10.74
9999.90	RB 10039.08	2210.02	202.05	39.64	48.87	5.16	10.94
10039.08	10136.81	408.27	140.77	97.66	9.03	1.45	2.90

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'B' RS: 0.668

INPUT
Description: TRIB. B. SEC. 0.668
Station Elevation Data num= 17

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9870.35	1853.89	9876.92	1851.98	9888.68	1848.55	9903.97	1848.66	9915.45	1848.75
9936.09	1848.61	9944.41	1848.55	9963.04	1845.25	9967.99	1844.3810000.01		1844.14
10005.02	1844.110014.07		1844.1110027.73		1853.76	10032	1857.1610033.44		1857.37
10034.95	1857.35	10039.9	1857.47						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9870.35	.065	9944.41	.0410027.73		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9944.4110027.73		495 480.48	425	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1851.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.84	Wt. n-Val.	0.065	0.040	
W.S. Elev (ft)	1850.09	Reach Len. (ft)	495.00	480.48	425.00
Crit W.S. (ft)	1850.09	Flow Area (sq ft)	84.19	381.41	
E.G. Slope (ft/ft)	0.011382	Area (sq ft)	84.19	381.41	
Q Total (cfs)	4522.00	Flow (cfs)	253.89	4268.11	
Top Width (ft)	139.12	Top Width (ft)	61.00	78.12	
Vel Total (ft/s)	9.71	Avg. Vel. (ft/s)	3.02	11.19	
Max Chl Dpth (ft)	5.99	Hydr. Depth (ft)	1.38	4.88	
Conv. Total (cfs)	42386.1	Conv. (cfs)	2379.8	40006.3	
Length Wtd. (ft)	474.28	Wetted Per. (ft)	61.22	80.39	
Min Ch El (ft)	1844.10	Shear (lb/sq ft)	0.98	3.37	
Alpha	1.26	Stream Power (lb/ft s)	2.95	37.73	
Frctn Loss (ft)	6.54	Cum Volume (acre-ft)	23.87	21.49	2.74
C & E Loss (ft)	0.06	Cum SA (acres)	9.04	4.84	1.57

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9870.35	9944.41	253.89	84.19	61.22	5.61	1.38	3.02
LB 9944.41	9986.07	2054.17	189.90	42.03	45.43	4.56	10.82
9986.07	RB 10027.73	2213.94	191.51	38.36	48.96	5.25	11.56

Warning: The energy equation could not be balanced within the specified number of iterations. The

program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'B' RS: 0.577

INPUT
Description: TRIB. B. SEC. 0.577
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9951.31	1851.49	9954.15	1851.52	9955.29	1851.58	9956.92	1851.47	9974.4	1850.62
9979.62	1846.75	9995.72	1835.74	10000	1835.83	10013.79	1836.11	10020.04	1836.36
10023.53	1836.32	10028.69	1837.59	10031.49	1838.26	10032.51	1838.28	10038.95	1838.47
10062.96	1839.04	10069.81	1839.09	10073.2	1839.09	10084.66	1838.79	10095.51	1838.42
10110.64	1838.26	10111.08	1838.26	10127.08	1837.72	10129.64	1837.67	10132.05	1839.08
10139.31	1841.08	10141.55	1841.16	10167.55	1843.51	10182.99	1844.34	10195.41	1845.8
10219.32	1852.19								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9951.31	.065	9974.4	.041	10069.81	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9974.41	10069.81	450	466.55	450	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1842.99	Element			
Vel Head (ft)	1.65	Wt. n-Val.		0.040	0.065
W.S. Elev (ft)	1841.35	Reach Len. (ft)	450.00	466.55	450.00
Crit W.S. (ft)	1841.35	Flow Area (sq ft)		302.84	192.04
E.G. Slope (ft/ft)	0.017036	Area (sq ft)		302.84	192.04
Q Total (cfs)	4522.00	Flow (cfs)		3444.86	1077.14
Top Width (ft)	156.12	Top Width (ft)		82.29	73.83
Vel Total (ft/s)	9.14	Avg. Vel. (ft/s)		11.38	5.61
Max Chl Dpth (ft)	5.61	Hydr. Depth (ft)		3.68	2.60
Conv. Total (cfs)	34645.2	Conv. (cfs)		26392.7	8252.5
Length Wtd. (ft)		Wetted Per. (ft)		84.28	74.51
Min Ch El (ft)	1835.74	Shear (lb/sq ft)		3.82	2.74
Alpha	1.27	Stream Power (lb/ft s)		43.47	15.37
Frctn Loss (ft)		Cum Volume (acre-ft)	23.40	17.72	1.81
C & E Loss (ft)		Cum SA (acres)	8.69	3.95	1.21

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9974.40	10022.11	2100.30	163.25	36.33	46.45	4.72	12.87
10022.11	RB 10069.81	1344.56	139.59	47.95	29.73	2.93	9.63
10069.81	10219.32	1077.14	192.04	74.51	23.82	2.60	5.61

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'B' RS: 0.488

INPUT
Description: TRIB. B. SEC. 0.488
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9705.4	1844.16	9709.82	1843.93	9718.82	1843.48	9732.15	1842.12	9741.77	1841.16
9745.86	1840.24	9776.7	1833.6	9780.41	1833.48	9781.44	1833.46	9788.61	1832.08
9789.64	1831.89	9789.91	1831.87	9807.88	1831.57	9811.55	1831.21	9820.53	1830.31
9832.93	1831.94	9833.73	1832.04	9835.25	1831.92	9836.09	1831.86	9856.2	1830.45
9860.56	1830.43	9874.73	1830.4	9877.35	1829.95	9881.39	1829.32	9885.48	1829.28
9898.93	1829.2	9904.18	1830.43	9905.47	1830.69	9917.45	1831.05	9918	1831.07
9918.38	1831.08	9933.46	1831.25	9937	1832.35	9941.58	1833.56	9950.27	1834.46
9953.62	1834.87	9959.35	1834.82	9977.99	1835.22	9979.44	1834.16	9982.99	1828.35
10000	1828.14	10001.47	1828.12	10007.13	1828.08	10012.83	1833.79	10021.5	1842.32
10022.39	1842.29	10022.85	1842.35	10025.47	1842.48				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9705.4	.065	9977.99	.04	10021.5	.065

Bank Sta: Left	Right	Lengths: Left Channel		Right	Coeff Contr.	Expan.
9977.99	10021.5	400	517.44	525	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1835.06	Element			
Vel Head (ft)	1.33	Wt. n-Val.	0.065	0.040	
W.S. Elev (ft)	1833.73	Reach Len. (ft)	400.00	517.44	525.00
Crit W.S. (ft)	1833.73	Flow Area (sq ft)	446.99	158.07	
E.G. Slope (ft/ft)	0.016992	Area (sq ft)	446.99	158.07	
Q Total (cfs)	4522.00	Flow (cfs)	2556.79	1965.21	
Top Width (ft)	200.14	Top Width (ft)	167.08	33.06	
Vel Total (ft/s)	7.47	Avg. Vel. (ft/s)	5.72	12.43	
Max Chl Dpth (ft)	5.65	Hydr. Depth (ft)	2.68	4.78	
Conv. Total (cfs)	34690.7	Conv. (cfs)	19614.5	15076.2	
Length Wtd. (ft)	438.24	Wetted Per. (ft)	168.07	38.42	
Min Ch El (ft)	1828.08	Shear (lb/sq ft)	2.82	4.36	
Alpha	1.53	Stream Power (lb/ft s)	16.14	54.26	
Frctn Loss (ft)	9.66	Cum Volume (acre-ft)	21.09	15.25	0.81
C & E Loss (ft)	0.20	Cum SA (acres)	7.83	3.33	0.83

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9705.40	9977.99	2556.79	446.99	168.07	56.54	2.68	5.72
LB 9977.99	9999.75	1297.78	100.65	23.06	28.70	5.02	12.89
9999.75	RB 10021.50	667.42	57.41	15.36	14.76	4.41	11.62

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'B' RS: 0.390

INPUT
Description: TRIB. B. SEC. 0.390
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9642.62	1829.5	9655.73	1826.84	9677.15	1822.96	9686.53	1822.51	9702.52	1822.02
9710.68	1822.2	9715.06	1822.28	9725.86	1821.85	9736.38	1821.43	9740.32	1821.56
9749.93	1821.96	9767.07	1821.76	9780.71	1821.68	9783.76	1821.63	9792.02	1821.85
9793.85	1821.68	9802.26	1821.63	9823.04	1821.86	9841.49	1821.28	9851.99	1820.98
9861.24	1821.86	9862.27	1821.96	9865.52	1821.98	9891.03	1822.13	9901.36	1822.19
9906.11	1822.19	9907.32	1822.2	9912.47	1821.91	9919.62	1821.45	9923.78	1821.62
9935.31	1822.07	9937.76	1822.26	9944.61	1823.15	9949.78	1823.09	9970.66	1822.88
9975.53	1822.77	9987.91	1822.28	10000	1822.28	10014.58	1822.27	10022.15	1822.38
10027.79	1823.61	10028.84	1823.83	10029.99	1823.81	10036.07	1823.12	10054.7	1823.23
10056.71	1823	10061.05	1822.12	10064.47	1822.65	10067.83	1823.65	10074.94	1824.18
10084.44	1824.87	10092.75	1826.19	10093.23	1825.97	10096	1823.25	10103.74	1825.57
10105.67	1826.26	10106.61	1826.27	10114.99	1825.48	10128.23	1831.41	10129.71	1832.14

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9642.62	.065	9944.61	.041	0028.84	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9944.61 10028.84 400 533.28 555 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
10092.81	10129.71	1826.19

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1824.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.	0.065	0.040	0.065
W.S. Elev (ft)	1823.96	Reach Len. (ft)	400.00	533.28	555.00
Crit W.S. (ft)	1823.78	Flow Area (sq ft)	558.98	111.17	34.47
E.G. Slope (ft/ft)	0.029731	Area (sq ft)	558.98	111.17	34.47
Q Total (cfs)	4522.00	Flow (cfs)	3550.09	855.59	116.32
Top Width (ft)	400.41	Top Width (ft)	273.00	84.23	43.18
Vel Total (ft/s)	6.42	Avg. Vel. (ft/s)	6.35	7.70	3.37
Max Chl Dpth (ft)	2.98	Hydr. Depth (ft)	2.05	1.32	0.80
Conv. Total (cfs)	26225.7	Conv. (cfs)	20589.0	4962.1	674.6
Length Wtd. (ft)	437.02	Wetted Per. (ft)	273.31	84.40	43.52
Min Ch El (ft)	1822.27	Shear (lb/sq ft)	3.80	2.44	1.47
Alpha	1.05	Stream Power (lb/ft s)	24.11	18.82	4.96
Frctn Loss (ft)	4.63	Cum Volume (acre-ft)	16.47	13.65	0.61
C & E Loss (ft)	0.09	Cum SA (acres)	5.81	2.64	0.57

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9642.62	9944.61	3550.08	558.98	273.31	78.51	2.05	6.35
LB 9944.61	9986.72	309.18	46.14	42.13	6.84	1.10	6.70
9986.72	RB 10028.84	546.41	65.02	42.27	12.08	1.54	8.40
10028.84	10129.71	116.32	34.47	43.52	2.57	0.80	3.37

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less

than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'B' RS: 0.289

INPUT
Description: TRIB. B. SEC. 0.289
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9697.07	1824.08	9736.1	1816.49	9738.06	1816.44	9767.71	1816.09	9771.16	1815.76
9786.11	1815.42	9794.23	1815.56	9816.27	1815.99	9832.94	1816.38	9836.88	1816.45
9856.36	1816.93	9860.4	1816.95	9878.9	1817.06	9882.17	1816.93	9883.43	1816.88
9893.99	1816.44	9904.54	1816.33	9922.84	1816.09	9930.23	1816.17	9941.92	1816.3
9956.24	1816.32	9982.33	1816.39	9984.29	1816.37	9988.24	1815.74	9993.08	1815.11
9999.06	1815.21	10000	1815.23	10004.7	1815.3110013.24		1815.7610016.73		1815.92
10019.78	1815.8510034.41		1815.7210037.72		1816.1510041.84		1816.74	10057.5	1825.65
10074.6	1835.3310079.39		1835.16						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9697.07	.065	9982.33	.04	10057.5	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9982.33	10057.5	520 512.16	430	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1819.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.35	Wt. n-Val.	0.065	0.040	
W.S. Elev (ft)	1819.56	Reach Len. (ft)	520.00	512.16	430.00
Crit W.S. (ft)		Flow Area (sq ft)	829.55	236.07	
E.G. Slope (ft/ft)	0.005408	Area (sq ft)	829.55	236.07	
Q Total (cfs)	4522.00	Flow (cfs)	3004.26	1517.74	
Top Width (ft)	326.46	Top Width (ft)	262.00	64.46	
Vel Total (ft/s)	4.24	Avg. Vel. (ft/s)	3.62	6.43	
Max Chl Dpth (ft)	4.45	Hydr. Depth (ft)	3.17	3.66	
Conv. Total (cfs)	61493.1	Conv. (cfs)	40853.9	20639.3	
Length Wtd. (ft)	514.00	Wetted Per. (ft)	262.35	65.39	
Min Ch El (ft)	1815.11	Shear (lb/sq ft)	1.07	1.22	
Alpha	1.25	Stream Power (lb/ft s)	3.87	7.84	
Frctn Loss (ft)	4.02	Cum Volume (acre-ft)	10.09	11.52	0.39
C & E Loss (ft)	0.17	Cum SA (acres)	3.35	1.73	0.29

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9697.07	9982.33	3004.26	829.55	262.35	66.44	3.17	3.62
LB 9982.33	10019.92	1016.84	149.60	37.69	22.49	3.98	6.80
10019.92	RB 10057.50	500.90	86.47	27.69	11.08	3.22	5.79

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'B' RS: 0.192

INPUT
Description: TRIB. B. SEC. 0.192
Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9922.11	1818.5	9930.51	1817.8	9938.62	1816.01	9941.99	1815.21	9943.16	1815
9965.04	1810.34	9974.14	1808.22	9977.64	1808.34	9984.87	1807.91	9986.59	1807.72
9991.21	1807.9	10000	1807.51	10000.54	1807.48	10012.76	1808.13	10024.85	1809.35
10032.24	1810.44	10034.49	1811.11	10040.81	1812.04	10050.14	1812.01	10062.47	1812.83
10070.57	1814.09	10074.46	1814.66	10093.91	1815.45	10108.81	1816.06		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9922.11	.065	9965.04	.041	10040.81	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9965.04	10040.81	540 521.76	515	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1815.71	Element			
Vel Head (ft)	2.07	Wt. n-Val.	0.065	0.040	0.065
W.S. Elev (ft)	1813.64	Reach Len. (ft)	540.00	521.76	515.00
Crit W.S. (ft)	1813.64	Flow Area (sq ft)	25.58	368.63	32.25
E.G. Slope (ft/ft)	0.012317	Area (sq ft)	25.58	368.63	32.25
Q Total (cfs)	4522.00	Flow (cfs)	89.31	4340.51	92.18
Top Width (ft)	118.14	Top Width (ft)	15.50	75.77	26.87
Vel Total (ft/s)	10.60	Avg. Vel. (ft/s)	3.49	11.77	2.86
Max Chl Dpth (ft)	6.16	Hydr. Depth (ft)	1.65	4.87	1.20
Conv. Total (cfs)	40745.6	Conv. (cfs)	804.8	39110.3	830.5
Length Wtd. (ft)		Wetted Per. (ft)	15.85	76.37	26.96
Min Ch El (ft)	1807.48	Shear (lb/sq ft)	1.24	3.71	0.92
Alpha	1.19	Stream Power (lb/ft s)	4.33	43.70	2.63
Frctn Loss (ft)		Cum Volume (acre-ft)	4.99	7.97	0.23
C & E Loss (ft)		Cum SA (acres)	1.69	0.90	0.16

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9922.11	9965.04	89.31	25.58	15.85	1.98	1.65	3.49
LB 9965.04	10002.92	2580.96	205.37	38.17	57.08	5.42	12.57
10002.92	RB 10040.81	1759.56	163.26	38.20	38.91	4.31	10.78
10040.81	10108.81	92.18	32.25	26.96	2.04	1.20	2.86

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'B' RS: 0.093

INPUT
Description: TRIB. B. SEC. 0.093
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9868.81	1809.78	9871.75	1809.41	9896.73	1807.11	9899.45	1807.02	9904.56	1806.87
9915.33	1806.51	9924.44	1806.02	9931.21	1805.51	9939.48	1805.43	9946.96	1805.31
9955.35	1805.12	9980.09	1804.88	9986.87	1802.6	9991.16	1801.3	9997.7	1801.37

```
   10000 1801.4110006.22 1801.52 10012.3 1801.4110026.52 1801.3810029.36 1801.99
10036.33 1804.2310037.04 1804.3610043.58 1805.66 10044.9 1805.9610050.21 1807.97
10057.99 1810.78

Manning's n Values        num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
 9868.81    .065 9980.09     .0410043.58    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9980.0910043.58                0       0       0            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1809.48   Element                Left OB    Channel   Right OB
  Vel Head (ft)               1.79   Wt. n-Val.               0.065      0.040      0.065
  W.S. Elev (ft)           1807.69   Reach Len. (ft)         491.04     491.04     491.04
  Crit W.S. (ft)           1807.69   Flow Area (sq ft)       167.08     342.41       6.43
  E.G. Slope (ft/ft)      0.010282   Area (sq ft)            167.08     342.41       6.43
  Q Total (cfs)            4522.00   Flow (cfs)              586.25    3920.54      15.21
  Top Width (ft)            159.03   Top Width (ft)           89.65      63.49       5.89
  Vel Total (ft/s)            8.76   Avg. Vel. (ft/s)         3.51      11.45       2.37
  Max Chl Dpth (ft)           6.39   Hydr. Depth (ft)         1.86       5.39       1.09
  Conv. Total (cfs)        44594.6   Conv. (cfs)             5781.4    38663.2      150.0
  Length Wtd. (ft)          491.04   Wetted Per. (ft)         89.72      64.61       6.24
  Min Ch El (ft)           1801.30   Shear (lb/sq ft)         1.20       3.40       0.66
  Alpha                       1.50   Stream Power (lb/ft s)   4.19      38.95       1.57
  Frctn Loss (ft)             3.96   Cum Volume (acre-ft)     2.16       3.16       0.04
  C & E Loss (ft)             0.12   Cum SA (acres)

Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to
         critical depth, the calculated water surface came back below critical depth.  This indicates
         that there is not a valid subcritical answer.  The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta        Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)         (ft)             (cfs)    (sq ft)      (ft)                 (ft)     (ft/s)
  9868.81      9980.09         586.25     167.08     89.72      12.96      1.86       3.51
  LB 9980.09   10011.83       2148.16     181.08     32.31      47.50      5.70      11.86
  10011.83     RB 10043.58    1772.37     161.33     32.30      39.19      5.08      10.99
  10043.58     10057.99         15.21       6.43      6.24       0.34      1.09       2.37

Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to
         critical depth, the calculated water surface came back below critical depth.  This indicates
         that there is not a valid subcritical answer.  The program defaulted to critical depth.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: TRIB 'C'           RS: 1.264

INPUT
Description: TRIB. C. SEC. 1.264. JUST U/S OF S.R. 74
Station Elevation Data    num=      37
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
 9903.76 1850.57 9910.48 1850.27 9911.93 1850.14 9912.27  1850.2 9914.36 1850.06
  9931.2 1848.57 9931.81 1848.51  9932.5 1848.32 9934.07    1848 9948.87 1847.85
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 9954.42 1847.86 9963.11 1846.98  9966.9 1846.84 9969.86  1846.9 9973.92 1845.58
 9977.26 1839.95  9983.5 1836.49   10000 1837.1310002.68 1837.2310012.04 1837.59
 10014.4 1837.7210018.44 1847.2310023.17 1847.4710029.79 1847.62 10043.1  1848.5
10044.81  1849.110050.59 1850.6110065.01 1850.89 10065.4  1850.910065.56 1850.91
10067.14 1851.0710081.84 1852.9110083.41 1853.1110083.98  1853.2 10084.4 1853.24
 10086.1 1853.38 10096.3 1853.93

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9903.76    .065 9969.86    .03710018.44    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9969.8610018.44           146.26  142.34  150.44            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1847.15   Element                 Left OB    Channel   Right OB
  Vel Head (ft)               0.49   Wt. n-Val.                         0.037
  W.S. Elev (ft)           1846.67   Reach Len. (ft)          146.26    142.34    150.44
  Crit W.S. (ft)           1841.94   Flow Area (sq ft)                  380.49
  E.G. Slope (ft/ft)      0.001584   Area (sq ft)                       380.49
  Q Total (cfs)            2135.00   Flow (cfs)                        2135.00
  Top Width (ft)             47.62   Top Width (ft)                     47.62
  Vel Total (ft/s)            5.61   Avg. Vel. (ft/s)                    5.61
  Max Chl Dpth (ft)          10.18   Hydr. Depth (ft)                    7.99
  Conv. Total (cfs)         53648.1   Conv. (cfs)                       53648.1
  Length Wtd. (ft)           142.34   Wetted Per. (ft)                   57.84
  Min Ch El (ft)           1836.49   Shear (lb/sq ft)                    0.65
  Alpha                       1.00   Stream Power (lb/ft s)              3.65
  Frctn Loss (ft)                    Cum Volume (acre-ft)      17.00     50.54     22.50
  C & E Loss (ft)                    Cum SA (acres)             7.22      9.54      6.54


FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta       Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)          (ft)            (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  LB 9969.86    9994.15        939.50     173.72     27.85      44.00      7.37       5.41
  9994.15       RB 10018.44   1195.50     206.77     29.99      56.00      8.60       5.78


CULVERT                 RIVER: PADELFORD WASH
REACH: TRIB 'C'            RS: 1.262

INPUT
Description: ADOT S.R. 74 STA. 681+47; EX. (3) 10 FT. X 10 FT. X 123 FT. BOX
             CULVERTS AT TRIB. 'C'.
Distance from Upstream XS =      51
Deck/Roadway Width        =      40
Weir Coefficient          =     2.6
Bridge Deck/Roadway Skew  =
Upstream  Deck/Roadway Coordinates
    num=       3
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
    9900  1850.3           10000  1852.3           10200  1854.3

Upstream Bridge Cross Section Data
Station Elevation Data    num=      37
     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev
 9903.76 1850.57 9910.48 1850.27 9911.93 1850.14 9912.27  1850.2 9914.36 1850.06
  9931.2 1848.57 9931.81 1848.51  9932.5 1848.32 9934.07    1848 9948.87 1847.85
 9954.42 1847.86 9963.11 1846.98  9966.9 1846.84 9969.86  1846.9 9973.92 1845.58
 9977.26 1839.95  9983.5 1836.49   10000 1837.1310002.68 1837.2310012.04 1837.59
 10014.4 1837.7210018.44 1847.2310023.17 1847.4710029.79 1847.62 10043.1  1848.5
10044.81  1849.110050.59 1850.6110065.01 1850.89 10065.4  1850.910065.56 1850.91
10067.14 1851.0710081.84 1852.9110083.41 1853.1110083.98  1853.2 10084.4 1853.24
 10086.1 1853.38 10096.3 1853.93

Manning's n Values        num=       3
```

```
     Sta   n Val     Sta   n Val     Sta   n Val
 9903.76    .065 9969.86    .03710018.44    .065

Bank Sta: Left   Right    Coeff Contr.   Expan.
       9969.8610018.44             .1       .3

Downstream  Deck/Roadway Coordinates
    num=       3
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
    9800  1849.8           10000  1851.8           10200  1853.8

Downstream Bridge Cross Section Data
Station Elevation Data    num=      13
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9950.51 1847.91 9966.25 1847.16 9976.75 1847.06 9981.56 1846.76  9982.4 1844.01
 9992.81  1844.4   10000 1841.7910016.15 1835.9110019.32 1838.2510028.25 1841.31
10031.87 1842.7210036.97 1844.1510061.68 1849.83

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9950.51    .065 9992.81    .03710036.97    .065

Bank Sta: Left   Right    Coeff Contr.   Expan.
       9992.8110036.97             .1       .3

Upstream Embankment side slope              =       2 horiz. to 1.0 vertical
Downstream Embankment side slope            =       2 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =  1850.3
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
Culvert #1           Box      10      10
FHWA Chart # 8 - flared wingwalls
FHWA Scale # 1 - Wingwall flared 30 to 75 deg.
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    n Value   Entrance Loss Coef   Exit Loss Coef
                10   122.5       .012                  .4                1
Number of Barrels =  3
Upstream   Elevation =  1837.07
Centerline Stations
    Sta.    Sta.    Sta.
    9989   10000   10011
Downstream Elevation =  1835.86
Centerline Stations
    Sta.    Sta.    Sta.
    9999   10010   10021

CULVERT OUTPUT    Profile #PF 1
Culvert ID : Culvert #1

  Culv Q (cfs)           2135.00   Culv Vel In (ft/s)        8.28
  # Barrels                    3   Culv Vel Out (ft/s)       7.13
  Q Barrel (cfs)          711.67   Culv Inv El Up (ft)    1837.07
  E.G. US. (ft)          1847.15   Culv Inv El Dn (ft)    1835.86
  W.S. US. (ft)          1846.67   Culv Frctn Ls (ft)        0.10
  Delta EG (ft)             0.52   Culv Ext Lss (ft)         0.00
  Delta WS (ft)             2.03   Culv Ent Lss (ft)         0.43
  E.G. IC (ft)           1845.70   Q Weir (cfs)
  E.G. OC (ft)           1847.15   Weir Sta Lft (ft)
  Culvert Control         Outlet   Weir Sta Rgt (ft)
  Culv WS In (ft)        1845.66   Weir Submerg
  Culv WS Out (ft)       1845.84   Weir Max Depth (ft)
  Culv Nml Depth (ft)       3.56   Weir Avg Depth (ft)
  Culv Crt Depth (ft)       5.40   Wr Flw Area (sq ft)
```

Culv Ful Lngh (ft) 0.00 Min Top Rd (ft) 1851.34

Warning: During subcritical analysis, with the exit loss set =1.0, the projected WSEL in culvert has a lower energy than the downstream energy. Most likely, the downstream cross section blocks part of the culvert or the ineffective area is set too far in. Instead of projecting the WSEL, the program did an energy balance to get the WSEL inside the culvert at the downstream end.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'C' RS: 1.237

INPUT
Description: TRIB. C. SEC. 1.237. JUST D/S OF S.R. 74.
Station Elevation Data num= 13

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9950.51	1847.91	9966.25	1847.16	9976.75	1847.06	9981.56	1846.76	9982.4	1844.01
9992.81	1844.4	10000	1841.79	10016.15	1835.91	10019.32	1838.25	10028.25	1841.31
10031.87	1842.72	10036.97	1844.15	10061.68	1849.83				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9950.51	.065	9992.81	.037	10036.97	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9992.81	10036.97	305	295.2	275	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1846.63	Element			
Vel Head (ft)	2.00	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1844.64	Reach Len. (ft)	305.00	295.20	275.00
Crit W.S. (ft)	1844.64	Flow Area (sq ft)	4.54	187.42	0.51
E.G. Slope (ft/ft)	0.012784	Area (sq ft)	4.54	187.42	0.51
Q Total (cfs)	2135.00	Flow (cfs)	6.47	2128.02	0.51
Top Width (ft)	56.87	Top Width (ft)	10.60	44.16	2.11
Vel Total (ft/s)	11.09	Avg. Vel. (ft/s)	1.43	11.35	0.99
Max Chl Dpth (ft)	8.73	Hydr. Depth (ft)	0.43	4.24	0.24
Conv. Total (cfs)	18883.0	Conv. (cfs)	57.3	18821.2	4.5
Length Wtd. (ft)	291.52	Wetted Per. (ft)	11.07	47.40	2.17
Min Ch El (ft)	1835.91	Shear (lb/sq ft)	0.33	3.16	0.19
Alpha	1.04	Stream Power (lb/ft s)	0.47	35.83	0.19
Frctn Loss (ft)	2.79	Cum Volume (acre-ft)	16.99	49.61	22.50
C & E Loss (ft)	0.23	Cum SA (acres)	7.20	9.39	6.53

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9950.51	9992.81	6.47	4.54	11.07	0.30	0.43	1.43
LB 9992.81	10014.89	1071.76	93.80	23.50	50.20	4.25	11.43
10014.89	RB 10036.97	1056.26	93.62	23.90	49.47	4.24	11.28
10036.97	10061.68	0.51	0.51	2.17	0.02	0.24	0.99

Warning: The energy equation could not be balanced within the specified number of iterations. The

program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'C' RS: 1.180

INPUT
Description: TRIB. C. SEC. 1.180
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9924.4	1841.66	9935.91	1840.13	9938.86	1839.61	9942.05	1839.17	9949.3	1837.93
9951.29	1837.53	9964.35	1839	9968.74	1839.47	9972.23	1839.11	9978.69	1838.42
9984.9	1836.44	9994.19	1831.85	10000	1832.08	10007.84	1832.41	10016.07	1832.77
10023.67	1833.47	10043.33	1835.36	10063	1834.62	10071.27	1834.39	10077.12	1834.85
10089.46	1836.28	10098.48	1835.82	10104.73	1835.73	10115.95	1835.72	10118.15	1835.68
10144.42	1840.18	10146.88	1840.76						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9924.4	.065	9984.9	.041	10043.33	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9984.91	10043.33	325	343.2	340	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1839.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.23	Wt. n-Val.	0.065	0.040	0.065
W.S. Elev (ft)	1838.67	Reach Len. (ft)	325.00	343.20	340.00
Crit W.S. (ft)		Flow Area (sq ft)	17.24	307.33	276.26
E.G. Slope (ft/ft)	0.008414	Area (sq ft)	17.24	307.33	276.26
Q Total (cfs)	4353.00	Flow (cfs)	28.76	3124.21	1200.02
Top Width (ft)	175.71	Top Width (ft)	25.00	58.43	92.28
Vel Total (ft/s)	7.24	Avg. Vel. (ft/s)	1.67	10.17	4.34
Max Chl Dpth (ft)	6.82	Hydr. Depth (ft)	0.69	5.26	2.99
Conv. Total (cfs)	47455.6	Conv. (cfs)	313.6	34059.6	13082.4
Length Wtd. (ft)	342.10	Wetted Per. (ft)	25.49	59.64	92.66
Min Ch El (ft)	1831.85	Shear (lb/sq ft)	0.36	2.71	1.57
Alpha	1.51	Stream Power (lb/ft s)	0.59	27.52	6.80
Frctn Loss (ft)	3.52	Cum Volume (acre-ft)	16.92	47.94	21.63
C & E Loss (ft)	0.03	Cum SA (acres)	7.08	9.05	6.24

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9924.40	9984.90	28.76	17.24	25.49	0.66	0.69	1.67
LB 9984.90	10014.12	1818.50	169.87	30.30	41.78	5.81	10.71
10014.12	RB 10043.33	1305.71	137.46	29.34	30.00	4.71	9.50
10043.33	10146.88	1200.02	276.26	92.66	27.57	2.99	4.34

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'C' RS: 1.115

INPUT
Description: TRIB. C. SEC. 1.115
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9784.58	1839.73	9795.73	1839.58	9800.44	1839.05	9827.87	1835.88	9847.09	1834.75
9867.05	1833.64	9875.3	1833.29	9882.59	1832.98	9887.16	1832.73	9890.5	1832.69
9901.22	1833.27	9916.96	1833.57	9920.44	1833.41	9927.17	1832.87	9929.89	1832.48
9934.35	1832.33	9943.39	1831.86	9950.03	1831.63	9962.28	1831.21	9965.75	1830.57
9971.11	1829.67	9995.36	1829.35	10000	1829.31	10009.79	1829.18	10010.96	1829.81
10016.42	1832.59	10031.23	1836.47	10041.77	1838.9	10057.3	1841.93	10061.4	1842.12

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9784.58	.065	9916.96	.041	0016.42	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9916.96	10016.42	225 401.28	435	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1836.35	Element			
Vel Head (ft)	1.57	Wt. n-Val.	0.065	0.040	0.065
W.S. Elev (ft)	1834.79	Reach Len. (ft)	225.00	401.28	435.00
Crit W.S. (ft)	1834.79	Flow Area (sq ft)	91.47	389.74	9.22
E.G. Slope (ft/ft)	0.012823	Area (sq ft)	91.47	389.74	9.22
Q Total (cfs)	4353.00	Flow (cfs)	281.48	4046.67	24.85
Top Width (ft)	178.36	Top Width (ft)	70.51	99.46	8.39
Vel Total (ft/s)	8.88	Avg. Vel. (ft/s)	3.08	10.38	2.70
Max Chl Dpth (ft)	5.61	Hydr. Depth (ft)	1.30	3.92	1.10
Conv. Total (cfs)	38441.0	Conv. (cfs)	2485.7	35735.8	219.5
Length Wtd. (ft)	398.54	Wetted Per. (ft)	70.58	100.50	8.67
Min Ch El (ft)	1829.18	Shear (lb/sq ft)	1.04	3.10	0.85
Alpha	1.28	Stream Power (lb/ft s)	3.19	32.23	2.29
Frctn Loss (ft)	4.93	Cum Volume (acre-ft)	16.51	45.19	20.51
C & E Loss (ft)	0.01	Cum SA (acres)	6.72	8.42	5.84

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9784.58	9916.96	281.48	91.47	70.58	6.47	1.30	3.08
LB 9916.96	9966.69	1055.16	135.34	49.88	24.24	2.72	7.80
9966.69	RB 10016.42	2991.51	254.40	50.62	68.72	5.12	11.76
10016.42	10061.40	24.85	9.22	8.67	0.57	1.10	2.70

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: PADELFORD WASH

REACH: TRIB 'C' RS: 1.039

INPUT
Description: TRIB. C. SEC. 1.039
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9937.5	1834.01	9938.07	1833.96	9949.39	1832.44	9950.36	1832.43	9958.07	1831.78
9963.86	1829.13	9977.65	1823.78	10000	1823.33	10004.95	1823.23	10014.43	1823.05
10018.54	1822.92	10021.43	1823.63	10033.37	1825.73	10038.38	1825.78	10042.48	1825.58
10049.4	1825.41	10052.03	1825.44	10058.54	1825.24	10073.18	1826.19	10079.9	1826.88
10087.91	1827.47	10092.45	1827.68	10102.93	1828.38	10111.06	1828.59	10139.04	1835.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9937.5	.065	9963.86	.041	10033.37	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9963.86	10033.37	545	528	450	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1830.50	Element			
Vel Head (ft)	1.67	Wt. n-Val.		0.040	0.065
W.S. Elev (ft)	1828.83	Reach Len. (ft)	545.00	528.00	450.00
Crit W.S. (ft)	1828.83	Flow Area (sq ft)		321.87	174.43
E.G. Slope (ft/ft)	0.011935	Area (sq ft)		321.87	174.43
Q Total (cfs)	4353.00	Flow (cfs)		3613.22	739.78
Top Width (ft)	147.40	Top Width (ft)		68.74	78.67
Vel Total (ft/s)	8.77	Avg. Vel. (ft/s)		11.23	4.24
Max Chl Dpth (ft)	5.91	Hydr. Depth (ft)		4.68	2.22
Conv. Total (cfs)	39845.5	Conv. (cfs)		33073.9	6771.6
Length Wtd. (ft)		Wetted Per. (ft)		69.96	78.82
Min Ch El (ft)	1822.92	Shear (lb/sq ft)		3.43	1.65
Alpha	1.40	Stream Power (lb/ft s)		38.48	6.99
Frctn Loss (ft)		Cum Volume (acre-ft)	16.27	41.91	19.59
C & E Loss (ft)		Cum SA (acres)	6.54	7.65	5.41

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9963.86	9998.62	1478.72	143.20	34.93	33.97	4.21	10.33
9998.62	RB 10033.37	2134.50	178.67	35.03	49.04	5.14	11.95
10033.37	10139.04	739.78	174.43	78.82	16.99	2.22	4.24

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'C' RS: 0.939

INPUT
Description: TRIB. C. SEC. 0.939
Station Elevation Data num= 22

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9950.71	1831.97	9964.13	1830.93	9975.27	1824.82	9983.46	1820.8	9985.18	1819.83
9997.96	1815.87	10000	1815.93	10021.03	1816.45	10025.19	1816.52	10042.1	1817.57
10047.87	1817.92	10048.69	1817.98	10068.88	1819.24	10080.12	1820.23	10093.64	1821.49
10125.46	1823.36	10126.1	1823.41	10126.42	1823.41	10126.52	1823.41	10126.57	1823.41
10128.68	1823.47	10145.1	1824.18						

```
Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9950.71    .065 9985.18     .0410068.88    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9985.1810068.88              500  517.44     475            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1824.01   Element                Left OB    Channel   Right OB
  Vel Head (ft)               1.90   Wt. n-Val.               0.065      0.040      0.065
  W.S. Elev (ft)           1822.11   Reach Len. (ft)         500.00     517.44     475.00
  Crit W.S. (ft)           1821.94   Flow Area (sq ft)         4.82     399.71      46.78
  E.G. Slope (ft/ft)      0.011483   Area (sq ft)              4.82     399.71      46.78
  Q Total (cfs)            4637.00   Flow (cfs)               11.63    4487.37     138.01
  Top Width (ft)            123.35   Top Width (ft)            4.38      83.70      35.27
  Vel Total (ft/s)           10.27   Avg. Vel. (ft/s)          2.41      11.23       2.95
  Max Chl Dpth (ft)           6.24   Hydr. Depth (ft)          1.10       4.78       1.33
  Conv. Total (cfs)        43272.8   Conv. (cfs)             108.5    41876.4     1287.9
  Length Wtd. (ft)          510.15   Wetted Per. (ft)          4.94      84.39      35.39
  Min Ch El (ft)           1815.87   Shear (lb/sq ft)          0.70       3.40       0.95
  Alpha                       1.16   Stream Power (lb/ft s)    1.69      38.12       2.80
  Frctn Loss (ft)             6.13   Cum Volume (acre-ft)     16.24      37.54      18.45
  C & E Loss (ft)             0.02   Cum SA (acres)            6.51       6.73       4.82

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta        Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)         (ft)             (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9950.71      9985.18          11.63      4.82       4.94       0.25       1.10       2.41
  LB 9985.18   10027.03       2702.29    225.08      42.46      58.28       5.38      12.01
  10027.03     RB 10068.88    1785.07    174.63      41.93      38.50       4.17      10.22
  10068.88     10145.10        138.01     46.78      35.39       2.98       1.33       2.95

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: TRIB 'C'           RS: 0.841

INPUT
Description: TRIB. C. SEC. 0.841
Station Elevation Data    num=      14
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9956.25 1820.77 9982.58 1811.76 9988.93 1809.54 9989.71 1809.25 9992.29 1809.31
   10000 1809.4310008.32 1809.5610022.32 1811.1310023.69 1811.27   10025 1811.26
10050.43 1811.0110080.05 1813.9410088.56  1814.710122.33 1820.21

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9956.25    .065 9982.58     .0410022.32    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9982.5810022.32              520  512.16     490            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1817.85   Element                Left OB    Channel   Right OB
  Vel Head (ft)               2.06   Wt. n-Val.               0.065      0.040      0.065
  W.S. Elev (ft)           1815.80   Reach Len. (ft)         520.00     512.16     490.00
  Crit W.S. (ft)           1815.80   Flow Area (sq ft)        23.83     232.88     245.58
  E.G. Slope (ft/ft)      0.012612   Area (sq ft)             23.83     232.88     245.58
  Q Total (cfs)            4637.00   Flow (cfs)               94.22    3130.55    1412.23
```

Top Width (ft)	124.52	Top Width (ft)	11.80	39.74	72.97
Vel Total (ft/s)	9.23	Avg. Vel. (ft/s)	3.95	13.44	5.75
Max Chl Dpth (ft)	6.55	Hydr. Depth (ft)	2.02	5.86	3.37
Conv. Total (cfs)	41290.3	Conv. (cfs)	839.0	27876.1	12575.3
Length Wtd. (ft)	508.69	Wetted Per. (ft)	12.47	40.26	73.25
Min Ch El (ft)	1809.25	Shear (lb/sq ft)	1.50	4.55	2.64
Alpha	1.55	Stream Power (lb/ft s)	5.95	61.22	15.18
Frctn Loss (ft)	6.29	Cum Volume (acre-ft)	16.08	33.78	16.86
C & E Loss (ft)	0.03	Cum SA (acres)	6.42	5.99	4.23

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9956.25	9982.58	94.22	23.83	12.47	2.03	2.02	3.95
LB 9982.58	10002.45	1627.94	119.63	20.30	35.11	6.02	13.61
10002.45	RB 10022.32	1502.61	113.24	19.96	32.40	5.70	13.27
10022.32	10122.33	1412.23	245.58	73.25	30.46	3.37	5.75

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'C' RS: 0.744

INPUT
Description: TRIB. C. SEC. 0.744
Station Elevation Data num= 18

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9925.94	1813.38	9933.58	1812.8	9944.34	1809.2	9953.78	1805.54	9959.6	1804.21		
9962.32	1803.17	9965.79	1802.18	9972.03	1799.47	9991.11	1799.31	10000	1799.26		
10004.67	1799.22	10024.45	1802.7	10027.5	1803.23	10029.15	1803.38	10045.52	1805.02		
10066.57	1807.11	10067.47	1807.11	10084.15	1810.03						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9925.94	.065	9962.32	.04	10029.15	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9962.32	10029.15	520	528	501.4	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1808.18	Element			
Vel Head (ft)	2.36	Wt. n-Val.	0.065	0.040	0.065
W.S. Elev (ft)	1805.81	Reach Len. (ft)	520.00	528.00	501.40
Crit W.S. (ft)	1805.81	Flow Area (sq ft)	11.31	361.97	29.52
E.G. Slope (ft/ft)	0.012136	Area (sq ft)	11.31	361.97	29.52
Q Total (cfs)	4637.00	Flow (cfs)	31.71	4521.01	84.28
Top Width (ft)	100.40	Top Width (ft)	9.24	66.83	24.33
Vel Total (ft/s)	11.51	Avg. Vel. (ft/s)	2.80	12.49	2.85
Max Chl Dpth (ft)	6.59	Hydr. Depth (ft)	1.22	5.42	1.21
Conv. Total (cfs)	42091.6	Conv. (cfs)	287.8	41038.8	765.0
Length Wtd. (ft)	526.74	Wetted Per. (ft)	9.63	67.89	24.46

Min Ch El (ft)	1799.22	Shear (lb/sq ft)	0.89	4.04	0.91
Alpha	1.15	Stream Power (lb/ft s)	2.49	50.46	2.61
Frctn Loss (ft)	6.14	Cum Volume (acre-ft)	15.87	30.28	15.31
C & E Loss (ft)	0.07	Cum SA (acres)	6.29	5.37	3.68

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9925.94	9962.32	31.71	11.31	9.63	0.68	1.22	2.80
LB 9962.32	9995.74	2536.05	194.63	34.12	54.69	5.82	13.03
9995.74	RB 10029.15	1984.96	167.34	33.77	42.81	5.01	11.86
10029.15	10084.15	84.28	29.52	24.46	1.82	1.21	2.85

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'C' RS: 0.644

INPUT
Description: TRIB. C. SEC. 0.644
Station Elevation Data num= 23

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9962.22	1813.93	9968.54	1813.77	9969.52	1812.21	9971.66	1810.69	9996.89	1789.62
9998.33	1790.09	10000	1790.24	10004.94	1790.68	10029.3	1791.48	10038.47	1792
10043.75	1792.32	10044.03	1792.43	10048.77	1793.21	10050.03	1793.43	10059.07	1794.85
10068.67	1794.19	10070.57	1794.11	10073.02	1794.11	10088.91	1794.91	10090.06	1794.96
10090.17	1794.97	10091.15	1795.61	10107.85	1806.19				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9962.22	.065	9971.66	.037	10059.07	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9971.66	10059.07	495 517.44	480	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1799.10	Element			
Vel Head (ft)	2.12	Wt. n-Val.		0.037	0.065
W.S. Elev (ft)	1796.98	Reach Len. (ft)	495.00	517.44	480.00
Crit W.S. (ft)	1796.98	Flow Area (sq ft)		354.87	81.10
E.G. Slope (ft/ft)	0.011220	Area (sq ft)		354.87	81.10
Q Total (cfs)	4637.00	Flow (cfs)		4292.35	344.65
Top Width (ft)	105.24	Top Width (ft)		70.99	34.24
Vel Total (ft/s)	10.64	Avg. Vel. (ft/s)		12.10	4.25
Max Chl Dpth (ft)	7.36	Hydr. Depth (ft)		5.00	2.37
Conv. Total (cfs)	43776.3	Conv. (cfs)		40522.6	3253.7
Length Wtd. (ft)		Wetted Per. (ft)		74.02	34.88
Min Ch El (ft)	1789.62	Shear (lb/sq ft)		3.36	1.63
Alpha	1.21	Stream Power (lb/ft s)		40.62	6.92

Frctn Loss (ft)	Cum Volume (acre-ft)	15.80	25.94	14.67
C & E Loss (ft)	Cum SA (acres)	6.24	4.53	3.35

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9971.66	10015.37	1865.87	150.19	30.06	40.24	5.50	12.42
10015.37	RB 10059.07	2426.48	204.68	43.95	52.33	4.68	11.85
10059.07	10107.85	344.65	81.10	34.88	7.43	2.37	4.25

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'C' RS: 0.546

INPUT
Description: TRIB.C. SEC. 0.546
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9824.76	1799.91	9840.72	1794.58	9857.98	1788.57	9880.58	1788.5	9888.43	1788.56
9892.95	1788.73	9904.98	1788.66	9908.03	1788.6	9924.36	1788.75	9940	1788.21
9941.15	1788.07	9945.47	1789.16	9962.84	1793.43	9965.24	1794.01	9965.42	1794.05
9969.51	1793.54	9973.4	1793.05	9987.38	1787.66	9993.77	1784.71	10000	1784.91
10005.93	1785.09	10017.81	1785.36	10025.3	1785.92	10037.25	1786.76	10043.25	1789.47
10066.6	1801.39								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9824.76	.065	9965.42	.037	10043.25	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9965.42	10043.25	420	454.08	413.35	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1792.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.63	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1791.22	Reach Len. (ft)	420.00	454.08	413.35
Crit W.S. (ft)	1791.22	Flow Area (sq ft)	249.71	315.44	3.00
E.G. Slope (ft/ft)	0.010235	Area (sq ft)	249.71	315.44	3.00
Q Total (cfs)	4637.00	Flow (cfs)	1033.25	3597.87	5.88
Top Width (ft)	172.02	Top Width (ft)	103.49	65.11	3.43
Vel Total (ft/s)	8.16	Avg. Vel. (ft/s)	4.14	11.41	1.96
Max Chl Dpth (ft)	6.51	Hydr. Depth (ft)	2.41	4.84	0.88
Conv. Total (cfs)	45835.0	Conv. (cfs)	10213.3	35563.6	58.1
Length Wtd. (ft)		Wetted Per. (ft)	104.34	67.06	3.85
Min Ch El (ft)	1784.71	Shear (lb/sq ft)	1.53	3.01	0.50
Alpha	1.57	Stream Power (lb/ft s)	6.33	34.28	0.98
Frctn Loss (ft)		Cum Volume (acre-ft)	14.38	21.96	14.21
C & E Loss (ft)		Cum SA (acres)	5.65	3.72	3.14

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9824.76	9965.42	1033.25	249.71	104.34	22.28	2.41	4.14
LB 9965.42	10004.33	1218.35	115.63	27.51	26.27	4.42	10.54
10004.33	RB 10043.25	2379.52	199.80	39.55	51.32	5.13	11.91
10043.25	10066.60	5.88	3.00	3.85	0.13	0.88	1.96

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'C' RS: 0.460

INPUT
Description: TRIB. C. SEC. 0.460
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9957.11	1795.36	9971.24	1792.04	9975.4	1791.38	9990.34	1781.58	9992.31	1780.22
9995.09	1780.3	10000	1780.36	10010.18	1780.51	10021.58	1781.32	10031.26	1782.02
10039.43	1782.49	10050.35	1783.82	10051.07	1783.91	10051.81	1783.86	10059.77	1783.54
10066.74	1783.08	10078.1	1782.55	10084.03	1783.13	10089.53	1783.44	10095.56	1783.9
10098.8	1784.04	10108.01	1784.18	10118.91	1782.31	10129.02	1780.73	10136.03	1781.93
10139.76	1782.73	10151.62	1785.72	10165.45	1788.81	10172.31	1790.62	10174.32	1790.16

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9957.11	.065	9990.34	.03	10051.07	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9990.34	10051.07	460	475.2	460	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1787.54	Element	0.065	0.037	0.065
Vel Head (ft)	1.62	Wt. n-Val.	460.00	475.20	460.00
W.S. Elev (ft)	1785.92	Reach Len. (ft)	14.34	268.57	281.21
Crit W.S. (ft)	1785.90	Flow Area (sq ft)	14.34	268.57	281.21
E.G. Slope (ft/ft)	0.012206	Area (sq ft)	53.86	3190.31	1392.83
Q Total (cfs)	4637.00	Flow (cfs)	6.61	60.73	101.44
Top Width (ft)	168.78	Top Width (ft)	3.76	11.88	4.95
Vel Total (ft/s)	8.22	Avg. Vel. (ft/s)	2.17	4.42	2.77
Max Chl Dpth (ft)	5.70	Hydr. Depth (ft)	487.5	28876.7	12607.0
Conv. Total (cfs)	41971.3	Conv. (cfs)	7.91	61.31	102.39
Length Wtd. (ft)	470.72	Wetted Per. (ft)	1.38	3.34	2.09
Min Ch El (ft)	1780.22	Shear (lb/sq ft)	5.19	39.65	10.37
Alpha	1.55	Stream Power (lb/ft s)	13.11	18.91	12.86
Frctn Loss (ft)	5.62	Cum Volume (acre-ft)	5.12	3.07	2.64
C & E Loss (ft)	0.07	Cum SA (acres)			

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9957.11	9990.34	53.86	14.34	7.91	1.16	2.17	3.76
LB 9990.34	10020.71	2122.24	161.84	30.82	45.77	5.33	13.11
10020.71	RB 10051.07	1068.07	106.74	30.49	23.03	3.52	10.01
10051.07	10174.32	1392.83	281.21	102.39	30.04	2.77	4.95

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'C' RS: 0.370

INPUT
Description: TRIB. C. SEC. 0.0370
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9834.83	1787.94	9835.08	1787.89	9842.48	1785.6	9856.48	1781.07	9861.05	1780
9874.7	1778.17	9876.64	1778.24	9877.51	1778.15	9887.25	1777.11	9887.34	1777.1
9887.6	1777.12	9908.13	1778.39	9919.55	1778.27	9933.98	1777.92	9939.92	1777.23
9945.68	1776.7	9947.98	1776.97	9950.34	1777.22	9957.61	1778.04	9969.67	1778.3
9982.27	1778.48	9993.13	1775.58	9993.66	1775.43	9994.62	1775.5	10000	1775.71
10002.94	1775.83	10010.58	1775.73	10022.91	1776.04	10035.44	1776.28	10039.7	1776.72
10041.25	1776.81	10058.61	1777.76	10059.71	1777.86	10061.56	1778.61	10082.98	1786.17
10088.36	1786.52	10095.17	1787.11	10102.01	1786.68				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9834.83	.065	9982.27	.037	10061.56	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9982.27	10061.56	485 512.16	500	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1781.86	Element			
Vel Head (ft)	1.40	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1780.46	Reach Len. (ft)	485.00	512.16	500.00
Crit W.S. (ft)	1780.40	Flow Area (sq ft)	295.68	315.19	4.83
E.G. Slope (ft/ft)	0.011681	Area (sq ft)	295.68	315.19	4.83
Q Total (cfs)	4733.00	Flow (cfs)	1306.78	3415.34	10.88
Top Width (ft)	207.69	Top Width (ft)	123.17	79.29	5.23
Vel Total (ft/s)	7.69	Avg. Vel. (ft/s)	4.42	10.84	2.25
Max Chl Dpth (ft)	5.03	Hydr. Depth (ft)	2.40	3.98	0.92
Conv. Total (cfs)	43791.3	Conv. (cfs)	12090.7	31599.8	100.7
Length Wtd. (ft)	501.82	Wetted Per. (ft)	123.59	79.91	5.55
Min Ch El (ft)	1775.43	Shear (lb/sq ft)	1.74	2.88	0.63
Alpha	1.53	Stream Power (lb/ft s)	7.71	31.17	1.43
Frctn Loss (ft)	6.75	Cum Volume (acre-ft)	11.47	15.73	11.35
C & E Loss (ft)	0.14	Cum SA (acres)	4.43	2.30	2.08

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9834.83	9982.27	1306.78	295.68	123.59	27.61	2.40	4.42
LB 9982.27	10021.91	1967.10	172.20	40.06	41.56	4.34	11.42
10021.91	RB 10061.56	1448.24	143.00	39.85	30.60	3.61	10.13
10061.56	10102.01	10.88	4.83	5.55	0.23	0.92	2.25

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: TRIB 'C' RS: 0.273

INPUT
Description: TRIB.C. SEC.0.273
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9853.83	1783.4	9870.01	1778.92	9871.91	1778.41	9874.92	1777.57	9894.94	1771.34

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 9901.33 1770.24 9904.95 1769.65 9910.58 1769.53  9925.3 1769.53 9925.72 1769.57
 9925.97 1769.58 9942.38 1770.53 9950.66 1770.72 9964.06 1770.49 9965.06 1770.52
  9966.3 1770.67 9972.37 1771.54 9973.98 1771.64 9983.04 1772.44 9990.06 1770.82
 9992.75 1770.11   10000 1770.3810000.28 1770.3910022.15 1771.05 10027.1 1771.62
 10027.3 1771.6510035.56 1771.9510036.75 1772.0710037.01 1772.0710038.41 1772.06
10047.86 1771.7110053.91  1771.3 10061.9 1772.0410072.77 1773.1810080.75 1773.23
10082.21 1773.1110087.65  1772.810090.44 1772.74 10097.6 1771.5210098.95 1771.28
10099.37 1771.27 10108.7 1770.9310110.78 1771.24 10119.8 1772.6210120.76 1772.62
10123.08 1772.7910133.78 1773.7910145.12 1774.8610170.41 1779.41 10176.3 1780.76
10190.96 1783.55

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9853.83    .065 9983.04    .03710080.75    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9983.0410080.75           413.36  467.04  508.02            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1774.97   Element                Left OB    Channel   Right OB
  Vel Head (ft)                0.93   Wt. n-Val.               0.065      0.037     0.065
  W.S. Elev (ft)            1774.04   Reach Len. (ft)         413.36     467.04    508.02
  Crit W.S. (ft)            1773.63   Flow Area (sq ft)       329.17     242.63     94.56
  E.G. Slope (ft/ft)       0.015665   Area (sq ft)            329.17     242.63     94.56
  Q Total (cfs)             4733.00   Flow (cfs)             2119.94    2229.48    383.58
  Top Width (ft)             250.17   Top Width (ft)           96.78      97.71     55.68
  Vel Total (ft/s)             7.10   Avg. Vel. (ft/s)         6.44       9.19      4.06
  Max Chl Dpth (ft)            4.51   Hydr. Depth (ft)         3.40       2.48      1.70
  Conv. Total (cfs)         37815.6   Conv. (cfs)            16937.8    17813.1    3064.7
  Length Wtd. (ft)           449.36   Wetted Per. (ft)         97.47      98.16     56.02
  Min Ch El (ft)            1770.11   Shear (lb/sq ft)         3.30       2.42      1.65
  Alpha                        1.18   Stream Power (lb/ft s)   21.27      22.21      6.70
  Frctn Loss (ft)              4.40   Cum Volume (acre-ft)      7.99      12.45     10.78
  C & E Loss (ft)              0.13   Cum SA (acres)            3.21       1.26      1.73

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)             (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9853.83      9983.04        2119.94     329.17     97.47       44.79      3.40       6.44
  LB 9983.04   10031.89       1568.42     152.17     49.18       33.14      3.11      10.31
  10031.89     RB 10080.75     661.06      90.46     48.98       13.97      1.85       7.31
  10080.75     10190.96        383.58      94.56     56.02        8.10      1.70       4.06

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: TRIB 'C'           RS: 0.184

INPUT
Description: TRIB.C. SEC.0.184
Station Elevation Data    num=      71
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9685.47 1773.75  9698.3 1771.94 9702.46 1771.18  9705.5 1770.92 9716.98 1768.08
 9726.52 1765.82 9730.84 1766.25 9737.85    1767 9744.73 1767.81 9754.19 1769.16
 9767.67 1768.17 9770.14 1768.21 9771.15 1768.03 9772.25 1767.94 9785.23 1766.18
 9793.25 1766.52 9805.32 1767.06 9813.08 1767.37 9826.45 1767.82 9830.02 1767.07
  9832.2  1766.7 9838.07 1767.78  9842.4 1768.36 9849.44 1766.74 9850.59 1766.59
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  9851.6 1766.22 9852.45 1766.36 9862.62 1768.17 9871.95 1767.72 9873.89 1767.71
 9875.92 1767.87 9887.05 1768.28 9889.65 1768.27 9894.48 1767.78  9900.3 1767.37
 9904.65 1767.58 9911.71 1768.27 9915.62 1768.14 9916.86 1768.09 9924.24 1768.23
 9928.68 1767.95 9934.37 1767.51 9953.33 1767.84 9966.06    1768 9979.66 1766.06
 9982.79 1765.62 9988.08 1765.63   10000 1765.6410021.35 1765.6810028.81 1768.14
10030.12  1768.6 10031.2 1768.4510042.85  1766.9 10044.8  1767.210045.41 1767.27
10056.43 1766.4710059.63 1766.2410060.05 1766.2310074.68 1766.01 10081.1 1767.03
10086.84 1768.2910104.48 1768.6410107.72 1768.7210110.17 1768.6510117.02 1768.58
10122.42 1768.5210124.07  1768.310134.93 1767.7510141.12 1767.8810152.68 1771.25
10175.73  1776.6

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9685.47    .065 9966.06    .03710030.12    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9966.0610030.12              520  533.28     525            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1770.44   Element                 Left OB    Channel   Right OB
  Vel Head (ft)               0.50    Wt. n-Val.                0.065     0.037     0.065
  W.S. Elev (ft)            1769.94   Reach Len. (ft)          520.00    533.28    525.00
  Crit W.S. (ft)                      Flow Area (sq ft)        595.46    242.71    266.73
  E.G. Slope (ft/ft)       0.006719   Area (sq ft)             595.46    242.71    266.73
  Q Total (cfs)             4733.00   Flow (cfs)              1947.10   1928.92    856.98
  Top Width (ft)             438.74   Top Width (ft)           256.61     64.06    118.07
  Vel Total (ft/s)             4.28   Avg. Vel. (ft/s)           3.27      7.95      3.21
  Max Chl Dpth (ft)            4.32   Hydr. Depth (ft)           2.32      3.79      2.26
  Conv. Total (cfs)         57740.3   Conv. (cfs)             23753.7   23531.9   10454.7
  Length Wtd. (ft)           529.03   Wetted Per. (ft)         258.32     64.70    118.80
  Min Ch El (ft)            1765.62   Shear (lb/sq ft)           0.97      1.57      0.94
  Alpha                       1.74    Stream Power (lb/ft s)     3.16     12.51      3.03
  Frctn Loss (ft)             3.72    Cum Volume (acre-ft)       3.61      9.85      8.67
  C & E Loss (ft)             0.08    Cum SA (acres)             1.53      0.40      0.71


Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)     (ft/s)
  9685.47      9966.06       1947.10     595.46     258.32      41.14      2.32       3.27
  LB 9966.06   9998.09        928.32     118.40      32.20      19.61      3.70       7.84
  9998.09      RB 10030.12   1000.60     124.31      32.50      21.14      3.88       8.05
  10030.12     10175.73       856.98     266.73     118.80      18.11      2.26       3.21


Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: TRIB 'C'           RS: 0.083

INPUT
Description: TRIB. C ,SEC.0.083
Station Elevation Data    num=      33
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9860.38 1771.85 9880.11 1776.49 9886.99 1777.56 9899.12 1778.76 9911.36 1779.94
 9923.45 1778.92 9934.72 1777.86 9943.72 1773.35  9967.7 1762.54 9969.96 1762.15
 9988.87 1759.66 9989.54 1759.66 9991.14 1759.67 9998.41 1759.81   10000 1759.85
 10037.9 1760.5910044.26 1761.7510049.84 1762.6810053.73 1762.5310060.36 1762.54
10069.65 1763.3110071.33 1763.4510071.88 1763.5110091.71 1761.9510092.44 1761.87
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10093.32 1761.9310106.71 1762.9510111.47 1762.5610123.25 1761.9110166.12 1772.96
 10167.5 1773.3110167.86 1773.3310183.79 1773.68

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9860.38    .065  9967.7    .03710049.84    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        9967.710049.84                 0       0       0            .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 9860.38 9911.36 1779.94

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1766.64   Element                 Left OB    Channel   Right OB
  Vel Head (ft)               1.25   Wt. n-Val.                0.065     0.037      0.065
  W.S. Elev (ft)           1765.39   Reach Len. (ft)          511.00    511.00     511.00
  Crit W.S. (ft)                     Flow Area (sq ft)          8.99    394.90     227.93
  E.G. Slope (ft/ft)       0.007368  Area (sq ft)               8.99    394.90     227.93
  Q Total (cfs)            4733.00   Flow (cfs)                21.00   3865.45     846.55
  Top Width (ft)            175.36   Top Width (ft)             6.32     82.14      86.90
  Vel Total (ft/s)             7.49  Avg. Vel. (ft/s)           2.33      9.79       3.71
  Max Chl Dpth (ft)            5.73  Hydr. Depth (ft)           1.42      4.81       2.62
  Conv. Total (cfs)        55140.3   Conv. (cfs)               244.6   45033.3     9862.5
  Length Wtd. (ft)          511.00   Wetted Per. (ft)           6.93     82.53      87.53
  Min Ch El (ft)           1759.66   Shear (lb/sq ft)           0.60      2.20       1.20
  Alpha                        1.44  Stream Power (lb/ft s)     1.39     21.54       4.45
  Frctn Loss (ft)              3.48  Cum Volume (acre-ft)       0.05      4.28       3.21
  C & E Loss (ft)              0.03  Cum SA (acres)

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                  (ft)     (ft/s)
  9860.38      9967.70         21.00       8.99      6.93       0.44       1.42       2.33
  LB 9967.70   10008.77      2012.23     202.33     41.27      42.51       4.93       9.95
  10008.77     RB 10049.84   1853.22     192.56     41.26      39.16       4.69       9.62
  10049.84     10183.79       846.55     227.93     87.53      17.89       2.62       3.71

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M2          RS: 5.120

INPUT
Description: SEC.5.120.MAIN WASH BELOW TRIB.C CONFL.
Station Elevation Data    num=      42
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
 9846.75 1768.06 9851.13    1768 9854.79 1767.82 9858.07 1767.61 9871.22 1766.78
 9881.23 1765.99 9894.33 1765.27 9898.49 1765.26 9905.92 1764.93 9908.77 1764.83
 9919.71 1763.59 9933.39 1756.21 9937.31 1754.05 9939.16 1754.09 9949.85 1754.46
  9953.2 1754.85 9961.89 1755.88 9971.77 1755.35  9987.3 1754.49 9999.93 1753.93
   10000 1753.9210001.44 1753.8310003.79 1753.79 10010.8 1753.6510014.57 1754.76
10029.38 1758.4810032.96 1758.5110099.88 1759.1710121.98 1759.6110142.46 1759.63
 10190.3 1759.5910195.85 1760.0810261.22  1760.710267.51 1760.7310268.85 1760.73
10273.07 1760.6810282.14 1760.5810344.94 1759.7110349.64 1759.7410368.11 1759.71
10379.78 1762.7810397.16  1767.4
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Manning's n Values          num=        3
     Sta   n Val     Sta   n Val     Sta   n Val
 9846.75    .065 9919.71    .03710029.38    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9919.7110029.38              560  559.68     520             .1       .3

CROSS SECTION OUTPUT     Profile #PF 1

  E.G. Elev (ft)            1763.13   Element                  Left OB    Channel   Right OB
  Vel Head (ft)                1.51   Wt. n-Val.                          0.037     0.065
  W.S. Elev (ft)            1761.63   Reach Len. (ft)           560.00    559.68    520.00
  Crit W.S. (ft)                      Flow Area (sq ft)                   667.89    639.59
  E.G. Slope (ft/ft)        0.006550  Area (sq ft)                        667.89    639.59
  Q Total (cfs)             9063.00   Flow (cfs)                         7281.66   1781.34
  Top Width (ft)             452.05   Top Width (ft)                      106.03    346.02
  Vel Total (ft/s)             6.93   Avg. Vel. (ft/s)                    10.90      2.79
  Max Chl Dpth (ft)            7.98   Hydr. Depth (ft)                     6.30      1.85
  Conv. Total (cfs)         111979.0   Conv. (cfs)                        89969.5   22009.5
  Length Wtd. (ft)           550.80   Wetted Per. (ft)                    108.72    346.30
  Min Ch El (ft)            1753.65   Shear (lb/sq ft)                      2.51      0.76
  Alpha                        2.02   Stream Power (lb/ft s)               27.39      2.10
  Frctn Loss (ft)              4.20   Cum Volume (acre-ft)      17.01      35.01     24.20
  C & E Loss (ft)              0.05   Cum SA (acres)             4.47       5.31      8.14


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT     Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  LB 9919.71    9974.54        3077.85     300.05     53.23       33.96      5.86      10.26
  9974.54       RB 10029.38    4203.81     367.84     55.49       46.38      6.71      11.43
  10029.38      10397.16       1781.34     639.59    346.30       19.66      1.85       2.79


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M2           RS: 5.014

INPUT
Description: SEC.5.014
Station Elevation Data     num=      32
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9922.42 1767.38 9926.93 1765.81 9952.88 1756.08 9961.21 1754.68 9962.11  1754.5
  9972.9 1749.32 9973.39 1749.12 9974.58 1749.14 9989.28 1749.46   10000 1749.44
10001.57 1749.4410010.76  1749.510015.57 1749.78 10018.1  1750.110030.22  1752.3
10045.72 1753.04   10069 1754.15 10079.9 1754.6910080.87 1754.7510087.56 1754.05
10095.02 1753.2510095.74 1753.2810098.93 1753.29 10166.3  1753.610199.14 1754.71
10201.65 1754.8110207.43  1755.610210.99 1755.9310229.78 1762.0410239.53  1765.6
10241.31 1766.1510243.51 1766.16

Manning's n Values          num=        3
     Sta   n Val     Sta   n Val     Sta   n Val
 9922.42    .065 9962.11    .03710045.72    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9962.1110045.72              452.41  469.98     480             .1       .3

CROSS SECTION OUTPUT     Profile #PF 1

  E.G. Elev (ft)            1758.88   Element                  Left OB    Channel   Right OB
  Vel Head (ft)                1.98   Wt. n-Val.                 0.065      0.037     0.065
  W.S. Elev (ft)            1756.90   Reach Len. (ft)           452.41     469.98    480.00
  Crit W.S. (ft)            1756.90   Flow Area (sq ft)          15.67     525.81    505.19
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E.G. Slope (ft/ft)	0.008996	Area (sq ft)	15.67	525.81	505.19
Q Total (cfs)	9063.00	Flow (cfs)	41.25	6745.34	2276.41
Top Width (ft)	263.29	Top Width (ft)	11.42	83.61	168.26
Vel Total (ft/s)	8.66	Avg. Vel. (ft/s)	2.63	12.83	4.51
Max Chl Dpth (ft)	7.78	Hydr. Depth (ft)	1.37	6.29	3.00
Conv. Total (cfs)	95551.9	Conv. (cfs)	434.9	71116.7	24000.3
Length Wtd. (ft)		Wetted Per. (ft)	11.71	85.08	168.63
Min Ch El (ft)	1749.12	Shear (lb/sq ft)	0.75	3.47	1.68
Alpha	1.70	Stream Power (lb/ft s)	1.98	44.53	7.58
Frctn Loss (ft)		Cum Volume (acre-ft)	16.91	27.35	17.36
C & E Loss (ft)		Cum SA (acres)	4.40	4.09	5.07

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9922.42	9962.11	41.25	15.67	11.71	0.46	1.37	2.63
LB 9962.11	10003.92	3875.32	287.73	43.03	42.76	6.88	13.47
10003.92	RB 10045.72	2870.02	238.08	42.05	31.67	5.70	12.05
10045.72	10243.51	2276.41	505.19	168.63	25.12	3.00	4.51

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M2 RS: 4.924

INPUT
Description: SEC.4.924
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9797.06	1755.98	9800.46	1755.9	9816.3	1753.27	9835.55	1750.7	9839.57	1750.38
9856.36	1749.93	9889.23	1748.35	9895.74	1748.7	9912.99	1749.6	9922.22	1749.28
9944.58	1748.84	9948.26	1748.12	9958.4	1745.94	10000	1744.72	10000.25	1744.71
10009.7	1744.51	10012.51	1745.25	10026.85	1749.34	10060.32	1749.81	10074.73	1750.02
10078.34	1749.76	10084.46	1749.07	10097.4	1750.06	10098.29	1750.14	10099.27	1750.14
10101.23	1750.08	10121.1	1749.36	10128.41	1749.27	10131.89	1749.36	10143.54	1749.27
10150.8	1748.84	10155.56	1749.61	10163.24	1750.61	10168.28	1751.43	10175.47	1752.86
10184.29	1754.37	10193.01	1755.61	10195.05	1756.15	10201.14	1755.11	10204.09	1754.89
10215.97	1753.93	10218.69	1754.04						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9797.06	.065	9944.58	.037	10026.85	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9944.58 10026.85 510 533.02 552 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1753.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.70	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1752.24	Reach Len. (ft)	510.00	533.02	552.00
Crit W.S. (ft)	1752.24	Flow Area (sq ft)	327.04	519.75	368.85
E.G. Slope (ft/ft)	0.008062	Area (sq ft)	327.04	519.75	368.85
Q Total (cfs)	9063.00	Flow (cfs)	1304.17	6353.82	1405.01
Top Width (ft)	348.34	Top Width (ft)	120.56	82.27	145.50
Vel Total (ft/s)	7.46	Avg. Vel. (ft/s)	3.99	12.22	3.81
Max Chl Dpth (ft)	7.74	Hydr. Depth (ft)	2.71	6.32	2.54
Conv. Total (cfs)	100938.8	Conv. (cfs)	14525.2	70765.4	15648.2

Length Wtd. (ft)	530.51	Wetted Per. (ft)	120.77	83.26	145.90
Min Ch El (ft)	1744.50	Shear (lb/sq ft)	1.36	3.14	1.27
Alpha	1.97	Stream Power (lb/ft s)	5.44	38.41	4.85
Frctn Loss (ft)	4.69	Cum Volume (acre-ft)	15.13	21.70	12.55
C & E Loss (ft)	0.12	Cum SA (acres)	3.71	3.20	3.34

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9797.06	9944.58	1304.17	327.04	120.77	14.39	2.71	3.99
LB 9944.58	9985.71	2978.76	249.69	41.45	32.87	6.07	11.93
9985.71	RB 10026.85	3375.05	270.06	41.81	37.24	6.57	12.50
10026.85	10218.69	1405.01	368.85	145.90	15.50	2.54	3.81

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M2 RS: 4.823

INPUT
Description: SEC.4.823
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9611.23	1755.15	9621.93	1751.3	9622	1751.27	9622.02	1751.27	9627.73	1750.91
9664.66	1747.9	9714.71	1743.93	9719.76	1743.41	9727.65	1742.45	9742.02	1743.49
9746.2	1743.87	9759.66	1744.25	9764.49	1744.42	9767.15	1744.46	9775.52	1744.66
9810.9	1744.78	9811.8	1744.8	9813.26	1744.83	9814.86	1744.84	9828.62	1745.13
9841.58	1745.01	9841.79	1745.01	9842.15	1745.02	9859.75	1745.52	9872.52	1745.96
9878.78	1746.15	9883.94	1746.39	9894.84	1746.77	9897.85	1746.67	9902.42	1746.36
9910.03	1746.34	9924.26	1746.79	9932.25	1744.86	9945.38	1742.36	9970.19	1742.22
10000.01	1742.29	10014.97	1742.32	10021.39	1741.69	10023.94	1741.63	10036.26	1743.5
10044.41	1744.98	10050.76	1745.44	10052.36	1745.82	10094.02	1745.78	10094.73	1745.78
10107.59	1744.75	10108.21	1744.67	10109.31	1744.81	10124.82	1746.66	10134.24	1746.56
10155.31	1746.4	10164.6	1745.18	10168.78	1744.64	10193.6	1752.68	10205.64	1756.36
10211.67	1757.27	10212.13	1757.28						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9611.23	.065	9924.26	.037	10052.36	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9924.26 10052.36 430 533.28 650 .1 .3
Ineffective Flow num= 1

Sta L	Sta R	Elev
9611.23	9894.84	1746.77

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1748.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.28	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1747.44	Reach Len. (ft)	430.00	533.28	650.00
Crit W.S. (ft)	1747.44	Flow Area (sq ft)	587.52	574.77	194.18

E.G. Slope (ft/ft)	0.009718	Area (sq ft)	587.52	574.77	194.18
Q Total (cfs)	9063.00	Flow (cfs)	2315.07	6163.42	584.52
Top Width (ft)	506.91	Top Width (ft)	253.75	128.10	125.05
Vel Total (ft/s)	6.68	Avg. Vel. (ft/s)	3.94	10.72	3.01
Max Chl Dpth (ft)	5.81	Hydr. Depth (ft)	2.32	4.49	1.55
Conv. Total (cfs)	91936.7	Conv. (cfs)	23484.5	62522.8	5929.5
Length Wtd. (ft)		Wetted Per. (ft)	254.10	128.93	125.78
Min Ch El (ft)	1741.63	Shear (lb/sq ft)	1.40	2.70	0.94
Alpha	1.85	Stream Power (lb/ft s)	5.53	29.00	2.82
Frctn Loss (ft)		Cum Volume (acre-ft)	9.77	15.01	8.98
C & E Loss (ft)		Cum SA (acres)	1.52	1.91	1.63

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9611.23	9924.26	2315.07	587.52	254.10	25.54	2.32	3.94
LB 9924.26	9988.31	3036.38	284.94	64.52	33.50	4.45	10.66
9988.31	RB 10052.36	3127.03	289.83	64.42	34.50	4.53	10.79
10052.36	10212.13	584.52	194.18	125.78	6.45	1.55	3.01

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M2 RS: 4.722

INPUT
Description: SEC.4.722
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9751.64	1747.93	9766.05	1741.89	9766.65	1741.64	9766.9	1741.52	9767.02	1741.52
9781.55	1740.7	9786.85	1739.9	9795.46	1738.52	9808.69	1739.66	9809.87	1739.74
9814.67	1739.82	9850.26	1740.55	9856.88	1739.66	9862.9	1738.84	9869.05	1739.2
9874.96	1739.59	9879.7	1739.76	9880.52	1739.76	9882.25	1739.76	9895.54	1739.57
9896.24	1739.51	9906.75	1739.36	9941.59	1738.85	9951.76	1739.26	9962.44	1739.77
9970.91	1739.47	9977.23	1739.14	9985.25	1737.31	9986.25	1737.13	9989.08	1737.09
10000	1736.98	10021.32	1736.78	10022.74	1737.35	10034.28	1741.01	10050.51	1741.09
10069.91	1741.23	10094.98	1742.43	10097.25	1742.49	10098.31	1742.51	10119.42	1740.05
10125.15	1739.53	10126.61	1739.32	10141.47	1739.98	10147	1740.27	10149.46	1740
10156.21	1739.31	10166.08	1739.47	10177.81	1739.49	10199.06	1740.42	10201.24	1740.54
10203.28	1740.3	10216.47	1738.76	10243.58	1738.97	10247.01	173910	10252.45	1743.18
10257.51	1747.31	10276.53	1745.34	10278.52	1745.23	10280	1745.01	10281.92	1744.88
10293.24	1744.48	10300.57	1745.01	10307.34	1745.44	10324.74	1748.79	10343.47	1751.42
10344.39	1751.44	10344.7	1751.44	10365.34	1751.92				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9751.64	.065	9962.44	.037	10034.28	.065	10201.24	.037	10257.51	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9962.44	10034.28	482 517.44	560	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10257.51	10365.34	1747.31

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1745.16	Element			
Vel Head (ft)	0.74	Wt. n-Val.	0.065	0.037	0.052
W.S. Elev (ft)	1744.41	Reach Len. (ft)	517.44	517.44	517.44
Crit W.S. (ft)		Flow Area (sq ft)	941.18	462.48	897.76
E.G. Slope (ft/ft)	0.005043	Area (sq ft)	941.18	462.48	897.76
Q Total (cfs)	13396.00	Flow (cfs)	4242.26	4525.92	4627.81
Top Width (ft)	493.94	Top Width (ft)	202.41	71.84	219.68
Vel Total (ft/s)	5.82	Avg. Vel. (ft/s)	4.51	9.79	5.15
Max Chl Dpth (ft)	7.63	Hydr. Depth (ft)	4.65	6.44	4.09
Conv. Total (cfs)	188645.2	Conv. (cfs)	59740.4	63735.0	65169.8
Length Wtd. (ft)	517.44	Wetted Per. (ft)	203.42	72.75	221.96
Min Ch El (ft)	1736.78	Shear (lb/sq ft)	1.46	2.00	1.27
Alpha	1.42	Stream Power (lb/ft s)	6.57	19.58	6.56
Frctn Loss (ft)	3.59	Cum Volume (acre-ft)	6.07	5.60	5.96
C & E Loss (ft)	0.13	Cum SA (acres)			

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9751.64	9962.44	4242.26	941.18	203.42	31.67	4.65	4.51
LB 9962.44	9998.36	2069.78	218.82	36.16	15.45	6.09	9.46
9998.36	RB 10034.28	2456.15	243.66	36.60	18.33	6.78	10.08
10034.28	10365.34	4627.81	897.76	221.96	34.55	4.09	5.15

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 4.624

INPUT
Description: SEC.4.624. CONFLUENCE WITH TRIB. A.
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9874.55	1744.59	9889.35	1739.6	9893.19	1738.54	9896.75	1737.11	9921.78	1735.23
9926	1734.99	9929.47	1735.35	9943.19	1737.04	9955.33	1735.01	9955.45	1734.99
9955.53	1735	9956.02	1734.99	9974.53	1734.82	9979.04	1733.66	9987.37	1731.47
10000	1731.89	10019.96	1732.56	10041.02	1733.23	10063.76	1734.08	10070.98	1734.58
10072.55	1734.68	10079.16	1734.76	10086.86	1734.93	10097.67	1735.61	10103.86	1735.34
10114.07	1735.99	10126.14	1736.72	10145.43	1736.68	10159.64	1736.67	10179.34	1736.78
10198.95	1737.02	10207.48	1738.11	10218.07	1739.45	10230.17	1739.61	10232.71	1739.66
10233.53	1739.73	10236.83	1740.02	10249.83	1741.33	10253.32	1741.38	10266.78	1739.68
10272.21	1738.99	10277.35	1738.39	10282.39	1737.82	10300.58	1737.49	10304.02	1737.42
10308.18	1737.82	10309.71	1738.26	10331.35	1740.65	10332.08	1740.74	10332.78	1740.84
10334.82	1741.15	10351.41	1743.51						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9874.55	.065	9943.19	.03	710126.14	.065

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9943.1910126.14              405  408.98     410            .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 10253.310351.41 1741.38

CROSS SECTION OUTPUT    Profile #PF 1
```

E.G. Elev (ft)	1741.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.08	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1739.36	Reach Len. (ft)	405.00	408.98	410.00
Crit W.S. (ft)		Flow Area (sq ft)	162.25	961.76	210.88
E.G. Slope (ft/ft)	0.010199	Area (sq ft)	162.25	961.76	210.88
Q Total (cfs)	13396.00	Flow (cfs)	784.32	11761.28	850.41
Top Width (ft)	327.11	Top Width (ft)	52.96	182.95	91.20
Vel Total (ft/s)	10.04	Avg. Vel. (ft/s)	4.83	12.23	4.03
Max Chl Dpth (ft)	7.89	Hydr. Depth (ft)	3.06	5.26	2.31
Conv. Total (cfs)	132648.3	Conv. (cfs)	7766.4	116461.1	8420.8
Length Wtd. (ft)	408.88	Wetted Per. (ft)	53.55	183.69	91.35
Min Ch El (ft)	1731.47	Shear (lb/sq ft)	1.93	3.33	1.47
Alpha	1.33	Stream Power (lb/ft s)	9.33	40.77	5.93
Frctn Loss (ft)	3.98	Cum Volume (acre-ft)	155.96	145.70	233.29
C & E Loss (ft)	0.06	Cum SA (acres)	98.53	51.59	133.64

```
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1
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Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9874.55	9943.19	784.32	162.25	53.55	5.85	3.06	4.83
LB 9943.19	10034.67	7090.26	541.30	92.10	52.93	5.92	13.10
10034.67	RB 10126.14	4671.02	420.45	91.59	34.87	4.60	11.11
10126.14	10351.41	850.41	210.88	91.35	6.35	2.31	4.03

```
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M1           RS: 4.546

INPUT
Description: SEC.4.546
Station Elevation Data    num=      53
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9829.76  1740.1 9853.43 1736.36 9860.13 1735.66 9876.72 1730.88 9885.63 1728.71
 9894.48 1730.38 9896.47 1730.76  9897.9 1730.74 9908.16 1730.26 9915.05 1728.69
 9916.01 1728.39 9922.75 1728.68 9956.35 1729.97 9967.19 1730.03 9986.11 1729.22
   10000 1728.5310005.32 1728.2610012.51 1730.0510022.23 1732.5110026.98 1732.22
10035.01 1731.64 10072.7 1732.34 10073.5 1732.3610073.63 1732.3610074.07 1732.37
10075.17 1732.3810165.04 1733.1710189.07 1733.2510218.31 1733.4910220.04 1733.14
10228.69 1731.75 10232.3 1731.6410238.08 1732.2310239.96 1732.1210242.49 1731.75
10255.11 1733.2810258.34  1733.710262.24 1733.7810274.47 1734.0110276.33    1734
10282.25 1734.9110288.37 1735.3610312.81 1737.14 10313.6 1737.14   10329 1737.36
10333.56 1737.3810347.04 1735.4510353.67 1734.9410369.56 1736.9610376.03 1737.91
10387.42 1738.7110397.67 1739.3310412.59 1740.08

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9829.76    .065 9896.47    .03710022.23    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9896.4710022.23            505.42  495.56  541.35            .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
```

10333.510412.59 1737.38

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1737.39	Element			
Vel Head (ft)	1.87	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1735.53	Reach Len. (ft)	505.42	495.56	541.35
Crit W.S. (ft)	1735.53	Flow Area (sq ft)	151.32	751.23	714.61
E.G. Slope (ft/ft)	0.009277	Area (sq ft)	151.32	751.23	714.61
Q Total (cfs)	13396.00	Flow (cfs)	852.34	9524.66	3019.00
Top Width (ft)	430.06	Top Width (ft)	35.88	125.76	268.42
Vel Total (ft/s)	8.28	Avg. Vel. (ft/s)	5.63	12.68	4.22
Max Chl Dpth (ft)	7.27	Hydr. Depth (ft)	4.22	5.97	2.66
Conv. Total (cfs)	139081.2	Conv. (cfs)	8849.2	98887.8	31344.2
Length Wtd. (ft)		Wetted Per. (ft)	36.98	126.59	268.88
Min Ch El (ft)	1728.26	Shear (lb/sq ft)	2.37	3.44	1.54
Alpha	1.75	Stream Power (lb/ft s)	13.35	43.58	6.50
Frctn Loss (ft)		Cum Volume (acre-ft)	154.50	137.66	228.94
C & E Loss (ft)		Cum SA (acres)	98.12	50.14	131.95

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9829.76	9896.47	852.34	151.32	36.98	6.36	4.22	5.63
LB 9896.47	9959.35	4839.70	378.92	63.14	36.13	6.03	12.77
9959.35	RB 10022.23	4684.96	372.31	63.45	34.97	5.92	12.58
10022.23	10412.59	3019.00	714.61	268.88	22.54	2.66	4.22

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 4.452

INPUT
Description: SEC.4.452
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9734.5	1731.94	9741.3	1732.03	9752.12	1728.63	9764.46	1724.78	9771.18	1722.55
9800.28	1726	9800.7	1726.06	9801.71	1726.09	9838.23	1727.04	9845.52	1726.9
9853.94	1726.74	9881.91	1727.08	9884.19	1727.12	9902.53	1727.51	9914.14	1727.14
9917.31	1726.8	9929.91	1727.11	9936.4	1727.38	9946.22	1727.87	9950	1727.7
9960.41	1727.02	9968.38	1725.11	9973.82	1723.62	9987.24	1723.63	10000	1723.61
10004.63	1723.61	0033.63	1724.64	10037.41	1724.75	10040.18	1724.88	10049.68	1725.25
10076.82	1727.85	10080.53	1728.18	10084.01	1727.87	10092.74	1727.37	10095.72	1727.49
10106.39	1727.61	0109.95	1727.63	10111.35	1727.64	10127.45	1727.85	10137.8	1727.62
10138.85	1727.61	0140.91	1727.56	10152.86	1727.36	10172.1	1726.63	10187.82	1726.17
10199.17	1725.79	10203.59	1725.53	10213.62	1725.01	10221.46	1724.99	10232.96	1724.86
10239.34	1725.63	10241.69	1726.21	10247.75	1726.79	10267.97	1728.93	10277.31	1731.08

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9734.5	.065	9946.22	.037	10080.53	.065	10203.59	.037	10241.69	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

```
      9946.2210080.53              350  389.91     350            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1730.95   Element                Left OB    Channel   Right OB
  Vel Head (ft)               1.12   Wt. n-Val.               0.065      0.037     0.050
  W.S. Elev (ft)           1729.83   Reach Len. (ft)         350.00     389.91    350.00
  Crit W.S. (ft)                     Flow Area (sq ft)       661.96     624.68    569.79
  E.G. Slope (ft/ft)       0.009132  Area (sq ft)            661.96     624.68    569.79
  Q Total (cfs)           13396.00   Flow (cfs)             3218.85    6659.42   3517.73
  Top Width (ft)            523.59   Top Width (ft)          197.92     134.31    191.36
  Vel Total (ft/s)            7.22   Avg. Vel. (ft/s)          4.86      10.66      6.17
  Max Chl Dpth (ft)           7.28   Hydr. Depth (ft)          3.34       4.65      2.98
  Conv. Total (cfs)      140180.3    Conv. (cfs)            33683.1    69686.5   36810.8
  Length Wtd. (ft)          370.04   Wetted Per. (ft)        199.33     134.93    191.80
  Min Ch El (ft)           1723.60   Shear (lb/sq ft)          1.89       2.64      1.69
  Alpha                       1.39   Stream Power (lb/ft s)    9.21      28.14     10.46
  Frctn Loss (ft)             3.75   Cum Volume (acre-ft)    149.79     129.84    220.95
  C & E Loss (ft)             0.02   Cum SA (acres)           96.76      48.66    129.10

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
        section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)      (sq ft)    (ft)                (ft)      (ft/s)
  9734.50      9946.22       3218.84     661.96     199.33     24.03      3.34       4.86
  LB 9946.22   10013.38      3774.67     337.75      67.61     28.18      5.03      11.18
  10013.38     RB 10080.53   2884.75     286.93      67.32     21.53      4.27      10.05
  10080.53     10277.31      3517.73     569.79     191.80     26.26      2.98       6.17

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
        section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M1           RS: 4.378

INPUT
Description: SEC.4.378
Station Elevation Data    num=      78
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9760.61 1728.53  9766.5 1728.14 9770.54 1727.31    9782 1722.39 9788.43 1720.09
 9801.93 1721.52 9812.48  1722.7 9815.08 1722.65 9817.76 1722.82 9849.28 1723.81
  9861.7 1724.18 9865.57 1724.32 9891.12 1723.76 9900.53 1723.56 9901.53 1723.56
 9903.53 1723.29 9918.06 1721.44 9931.74 1721.23 9959.78 1720.86  9991.4 1720.37
 9995.79 1720.29 9996.61 1720.23 9998.15  1720.2   10000 1720.1510005.87 1719.98
10014.58 1722.2110021.95 1724.2110073.99 1724.3410084.48 1724.39 10088.8 1724.39
10097.08 1724.4610098.98 1724.4710100.43 1724.4710137.38  1724.510164.74 1725.21
 10169.7 1725.3610176.07 1724.2110184.34 1722.5610187.21  1722.9 10196.3 1723.95
10205.05 1724.1310215.71 1724.5110223.67 1723.1610226.68 1722.7310233.82 1722.62
10265.43 1722.2610272.08 1723.8610273.57 1724.1810274.91 1724.19 10278.8 1724.26
10295.23  1724.310299.38 1723.9810309.46 1723.8810318.27 1723.4710321.36    1723
10328.44 1722.5510330.55  1722.510347.97 1722.3310353.99 1722.2810365.79 1722.85
10366.06 1722.8710380.63 1723.3410381.99 1723.3910382.01 1723.3910393.93 1723.24
10402.33 1723.4310407.35 1723.5510413.44  1724.610414.14 1724.7110428.02 1727.09
10434.42    172710447.98 1726.7810465.57 1726.2310469.82 1726.1410488.52 1726.34
10497.74 1726.4410501.27 1726.6410528.13 1727.99

Manning's n Values        num=      7
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9760.61    .065 9891.12    .03710021.95    .06510215.71    .03710273.57    .065
10318.27    .03710381.99    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9891.1210021.95              450  512.72     520            .1       .3
Blocked Obstructions     num=      1
```

Sta L	Sta R	Elev
1042810528.13	1727.09	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1727.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.31	Wt. n-Val.	0.065	0.037	0.046
W.S. Elev (ft)	1725.88	Reach Len. (ft)	450.00	512.72	520.00
Crit W.S. (ft)	1725.88	Flow Area (sq ft)	326.71	587.23	839.37
E.G. Slope (ft/ft)	0.011292	Area (sq ft)	326.71	587.23	839.37
Q Total (cfs)	13396.00	Flow (cfs)	1560.05	6794.65	5041.31
Top Width (ft)	647.10	Top Width (ft)	117.25	130.83	399.02
Vel Total (ft/s)	7.64	Avg. Vel. (ft/s)	4.78	11.57	6.01
Max Chl Dpth (ft)	5.90	Hydr. Depth (ft)	2.79	4.49	2.10
Conv. Total (cfs)	126066.1	Conv. (cfs)	14681.2	63942.6	47442.4
Length Wtd. (ft)	511.13	Wetted Per. (ft)	118.54	131.53	400.05
Min Ch El (ft)	1719.98	Shear (lb/sq ft)	1.94	3.15	1.48
Alpha	1.44	Stream Power (lb/ft s)	9.28	36.42	8.88
Frctn Loss (ft)	5.51	Cum Volume (acre-ft)	145.81	124.41	215.29
C & E Loss (ft)	0.21	Cum SA (acres)	95.50	47.47	126.72

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9760.61	9891.12	1560.05	326.71	118.54	11.65	2.79	4.78
LB 9891.12	9956.54	2775.25	260.75	65.56	20.72	3.99	10.64
9956.54	RB 10021.95	4019.39	326.47	65.97	30.00	4.99	12.31
10021.95	10528.13	5041.31	839.37	400.05	37.63	2.10	6.01

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 4.280

INPUT
Description: SEC.4.280
Station Elevation Data num= 139

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9686.29	1725.83	9691.25	1725.25	9703.87	1722.45	9716.6	1718.83	9718.77	1718.85
9738.66	1718.53	9741.81	1717.97	9753.6	1716.26	9763.33	1717.91	9769.87	1718.86
9772.33	1718.93	9778.26	1719.09	9780.93	1719.06	9808.05	1719.34	9838.94	1719.33
9866.25	1718.47	9870.91	1718.27	9873.63	1718.11	9878.21	1717.58	9884.61	1716.78
9916.44	1716.82	9922.17	1716.82	9924.19	1716.79	9926.32	1716.94	9942.07	1718.22
9955.38	1717.43	9962.05	1716.95	10000	1716.9310006.24		1716.9310006.46		1716.92
10008.47	1716.8310015.96		1716.5910019.67		1716.4110022.04		1716.2610044.39		1716.02
10050.89	1715.9910061.03		1718.6910064.14		1719.2810089.23		1719.0610130.87		1718.83
10134.3	1718.8410140.11		1718.64 10152.8		1718.4110161.78		1718.3210170.65		1718.32
10176.89	1718.0710181.15		1717.9510183.96		1718.1110193.46		1718.810198.31		1718.85

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10203.44 1718.8610211.52 1717.9910215.11 1717.5810217.45 1717.7810227.46  1718.9
10230.51 1718.6410231.28 1718.57 10235.6 1718.3310238.32  1718.210239.96 1718.22
10253.09 1718.6210256.34 1718.53 10288.9 1718.4610295.12 1718.4610299.71 1718.44
10301.81 1718.4110307.65 1718.4610338.21  1718.710358.08 1718.8510360.07 1718.82
10361.79 1718.8210389.13 1718.6310391.52 1717.9910398.68 1715.7610416.17 1716.16
10426.18 1716.3810431.87 1717.1310437.72 1717.9110445.75 1717.8610455.24 1717.88
10483.21 1718.1510499.48 1718.3710509.45 1717.9810509.96 1717.9610526.58 1718.41
10531.47 1718.4910534.38  1718.510545.35 1718.5410585.49 1718.3810603.48  1718.4
10611.02 1718.7810612.48 1718.9110614.25 1719.0210615.16 1719.0810622.95 1719.74
 10625.1 1719.4210629.93 1718.8410634.73 1718.8110637.49 1718.7210645.43 1718.32
10650.11  1718.110657.75  1718.5 10668.9 1719.06 10679.4 1718.99 10695.2 1718.68
10711.53 1719.0310714.48 1719.0910722.21 1719.0410746.35 1719.0210778.52  1718.9
10782.34 1718.8310798.76 1718.47   10813 1718.1510820.66 1717.2910820.87 1717.27
10821.43 1717.2510845.81 1716.8110850.51 1717.25 10859.7 1718.0210870.28 1718.47
10874.15 1718.7110877.91 1718.3910886.68 1717.8910894.43  1716.910899.43 1716.11
10909.17 1716.6610911.59 1716.4910920.45  1715.710937.39 1719.8510941.38 1720.94
10966.58 1721.8710969.39 1721.9510972.89 1721.9910985.58 1721.9711005.98 1721.96
11027.37 1722.0711053.95 1723.5511066.39 1724.3511070.74 1724.28

Manning's n Values        num=       7
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9686.29    .065 9838.94    .03710064.14    .06510391.52    .03710437.72    .065
   10813    .03710870.28    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9838.9410064.14               550  508.57     525             .1      .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1720.80   Element                 Left OB    Channel   Right OB
  Vel Head (ft)               0.62    Wt. n-Val.                0.065     0.037     0.054
  W.S. Elev (ft)            1720.18   Reach Len. (ft)          550.00    508.57    525.00
  Crit W.S. (ft)                      Flow Area (sq ft)        185.71    661.24   1635.72
  E.G. Slope (ft/ft)        0.010313  Area (sq ft)             185.71    661.24   1635.72
  Q Total (cfs)             13396.00  Flow (cfs)               553.50   5519.55   7322.95
  Top Width (ft)             1226.75  Top Width (ft)           127.09    225.20    874.46
  Vel Total (ft/s)              5.40  Avg. Vel. (ft/s)           2.98      8.35      4.48
  Max Chl Dpth (ft)             4.48  Hydr. Depth (ft)           1.46      2.94      1.87
  Conv. Total (cfs)         131911.2  Conv. (cfs)              5450.3   54351.4   72109.5
  Length Wtd. (ft)           519.87   Wetted Per. (ft)         127.67    225.83    876.27
  Min Ch El (ft)            1715.99   Shear (lb/sq ft)           0.94      1.89      1.20
  Alpha                        1.37   Stream Power (lb/ft s)     2.79     15.74      5.38
  Frctn Loss (ft)              6.11   Cum Volume (acre-ft)     143.17    117.06    200.52
  C & E Loss (ft)              0.01   Cum SA (acres)            94.23     45.38    119.12

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
        section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9686.29       9838.94         553.50     185.71     127.67      4.13      1.46       2.98
  LB 9838.94    9951.54        2090.46     281.73     112.78     15.61      2.50       7.42
  9951.54       RB 10064.14    3429.09     379.51     113.05     25.60      3.37       9.04
  10064.14      11070.74       7322.95    1635.72     876.27     54.67      1.87       4.48

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
        section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M1           RS: 4.182

INPUT
Description: SEC.4.182
Station Elevation Data    num=     158
     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev
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```
 9883.73 1717.95 9885.97 1717.85 9894.93 1717.34 9907.13 1716.72 9916.48 1716.02
 9929.07 1712.87 9932.69 1711.88 9935.68 1712.43 9950.88  1714.7 9957.42 1715.03
 9971.51 1716.39 9972.62 1716.25  9982.6 1714.53 9991.33 1708.86 9991.44 1708.79
  9991.7  1708.8   10000 1709.3110015.55 1710.2610024.83  1710.510040.17 1710.27
10048.31 1710.2610061.58 1710.2110061.79 1710.2110062.04 1710.2410075.67 1712.33
10114.74 1712.96 10123.2 1713.1410133.46 1713.0610177.12 1712.6710182.29 1712.39
10185.52 1712.2210189.56 1712.3710201.95 1712.7310215.09 1712.8410220.86 1712.85
10239.55 1712.9710240.84 1712.9810241.58 1712.9310249.36 1712.3210275.85 1712.25
10278.51 1712.26   10280 1712.4810288.45 1713.6710297.07 1713.5610304.36 1713.49
10361.42 1713.1910368.83 1713.2310375.01 1712.7310379.08 1712.63 10394.9 1712.02
10427.59 1712.4310457.84 1712.5810473.64 1712.3210481.43 1712.2610508.61 1712.78
10511.84 1712.8610513.02 1712.8710515.79 1712.8910552.83 1712.9210557.24 1712.93
10563.99 1713.0410571.14 1712.7210573.99 1712.5410583.98 1713.0210585.27  1713.1
10587.39 1713.0810601.14 1712.93 10622.9 1714.1510631.84 1714.6710642.74 1714.66
10642.77 1714.6610662.21 1713.8110675.57 1713.8110691.42 1713.7210704.73 1714.06
10714.26 1714.3310723.67 1714.0310725.02 1713.99 10760.5 1712.8110767.93  1712.6
10773.98 1712.36 10786.5 1711.6510790.89 1711.5710797.96    1711110800.52 1710.89
10823.28 1710.5110827.42 1710.4210837.09 1712.2810840.55  1712.810862.76 1712.27
10877.29 1712.0910881.22 1712.4210886.56 1713.0410891.03 1713.4810894.23 1713.23
10895.66 1713.1310900.01 1713.0110958.46 1711.64 10973.9  1711.210981.47  1711.5
10988.01 1711.6510993.19 1711.4410994.87 1711.3911001.72 1711.6611010.29 1711.93
11025.36 1712.3611028.84 1712.4411030.43 1712.2211039.09 1710.6111052.08 1710.92
11053.82 1710.97 11055.3 1711.0711073.09 1711.5411074.22 1711.5211090.14 1710.91
11096.27 1711.2311106.39 1711.8611110.95 1711.5411116.45 1711.1711126.37    1711
11128.41 1710.9811130.19 1711.1811139.88 1712.6211164.05 1712.7211175.47 1712.87
11198.91 1712.8911204.27 1712.9111213.45 1710.8111215.54 1710.2911220.78  1710.4
11234.34 1710.7911245.66 1712.6711245.87  1712.711246.31  1712.711266.05 1712.46
11290.62 1711.6811292.54  1711.611294.42 1711.4311307.24 1710.1511328.65 1717.71
11330.09 1718.1911330.77 1718.2211343.67 1718.7511351.24 1718.9411357.68 1719.16
11370.03 1719.3211376.78 1719.3311399.32 1718.7211431.05 1717.4511431.78 1717.38
11434.17 1717.2211451.99 1715.81 11475.6 1717.1511476.61 1717.2211479.94 1717.33
11496.02 1717.7811508.62  1718.311523.54 1718.89

Manning's n Values         num=      11
     Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val
 9883.73    .065 9972.62    .037 10123.2    .06510240.84    .03710288.45    .065
10773.98    .03710840.55    .06511030.43    .03711139.88    .06511204.27    .037
11245.66    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9972.62 10123.2              525  513.45     460             .1       .3
Blocked Obstructions      num=       1
   Sta L   Sta R    Elev
 9883.73 9971.51 1716.39

CROSS SECTION OUTPUT     Profile #PF 1

  E.G. Elev (ft)            1714.69   Element                 Left OB    Channel    Right OB
  Vel Head (ft)                0.69   Wt. n-Val.                         0.037      0.048
  W.S. Elev (ft)            1714.00   Reach Len. (ft)         525.00     513.45     460.00
  Crit W.S. (ft)            1713.85   Flow Area (sq ft)                  398.12    1813.63
  E.G. Slope (ft/ft)       0.013329   Area (sq ft)                       398.12    1813.63
  Q Total (cfs)            13396.00   Flow (cfs)                        3678.10    9717.90
  Top Width (ft)            1274.90   Top Width (ft)                     139.79    1135.11
  Vel Total (ft/s)             6.06   Avg. Vel. (ft/s)                     9.24       5.36
  Max Chl Dpth (ft)            5.21   Hydr. Depth (ft)                     2.85       1.60
  Conv. Total (cfs)        116029.8   Conv. (cfs)                       31857.9    84171.8
  Length Wtd. (ft)           477.41   Wetted Per. (ft)                   141.55    1137.39
  Min Ch El (ft)            1708.79   Shear (lb/sq ft)                     2.34       1.33
  Alpha                        1.21   Stream Power (lb/ft s)              21.62       7.11
  Frctn Loss (ft)              5.02   Cum Volume (acre-ft)    142.00     110.88     179.73
  C & E Loss (ft)              0.06   Cum SA (acres)           93.43      43.25     107.01


Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT     Profile #PF 1
```

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9972.62	10047.91	2618.61	246.87	66.09	19.55	3.83	10.61
10047.91	RB 10123.20	1059.49	151.25	75.46	7.91	2.01	7.00
10123.20	11523.54	9717.90	1813.63	1137.39	72.54	1.60	5.36

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 4.084

INPUT
Description: SEC.4.084
Station Elevation Data num= 168

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9831.71	1713.93	9839.27	1713.62	9839.91	1713.58	9840.76	1713.39	9850.63	1711.31
9855.58	1711.1	9866.56	1709.25	9876.87	1708.85	9878.15	1708.81	9880.44	1708.26
9888.85	1706.08	9925.06	1706.08	9927.17	1706.09	9927.77	1706.19	9939.28	1707.58
9943.83	1707.46	9949.66	1707.34	9959.12	1707.01	9967.01	1706.86	9969.83	1706.7
9973.66	1706.62	9979.37	1706.47	9981.24	1706.26	9983.2	1705.6	9988.82	1705.15
9993.63	1704.93	10000	1704.91	10004.37	1704.88	10032.63	1704.63	10039.86	1706.33
10042.48	1706.72	10043.47	1706.86	10046.21	1706.22	10050.13	1705.88	10052.75	1706
10058.2	1706.66	10062.2	1707.05	10067.94	1707.38	10078.8	1707.81	10085.13	1706.67
10087.22	1706.31	10089.08	1706.27	10096.5	1706.08	10110.79	1708.19	10111.52	1708.32
10117.21	1708.25	10135.21	1708.08	10137.1	1708.05	10148.52	1707.93	10150.23	1707.97
10229.61	1707.11	10250.59	1706.82	10252.43	1706.71	10270.48	1705.65	10281.23	1706.17
10320.89	1708.12	10345.63	1708.12	10347.42	1708.13	10349.87	1708.15	10447.71	1708.01
10450.65	1707.95	10456.1	1707.63	10465.57	1707.1	10468.7	1707.26	10486.6	1707.43
10491.37	1707.31	10494.08	1706.81	10497.92	1705.95	10505.52	1706.76	10519.2	1708.08
10528.17	1708.45	10533.83	1708.77	10545.93	1708.74	10548.16	1708.73	10550.72	1708.76
10556.17	1708.79	10580.3	1708.92	10585.95	1708.77	10596.26	1708.31	10609.03	1709.12
10614.84	1709.47	10642.81	1709.51	10647.49	1709.45	10648.45	1709.46	10650.04	1709.46
10653.66	1709.41	10714.88	1709.12	10719.79	1708.62	10732.56	1706.97	10742.57	1707.21
10745.96	1707.31	10749.39	1707.46	10750.31	1707.51	10777.41	1708.11	10784.96	1707.94
10808.98	1707.63	10816.23	1706.49	10816.98	1706.38	10848.75	1706.91	10849.42	1706.91
10850.06	1706.86	10864.06	1705.79	10869.71	1707.21	10870.97	1707.49	10880.12	1706.94
10884.37	1706.93	10899.55	1707.38	10904.46	1707.41	10907.84	1707.44	10909.08	1707.45
10919.1	1707.42	10930.35	1707.87	10933	1707.96	10949.31	1707.95	10949.32	1707.95
10959.23	1707.27	10964.39	1706.56	10968.26	1706.03	10978.09	1707.87	10979.44	1708.15
10981.32	1708.11	11001.03	1707.42	11007.83	1707.72	11012.23	1707.93	11012.9	1707.96
11013.19	1707.96	11018.53	1707.91	11039.69	1708.03	11046.8	1708.11	11048.35	1708.29
11065.64	1707.53	11083.61	1706.93	11087.72	1706.28	11097.59	1704.44	11111.13	1704.42
11125.42	1704.46	11132.69	1705.45	11145.24	1707.21	11157.87	1707.32	11158.81	1707.31
11161.15	1707.24	11186.47	1706.39	11212.28	1707.06	11221.57	1707.37	11236.24	1707.39
11242.98	1707.26	11263.7	1706.91	11274.83	1704.58	11275.08	1704.53	11275.52	1704.52
11295.16	1704.26	11308.61	1710.51	11314.25	1712.98	11322.98	1712.71	11324.42	1712.73
11336.56	1712.96	11336.86	1712.96	11337.38	1712.97	11353.8	1713.12	11360.62	1712.95
11372.43	1712.61	11380.61	1712.21	11384.77	1712.11	11407.72	1712.65	11407.78	1712.65
11407.84	1712.65	11439.42	1712.97	11440.69	1712.95				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9831.71	.065	9880.44	.03710	11152	.06510	11284	.03710	11308.61	.065
11083.61	.03711	11157.87	.06511	11242.98	.03711	11308.61	.065		

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9939.28	10111.52	640	604.1	465	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1709.61	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.50	Wt. n-Val.	0.037	0.037	0.049
W.S. Elev (ft)	1709.11	Reach Len. (ft)	640.00	604.10	465.00
Crit W.S. (ft)		Flow Area (sq ft)	162.43	491.07	1934.16
E.G. Slope (ft/ft)	0.008518	Area (sq ft)	162.43	491.07	1934.16

Q Total (cfs)	13396.00	Flow (cfs)	1151.10	3647.43	8597.47
Top Width (ft)	1329.40	Top Width (ft)	69.14	172.24	1088.02
Vel Total (ft/s)	5.18	Avg. Vel. (ft/s)	7.09	7.43	4.45
Max Chl Dpth (ft)	4.85	Hydr. Depth (ft)	2.35	2.85	1.78
Conv. Total (cfs)	145149.6	Conv. (cfs)	12472.5	39521.0	93156.1
Length Wtd. (ft)	532.17	Wetted Per. (ft)	69.58	173.11	1091.13
Min Ch El (ft)	1704.63	Shear (lb/sq ft)	1.24	1.51	0.94
Alpha	1.19	Stream Power (lb/ft s)	8.80	11.20	4.19
Frctn Loss (ft)	4.50	Cum Volume (acre-ft)	141.02	105.64	159.94
C & E Loss (ft)	0.02	Cum SA (acres)	93.01	41.41	95.27

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9831.71	9939.28	1151.10	162.43	69.58	8.59	2.35	7.09
LB 9939.28	10025.40	2145.18	271.37	86.28	16.01	3.15	7.90
10025.40	RB 10111.52	1502.25	219.70	86.82	11.21	2.55	6.84
10111.52	11440.69	8597.47	1934.16	1091.13	64.18	1.78	4.45

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 3.968

INPUT
Description: SEC.3.968
Station Elevation Data num= 138

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9742.65	1708.06	9753.24	1707.83	9766.24	1707.02	9784.92	1705.12	9789.91	1704.56
9793.06	1704.39	9805.94	1704.53	9808	1704.53	9815.61	1704.27	9822.14	1703.2
9829.73	1702.72	9849.57	1700.92	9863.32	1699.88	9864.28	1699.9	9884.5	1700.99
9892.02	1700.68	9895.35	1700.72	9899.12	1700.9	9908.23	1701.4	9913.25	1701.47
9918.68	1701.74	9928.39	1700.2	9928.7	1700.13	9929.69	1700.15	9945.79	1700.4
9950.8	1701.02	9962.5	1702.17	9963.63	1702.04	9965.06	1702.32	9978.5	1699.85
9981.72	1699.18	10000	1699.0910003.44		1699.0810008.96		1699.1410031.93		1700.64
10032.19	1700.6510032.87		1700.6510064.16		1700.410078.81		1702.0710084.35		1702.49
10125.77	1702.3810126.05		1702.3810126.16		1702.3810151.99		1701.9410157.63		1701.31
10166.69	1700.4710174.73		1700.88 10193.4		1702.0710197.61		1702.2610198.63		1702.39
10200.62	1702.5210230.24		1702.6310273.35		1703.2210274.27		1703.2410274.75		1703.21
10277.3	1703.310281.15		1703.3510323.77		1704.0810337.58		1704.3410369.82		1704.64
10370.57	1704.6410370.76		1704.6610372.48		1704.6710377.75		1704.6610403.67		1704.36
10438.98	1704.03 10447.5		1703.2910459.88		1702.3310492.66		1706.9210498.68		1707.74
10508.77	1707.8310523.91		1707.9210540.65		1707.9810575.32		1705.8210592.37		1704.06
10618.77	1704.0210619.83		1704.0210620.74		1703.9610635.05		1703.1310643.86		1702.02
10646.97	1701.7210652.82		1701.5710669.32		1701.4110690.08		1701.210692.76		1701.85
10699.67	1703.41 10714.6		1703.3710764.15		1703.2510765.36		1703.14 10779.3		1702.22
10786.78	1701.71 10787.6		1701.6610809.35		1702.8710812.73		1703.0110815.32		1703.15
10833.6	1703.68 10856.7		1703.6410861.15		1703.63 10861.7		1703.5810865.64		1703.01
10874.02	1703.210877.17		1703.23 10895.8		1702.9910902.51		1702.9210907.09		1703
10925.95	1703.310930.62		1701.410932.26		1700.5410957.75		1700.6710964.93		1700.77
10967.31	1701.1510972.04		1702.0910987.48		1702.4911004.35		1702.8211013.55		1703.07
11018.54	1703.1711028.58		1702.5911047.19		1701.411049.89		1701.3 11053.4		1700.85
11059.88	1699.9211071.29		1700.09 11076.7		1700.1911096.95		1705.0211098.14		1705.3
11101.55	1705.2611101.79		1705.2511110.94		1705.0811111.21		1705.0811111.56		1704.92
11124.2	1699.4911127.63		1700.0211147.94		1702.9611150.86		1703.0611159.66		1703.42
11164.62	1704.4211169.48		1705.0611205.37		1712.67				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9742.65	.065	9918.68	.03710084.35		.06510619.83		.03710699.67		.065

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10930.62    .03710972.04    .06511028.58    .03711096.95    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        9962.510084.35              475  476.93     560           .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 11098.111205.37  1705.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1705.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.	0.051	0.037	0.048
W.S. Elev (ft)	1704.39	Reach Len. (ft)	475.00	476.93	560.00
Crit W.S. (ft)		Flow Area (sq ft)	473.55	495.18	1431.59
E.G. Slope (ft/ft)	0.008371	Area (sq ft)	473.55	495.18	1431.59
Q Total (cfs)	13776.00	Flow (cfs)	2705.45	4620.96	6449.59
Top Width (ft)	1109.90	Top Width (ft)	150.55	121.85	837.50
Vel Total (ft/s)	5.74	Avg. Vel. (ft/s)	5.71	9.33	4.51
Max Chl Dpth (ft)	5.31	Hydr. Depth (ft)	3.15	4.06	1.71
Conv. Total (cfs)	150571.0	Conv. (cfs)	29570.5	50506.9	70493.6
Length Wtd. (ft)	515.59	Wetted Per. (ft)	151.07	122.34	839.77
Min Ch El (ft)	1699.08	Shear (lb/sq ft)	1.64	2.12	0.89
Alpha	1.37	Stream Power (lb/ft s)	9.36	19.74	4.01
Frctn Loss (ft)	5.10	Cum Volume (acre-ft)	136.34	98.80	141.98
C & E Loss (ft)	0.02	Cum SA (acres)	91.40	39.37	85.00

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9742.65	9962.50	2705.45	473.55	151.07	19.64	3.15	5.71
LB 9962.50	10023.42	2783.96	278.49	61.28	20.21	4.57	10.00
10023.42	RB 10084.35	1837.01	216.69	61.05	13.33	3.56	8.48
10084.35	11205.37	6449.58	1431.59	839.77	46.82	1.71	4.51

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 3.876

INPUT
Description: SEC.3.876
Station Elevation Data num= 105

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9522.3	1706.21	9524.8	1706.15	9541.61	1705.19	9554.48	1702.83	9554.6	1702.81
9554.81	1702.77	9578.18	1702.37	9578.7	1702.37	9587.72	1700.39	9607.92	1700.56
9626.13	1700.43	9637.83	1700.37	9646.58	1698.95	9677.25	1698.63	9682.3	1698.69
9698.4	1698.16	9701.02	1697.97	9708	1697.58	9727.31	1696.45	9727.95	1696.51
9742.53	1697.7	9755.56	1697.83	9757.87	1697.88	9766.46	1697.44	9778.61	1696.56
9788.63	1696.52	9810.82	1696.42	9812.97	1696.26	9823.47	1695.73	9836.5	1695.64
9844.34	1695.57	9846.03	1695.59	9846.98	1695.75	9854.26	1696.76	9867.33	1696.94
9869.13	1696.96	9871.78	1696.82	9884.58	1695.73	9896.47	1695.97	9900.33	1696
9909.73	1696.21	9963.21	1697.35	9968.66	1696.56	9979.33	1694.9	10000	1695.09
10011.17	1695.21	10017.07	1695.21	10018.61	1695.19	10024.65	1695.17	10056.04	1694.72
10060.71	1697.04	10061.87	1697.45	10065.96	1697.32	10081.19	1696.81	10091.36	1697.42
10100.41	1697.82	10103.8	1697.03	10107.48	1696.53	10116.71	1695.98	10143.17	1697.45
10167.33	1698.64	10178.65	1698.93	10188.87	1699	10195.05	1699.09	10241.21	1698.61
10242.64	1698.61	10244.22	1698.59	10245.7	1698.63	10246.39	1698.65	10247.37	1698.67
10250.06	1698.72	10280.35	1699.54	10290.47	1699.17	10319.3	1698.54	10320.55	1698.53
10333.8	1698.13	10371.63	1697.36	10373.96	1697.34	10380.22	1696.12	10380.75	1695.96
10381.31	1695.82	10384.51	1695.85	10403.32	1695.95	10409.63	1697.04	10410.31	1697.17

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10415.84 1697.13 10430.2 1697.0310476.39  1696.910504.43 1696.39 10505.5  1696.4
10517.51 1696.6210529.56 1696.5610543.08 1694.85 10544.9 1694.6410578.01 1694.89
10597.87 1695.0110600.63 1695.1310610.84 1696.3910624.44 1698.3510663.72 1699.27
 10676.7 1699.5210680.11 1699.5810682.72 1699.5910687.85 1699.5510699.51 1699.49

Manning's n Values          num=       9
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
  9522.3    .065 9812.97    .037 9854.26    .065 9968.66    .03710060.71    .065
10373.96    .03710409.63    .06510529.56    .03710610.84    .065

Bank Sta: Left   Right     Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9968.6610060.71                470  497.04     525             .1       .3

CROSS SECTION OUTPUT     Profile #PF 1

  E.G. Elev (ft)             1699.97   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                 0.91   Wt. n-Val.                0.055      0.037      0.046
  W.S. Elev (ft)             1699.06   Reach Len. (ft)          470.00     497.04     525.00
  Crit W.S. (ft)             1698.88   Flow Area (sq ft)        666.50     359.85    1018.49
  E.G. Slope (ft/ft)        0.011360   Area (sq ft)             666.50     359.85    1018.49
  Q Total (cfs)             13776.00   Flow (cfs)              3376.30    3886.62    6513.08
  Top Width (ft)              972.27   Top Width (ft)           322.78      92.05     557.44
  Vel Total (ft/s)              6.74   Avg. Vel. (ft/s)           5.07      10.80       6.39
  Max Chl Dpth (ft)             4.42   Hydr. Depth (ft)           2.06       3.91       1.83
  Conv. Total (cfs)         126497.7   Conv. (cfs)             31002.8    35688.8    59806.2
  Length Wtd. (ft)            501.29   Wetted Per. (ft)         323.18      92.73     558.41
  Min Ch El (ft)             1694.72   Shear (lb/sq ft)           1.53       2.87       1.35
  Alpha                         1.29   Stream Power (lb/ft s)     7.74      31.03       8.64
  Frctn Loss (ft)               4.95   Cum Volume (acre-ft)     130.13      94.12     126.23
  C & E Loss (ft)               0.06   Cum SA (acres)            88.82      38.20      76.03


Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT     Profile #PF 1

  Left Sta     Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)             (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9522.30      9968.66        3376.30     666.50     323.18       24.51      2.06       5.07
  LB 9968.66   10014.69       1897.33     177.05      46.16       13.77      3.85      10.72
  10014.69     RB 10060.71    1989.29     182.81      46.57       14.44      3.97      10.88
  10060.71     10699.51       6513.08    1018.49     558.41       47.28      1.83       6.39


Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M1           RS: 3.780

INPUT
Description: SEC.3.780
Station Elevation Data     num=      97
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
 9505.53 1697.51  9519.7 1697.52 9533.47 1697.59 9536.47 1697.07 9547.45 1695.21
 9549.29  1694.9 9561.95 1694.62 9579.99 1694.23 9592.08 1694.83 9603.18 1695.44
 9622.13 1695.74 9639.92 1696.05 9665.41 1696.31 9720.81 1695.68 9754.77 1695.78
 9772.25 1695.69 9774.26 1695.54 9784.93 1690.87 9788.86 1689.32 9807.45 1688.78
 9814.79 1688.57    9817    1689 9823.95 1690.37 9827.95 1690.58 9840.06 1691.32
 9850.52 1691.83 9873.89 1692.13 9874.08 1692.13 9874.11 1692.13  9874.2 1692.13
 9891.24 1691.57 9893.32 1691.43  9896.1 1691.36 9906.03 1691.13 9927.14  1691.1
 9971.63 1691.59 9982.24  1692.2 9983.49 1691.55 9988.77 1689.24   10000 1689.56
10016.21 1690.0110029.95 1690.4510073.83  1691.6 10075.2 1691.6110075.35 1691.64
 10075.9 1691.6410090.46 1691.8310097.15 1691.8310100.51 1690.8910103.74 1689.85
10113.56 1690.0610123.43 1690.35   10130 1691.7210132.88 1692.2110153.18 1692.72
 10160.2 1692.6110165.16 1692.1510180.06 1691.8710192.52 1691.7910197.74 1691.96
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10228.01 1691.9810239.46 1691.9510252.45 1691.8510272.41 1691.9310280.94 1692.06
10309.91 1692.4110312.44 1692.36 10342.5  1691.410350.26 1691.1610350.57 1691.15
10350.83 1691.1410363.56 1690.3810364.11 1690.2610382.58 1690.2910393.55 1690.28
10399.39 1690.6810405.48 1691.1310409.53 1691.15 10420.2 1691.5510423.35 1691.54
10430.69 1691.4410436.86 1690.6210440.79 1690.37 10453.8 1690.3610471.78 1691.29
10473.68  1691.610482.59 1692.1210488.79 1692.5110491.73 1692.58 10509.5  1694.7
10511.07 1694.92 10553.3 1695.1610559.46 1695.23 10561.5 1695.1510563.01 1695.15
10565.69 1695.25 10585.8  1695.1

Manning's n Values        num=       7
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9505.53    .065 9774.26    .037 9873.89    .065 9982.24    .03710132.88    .065
10312.44    .037 10420.2    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9982.2410132.88              495  522.72     510            .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 9505.53 9665.41 1696.31

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1694.96   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.72   Wt. n-Val.                0.045      0.037      0.050
  W.S. Elev (ft)            1694.24   Reach Len. (ft)          495.00     522.72     510.00
  Crit W.S. (ft)                      Flow Area (sq ft)        650.38     535.79     960.49
  E.G. Slope (ft/ft)       0.008343   Area (sq ft)             650.38     535.79     960.49
  Q Total (cfs)            13776.00   Flow (cfs)              4209.67    4556.04    5010.29
  Top Width (ft)             728.42   Top Width (ft)           205.01     150.64     372.77
  Vel Total (ft/s)             6.42   Avg. Vel. (ft/s)           6.47       8.50       5.22
  Max Chl Dpth (ft)            5.67   Hydr. Depth (ft)           3.17       3.56       2.58
  Conv. Total (cfs)        150823.5   Conv. (cfs)             46088.6    49880.8    54854.0
  Length Wtd. (ft)           510.15   Wetted Per. (ft)         206.28     151.80     373.14
  Min Ch El (ft)             1689.24  Shear (lb/sq ft)           1.64       1.84       1.34
  Alpha                        1.13   Stream Power (lb/ft s)    10.63      15.63       6.99
  Frctn Loss (ft)              5.40   Cum Volume (acre-ft)      123.02      89.01     114.31
  C & E Loss (ft)              0.04   Cum SA (acres)             85.97      36.81      70.42


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9505.53      9982.24       4209.67     650.38     206.28      30.56      3.17       6.47
  LB 9982.24   10057.56      2722.14     299.61      75.99      19.76      3.98       9.09
  10057.56     RB 10132.88   1833.90     236.17      75.81      13.31      3.14       7.77
  10132.88     10585.80      5010.29     960.49     373.14      36.37      2.58       5.22


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M1          RS: 3.681

INPUT
Description: SEC.3.681. SECTION U/S OF SPLIT3 WASH
Station Elevation Data    num=     109
     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev
 9389.52 1691.16  9402.4 1691.12 9421.52 1691.35 9429.91 1691.06 9439.35 1690.74
 9461.05 1689.57 9467.42 1689.24 9470.94 1688.91 9481.81 1687.81 9500.37 1690.11
 9500.38 1690.11 9506.93 1690.13 9524.39 1690.11 9536.07 1690.09 9572.04 1689.55
 9576.59 1689.44 9580.63 1688.68 9592.09 1686.92 9607.98 1687.02 9645.42 1687.19
 9650.96 1685.27 9653.77 1684.28 9658.11 1684.48 9666.06 1684.83 9682.88 1686.74
 9683.07 1686.76 9683.47 1686.77 9701.08 1686.66  9712.3 1687.21 9715.33 1687.55
 9718.31 1687.82 9732.63 1687.43 9761.71 1685.94 9774.99 1685.65 9779.05 1685.47
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    9792 1684.82 9801.28 1685.47 9804.44  1685.7 9805.32 1685.64 9813.16 1685.01
 9829.54 1685.08 9832.99 1685.15 9850.58 1687.66 9851.16 1687.72 9886.57 1686.82
 9911.11 1686.18 9927.73 1686.85 9929.29 1686.95 9936.01 1687.32 9940.26 1687.57
 9942.47 1687.44 9949.42 1687.36 9977.94 1686.53 9984.91 1684.04 9986.86 1683.42
 9995.23 1683.71 9996.16 1683.74   10000 1683.77 10020.8 1683.9110030.99 1684.06
10037.57 1685.6110039.39 1685.9510056.92  1685.810065.89 1685.6610067.64 1685.71
10069.31 1685.7710073.86 1685.8810078.44 1685.7910087.94  1685.5 10090.6 1685.45
10095.14 1685.3810112.26 1684.9710126.22 1684.2310130.61 1683.99 10132.5 1684.26
10146.18 1686.0810158.56 1686.3310166.51 1686.49 10192.7 1686.6310197.29  1686.6
10199.89 1685.9310210.12 1683.5610218.59 1685.4910221.31 1686.1210229.76  1685.8
10243.65 1685.2610250.75 1685.81 10251.5 1685.8510251.67 1685.8510258.71 1685.68
10264.84 1685.3810271.61 1685.0210279.45 1686.0410281.77 1686.2810285.87 1686.38
10297.15 1686.4410304.25 1685.43 10307.9  1684.910311.41 1685.3710321.93 1686.72
10347.06 1687.1910354.82  1687.310354.91  1687.310360.66 1686.9910372.33 1686.22
10392.72 1689.1910396.03 1689.6910400.64 1689.5710403.97 1689.49

Manning's n Values        num=       7
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9389.52    .065 9645.42    .037  9712.3    .065 9732.63    .037 9850.58    .065
 9977.94    .03710158.56    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9977.9410158.56              490  512.16     500             .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 9389.52 9506.93 1690.13

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1689.52   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                1.14   Wt. n-Val.                0.042     0.037      0.065
  W.S. Elev (ft)            1688.39   Reach Len. (ft)          490.00    512.16     500.00
  Crit W.S. (ft)            1688.39   Flow Area (sq ft)        738.31    613.84     506.76
  E.G. Slope (ft/ft)       0.013868   Area (sq ft)             738.31    613.84     506.76
  Q Total (cfs)             13776.00   Flow (cfs)              4925.14   6539.86    2311.00
  Top Width (ft)              804.65   Top Width (ft)           395.39    180.62     228.64
  Vel Total (ft/s)              7.41   Avg. Vel. (ft/s)           6.67     10.65       4.56
  Max Chl Dpth (ft)             4.97   Hydr. Depth (ft)           1.87      3.40       2.22
  Conv. Total (cfs)         116980.4   Conv. (cfs)             41822.4   55533.9    19624.1
  Length Wtd. (ft)                     Wetted Per. (ft)         396.54    181.55     229.85
  Min Ch El (ft)            1683.42   Shear (lb/sq ft)           1.61      2.93       1.91
  Alpha                        1.33   Stream Power (lb/ft s)    10.75     31.19       8.71
  Frctn Loss (ft)                     Cum Volume (acre-ft)     115.13     82.11     105.72
  C & E Loss (ft)                     Cum SA (acres)            82.56     34.83      66.90

Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)     (ft/s)
  9389.52      9977.94       4925.14     738.31     396.54      35.75      1.87       6.67
  LB 9977.94   10068.25      3756.43     334.83      91.06      27.27      3.71      11.22
  10068.25     RB 10158.56   2783.42     279.01      90.49      20.20      3.09       9.98
  10158.56     10403.97      2311.00     506.76     229.85      16.78      2.22       4.56

Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
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CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 3.584

INPUT
Description: SEC.3.584. THIS SECTION AT U/S END OF SPLIT3 WASH. FLOW IS
DECREASED BASED ON A RATING CURVE ANALYSIS OF ENERGY GRADE ELEVS.
VS. DISCHARGE, APPLIED IN HYROLOGY ANALYSIS BY HEC-1 MODEL.
THE
RT. SIDE OF CROSS-SECTIONS MATCH THE ADJACENT SPLIT3 WASH SECTIONS
BETWEEN SEC. 3.584 AND 3.441 AND ARE NOT CONTAINED BY EXIST. GRD.

Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9274.15	1683.55	9277.52	1683.46	9278.13	1683.44	9279.4	1683.41	9303.99	1683
9322.26	1682.67	9325.45	1682.62	9338.81	1680.68	9340.46	1680.44	9343.92	1680.42
9356.35	1680.54	9365.98	1679.07	9368.86	1678.61	9378.82	1680.94	9382.23	1681.57
9387.76	1681.36	9407.76	1680.98	9417.64	1680.98	9446.29	1681.25	9453.62	1681.02
9459.86	1681.15	9490.66	1680.61	9493.49	1680.58	9494.2	1680.66	9496.22	1680.66
9517.44	1681.29	9544.59	1681.6	9580.93	1681.82	9583.27	1681.8	9587.07	1681.53
9593.58	1681.18	9597.53	1681.48	9611.24	1681.26	9614.74	1681.12	9616.59	1680.65
9627.52	1678	9635.33	1678.03	9655.32	1678.19	9662.08	1679.29	9674.98	1681.19
9694.84	1680.52	9702.87	1680.21	9715.66	1680.71	9738.04	1681.63	9764.69	1680.5
9775.18	1680.1	9782.64	1680.15	9793.77	1680.28	9797.24	1680.08	9809.71	1679.14
9811.42	1678.96	9813.79	1679.17	9819.89	1679.51	9832.6	1680.32	9838.94	1680.61
9846.51	1679.55	9846.9	1679.5	9847.44	1679.43	9857.31	1678.26	9878.71	1680.84
9881.04	1681.14	9882.76	1681.12	9904.84	1680.86	9909.04	1680.83	9932.7	1680.28
9951.24	1679.81	9960.93	1679.08	9967.55	1678.61	9975.46	1678.46	9977.7	1678.41
9988.53	1678.06	9994	1677.87	9994.46	1677.92	10000	1677.93	10017.46	1677.97
10018.81	1677.95								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9274.15	.065	9597.53	.037	9674.98	.065	9881.04	.037

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9881.04	10018.81	275	250.92	245	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
9274.15	9580.93	1681.82

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1683.34	Element			
Vel Head (ft)	0.58	Wt. n-Val.	0.054	0.037	
W.S. Elev (ft)	1682.77	Reach Len. (ft)	275.00	250.92	245.00
Crit W.S. (ft)	1682.26	Flow Area (sq ft)	1228.93	449.31	
E.G. Slope (ft/ft)	0.008538	Area (sq ft)	1228.93	449.31	
Q Total (cfs)	9012.00	Flow (cfs)	5429.59	3582.41	
Top Width (ft)	701.94	Top Width (ft)	564.17	137.77	
Vel Total (ft/s)	5.37	Avg. Vel. (ft/s)	4.42	7.97	
Max Chl Dpth (ft)	4.90	Hydr. Depth (ft)	2.18	3.26	
Conv. Total (cfs)	97532.7	Conv. (cfs)	58761.9	38770.7	
Length Wtd. (ft)	264.82	Wetted Per. (ft)	565.98	142.66	
Min Ch El (ft)	1677.87	Shear (lb/sq ft)	1.16	1.68	
Alpha	1.28	Stream Power (lb/ft s)	5.11	13.38	
Frctn Loss (ft)	2.85	Cum Volume (acre-ft)	104.07	75.86	102.81
C & E Loss (ft)	0.02	Cum SA (acres)	77.16	32.95	65.59

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

9274.15	9881.04	5429.59	1228.93	565.98	60.25	2.18	4.42
LB 9881.04	9949.92	880.46	149.08	68.90	9.77	2.16	5.91
9949.92	RB 10018.81	2701.95	300.23	73.76	29.98	4.36	9.00

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 3.536

INPUT
Description: SEC.3.536
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9360.11	1680.34	9366.57	1680.41	9383.59	1680.67	9389.41	1679.1	9402.84	1675.41
9408.39	1676.12	9418.82	1677.34	9427.56	1677.09	9430.82	1676.99	9435.56	1677.07
9444.47	1677.34	9452.78	1677.55	9469.12	1678.02	9480.52	1678.35	9522.79	1678.87
9528.33	1678.94	9533.67	1679.04	9538.28	1679.27	9546.36	1679.04	9570.69	1678.62
9594.51	1678.22	9597.86	1678.22	9601.82	1678.88	9605.1	1678.82	9620.58	1678.78
9626.13	1678.72	9645.27	1678.89	9659.88	1678.95	9699.47	1677.95	9702.77	1677.85
9703.54	1677.75	9718.94	1676.09	9720.46	1676.07	9741.54	1675.65	9747.84	1675.56
9753.1	1677.65	9756.34	1678.93	9764.95	1678.59	9779.92	1678.23	9789.4	1678.16
9805.54	1677.79	9814.9	1677.62	9825.48	1676.76	9833.79	1675.92	9835.46	1675.91
9843.65	1676.78	9851.4	1677.6	9861.51	1677.56	9871.71	1677.56	9879.84	1677.28
9884.99	1677.13	9886.47	1676.97	9899.88	1675.79	9915.53	1677.64	9921.75	1678.42
9930.15	1678.31	9943.51	1678.22	9967.62	1677.59	9978.23	1677.16	9982.97	1676.69
9993.62	1675.38	9999.53	1675.59	10000	1675.62	10002.3	1675.72	10006.04	1675.84
10010.31	1675.82	10036.76	1675.76	10039.18	1675.74	10039.59	1675.81	10045.82	1676.83
10054.05	1677.01	10063.34	1677.05	10079.54	1678.01	10080	1678.04	10080.87	1678.05
10086.12	1678.09								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9360.11	.065	9659.88	.037	9756.34	.065	9921.75	.037

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9921.75	10086.12	260	246.3	245	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
9360.11	9538.28	1679.27

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1680.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.80	Wt. n-Val.	0.054	0.037	
W.S. Elev (ft)	1679.67	Reach Len. (ft)	260.00	246.30	245.00
Crit W.S. (ft)	1679.55	Flow Area (sq ft)	987.08	442.88	
E.G. Slope (ft/ft)	0.013972	Area (sq ft)	987.08	442.88	
Q Total (cfs)	9012.00	Flow (cfs)	4971.28	4040.72	
Top Width (ft)	698.84	Top Width (ft)	534.47	164.37	
Vel Total (ft/s)	6.30	Avg. Vel. (ft/s)	5.04	9.12	
Max Chl Dpth (ft)	4.29	Hydr. Depth (ft)	1.85	2.69	
Conv. Total (cfs)	76242.5	Conv. (cfs)	42057.5	34185.0	
Length Wtd. (ft)	254.15	Wetted Per. (ft)	536.43	166.21	
Min Ch El (ft)	1675.38	Shear (lb/sq ft)	1.61	2.32	
Alpha	1.29	Stream Power (lb/ft s)	8.08	21.21	
Frctn Loss (ft)	2.23	Cum Volume (acre-ft)	97.07	73.29	102.81
C & E Loss (ft)	0.09	Cum SA (acres)	73.70	32.08	65.59

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9360.11	9921.75	4971.28	987.08	536.43	55.16	1.85	5.04
LB 9921.75	10003.94	1574.74	191.00	82.31	17.47	2.32	8.24
10003.94	RB 10086.12	2465.99	251.88	83.89	27.36	3.06	9.79

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 3.489

INPUT
Description: SEC.3.489
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9404.91	1678.98	9424.9	1678.49	9428.01	1678.26	9446.46	1675.81	9449.66	1675.44
9453.87	1674.94	9469.65	1673.29	9480.48	1674.69	9483.86	1675.14	9485.55	1675.17
9552.85	1676.22	9579.91	1676.62	9585	1676.5	9601.14	1676.06	9614.06	1675.87
9627.1	1675.82	9633.59	1675.69	9640.83	1675.64	9646.32	1675.24	9653.24	1674.83
9664.31	1676.06	9664.58	1676.09	9664.81	1676.1	9676.87	1676.42	9680.02	1676.29
9688.89	1675.99	9700.63	1674.67	9705.94	1674.11	9711.09	1674.7	9725.63	1676.52
9739.64	1676.91	9747.73	1677.03	9757.78	1676.67	9767.78	1676.42	9777.64	1676.22
9800.82	1676.06	9801.11	1675.99	9811.56	1673.24	9835.13	1673.73	9836.93	1673.77
9847.49	1675.65	9848.04	1675.77	9852.55	1675.55	9866.11	1674.98	9876.87	1674.56
9886.22	1674.28	9889.09	1674.2	9891.62	1674.03	9897.71	1673.62	9906.15	1673.21
9920.69	1672.35	9925.67	1672.05	9939.42	1674.19	9941.34	1674.54	9962.23	1674.07
9965	1673.92	9971.89	1673.22	9973.99	1673.05	9983.4	1672.34	10000	1672.58
10008.66	1672.71	10014.55	1672.77	10018.7	1673.14	10030.78	1674.16	10043.33	1674.66
10073.53	1675.81	10081.65	1675.51						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9404.91	.065	9800.82	.037	9848.04	.065	9886.22	.037	9939.42	.065
9962.23	.037	10073.53	.065						

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9941.34	10073.53	310 253.84	235	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
9404.91	9579.91	1676.62

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1678.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.	0.048	0.039	0.065
W.S. Elev (ft)	1677.64	Reach Len. (ft)	310.00	253.84	235.00
Crit W.S. (ft)	1676.86	Flow Area (sq ft)	1181.81	503.19	16.14
E.G. Slope (ft/ft)	0.006024	Area (sq ft)	1181.81	503.19	16.14
Q Total (cfs)	9012.00	Flow (cfs)	5355.79	3617.48	38.73
Top Width (ft)	648.99	Top Width (ft)	508.68	132.19	8.12
Vel Total (ft/s)	5.30	Avg. Vel. (ft/s)	4.53	7.19	2.40
Max Chl Dpth (ft)	5.59	Hydr. Depth (ft)	2.32	3.81	1.99
Conv. Total (cfs)	116110.8	Conv. (cfs)	69004.1	46607.7	499.0
Length Wtd. (ft)	279.06	Wetted Per. (ft)	510.30	132.36	10.26
Min Ch El (ft)	1672.34	Shear (lb/sq ft)	0.87	1.43	0.59
Alpha	1.17	Stream Power (lb/ft s)	3.95	10.28	1.42
Frctn Loss (ft)	2.13	Cum Volume (acre-ft)	90.60	70.62	102.76

C & E Loss (ft)	0.05	Cum SA (acres)	70.58	31.25	65.57

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9404.91	9941.34	5355.78	1181.81	510.30	59.43	2.32	4.53
LB 9941.34	10007.44	2163.75	287.16	66.18	24.01	4.34	7.53
10007.44	RB 10073.53	1453.73	216.03	66.19	16.13	3.27	6.73
10073.53	10081.65	38.73	16.14	10.26	0.43	1.99	2.40

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 3.441

INPUT
Description: SEC.3.441
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9340.32	1679.03	9398.58	1678.42	9411.09	1678.24	9424.79	1677.56	9429.7	1677.34
9437.37	1677.35	9451.73	1677.44	9457.93	1677.33	9458.56	1677.39	9467.17	1677.33
9472.63	1677.37	9489.14	1677.54	9513.32	1677.51	9516.88	1677.49	9519.72	1677.5
9554.03	1677.16	9575.08	1677.23	9576.56	1676.89	9579.75	1676.28	9599.43	1672.34
9609.51	1670.66	9616.94	1671.69	9623.66	1672.86	9639.09	1672.78	9651.25	1672.55
9662.58	1671.39	9664.48	1671.17	9666.45	1671.4	9677.3	1672.96	9686.03	1672.92
9707.79	1672.76	9729.17	1672.55	9739.78	1672.47	9758.08	1673.04	9760.88	1673.1
9805.88	1673.33	9805.9	1673.33	9805.92	1673.33	9806.1	1673.33	9857.67	1673.22
9862.35	1673.21	9864.24	1673.2	9866.11	1673.17	9913.78	1672.64	9918.58	1672.57
9918.73	1672.57	9919.17	1672.56	9937.23	1671.64	9946.38	1670.38	9946.65	1670.35
9946.77	1670.34	9948.8	1670.37	9977.6	1670.73	9978.37	1670.75	9982.16	1670.79
9986.64	1670.78	9996.86	1670.79	10000	1670.81	10025.78	1670.93	10036.26	1671.48
10053.54	1672.09	10110.78	1672.81						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9340.32	.065	9913.78	.037	10110.78	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9913.78	10110.78	320	251.87	253	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1675.98	Element			
Vel Head (ft)	0.97	Wt. n-Val.	0.065	0.037	
W.S. Elev (ft)	1675.01	Reach Len. (ft)	320.00	251.87	253.00
Crit W.S. (ft)		Flow Area (sq ft)	716.76	685.40	
E.G. Slope (ft/ft)	0.009967	Area (sq ft)	716.76	685.40	
Q Total (cfs)	9012.00	Flow (cfs)	2751.97	6260.03	
Top Width (ft)	524.68	Top Width (ft)	327.68	197.00	
Vel Total (ft/s)	6.43	Avg. Vel. (ft/s)	3.84	9.13	
Max Chl Dpth (ft)	4.67	Hydr. Depth (ft)	2.19	3.48	
Conv. Total (cfs)	90270.4	Conv. (cfs)	27565.7	62704.8	
Length Wtd. (ft)	279.31	Wetted Per. (ft)	328.47	199.34	
Min Ch El (ft)	1670.34	Shear (lb/sq ft)	1.36	2.14	
Alpha	1.51	Stream Power (lb/ft s)	5.21	19.54	
Frctn Loss (ft)	2.04	Cum Volume (acre-ft)	83.85	67.15	102.72

C & E Loss (ft)	0.13	Cum SA (acres)	67.61	30.29	65.55

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9340.32	9913.78	2751.97	716.76	328.47	30.54	2.19	3.84
LB 9913.78	10012.28	3830.55	387.80	98.62	42.50	3.94	9.88
10012.28	RB 10110.78	2429.48	297.61	100.73	26.96	3.02	8.16

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 3.393

INPUT
Description: SEC.3.393. SPLIT2 WASH FLOW SPLIT BEGINS AT SEC. 3.393. AGAIN A RATING CURVE ANALYSIS OF ENERGY GRADE VS. DISCHARGE BETWEEN SEC. 3.300 (MAIN)
AND SEC. 22.114 (SPLIT2) WAS USED IN HEC-1 MODEL TO DETERMINE SPLITS.
THE RT. SEDE OF MAIN SEC.S 3.393 TO 2.798 MATCH THAT OF SPLIT2 WASH SECS,. AND MAY NOT CONTAIN FLOW WITHIN EX. GROUND AS A RESULT.

Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9730.58	1678.98	9737.98	1677.92	9745.92	1676.82	9751.32	1675.62	9759.7	1673.56
9770.62	1670.83	9779.1	1670.06	9789.72	1669.04	9801.09	1667.59	9803.87	1667.16
9809.19	1667.58	9829.07	1669.05	9838.52	1669.07	9846.1	1669.06	9854.8	1669.03
9872.12	1668.96	9887.84	1668.78	9899.74	1668.76	9903.57	1668.75	9907.69	1668.69
9918.81	1668.68	9931.72	1669.49	9932.26	1669.51	9933.69	1669.6	9935.51	1669.62
9946.81	1669.72	9959.76	1669.09	9961.31	1668.95	9963.08	1668.88	9977.92	1668.55
9979.83	1668.54	10000	1668.38	10010.95	1668.31	10017.07	1668.25	10017.3	1668.24
10017.87	1668.23	10019.38	1668.19	10022.67	1668.09				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9730.58	.065	9946.81	.037	10022.67	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9946.81	10022.67	230	264	264	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1673.81	Element			
Vel Head (ft)	0.54	Wt. n-Val.	0.065	0.037	
W.S. Elev (ft)	1673.28	Reach Len. (ft)	230.00	264.00	264.00
Crit W.S. (ft)		Flow Area (sq ft)	779.84	351.47	
E.G. Slope (ft/ft)	0.004897	Area (sq ft)	779.84	351.47	
Q Total (cfs)	5863.00	Flow (cfs)	3236.98	2626.02	
Top Width (ft)	261.83	Top Width (ft)	185.97	75.86	
Vel Total (ft/s)	5.18	Avg. Vel. (ft/s)	4.15	7.47	
Max Chl Dpth (ft)	6.11	Hydr. Depth (ft)	4.19	4.63	
Conv. Total (cfs)	83783.6	Conv. (cfs)	46257.2	37526.4	
Length Wtd. (ft)	254.47	Wetted Per. (ft)	186.58	81.08	
Min Ch El (ft)	1668.09	Shear (lb/sq ft)	1.28	1.33	
Alpha	1.29	Stream Power (lb/ft s)	5.30	9.90	
Frctn Loss (ft)	1.83	Cum Volume (acre-ft)	78.35	64.16	102.72
C & E Loss (ft)	0.19	Cum SA (acres)	65.72	29.50	65.55

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9730.58	9946.81	3236.98	779.84	186.58	55.21	4.19	4.15
LB 9946.81	9984.74	1228.62	164.48	37.96	20.96	4.34	7.47
9984.74	RB 10022.67	1397.39	186.98	43.12	23.83	4.93	7.47

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 3.343

INPUT
Description: SEC.3.343
Station Elevation Data num= 19

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9953.7	1674.73	9953.74	1674.72	9969.17	1667.66	9973.34	1665.8	9974.58	1665.36
9979.43	1663.56	9986.96	1663.85	10000	1664.29	10012.95	1664.72	10019.46	1663.9
10024.06	1664.34	10027.12	1664.27	10029.22	1664.24	10038.1	1663.68	10047.53	1664.09
10050.39	1664.37	10059.25	1665.21	10072.61	1666.52	10077.73	1666.98		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9953.7	.065	9973.34	.037	10050.39	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9973.34	10050.39	200	229.16	232	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1671.80	Element	0.065	0.037	0.065
Vel Head (ft)	2.39	Wt. n-Val.	200.00	229.16	232.00
W.S. Elev (ft)	1669.41	Reach Len. (ft)	14.54	404.35	101.98
Crit W.S. (ft)	1669.41	Flow Area (sq ft)	14.54	404.35	101.98
E.G. Slope (ft/ft)	0.011546	Area (sq ft)	50.01	5245.31	567.68
Q Total (cfs)	5863.00	Flow (cfs)	8.00	77.05	27.34
Top Width (ft)	112.39	Top Width (ft)	3.44	12.97	5.57
Vel Total (ft/s)	11.26	Avg. Vel. (ft/s)	1.82	5.25	3.73
Max Chl Dpth (ft)	5.85	Hydr. Depth (ft)	465.4	48814.4	5283.0
Conv. Total (cfs)	54562.9	Conv. (cfs)	8.78	77.58	29.90
Length Wtd. (ft)	228.82	Wetted Per. (ft)	1.19	3.76	2.46
Min Ch El (ft)	1663.56	Shear (lb/sq ft)	4.11	48.74	13.69
Alpha	1.21	Stream Power (lb/ft s)	76.25	61.87	102.41
Frctn Loss (ft)	2.63	Cum Volume (acre-ft)	65.21	29.03	65.46
C & E Loss (ft)	0.20	Cum SA (acres)			

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9953.70	9973.34	50.01	14.54	8.78	0.85	1.82	3.44
LB 9973.34	10011.87	2565.66	199.86	38.94	43.76	5.19	12.84
10011.87	RB 10050.39	2679.65	204.49	38.64	45.70	5.31	13.10
10050.39	10077.73	567.68	101.98	29.90	9.68	3.73	5.57

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 3.300

INPUT
Description: SEC.3.300
Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9829.04	1667.69	9832.52	1667.43	9843.91	1666.93	9861.15	1666.53	9897.42	1664.62
9901.94	1664.44	9909.66	1663.59	9916.05	1662.93	9917.68	1662.91	9919.11	1662.92
9930.63	1663.31	9946.56	1663.61	9951.9	1663.49	9957.02	1662.76	9964.92	1661.59
10000	1661.14	10001.67	1661.12	10010.14	1661.01	10010.3	1661.08	10010.44	1661.11
10011.95	1661.17	10025.48	1662.03	10031.05	1662.51	10043.74	1663.77		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9829.04	.065	9909.66	.037	10043.74	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9909.66	10043.74	229.14	258.01	267.82	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1668.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.73	Wt. n-Val.	0.065	0.037	
W.S. Elev (ft)	1666.29	Reach Len. (ft)	229.14	258.01	267.82
Crit W.S. (ft)	1666.22	Flow Area (sq ft)	51.97	535.50	
E.G. Slope (ft/ft)	0.011483	Area (sq ft)	51.97	535.50	
Q Total (cfs)	5863.00	Flow (cfs)	142.19	5720.81	
Top Width (ft)	178.02	Top Width (ft)	43.94	134.08	
Vel Total (ft/s)	9.98	Avg. Vel. (ft/s)	2.74	10.68	
Max Chl Dpth (ft)	5.28	Hydr. Depth (ft)	1.18	3.99	
Conv. Total (cfs)	54713.1	Conv. (cfs)	1326.9	53386.2	
Length Wtd. (ft)	254.12	Wetted Per. (ft)	44.04	136.92	
Min Ch El (ft)	1661.01	Shear (lb/sq ft)	0.85	2.80	
Alpha	1.12	Stream Power (lb/ft s)	2.31	29.95	
Frctn Loss (ft)	2.59	Cum Volume (acre-ft)	76.10	59.39	102.14
C & E Loss (ft)	0.21	Cum SA (acres)	65.09	28.48	65.39

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9829.04	9909.66	142.19	51.97	44.04	2.43	1.18	2.74
LB 9909.66	9976.70	2244.27	230.90	67.22	38.28	3.44	9.72
9976.70	RB 10043.74	3476.53	304.60	69.69	59.30	4.54	11.41

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 3.254

INPUT
Description: SEC.3.254. THE LT. SIDE OF SEC. 3.254 AND 3.205 WERE BLOCKED OUT BELOW THE ADJ. TOP OF RIDGE TO SIMULATE FLOW WEIRING OVER INTO THIS AREA THAT CONTRIBUTES TO SPLIT1 WASH DOWNSTREAM.

Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9559.92	1667	9586	1663.84	9594.25	1662.83	9597.98	1662.58	9613.71	1661.88
9624.86	1662.49	9634.7	1662.77	9654.39	1662.19	9661.05	1662.02	9664.68	1662
9674.87	1661.96	9681.35	1661.91	9689.42	1662.45	9699.18	1663.23	9727.33	1663.39
9766.82	1662.82	9768.18	1662.81	9779.24	1662.55	9786.6	1662.39	9802.85	1662.19
9846.61	1661.72	9850.46	1661.83	9859.39	1662.06	9877.3	1661.27	9888.28	1660.51
9897.71	1660.76	9914.75	1661.28	9922.56	1660.61	9924.35	1660.44	9927.07	1660.45
9945.29	1660.57	9970.83	1660.39	9981.31	1659.93	10000	1659.32	10007.35	1659.08
10019.76	1660.88	10028.78		166210029.79	1662.02	10051.31	1662.18		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9559.92	.065	9914.75	.03710028.78		.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9914.75 10028.78 250 258.78 270 .1 .3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
9559.92	9727.33	1663.39

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1665.22	Element			
Vel Head (ft)	1.04	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1664.19	Reach Len. (ft)	250.00	258.78	270.00
Crit W.S. (ft)		Flow Area (sq ft)	512.97	444.86	47.11
E.G. Slope (ft/ft)	0.009073	Area (sq ft)	512.97	444.86	47.11
Q Total (cfs)	5863.00	Flow (cfs)	1493.65	4210.86	158.49
Top Width (ft)	468.18	Top Width (ft)	331.62	114.03	22.53
Vel Total (ft/s)	5.83	Avg. Vel. (ft/s)	2.91	9.47	3.36
Max Chl Dpth (ft)	5.11	Hydr. Depth (ft)	1.55	3.90	2.09
Conv. Total (cfs)	61552.6	Conv. (cfs)	15681.0	44207.7	1663.9
Length Wtd. (ft)	255.91	Wetted Per. (ft)	331.74	114.29	24.54
Min Ch El (ft)	1659.08	Shear (lb/sq ft)	0.88	2.20	1.09
Alpha	1.96	Stream Power (lb/ft s)	2.55	20.87	3.66
Frctn Loss (ft)	2.65	Cum Volume (acre-ft)	74.61	56.49	101.99
C & E Loss (ft)	0.08	Cum SA (acres)	64.10	27.74	65.32

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9559.92	9914.75	1493.65	512.97	331.74	25.48	1.55	2.91
LB 9914.75	9971.77	1869.78	207.31	57.05	31.89	3.64	9.02
9971.77	RB 10028.78	2341.08	237.55	57.24	39.93	4.17	9.86
10028.78	10051.31	158.49	47.11	24.54	2.70	2.09	3.36

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 3.205

INPUT
Description: SEC.3.205
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9482.56	1668.9	9510.58	1665.2	9545.86	1660.25	9559.37	1658.99	9567.05	1658.4
9573.32	1658.54	9584.3	1659.37	9584.93	1659.18	9592.59	1659.4	9679.93	1660.15
9721.05	1660.56	9726.98	1660.63	9730.2	1660.62	9730.33	1660.62	9754.05	1660.1
9828.86	1658.94	9861.44	1659.4	9873.27	1659.55	9877.24	1659.81	9887.8	1659.28
9889.44	1659.22	9890.67	1659.2	9912.43	1658.59	9925.52	1658.38	9935.25	1658.26
9942.92	1659.1	9945.06	1659.37	9947.26	1659.33	9963.66	1659.22	9972.46	1658.03
9980.11	1657.36	9999.89	1657.12	10000	1657.12	10006.98	1657.06	10011.93	1658.14
10017.58	1659.34	10023.42	1659.48	10040.57	1659.89	10058.97	1660.24	10067.52	1659.76
10077.06	1659.16	10086.66	1660.28	10087.55	1660.33	10088.06	1660.12	10091.14	1660.09

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9482.56	.065	9963.66	.037	10058.97	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9963.66	10058.97	270 253.89	233.85	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
9482.56	9726.98	1660.63

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1662.49	Element			
Vel Head (ft)	0.75	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1661.74	Reach Len. (ft)	270.00	253.89	233.85
Crit W.S. (ft)		Flow Area (sq ft)	771.38	297.22	63.03
E.G. Slope (ft/ft)	0.011929	Area (sq ft)	771.38	297.22	63.03
Q Total (cfs)	5863.00	Flow (cfs)	2849.66	2775.65	237.69
Top Width (ft)	555.88	Top Width (ft)	428.40	95.31	32.17
Vel Total (ft/s)	5.18	Avg. Vel. (ft/s)	3.69	9.34	3.77
Max Chl Dpth (ft)	4.68	Hydr. Depth (ft)	1.80	3.12	1.96
Conv. Total (cfs)	53681.3	Conv. (cfs)	26091.3	25413.7	2176.2
Length Wtd. (ft)	259.28	Wetted Per. (ft)	428.60	95.67	33.96
Min Ch El (ft)	1657.06	Shear (lb/sq ft)	1.34	2.31	1.38
Alpha	1.81	Stream Power (lb/ft s)	4.95	21.61	5.21
Frctn Loss (ft)	2.93	Cum Volume (acre-ft)	70.93	54.29	101.65
C & E Loss (ft)	0.01	Cum SA (acres)	61.92	27.12	65.15

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

9482.56	9963.66	2849.66	771.38	428.60	48.60	1.80	3.69
LB 9963.66	10011.31	2114.28	198.46	47.87	36.06	4.16	10.65
10011.31	RB 10058.97	661.37	98.77	47.81	11.28	2.07	6.70
10058.97	10091.14	237.69	63.03	33.96	4.05	1.96	3.77

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 3.156

INPUT
Description: SEC.3.156. SPLIT1 WASH BEGINS AT SEC. 3.156 , LT. SIDE . AGAIN A HEC-RAS RATING CURVE ANALYSIS OF ENERGY GRADE ELS. VS. Q'S AT SEC. 3.108 (MAIN) AND SEC. 12.019 (SPLIT1) WERE USED IN THE HEC-1 MODEL HYDROLOGY TO ESTIMATE THE FLOW SPLITS.
THE LT. SIDE OF MAIN WASH
SECS. 3.156 TO 2.798 ARE NOT CONTAINED BY EX. GROUND IN THIS AREA .

Station Elevation Data num= 17

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9916.2	1657.77	9953.4	1657.35	9970.32	1657.27	9990.31	1655.73	9992.68	1655.56
9994.58	1655.46	10000	1655.21	10010.46	1654.73	10017.93	1657.05	10019.85	1657.55
10021.43	1657.52	10025	1657.56	10048.92	1657.74	10065.48	1657.51	10072.35	1657.36
10075.92	1657.41	10088.17	1657.63						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9916.2	.065	9970.32	.037	10019.85	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9970.32	10019.85	251.46	251.08	255	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1659.55	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.73	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1658.83	Reach Len. (ft)	251.46	251.08	255.00
Crit W.S. (ft)	1658.75	Flow Area (sq ft)	72.86	144.56	85.49
E.G. Slope (ft/ft)	0.009211	Area (sq ft)	72.86	144.56	85.49
Q Total (cfs)	1538.00	Flow (cfs)	192.40	1130.31	215.29
Top Width (ft)	171.97	Top Width (ft)	54.12	49.53	68.32
Vel Total (ft/s)	5.08	Avg. Vel. (ft/s)	2.64	7.82	2.52
Max Chl Dpth (ft)	4.10	Hydr. Depth (ft)	1.35	2.92	1.25
Conv. Total (cfs)	16025.0	Conv. (cfs)	2004.7	11777.1	2243.2
Length Wtd. (ft)	251.48	Wetted Per. (ft)	55.18	50.03	69.53
Min Ch El (ft)	1654.73	Shear (lb/sq ft)	0.76	1.66	0.71
Alpha	1.81	Stream Power (lb/ft s)	2.01	12.99	1.78
Frctn Loss (ft)	2.79	Cum Volume (acre-ft)	68.31	53.00	101.25
C & E Loss (ft)	0.01	Cum SA (acres)	60.42	26.70	64.88

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9916.20	9970.32	192.40	72.86	55.18	12.51	1.35	2.64
LB 9970.32	9995.08	436.57	62.09	24.83	28.39	2.51	7.03
9995.08	RB 10019.85	693.74	82.46	25.20	45.11	3.33	8.41
10019.85	10088.17	215.29	85.49	69.53	14.00	1.25	2.52

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 3.108

INPUT
Description: SEC.3.108
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9850.56	1654.47	9854.94	1655.35	9877.32	1655.15	9882.48	1655.08	9889.81	1655.03
9908.65	1655.11	9918.98	1654.08	9920.85	1653.9	9921.06	1653.9	9934.78	1654.1
9940.09	1654.29	9952.91	1654.79	9969.96	1653.63	9971.15	1653.53	9972.44	1653.67
9977.61	1654.27	9980.2	1654.21	9993.05	1653.67	9995.18	1653.57	9995.79	1653.56
10000	1653.44	10014.49	1653.03	10023.41	1654.65	10025.23	1654.96	10032.57	1654.77

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9850.56	.065	9977.61	.037	10025.23	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9977.61	10025.23	245 248.16	250	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1656.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.71	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1656.05	Reach Len. (ft)	245.00	248.16	250.00
Crit W.S. (ft)	1656.02	Flow Area (sq ft)	177.88	111.81	8.67
E.G. Slope (ft/ft)	0.013677	Area (sq ft)	177.88	111.81	8.67
Q Total (cfs)	1538.00	Flow (cfs)	589.53	925.20	23.27
Top Width (ft)	182.01	Top Width (ft)	127.05	47.62	7.34
Vel Total (ft/s)	5.15	Avg. Vel. (ft/s)	3.31	8.27	2.68
Max Chl Dpth (ft)	3.02	Hydr. Depth (ft)	1.40	2.35	1.18
Conv. Total (cfs)	13151.3	Conv. (cfs)	5041.0	7911.3	199.0
Length Wtd. (ft)	247.25	Wetted Per. (ft)	128.88	47.81	8.62
Min Ch El (ft)	1653.03	Shear (lb/sq ft)	1.18	2.00	0.86
Alpha	1.71	Stream Power (lb/ft s)	3.91	16.52	2.31
Frctn Loss (ft)	3.25	Cum Volume (acre-ft)	67.59	52.26	100.98
C & E Loss (ft)	0.02	Cum SA (acres)	59.90	26.42	64.66

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9850.56	9977.61	589.53	177.88	128.88	38.33	1.40	3.31
LB 9977.61	10001.42	421.84	52.87	23.83	27.43	2.22	7.98
10001.42	RB 10025.23	503.36	58.94	23.99	32.73	2.48	8.54
10025.23	10032.57	23.27	8.67	8.62	1.51	1.18	2.68

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 3.061

INPUT

Description: SEC.3.061
Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9799.21	1652.59	9807.31	1652.35	9833.53	1652.01	9860.36	1651.67	9893.01	1651.52
9896.87	1651.65	9904.78	1651.76	9928.67	1651.92	9931.1	1651.95	9932.95	1651.63
9940.85	1650.07	9942.89	1650.15	9945.59	1650.54	9959.13	1650.81	9968.75	1650.98
9983.05	1651.12	9983.51	1651.13	9983.97	1651.11	9990.32	1650.64	9999.59	1649.95
10000	1650.01	10002.02	1650.32	10013.53	1651.88	10021.45	1651.91		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9799.21	.065	9931.1	.03	10013.53	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9931.1	10013.53	265 306.24	270	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1653.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.65	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1652.83	Reach Len. (ft)	265.00	306.24	270.00
Crit W.S. (ft)	1652.83	Flow Area (sq ft)	126.77	167.27	7.43
E.G. Slope (ft/ft)	0.012597	Area (sq ft)	126.77	167.27	7.43
Q Total (cfs)	1538.00	Flow (cfs)	316.38	1204.65	16.97
Top Width (ft)	222.24	Top Width (ft)	131.89	82.43	7.92
Vel Total (ft/s)	5.10	Avg. Vel. (ft/s)	2.50	7.20	2.28
Max Chl Dpth (ft)	2.88	Hydr. Depth (ft)	0.96	2.03	0.94
Conv. Total (cfs)	13703.0	Conv. (cfs)	2818.8	10733.0	151.2
Length Wtd. (ft)		Wetted Per. (ft)	132.14	82.82	8.84
Min Ch El (ft)	1649.95	Shear (lb/sq ft)	0.75	1.59	0.66
Alpha	1.61	Stream Power (lb/ft s)	1.88	11.44	1.51
Frctn Loss (ft)		Cum Volume (acre-ft)	66.73	51.47	100.93
C & E Loss (ft)		Cum SA (acres)	59.17	26.05	64.62

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9799.21	9931.10	316.38	126.77	132.14	20.57	0.96	2.50
LB 9931.10	9972.31	609.82	84.27	41.43	39.65	2.04	7.24
9972.31	RB 10013.53	594.83	83.00	41.39	38.68	2.01	7.17
10013.53	10021.45	16.97	7.43	8.84	1.10	0.94	2.28

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 3.003

INPUT
Description: SEC.3.003
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9829.38	1647.92	9839.87	1648.05	9857.18	1647.95	9868.29	1648.17	9882.29	1648.3

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 9892.79 1648.56 9894.14 1648.42 9910.27 1647.83 9914.47 1647.59 9915.06  1647.6
 9922.65 1647.69 9948.33 1647.77 9958.97 1646.78 9962.78 1646.36 9970.07 1646.47
 9980.41 1646.65 9985.33 1646.47   10000 1645.9610001.23 1645.9210006.14 1646.44
10017.12 1648.1910018.54 1648.2410036.81  1648.610043.26 1648.4410049.91 1648.34
10061.64 1648.1810063.55 1648.1110068.48 1648.0110071.34 1648.1410083.08 1649.13
 10091.6 1649.4710099.34 1649.43 10127.2 1647.1910148.75 1647.88 10169.5 1648.57

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9829.38    .065 9948.33    .03710036.81    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9948.3310036.81              265  285.12    295            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1649.42   Element                Left OB    Channel   Right OB
  Vel Head (ft)                0.47   Wt. n-Val.               0.065      0.037      0.065
  W.S. Elev (ft)            1648.95   Reach Len. (ft)         265.00     285.12     295.00
  Crit W.S. (ft)                      Flow Area (sq ft)       113.34     168.13      91.93
  E.G. Slope (ft/ft)        0.010851  Area (sq ft)            113.34     168.13      91.93
  Q Total (cfs)             1538.00   Flow (cfs)              259.78    1076.93     201.29
  Top Width (ft)             315.80   Top Width (ft)          118.95      88.48     108.38
  Vel Total (ft/s)             4.12   Avg. Vel. (ft/s)          2.29       6.41       2.19
  Max Chl Dpth (ft)            3.03   Hydr. Depth (ft)          0.95       1.90       0.85
  Conv. Total (cfs)         14764.8   Conv. (cfs)            2493.9    10338.5     1932.4
  Length Wtd. (ft)           282.72   Wetted Per. (ft)        120.01      88.73     108.89
  Min Ch El (ft)            1645.92   Shear (lb/sq ft)          0.64       1.28       0.57
  Alpha                        1.78   Stream Power (lb/ft s)    1.47       8.22       1.25
  Frctn Loss (ft)              3.12   Cum Volume (acre-ft)     66.00      50.29     100.62
  C & E Loss (ft)              0.00   Cum SA (acres)           58.41      25.45      64.26


Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)      (sq ft)    (ft)                (ft)      (ft/s)
  9829.38       9948.33         259.78     113.34     120.01     16.89      0.95       2.29
  LB 9948.33    9992.57         713.36     100.80      44.32     46.38      2.28       7.08
  9992.57       RB 10036.81     363.57      67.33      44.41     23.64      1.52       5.40
  10036.81      10169.50        201.29      91.93     108.89     13.09      0.85       2.19


Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M1           RS: 2.949

INPUT
Description: SEC.2.949
Station Elevation Data    num=      42
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9889.14 1644.67 9907.14 1644.99 9912.02 1644.64 9924.08 1643.82 9928.16 1643.97
 9948.96 1644.54 9968.36 1645.11 9973.08 1645.31 9976.13 1644.86 9984.82 1643.61
10000.01 1642.7810001.21 1642.7110008.41 1642.19 10016.4 1643.0810028.95 1644.54
 10045.4 1644.8110061.69 1645.1210065.92  1644.8 10084.8 1644.9610096.54 1645.08
10126.83 1645.0210136.42 1645.28   10149 1645.4510162.97  1645.610180.82 1645.63
10190.14 1645.0810199.35 1644.7610214.35 1645.6310223.47 1646.0310227.43 1646.16
10232.36 1646.1210236.78 1646.3210253.57 1646.4710267.46 1646.63 10270.9 1646.71
10282.27    164610285.71  1645.810287.86 1645.8710300.65 1646.3210304.77 1646.36
10321.89 1646.4310323.34 1646.43
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Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9889.14    .065 9973.08    .03710061.69    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9973.0810061.69              275   271.8     265            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1646.30   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.48   Wt. n-Val.                0.065      0.037     0.065
  W.S. Elev (ft)            1645.82   Reach Len. (ft)          275.00     271.80    265.00
  Crit W.S. (ft)            1645.76   Flow Area (sq ft)        104.61     167.41     96.67
  E.G. Slope (ft/ft)       0.011109   Area (sq ft)             104.61     167.41     96.67
  Q Total (cfs)             1538.00   Flow (cfs)               289.09    1080.42    168.49
  Top Width (ft)             330.60   Top Width (ft)            83.94      88.61    158.05
  Vel Total (ft/s)             4.17   Avg. Vel. (ft/s)          2.76       6.45      1.74
  Max Chl Dpth (ft)            3.63   Hydr. Depth (ft)          1.25       1.89      0.61
  Conv. Total (cfs)         14592.2   Conv. (cfs)              2742.8    10250.8    1598.6
  Length Wtd. (ft)           270.78   Wetted Per. (ft)          85.16      88.92    158.12
  Min Ch El (ft)            1642.19   Shear (lb/sq ft)          0.85       1.31      0.42
  Alpha                        1.78   Stream Power (lb/ft s)    2.35       8.43      0.74
  Frctn Loss (ft)              2.84   Cum Volume (acre-ft)     65.34      49.19     99.99
  C & E Loss (ft)              0.04   Cum SA (acres)           57.79      24.87     63.35


Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)      (sq ft)    (ft)                (ft)      (ft/s)
  9889.14       9973.08        289.09      104.61     85.16      18.80      1.25       2.76
  LB 9973.08    10017.38       824.68      112.00     44.53      53.62      2.53       7.36
  10017.38      RB 10061.69    255.75       55.41     44.39      16.63      1.25       4.62
  10061.69      10323.34       168.49       96.67    158.12      10.96      0.61       1.74


Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M1           RS: 2.897

INPUT
Description: SEC.2.897. U/S OF DOVE VALLEY RD., 230+/-FT.
Station Elevation Data    num=      52
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9899.73 1641.32 9900.75 1641.31 9934.23 1641.95 9934.94 1641.95 9945.28 1641.29
 9952.11 1640.86 9954.94 1640.92  9983.5 1641.21 9986.09 1641.49 9991.24 1642.09
 9997.88 1641.34   10000 1641.0710005.99 1640.3210015.33 1641.8310021.61 1642.99
10026.25 1642.8910036.26 1642.7710047.92 1642.5710054.32 1642.5610066.39 1641.99
10072.66 1641.6410083.67 1642.65   10087 1642.9510091.58 1643.09 10100.4 1643.18
10103.96 1642.7410111.64 1641.2610122.65  1641.710135.02 1642.2910139.22 1642.35
10141.54 1642.4310162.14 1642.3810238.91 1642.3510241.66  1642.310243.45 1642.37
10252.05 1641.7910255.02 1641.5710256.06 1641.5110258.44  1641.610265.65 1641.69
10277.58 1641.9210286.66  1642.2 10321.6 1642.2910333.76 1642.4910346.57  1642.7
10360.06 1642.8210373.23 1643.1310384.79  1643.410403.74 1643.7410423.87 1644.01
10441.64 1644.3210453.01 1644.37

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9899.73    .065 9934.94    .03710021.61    .065
```

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
9934.94	10021.61	450	522.72	400	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1643.42	Element			
Vel Head (ft)	0.34	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1643.08	Reach Len. (ft)	450.00	522.72	400.00
Crit W.S. (ft)		Flow Area (sq ft)	51.02	153.61	258.30
E.G. Slope (ft/ft)	0.009956	Area (sq ft)	51.02	153.61	258.30
Q Total (cfs)	1538.00	Flow (cfs)	144.25	898.57	495.18
Top Width (ft)	461.12	Top Width (ft)	35.21	86.67	339.24
Vel Total (ft/s)	3.32	Avg. Vel. (ft/s)	2.83	5.85	1.92
Max Chl Dpth (ft)	2.76	Hydr. Depth (ft)	1.45	1.77	0.76
Conv. Total (cfs)	15414.2	Conv. (cfs)	1445.7	9005.6	4962.8
Length Wtd. (ft)	463.26	Wetted Per. (ft)	36.97	87.09	339.56
Min Ch El (ft)	1640.32	Shear (lb/sq ft)	0.86	1.10	0.47
Alpha	1.99	Stream Power (lb/ft s)	2.43	6.41	0.91
Frctn Loss (ft)	6.05	Cum Volume (acre-ft)	64.85	48.19	98.91
C & E Loss (ft)	0.00	Cum SA (acres)	57.42	24.32	61.84

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9899.73	9934.94	144.25	51.02	36.97	9.38	1.45	2.83
LB 9934.94	9978.28	505.52	82.47	43.37	32.87	1.90	6.13
9978.28	RB 10021.61	393.04	71.14	43.72	25.56	1.64	5.52
10021.61	10453.01	495.18	258.30	339.56	32.20	0.76	1.92

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 2.798

INPUT
Description: SEC.2.798
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9614.19	1636.65	9615.08	1636.59	9626.79	1636.44	9637.8	1636.28	9671.32	1636.22
9677.78	1636.35	9691.51	1636.82	9701.91	1637.12	9717.08	1637.18	9736.24	1637.35
9748.27	1637.52	9805.09	1636.39	9823.8	1636.49	9826.72	1636.49	9832.5	1636.39
9947.72	1636.47	9951.84	1636.5	9953.53	1636.54	9957.3	1636.59	9972.39	1636.8
9987.6	1636.95	9992.84	1636.13	9996.25	1635.39	10000	1635.27	10007.14	1635.05
10015.5	1634.77	10024.25	1635.46	10030.75	1636.24	10031.46	1636.83	10033.43	1636.22
10040.98	1636.51	10050.22	1636.41	10064.06	1636.31	10071.22	1635.94	10086.03	1635.89
10092.61	1635.89	10118.11	1635.77	10120.3	1635.76	10125.81	1635.74	10131.92	1636.07
10134.23	1636.17	10137.89	1636.33	10143.4	1636.36	10151.66	1635.92	10164.44	1636.05
10199.58	1636.54	10201.77	1636.51	10205	1636.49	10211.6	1636.42	10214.62	1636.35
10233.16	1635.92	10240.95	1635.77	10245.89	1635.56	10247.71	1635.58	10260.88	1635.92
10270.2	1636.11	10272.72	1636.08	10286.8	1635.94	10295.25	1636.39	10303.05	1636.66
10314.06	1637.05	10325.83	1637.63	10336.93	1638.01	10349.22	1637.62	10371.01	1637.68
10446.28	1637.67								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9614.19	.065	9987.6	.037	10031.46	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9987.61	10031.46	370	506.88	470	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1637.36	Element			
Vel Head (ft)	0.34	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1637.03	Reach Len. (ft)	370.00	506.88	470.00
Crit W.S. (ft)	1637.03	Flow Area (sq ft)	157.85	68.91	252.27
E.G. Slope (ft/ft)	0.018092	Area (sq ft)	157.85	68.91	252.27
Q Total (cfs)	1538.00	Flow (cfs)	318.28	499.70	720.02
Top Width (ft)	624.62	Top Width (ft)	298.87	43.86	281.89
Vel Total (ft/s)	3.21	Avg. Vel. (ft/s)	2.02	7.25	2.85
Max Chl Dpth (ft)	2.26	Hydr. Depth (ft)	0.53	1.57	0.89
Conv. Total (cfs)	11434.4	Conv. (cfs)	2366.3	3715.1	5353.1
Length Wtd. (ft)		Wetted Per. (ft)	299.27	44.30	282.08
Min Ch El (ft)	1634.77	Shear (lb/sq ft)	0.60	1.76	1.01
Alpha	2.11	Stream Power (lb/ft s)	1.20	12.74	2.88
Frctn Loss (ft)		Cum Volume (acre-ft)	63.77	46.85	96.56
C & E Loss (ft)		Cum SA (acres)	55.69	23.54	58.99

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9614.19	9987.60	318.28	157.85	299.27	20.69	0.53	2.02
LB 9987.60	10009.53	212.95	31.34	22.08	13.85	1.43	6.79
10009.53	RB 10031.46	286.76	37.57	22.22	18.64	1.71	7.63
10031.46	10446.28	720.02	252.27	282.08	46.82	0.89	2.85

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 2.702

INPUT
Description: SEC.2.702
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9233.55	1632.37	9242.05	1632.4	9245.14	1632.43	9249.23	1632.37	9249.8	1631.65
9250.76	1630.42	9251.61	1630.19	9255.9	1630.42	9263.46	1630.47	9282.12	1630.57
9296.6	1630.54	9299.23	1630.95	9302.9	1631.39	9307.17	1630.91	9312.15	1630.95
9331.75	1630.91	9357.46	1630.56	9361.81	1630.71	9364.53	1630.85	9374.68	1631.03
9381.68	1631.09	9388.32	1630.76	9389.36	1630.7	9390.67	1630.67	9393.18	1630.71
9415.85	1631.44	9532.18	1631.47	9532.49	1631.46	9532.57	1631.46	9532.74	1631.46
9534.28	1631.42	9573.84	1630.57	9585.3	1630.11	9586.17	1630.08	9589.14	1630.13
9607.82	1630.55	9662.04	1631.11	9670.5	1631.18	9674.05	1631.22	9737.62	1632.05
9746.33	1632.09	9761.7	1632.16	9819.01	1631.57	9826.63	1631.67	9841.05	1631.53
9863.61	1631.3	9885.68	1630.88	9901.47	1630.63	9907.36	1630.83	9909.07	1630.61
9921.53	1629.73	9927.48	1629.27	9942.91	1629.62	9981.88	1630.54	9983.73	1630.3
9993.46	1628.7	9999.69	1628.62	10000	1628.62	10011.18	1628.71	10019.35	1630.53

10019.99 1630.6810025.73 1630.6510121.06 1629.9110125.48 1629.9210129.34 1629.94
10138.39 1629.7910141.56 1629.74 10154.4 1629.9210189.21 1630.4410209.55 1630.7
10220.61 1630.8710226.63 1631.0510245.53 1631.2410252.59 1631.3710269.23 1630.88
10277.27 1630.4810299.38 1631.24 10319.2 1631.7210323.39 1631.77

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9233.55	.065	9981.88	.03710019.99		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9981.8810019.99		475 476.27	469.86	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1631.68	Element			
Vel Head (ft)	0.18	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1631.49	Reach Len. (ft)	475.00	476.27	469.86
Crit W.S. (ft)	1631.23	Flow Area (sq ft)	366.13	87.42	286.48
E.G. Slope (ft/ft)	0.006455	Area (sq ft)	366.13	87.42	286.48
Q Total (cfs)	1538.00	Flow (cfs)	528.49	487.50	522.01
Top Width (ft)	910.27	Top Width (ft)	582.31	38.11	289.85
Vel Total (ft/s)	2.08	Avg. Vel. (ft/s)	1.44	5.58	1.82
Max Chl Dpth (ft)	2.87	Hydr. Depth (ft)	0.63	2.29	0.99
Conv. Total (cfs)	19142.8	Conv. (cfs)	6577.8	6067.7	6497.2
Length Wtd. (ft)	474.69	Wetted Per. (ft)	583.10	38.48	289.91
Min Ch El (ft)	1628.62	Shear (lb/sq ft)	0.25	0.92	0.40
Alpha	2.71	Stream Power (lb/ft s)	0.37	5.11	0.73
Frctn Loss (ft)	5.67	Cum Volume (acre-ft)	61.54	45.94	93.65
C & E Loss (ft)	0.01	Cum SA (acres)	51.95	23.06	55.91

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9233.55	9981.88	528.49	366.13	583.10	34.36	0.63	1.44
LB 9981.88	10000.94	233.82	42.61	19.20	15.20	2.24	5.49
10000.94	RB 10019.99	253.68	44.81	19.27	16.49	2.35	5.66
10019.99	10323.39	522.01	286.48	289.91	33.94	0.99	1.82

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 2.610

INPUT
Description: SEC.2.610. A FLOW INCREASE WAS ADDED AT THIS SECTION FOR WEIR FLOW ESTIMATED TO LEAVE THE SPLIT1 WASH AT SEC.11.523(SPLIT1) AND ENTER THE MAIN WASH.
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9152.14	1625.56	9156.95	1625.41	9182.76	1624.08	9189.98	1623.63	9209.34	1621.21
9213.95	1620.64	9227.05	1622.02	9245.95	1623.83	9251.11	1624.48	9258.13	1624.44
9279.36	1624.32	9289.88	1623.72	9291.96	1623.56	9295.77	1623.82	9304.6	1624.36
9307.2	1624.37	9314.27	1624.52	9328.13	1625.11	9350.03	1625.76	9350.23	1625.76
9356.48	1625.61	9358.45	1625.56	9367.7	1625.73	9374.5	1625.54	9392.8	1624.83
9393.72	1624.83	9397.72	1624.81	9401.08	1624.75	9403.47	1624.85	9418.14	1625.17
9435.03	1624.99	9449.97	1624.84	9465.33	1625.25	9468.79	1625.45	9471.8	1625.62
9486.51	1625.66	9506.99	1625.44	9527.32	1625.48	9532.07	1625.42	9542.63	1625.97
9548.57	1626.3	9571.22	1626.18	9599.76	1626.04	9647.2	1626.03	9659.47	1626.04
9664.89	1625.97	9670.14	1625.97	9680.64	1625.39	9681.99	1625.4	9689.87	1625.43
9692.24	1625.44	9692.65	1625.44	9724.11	1624.68	9729.58	1624.64	9734.82	1623.96

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 9745.26 1622.88 9771.81 1625.08 9773.99 1625.25 9774.89 1625.25 9776.86 1625.26
 9803.47 1625.31 9833.55 1625.62 9835.19 1625.64 9841.11 1625.63  9849.8 1625.59
 9851.08  1625.6 9872.59 1625.96 9882.79 1626.15 9930.16 1625.81 9938.69 1625.63
 9972.81 1625.15 9979.97 1625.07 9984.86 1624.08 9989.55 1623.08 9997.04 1623.25
   10000 1623.3210008.58 1623.5210009.75 1623.4710012.14 1623.4510020.03  1623.3
10027.21 1624.8110031.35 1625.48   10047 1625.3910078.33 1625.1610081.57 1625.32
10088.31 1625.29

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9152.14    .065 9930.16    .03710031.35    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9930.1610031.35              425     528     505             .1      .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1625.99   Element                Left OB    Channel   Right OB
  Vel Head (ft)              0.31    Wt. n-Val.               0.065      0.037     0.065
  W.S. Elev (ft)           1625.68   Reach Len. (ft)         425.00     528.00    505.00
  Crit W.S. (ft)           1625.45   Flow Area (sq ft)       545.83     114.43     20.41
  E.G. Slope (ft/ft)      0.018661   Area (sq ft)            545.83     114.43     20.41
  Q Total (cfs)            2775.00   Flow (cfs)             2034.36     708.64     32.00
  Top Width (ft)            706.28   Top Width (ft)          554.35      94.97     56.96
  Vel Total (ft/s)            4.08   Avg. Vel. (ft/s)          3.73       6.19      1.57
  Max Chl Dpth (ft)           5.04   Hydr. Depth (ft)          0.98       1.20      0.36
  Conv. Total (cfs)        20314.2   Conv. (cfs)            14892.4     5187.6     234.3
  Length Wtd. (ft)          443.77   Wetted Per. (ft)        555.24      95.40     57.35
  Min Ch El (ft)           1623.08   Shear (lb/sq ft)          1.15       1.40      0.41
  Alpha                       1.20   Stream Power (lb/ft s)    4.27       8.65      0.65
  Frctn Loss (ft)             5.84   Cum Volume (acre-ft)     56.57      44.84     92.00
  C & E Loss (ft)             0.04   Cum SA (acres)           45.75      22.33     54.04


Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)     (ft/s)
  9152.14      9930.16       2034.36     545.83     555.24      73.31      0.98       3.73
  LB 9930.16   9980.75         29.93      14.52      44.40       1.08      0.33       2.06
  9980.75      RB 10031.35    678.71      99.90      51.00      24.46      1.97       6.79
  10031.35     10088.31        32.00      20.41      57.35       1.15      0.36       1.57


Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M1          RS: 2.510

INPUT
Description: SEC.2.510. THE MAIN PADELFORD WASH CROSSES 163RD AVE. APPROX. 200
             FT. D/S OF THIS SEC.
Station Elevation Data    num=     105
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
 9198.98 1620.32 9200.61 1620.29 9254.49 1619.78 9256.73 1619.82 9264.58  1620.1
 9274.93 1620.33 9293.23 1618.23 9296.64 1617.88 9309.63 1617.42 9319.54 1617.66
 9336.92 1618.09  9341.1 1618.14 9343.47 1618.26 9358.39 1618.48  9368.5 1618.27
 9369.22 1618.26 9369.85 1618.27 9388.05 1618.44 9400.31 1618.08 9402.37 1618.04
 9404.42 1617.96 9412.58  1616.9 9412.84 1616.88 9415.54 1616.48 9427.12 1614.76
  9429.4 1615.03 9429.93 1615.05  9449.4 1614.83 9451.72 1614.49 9457.99  1615.1
 9466.16 1615.89 9471.32 1615.69 9479.53 1615.52 9482.89 1615.39 9497.58 1617.39
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 9512.25 1619.02  9519.5 1619.29 9524.74 1619.27 9589.58 1619.63 9624.71  1619.5
 9635.39 1619.05  9648.8 1618.93 9655.62 1618.89 9666.01 1619.35 9681.66 1620.04
  9689.5 1620.07 9698.34 1620.16 9709.19 1620.25 9721.38 1620.38 9729.04 1620.35
 9736.36 1620.45 9740.21 1620.44 9742.01 1620.44  9758.7 1620.33 9793.88  1620.1
 9815.73 1619.96 9820.48 1619.99 9823.43 1620.01 9829.44  1619.9 9831.09 1619.92
  9834.4 1620.03 9836.61  1619.8  9838.1 1619.83 9849.19 1619.72 9865.16 1619.99
 9880.19 1620.14 9896.46 1619.76 9899.64 1619.71 9903.23 1619.75 9905.92 1619.35
 9911.03 1619.35 9926.69 1619.46 9937.23 1619.68 9974.28 1619.97 9979.36 1619.75
  9987.7 1618.49  9991.9 1617.99    10000 1618.2210011.64 1618.5610013.98 1618.67
10022.44 1620.1610022.55 1620.1710076.71 1620.0310094.84 1619.9310117.98 1620.04
10121.37 1620.0810125.24 1620.1310149.61 1620.1410185.29  1620.110194.29 1619.56
10203.12 1619.0410220.38 1620.2610220.48 1620.2610220.62 1620.2610246.43 1619.93
10259.54 1619.9610287.12 1620.0510299.77 1618.9910303.73 1618.6110305.66 1618.83
10314.74 1619.9310319.04  1620.210327.32 1620.5110368.77 1620.2610384.41  1620.3

Manning's n Values          num=        3
     Sta   n Val      Sta   n Val      Sta   n Val
 9198.98    .065 9974.28    .03710022.55    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9974.2810022.55           455.11  517.44     530             .1       .3
Blocked Obstructions      num=        1
   Sta L   Sta R     Elev
 9198.98 9974.93 1620.33
```

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1620.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.18	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1619.94	Reach Len. (ft)	455.11	517.44	530.00
Crit W.S. (ft)	1618.79	Flow Area (sq ft)	759.68	54.86	29.81
E.G. Slope (ft/ft)	0.009669	Area (sq ft)	759.68	54.86	29.81
Q Total (cfs)	2775.00	Flow (cfs)	2487.09	242.26	45.65
Top Width (ft)	620.20	Top Width (ft)	513.20	46.14	60.86
Vel Total (ft/s)	3.29	Avg. Vel. (ft/s)	3.27	4.42	1.53
Max Chl Dpth (ft)	5.45	Hydr. Depth (ft)	1.48	1.19	0.49
Conv. Total (cfs)	28220.4	Conv. (cfs)	25292.5	2463.6	464.2
Length Wtd. (ft)	489.48	Wetted Per. (ft)	514.00	46.39	61.06
Min Ch El (ft)	1617.99	Shear (lb/sq ft)	0.89	0.71	0.29
Alpha	1.05	Stream Power (lb/ft s)	2.92	3.15	0.45
Frctn Loss (ft)	5.87	Cum Volume (acre-ft)	50.20	43.81	91.71
C & E Loss (ft)	0.00	Cum SA (acres)	40.54	21.48	53.35

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9198.98	9974.28	2487.09	759.68	514.00	89.62	1.48	3.27
LB 9974.28	9998.42	112.72	26.44	23.51	4.06	1.13	4.26
9998.42	RB 10022.55	129.54	28.42	22.88	4.67	1.25	4.56
10022.55	10394.41	45.65	29.81	61.06	1.65	0.49	1.53

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 2.412

INPUT
Description: SEC.2.412. A DISCHARGE INCREASE OF 495 CFS WAS ADDED AT THIS SECTION BASED ON WEIR FLOW ESTIMATED TO ENTER BETWEEN SECS. 2.412 AND 2.510 FROM SPLIT2 WASH . THE SPLIT FLOW AMT OF 495 CFS. WAS

ESTI,MATED BY REVIEWING THE SPLIT FLOW SECS. 21.248 AND 21.346 AND ESTIMATING AN AVE. WEIR HEAD OF 0.5 FT. ALONG A RIDGE LINE OF 500 FT. LENGTH AND USING A 'C' COEFF. OF 2.80, FOR A DISCHARGE OF 495 CFS.

Station Elevation Data num= 133

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9409.33	1614.56	9421.87	1614.56	9431.88	1614.15	9436.54	1614.15	9439.69	1614.16
9442.39	1614.21	9446.68	1614.25	9463.49	1614.55	9472.58	1614.45	9499.08	1612.96
9513.6	1612.24	9523.59	1612.44	9553.05	1613.23	9596.85	1614.27	9625.19	1614.34
9641.28	1614.17	9644.35	1614.18	9655.56	1613.22	9666.47	1612.38	9668.4	1612.38
9671.57	1612.44	9691.16	1612.85	9702.05	1613.22	9703.64	1613.11	9714	1613.16
9725.02	1613.24	9743.16	1612.45	9753.2	1612.05	9768.86	1611.82	9777.38	1611.66
9797.74	1613.2	9798.18	1613.24	9823.63	1613.5	9837.47	1614.03	9842.65	1614.07
9856.19	1614.45	9863.75	1614.57	9874.61	1614.65	9891.85	1614.14	9897.93	1613.96
9904.07	1613.29	9905.13	1613.16	9905.36	1613.19	9915.02	1614.53	9917.98	1614.58
9923.45	1614.02	9926.93	1613.7	9933.6	1614.34	9936.49	1614.67	9966.61	1614.45
9984.89	1614.32	9990.08	1613.51	9993.13	1612.96	10000	1613.07	10004.64	1613.14
10009.05	1613.24	10013.08	1613.67	10022.85	1614.53	10046.88	1614.83	10049.07	1614.84
10049.61	1614.68	10057.12	1613.75	10060.54	1614.23	10064.5	1614.64	10066.74	1614.58
10067.48	1614.67	10111.4	1614.53	10146.91	1614.22	10174.53	1614.2	10180.7	1614.1
10181.26	1614.11	10186.76	1614.07	10193.87	1614.12	10198.08	1614.09	10202.19	1614.09
10207.8	1614.05	10209.59	1613.99	10217.69	1613.94	10234.62	1613.71	10254.06	1613.42
10266.72	1612.38	10275.7	1611.75	10299.69	1613.17	10302.01	1613.28	10302.9	1613.26
10325.52	1612.62	10327.14	1612.46	10333.81	1611.92	10334.57	1611.95	10351.18	1612.45
10378.84	1612.31	10386.74	1612.33	10397.2	1612.48	10399.13	1612.54	10401.86	1612.55
10407.03	1612.46	10413.11	1612.51	10417.43	1612.63	10425.39	1611.91	10427.56	1611.66
10444.34	1611.92	10451.84	1612.06	10457.21	1612.38	10468.58	1612.71	10485.86	1612.95
10489.09	1613	10492.13	1612.95	10496.43	1612.85	10517.63	1612.61	10529.45	1612.43
10556.68	1612.06	10559.47	1611.84	10569.18	1613	10579.83	1612.51	10585.18	1613.19
10595.38	1613.21	10606.02	1613.12	10609.82	1613.14	10615.93	1613.31	10620.66	1613.27
10638.93	1613.41	10654.3	1613.35	10657.6	1613.38	10660.76	1613.14	10673.83	1612.64
10679	1612.37	10688.66	1611.84	10701.09	1612.58	10705.16	1612.91	10733.29	1613.44
10768.06	1614.15	10783.67	1614.55	10791.59	1614.74				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9409.33	.065	9936.49	.037	10046.88	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

9936.49	10046.88	520	554.4	425	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
9409.33	9625.19	1614.34

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1614.24	Element			
Vel Head (ft)	0.17	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1614.07	Reach Len. (ft)	520.00	554.40	425.00
Crit W.S. (ft)		Flow Area (sq ft)	239.43	22.67	733.76
E.G. Slope (ft/ft)	0.014955	Area (sq ft)	239.43	22.67	733.76
Q Total (cfs)	3270.00	Flow (cfs)	729.05	89.69	2451.26
Top Width (ft)	820.02	Top Width (ft)	222.75	31.20	566.07
Vel Total (ft/s)	3.28	Avg. Vel. (ft/s)	3.04	3.96	3.34
Max Chl Dpth (ft)	3.07	Hydr. Depth (ft)	1.07	0.73	1.30
Conv. Total (cfs)	26740.0	Conv. (cfs)	5961.7	733.4	20044.9
Length Wtd. (ft)	454.10	Wetted Per. (ft)	223.07	31.34	566.64
Min Ch El (ft)	1612.96	Shear (lb sq ft)	1.00	0.68	1.21
Alpha	1.01	Stream Power (lb/ft s)	3.05	2.67	4.04
Frctn Loss (ft)	5.00	Cum Volume (acre-ft)	44.98	43.35	87.06
C & E Loss (ft)	0.00	Cum SA (acres)	36.70	21.02	49.54

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9409.33	9936.49	729.05	239.43	223.07	22.29	1.07	3.04
LB 9936.49	9991.69	5.70	2.16	5.29	0.17	0.41	2.64
9991.69	RB 10046.88	84.00	20.51	26.05	2.57	0.79	4.10
10046.88	10791.59	2451.26	733.76	566.64	74.96	1.30	3.34

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 2.307

INPUT
Description: SEC.2.307 REV.03-14-02
Station Elevation Data num= 103

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9541.08	1608.99	9542.38	1608.96	9648.82	1606.71	9650.83	1606.82	9739.6	1607.88
9741.59	1607.9	9744.14	1607.9	9803.62	1607.57	9805.23	1607.71	9814.72	1608.49
9836.29	1609.4	9839.5	1609.29	9855.24	1608.6	9886.6	1608.46	9889.25	1608.45
9891.35	1608.45	9894.47	1608.46	9899.21	1608.48	9925.34	1608.52	9948.3	1608.76
9969.02	1608.17	9988.47	1607.32	9998.7	1605.4	9999.6	1605.22	10000	1605.27
10008.46	1606.26	10018.21	1607.28	10018.74	1607.43	10019.59	1607.44	10037.74	1607.67
10042.71	1607.31	10049.35	1606.76	10052.12	1606.57	10055.58	1606.84	10060.09	1606.93
10066.53	1606.97	10069.4	1606.93	10070.77	1607.16	10073	1607.07	10077.64	1606.93
10080.47	1606.52	10085.6	1605.8	10094	1607.21	10095.56	1607.46	10101.89	1607.69
10118.64	1608.56	10138.86	1608.34	10147.72	1608.32	10162.66	1608.26	10171.61	1608
10180.01	1608.08	10186.8	1608.59	10191.97	1608.65	10195.51	1608.71	10211.76	1608.38
10213.58	1608.37	10217.55	1608.19	10229.67	1607.56	10235.46	1606.91	10241.71	1606.19
10247.01	1606.42	10248.24	1606.43	10313.05	1607.19	10313.14	1607.19	10317.14	1607.16
10350.9	1606.91	10352.84	1606.92	10375.38	1607.31	10397.12	1607.46	10409.82	1607.59
10416.36	1606.87	10419.03	1606.51	10432.43	1607.39	10436.29	1607.66	10440.29	1607.74
10479.32	1608.48	10480.77	1608.46	10482.31	1608.44	10508.44	1607.96	10526.16	1607.6
10531.23	1607.51	10533.27	1607.48	10537.36	1607.48	10544.31	1607.34	10549.84	1606.93
10555.37	1606.41	10559.96	1606.85	10578.58	1608.84	10579.66	1608.83	10583.45	1608.87
10590.58	160910590.96		1609.01	10593.21	1609.19	10597.59	1608.51	10610.62	1607.85
10617.76	1607.96	10629.07	1608.11	10645.26	1608.14	10650.89	1608.14	10663.68	1608.15
10674.53	1608.33	10681.41	1608.43	10701	1608.48				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9541.08	.065	9969.02	.037	10037.74	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9969.02	10037.74	475	517.44	450	.1	.3

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
9541.08	9836.29	1609.4	10701	11045.03	1609.5

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1609.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.21	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1609.04	Reach Len. (ft)	475.00	517.44	450.00
Crit W.S. (ft)		Flow Area (sq ft)	60.23	136.26	910.04
E.G. Slope (ft/ft)	0.008404	Area (sq ft)	60.23	136.26	910.04
Q Total (cfs)	3270.00	Flow (cfs)	78.11	789.01	2402.88
Top Width (ft)	852.80	Top Width (ft)	123.73	68.72	660.36
Vel Total (ft/s)	2.96	Avg. Vel. (ft/s)	1.30	5.79	2.64
Max Chl Dpth (ft)	3.82	Hydr. Depth (ft)	0.49	1.98	1.38
Conv. Total (cfs)	35670.7	Conv. (cfs)	852.0	8606.9	26211.8
Length Wtd. (ft)	468.92	Wetted Per. (ft)	123.75	69.07	661.73
Min Ch El (ft)	1605.22	Shear (lb/sq ft)	0.26	1.03	0.72
Alpha	1.52	Stream Power (lb/ft s)	0.33	5.99	1.91
Frctn Loss (ft)	5.60	Cum Volume (acre-ft)	43.19	42.34	79.04
C & E Loss (ft)	0.02	Cum SA (acres)	34.63	20.38	43.56

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9541.08	9969.02	78.11	60.23	123.75	2.39	0.49	1.30
LB 9969.02	10003.38	406.45	69.42	34.60	12.43	2.02	5.86
10003.38	RB 10037.74	382.56	66.84	34.47	11.70	1.95	5.72
10037.74	10701.00	2402.88	910.04	661.73	73.48	1.38	2.64

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 2.209

INPUT
Description: SEC.2.209 REV.03-14-02
Station Elevation Data num= 116

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9433.67	1604.06	9452.05	1603.73	9457.11	1603.65	9480.79	1603.73	9515.25	1603.9
9523.84	1603.81	9527.77	1603.73	9535.82	1603.37	9596.73	1602.64	9617.18	1602.7
9620.06	1602.58	9653.58	1601.42	9659.12	1602.39	9659.49	1602.46	9668.44	1602.46
9697.42	1602.45	9724.18	1604.75	9725.72	1604.88	9740.84	1604.46	9743.59	1604.42
9745.66	1604.39	9795.54	1604.38	9798.64	1604.29	9805.59	1604.22	9810.52	1603.72
9817.1	1603.02	9822.67	1602.7	9837.7	1602.23	9842.53	1602.51	9856.62	1602.39
9864.92	1602.26	9869.74	1602.2	9885.37	1602.24	9889.68	1602.24	9929.03	1602.92
9936.16	1603.04	9942.28	1603	9958.17	1603.07	9966.88	1602.88	9973	1601.83
9974.6	1601.59	9976.01	1601.66	9983.22	1601.83	9988.13	1601.32	9995.5	1599.92
10000	1600.05	10003.1	1600.1	10004.61	1600	10006.51	1600.74	10009.9	1601.23
10020.03	1601.87	10024.72	1602.07	10028.34	1602.94	10042.53	1602.41	10059.91	1602.36
10069.48	1602.57	10101.44	1602.49	10121.56	1602.43	10131.68	1601.31	10135.63	1600.79
10145.72	1602.18	10151.23	1603.05	10180.82	1602.33	10206.95	1601.31	10252.1	1602.32
10268.46	1602.49	10274.79	1602.53	10275.13	1602.53	10312.5	1601.44	10329.7	1601.01
10338.47	1601.11	10342.9	1601.31	10355.99	1601.57	10368.86	1601.48	10372.85	1601.63
10374.95	1601.75	10385.97	1602.15	10399.04	1602.7	10404.64	1602.92	10429.55	1603.07
10450.71	1603.15	10456.85	1603.18	10468.17	1603.27	10472.81	1603.23	10495.58	1603.29
10511.56	1603.34	10525.18	1602.09	10527.73	1601.95	10547.07	1603.51	10551.58	1603.88
10555.98	1604.05	10556.57	1604.07	10583.35	1603.5	10624.28	1602.79	10641.68	1602.48
10650.33	1602.36	10652.78	1602.21	10657.27	1602.17	10673.92	1601.74	10682.4	1601.48
10685.82	1601.65	10695.31	1602.14	10719.66	1602.31	10723.64	1602.32	10725.21	1602.31
10740.34	1601.97	10754.08	1601.95	10756.28	1601.95	10757.03	1602.01	10762.98	1602.06
10772.88	1602.23	10774.03	1602.25	10776.03	1602.29	10792.9	1602.6	10802.69	1602.8
10802.7	1602.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9433.67	.065	9958.17	.037	10028.34	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9958.17	10028.34	510	586.08	475	.1	.3

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
9433.67	9725.72	1604.88	10802.69	11023.5	1603.5

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1603.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1603.26	Reach Len. (ft)	510.00	586.08	475.00
Crit W.S. (ft)	1603.17	Flow Area (sq ft)	97.37	120.15	677.14
E.G. Slope (ft/ft)	0.018364	Area (sq ft)	97.37	120.15	677.14
Q Total (cfs)	3270.00	Flow (cfs)	233.06	930.77	2106.17
Top Width (ft)	904.15	Top Width (ft)	143.33	70.17	690.65
Vel Total (ft/s)	3.66	Avg. Vel. (ft/s)	2.39	7.75	3.11
Max Chl Dpth (ft)	3.34	Hydr. Depth (ft)	0.68	1.71	0.98
Conv. Total (cfs)	24130.3	Conv. (cfs)	1719.8	6868.4	15542.0
Length Wtd. (ft)	507.43	Wetted Per. (ft)	143.38	70.75	691.65
Min Ch El (ft)	1599.92	Shear (lb/sq ft)	0.78	1.95	1.12
Alpha	1.78	Stream Power (lb/ft s)	1.86	15.08	3.49
Frctn Loss (ft)	5.59	Cum Volume (acre-ft)	42.33	40.82	70.85
C & E Loss (ft)	0.07	Cum SA (acres)	33.18	19.56	36.58

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9433.67	9958.17	233.06	97.37	143.38	7.13	0.68	2.39
LB 9958.17	9993.25	271.88	44.45	35.32	8.31	1.27	6.12
9993.25	RB 10028.34	658.89	75.70	35.44	20.15	2.16	8.70
10028.34	10802.70	2106.17	677.14	691.65	64.41	0.98	3.11

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 2.098

INPUT
Description: SEC.2.098 REV.03-14-02
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9493.13	1598.5	9496.04	1598.51	9505.63	1598.57	9523.94	1598.28	9525.3	1598.21
9535.51	1597.48	9558.91	1596.75	9562.52	1596.64	9563.62	1596.61	9565.3	1596.57
9580.61	1596.5	9587.82	1596.7	9594.1	1596.89	9597.17	1596.14	9599.25	1595.33
9608.5	1596.91	9609.97	1597.08	9610.7	1597.08	9611.99	1596.84	9622.39	1595.58
9628.42	1596.87	9631.29	1597.55	9640.11	1597.22	9648.5	1596.86	9658.66	1595.68
9663.92	1595.46	9673.09	1597.13	9674.83	1597.15	9706.99	1598.16	9710.65	1598.28
9712.81	1598.19	9757.8	1596.53	9778.25	1597.75	9789.61	1598.26	9794.71	1598.23
9814.33	1598.1	9857.72	1597.89	9881.05	1597.79	9882.44	1597.79	9898.38	1596.71
9904.36	1596.36	9915.57	1596.36	9950.95	1596.96	9961.73	1597.06	9984.36	1597.03
10000.66	1596.93	10005.65	1596.56	10009.97	1596.19	10017.34	1596.07	10022.16	1596.05
10033.93	1595.02	10034.09	1595	10034.34	1594.99	10038.27	1594.81	10047.11	1594.38
10050.8	1595.57	10054.04	1597.12	10065.59	1596.91	10077.63	1596.82	10085.49	1596.69
10091	1596.74	10108.36	1596.41	10113.77	1596.25	10133.64	1596.02	10178.08	1596.04
10188.6	1595.85	10195.66	1595.86	10207.8	1595.81	10209.66	1595.47	10216.84	1593.77
10218	1593.47	10218.24	1593.41	10232.43	1595.28	10234.83	1595.72	10250.31	1595.57
10254.89	1595.43	10256.74	1595.12	10262.36	1594.28	10263.55	1594.5	10270.97	1595.16
10314.61	1595.68	10326.06	1595.78	10329.87	1595.81	10340.45	1596.01	10342.04	1596.02
10409.42	1597.12	10422.18	1597.39	10449.93	1597.78	10522.77	1598.21	10523.47	1598.2
10524.38	1598.14	10547.15	1595.88	10557.32	1597.01	10562.18	1597.31	10564.37	1597.16
10604.68	1597.83	10629.03	1598.49						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val

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 9493.13    .065 9950.95    .03710054.04    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9950.9510054.04              470  538.56     475            .1       .3
Blocked Obstructions      num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 9493.13 9537.41 1597.3410605.5210863.06  1598.9

CROSS SECTION OUTPUT     Profile #PF 1

  E.G. Elev (ft)            1597.98   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.14   Wt. n-Val.                0.065      0.037     0.065
  W.S. Elev (ft)            1597.83   Reach Len. (ft)          470.00     538.56    475.00
  Crit W.S. (ft)                      Flow Area (sq ft)        289.55     157.16    730.67
  E.G. Slope (ft/ft)       0.007176   Area (sq ft)             289.55     157.16    730.67
  Q Total (cfs)             3187.00   Flow (cfs)               550.54     705.30   1931.16
  Top Width (ft)             888.49   Top Width (ft)           303.35     103.09    482.05
  Vel Total (ft/s)             2.71   Avg. Vel. (ft/s)           1.90       4.49      2.64
  Max Chl Dpth (ft)            4.42   Hydr. Depth (ft)           0.95       1.52      1.52
  Conv. Total (cfs)        37623.1    Conv. (cfs)              6499.2     8326.2   22797.7
  Length Wtd. (ft)           500.84   Wetted Per. (ft)         304.44     103.72    482.84
  Min Ch El (ft)            1594.38   Shear (lb/sq ft)           0.43       0.68      0.68
  Alpha                        1.27   Stream Power (lb/ft s)     0.81       3.05      1.79
  Frctn Loss (ft)              5.97   Cum Volume (acre-ft)      40.07      38.95     63.17
  C & E Loss (ft)              0.06   Cum SA (acres)            30.56      18.39     30.18


Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9493.13      9950.95        550.54     289.55     304.44      17.27      0.95       1.90
  LB 9950.95   10002.50       113.27      42.36      51.55       3.55      0.82       2.67
  10002.50     RB 10054.04    592.04     114.80      52.17      18.58      2.23       5.16
  10054.04     10629.03      1931.16     730.67     482.84      60.59      1.52       2.64


Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M1          RS: 1.996

INPUT
Description: SEC.1.996  REV.03-14-02
Station Elevation Data    num=      101
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
  9794.29 1591.69  9806.63 1591.82  9816.37 1591.91  9836.22 1591.57  9846.57 1591.53
   9850.9 1591.55  9855.89 1591.56  9875.24 1590.32  9875.35 1590.32  9875.52 1590.31
  9883.18 1588.58  9887.73  1587.3  9894.58 1587.97   9902.3 1589.52  9903.35 1589.71
  9903.89 1589.82  9910.23 1589.85  9918.24 1590.15  9920.33 1589.91  9923.18 1590.22
  9928.82 1590.05  9932.15  1589.9  9934.46 1589.92  9950.58 1590.41  9973.52 1590.56
  9982.11 1590.39  9984.74 1589.78  9990.38 1587.91  9997.33 1587.96    10000  1587.9
 10002.45 1587.8510009.98 1589.8310015.44 1591.1810026.86  1591.510035.48 1591.69
 10061.77 1590.65 10066.8  1590.410067.96 1590.2310074.29 1589.1410079.23  1589.8
 10091.27  1591.510106.51 1592.4610113.63  1592.810134.92 1593.0810153.66 1593.28
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10166.01 1593.4510174.04 1592.6210180.38 1592.3410200.75 1592.0410228.27 1591.66
10230.03 1591.6410231.52 1591.6310236.93 1591.6710282.46 1591.1710307.72  1591.2
10309.17 1591.1910313.84 1591.1410314.92 1591.21 10324.2 1591.2810336.68 1591.43
10342.94 1591.1110362.33 1590.3610372.29 1589.9210373.92 1589.9710379.61 1590.08
10384.12 1590.2310386.07  1590.2 10406.2 1589.9510417.13 1590.4110428.25  1588.8
10442.34 1586.7310454.27  1589.3 10457.1 1590.0110459.15 1590.0310465.62 1588.98
10467.93 1588.6310468.14  1588.710479.25 1589.9710485.15 1590.0210506.84 1590.44
10524.28 1591.2210589.77 1591.9310602.21 1592.1310610.17 1592.1610623.36 1592.29
10659.03 1591.9510675.62 1592.1710719.65    159210728.68    1591 10734.1 1590.08
10746.87 1590.9210763.33 1591.9710763.95    159210774.11 1592.0210798.31 1592.91
10810.12 1593.2310822.67 1593.5810853.69 1594.7110856.13 1594.7910857.14 1594.81
 10860.6 1594.91

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9794.29    .065  9850.9    .03710035.48    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        9850.910035.48               515     528     500            .1       .3
Blocked Obstructions      num=       1
   Sta L   Sta R    Elev
10873.49 10860.6 1595.01

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1591.95   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.72   Wt. n-Val.                          0.037      0.065
  W.S. Elev (ft)            1591.22   Reach Len. (ft)          515.00    528.00     500.00
  Crit W.S. (ft)            1591.22   Flow Area (sq ft)                  237.60     305.87
  E.G. Slope (ft/ft)       0.023592   Area (sq ft)                       237.60     305.87
  Q Total (cfs)             3187.00   Flow (cfs)                        1929.60    1257.40
  Top Width (ft)             445.54   Top Width (ft)                     155.81     289.73
  Vel Total (ft/s)             5.86   Avg. Vel. (ft/s)                     8.12       4.11
  Max Chl Dpth (ft)            4.49   Hydr. Depth (ft)                     1.52       1.06
  Conv. Total (cfs)         20749.3   Conv. (cfs)                       12562.8    8186.4
  Length Wtd. (ft)                    Wetted Per. (ft)                   157.27     291.01
  Min Ch El (ft)            1587.30   Shear (lb/sq ft)                     2.23       1.55
  Alpha                        1.36   Stream Power (lb/ft s)               18.07       6.36
  Frctn Loss (ft)                     Cum Volume (acre-ft)      38.51     36.51      57.52
  C & E Loss (ft)                     Cum SA (acres)            28.92     16.79      25.98


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  LB 9850.90   9943.19       1073.22     129.27     82.70      33.67      1.58       8.30
  9943.19      RB 10035.48    856.38     108.32     74.58      26.87      1.47       7.91
  10035.48     10860.60      1257.40     305.87    291.01      39.45      1.06       4.11


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
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section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 1.896

INPUT
Description: SEC.1.896 REV.03-14-02
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9949.23	1587.79	9959.47	1587.99	9967.06	1587.19	9982.26	1585.42	9987.86	1583.55
9994.4	1582.18	10000	1582.09	10000.41	1582.09	10005.95	1582.14	10015.28	1583.58
10022.86	1584.81	10023.28	1584.88	10023.43	1584.88	10024.44	1584.89	10050.7	1584.99
10062.68	1584.68	10063.3	1584.69	10067.16	1584.72	10079.92	1585.45	10088.42	1585.56
10104.15	1585.43	10121.96	1585.48	10126.75	1585.48	10130.08	1584.96	10136.22	1583.98
10138.07	1584.01	10139.23	1583.97	10180.22	1586.34	10195.79	1586.91	10204.68	1586.64
10205.12	1586.63	10206.06	1586.61	10243.13	1585.83	10286.82	1585.22	10309.4	1584.72
10331.4	1584.41	10342.23	1584.86	10344.23	1584.63	10349.29	1584.05	10352.72	1583.46
10352.94	1583.44	10361.94	1583.25	10367.71	1583.13	10368.33	1583.08	10368.7	1583.07
10376.38	1582.82	10379.21	1582.81	10384.68	1582.73	10385.48	1582.64	10392.22	1581.44
10398.28	1580.39	10398.89	1580.21	10402.61	1581.52	10408.2	1583.59	10411.47	1583.71
10463.01	1584.75	10500.71	1585.67	10513.55	1585.29	10553.88	1585.02	10581.49	1584.74
10586.72	1584.81	10592.4	1584.85	10617.19	1584.49	10626.4	1584.25	10633.57	1584.25
10639.49	1584.23	10647.88	1582.97	10649.15	1582.75	10665.06	1584.11	10666.64	1584.21
10680.81	1584.29	10690.23	1584.81	10702.68	1585.04	10722.75	1585.73	10732.51	1585.8
10791.65	1587.16	10800.9	1587.31	10847.03	1587.74	10871.72	1588.03		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9949.23	.065	9982.26	.037	10079.92	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9982.26 10079.92 520 523.83 490 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
10874.69	10871.72	1588.07

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1586.42	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.17	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1586.24	Reach Len. (ft)	520.00	523.83	490.00
Crit W.S. (ft)		Flow Area (sq ft)	2.92	201.65	953.08
E.G. Slope (ft/ft)	0.005707	Area (sq ft)	2.92	201.65	953.08
Q Total (cfs)	3187.00	Flow (cfs)	2.78	987.37	2196.85
Top Width (ft)	731.77	Top Width (ft)	7.08	97.66	627.03
Vel Total (ft/s)	2.75	Avg. Vel. (ft/s)	0.95	4.90	2.30
Max Chl Dpth (ft)	6.03	Hydr. Depth (ft)	0.41	2.06	1.52
Conv. Total (cfs)	42187.5	Conv. (cfs)	36.8	13070.2	29080.5
Length Wtd. (ft)	500.47	Wetted Per. (ft)	7.13	98.35	628.42
Min Ch El (ft)	1582.09	Shear (lb/sq ft)	0.15	0.73	0.54
Alpha	1.46	Stream Power (lb/ft s)	0.14	3.58	1.25
Frctn Loss (ft)	5.83	Cum Volume (acre-ft)	38.49	33.85	50.29
C & E Loss (ft)	0.06	Cum SA (acres)	28.88	15.26	20.71

Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9949.23	9982.26	2.78	2.92	7.13	0.09	0.41	0.95
LB 9982.26	10031.09	771.07	137.74	49.49	24.19	2.82	5.60

10031.09	RB 10079.92	216.31	63.91	48.86	6.79	1.31	3.38
10079.92	10871.72	2196.84	953.08	628.42	68.93	1.52	2.30

Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 1.796

INPUT
Description: SEC.1.796 REV.03-14-02
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9807.03	1581.56	9812.65	1581.55	9814.41	1581.59	9846.45	1581.53	9861.83	1581.57
9863.29	1581.56	9864.26	1581.56	9869.84	1581.37	9886.5	1579.86	9887.97	1579.78
9898.81	1578.82	9905.77	1579.44	9914.24	1580.16	9923.02	1580.11	9957.15	1579.67
9959.75	1579.59	9964.63	1579.48	9985.93	1578.69	9990.05	1578.54	9992.06	1578.16
9994.36	1577.72	9998.17	1577.79	10000	1577.82	10012.47	1578.05	10016.49	1578.14
10017.73	1578.18	10019.35	1578.28	10028.75	1578.96	10037.24	1578.18	10040.99	1577.83
10056.16	1579.26	10084.31	1581.72	10097.95	1581.84	10111.06	1581.97	10115.39	1582
10131.43	1582.06	10174.97	1581.49	10216.01	1581.08	10231.66	1579.76	10237.8	1579.42
10242.41	1579.11	10265.68	1577.72	10269.99	1577.47	10271.09	1577.44	10272.87	1577.65
10279.93	1576.05	10290	1574.21	10294.49	1575.04	10307.52	1577.47	10318.96	1578.29
10332.12	1579.34	10342.06	1577.94	10352.02	1576.51	10356.54	1576.78	10371.05	1577.92
10380.82	1578.47	10391.28	1579.41	10415.04	1579.99	10434.12	1580.56	10442.32	1580.69
10452.28	1581.09	10470.85	1581.59	10477.42	1581.86	10505.44	1582.22	10505.63	1582.22
10505.95	1582.23	10510.44	1582.29	10527.49	1582.48	10528.73	1582.48	10553.43	1582.3
10571.93	1582.21	10588.29	1582.25	10601.99	1582.26	10618.03	1582.18	10623.69	1581.91
10626.58	1581.81	10664.27	1582.69	10665.4	1582.72	10665.46	1582.72	10666.35	1582.74
10723.51	1584.31	10737.42	1583.11	10762.15	1582.96	10770.63	1582.63	10772.56	1582.6
10780.57	1582.63	10809.02	1582.66	10866.39	1582.66	10874.73	1582.88	10894.11	1582.86
10913.36	1582.94	10915.48	1582.95						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9807.03	.065	9923.02	.03	10084.31	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9923.02 10084.31 545 549.12 470 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
10723.51	10915.48	1584.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1580.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.76	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1579.77	Reach Len. (ft)	545.00	549.12	470.00
Crit W.S. (ft)	1579.77	Flow Area (sq ft)	10.11	120.97	333.33
E.G. Slope (ft/ft)	0.035446	Area (sq ft)	10.11	120.97	333.33
Q Total (cfs)	3187.00	Flow (cfs)	26.27	959.75	2200.99
Top Width (ft)	308.05	Top Width (ft)	21.49	112.28	174.29
Vel Total (ft/s)	6.86	Avg. Vel. (ft/s)	2.60	7.93	6.60
Max Chl Dpth (ft)	5.56	Hydr. Depth (ft)	0.47	1.08	1.91
Conv. Total (cfs)	16927.6	Conv. (cfs)	139.5	5097.7	11690.5
Length Wtd. (ft)	503.61	Wetted Per. (ft)	21.57	112.55	175.41
Min Ch El (ft)	1577.72	Shear (lb/sq ft)	1.04	2.38	4.21
Alpha	1.04	Stream Power (lb/ft s)	2.70	18.87	27.77
Frctn Loss (ft)	4.33	Cum Volume (acre-ft)	38.41	31.91	43.06
C & E Loss (ft)	0.19	Cum SA (acres)	28.71	13.99	16.21

Warning: The energy equation could not be balanced within the specified number of iterations. The

program selected the water surface that had the least amount of error between computed and assumed values.
Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9807.03	9923.02	26.27	10.11	21.57	0.82	0.47	2.60
LB 9923.02	10003.66	310.35	46.41	54.08	9.74	0.86	6.69
10003.66	RB 10084.31	649.39	74.56	58.46	20.38	1.28	8.71
10084.31	10915.48	2200.99	333.33	175.41	69.06	1.91	6.60

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 1.692

INPUT
Description: SEC.1.692 REV.03-14-02
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9603.65	1575.22	9606.96	1575.17	9646.77	1574.22	9667.07	1573.79	9670.75	1573.7
9683.2	1572.34	9690.78	1571.39	9725.44	1572.05	9747.65	1572.45	9766.22	1572.74
9816.95	1573.4	9829.36	1571.29	9832.91	1570.76	9834.9	1570.87	9845.85	1571.84
9854.18	1572.3	9879.15	1573.38	9891.77	1574.41	9903.03	1575.2	9905.56	1575.36
9909.02	1575.45	9926.49	1575.78	9926.58	1575.78	9939.81	1575.72	9944.72	1575.73
9949.94	1575.21	9968.83	1574.46	9983.58	1572.74	9992.34	1571.75	9999.27	1570.48
10000	1570.59	10020.26	1573.54	10024.36	1574.13	10057.61	1573.29	10058.57	1573.26
10062.02	1573.18	10092.47	1572.62	10104.75	1573.33	10110.93	1573.01	10117.65	1572
10122.06	1571.16	10135.34	1571.58	10137.19	1571.65	10140.42	1571.22	10157.21	1569.3
10164.05	1570.65	10172.02	1572.01	10188.46	1572.37	10199.42	1572.58	10233.38	1572.6
10256.75	1573.29	10271.61	1573.71	10273.21	1573.81	10280.84	1573.88	10296.83	1574.43
10303.69	1574.71	10313.28	1575.12	10320.63	1575.45	10347.19	1577.04	10347.43	1577.05
10363.25	1577.15	10381.68	1576.86	10444.01	1576.87	10454.83	1576.75	10470.3	1576.77
10491.19	1576.69	10518.67	1575.74	10554.54	1574.81	10557.58	1574.81	10563.41	1575.11
10614.63	1578.09	10628.98	1578.51	10640.14	1578.57	10650.91	1578.41	10675.54	1578.77
10681.97	1578.86	10694.14	1577.87	10712.33	1576.41	10720.08	1576.79	10722.54	1576.88
10766.21	1578.65	10766.35	1578.43	10769.2	1578.62	10771.2	1578.57	10790.66	1578.38
10827.41	1577.54	10836.39	1577.31	10858.26	1576.81	10863.37	1576.45	10867.77	1576.33
10876.09	1576.05	10907.75	1576.83	10909.91	1576.94	10911.56	1576.99	10919.04	1577.32
10942.01	1578.38	10947.35	1578.43						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9603.65	.065	9968.83	.03	10024.36	.065

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Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      9968.8310024.36            307.6   322.1     320            .1       .3
Blocked Obstructions      num=        1
   Sta L   Sta R    Elev
10363.2510947.35 1577.15

CROSS SECTION OUTPUT     Profile #PF 1

  E.G. Elev (ft)            1574.96   Element                Left OB    Channel   Right OB
  Vel Head (ft)                0.12   Wt. n-Val.               0.065      0.037      0.065
  W.S. Elev (ft)            1574.85   Reach Len. (ft)         307.60     322.10     320.00
  Crit W.S. (ft)                      Flow Area (sq ft)       551.74     130.63     602.34
  E.G. Slope (ft/ft)        0.003782  Area (sq ft)            551.74     130.63     602.34
  Q Total (cfs)             3187.00   Flow (cfs)             1219.18     567.05    1400.77
  Top Width (ft)             625.17   Top Width (ft)          287.13      55.53     282.50
  Vel Total (ft/s)             2.48   Avg. Vel. (ft/s)          2.21       4.34       2.33
  Max Chl Dpth (ft)            5.55   Hydr. Depth (ft)          1.92       2.35       2.13
  Conv. Total (cfs)         51820.8   Conv. (cfs)            19823.9     9220.3    22776.6
  Length Wtd. (ft)           316.01   Wetted Per. (ft)        287.66      56.07     283.14
  Min Ch El (ft)            1570.48   Shear (lb/sq ft)          0.45       0.55       0.50
  Alpha                        1.23   Stream Power (lb/ft s)    1.00       2.39       1.17
  Frctn Loss (ft)              2.23   Cum Volume (acre-ft)     34.90      30.32      38.01
  C & E Loss (ft)              0.05   Cum SA (acres)           26.78      12.94      13.74

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT     Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)      (sq ft)    (ft)                (ft)      (ft/s)
  9603.65      9968.83       1219.18     551.74     287.66      38.25      1.92      2.21
  LB 9968.83   9996.60        217.10      55.99      27.99       6.81      2.02      3.88
  9996.60      PB 10024.36    349.95      74.64      28.07      10.98      2.69      4.69
  10024.36     10947.35      1400.77     602.34     283.14      43.95      2.13      2.33

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M1           RS: 1.631

INPUT
Description: SEC.1.631 ADDED 2-28-02
Station Elevation Data    num=      76
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
 9377.37 1572.75 9377.63 1572.75 9379.39 1572.75 9381.59 1572.75 9384.41 1572.75
 9385.77 1572.71  9389.7 1572.64     9415 1572.17 9451.02 1571.58 9452.51 1571.52
 9456.07 1571.32 9471.23 1571.24 9475.45  1570.8 9482.72 1570.71 9500.29 1570.77
 9507.87 1569.97 9520.21 1569.45 9523.45 1568.33 9530.56 1568.07 9539.75 1568.88
 9555.95 1569.67 9563.43 1570.06  9584.4 1570.71 9585.87 1570.75  9589.1 1570.92
 9593.85 1570.94 9603.72 1571.14 9607.75 1571.27 9622.47 1571.49 9636.71 1571.95
 9643.35 1572.16  9655.6 1572.65 9661.63 1572.82 9665.61 1573.12 9674.88 1573.64
  9685.1 1573.51 9699.88  1573.8 9713.06 1573.88 9736.99 1573.81 9742.64 1573.81
 9762.19 1573.43 9769.62 1573.38 9775.63 1573.26 9792.03  1572.9 9800.54 1573.19
 9812.28 1573.97 9836.08 1573.73 9853.79 1573.62 9867.08 1572.14 9873.39 1571.62
 9876.16  1571.5 9887.27 1570.88 9890.51 1570.88 9891.78 1570.83 9915.02 1571.22
 9922.95 1571.11 9941.74 1571.01 9952.53    1571 9980.69 1570.65 9986.53 1569.03
 9999.96  1567.1   10000  1567.110001.45 1567.0910009.76 1568.5310045.57 1574.77
10062.33  1574.710123.97 1574.6110131.26 1574.48 10164.3 1573.2510175.14 1573.07
10177.67 1573.29 10193.6 1574.6710205.06 1574.8510206.38 1574.8510221.65 1574.65
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10226.84 1574.6

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9377.37	.065	9853.79	.03710045.57		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9853.7910045.57		215 230.88	235	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1572.69	Element			
Vel Head (ft)	0.60	Wt. n-Val.	0.065	0.037	
W.S. Elev (ft)	1572.09	Reach Len. (ft)	215.00	230.88	235.00
Crit W.S. (ft)	1571.86	Flow Area (sq ft)	323.18	264.26	
E.G. Slope (ft/ft)	0.017466	Area (sq ft)	323.18	264.26	
Q Total (cfs)	3187.00	Flow (cfs)	1254.57	1932.43	
Top Width (ft)	384.18	Top Width (ft)	221.61	162.57	
Vel Total (ft/s)	5.43	Avg. Vel. (ft/s)	3.88	7.31	
Max Chl Dpth (ft)	5.00	Hydr. Depth (ft)	1.46	1.63	
Conv. Total (cfs)	24114.7	Conv. (cfs)	9492.9	14621.9	
Length Wtd. (ft)	225.00	Wetted Per. (ft)	221.88	163.41	
Min Ch El (ft)	1567.09	Shear (lb/sq ft)	1.59	1.76	
Alpha	1.30	Stream Power (lb/ft s)	6.17	12.89	
Frctn Loss (ft)	2.55	Cum Volume (acre-ft)	31.81	28.86	35.80
C & E Loss (ft)	0.03	Cum SA (acres)	24.98	12.13	12.71

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9377.37	9853.79	1254.58	323.18	221.88	39.37	1.46	3.88
LB 9853.79	9949.68	371.03	78.66	82.08	11.64	0.96	4.72
9949.68	RB 10045.57	1561.39	185.60	81.32	48.99	2.30	8.41

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 1.585

INPUT
Description: SEC.1.585 REV.03-14-02
Station Elevation Data num= 111

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9508.73	1571.7	9538.13	1570.45	9538.49	1570.43	9539.53	1570.34	9571.67	1567.54
9575.94	1566.64	9581.41	1565.64	9593.14	1567.23	9595.39	1567.48	9616.74	1567.35
9637.08	1567.27	9646.86	1568.18	9669.37	1569.66	9678.32	1569.66	9678.79	1569.66
9678.93	1569.67	9729.47	1571	9738.7	1570.86	9741.77	1570.85	9757	1570.59
9763.65	1570.48	9766.65	1570.43	9783.22	1570.28	9790.41	1570.51	9798.52	1570.32
9804.84	1570.23	9808.94	1570.25	9826.78	1568.4	9845.35	1566.23	9858.63	1567.45
9863.76	1567.46	9879.08	1568.4	9882.35	1568.48	9894.08	1568.52	9897.56	1568.5
9927.64	1568.33	9931.77	1568.24	9935.68	1567.95	9941.86	1566.7	9947.08	1565.66
9956.31	1566.8	9963.42	1567.51	9965.43	1567.45	9976.29	1567.36	9976.32	1567.35
9976.35	1567.35	9988.45	1565.22	9999.45	1563.2	10000	1563.3710000.49		1563.52
10022.69	1572.3410023.77		1572.55	10033.5	1572.5410073.72		1572.8210093.73		1572.39
10102.37	1572.3310110.35		1572.3510128.63		1572.1410187.65		1571.29	10191.7	1571.39
10197.54	1571.610212.83		1571.9210218.96		1571.9810259.72		1570.3710265.25		1570.2

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10269.26 1570.1410271.46 1570.0310272.77  1569.910290.03 1569.8310309.27 1569.62
10310.74 1569.4710317.11 1568.3310319.98 1568.4310323.03 1568.2110333.21 1567.77
10334.16 1567.7210334.36 1567.7210334.52 1567.7510341.25 1568.9710364.96 1569.27
10395.91 1569.7110412.65 1570.1110441.01 1570.8610458.12 1571.1410465.26 1571.37
10483.08  1571.410512.96 1571.49 10524.3 1571.5210539.79 1571.1910542.99  1571.2
10578.79 1570.97 10588.4  1570.710595.31 1570.6110606.09 1570.3410626.85 1569.36
10631.49 1569.1910633.73 1569.15 10640.9 1568.4810652.02 1567.0910688.12 1570.61
10698.88 1571.6210728.89 1571.5110749.89 1571.4710763.17 1571.5710784.72 1571.77
10786.95 1571.8710800.26 1572.3910808.27 1572.2410821.19  1572.510824.15 1572.53
10825.56 1572.54

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9508.73    .065 9894.08    .03710022.69    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9894.0810022.69              430  491.04     440            .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
10073.7210825.56 1572.82

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1570.11   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.50   Wt. n-Val.                0.065      0.037
  W.S. Elev (ft)            1569.61   Reach Len. (ft)          430.00     491.04    440.00
  Crit W.S. (ft)                      Flow Area (sq ft)        363.62     312.56
  E.G. Slope (ft/ft)       0.007985   Area (sq ft)             363.62     312.56
  Q Total (cfs)             3187.00   Flow (cfs)              1105.74    2081.26
  Top Width (ft)             321.26   Top Width (ft)           199.53     121.73
  Vel Total (ft/s)             4.71   Avg. Vel. (ft/s)           3.04       6.66
  Max Chl Dpth (ft)            6.41   Hydr. Depth (ft)           1.82       2.57
  Conv. Total (cfs)         35665.5   Conv. (cfs)             12374.3    23291.3
  Length Wtd. (ft)           480.40   Wetted Per. (ft)         200.29     123.66
  Min Ch El (ft)            1563.20   Shear (lb/sq ft)           0.91       1.26
  Alpha                        1.45   Stream Power (lb/ft s)     2.75       8.39
  Frctn Loss (ft)              4.26   Cum Volume (acre-ft)      30.11      27.34     35.80
  C & E Loss (ft)              0.03   Cum SA (acres)            23.95      11.38     12.71


Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)     (ft/s)
  9508.73      9894.08       1105.74     363.62     200.29      34.70      1.82       3.04
  LB 9894.08   9958.38        621.53     119.76      64.63      19.50      1.86       5.19
  9958.38      RB 10022.69   1459.73     192.80      59.04      45.80      3.36       7.57


Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M1           RS: 1.492

INPUT
Description: SEC.1.492  REV.03-14-02
Station Elevation Data    num=      86
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
 9831.29 1566.34 9867.22 1566.29 9874.14 1566.27 9881.31 1565.59 9894.21 1564.67
 9901.65 1564.35 9926.99 1563.41 9929.18 1562.79 9940.41 1559.25 9948.73 1561.26
 9954.01 1562.53    9965 1563.21  9971.3 1563.22  9980.4 1562.44 9992.71 1560.14
 9999.23 1558.85   10000    155910018.24 1562.6510024.16 1563.64 10060.7  1563.3
 10061.3 1563.2910061.93  1563.310062.56 1563.3510084.39 1564.8410085.21 1564.84
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10092.03 1565.1510155.17  1568.210156.25 1568.2510174.26 1567.6810239.57 1565.38
10243.33 1565.3110257.37 1566.3610285.82 1568.69 10316.1 1569.4310317.95 1569.48
10321.23 1569.3610362.56 1567.6110369.74 1567.3510378.33 1567.0110388.77 1566.79
10428.67 1566.0910442.02 1565.88 10450.1 1565.7510468.34 1565.1710470.04 1565.04
10470.78 1565.0210480.59 1564.6610494.38 1563.6210498.31 1563.5610514.98 1562.52
10521.99 1562.1810526.15 1561.8710537.09 1560.8710541.22 1560.8610564.58 1562.68
 10582.3 1564.0310589.45 1564.6210598.29 1565.08 10602.5 1564.5910605.31 1564.66
10667.65 1565.1310699.55 1565.8810760.15 1566.33 10797.8 1566.79 10812.1 1566.95
 10815.4  1566.910823.99  1566.210829.56 1565.9610839.12 1566.3110839.89 1566.35
10843.17 1566.4510861.98 1566.1110866.91 1566.1510867.91 1566.0210869.32 1565.89
10890.68 1563.2310904.62 1561.6810906.32 1561.5110907.35 1561.6510930.11  1563.9
10930.48 1563.9210930.95 1563.9410931.04 1563.9411006.95 1565.8411014.24 1565.76
11014.49 1565.76

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9831.29    .065 9901.65    .03710084.39    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9901.6510084.39              490  494.63     510             .1      .3
Blocked Obstructions      num=       1
   Sta L   Sta R    Elev
10156.2511014.49 1568.25

CROSS SECTION OUTPUT     Profile #PF 1

  E.G. Elev (ft)            1565.82   Element                 Left OB    Channel   Right OB
  Vel Head (ft)               0.80    Wt. n-Val.                0.065     0.037     0.065
  W.S. Elev (ft)            1565.02   Reach Len. (ft)          490.00    494.63    510.00
  Crit W.S. (ft)                      Flow Area (sq ft)          4.69    443.83      0.52
  E.G. Slope (ft/ft)        0.009896  Area (sq ft)               4.69    443.83      0.52
  Q Total (cfs)             3187.00   Flow (cfs)                 5.57   3181.17      0.26
  Top Width (ft)             199.96   Top Width (ft)            12.38    182.74      4.84
  Vel Total (ft/s)            7.10    Avg. Vel. (ft/s)           1.19      7.17      0.51
  Max Chl Dpth (ft)           6.17    Hydr. Depth (ft)           0.38      2.43      0.11
  Conv. Total (cfs)          32037.4  Conv. (cfs)               56.0     31978.8       2.7
  Length Wtd. (ft)           494.51   Wetted Per. (ft)          12.40    184.68      4.84
  Min Ch El (ft)             1558.85  Shear (lb/sq ft)           0.23      1.48      0.07
  Alpha                       1.02    Stream Power (lb/ft s)     0.28     10.64      0.03
  Frctn Loss (ft)             5.06    Cum Volume (acre-ft)      28.29     23.07     35.80
  C & E Loss (ft)             0.09    Cum SA (acres)            22.90      9.66     12.68

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT     Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9831.29      9901.65          5.57       4.69      12.40       0.17      0.38       1.19
  LB 9901.65   9993.02       1763.62     236.76      92.68      55.34      2.59       7.45
  9993.02      RB 10084.39   1417.55     207.07      92.00      44.48      2.27       6.85
  10084.39     11014.49         0.26       0.52       4.84       0.01      0.11       0.51

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M1           RS: 1.398

INPUT
Description: SEC.1.398  REV.03-14-02
Station Elevation Data    num=     100
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9584.13 1561.76 9592.87 1561.77 9611.19  1561.7 9624.99 1561.27 9674.11 1560.57
 9676.15  1560.6  9721.6  1560.2 9734.94 1560.01 9739.66 1559.87 9746.48 1559.91
 9749.57 1559.89  9807.6 1557.84 9809.23 1557.84 9810.81  1557.8 9815.77 1557.83
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 9839.65 1557.96 9847.38 1557.78  9856.9 1557.71 9860.93 1557.73  9876.6  1558.2
 9891.53  1558.3  9908.2  1558.8 9925.57 1559.12 9955.71 1559.03 9967.67 1558.98
 9972.58 1559.09 9979.95 1559.13 9990.96 1556.53   10000 1554.5210000.54  1554.4
 10013.9 1557.3210015.72  1557.710043.21 1558.4510073.33 1558.9710082.87 1559.82
   10088 1560.31   10146 1560.15 10152.7 1560.1110171.86 1559.7510190.44 1559.42
10191.88 1559.3810196.01  1559.310199.73 1559.2710235.22 1558.9610243.84 1558.02
10244.71 1557.9110245.97 1557.9610258.07 1558.5410267.64 1558.9310275.05 1559.13
10305.07 1560.1810306.13 1560.2210389.76  1561.410389.83  1561.410389.84  1561.4
10389.85  1561.410389.89  1561.410425.87 1560.7310434.75 1560.5810448.27 1560.43
10497.23 1559.9310502.09 1559.69 10510.1 1559.2310528.79 1558.3810548.38  1557.7
10552.42 1557.5310552.88 1557.5310554.97 1557.5610569.48 1557.7210622.29 1557.98
10631.13 1557.9810632.64 1558.0310651.11 1558.6110673.17  1559.310673.72  1559.2
10674.75 1558.9910691.13 1555.0710701.64 1556.7410702.71 1556.9210715.27 1556.67
10727.62 1558.5110750.88 1560.3110755.32 1560.6610758.55 1560.9210776.38  1561.2
10793.61 1561.6810804.36 1560.9310832.05 1558.2910834.04 1558.1210849.38 1556.66
10852.48  1557.1 10862.7 1558.8510884.82  1558.910914.84 1558.6210922.82 1559.22
10930.66 1560.2510938.69 1561.4510943.28 1561.5510984.13 1562.14 10984.7 1562.13

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9584.13     .065 9979.95     .037   10088     .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9979.95   10088              580  569.27     490             .1       .3
Blocked Obstructions     num=       1
   Sta L    Sta R    Elev
10389.81 10984.7  1561.4

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1560.67   Element                Left OB    Channel    Right OB
  Vel Head (ft)                0.49   Wt. n-Val.               0.065      0.037      0.065
  W.S. Elev (ft)            1560.18   Reach Len. (ft)         580.00     569.27     490.00
  Crit W.S. (ft)                      Flow Area (sq ft)       377.86     243.52     142.20
  E.G. Slope (ft/ft)       0.010613   Area (sq ft)            377.86     243.52     142.20
  Q Total (cfs)             3187.00   Flow (cfs)             1151.37    1736.63     299.01
  Top Width (ft)             531.75   Top Width (ft)          256.68     106.65     168.43
  Vel Total (ft/s)             4.17   Avg. Vel. (ft/s)          3.05       7.13       2.10
  Max Chl Dpth (ft)            5.78   Hydr. Depth (ft)          1.47       2.28       0.84
  Conv. Total (cfs)         30935.8   Conv. (cfs)            11176.2    16857.2     2902.4
  Length Wtd. (ft)           568.73   Wetted Per. (ft)        256.74     107.61     168.54
  Min Ch El (ft)            1554.40   Shear (lb/sq ft)          0.98       1.50       0.56
  Alpha                        1.81   Stream Power (lb/ft s)    2.97      10.69       1.18
  Frctn Loss (ft)              5.62   Cum Volume (acre-ft)     26.14      19.17      34.96
  C & E Loss (ft)              0.00   Cum SA (acres)           21.39       8.02      11.67


Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
        section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                  (ft)     (ft/s)
  9584.13       9979.95        1151.37     377.86     256.74      36.13       1.47       3.05
  LB 9979.95    10033.97       1421.36     174.14      54.92      44.60       3.22       8.16
  10033.97      RB 10088.00     315.27      69.38      52.69       9.89       1.32       4.54
  10088.00      10984.70        299.01     142.20     168.54       9.38       0.84       2.10


Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
        section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M1          RS: 1.279

INPUT
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Description: SEC.1.279  REV.03-14-02
Station Elevation Data    num=     132
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9188.77 1555.38  9189.6 1555.36 9191.18 1555.32 9193.89 1555.24  9195.7 1555.25
 9199.19 1555.25 9215.28 1555.48 9224.57  1555.3 9250.82 1554.92 9257.48 1554.64
  9278.8  1553.5 9286.33 1553.12 9291.28 1553.75 9295.39 1554.21 9300.72 1554.18
 9318.52 1554.13  9356.6 1553.88 9372.22 1553.79 9377.46 1553.83 9459.42 1552.66
 9464.24 1552.49  9469.3 1552.34 9481.96 1551.96 9487.74  1553.4 9492.33 1554.18
 9511.91 1554.17 9516.89 1554.19 9530.01 1554.05  9556.7 1553.68 9562.27 1553.46
 9571.96 1553.13 9599.87 1553.93 9612.68  1554.3 9621.64 1553.87 9629.85 1553.48
 9632.65 1553.83 9643.34 1554.97 9648.07 1554.89 9657.35 1554.68 9666.14 1554.37
 9673.32 1554.17 9682.79 1553.94 9686.51 1553.84  9705.2  1554.1 9707.68 1554.21
  9712.5 1554.25  9731.2 1554.55 9775.48 1555.15 9776.94 1555.17 9803.67 1555.57
  9824.7 1555.68 9840.08 1555.46 9859.33 1555.44 9880.81 1555.18 9894.62 1555.11
 9910.55 1554.79  9925.6 1554.67 9935.75 1554.32 9944.65 1553.81 9948.35  1553.3
  9954.2  1553.1  9964.4 1551.45 9970.33 1551.45 9981.78 1550.37 9987.47 1549.71
 9990.16 1549.53 9992.61 1549.62   10000 1549.8610000.41 1549.8710003.37 1550.79
10010.17 1549.5810014.03 1549.3910016.92 1550.6610033.96 1552.2310034.72 1552.24
10035.73 1552.2510049.59 1553.04 10050.9 1553.2310059.08 1553.4610065.51  1553.8
10071.05 1553.8310075.58 1553.9110103.89 1554.2810110.93 1554.4810185.46 1555.85
10213.35 1556.1610278.31 1554.2810321.73 1553.3910326.07 1553.2210330.57 1552.96
10339.31 1553.4110343.38 1553.6510361.86 1554.2910372.72 1554.0810386.21 1554.04
10393.42 1553.8310411.88 1554.6110462.47  1553.610497.36 1552.8910502.21 1552.05
   10509 1550.5410520.37 1551.0910520.72 1551.0910521.99  1551.310535.06 1553.46
10551.03 1553.5710586.91  1553.510627.87 1553.5710628.83 1553.5110634.84 1553.95
10657.11 1555.9510674.86 1555.4310704.42 1554.8610722.01 1555.1110731.33 1555.24
10734.61 1555.2910747.42 1555.3410808.33 1555.4310815.86 1555.4210818.09 1555.18
10839.13 1554.7610847.65 1553.3810848.97 1553.49 10861.1 1554.5210874.34 1554.56
 10914.4 1554.73 10922.2 1554.77 10930.3 1554.8910943.18 1555.1410948.29 1555.25
10960.39  1555.610995.04 1556.55

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9188.77    .065  9925.6    .03710110.93    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        9925.610110.93              475  500.09     540             .1      .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
10213.3510995.04 1556.16

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1555.04   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.49   Wt. n-Val.                0.065      0.037      0.065
  W.S. Elev (ft)            1554.55   Reach Len. (ft)          475.00     500.09     540.00
  Crit W.S. (ft)            1554.46   Flow Area (sq ft)        371.38     385.71       0.14
  E.G. Slope (ft/ft)       0.009221   Area (sq ft)             371.38     385.71       0.14
  Q Total (cfs)             3187.00   Flow (cfs)               740.13    2446.84       0.03
  Top Width (ft)             636.22   Top Width (ft)           450.50     181.87       3.85
  Vel Total (ft/s)             4.21   Avg. Vel. (ft/s)           1.99       6.34       0.24
  Max Chl Dpth (ft)            5.16   Hydr. Depth (ft)           0.82       2.12       0.04
  Conv. Total (cfs)         33189.7   Conv. (cfs)              7707.8    25481.6        0.3
  Length Wtd. (ft)           495.41   Wetted Per. (ft)         450.99     182.81       3.85
  Min Ch El (ft)            1549.39   Shear (lb/sq ft)           0.47       1.21       0.02
  Alpha                        1.80   Stream Power (lb/ft s)     0.94       7.70       0.00
  Frctn Loss (ft)              4.94   Cum Volume (acre-ft)      21.16      15.06      34.16
  C & E Loss (ft)              0.01   Cum SA (acres)            16.68       6.13      10.70


Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                  (ft)     (ft/s)
  9188.77       9925.60         740.13     371.38     450.99      23.22       0.82       1.99
```

LB 9925.60	10018.26	1963.68	268.53	90.02	61.62	3.01	7.31
10018.26	RB 10110.93	483.16	117.18	92.79	15.16	1.26	4.12
10110.93	10995.04	0.03	0.14	3.85	0.00	0.04	0.24

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 1.181

INPUT
Description: SEC.1.181 REV.03-14-02
Station Elevation Data num= 146

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9034.88	1550.79	9050.23	1550.8	9113.95	1549.49	9115.97	1549.47	9121.18	1549.38
9181.3	1548.89	9186.77	1548.93	9197.01	1548.76	9204.71	1548.66	9210.33	1548.73
9214.88	1548.45	9225.92	1548.56	9237.1	1548.64	9241.8	1548.31	9262.05	1548.41
9290.09	1549.48	9307.82	1548.39	9308.35	1548.36	9310.42	1548.41	9333.81	1549.03
9340	1549.29	9350.04	1549.52	9364.6	1548.46	9372.07	1548.02	9374.16	1547.84
9377.19	1547.78	9382.33	1548.06	9384.89	1548.2	9394.5	1548.59	9397.46	1548.74
9400.83	1548.85	9413.39	1549.43	9419.31	1548.62	9423.94	1548.14	9449.64	1549.02
9450.83	1549.05	9452.44	1549.06	9510.65	1550.64	9516.08	1550.96	9533.88	1551.05
9578.56	1550.74	9582.19	1550.72	9633.36	1551.1	9639.32	1550.58	9647.7	1550.42
9683.04	1550.44	9693.43	1550.44	9702.95	1548.99	9713.09	1547.85	9722.68	1548.3
9733.66	1548.65	9740.89	1548.83	9751.19	1549.28	9756.25	1549.29	9757.95	1549.28
9759.2	1549.12	9766.27	1547.67	9769.69	1547.99	9775.45	1548.4	9779.44	1548.67
9788.22	1549.09	9793.81	1548.97	9798.17	1548.84	9799.91	1548.65	9804.13	1549.12
9811.03	1550.1	9813.84	1550.08	9820.8	1550.22	9838.75	1550.31	9842.37	1550.29
9859.63	1550.36	9861.9	1550.37	9863.93	1550.41	9887.26	1550.86	9900.94	1550.51
9919.46	1550.05	9939.32	1548.03	9943.27	1547.63	9949.5	1547.57	9977.05	1547.33
9992.28	1545.9	9998.34	1545.37	10000	1545.71	10007.2	1547.2	10011.2	1548.03
10032.59	1547.7	10063.62	1547.2	10073.85	1547.5	10082.46	1547.7	10084.59	1547.85
10096.18	1548.0	10186.22	1549.3	10194.98	1549.5	10257.86	1550.2	10272.32	1550.71
10273.83	1550.6	10288.76	1550.0	10319.63	1549.6	10323.07	1549.5	10325.96	1549.5
10327.04	1549.5	10328.26	1549.5	10345.21	1549.3	10361.61	1549.3	10367.78	1548.86
10373.6	1548.3	10374.06	1548.4	10401.27	1546.9	10406.96	1546.5	10417.32	1546.25
10430.77	1544.6	10431.28	1544.5	10431.49	1544.6	10436.94	1546.3	10439.34	1546.36
10444.53	1546.5	10452.33	1547.24	10460.7	1548.2	10471.05	1547.8	10486.79	1547.31
10490.89	1547.3	10496.76	1547.4	10501.41	1547.5	10514.41	1547.6	10584.58	1548.16
10609.85	1548.3	10621.47	1547.7	10637.01	1546.6	10646.47	1546.2	10653.97	1545.04
10659.07	1543.82	10668	1544.9	10683.92	1547.0	10688.14	1547.16	10705.8	1547.44
10714.6	1547.6	10774.59	1547.9	10779.17	1547.9	10783.44	1548.1	10796.65	1548.76
10806.31	1549.0	10819.98	1549.1	10835.07	1548.5	10847.16	1549.0	10856.99	1548.97
10869.15	1548.99								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9034.88	.065	9939.32	.037	10096.18	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9939.32	10096.18	490 504.92	495	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10272.31	10869.15	1550.71

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1550.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1549.53	Reach Len. (ft)	490.00	504.92	495.00
Crit W.S. (ft)	1549.53	Flow Area (sq ft)	352.49	338.50	75.22
E.G. Slope (ft/ft)	0.010806	Area (sq ft)	352.49	338.50	75.22
Q Total (cfs)	3187.00	Flow (cfs)	683.79	2355.80	147.41
Top Width (ft)	737.36	Top Width (ft)	480.06	156.86	100.44
Vel Total (ft/s)	4.16	Avg. Vel. (ft/s)	1.94	6.96	1.96
Max Chl Dpth (ft)	4.16	Hydr. Depth (ft)	0.73	2.16	0.75
Conv. Total (cfs)	30658.6	Conv. (cfs)	6578.0	22662.6	1418.0

Length Wtd. (ft)	498.57	Wetted Per. (ft)	480.84	157.26	100.45
Min Ch El (ft)	1545.37	Shear (lb/sq ft)	0.49	1.45	0.51
Alpha	2.13	Stream Power (lb/ft s)	0.96	10.11	0.99
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)	17.21	10.90	33.69
C & E Loss (ft)	0.17	Cum SA (acres)	11.60	4.19	10.05

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9034.88	9939.32	683.79	352.49	480.84	21.46	0.73	1.94
LB 9939.32	10017.75	1420.99	190.56	78.81	44.59	2.43	7.46
10017.75	RB 10096.18	934.82	147.94	78.44	29.33	1.89	6.32
10096.18	10869.15	147.41	75.22	100.45	4.63	0.75	1.96

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: PADELFORD WASH
REACH: REACH M1 RS: 1.084

INPUT
Description: SEC.1.084 REV.03-14-02
Station Elevation Data num= 130

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9035.12	1546.48	9035.67	1546.47	9049.22	1546.38	9098.18	1546.26	9100.04	1546.33
9104.5	1546.24	9169.25	1545.21	9178.54	1545.2	9192.71	1545.18	9221.45	1544.86
9226.49	1544.84	9231.38	1544.71	9237.5	1544.77	9251.15	1544.82	9293.85	1544.87
9307.37	1545.02	9309.29	1545	9312.13	1545	9319.36	1544.85	9380.32	1543.79
9397.03	1543.64	9414.5	1544.16	9430.02	1544.67	9431.33	1544.7	9431.76	1544.7
9433.31	1544.65	9440.96	1544.28	9452.92	1543.66	9462.99	1543.58	9525.78	1543.09
9527.09	1543.13	9539.31	1542.99	9560.31	1542.75	9571.27	1542.64	9603.98	1544.14
9622.65	1544.96	9634.92	1545.21	9640.64	1545.32	9648.62	1545.57	9665.46	1545.98
9677.27	1546.19	9678.82	1546.23	9682.64	1546.31	9685.67	1546.36	9695.98	1546.18
9776.83	1544.68	9868.57	1545.24	9882.93	1545.27	9888.15	1544.92	9899.05	1544.6
9944.77	1543.71	9965.42	1543.83	9980.85	1543.91	9982.3	1543.81	10000	1542.54
10000.41	1542.51	10017.07	1543.61	10018.47	1543.71	10021.45	1543.72	10048.02	1543.85
10088.61	1544.03	10091.7	1544.01	10095.24	1544.06	10099.36	1544.04	10115.06	1544.27
10125.28	1544.45	10136.43	1543.94	10149.12	1543.67	10161.96	1543.45	10174.34	1543.24
10185.44	1543.21	10192.13	1543.18	10211.87	1542.71	10237.49	1542.37	10267.44	1541.81
10270.13	1541.81	10284.02	1542.98	10289.36	1543.28	10312.14	1543.87	10340.28	1544.7
10348.87	1544.98	10351.87	1545.07	10356.53	1545.22	10363.9	1545.41	10388.47	1546.09
10394.77	1546.22	10398.16	1546.25	10408.62	1546.29	10415.74	1546.35	10420.89	1546.13
10475.27	1544.94	10496.32	1544.93	10516.4	1544.57	10519.5	1544.47	10534.54	1544.37

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 10542.9 1544.3510570.62 1543.5610585.61 1543.0910596.54 1542.8410618.05 1542.08
10624.49  1541.810642.04  1541.510652.86 1540.8910667.57 1539.4410686.54 1539.91
10697.16 1540.12 10705.7 1540.52 10713.6 1541.1610717.55  1541.510723.14 1541.51
10743.28 1541.5710746.02 1541.5810756.93 1541.3710770.77 1540.9610781.62 1541.09
10791.34 1541.2110832.69 1541.7610838.37 1541.9810847.94 1542.0910892.74 1542.48
10935.35 1542.9310937.15 1542.68 10945.8 1541.8110956.45 1540.5410985.92 1542.75
11000.58 1543.8711005.19 1543.8411021.61 1543.4111052.64 1542.6711056.73 1542.57

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9035.12    .065 9882.93    .03710125.28    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      9882.9310125.28               425  417.12     390            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1546.52   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.01   Wt. n-Val.               0.065      0.037      0.065
  W.S. Elev (ft)           1546.52   Reach Len. (ft)         425.00     417.12     390.00
  Crit W.S. (ft)                     Flow Area (sq ft)      1449.71     630.00    3274.48
  E.G. Slope (ft/ft)       0.000142  Area (sq ft)           1449.71     630.00    3274.48
  Q Total (cfs)            3187.00   Flow (cfs)              564.10     569.27    2053.64
  Top Width (ft)           2021.61   Top Width (ft)          847.81     242.35     931.45
  Vel Total (ft/s)            0.60   Avg. Vel. (ft/s)          0.39       0.90       0.63
  Max Chl Dpth (ft)           7.08   Hydr. Depth (ft)          1.71       2.60       3.52
  Conv. Total (cfs)        267700.0  Conv. (cfs)            47382.6    47817.1   172500.3
  Length Wtd. (ft)          409.09   Wetted Per. (ft)        848.01     242.47     936.04
  Min Ch El (ft)           1542.51   Shear (lb/sq ft)          0.02       0.02       0.03
  Alpha                       1.20   Stream Power (lb/ft s)    0.01       0.02       0.02
  Frctn Loss (ft)             0.17   Cum Volume (acre-ft)      7.07       5.29      14.66
  C & E Loss (ft)             0.07   Cum SA (acres)            4.14       1.87       4.19


Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.   Hydr D.   Velocity
  (ft)         (ft)            (cfs)      (sq ft)    (ft)               (ft)      (ft/s)
  9035.12      9882.93        564.10    1449.71     848.01     17.70      1.71      0.39
  LB 9882.93   10004.11       278.94     311.24     121.26      8.75      2.57      0.90
  10004.11     RB 10125.28    290.33     318.76     121.21      9.11      2.63      0.91
  10125.28     11056.73      2053.64    3274.48     936.04     64.44      3.52      0.63


Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: PADELFORD WASH
REACH: REACH M1          RS: 1.005

INPUT
Description: SEC.1.005  THIS SEC. LOCATED APPROX. 26 FT. UPSTREAM OF CAP STA.
             272+35 OVERCHUTE STRUCTURE  INVOLVING 3-72 INCH I.D.X 222.3 FT
             LONG STEEL PIPES. INLET INVERT EL. AT SQ. EDGE CONC. HEADWALL IS
             1539.90 (MAP DATUM). OUTLET I.E.=1538.47.

STARTING WSEL
             BASED ON NORMAL DEPTH S=0.006 FT/FT.SLOPE. HOWEVER PONDING
             UPSTREAM OF CAP OCCURS WHICH IS CONNECTED TO OTHER CAP
             OVERCHUTES.
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SECTIONS ARE CODED FROM LT. TO RT. LOOKING D/S WITH
STA. 10000 AT HYDRAULIC BASELINE.

Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9639.26	1556.47	9645.16	1556.91	9646.46	1557	9650.2	1557.43	9664.2	1557.4
9669.94	1557.45	9680.61	1557.46	9693.48	1557.52	9698.05	1557.57	9710.62	1557.6
9717.14	1556.95	9736.84	1554.64	9739.93	1555.21	9743.52	1554.83	9763.07	1553.46
9769.23	1552.73	9784.59	1551.95	9792.45	1551.1	9806.39	1549.94	9815.6	1549.43
9828.82	1548.55	9839.69	1548.66	9850.13	1548.24	9861.14	1548.66	9871.14	1547.99
9882.34	1548.05	9891.69	1547.46	9904.76	1546.8	9911.9	1546.58	9927.27	1545.58
9932.68	1545.27	9949.01	1542.79	9966.75	1540.95	9966.89	1540.96	9967.1	1540.95
9984.29	1541.03	9989.48	1541.11	10000	1541.27	10008.97	1541.41	10017.74	1541.41
10023.04	1541.31	10034.1	1541.31	10035.62	1541.32	10038.28	1541.33	10056.67	1544.03
10076.47	1545.42	10082.76	1545.67	10099.64	1545.99	10107.47	1546.32	10122.83	1546.89
10132.49	1547.39	10143.29	1548.06	10155.02	1548.83	10165.19	1550.03	10175.85	1550.68
10180.15	1550.37	10195.87	1551.51	10203.52	1551.94	10219.86	1553.15	10224.43	1553.56
10245.06	1555.41	10246.26	1555.35	10250.3	1555.89	10267.11	1555.97	10273.46	1555.96
10286.06	1555.98	10303.51	1555.94	10303.66	1555.94	10303.82	1555.94	10325.13	1553.31
10330.77	1552.75	10343.1	1551.45						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9639.26	.065	9927.27	.037	10076.47	.065

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
9927.27	10076.47		0	0	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1546.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.		0.037	0.065
W.S. Elev (ft)	1545.58	Reach Len. (ft)			
Crit W.S. (ft)	1544.64	Flow Area (sq ft)		474.58	0.33
E.G. Slope (ft/ft)	0.006006	Area (sq ft)	0.00	474.58	0.33
Q Total (cfs)	3187.00	Flow (cfs)		3186.89	0.11
Top Width (ft)	153.29	Top Width (ft)	0.03	149.20	4.07
Vel Total (ft/s)	6.71	Avg. Vel. (ft/s)		6.72	0.33
Max Chl Dpth (ft)	4.63	Hydr. Depth (ft)		3.18	0.08
Conv. Total (cfs)	41124.0	Conv. (cfs)		41122.6	1.4
Length Wtd. (ft)		Wetted Per. (ft)		149.74	4.07
Min Ch El (ft)	1540.95	Shear (lb/sq ft)		1.19	0.03
Alpha	1.00	Stream Power (lb/ft s)		7.98	0.01
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9927.27	10001.87	1737.69	250.23	74.89	54.52	3.35	6.94
10001.87	RB 10076.47	1449.20	224.35	74.85	45.47	3.01	6.46
10076.47	10343.10	0.11	0.33	4.07	0.00	0.08	0.33

SUMMARY OF MANNING'S N VALUES

River:TRIB.A

Reach	River Sta.	n1	n2	n3
REACH A2	1.998	.065	.037	.065
REACH A2	1.996	Culvert		
REACH A2	1.981	.065	.037	.065
REACH A2	1.957	.065	.04	.065
REACH A2	1.859	.065	.04	.065
REACH A2	1.772	.065	.04	.065

REACH A2	1.685	.065	.04	.065
REACH A2	1.582	.065	.04	.065
REACH A2	1.491	.065	.04	.065
REACH A2	1.439	.065	.037	.065
REACH A2	1.337	.065	.04	.065
REACH A2	1.246	.065	.04	.065
REACH A2	1.143	.065	.04	.065
REACH A1	1.045	.065	.037	.065
REACH A1	0.952	.065	.037	.065
REACH A1	0.864	.065	.037	.065
REACH A1	0.770	.065	.037	.065
REACH A1	0.674	.065	.037	.065
REACH A1	0.578	.065	.037	.065
REACH A1	0.484	.065	.037	.065
REACH A1	0.390	.065	.037	.065
REACH A1	0.294	.065	.037	.065
REACH A1	0.198	.065	.037	.065

River:PADELFORD WASH

Reach	River Sta.	n1	n2	n3	n4	n5	n6	n7	n8	n9	n10	n11
REACH M3	6.540	.065	.037	.065								
REACH M3	6.417	.065	.037	.065								
REACH M3	6.373	.065	.037	.065								
REACH M3	6.321	.065	.037	.065								
REACH M3	6.225	.065	.037	.065								
REACH M3	6.140	.065	.037	.065								
REACH M3	6.053	.065	.037	.065								
REACH M3	5.975	.065	.037	.065								
REACH M3	5.832	.065	.037	.065								
REACH M3	5.754	.065	.037	.065								
REACH M3	5.675	.065	.037	.065								
REACH M3	5.585	.065	.037	.065								
REACH M3	5.508	.065	.037	.065								
REACH M3	5.416	.065	.037	.065								
REACH M3	5.320	.065	.037	.065								
REACH M3	5.197	.065	.037	.065								
TRIB 'B'	0.854	.065	.037	.065								
TRIB 'B'	0.850	Culvert										
TRIB 'B'	0.827	.065	.04	.065								
TRIB 'B'	0.763	.065	.04	.065								
TRIB 'B'	0.668	.065	.04	.065								
TRIB 'B'	0.577	.065	.04	.065								
TRIB 'B'	0.488	.065	.04	.065								
TRIB 'B'	0.390	.065	.04	.065								
TRIB 'B'	0.289	.065	.04	.065								
TRIB 'B'	0.192	.065	.04	.065								
TRIB 'B'	0.093	.065	.04	.065								
TRIB 'C'	1.264	.065	.037	.065								
TRIB 'C'	1.262	Culvert										
TRIB 'C'	1.237	.065	.037	.065								
TRIB 'C'	1.180	.065	.04	.065								
TRIB 'C'	1.115	.065	.04	.065								
TRIB 'C'	1.039	.065	.04	.065								
TRIB 'C'	0.939	.065	.04	.065								
TRIB 'C'	0.841	.065	.04	.065								
TRIB 'C'	0.744	.065	.04	.065								
TRIB 'C'	0.644	.065	.037	.065								
TRIB 'C'	0.546	.065	.037	.065								
TRIB 'C'	0.460	.065	.037	.065								
TRIB 'C'	0.370	.065	.037	.065								
TRIB 'C'	0.273	.065	.037	.065								
TRIB 'C'	0.184	.065	.037	.065								
TRIB 'C'	0.083	.065	.037	.065								
REACH M2	5.120	.065	.037	.065								
REACH M2	5.014	.065	.037	.065								

REACH M2	4.924	.065	.037	.065					
REACH M2	4.823	.065	.037	.065					
REACH M2	4.722	.065	.037	.065	.037	.065			
REACH M1	4.624	.065	.037	.065					
REACH M1	4.546	.065	.037	.065					
REACH M1	4.452	.065	.037	.065	.037	.065			
REACH M1	4.378	.065	.037	.065	.037	.065	.037	.065	
REACH M1	4.280	.065	.037	.065	.037	.065	.037	.065	
REACH M1	4.182	.065	.037	.065	.037	.065	.037	.065	
.037 .065 .037 .065									
REACH M1	4.084	.065	.037	.065	.037	.065	.037	.065	
.037 .065									
REACH M1	3.968	.065	.037	.065	.037	.065	.037	.065	
.037 .065									
REACH M1	3.876	.065	.037	.065	.037	.065	.037	.065	
.037 .065									
REACH M1	3.780	.065	.037	.065	.037	.065	.037	.065	
REACH M1	3.681	.065	.037	.065	.037	.065	.037	.065	
REACH M1	3.584	.065	.037	.065	.037				
REACH M1	3.536	.065	.037	.065	.037				
REACH M1	3.489	.065	.037	.065	.037	.065	.037	.065	
REACH M1	3.441	.065	.037	.065					
REACH M1	3.393	.065	.037	.065					
REACH M1	3.343	.065	.037	.065					
REACH M1	3.300	.065	.037	.065					
REACH M1	3.254	.065	.037	.065					
REACH M1	3.205	.065	.037	.065					
REACH M1	3.156	.065	.037	.065					
REACH M1	3.108	.065	.037	.065					
REACH M1	3.061	.065	.037	.065					
REACH M1	3.003	.065	.037	.065					
REACH M1	2.949	.065	.037	.065					
REACH M1	2.897	.065	.037	.065					
REACH M1	2.798	.065	.037	.065					
REACH M1	2.702	.065	.037	.065					
REACH M1	2.610	.065	.037	.065					
REACH M1	2.510	.065	.037	.065					
REACH M1	2.412	.065	.037	.065					
REACH M1	2.307	.065	.037	.065					
REACH M1	2.209	.065	.037	.065					
REACH M1	2.098	.065	.037	.065					
REACH M1	1.996	.065	.037	.065					
REACH M1	1.896	.065	.037	.065					
REACH M1	1.796	.065	.037	.065					
REACH M1	1.692	.065	.037	.065					
REACH M1	1.631	.065	.037	.065					
REACH M1	1.585	.065	.037	.065					
REACH M1	1.492	.065	.037	.065					
REACH M1	1.398	.065	.037	.065					
REACH M1	1.279	.065	.037	.065					
REACH M1	1.181	.065	.037	.065					
REACH M1	1.084	.065	.037	.065					
REACH M1	1.005	.065	.037	.065					

SUMMARY OF REACH LENGTHS

River: TRIB.A

Reach	River Sta.	Left	Channel	Right
REACH A2	1.998	90	90.1	90
REACH A2	1.996	Culvert		
REACH A2	1.981	126	124.69	125
REACH A2	1.957	485	517.44	535
REACH A2	1.859	460	459.36	425
REACH A2	1.772	445	459.36	425

REACH A2	1.685	470	543.84	565
REACH A2	1.582	490	470.03	460
REACH A2	1.491	265	273.43	275
REACH A2	1.439	425	538.56	535
REACH A2	1.337	525	480.48	425
REACH A2	1.246	500	543.84	525
REACH A2	1.143	520	517.44	520
REACH A1	1.045	310	491.04	505
REACH A1	0.952	380	464.64	465
REACH A1	0.864	508	494.69	478
REACH A1	0.770	505	499.71	485
REACH A1	0.674	512.9	505.76	450
REACH A1	0.578	515.56	492.67	430
REACH A1	0.484	505	492.68	425
REACH A1	0.390	460	502.01	515
REACH A1	0.294	450	506.88	510
REACH A1	0.198	0	0	0

River: PADELFORD WASH

Reach	River Sta.	Left	Channel	Right
REACH M3	6.540	525	649.4	650
REACH M3	6.417	305	229.28	165
REACH M3	6.373	275	268.18	260
REACH M3	6.321	505.55	504.62	506.67
REACH M3	6.225	340	448.8	485
REACH M3	6.140	391.47	459.36	425
REACH M3	6.053	360	410.44	429.17
REACH M3	5.975	500	755.04	600
REACH M3	5.832	410	405.63	400
REACH M3	5.754	425	420.61	400
REACH M3	5.675	500	462.35	410
REACH M3	5.585	400	404.62	410
REACH M3	5.508	280	485.76	500
REACH M3	5.416	500	502.79	508
REACH M3	5.320	650	649.44	630
REACH M3	5.197	360	406.56	430
TRIB 'B'	0.854	142	142.71	145
TRIB 'B'	0.850	Culvert		
TRIB 'B'	0.827	338	337.9	338
TRIB 'B'	0.763	505	501.13	495
TRIB 'B'	0.668	495	480.48	425
TRIB 'B'	0.577	450	466.55	450
TRIB 'B'	0.488	400	517.44	525
TRIB 'B'	0.390	400	533.28	555
TRIB 'B'	0.289	520	512.16	430
TRIB 'B'	0.192	540	521.76	515
TRIB 'B'	0.093	0	0	0
TRIB 'C'	1.264	146.26	142.34	150.44
TRIB 'C'	1.262	Culvert		
TRIB 'C'	1.237	305	295.2	275
TRIB 'C'	1.180	325	343.2	340
TRIB 'C'	1.115	225	401.28	435
TRIB 'C'	1.039	545	528	450
TRIB 'C'	0.939	500	517.44	475
TRIB 'C'	0.841	520	512.16	490
TRIB 'C'	0.744	520	528	501.4
TRIB 'C'	0.644	495	517.44	480
TRIB 'C'	0.546	420	454.08	413.35
TRIB 'C'	0.460	460	475.2	460
TRIB 'C'	0.370	485	512.16	500
TRIB 'C'	0.273	413.36	467.04	508.02
TRIB 'C'	0.184	520	533.28	525
TRIB 'C'	0.083	0	0	0
REACH M2	5.120	560	559.68	520
REACH M2	5.014	452.41	469.98	480
REACH M2	4.924	510	533.02	552

REACH A2	1.246	.1	.3
REACH A2	1.143	.1	.3
REACH A1	1.045	.1	.3
REACH A1	0.952	.1	.3
REACH A1	0.864	.1	.3
REACH A1	0.770	.1	.3
REACH A1	0.674	.1	.3
REACH A1	0.578	.1	.3
REACH A1	0.484	.1	.3
REACH A1	0.390	.1	.3
REACH A1	0.294	.1	.3
REACH A1	0.198	.1	.3

River: PADELFORD WASH

Reach	River Sta.	Contr.	Expan.
REACH M3	6.540	.1	.3
REACH M3	6.417	.1	.3
REACH M3	6.373	.1	.3
REACH M3	6.321	.1	.3
REACH M3	6.225	.1	.3
REACH M3	6.140	.1	.3
REACH M3	6.053	.1	.3
REACH M3	5.975	.1	.3
REACH M3	5.832	.1	.3
REACH M3	5.754	.1	.3
REACH M3	5.675	.1	.3
REACH M3	5.585	.1	.3
REACH M3	5.508	.1	.3
REACH M3	5.416	.1	.3
REACH M3	5.320	.1	.3
REACH M3	5.197	.1	.3
TRIB 'B'	0.854	.1	.3
TRIB 'B'	0.850	Culvert	
TRIB 'B'	0.827	.1	.3
TRIB 'B'	0.763	.1	.3
TRIB 'B'	0.668	.1	.3
TRIB 'B'	0.577	.1	.3
TRIB 'B'	0.488	.1	.3
TRIB 'B'	0.390	.1	.3
TRIB 'B'	0.289	.1	.3
TRIB 'B'	0.192	.1	.3
TRIB 'B'	0.093	.1	.3
TRIB 'C'	1.264	.1	.3
TRIB 'C'	1.262	Culvert	
TRIB 'C'	1.237	.1	.3
TRIB 'C'	1.180	.1	.3
TRIB 'C'	1.115	.1	.3
TRIB 'C'	1.039	.1	.3
TRIB 'C'	0.939	.1	.3
TRIB 'C'	0.841	.1	.3
TRIB 'C'	0.744	.1	.3
TRIB 'C'	0.644	.1	.3
TRIB 'C'	0.546	.1	.3
TRIB 'C'	0.460	.1	.3
TRIB 'C'	0.370	.1	.3
TRIB 'C'	0.273	.1	.3
TRIB 'C'	0.184	.1	.3
TRIB 'C'	0.083	.1	.3
REACH M2	5.120	.1	.3
REACH M2	5.014	.1	.3
REACH M2	4.924	.1	.3
REACH M2	4.823	.1	.3
REACH M2	4.722	.1	.3
REACH M1	4.624	.1	.3
REACH M1	4.546	.1	.3
REACH M1	4.452	.1	.3

REACH M1	4.378	.1	.3
REACH M1	4.280	.1	.3
REACH M1	4.182	.1	.3
REACH M1	4.084	.1	.3
REACH M1	3.968	.1	.3
REACH M1	3.876	.1	.3
REACH M1	3.780	.1	.3
REACH M1	3.681	.1	.3
REACH M1	3.584	.1	.3
REACH M1	3.536	.1	.3
REACH M1	3.489	.1	.3
REACH M1	3.441	.1	.3
REACH M1	3.393	.1	.3
REACH M1	3.343	.1	.3
REACH M1	3.300	.1	.3
REACH M1	3.254	.1	.3
REACH M1	3.205	.1	.3
REACH M1	3.156	.1	.3
REACH M1	3.108	.1	.3
REACH M1	3.061	.1	.3
REACH M1	3.003	.1	.3
REACH M1	2.949	.1	.3
REACH M1	2.897	.1	.3
REACH M1	2.798	.1	.3
REACH M1	2.702	.1	.3
REACH M1	2.610	.1	.3
REACH M1	2.510	.1	.3
REACH M1	2.412	.1	.3
REACH M1	2.307	.1	.3
REACH M1	2.209	.1	.3
REACH M1	2.098	.1	.3
REACH M1	1.996	.1	.3
REACH M1	1.896	.1	.3
REACH M1	1.796	.1	.3
REACH M1	1.692	.1	.3
REACH M1	1.631	.1	.3
REACH M1	1.585	.1	.3
REACH M1	1.492	.1	.3
REACH M1	1.398	.1	.3
REACH M1	1.279	.1	.3
REACH M1	1.181	.1	.3
REACH M1	1.084	.1	.3
REACH M1	1.005	.1	.3

Profile Output Table - Standard Table 1

River	Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
TRIB.A	REACH A2	1.998	1163.00	1872.80	1878.77	1875.93	1879.05	0.001469	4.27	274.70	57.98	0.33
TRIB.A	REACH A2	1.996	Culvert									
TRIB.A	REACH A2	1.981	1163.00	1871.21	1875.15	1875.15	1876.89	0.016435	10.61	109.62	31.42	1.00
TRIB.A	REACH A2	1.957	1163.00	1869.33	1872.62	1872.62	1873.20	0.015647	7.06	241.06	197.41	0.91
TRIB.A	REACH A2	1.859	1163.00	1861.69	1865.05		1865.53	0.011661	5.68	221.93	152.90	0.77
TRIB.A	REACH A2	1.772	1163.00	1856.27	1858.65	1858.34	1859.10	0.017936	6.22	227.39	143.86	0.92
TRIB.A	REACH A2	1.685	1215.00	1847.68	1851.58	1851.37	1852.12	0.013557	6.14	220.12	138.02	0.83
TRIB.A	REACH A2	1.582	1215.00	1840.32	1843.50		1844.34	0.014886	7.59	179.20	96.93	0.90
TRIB.A	REACH A2	1.491	1215.00	1833.65	1837.06		1837.93	0.012486	7.88	183.39	89.42	0.85
TRIB.A	REACH A2	1.439	1215.00	1829.89	1833.68		1834.71	0.011107	8.71	173.25	73.31	0.88
TRIB.A	REACH A2	1.337	1215.00	1822.35	1825.86	1825.86	1826.81	0.021021	8.73	171.50	89.69	1.06
TRIB.A	REACH A2	1.246	1215.00	1813.89	1818.12		1818.87	0.010453	8.05	226.17	112.25	0.78
TRIB.A	REACH A2	1.143	1215.00	1805.60	1810.15	1810.15	1811.55	0.017744	9.52	127.60	45.88	1.01
TRIB.A	REACH A1	1.045	5722.00	1792.83	1801.02	1801.02	1802.41	0.006786	10.52	866.13	331.32	0.77
TRIB.A	REACH A1	0.952	5722.00	1788.29	1795.42		1795.54	0.001197	4.00	2306.65	491.80	0.32
TRIB.A	REACH A1	0.864	5722.00	1783.17	1793.01	1793.01	1794.39	0.006911	10.16	846.25	355.53	0.76

TRIB A	REACH A1	0.770	5722.00	1778.12	1787.37	1787.37	1788.79	0.007526	11.99	907.50	282.33	0.78	
TRIB A	REACH A1	0.674	5722.00	1773.35	1779.97		1781.38	0.010604	11.81	846.23	298.41	0.94	
TRIB A	REACH A1	0.578	5722.00	1768.14	1774.49	1774.49	1775.51	0.013627	11.42	957.61	396.67	1.01	
TRIB A	REACH A1	0.484	5722.00	1763.02	1768.57		1769.37	0.010323	10.30	1048.13	387.11	0.88	
TRIB A	REACH A1	0.390	5722.00	1756.75	1763.23	1763.23	1764.64	0.009980	11.99	840.99	273.50	0.92	
TRIB A	REACH A1	0.294	5722.00	1751.49	1756.03	1756.03	1757.11	0.010504	9.93	925.42	396.32	0.90	
TRIB A	REACH A1	0.198	5775.00	1744.06	1749.95		1750.68	0.006245	8.87	1171.11	409.08	0.71	
PADELFORD WASH	TRIB 'B'	0.854	4522.00	1859.00	1869.80	1865.39	1870.13	0.001373	5.41	1096.79	160.17	0.36	
PADELFORD WASH	TRIB 'B'	0.850	Culvert										
PADELFORD WASH	TRIB 'B'	0.827	4522.00	1854.98	1863.76	1863.76	1866.81	0.014458	14.00	322.89	53.64	1.01	
PADELFORD WASH	TRIB 'B'	0.763	4522.00	1850.77	1857.29	1857.29	1858.96	0.009886	10.85	520.00	170.78	0.84	
PADELFORD WASH	TRIB 'B'	0.668	4522.00	1844.10	1850.09	1850.09	1851.93	0.011382	11.19	465.59	139.12	0.89	
PADELFORD WASH	TRIB 'B'	0.577	4522.00	1835.74	1841.35	1841.35	1842.99	0.017036	11.38	494.88	156.12	1.04	
PADELFORD WASH	TRIB 'B'	0.488	4522.00	1828.08	1833.73	1833.73	1835.06	0.016992	12.43	605.06	200.14	1.00	
PADELFORD WASH	TRIB 'B'	0.390	4522.00	1822.27	1823.96	1823.78	1824.63	0.029731	7.70	704.61	400.41	1.18	
PADELFORD WASH	TRIB 'B'	0.289	4522.00	1815.11	1819.56		1819.91	0.005408	6.43	1065.63	326.46	0.59	
PADELFORD WASH	TRIB 'B'	0.192	4522.00	1807.48	1813.64	1813.64	1815.71	0.012317	11.77	426.46	118.14	0.94	
PADELFORD WASH	TRIB 'B'	0.093	4522.00	1801.30	1807.69	1807.69	1809.48	0.010282	11.45	515.93	159.03	0.87	
PADELFORD WASH	REACH M3	6.540	1624.00	1810.44	1815.47		1816.42	0.006789	8.37	256.33	98.67	0.72	
PADELFORD WASH	REACH M3	6.417	1624.00	1804.78	1808.84	1808.84	1810.28	0.013899	9.62	170.98	65.38	0.99	
PADELFORD WASH	REACH M3	6.373	1624.00	1802.07	1806.59		1807.50	0.008999	7.65	215.98	80.87	0.79	
PADELFORD WASH	REACH M3	6.321	1624.00	1798.48	1804.44		1805.35	0.007118	8.50	266.25	99.21	0.74	
PADELFORD WASH	REACH M3	6.225	1624.00	1795.18	1800.12	1800.12	1801.16	0.009789	8.67	248.79	130.77	0.84	
PADELFORD WASH	REACH M3	6.140	1624.00	1792.63	1798.07	1796.84	1798.39	0.002756	4.89	455.28	201.94	0.45	
PADELFORD WASH	REACH M3	6.053	2347.00	1789.62	1793.94	1793.94	1795.53	0.013380	10.15	236.26	77.40	0.99	
PADELFORD WASH	REACH M3	5.975	2347.00	1786.68	1791.34	1790.73	1791.68	0.004920	6.35	676.19	315.18	0.60	
PADELFORD WASH	REACH M3	5.832	2347.00	1779.48	1785.42	1785.34	1786.87	0.009765	9.84	270.20	105.06	0.87	
PADELFORD WASH	REACH M3	5.754	2347.00	1778.28	1784.47	1782.95	1784.84	0.002329	5.20	573.32	173.24	0.43	
PADELFORD WASH	REACH M3	5.675	3972.00	1775.23	1781.50	1781.28	1782.86	0.007638	10.34	545.96	170.16	0.80	
PADELFORD WASH	REACH M3	5.585	3972.00	1771.02	1777.50	1777.50	1779.05	0.009279	11.14	516.15	166.98	0.88	
PADELFORD WASH	REACH M3	5.508	3972.00	1768.37	1774.39	1773.99	1775.16	0.005779	8.66	805.05	298.55	0.69	
PADELFORD WASH	REACH M3	5.416	5263.00	1763.90	1771.63		1772.58	0.006152	9.45	942.07	309.49	0.72	
PADELFORD WASH	REACH M3	5.320	5263.00	1761.44	1767.69		1768.99	0.008234	10.20	738.96	241.16	0.82	
PADELFORD WASH	REACH M3	5.197	5263.00	1755.46	1764.36		1765.35	0.003901	8.62	796.03	170.23	0.59	
PADELFORD WASH	TRIB 'C'	1.264	2135.00	1836.49	1846.67	1841.94	1847.15	0.001584	5.61	380.49	47.62	0.35	
PADELFORD WASH	TRIB 'C'	1.262	Culvert										
PADELFORD WASH	TRIB 'C'	1.237	2135.00	1835.91	1844.64	1844.64	1846.63	0.012784	11.35	192.47	56.87	0.97	
PADELFORD WASH	TRIB 'C'	1.180	4353.00	1831.85	1838.67		1839.90	0.008414	10.17	600.84	175.71	0.78	
PADELFORD WASH	TRIB 'C'	1.115	4353.00	1829.18	1834.79	1834.79	1836.35	0.012823	10.38	490.43	178.36	0.92	
PADELFORD WASH	TRIB 'C'	1.039	4353.00	1822.92	1828.83	1828.83	1830.50	0.011935	11.23	496.30	147.40	0.91	
PADELFORD WASH	TRIB 'C'	0.939	4637.00	1815.87	1822.11	1821.94	1824.01	0.011483	11.23	451.31	123.35	0.91	
PADELFORD WASH	TRIB 'C'	0.841	4637.00	1809.25	1815.80	1815.80	1817.85	0.012612	13.44	502.29	124.52	0.98	
PADELFORD WASH	TRIB 'C'	0.744	4637.00	1799.22	1805.81	1805.81	1808.18	0.012136	12.49	402.80	100.40	0.95	
PADELFORD WASH	TRIB 'C'	0.644	4637.00	1789.62	1796.98	1796.98	1799.10	0.011220	12.10	435.97	105.24	0.95	
PADELFORD WASH	TRIB 'C'	0.546	4637.00	1784.71	1791.22	1791.22	1792.85	0.010235	11.41	568.15	172.02	0.91	
PADELFORD WASH	TRIB 'C'	0.460	4637.00	1780.22	1785.92	1785.90	1787.54	0.012206	11.88	564.12	168.78	1.00	
PADELFORD WASH	TRIB 'C'	0.370	4733.00	1775.43	1780.46	1780.40	1781.86	0.011681	10.84	615.70	207.69	0.96	
PADELFORD WASH	TRIB 'C'	0.273	4733.00	1770.11	1774.04	1773.63	1774.97	0.015665	9.19	666.37	250.17	1.03	
PADELFORD WASH	TRIB 'C'	0.184	4733.00	1765.62	1769.94		1770.44	0.006719	7.95	1104.90	438.74	0.72	
PADELFORD WASH	TRIB 'C'	0.083	4733.00	1759.66	1765.39		1766.64	0.007368	9.79	631.82	175.36	0.79	
PADELFORD WASH	REACH M2	5.120	9063.00	1753.65	1761.63		1763.13	0.006550	10.90	1307.48	452.05	0.77	
PADELFORD WASH	REACH M2	5.014	9063.00	1749.12	1756.90	1756.90	1758.88	0.008996	12.83	1046.66	263.29	0.90	
PADELFORD WASH	REACH M2	4.924	9063.00	1744.50	1752.24	1752.24	1753.94	0.008062	12.22	1215.64	348.34	0.86	
PADELFORD WASH	REACH M2	4.823	9063.00	1741.63	1747.44	1747.44	1748.72	0.009718	10.72	1356.46	506.91	0.89	
PADELFORD WASH	REACH M2	4.722	13396.00	1736.78	1744.41		1745.16	0.005043	9.79	2301.42	493.94	0.68	
PADELFORD WASH	REACH M1	4.624	13396.00	1731.47	1739.36		1741.43	0.010199	12.23	1334.89	327.11	0.94	
PADELFORD WASH	REACH M1	4.546	13396.00	1728.26	1735.53	1735.53	1737.39	0.009277	12.68	1617.17	430.06	0.91	
PADELFORD WASH	REACH M1	4.452	13396.00	1723.60	1729.83		1730.95	0.009132	10.66	1856.42	523.59	0.87	
PADELFORD WASH	REACH M1	4.378	13396.00	1719.98	1725.88	1725.88	1727.19	0.011292	11.57	1753.31	647.10	0.96	

TRIB A	REACH A2	1.859	1163.00	1861.69	1865.05	9944.90	10097.80	459.36	0.77	0.77	3.36
TRIB A	REACH A2	1.772	1163.00	1856.27	1858.65	9953.26	10097.12	459.36	0.92	0.72	3.11
TRIB A	REACH A2	1.685	1215.00	1847.68	1851.58	9974.07	10112.10	543.84	0.83	0.77	3.90
TRIB A	REACH A2	1.582	1215.00	1840.32	1843.50	9976.38	10073.31	470.03	0.90	0.88	3.18
TRIB A	REACH A2	1.491	1215.00	1833.65	1837.06	9947.25	10039.04	273.43	0.85	0.82	3.41
TRIB A	REACH A2	1.439	1215.00	1829.89	1833.68	9945.65	10018.96	538.56	0.88	0.80	3.79
TRIB A	REACH A2	1.337	1215.00	1822.35	1825.86	9986.07	10075.76	480.48	1.06	0.90	3.51
TRIB A	REACH A2	1.246	1215.00	1813.89	1818.12	9990.89	10103.14	543.84	0.78	0.67	4.23
TRIB A	REACH A2	1.143	1215.00	1805.60	1810.15	9970.71	10016.59	517.44	1.01	1.01	4.55
TRIB A	REACH A1	1.045	5722.00	1792.83	1801.02	9701.60	10032.92	491.04	0.77	0.72	8.19
TRIB A	REACH A1	0.952	5722.00	1788.29	1795.42	9570.66	10062.46	464.64	0.32	0.20	7.13
TRIB A	REACH A1	0.864	5722.00	1783.17	1793.01	9895.96	10336.83	494.69	0.76	0.77	9.84
TRIB A	REACH A1	0.770	5722.00	1778.12	1787.37	9984.54	10266.88	499.71	0.78	0.62	9.25
TRIB A	REACH A1	0.674	5722.00	1773.35	1779.97	9953.47	10251.87	505.76	0.94	0.71	6.62
TRIB A	REACH A1	0.578	5722.00	1768.14	1774.49	9987.25	10383.92	492.67	1.01	0.68	6.35
TRIB A	REACH A1	0.484	5722.00	1763.02	1768.57	9988.98	10376.09	492.68	0.93	0.58	5.55
TRIB A	REACH A1	0.390	5722.00	1756.75	1763.23	9939.08	10212.58	502.01	0.92	0.68	6.48
TRIB A	REACH A1	0.294	5722.00	1751.49	1756.03	9721.39	10117.71	506.88	0.90	0.71	4.54
TRIB A	REACH A1	0.198	5775.00	1744.06	1749.95	9618.85	10027.93	1050.00	0.71	0.51	5.89
PADELFORD WASH	TRIB 'B'	0.854	4522.00	1859.00	1869.80	9870.47	10030.63	142.71	0.36	0.28	10.80
PADELFORD WASH	TRIB 'B'	0.850	Culvert								
PADELFORD WASH	TRIB 'B'	0.827	4522.00	1854.98	1863.76	9985.66	10039.30	337.90	1.01	1.01	8.78
PADELFORD WASH	TRIB 'B'	0.763	4522.00	1850.77	1857.29	9965.65	10136.42	501.13	0.84	0.88	6.52
PADELFORD WASH	TRIB 'B'	0.668	4522.00	1844.10	1850.09	9883.41	10022.53	480.48	0.89	0.94	5.99
PADELFORD WASH	TRIB 'B'	0.577	4522.00	1835.74	1841.35	9987.52	10143.64	466.55	1.04	0.90	5.61
PADELFORD WASH	TRIB 'B'	0.488	4522.00	1828.08	1833.73	9776.11	10012.77	517.44	1.00	0.76	5.65
PADELFORD WASH	TRIB 'B'	0.390	4522.00	1822.27	1823.96	9671.62	10072.02	533.28	1.18	0.85	2.98
PADELFORD WASH	TRIB 'B'	0.289	4522.00	1815.11	1819.56	9720.33	10046.79	512.16	0.59	0.41	4.45
PADELFORD WASH	TRIB 'B'	0.192	4522.00	1807.48	1813.64	9949.54	10067.68	521.76	0.94	0.98	6.16
PADELFORD WASH	TRIB 'B'	0.093	4522.00	1801.30	1807.69	9890.44	10049.47	491.04	0.87	0.86	6.39
PADELFORD WASH	REACH M3	6.540	1624.00	1810.44	1815.47	9961.01	10059.68	649.40	0.72	0.69	5.03
PADELFORD WASH	REACH M3	6.417	1624.00	1804.78	1808.84	9969.68	10035.06	229.28	0.99	1.04	4.06
PADELFORD WASH	REACH M3	6.373	1624.00	1802.07	1806.59	9979.30	10060.17	268.18	0.79	0.81	4.52
PADELFORD WASH	REACH M3	6.321	1624.00	1798.48	1804.44	9925.48	10024.69	504.62	0.74	0.66	5.96
PADELFORD WASH	REACH M3	6.225	1624.00	1795.18	1800.12	9959.07	10089.84	448.80	0.84	0.83	4.94
PADELFORD WASH	REACH M3	6.140	1624.00	1792.63	1798.07	9820.87	10022.81	459.36	0.45	0.42	5.44
PADELFORD WASH	REACH M3	6.053	2347.00	1789.62	1793.94	9972.39	10049.79	410.44	0.99	1.00	4.32
PADELFORD WASH	REACH M3	5.975	2347.00	1786.68	1791.34	9842.03	10157.21	755.04	0.60	0.42	5.05
PADELFORD WASH	REACH M3	5.832	2347.00	1779.48	1785.42	9974.89	10079.95	405.63	0.87	0.95	5.94
PADELFORD WASH	REACH M3	5.754	2347.00	1778.28	1784.47	9944.51	10117.75	420.61	0.43	0.40	6.19
PADELFORD WASH	REACH M3	5.675	3972.00	1775.23	1781.50	9963.89	10134.05	462.35	0.80	0.72	6.27
PADELFORD WASH	REACH M3	5.585	3972.00	1771.02	1777.50	9980.59	10147.57	404.62	0.88	0.77	6.48
PADELFORD WASH	REACH M3	5.508	3972.00	1768.37	1774.39	9833.86	10132.41	485.76	0.69	0.53	6.02
PADELFORD WASH	REACH M3	5.416	5263.00	1763.90	1771.63	9716.56	10026.05	502.79	0.72	0.56	7.73
PADELFORD WASH	REACH M3	5.320	5263.00	1761.44	1767.69	9798.47	10039.63	649.44	0.82	0.72	6.25
PADELFORD WASH	REACH M3	5.197	5263.00	1755.46	1764.36	9966.70	10136.92	406.56	0.59	0.54	8.90
PADELFORD WASH	TRIB 'C'	1.264	2135.00	1836.49	1846.67	9970.58	10018.20	142.34	0.35	0.35	10.18
PADELFORD WASH	TRIB 'C'	1.262	Culvert								
PADELFORD WASH	TRIB 'C'	1.237	2135.00	1835.91	1844.64	9982.21	10039.08	295.20	0.97	1.06	8.73
PADELFORD WASH	TRIB 'C'	1.180	4353.00	1831.85	1838.67	9944.97	10135.61	343.20	0.78	0.69	6.82
PADELFORD WASH	TRIB 'C'	1.115	4353.00	1829.18	1834.79	9846.45	10024.81	401.28	0.92	0.94	5.61
PADELFORD WASH	TRIB 'C'	1.039	4353.00	1822.92	1828.83	9964.63	10112.04	528.00	0.91	0.84	5.91
PADELFORD WASH	TRIB 'C'	0.939	4637.00	1815.87	1822.11	9980.80	10104.15	517.44	0.91	0.95	6.24
PADELFORD WASH	TRIB 'C'	0.841	4637.00	1809.25	1815.80	9970.78	10095.29	512.16	0.98	0.81	6.55
PADELFORD WASH	TRIB 'C'	0.744	4637.00	1799.22	1805.81	9953.08	10053.49	528.00	0.95	1.01	6.59
PADELFORD WASH	TRIB 'C'	0.644	4637.00	1789.62	1796.98	9988.08	10093.31	517.44	0.95	0.92	7.36
PADELFORD WASH	TRIB 'C'	0.546	4637.00	1784.71	1791.22	9850.37	10046.68	454.08	0.91	0.79	6.51
PADELFORD WASH	TRIB 'C'	0.460	4637.00	1780.22	1785.92	9983.73	10152.51	475.20	1.00	0.79	5.70
PADELFORD WASH	TRIB 'C'	0.370	4733.00	1775.43	1780.46	9859.10	10066.79	512.16	0.96	0.79	5.03

PADELFORD WASH	TRIB 'C'	0.273	4733.00	1770.11	1774.04	9886.26	10136.43	467.04	1.03	0.77	4.51
PADELFORD WASH	TRIB 'C'	0.184	4733.00	1765.62	1769.94	9709.45	10148.19	533.28	0.72	0.48	4.32
PADELFORD WASH	TRIB 'C'	0.083	4733.00	1759.66	1765.39	9961.38	10136.74	511.00	0.79	0.70	5.73
PADELFORD WASH	REACH M2	5.120	9063.00	1753.65	1761.63	9923.35	10375.40	559.68	0.77	0.72	7.98
PADELFORD WASH	REACH M2	5.014	9063.00	1749.12	1756.90	9950.69	10213.98	469.98	0.90	0.77	7.78
PADELFORD WASH	REACH M2	4.924	9063.00	1744.50	1752.24	9824.02	10172.35	533.02	0.86	0.70	7.74
PADELFORD WASH	REACH M2	4.823	9063.00	1741.63	1747.44	9670.50	10177.41	533.28	0.89	0.72	5.81
PADELFORD WASH	REACH M2	4.722	13396.00	1736.78	1744.41	9760.03	10253.96	517.44	0.68	0.48	7.63
PADELFORD WASH	REACH M1	4.624	13396.00	1731.47	1739.36	9890.23	10217.34	408.98	0.94	0.88	7.89
PADELFORD WASH	REACH M1	4.546	13396.00	1728.26	1735.53	9860.59	10290.65	495.56	0.91	0.75	7.27
PADELFORD WASH	REACH M1	4.452	13396.00	1723.60	1729.83	9748.29	10271.89	389.91	0.87	0.68	7.28
PADELFORD WASH	REACH M1	4.378	13396.00	1719.98	1725.88	9773.87	10420.97	512.72	0.96	0.82	5.90
PADELFORD WASH	REACH M1	4.280	13396.00	1715.99	1720.18	9711.85	10938.60	508.57	0.86	0.67	4.48
PADELFORD WASH	REACH M1	4.182	13396.00	1708.79	1714.00	9983.41	11318.15	513.45	0.96	0.81	5.21
PADELFORD WASH	REACH M1	4.084	13396.00	1704.63	1709.11	9870.14	11305.62	604.10	0.78	0.65	4.85
PADELFORD WASH	REACH M1	3.968	13776.00	1699.08	1704.39	9793.04	11094.31	476.93	0.82	0.69	5.31
PADELFORD WASH	REACH M1	3.876	13776.00	1694.72	1699.06	9645.88	10654.93	497.04	0.96	0.82	4.42
PADELFORD WASH	REACH M1	3.780	13776.00	1689.24	1694.24	9777.23	10505.65	522.72	0.79	0.66	5.67
PADELFORD WASH	REACH M1	3.681	13776.00	1683.42	1688.39	9582.55	10387.20	512.16	1.02	0.86	4.97
PADELFORD WASH	REACH M1	3.584	9012.00	1677.87	1682.77	9316.87	10018.81	250.92	0.78	0.61	4.90
PADELFORD WASH	REACH M1	3.536	9012.00	1675.38	1679.67	9387.28	10086.12	246.30	0.98	0.78	4.29
PADELFORD WASH	REACH M1	3.489	9012.00	1672.34	1677.64	9432.66	10081.65	253.84	0.65	0.58	5.59
PADELFORD WASH	REACH M1	3.441	9012.00	1670.34	1675.01	9586.10	10110.78	251.87	0.86	0.69	4.67
PADELFORD WASH	REACH M1	3.393	5863.00	1668.09	1673.28	9760.84	10022.67	264.00	0.61	0.44	6.11
PADELFORD WASH	REACH M1	3.343	5863.00	1663.56	1669.41	9965.34	10077.73	229.16	1.00	0.92	5.85
PADELFORD WASH	REACH M1	3.300	5863.00	1661.01	1666.29	9865.72	10043.74	258.01	0.94	0.97	5.28
PADELFORD WASH	REACH M1	3.254	5863.00	1659.08	1664.19	9583.13	10051.31	258.78	0.84	0.70	5.11
PADELFORD WASH	REACH M1	3.205	5863.00	1657.06	1661.74	9535.26	10091.14	253.89	0.93	0.64	4.68
PADELFORD WASH	REACH M1	3.156	1538.00	1654.73	1658.83	9916.20	10088.17	251.08	0.81	0.67	4.10
PADELFORD WASH	REACH M1	3.108	1538.00	1653.03	1656.05	9850.56	10032.57	248.16	0.95	0.71	3.02
PADELFORD WASH	REACH M1	3.061	1538.00	1649.95	1652.83	9799.21	10021.45	306.24	0.89	0.77	2.88
PADELFORD WASH	REACH M1	3.003	1538.00	1645.92	1648.95	9829.38	10169.50	285.12	0.82	0.67	3.03
PADELFORD WASH	REACH M1	2.949	1538.00	1642.19	1645.82	9889.14	10286.37	271.80	0.83	0.70	3.63
PADELFORD WASH	REACH M1	2.897	1538.00	1640.32	1643.08	9899.73	10370.95	522.72	0.77	0.58	2.76
PADELFORD WASH	REACH M1	2.798	1538.00	1634.77	1637.03	9614.19	10313.35	506.88	1.02	0.65	2.26
PADELFORD WASH	REACH M1	2.702	1538.00	1628.62	1631.49	9249.92	10309.84	476.27	0.65	0.41	2.87
PADELFORD WASH	REACH M1	2.610	2775.00	1623.08	1625.68	9152.14	10088.31	528.00	0.99	0.73	5.04
PADELFORD WASH	REACH M1	2.510	2775.00	1617.99	1619.94	9278.35	10314.86	517.44	0.71	0.50	5.45
PADELFORD WASH	REACH M1	2.412	3270.00	1612.96	1614.07	9645.59	10764.33	554.40	0.82	0.53	3.07
PADELFORD WASH	REACH M1	2.307	3270.00	1605.22	1609.04	9845.29	10701.00	517.44	0.72	0.46	3.82
PADELFORD WASH	REACH M1	2.209	3270.00	1599.92	1603.26	9814.84	10802.69	586.08	1.04	0.65	3.34
PADELFORD WASH	REACH M1	2.098	3187.00	1594.38	1597.83	9530.58	10604.77	538.56	0.64	0.41	4.42
PADELFORD WASH	REACH M1	1.996	3187.00	1587.30	1591.22	9861.15	10751.62	528.00	1.16	0.94	4.49
PADELFORD WASH	REACH M1	1.896	3187.00	1582.09	1586.24	9975.18	10751.83	523.83	0.60	0.39	6.03
PADELFORD WASH	REACH M1	1.796	3187.00	1577.72	1579.77	9888.12	10405.88	549.12	1.35	0.98	5.56
PADELFORD WASH	REACH M1	1.692	3187.00	1570.48	1574.85	9620.56	10306.86	322.10	0.50	0.30	5.55
PADELFORD WASH	REACH M1	1.631	3187.00	1567.09	1572.09	9419.65	10030.21	230.88	1.01	0.77	5.00
PADELFORD WASH	REACH M1	1.585	3187.00	1563.20	1569.61	9547.95	10015.81	491.04	0.73	0.57	6.41
PADELFORD WASH	REACH M1	1.492	3187.00	1558.85	1565.02	9889.27	10089.23	494.63	0.81	0.83	6.17
PADELFORD WASH	REACH M1	1.398	3187.00	1554.40	1560.18	9723.27	10304.96	569.27	0.83	0.61	5.78
PADELFORD WASH	REACH M1	1.279	3187.00	1549.39	1554.55	9259.15	10114.78	500.09	0.77	0.68	5.16
PADELFORD WASH	REACH M1	1.181	3187.00	1545.37	1549.53	9112.03	10196.62	504.92	0.83	0.72	4.16
PADELFORD WASH	REACH M1	1.084	3187.00	1542.51	1546.52	9035.12	11056.73	417.12	0.10	0.06	7.08
PADELFORD WASH	REACH M1	1.005	3187.00	1540.95	1545.58	9927.24	10080.54		0.66	0.67	4.63

Std. Table 1

HEC-RAS Plan: Padelford Wa

River	Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
TRIB.A	REACH A2	1.998	1163.00	1872.80	1878.77	1875.93	1879.05	0.001469	4.27	274.70	57.98	0.33
TRIB.A	REACH A2	1.996	Culvert									
TRIB.A	REACH A2	1.981	1163.00	1871.21	1875.15	1875.15	1876.89	0.016435	10.61	109.62	31.42	1.00
TRIB.A	REACH A2	1.957	1163.00	1869.33	1872.62	1872.62	1873.20	0.015647	7.06	241.06	197.41	0.91
TRIB.A	REACH A2	1.859	1163.00	1861.69	1865.05		1865.53	0.011661	5.68	221.93	152.90	0.77
TRIB.A	REACH A2	1.772	1163.00	1856.27	1858.65	1858.34	1859.10	0.017936	6.22	227.39	143.86	0.92
TRIB.A	REACH A2	1.685	1215.00	1847.68	1851.58	1851.37	1852.12	0.013557	6.14	220.12	138.02	0.83
TRIB.A	REACH A2	1.582	1215.00	1840.32	1843.50		1844.34	0.014886	7.59	179.20	96.93	0.90
TRIB.A	REACH A2	1.491	1215.00	1833.65	1837.06		1837.93	0.012486	7.88	183.39	89.42	0.85
TRIB.A	REACH A2	1.439	1215.00	1829.89	1833.68		1834.71	0.011107	8.71	173.25	73.31	0.88
TRIB.A	REACH A2	1.337	1215.00	1822.35	1825.86	1825.86	1826.81	0.021021	8.73	171.50	89.69	1.06
TRIB.A	REACH A2	1.245	1215.00	1813.89	1818.12		1818.87	0.010453	8.05	226.17	112.25	0.78
TRIB.A	REACH A2	1.143	1215.00	1805.60	1810.15	1810.15	1811.55	0.017744	9.52	127.60	45.88	1.01
TRIB.A	REACH A1	1.045	5722.00	1792.83	1801.02	1801.02	1802.41	0.006786	10.52	866.13	331.32	0.77
TRIB.A	REACH A1	0.952	5722.00	1788.29	1795.42		1795.54	0.001197	4.00	2306.65	491.80	0.32
TRIB.A	REACH A1	0.864	5722.00	1783.17	1793.01	1793.01	1794.39	0.006911	10.16	846.25	355.53	0.76
TRIB.A	REACH A1	0.770	5722.00	1778.12	1787.37	1787.37	1788.79	0.007526	11.99	907.50	282.33	0.78
TRIB.A	REACH A1	0.674	5722.00	1773.35	1779.97		1781.38	0.010604	11.81	846.23	298.41	0.94
TRIB.A	REACH A1	0.578	5722.00	1768.14	1774.49	1774.49	1775.51	0.013627	11.42	957.61	396.67	1.01
TRIB.A	REACH A1	0.484	5722.00	1763.02	1768.57		1769.37	0.010323	10.30	1048.13	387.11	0.88
TRIB.A	REACH A1	0.390	5722.00	1756.75	1763.23	1763.23	1764.64	0.009980	11.99	840.99	273.50	0.92
TRIB.A	REACH A1	0.294	5722.00	1751.49	1756.03	1756.03	1757.11	0.010504	9.93	925.42	396.32	0.90
TRIB.A	REACH A1	0.196	5775.00	1744.06	1749.95		1750.68	0.006245	8.87	1171.11	409.08	0.71
PADELFORD WASH	TRIB 'B'	0.854	4522.00	1859.00	1869.80	1865.39	1870.13	0.001373	5.41	1096.79	160.17	0.36
PADELFORD WASH	TRIB 'B'	0.850	Culvert									
PADELFORD WASH	TRIB 'B'	0.827	4522.00	1854.98	1863.76	1863.76	1866.81	0.014458	14.00	322.89	53.64	1.01
PADELFORD WASH	TRIB 'B'	0.763	4522.00	1850.77	1857.29	1857.29	1858.96	0.009886	10.85	520.00	170.78	0.84
PADELFORD WASH	TRIB 'B'	0.668	4522.00	1844.10	1850.09	1850.09	1851.93	0.011382	11.19	465.59	139.12	0.89
PADELFORD WASH	TRIB 'B'	0.577	4522.00	1835.74	1841.35	1841.35	1842.99	0.017036	11.38	494.88	156.12	1.04
PADELFORD WASH	TRIB 'B'	0.486	4522.00	1828.08	1833.73	1833.73	1835.06	0.016992	12.43	605.06	200.14	1.00
PADELFORD WASH	TRIB 'B'	0.390	4522.00	1822.27	1823.96	1823.78	1824.63	0.029731	7.70	704.61	400.41	1.18
PADELFORD WASH	TRIB 'B'	0.289	4522.00	1815.11	1819.56		1819.91	0.005408	6.43	1065.63	326.46	0.59
PADELFORD WASH	TRIB 'B'	0.192	4522.00	1807.48	1813.64	1813.64	1815.71	0.012317	11.77	426.46	118.14	0.94
PADELFORD WASH	TRIB 'B'	0.093	4522.00	1801.30	1807.69	1807.69	1809.48	0.010282	11.45	515.93	159.03	0.87
PADELFORD WASH	REACH M3	9.640	1624.00	1810.44	1815.47		1816.42	0.006789	8.37	256.33	98.67	0.72
PADELFORD WASH	REACH M3	9.417	1624.00	1804.78	1808.84	1808.84	1810.28	0.013899	9.62	170.98	65.38	0.99
PADELFORD WASH	REACH M3	9.373	1624.00	1802.07	1806.59		1807.50	0.008999	7.65	215.98	80.87	0.79
PADELFORD WASH	REACH M3	9.321	1624.00	1798.48	1804.44		1805.35	0.007118	8.50	266.25	99.21	0.74

Std. Table 1

HEC-RAS Plan: Padelford Wa (Continued)

River	Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
PADELFORD WASH	REACH M3	6.225	1624.00	1795.18	1800.12	1800.12	1801.16	0.009789	8.67	248.79	130.77	0.84
PADELFORD WASH	REACH M3	6.140	1624.00	1792.63	1798.07	1796.84	1798.39	0.002756	4.89	455.28	201.94	0.45
PADELFORD WASH	REACH M3	6.053	2347.00	1789.62	1793.94	1793.94	1795.53	0.013380	10.15	236.26	77.40	0.99
PADELFORD WASH	REACH M3	5.975	2347.00	1786.68	1791.34	1790.73	1791.68	0.004920	6.35	676.19	315.18	0.60
PADELFORD WASH	REACH M3	5.832	2347.00	1779.48	1785.42	1785.34	1786.87	0.009765	9.84	270.20	105.06	0.87
PADELFORD WASH	REACH M3	5.754	2347.00	1778.28	1784.47	1782.95	1784.84	0.002329	5.20	573.32	173.24	0.43
PADELFORD WASH	REACH M3	5.675	3972.00	1775.23	1781.50	1781.28	1782.86	0.007638	10.34	545.96	170.16	0.80
PADELFORD WASH	REACH M3	5.585	3972.00	1771.02	1777.50	1777.50	1779.05	0.009279	11.14	516.15	166.98	0.88
PADELFORD WASH	REACH M3	5.508	3972.00	1768.37	1774.39	1773.99	1775.16	0.005779	8.66	805.05	298.55	0.69
PADELFORD WASH	REACH M3	5.416	5263.00	1763.90	1771.63		1772.58	0.006152	9.45	942.07	309.49	0.72
PADELFORD WASH	REACH M3	5.320	5263.00	1761.44	1767.69		1768.99	0.008234	10.20	738.96	241.16	0.82
PADELFORD WASH	REACH M3	5.197	5263.00	1755.46	1764.36		1765.35	0.003901	8.62	796.03	170.23	0.59
PADELFORD WASH	TRIB 'C'	1.264	2135.00	1836.49	1846.67	1841.94	1847.15	0.001584	5.61	380.49	47.62	0.35
PADELFORD WASH	TRIB 'C'	1.262	Culvert									
PADELFORD WASH	TRIB 'C'	1.237	2135.00	1835.91	1844.64	1844.64	1846.63	0.012784	11.35	192.47	56.87	0.97
PADELFORD WASH	TRIB 'C'	1.180	4353.00	1831.85	1838.67		1839.90	0.008414	10.17	600.84	175.71	0.78
PADELFORD WASH	TRIB 'C'	1.115	4353.00	1829.18	1834.79	1834.79	1836.35	0.012823	10.38	490.43	178.36	0.92
PADELFORD WASH	TRIB 'C'	1.039	4353.00	1822.92	1828.83	1828.83	1830.50	0.011935	11.23	496.30	147.40	0.91
PADELFORD WASH	TRIB 'C'	0.939	4637.00	1815.87	1822.11	1821.94	1824.01	0.011483	11.23	451.31	123.35	0.91
PADELFORD WASH	TRIB 'C'	0.841	4637.00	1809.25	1815.80	1815.80	1817.85	0.012612	13.44	502.29	124.52	0.98
PADELFORD WASH	TRIB 'C'	0.744	4637.00	1799.22	1805.81	1805.81	1808.18	0.012136	12.49	402.80	100.40	0.95
PADELFORD WASH	TRIB 'C'	0.644	4637.00	1789.62	1796.98	1796.98	1799.10	0.011220	12.10	435.97	105.24	0.95
PADELFORD WASH	TRIB 'C'	0.545	4637.00	1784.71	1791.22	1791.22	1792.85	0.010235	11.41	568.15	172.02	0.91
PADELFORD WASH	TRIB 'C'	0.460	4637.00	1780.22	1785.92	1785.90	1787.54	0.012206	11.88	564.12	168.78	1.00
PADELFORD WASH	TRIB 'C'	0.370	4733.00	1775.43	1780.46	1780.40	1781.86	0.011681	10.84	615.70	207.69	0.96
PADELFORD WASH	TRIB 'C'	0.273	4733.00	1770.11	1774.04	1773.63	1774.97	0.015665	9.19	666.37	250.17	1.03
PADELFORD WASH	TRIB 'C'	0.184	4733.00	1765.62	1769.94		1770.44	0.006719	7.95	1104.90	438.74	0.72
PADELFORD WASH	TRIB 'C'	0.083	4733.00	1759.66	1765.39		1766.64	0.007368	9.79	631.82	175.36	0.79
PADELFORD WASH	REACH M2	5.120	9063.00	1753.65	1761.63		1763.13	0.006550	10.90	1307.48	452.05	0.77
PADELFORD WASH	REACH M2	5.014	9063.00	1749.12	1756.90	1756.90	1758.88	0.008996	12.83	1046.66	263.29	0.90
PADELFORD WASH	REACH M2	4.924	9063.00	1744.50	1752.24	1752.24	1753.94	0.008062	12.22	1215.64	348.34	0.86
PADELFORD WASH	REACH M2	4.823	9063.00	1741.63	1747.44	1747.44	1748.72	0.009718	10.72	1356.46	506.91	0.89
PADELFORD WASH	REACH M2	4.722	13396.00	1736.78	1744.41		1745.16	0.005043	9.79	2301.42	493.94	0.68
PADELFORD WASH	REACH M1	4.624	13396.00	1731.47	1739.36		1741.43	0.010199	12.23	1334.89	327.11	0.94
PADELFORD WASH	REACH M1	4.546	13396.00	1728.26	1735.53	1735.53	1737.39	0.009277	12.68	1617.17	430.06	0.91
PADELFORD WASH	REACH M1	4.462	13396.00	1723.60	1729.83		1730.95	0.009132	10.66	1856.42	523.59	0.87
PADELFORD WASH	REACH M1	4.378	13396.00	1719.98	1725.88	1725.88	1727.19	0.011292	11.57	1753.31	647.10	0.96
PADELFORD WASH	REACH M1	4.280	13396.00	1715.99	1720.18		1720.80	0.010313	8.35	2482.67	1226.75	0.86

std. Table 1

HEC-RAS Plan: Padelford Wa (Continued)

River	Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
PADELFORD WASH	REACH M1	4.182	13396.00	1708.79	1714.00	1713.85	1714.69	0.013329	9.24	2211.75	1274.90	0.96
PADELFORD WASH	REACH M1	4.084	13396.00	1704.63	1709.11		1709.61	0.008518	7.43	2587.66	1329.40	0.78
PADELFORD WASH	REACH M1	3.986	13776.00	1699.08	1704.39		1705.09	0.008371	9.33	2400.32	1109.90	0.82
PADELFORD WASH	REACH M1	3.876	13776.00	1694.72	1699.06	1698.88	1699.97	0.011860	10.80	2044.85	972.27	0.96
PADELFORD WASH	REACH M1	3.780	13776.00	1689.24	1694.24		1694.96	0.008343	8.50	2146.66	728.42	0.79
PADELFORD WASH	REACH M1	3.681	13776.00	1683.42	1688.39	1688.39	1689.52	0.013868	10.65	1858.91	804.65	1.02
PADELFORD WASH	REACH M1	3.584	9012.00	1677.87	1682.77	1682.26	1683.34	0.008538	7.97	1678.24	701.94	0.78
PADELFORD WASH	REACH M1	3.536	9012.00	1675.38	1679.67	1679.55	1680.47	0.013972	9.12	1429.96	698.84	0.98
PADELFORD WASH	REACH M1	3.489	9012.00	1672.34	1677.64	1676.86	1678.15	0.006024	7.19	1701.14	648.99	0.65
PADELFORD WASH	REACH M1	3.441	9012.00	1670.34	1675.01		1675.98	0.009967	9.13	1402.16	524.68	0.86
PADELFORD WASH	REACH M1	3.393	5863.00	1668.09	1673.28		1673.81	0.004897	7.47	1131.31	261.83	0.61
PADELFORD WASH	REACH M1	3.343	5863.00	1663.56	1669.41	1669.41	1671.80	0.011546	12.97	520.88	112.39	1.00
PADELFORD WASH	REACH M1	3.300	5863.00	1661.01	1666.29	1666.22	1668.02	0.011483	10.68	587.48	178.02	0.94
PADELFORD WASH	REACH M1	3.254	5863.00	1659.08	1664.19		1665.22	0.009073	9.47	1004.95	468.18	0.84
PADELFORD WASH	REACH M1	3.205	5863.00	1657.06	1661.74		1662.49	0.011929	9.34	1131.63	555.88	0.93
PADELFORD WASH	REACH M1	3.156	1538.00	1654.73	1658.83	1658.75	1659.55	0.009211	7.82	302.91	171.97	0.81
PADELFORD WASH	REACH M1	3.108	1538.00	1653.03	1656.05	1656.02	1656.75	0.013677	8.27	298.37	182.01	0.95
PADELFORD WASH	REACH M1	3.061	1538.00	1649.95	1652.83	1652.83	1653.48	0.012597	7.20	301.47	222.24	0.89
PADELFORD WASH	REACH M1	3.003	1538.00	1645.92	1648.95		1649.42	0.010851	6.41	373.39	315.80	0.82
PADELFORD WASH	REACH M1	2.949	1538.00	1642.19	1645.82	1645.76	1646.30	0.011109	6.45	368.68	330.60	0.83
PADELFORD WASH	REACH M1	2.897	1538.00	1640.32	1643.08		1643.42	0.009956	5.85	462.93	461.12	0.77
PADELFORD WASH	REACH M1	2.795	1538.00	1634.77	1637.03	1637.03	1637.36	0.018092	7.25	479.02	624.62	1.02
PADELFORD WASH	REACH M1	2.702	1538.00	1628.62	1631.49	1631.23	1631.68	0.006455	5.58	740.02	910.27	0.65
PADELFORD WASH	REACH M1	2.610	2775.00	1623.08	1625.68	1625.45	1625.99	0.018661	6.19	680.66	706.28	0.99
PADELFORD WASH	REACH M1	2.510	2775.00	1617.99	1619.94	1618.79	1620.11	0.009669	4.42	844.34	620.20	0.71
PADELFORD WASH	REACH M1	2.412	3270.00	1612.96	1614.07		1614.24	0.014955	3.96	995.86	820.02	0.82
PADELFORD WASH	REACH M1	2.307	3270.00	1605.22	1609.04		1609.24	0.008404	5.79	1106.53	852.80	0.72
PADELFORD WASH	REACH M1	2.209	3270.00	1599.92	1603.26	1603.17	1603.63	0.018364	7.75	894.66	904.15	1.04
PADELFORD WASH	REACH M1	2.098	3187.00	1594.38	1597.83		1597.98	0.007176	4.49	1177.37	888.49	0.64
PADELFORD WASH	REACH M1	1.996	3187.00	1587.30	1591.22	1591.22	1591.95	0.023592	8.12	543.46	445.54	1.16
PADELFORD WASH	REACH M1	1.896	3187.00	1582.09	1586.24		1586.42	0.005707	4.90	1157.65	731.77	0.60
PADELFORD WASH	REACH M1	1.796	3187.00	1577.72	1579.77	1579.77	1580.53	0.035446	7.93	464.41	308.05	1.35
PADELFORD WASH	REACH M1	1.692	3187.00	1570.48	1574.85		1574.96	0.003782	4.34	1284.72	625.17	0.50
PADELFORD WASH	REACH M1	1.631	3187.00	1567.09	1572.09	1571.86	1572.69	0.017466	7.31	587.44	384.18	1.01
PADELFORD WASH	REACH M1	1.585	3187.00	1563.20	1569.61		1570.11	0.007985	6.66	676.18	321.26	0.73
PADELFORD WASH	REACH M1	1.492	3187.00	1558.85	1565.02		1565.82	0.009896	7.17	449.03	199.96	0.81
PADELFORD WASH	REACH M1	1.398	3187.00	1554.40	1560.18		1560.67	0.010613	7.13	763.57	531.75	0.83
PADELFORD WASH	REACH M1	1.279	3187.00	1549.39	1554.55	1554.46	1555.04	0.009221	6.34	757.22	636.22	0.77

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std. Table 1

HEC-RAS Plan: Padelford Wa (Continued)

River	Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
PADELFORD WASH	REACH M1	1.161	3187.00	1545.37	1549.53	1549.53	1550.10	0.010806	6.96	766.21	737.36	0.83
PADELFORD WASH	REACH M1	1.084	3187.00	1542.51	1546.52		1546.52	0.000142	0.90	5354.19	2021.61	0.10
PADELFORD WASH	REACH M1	1.005	3187.00	1540.95	1545.58	1544.64	1546.28	0.006006	6.72	474.91	153.29	0.66

Std. Table 2

HEC-RAS Plan: Padelford Wa

River	Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
TRIB A	REACH A2	1.998	1879.05	1878.77	0.28			1.36	1161.64	0.00	57.98
TRIB A	REACH A2	1.996	Culvert								
TRIB A	REACH A2	1.981	1876.89	1875.15	1.75	2.00	0.35		1163.00		31.42
TRIB A	REACH A2	1.957	1873.20	1872.62	0.58			141.44	831.02	190.54	197.41
TRIB A	REACH A2	1.859	1865.53	1865.05	0.48	6.43	0.01		1112.78	50.22	152.90
TRIB A	REACH A2	1.772	1859.10	1858.65	0.45	6.98	0.01	87.13	448.97	626.89	143.86
TRIB A	REACH A2	1.685	1852.12	1851.58	0.53	7.75	0.03		1074.87	140.13	138.02
TRIB A	REACH A2	1.582	1844.34	1843.50	0.84	6.41	0.00		1125.92	89.08	96.93
TRIB A	REACH A2	1.491	1837.93	1837.06	0.87	3.20	0.02	138.67	1076.33	0.00	89.42
TRIB A	REACH A2	1.439	1834.71	1833.68	1.03	7.87	0.02	179.04	1035.96		73.31
TRIB A	REACH A2	1.337	1826.81	1825.86	0.96				887.10	327.90	89.69
TRIB A	REACH A2	1.246	1818.87	1818.12	0.74	7.24	0.07		843.36	371.64	112.25
TRIB A	REACH A2	1.143	1811.55	1810.15	1.41	4.03	0.00		1215.00		45.88
TRIB A	REACH A1	1.045	1802.41	1801.02	1.40	0.96	0.38	1145.35	4576.61	0.04	331.32
TRIB A	REACH A1	0.952	1795.54	1795.42	0.12	1.02	0.13	4473.73	1243.58	4.69	491.80
TRIB A	REACH A1	0.864	1794.39	1793.01	1.37	3.54	0.00	228.74	4854.28	638.98	355.53
TRIB A	REACH A1	0.770	1788.79	1787.37	1.42	4.38	0.00		3423.63	2298.37	282.33
TRIB A	REACH A1	0.674	1781.38	1779.97	1.41	5.75	0.12	297.06	3447.79	1977.16	298.41
TRIB A	REACH A1	0.578	1775.51	1774.49	1.02				2366.06	3355.94	396.67
TRIB A	REACH A1	0.484	1769.37	1768.57	0.80	4.67	0.06		2159.31	3562.69	387.11
TRIB A	REACH A1	0.390	1764.64	1763.23	1.41	5.11	0.10	361.98	3308.23	2051.79	273.50
TRIB A	REACH A1	0.294	1757.11	1756.03	1.09	3.87	0.11	1332.77	3825.67	563.56	396.32
TRIB A	REACH A1	0.198	1750.68	1749.95	0.73	9.11	0.13	2702.82	3072.18		409.08
PADELFORD WASH	TRIB 'B'	0.854	1870.13	1869.80	0.33			1707.75	2814.25		160.17
PADELFORD WASH	TRIB 'B'	0.850	Culvert								
PADELFORD WASH	TRIB 'B'	0.827	1866.81	1863.76	3.05	4.00	0.41		4522.00		53.64
PADELFORD WASH	TRIB 'B'	0.783	1858.96	1857.29	1.67	5.31	0.02		4113.73	408.27	170.78
PADELFORD WASH	TRIB 'B'	0.688	1851.93	1850.09	1.84	6.54	0.06	253.89	4268.11		139.12
PADELFORD WASH	TRIB 'B'	0.577	1842.99	1841.35	1.65				3444.86	1077.14	156.12
PADELFORD WASH	TRIB 'B'	0.486	1835.06	1833.73	1.33	9.66	0.20	2556.79	1965.21		200.14
PADELFORD WASH	TRIB 'B'	0.390	1824.63	1823.96	0.67	4.63	0.09	3550.09	855.59	116.32	400.41
PADELFORD WASH	TRIB 'B'	0.289	1819.91	1819.56	0.35	4.02	0.17	3004.26	1517.74		326.46
PADELFORD WASH	TRIB 'B'	0.192	1815.71	1813.64	2.07			89.31	4340.51	92.18	118.14

Sd Table 2

HEC-RAS Plan: Padelford Wa (Continued)

River	Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
PADELFORD WASH	TRIB 'B'	0.093	1809.48	1807.69	1.79	3.96	0.12	586.25	3920.54	15.21	159.03
PADELFORD WASH	REACH M3	6.540	1816.42	1815.47	0.95	6.09	0.05	34.60	1401.03	188.37	98.67
PADELFORD WASH	REACH M3	6.417	1810.28	1808.84	1.44	2.53	0.16		1620.81	3.19	65.38
PADELFORD WASH	REACH M3	6.373	1807.50	1806.59	0.91	2.15	0.00		1616.76	7.24	80.87
PADELFORD WASH	REACH M3	6.321	1805.35	1804.44	0.91	4.18	0.01	342.66	1278.09	3.24	99.21
PADELFORD WASH	REACH M3	6.225	1801.16	1800.12	1.04	2.07	0.22	42.42	1428.44	153.14	130.77
PADELFORD WASH	REACH M3	6.140	1798.39	1798.07	0.31	2.73	0.13	271.81	1350.23	1.96	201.94
PADELFORD WASH	REACH M3	6.053	1795.53	1793.94	1.59				2330.76	16.24	77.40
PADELFORD WASH	REACH M3	5.975	1791.68	1791.34	0.35	4.70	0.11	609.08	1123.60	614.32	315.18
PADELFORD WASH	REACH M3	5.832	1786.87	1785.42	1.45	1.70	0.33	1.52	2267.19	78.28	105.06
PADELFORD WASH	REACH M3	5.754	1784.84	1784.47	0.36	1.88	0.10	53.93	1994.33	298.74	173.24
PADELFORD WASH	REACH M3	5.675	1782.86	1781.50	1.36	3.79	0.02	8.07	3154.92	809.01	170.16
PADELFORD WASH	REACH M3	5.565	1779.05	1777.50	1.55	2.93	0.23	4.43	3101.79	865.78	166.98
PADELFORD WASH	REACH M3	5.508	1775.16	1774.39	0.77	2.57	0.02	732.69	2459.01	780.30	298.55
PADELFORD WASH	REACH M3	5.416	1772.58	1771.63	0.95	3.55	0.03	1874.00	3389.00		309.49
PADELFORD WASH	REACH M3	5.320	1768.99	1767.69	1.30	3.54	0.09	1156.26	4106.75		241.16
PADELFORD WASH	REACH M3	5.197	1765.35	1764.36	0.99	2.17	0.05		4396.99	866.01	170.23
PADELFORD WASH	TRIB 'C'	1.264	1847.15	1846.67	0.49				2135.00		47.62
PADELFORD WASH	TRIB 'C'	1.262	Culvert								
PADELFORD WASH	TRIB 'C'	1.237	1846.63	1844.64	2.00	2.79	0.23	6.47	2128.02	0.51	56.87
PADELFORD WASH	TRIB 'C'	1.160	1839.90	1838.67	1.23	3.52	0.03	28.76	3124.21	1200.02	175.71
PADELFORD WASH	TRIB 'C'	1.115	1836.35	1834.79	1.57	4.93	0.01	281.48	4046.67	24.85	178.36
PADELFORD WASH	TRIB 'C'	1.039	1830.50	1828.83	1.67				3613.22	739.78	147.40
PADELFORD WASH	TRIB 'C'	0.939	1824.01	1822.11	1.90	6.13	0.02	11.63	4487.37	138.01	123.35
PADELFORD WASH	TRIB 'C'	0.841	1817.85	1815.80	2.06	6.29	0.03	94.22	3130.55	1412.23	124.52
PADELFORD WASH	TRIB 'C'	0.744	1808.18	1805.81	2.36	6.14	0.07	31.71	4521.01	84.28	100.40
PADELFORD WASH	TRIB 'C'	0.644	1799.10	1796.98	2.12				4292.35	344.65	105.24
PADELFORD WASH	TRIB 'C'	0.545	1792.85	1791.22	1.63			1033.25	3597.87	5.88	172.02
PADELFORD WASH	TRIB 'C'	0.460	1787.54	1785.92	1.62	5.62	0.07	53.86	3190.31	1392.83	168.78
PADELFORD WASH	TRIB 'C'	0.370	1781.86	1780.46	1.40	6.75	0.14	1306.78	3415.34	10.88	207.69
PADELFORD WASH	TRIB 'C'	0.273	1774.97	1774.04	0.93	4.40	0.13	2119.94	2229.48	383.58	250.17
PADELFORD WASH	TRIB 'C'	0.184	1770.44	1769.94	0.50	3.72	0.08	1947.10	1928.92	856.98	438.74
PADELFORD WASH	TRIB 'C'	0.083	1766.64	1765.39	1.25	3.48	0.03	21.00	3865.45	846.55	175.36

Std. Table 2

HEC-RAS Plan: Padelford Wa (Continued)

River	Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
PADELFORD WASH	REACH M2	5.120	1763.13	1761.63	1.51	4.20	0.05		7281.66	1781.34	452.05
PADELFORD WASH	REACH M2	5.014	1758.88	1756.90	1.98			41.25	6745.34	2276.41	263.29
PADELFORD WASH	REACH M2	4.924	1753.94	1752.24	1.70	4.69	0.12	1304.17	6353.82	1405.01	348.34
PADELFORD WASH	REACH M2	4.823	1748.72	1747.44	1.28			2315.07	6163.42	584.52	506.91
PADELFORD WASH	REACH M2	4.722	1745.16	1744.41	0.74	3.59	0.13	4242.26	4525.92	4627.81	493.94
PADELFORD WASH	REACH M1	4.624	1741.43	1739.36	2.08	3.98	0.06	784.32	11761.28	850.41	327.11
PADELFORD WASH	REACH M1	4.546	1737.39	1735.53	1.87			852.34	9524.66	3019.00	430.06
PADELFORD WASH	REACH M1	4.452	1730.95	1729.83	1.12	3.75	0.02	3218.85	6659.42	3517.73	523.59
PADELFORD WASH	REACH M1	4.378	1727.19	1725.88	1.31	5.51	0.21	1560.05	6794.65	5041.31	647.10
PADELFORD WASH	REACH M1	4.290	1720.80	1720.18	0.62	6.11	0.01	553.50	5519.55	7322.95	1226.75
PADELFORD WASH	REACH M1	4.182	1714.69	1714.00	0.69	5.02	0.06		3678.10	9717.90	1274.90
PADELFORD WASH	REACH M1	4.084	1709.61	1709.11	0.50	4.50	0.02	1151.10	3647.43	8597.47	1329.40
PADELFORD WASH	REACH M1	3.988	1705.09	1704.39	0.70	5.10	0.02	2705.45	4620.96	6449.59	1109.90
PADELFORD WASH	REACH M1	3.876	1699.97	1699.06	0.91	4.95	0.06	3376.30	3886.62	6513.08	972.27
PADELFORD WASH	REACH M1	3.780	1694.96	1694.24	0.72	5.40	0.04	4209.67	4556.04	5010.29	728.42
PADELFORD WASH	REACH M1	3.681	1689.52	1688.39	1.14			4925.14	6539.86	2311.00	804.65
PADELFORD WASH	REACH M1	3.584	1683.34	1682.77	0.58	2.85	0.02	5429.59	3582.41		701.94
PADELFORD WASH	REACH M1	3.536	1680.47	1679.67	0.80	2.23	0.09	4971.28	4040.72		698.84
PADELFORD WASH	REACH M1	3.489	1678.15	1677.64	0.51	2.13	0.05	5355.79	3617.48	38.73	648.99
PADELFORD WASH	REACH M1	3.441	1675.98	1675.01	0.97	2.04	0.13	2751.97	6260.03		524.68
PADELFORD WASH	REACH M1	3.393	1673.81	1673.28	0.54	1.83	0.19	3236.98	2626.02		261.83
PADELFORD WASH	REACH M1	3.343	1671.80	1669.41	2.39	2.63	0.20	50.01	5245.31	567.68	112.39
PADELFORD WASH	REACH M1	3.300	1668.02	1666.29	1.73	2.59	0.21	142.19	5720.81		178.02
PADELFORD WASH	REACH M1	3.254	1665.22	1664.19	1.04	2.65	0.08	1493.65	4210.86	158.49	468.18
PADELFORD WASH	REACH M1	3.205	1662.49	1661.74	0.75	2.93	0.01	2849.66	2775.65	237.69	555.88
PADELFORD WASH	REACH M1	3.156	1659.55	1658.83	0.73	2.79	0.01	192.40	1130.31	215.29	171.97
PADELFORD WASH	REACH M1	3.106	1656.75	1656.05	0.71	3.25	0.02	589.53	925.20	23.27	182.01
PADELFORD WASH	REACH M1	3.061	1653.48	1652.83	0.65			316.38	1204.65	16.97	222.24
PADELFORD WASH	REACH M1	3.003	1649.42	1648.95	0.47	3.12	0.00	259.78	1076.93	201.29	315.80
PADELFORD WASH	REACH M1	2.949	1646.30	1645.82	0.48	2.84	0.04	289.09	1080.42	168.49	330.60
PADELFORD WASH	REACH M1	2.897	1643.42	1643.08	0.34	6.05	0.00	144.25	898.57	495.18	461.12
PADELFORD WASH	REACH M1	2.795	1637.36	1637.03	0.34			318.28	499.70	720.02	624.62
PADELFORD WASH	REACH M1	2.702	1631.68	1631.49	0.18	5.67	0.01	528.49	487.50	522.01	910.27

Std. Table 2

HEC-RAS Plan: Padelford Wa (Continued)

River	Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
PADELFORD WASH	REACH M1	2.610	1625.99	1625.68	0.31	5.84	0.04	2034.36	708.64	32.00	706.28
PADELFORD WASH	REACH M1	2.510	1620.11	1619.94	0.18	5.87	0.00	2487.09	242.26	45.65	620.20
PADELFORD WASH	REACH M1	2.412	1614.24	1614.07	0.17	5.00	0.00	729.05	89.69	2451.26	820.02
PADELFORD WASH	REACH M1	2.307	1609.24	1609.04	0.21	5.60	0.02	78.11	789.01	2402.88	852.80
PADELFORD WASH	REACH M1	2.209	1603.63	1603.26	0.37	5.59	0.07	233.06	930.77	2106.17	904.15
PADELFORD WASH	REACH M1	2.095	1597.98	1597.83	0.14	5.97	0.06	550.54	705.30	1931.16	888.49
PADELFORD WASH	REACH M1	1.996	1591.95	1591.22	0.72				1929.60	1257.40	445.54
PADELFORD WASH	REACH M1	1.896	1586.42	1586.24	0.17	5.83	0.06	2.78	987.37	2196.85	731.77
PADELFORD WASH	REACH M1	1.796	1580.53	1579.77	0.76	4.33	0.19	26.27	959.75	2200.99	308.05
PADELFORD WASH	REACH M1	1.692	1574.96	1574.85	0.12	2.23	0.05	1219.18	567.05	1400.77	625.17
PADELFORD WASH	REACH M1	1.631	1572.69	1572.09	0.60	2.55	0.03	1254.57	1932.43		384.18
PADELFORD WASH	REACH M1	1.585	1570.11	1569.61	0.50	4.26	0.03	1105.74	2081.26		321.26
PADELFORD WASH	REACH M1	1.492	1565.82	1565.02	0.80	5.06	0.09	5.57	3181.17	0.26	199.96
PADELFORD WASH	REACH M1	1.398	1560.67	1560.18	0.49	5.62	0.00	1151.37	1736.63	299.01	531.75
PADELFORD WASH	REACH M1	1.279	1555.04	1554.55	0.49	4.94	0.01	740.13	2446.84	0.03	636.22
PADELFORD WASH	REACH M1	1.181	1550.10	1549.53	0.57	0.23	0.17	683.79	2355.80	147.41	737.36
PADELFORD WASH	REACH M1	1.084	1546.52	1546.52	0.01	0.17	0.07	564.10	569.27	2053.64	2021.61
PADELFORD WASH	REACH M1	1.005	1546.28	1545.58	0.70				3186.89	0.11	153.29

Table 3

HEC-RAS Plan: Padelford Wa (Continued)

River	Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Sta W.S. Lft	Sta W.S. Rgt	Length Chnl	Froude # Chl	Froude # XS	Max Chl Dpth
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)			(ft)
PADELFORD WASH	REACH M3	6.225	1624.00	1795.18	1800.12	9959.07	10089.84	448.80	0.84	0.83	4.94
PADELFORD WASH	REACH M3	6.140	1624.00	1792.63	1798.07	9820.87	10022.81	459.36	0.45	0.42	5.44
PADELFORD WASH	REACH M3	6.053	2347.00	1789.62	1793.94	9972.39	10049.79	410.44	0.99	1.00	4.32
PADELFORD WASH	REACH M3	5.975	2347.00	1786.68	1791.34	9842.03	10157.21	755.04	0.60	0.42	5.05
PADELFORD WASH	REACH M3	5.832	2347.00	1779.48	1785.42	9974.89	10079.95	405.63	0.87	0.95	5.94
PADELFORD WASH	REACH M3	5.754	2347.00	1778.28	1784.47	9944.51	10117.75	420.61	0.43	0.40	6.19
PADELFORD WASH	REACH M3	5.675	3972.00	1775.23	1781.50	9963.89	10134.05	462.35	0.80	0.72	6.27
PADELFORD WASH	REACH M3	5.585	3972.00	1771.02	1777.50	9980.59	10147.57	404.62	0.88	0.77	6.48
PADELFORD WASH	REACH M3	5.508	3972.00	1768.37	1774.39	9833.86	10132.41	485.76	0.69	0.53	6.02
PADELFORD WASH	REACH M3	5.416	5263.00	1763.90	1771.63	9716.56	10026.05	502.79	0.72	0.56	7.73
PADELFORD WASH	REACH M3	5.320	5263.00	1761.44	1767.69	9798.47	10039.63	649.44	0.82	0.72	6.25
PADELFORD WASH	REACH M3	5.197	5263.00	1755.46	1764.36	9966.70	10136.92	406.56	0.59	0.54	8.90
PADELFORD WASH	TRIB 'C'	1.264	2135.00	1836.49	1846.67	9970.58	10018.20	142.34	0.35	0.35	10.18
PADELFORD WASH	TRIB 'C'	1.262	Culvert								
PADELFORD WASH	TRIB 'C'	1.237	2135.00	1835.91	1844.64	9982.21	10039.08	295.20	0.97	1.06	8.73
PADELFORD WASH	TRIB 'C'	1.180	4353.00	1831.85	1838.67	9944.97	10135.61	343.20	0.78	0.69	6.82
PADELFORD WASH	TRIB 'C'	1.115	4353.00	1829.18	1834.79	9846.45	10024.81	401.28	0.92	0.94	5.61
PADELFORD WASH	TRIB 'C'	1.039	4353.00	1822.92	1828.83	9964.63	10112.04	528.00	0.91	0.84	5.91
PADELFORD WASH	TRIB 'C'	0.939	4637.00	1815.87	1822.11	9980.80	10104.15	517.44	0.91	0.95	6.24
PADELFORD WASH	TRIB 'C'	0.841	4637.00	1809.25	1815.80	9970.78	10095.29	512.16	0.98	0.81	6.55
PADELFORD WASH	TRIB 'C'	0.744	4637.00	1799.22	1805.81	9953.08	10053.49	528.00	0.95	1.01	6.59
PADELFORD WASH	TRIB 'C'	0.644	4637.00	1789.62	1796.98	9988.08	10093.31	517.44	0.95	0.92	7.36
PADELFORD WASH	TRIB 'C'	0.546	4637.00	1784.71	1791.22	9850.37	10046.68	454.08	0.91	0.79	6.51
PADELFORD WASH	TRIB 'C'	0.460	4637.00	1780.22	1785.92	9983.73	10152.51	475.20	1.00	0.79	5.70
PADELFORD WASH	TRIB 'C'	0.370	4733.00	1775.43	1780.46	9859.10	10066.79	512.16	0.96	0.79	5.03
PADELFORD WASH	TRIB 'C'	0.279	4733.00	1770.11	1774.04	9886.26	10136.43	467.04	1.03	0.77	4.51
PADELFORD WASH	TRIB 'C'	0.184	4733.00	1765.62	1769.94	9709.45	10148.19	533.28	0.72	0.48	4.32
PADELFORD WASH	TRIB 'C'	0.085	4733.00	1759.66	1765.39	9961.38	10136.74	511.00	0.79	0.70	5.73
PADELFORD WASH	REACH M2	5.120	9063.00	1753.65	1761.63	9923.35	10375.40	559.68	0.77	0.72	7.98
PADELFORD WASH	REACH M2	5.014	9063.00	1749.12	1756.90	9950.69	10213.98	469.98	0.90	0.77	7.78
PADELFORD WASH	REACH M2	4.924	9063.00	1744.50	1752.24	9824.02	10172.35	533.02	0.86	0.70	7.74
PADELFORD WASH	REACH M2	4.828	9063.00	1741.63	1747.44	9670.50	10177.41	533.28	0.89	0.72	5.81
PADELFORD WASH	REACH M2	4.722	13396.00	1736.78	1744.41	9760.03	10253.96	517.44	0.68	0.48	7.63
PADELFORD WASH	REACH M1	4.624	13396.00	1731.47	1739.36	9890.23	10217.34	408.98	0.94	0.88	7.89
PADELFORD WASH	REACH M1	4.548	13396.00	1728.26	1735.53	9860.59	10290.65	495.56	0.91	0.75	7.27
PADELFORD WASH	REACH M1	4.452	13396.00	1723.60	1729.83	9748.29	10271.89	389.91	0.87	0.68	7.28
PADELFORD WASH	REACH M1	4.378	13396.00	1719.98	1725.88	9773.87	10420.97	512.72	0.96	0.82	5.90
PADELFORD WASH	REACH M1	4.280	13396.00	1715.99	1720.18	9711.85	10938.60	508.57	0.86	0.67	4.48

Table 3

HEC-RAS Plan: Padelford Wa

River	Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Sta W.S. Lft (ft)	Sta W.S. Rgt (ft)	Length Chnl (ft)	Froude # Chl	Froude # XS	Max Chl Dpth (ft)
TRIB.A	REACH A2	1.998	1163.00	1872.80	1878.77	9964.74	10022.72	90.10	0.33	0.34	5.97
TRIB.A	REACH A2	1.996	Culvert								
TRIB.A	REACH A2	1.981	1163.00	1871.21	1875.15	9984.45	10015.87	124.69	1.00	1.00	3.94
TRIB.A	REACH A2	1.957	1163.00	1869.33	1872.62	9916.44	10113.85	517.44	0.91	0.77	3.29
TRIB.A	REACH A2	1.859	1163.00	1861.69	1865.05	9944.90	10097.80	459.36	0.77	0.77	3.36
TRIB.A	REACH A2	1.772	1163.00	1856.27	1858.65	9953.26	10097.12	459.36	0.92	0.72	3.11
TRIB.A	REACH A2	1.685	1215.00	1847.68	1851.58	9974.07	10112.10	543.84	0.83	0.77	3.90
TRIB.A	REACH A2	1.582	1215.00	1840.32	1843.50	9976.38	10073.31	470.03	0.90	0.88	3.18
TRIB.A	REACH A2	1.491	1215.00	1833.65	1837.06	9947.25	10039.04	273.43	0.85	0.82	3.41
TRIB.A	REACH A2	1.430	1215.00	1829.89	1833.68	9945.65	10018.96	538.56	0.88	0.80	3.79
TRIB.A	REACH A2	1.337	1215.00	1822.35	1825.86	9986.07	10075.76	480.48	1.06	0.90	3.51
TRIB.A	REACH A2	1.246	1215.00	1813.89	1818.12	9990.89	10103.14	543.84	0.78	0.67	4.23
TRIB.A	REACH A2	1.143	1215.00	1805.60	1810.15	9970.71	10016.59	517.44	1.01	1.01	4.55
TRIB.A	REACH A1	1.046	5722.00	1792.83	1801.02	9701.60	10032.92	491.04	0.77	0.72	8.19
TRIB.A	REACH A1	0.952	5722.00	1788.29	1795.42	9570.66	10062.46	464.64	0.32	0.20	7.13
TRIB.A	REACH A1	0.864	5722.00	1783.17	1793.01	9895.96	10336.83	494.69	0.76	0.77	9.84
TRIB.A	REACH A1	0.770	5722.00	1778.12	1787.37	9984.54	10266.88	499.71	0.78	0.62	9.25
TRIB.A	REACH A1	0.674	5722.00	1773.35	1779.97	9953.47	10251.87	505.76	0.94	0.71	6.62
TRIB.A	REACH A1	0.578	5722.00	1768.14	1774.49	9987.25	10383.92	492.67	1.01	0.68	6.35
TRIB.A	REACH A1	0.484	5722.00	1763.02	1768.57	9988.98	10376.09	492.68	0.88	0.58	5.55
TRIB.A	REACH A1	0.390	5722.00	1756.75	1763.23	9939.08	10212.58	502.01	0.92	0.68	6.48
TRIB.A	REACH A1	0.294	5722.00	1751.49	1756.03	9721.39	10117.71	506.88	0.90	0.71	4.54
TRIB.A	REACH A1	0.198	5775.00	1744.06	1749.95	9618.85	10027.93	1050.00	0.71	0.51	5.89
PADELFORD WASH	TRIB 'B'	0.854	4522.00	1859.00	1869.80	9870.47	10030.63	142.71	0.36	0.28	10.80
PADELFORD WASH	TRIB 'B'	0.850	Culvert								
PADELFORD WASH	TRIB 'B'	0.827	4522.00	1854.98	1863.76	9985.66	10039.30	337.90	1.01	1.01	8.78
PADELFORD WASH	TRIB 'B'	0.768	4522.00	1850.77	1857.29	9965.65	10136.42	501.13	0.84	0.88	6.52
PADELFORD WASH	TRIB 'B'	0.668	4522.00	1844.10	1850.09	9883.41	10022.53	480.48	0.89	0.94	5.99
PADELFORD WASH	TRIB 'B'	0.577	4522.00	1835.74	1841.35	9987.52	10143.64	466.55	1.04	0.90	5.61
PADELFORD WASH	TRIB 'B'	0.488	4522.00	1828.08	1833.73	9776.11	10012.77	517.44	1.00	0.76	5.65
PADELFORD WASH	TRIB 'B'	0.390	4522.00	1822.27	1823.96	9671.62	10072.02	533.28	1.18	0.85	2.98
PADELFORD WASH	TRIB 'B'	0.289	4522.00	1815.11	1819.56	9720.33	10046.79	512.16	0.59	0.41	4.45
PADELFORD WASH	TRIB 'B'	0.192	4522.00	1807.48	1813.64	9949.54	10067.68	521.76	0.94	0.98	6.16
PADELFORD WASH	TRIB 'B'	0.095	4522.00	1801.30	1807.69	9890.44	10049.47	491.04	0.87	0.86	6.39
PADELFORD WASH	REACH M3	6.540	1624.00	1810.44	1815.47	9961.01	10059.68	649.40	0.72	0.69	5.03
PADELFORD WASH	REACH M3	6.417	1624.00	1804.78	1808.84	9969.68	10035.06	229.28	0.99	1.04	4.06
PADELFORD WASH	REACH M3	6.378	1624.00	1802.07	1806.59	9979.30	10060.17	268.18	0.79	0.81	4.52
PADELFORD WASH	REACH M3	6.321	1624.00	1798.48	1804.44	9925.48	10024.69	504.62	0.74	0.66	5.96

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Table 3

HEC-RAS Plan: Padelford Wa (Continued)

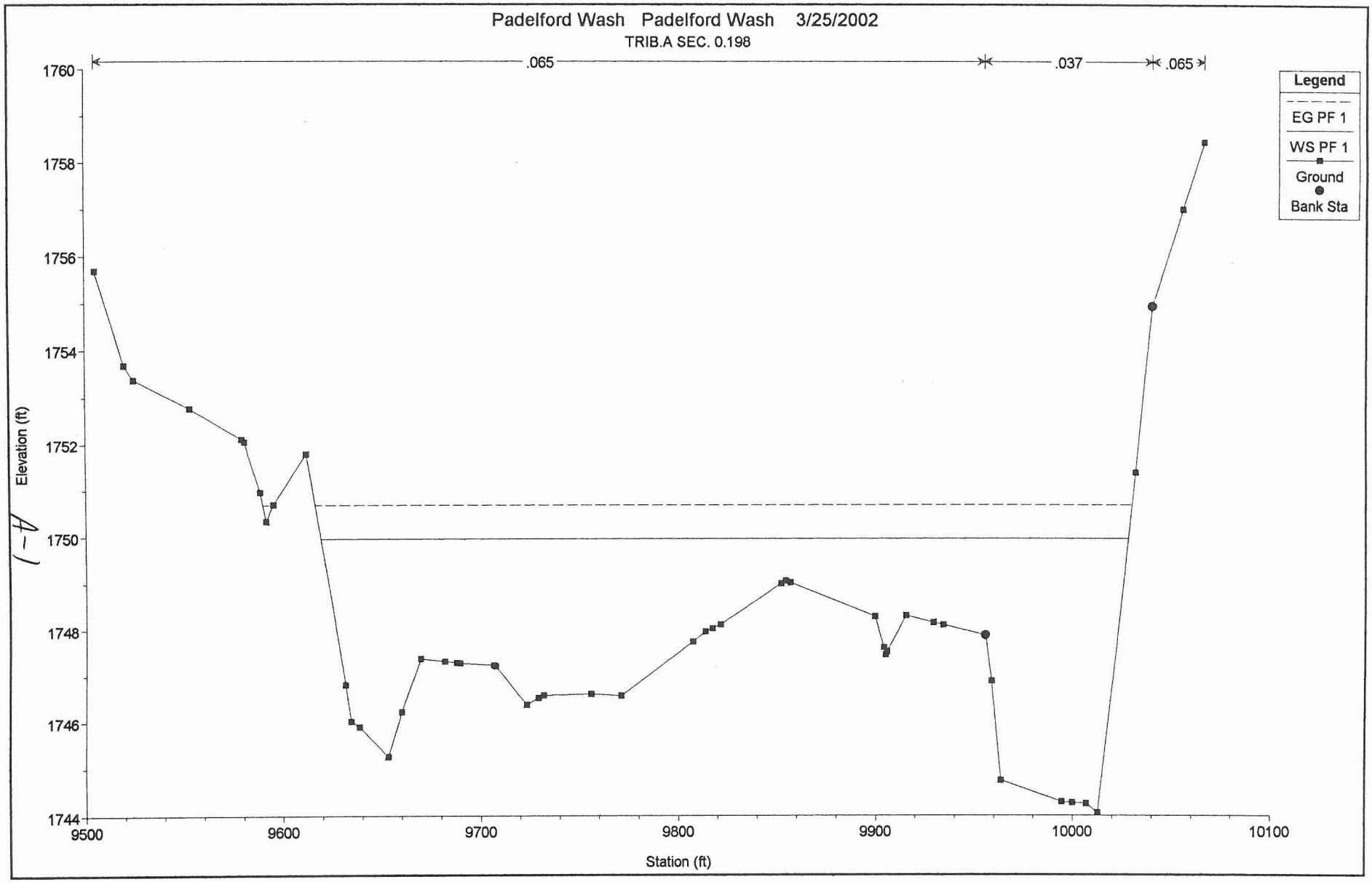
River	Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Sta W.S. Lft (ft)	Sta W.S. Rgt (ft)	Length Chnl (ft)	Froude # Chl	Froude # XS	Max Chl Dpth (ft)
PADELFORD WASH	REACH M1	4.182	13396.00	1708.79	1714.00	9983.41	11318.15	513.45	0.96	0.81	5.21
PADELFORD WASH	REACH M1	4.084	13396.00	1704.63	1709.11	9870.14	11305.62	604.10	0.78	0.65	4.85
PADELFORD WASH	REACH M1	3.988	13776.00	1699.08	1704.39	9793.04	11094.31	476.93	0.82	0.69	5.31
PADELFORD WASH	REACH M1	3.876	13776.00	1694.72	1699.06	9645.88	10654.93	497.04	0.96	0.82	4.42
PADELFORD WASH	REACH M1	3.780	13776.00	1689.24	1694.24	9777.23	10505.65	522.72	0.79	0.66	5.67
PADELFORD WASH	REACH M1	3.691	13776.00	1683.42	1688.39	9582.55	10387.20	512.16	1.02	0.86	4.97
PADELFORD WASH	REACH M1	3.594	9012.00	1677.87	1682.77	9316.87	10018.81	250.92	0.78	0.61	4.90
PADELFORD WASH	REACH M1	3.536	9012.00	1675.38	1679.67	9387.28	10086.12	246.30	0.98	0.78	4.29
PADELFORD WASH	REACH M1	3.489	9012.00	1672.34	1677.64	9432.66	10081.65	253.84	0.65	0.58	5.59
PADELFORD WASH	REACH M1	3.441	9012.00	1670.34	1675.01	9586.10	10110.78	251.87	0.86	0.69	4.67
PADELFORD WASH	REACH M1	3.393	5863.00	1668.09	1673.28	9760.84	10022.67	264.00	0.61	0.44	6.11
PADELFORD WASH	REACH M1	3.343	5863.00	1663.56	1669.41	9965.34	10077.73	229.16	1.00	0.92	5.85
PADELFORD WASH	REACH M1	3.300	5863.00	1661.01	1666.29	9865.72	10043.74	258.01	0.94	0.97	5.28
PADELFORD WASH	REACH M1	3.254	5863.00	1659.08	1664.19	9583.13	10051.31	258.78	0.84	0.70	5.11
PADELFORD WASH	REACH M1	3.205	5863.00	1657.06	1661.74	9535.26	10091.14	253.89	0.93	0.64	4.68
PADELFORD WASH	REACH M1	3.156	1538.00	1654.73	1658.83	9916.20	10088.17	251.08	0.81	0.67	4.10
PADELFORD WASH	REACH M1	3.106	1538.00	1653.03	1656.05	9850.56	10032.57	248.16	0.95	0.71	3.02
PADELFORD WASH	REACH M1	3.061	1538.00	1649.95	1652.83	9799.21	10021.45	306.24	0.89	0.77	2.88
PADELFORD WASH	REACH M1	3.009	1538.00	1645.92	1648.95	9829.38	10169.50	285.12	0.82	0.67	3.03
PADELFORD WASH	REACH M1	2.949	1538.00	1642.19	1645.82	9889.14	10286.37	271.80	0.83	0.70	3.63
PADELFORD WASH	REACH M1	2.897	1538.00	1640.32	1643.08	9899.73	10370.95	522.72	0.77	0.58	2.76
PADELFORD WASH	REACH M1	2.798	1538.00	1634.77	1637.03	9614.19	10313.35	506.88	1.02	0.65	2.26
PADELFORD WASH	REACH M1	2.702	1538.00	1628.62	1631.49	9249.92	10309.84	476.27	0.65	0.41	2.87
PADELFORD WASH	REACH M1	2.610	2775.00	1623.08	1625.68	9152.14	10088.31	528.00	0.99	0.73	5.04
PADELFORD WASH	REACH M1	2.510	2775.00	1617.99	1619.94	9278.35	10314.86	517.44	0.71	0.50	5.45
PADELFORD WASH	REACH M1	2.412	3270.00	1612.96	1614.07	9645.59	10764.33	554.40	0.82	0.53	3.07
PADELFORD WASH	REACH M1	2.307	3270.00	1605.22	1609.04	9845.29	10701.00	517.44	0.72	0.46	3.82
PADELFORD WASH	REACH M1	2.200	3270.00	1599.92	1603.26	9814.84	10802.69	586.08	1.04	0.65	3.34
PADELFORD WASH	REACH M1	2.096	3187.00	1594.38	1597.83	9530.58	10604.77	538.56	0.64	0.41	4.42
PADELFORD WASH	REACH M1	1.996	3187.00	1587.30	1591.22	9861.15	10751.62	528.00	1.16	0.94	4.49
PADELFORD WASH	REACH M1	1.896	3187.00	1582.09	1586.24	9975.18	10751.83	523.83	0.60	0.39	6.03
PADELFORD WASH	REACH M1	1.796	3187.00	1577.72	1579.77	9888.12	10405.88	549.12	1.35	0.98	5.56
PADELFORD WASH	REACH M1	1.692	3187.00	1570.48	1574.85	9620.56	10306.86	322.10	0.50	0.30	5.55
PADELFORD WASH	REACH M1	1.631	3187.00	1567.09	1572.09	9419.65	10030.21	230.88	1.01	0.77	5.00
PADELFORD WASH	REACH M1	1.595	3187.00	1563.20	1569.61	9547.95	10015.81	491.04	0.73	0.57	6.41
PADELFORD WASH	REACH M1	1.492	3187.00	1558.85	1565.02	9889.27	10089.23	494.63	0.81	0.83	6.17
PADELFORD WASH	REACH M1	1.398	3187.00	1554.40	1560.18	9723.27	10304.96	569.27	0.83	0.61	5.78
PADELFORD WASH	REACH M1	1.279	3187.00	1549.39	1554.55	9259.15	10114.78	500.09	0.77	0.68	5.16

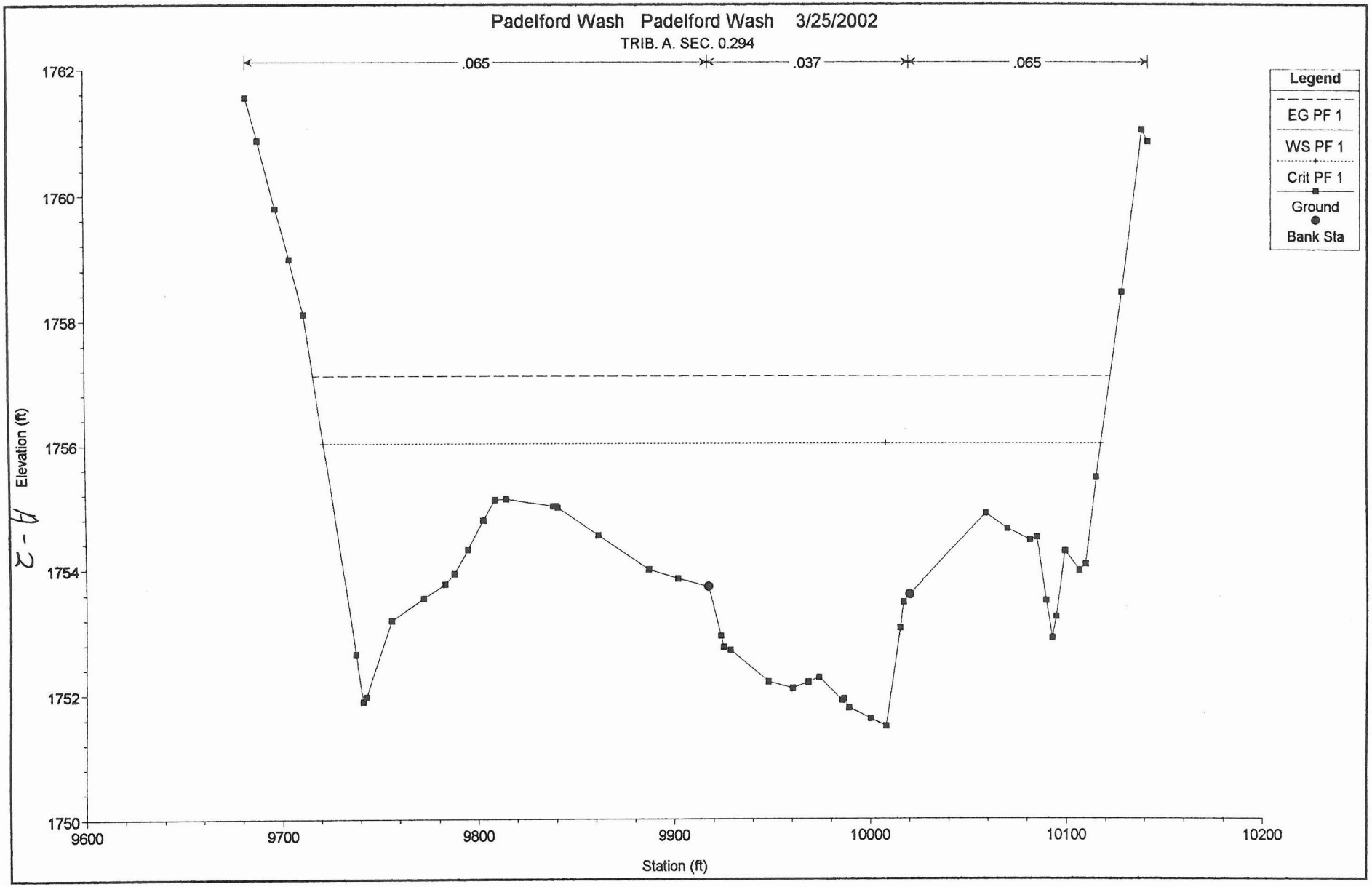
397.23 REMOVE ISLAND

Table 3

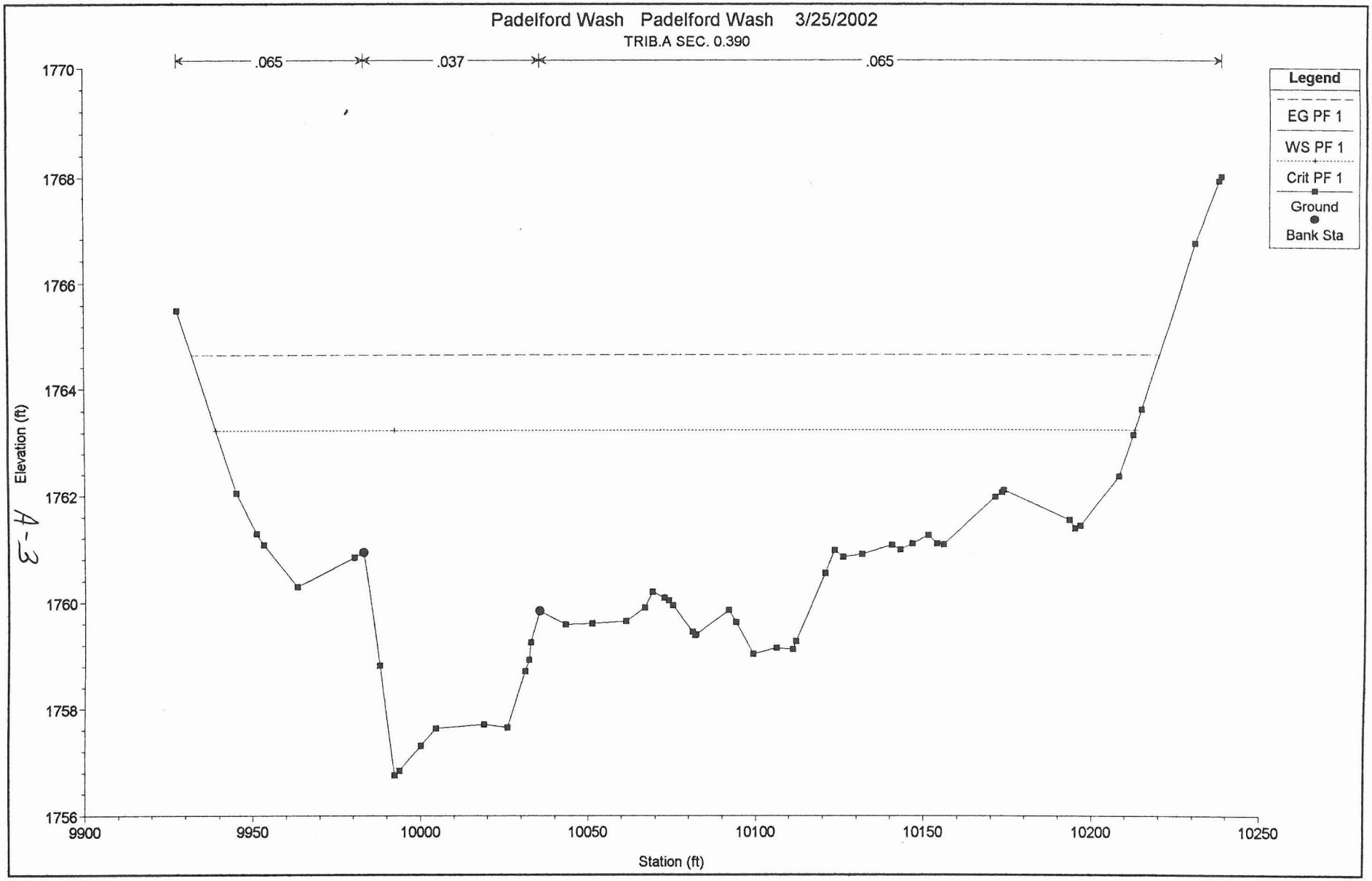
HEC-RAS Plan: Padelford Wa (Continued)

River	Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Sta W.S. Lft (ft)	Sta W.S. Rgt (ft)	Length Chnl (ft)	Froude # Chl	Froude # XS	Max Chl Dpth (ft)
PADELFORD WASH	REACH M1	1.181	3187.00	1545.37	1549.53	9112.03	10196.62	504.92	0.83	0.72	4.16
PADELFORD WASH	REACH M1	1.084	3187.00	1542.51	1546.52	9035.12	11056.73	417.12	0.10	0.06	7.08
PADELFORD WASH	REACH M1	1.005	3187.00	1540.95	1545.58	9927.24	10080.54		0.66	0.67	4.63

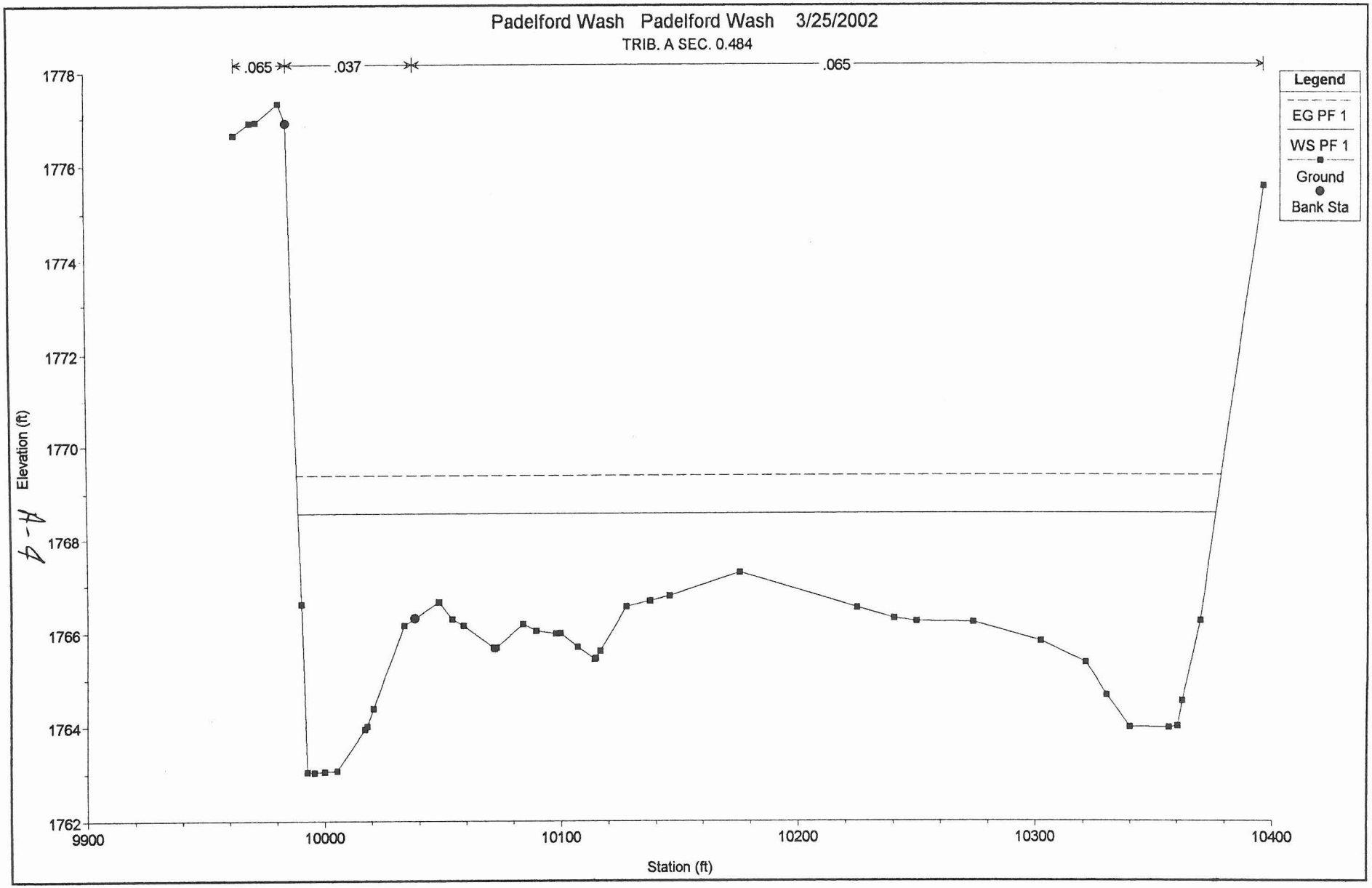

Padelford Wash Padelford Wash 3/25/2002
TRIB.A SEC. 0.198
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1760
1758
1756
1754
1752
1750
1748
1746
1744
9500
9600
9700
9800
9900
10000
10100

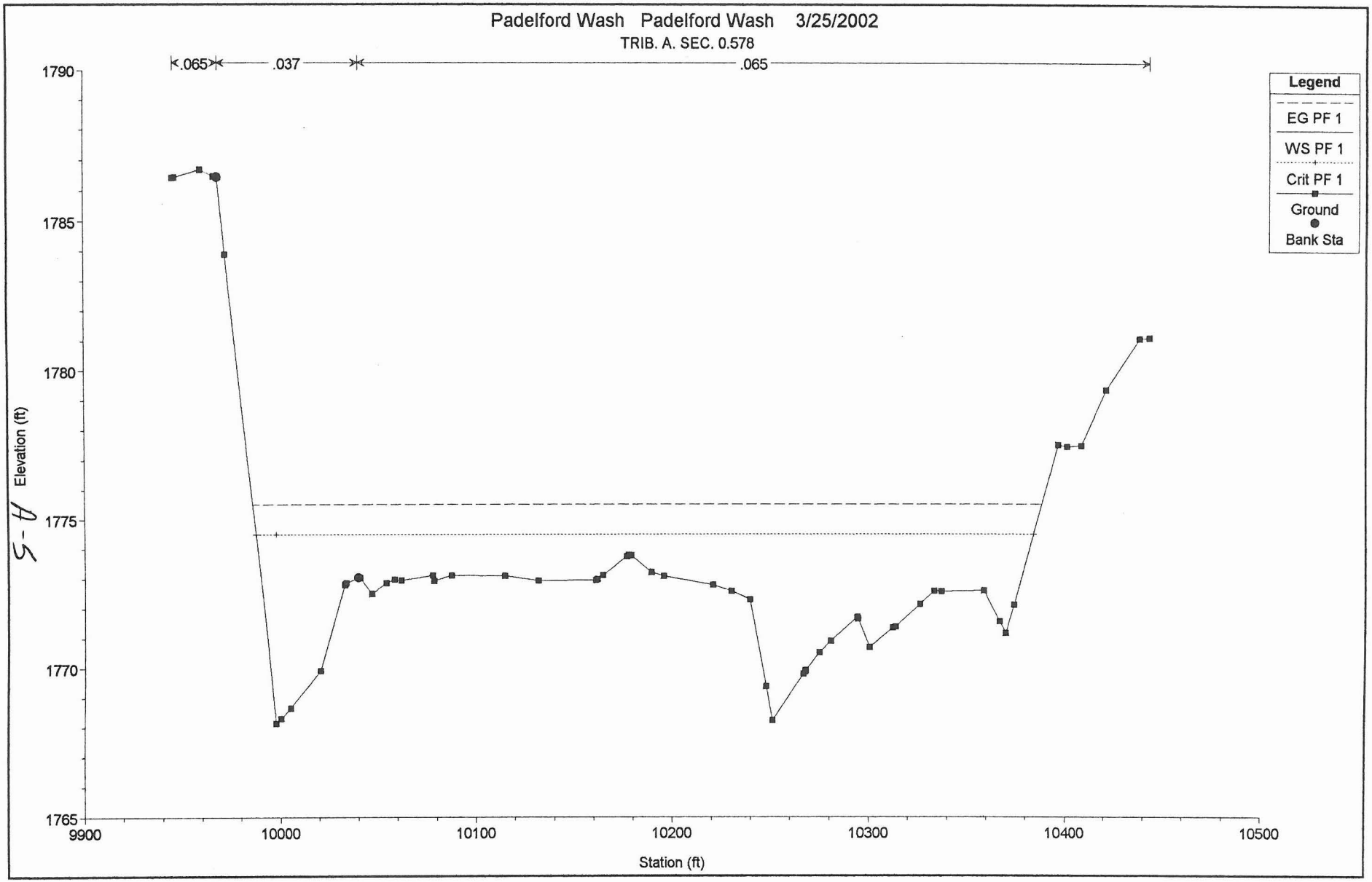

Padelford Wash Padelford Wash 3/25/2002
TRIB. A. SEC. 0.294
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1762
1760
1758
1756
1754
1752
1750
9600
9700
9800
9900
10000
10100
10200
Station (ft)

2 - 4

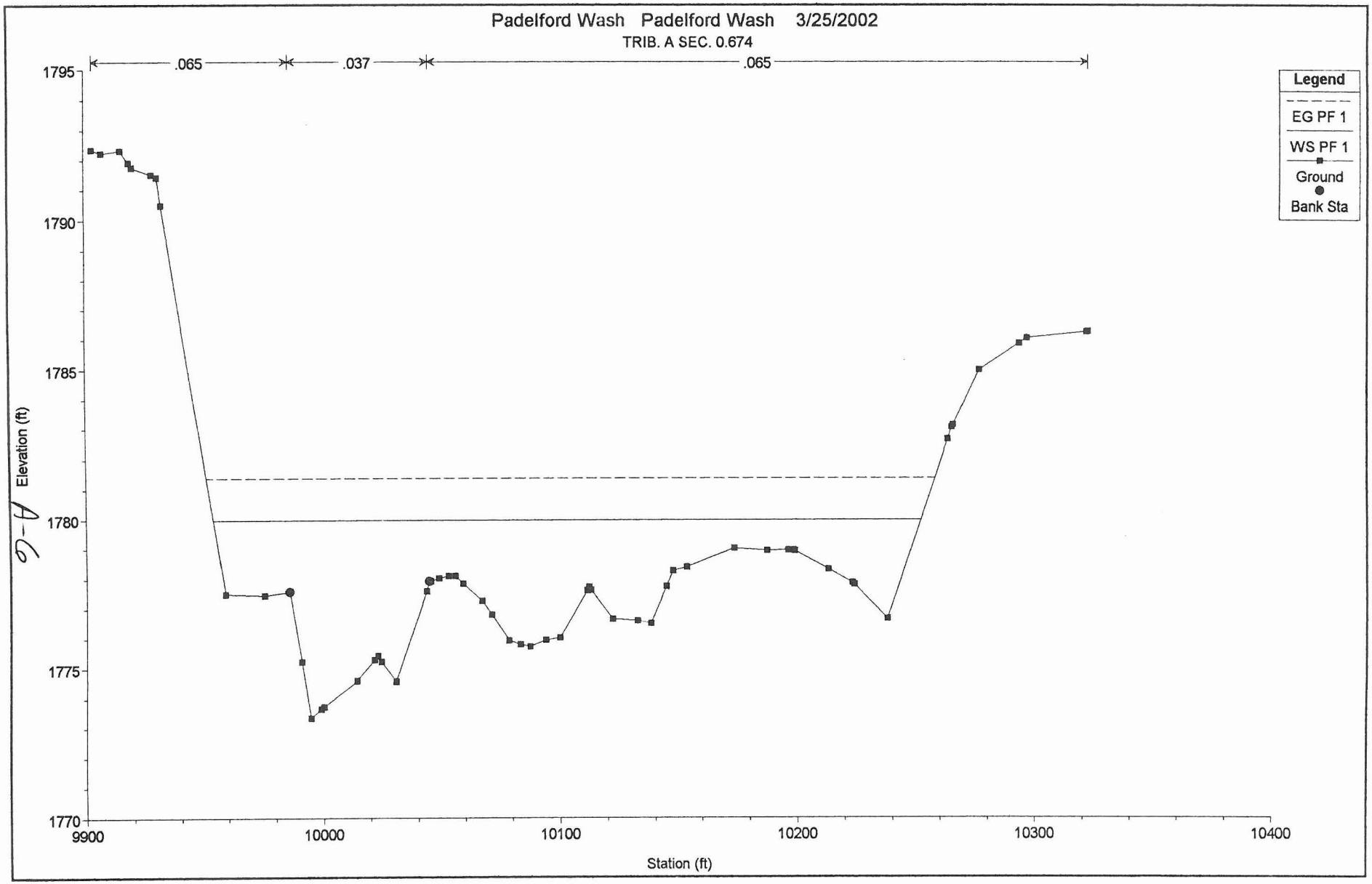

Padelford Wash Padelford Wash 3/25/2002
TRIB.A SEC. 0.390
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1770
1768
1766
1764
1762
1760
1758
1756
9900
9950
10000
10050
10100
10150
10200
10250
Station (ft)

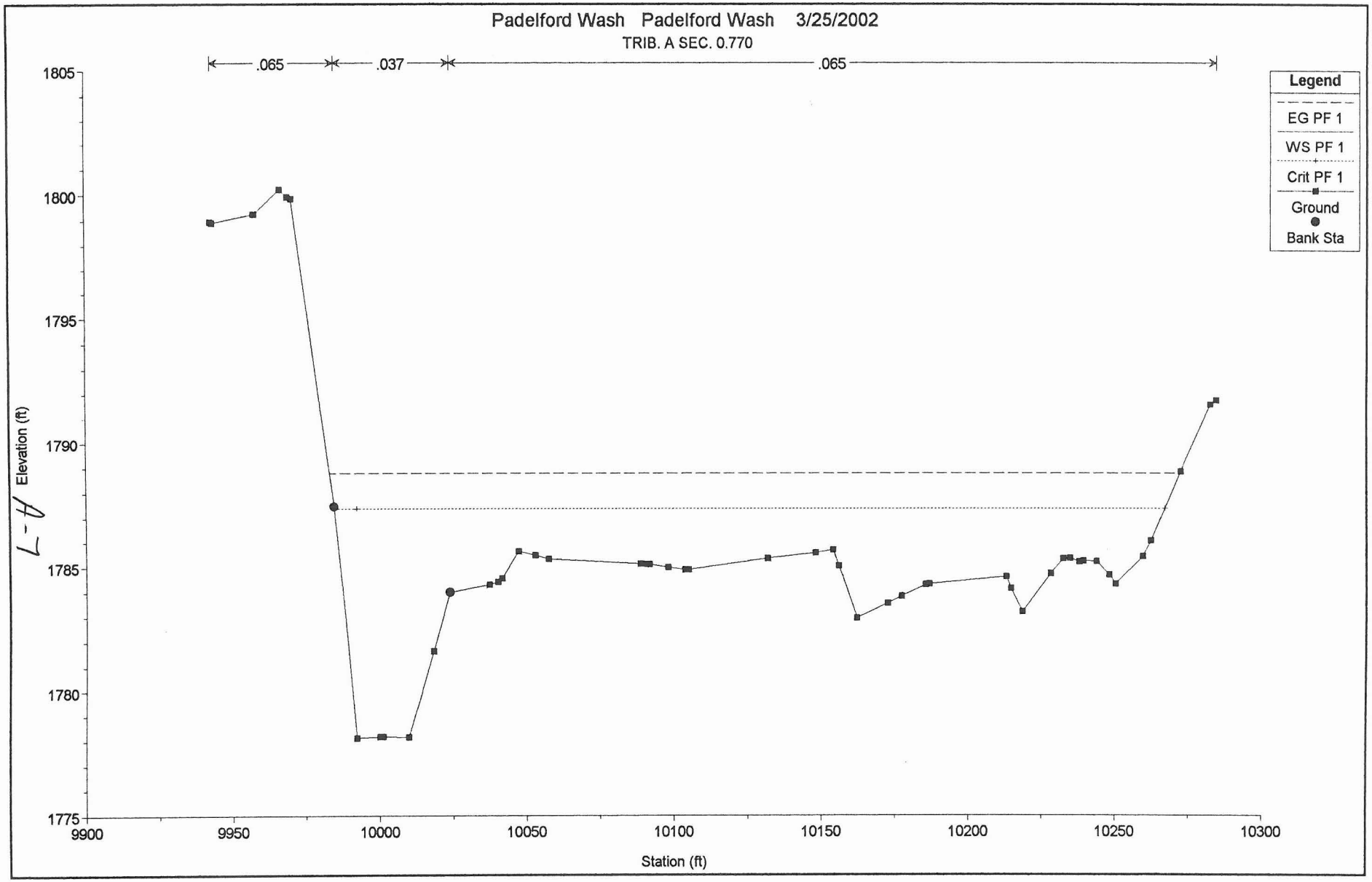
A-3

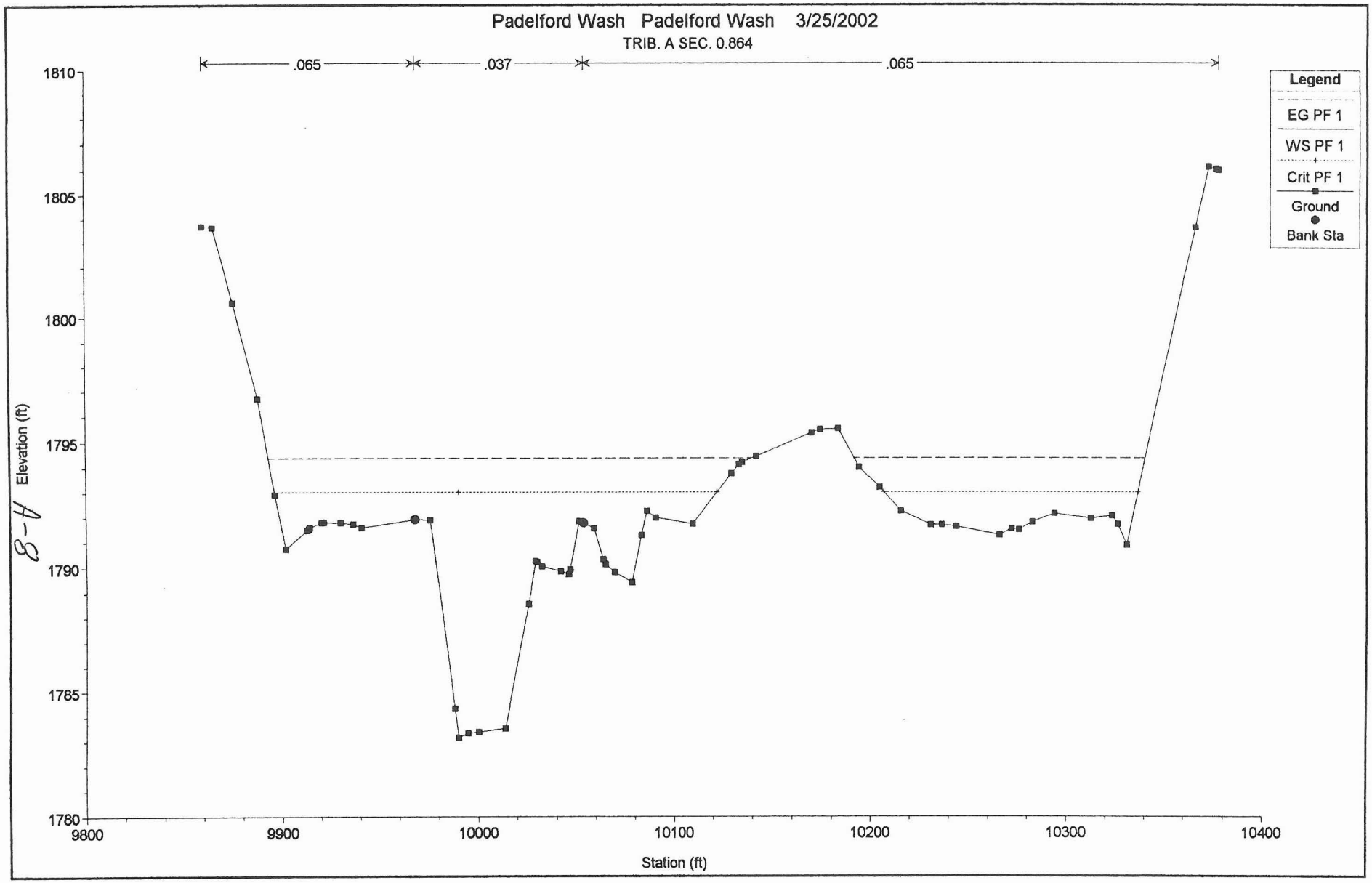

Padelford Wash Padelford Wash 3/25/2002
TRIB. A SEC. 0.484
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1778
1776
1774
1772
1770
1768
1766
1764
1762
9900
10000
10100
10200
10300
10400
Station (ft)


Padelford Wash Padelford Wash 3/25/2002
TRIB. A. SEC. 0.578
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1790
1785
1780
1775
1770
1765
9900
10000
10100
10200
10300
10400
10500
Station (ft)

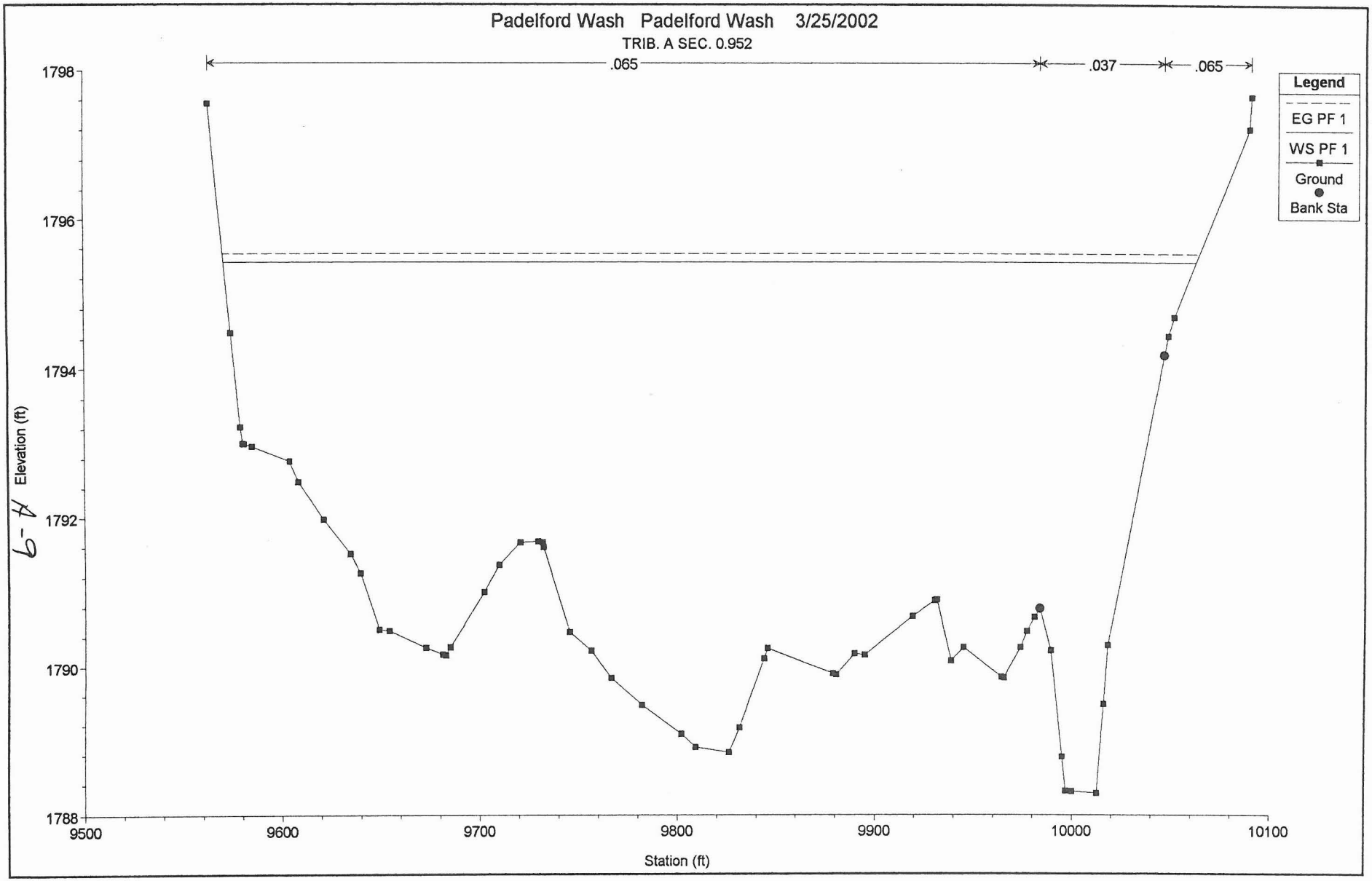
S-4


Padelford Wash Padelford Wash 3/25/2002
TRIB. A SEC. 0.674
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1795
1790
1785
1780
1775
1770
Elevation (ft)
9900
10000
10100
10200
10300
10400
Station (ft)

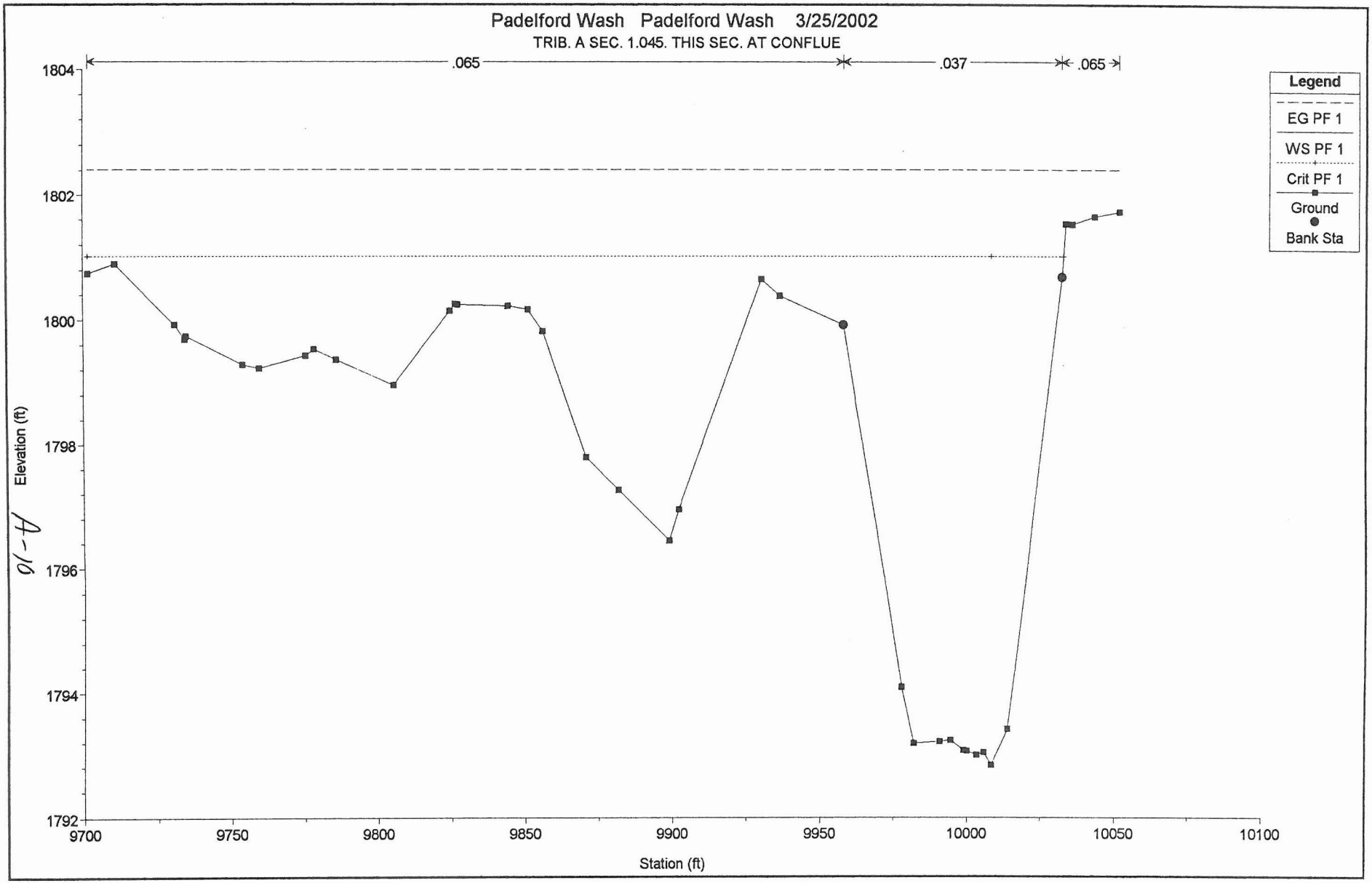

Padelford Wash Padelford Wash 3/25/2002
TRIB. A SEC. 0.770
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1805
1800
1795
1790
1785
1780
1775
9900
9950
10000
10050
10100
10150
10200
10250
10300
L-4


Padelford Wash Padelford Wash 3/25/2002
TRIB. A SEC. 0.864
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1810
1805
1800
1795
1790
1785
1780
9800
9900
10000
10100
10200
10300
10400
Station (ft)

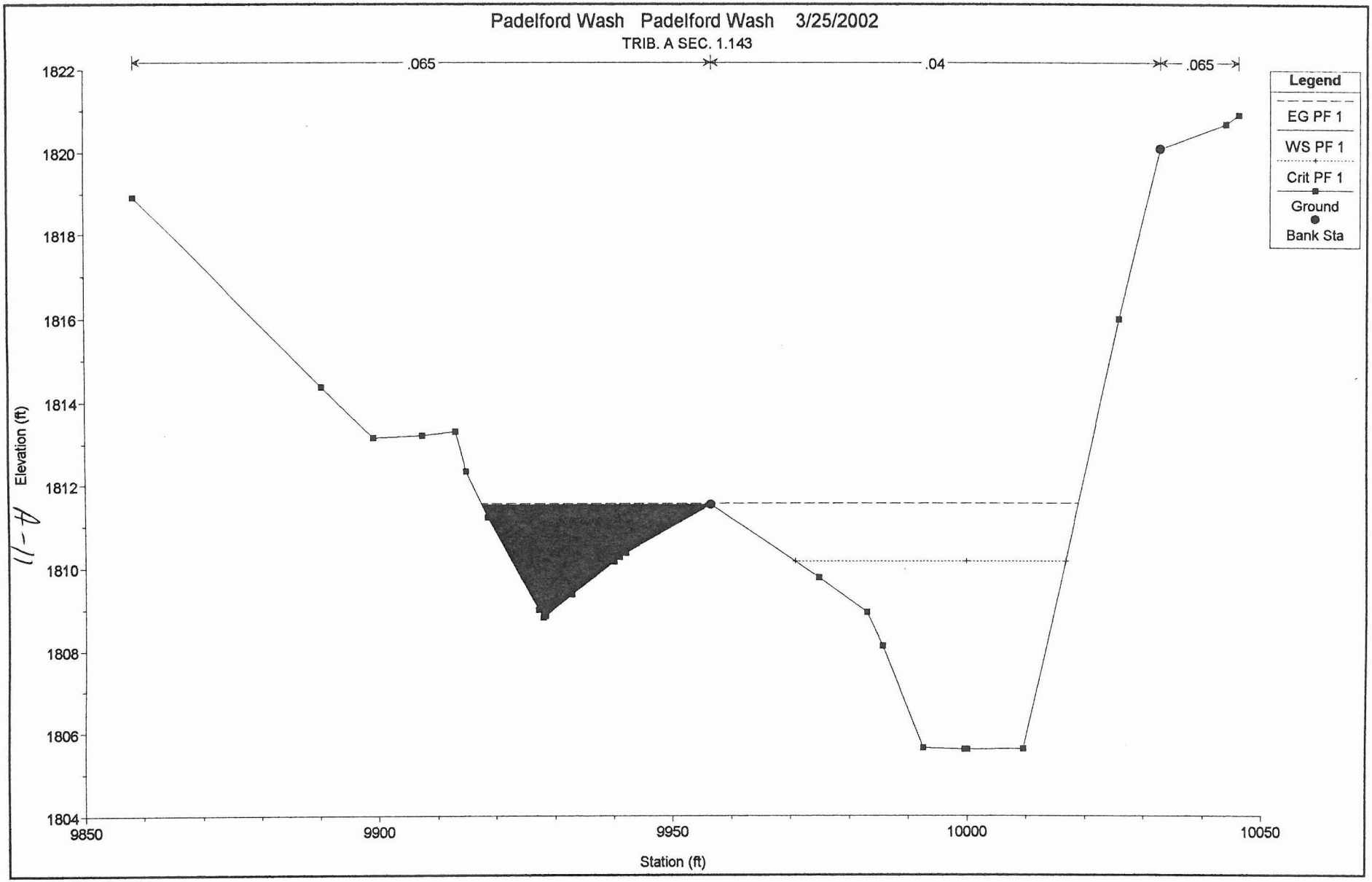
8-H

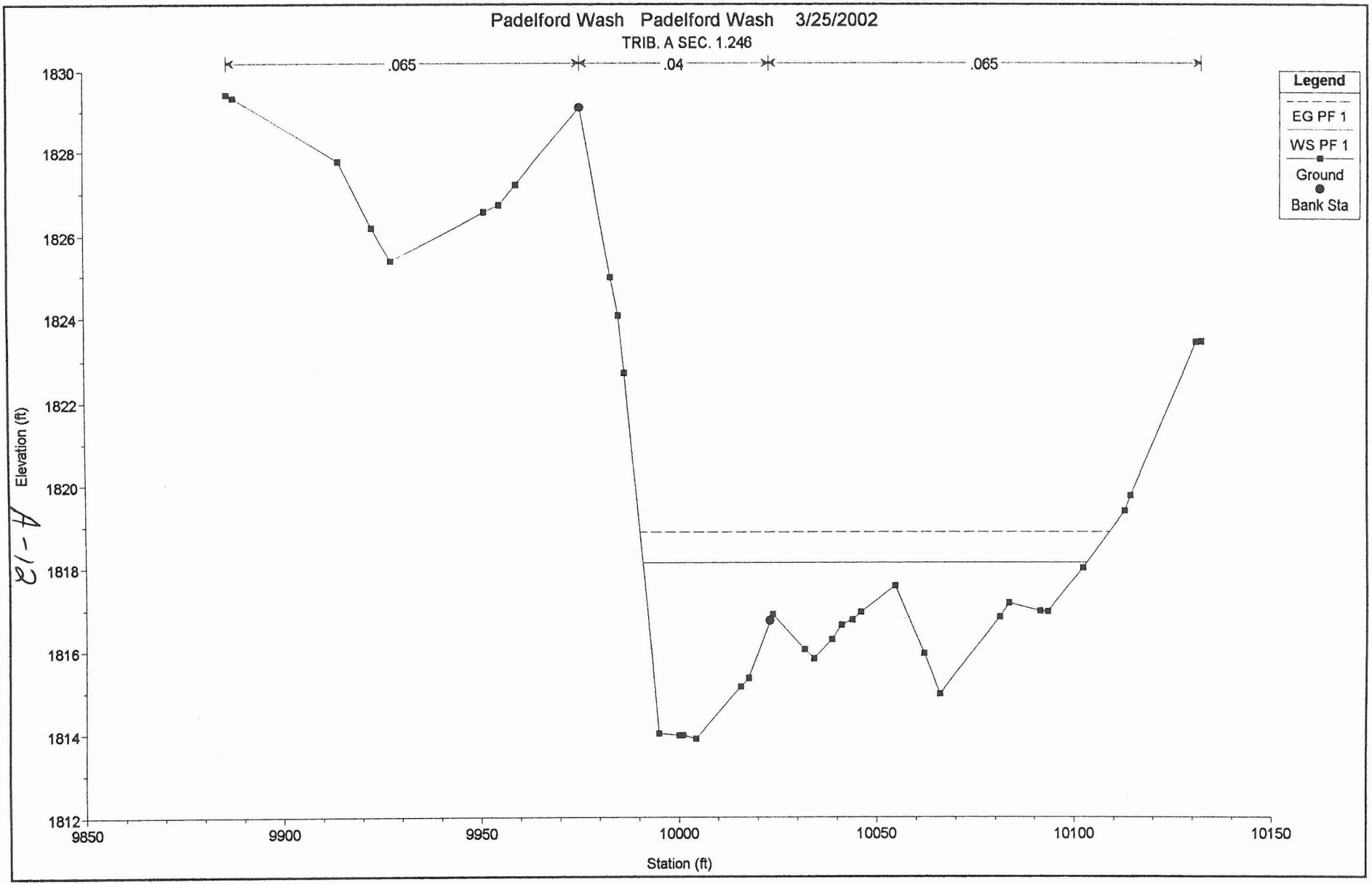

Padelford Wash Padelford Wash 3/25/2002
TRIB. A SEC. 0.952
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1798
1796
1794
1792
1790
1788
9500
9600
9700
9800
9900
10000
10100
Station (ft)

6-4

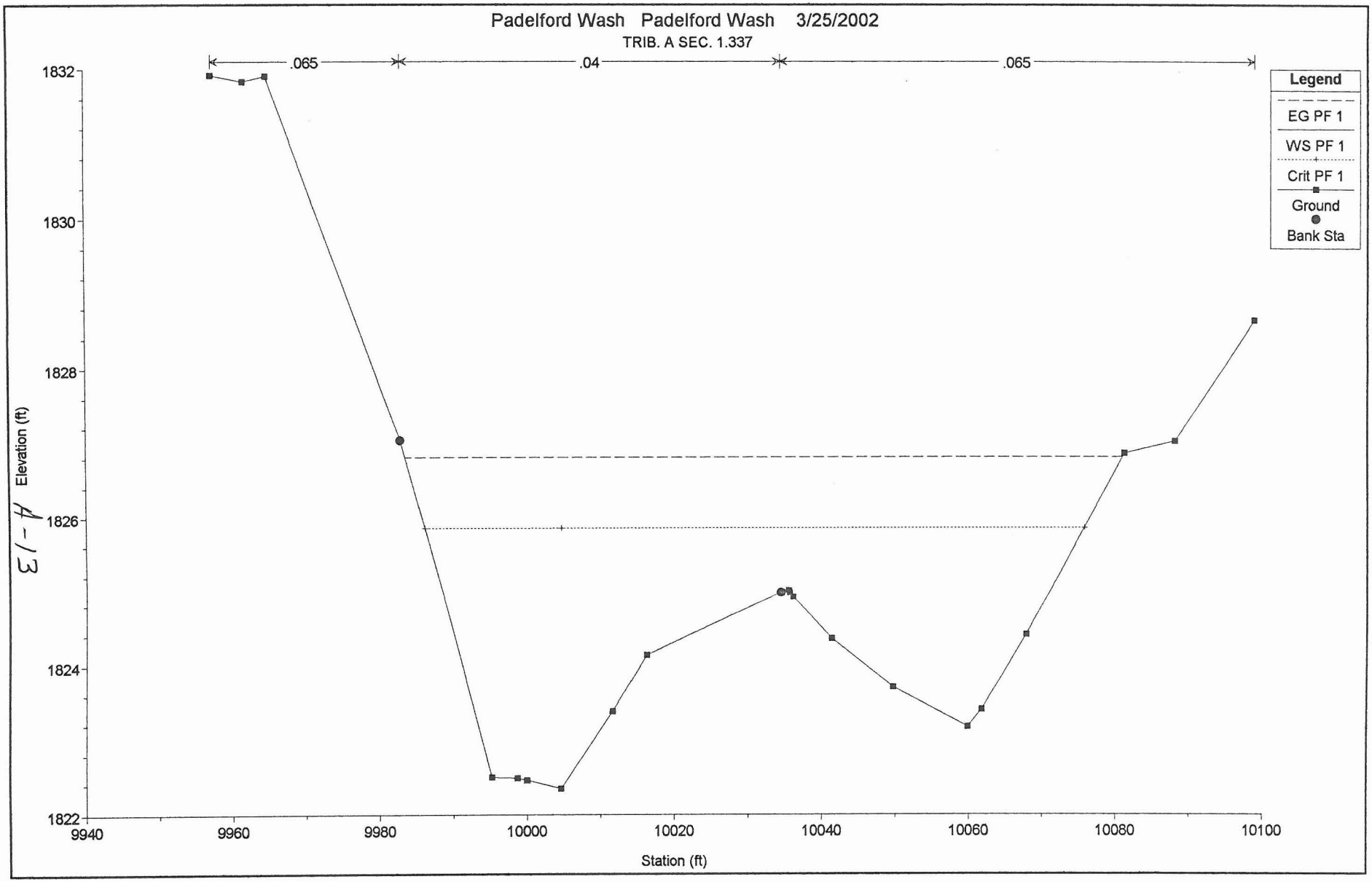

Padelford Wash Padelford Wash 3/25/2002
TRIB. A SEC. 1.045. THIS SEC. AT CONFLUE
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1804
1802
1800
1798
1796
1794
1792
9700
9750
9800
9850
9900
9950
10000
10050
10100
Station (ft)

A-10

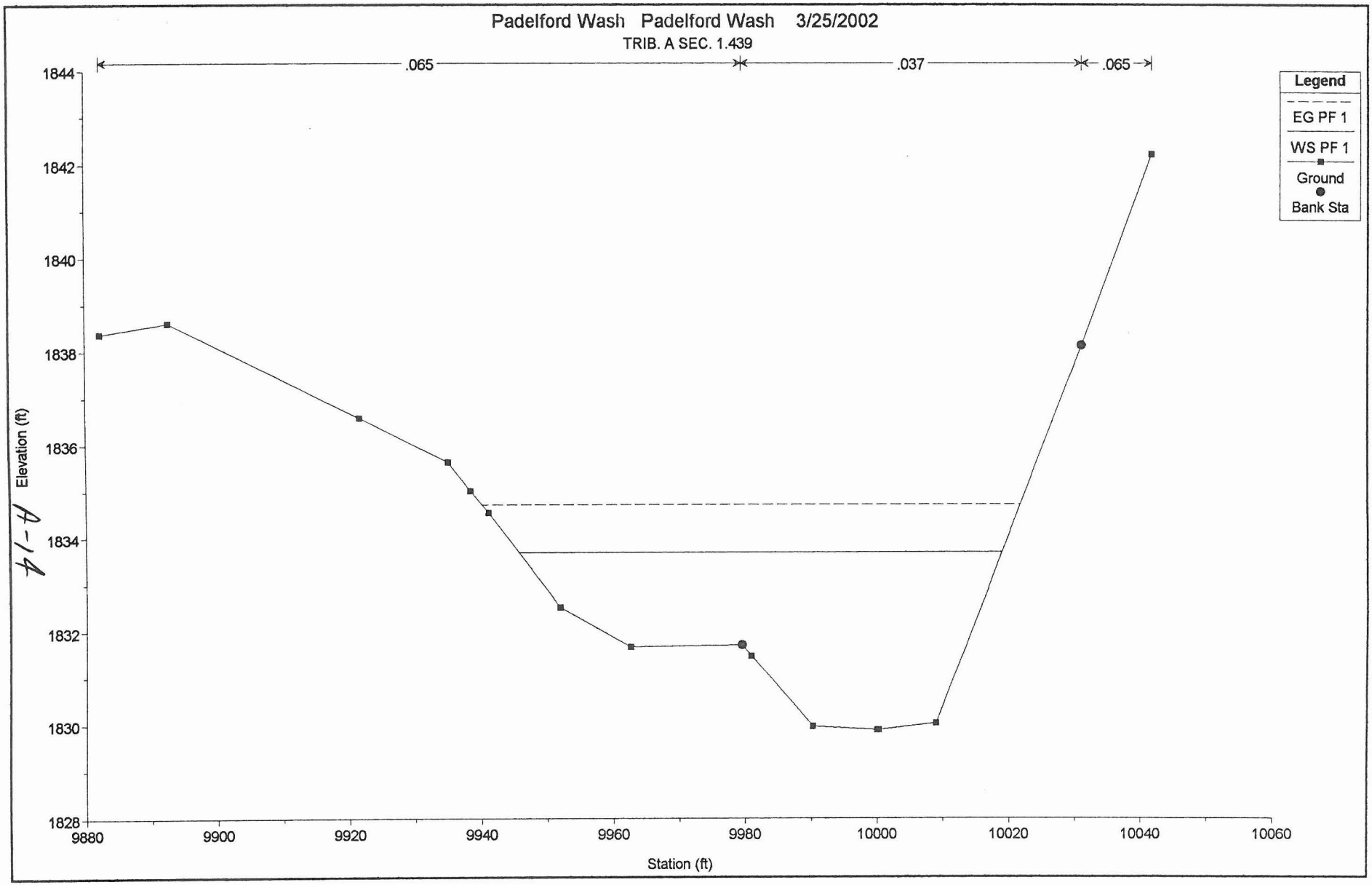

Padelford Wash Padelford Wash 3/25/2002
TRIB. A SEC. 1.143
.065
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1822
1820
1818
1816
1814
1812
1810
1808
1806
1804
9850
9900
9950
10000
10050
Station (ft)

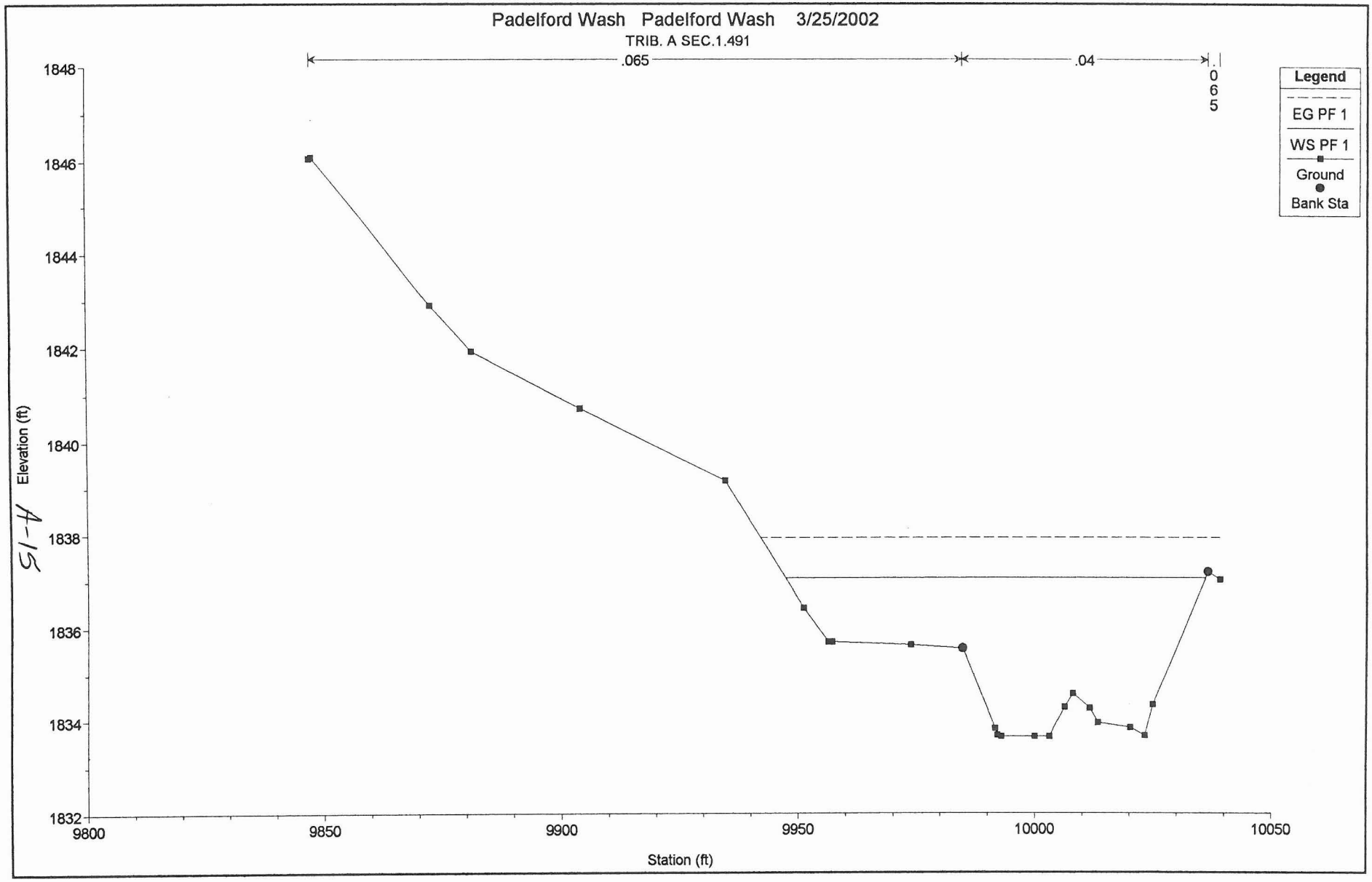

Padelford Wash Padelford Wash 3/25/2002
TRIB. A SEC. 1.246
.065
.04
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1830
1828
1826
1824
1822
1820
1818
1816
1814
1812
9850
9900
9950
10000
10050
10100
10150

A-12

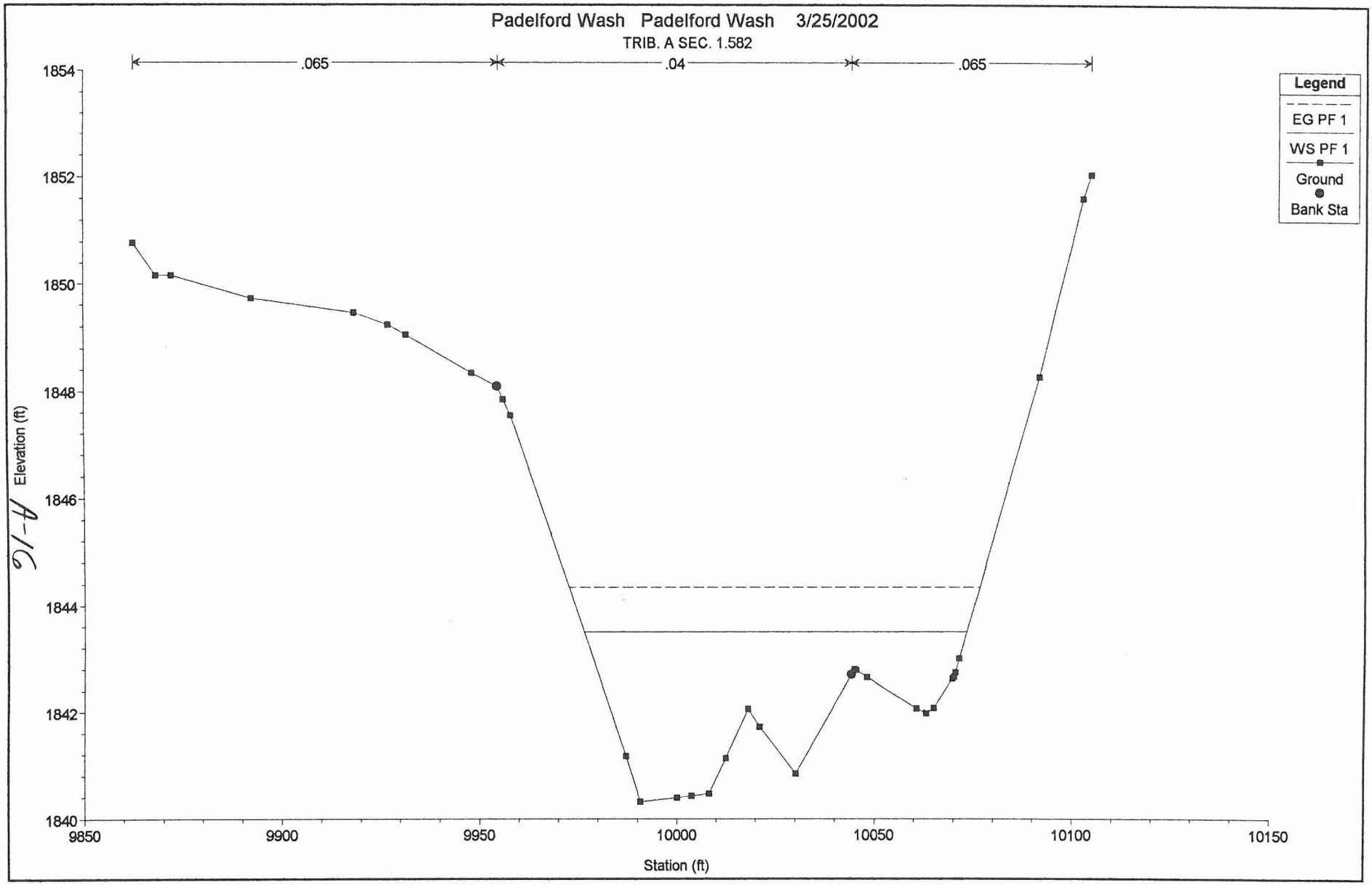

Padelford Wash Padelford Wash 3/25/2002
TRIB. A SEC. 1.337
.065
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1832
1830
1828
1826
1824
1822
9940
9960
9980
10000
10020
10040
10060
10080
10100
Station (ft)

E1-4

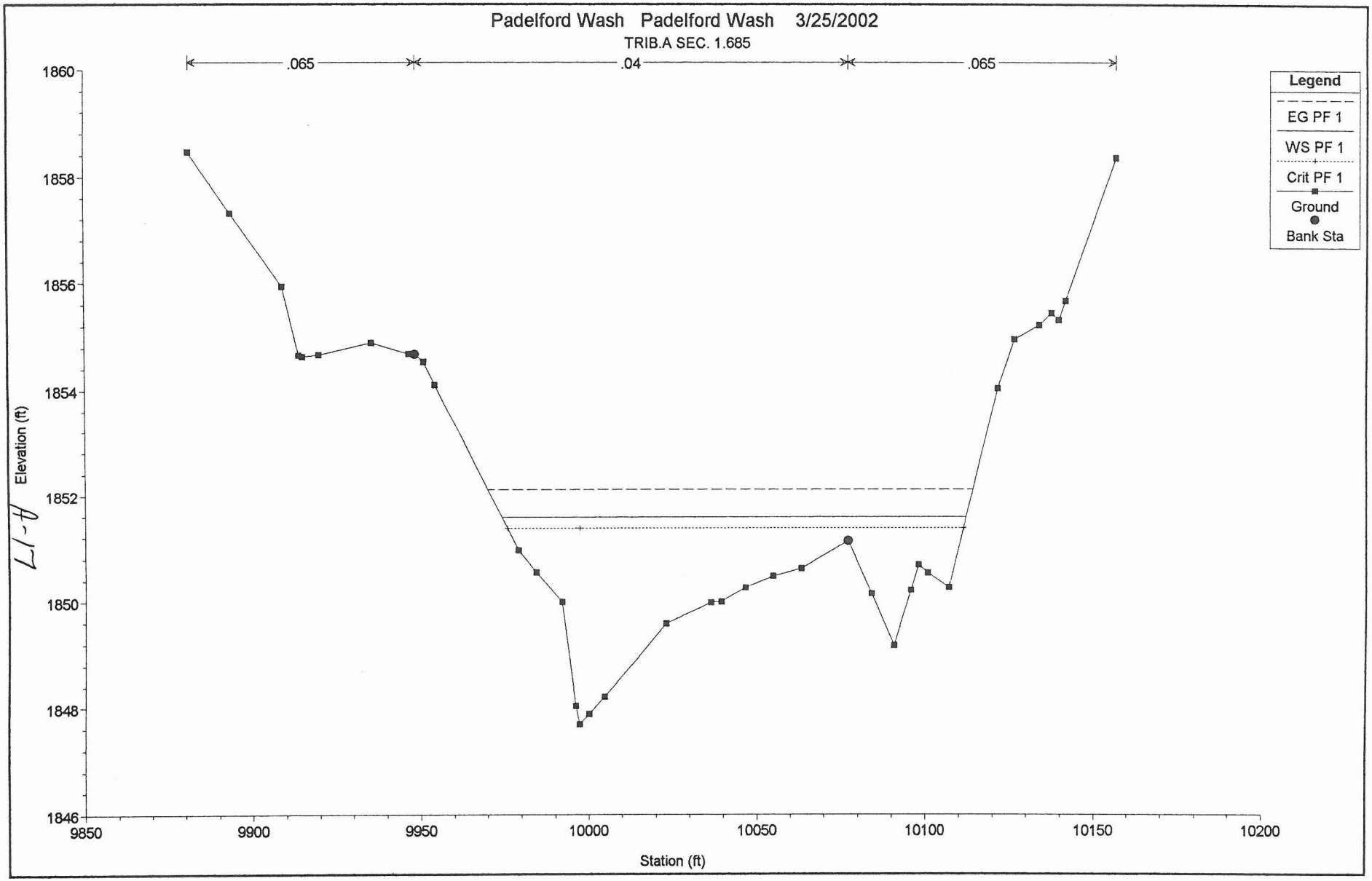

Padelford Wash Padelford Wash 3/25/2002
TRIB. A SEC. 1.439
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1844
1842
1840
1838
1836
1834
1832
1830
1828
9880
9900
9920
9940
9960
9980
10000
10020
10040
10060


Padelford Wash Padelford Wash 3/25/2002
TRIB. A SEC.1.491
.065
.04
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1848
1846
1844
1842
1840
1838
1836
1834
1832
9800
9850
9900
9950
10000
10050
Station (ft)

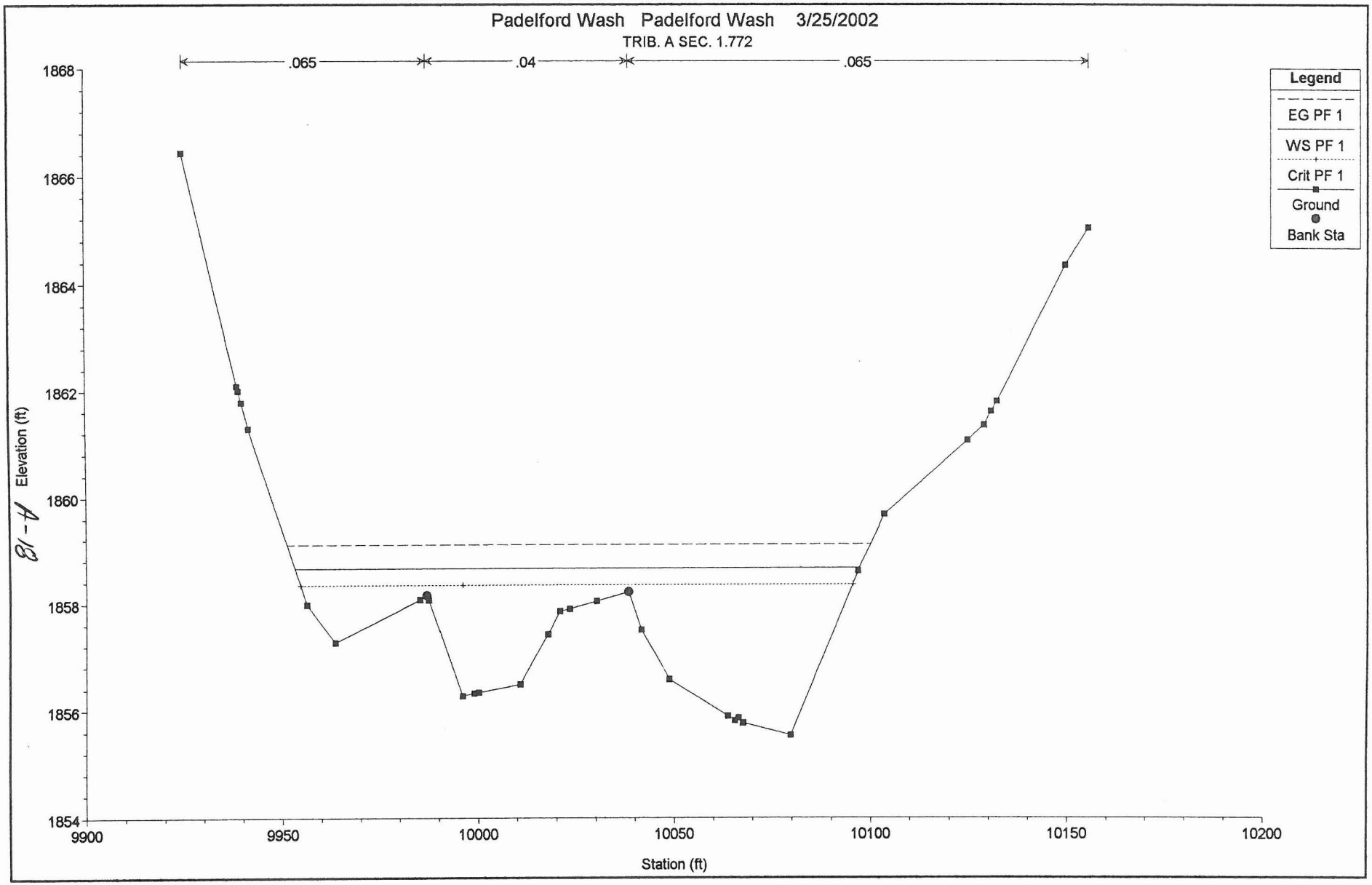
S1-4 A-15


Padelford Wash Padelford Wash 3/25/2002
TRIB. A SEC. 1.582
.065
.04
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1854
1852
1850
1848
1846
1844
1842
1840
9850
9900
9950
10000
10050
10100
10150
Station (ft)

D1-4


Padelford Wash Padelford Wash 3/25/2002
TRIB.A SEC. 1.685
.065
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1860
1858
1856
1854
1852
1850
1848
1846
9850
9900
9950
10000
10050
10100
10150
10200

L1-17


Padelford Wash Padelford Wash 3/25/2002
TRIB. A SEC. 1.772
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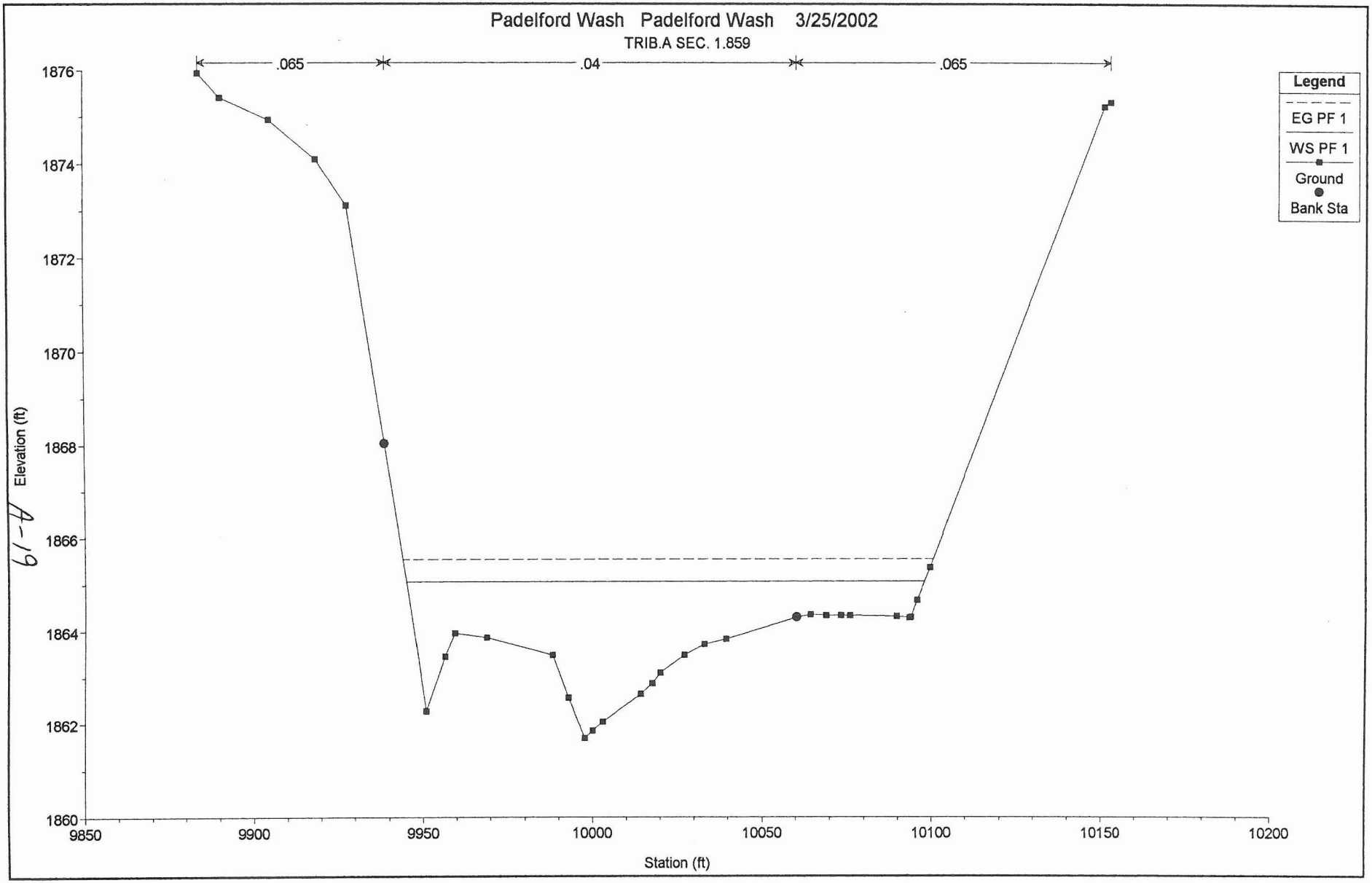
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1868
1866
1864
1862
1860
1858
1856
1854
9900
9950
10000
10050
10100
10150
10200
Station (ft)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TRIB.A SEC. 1.859
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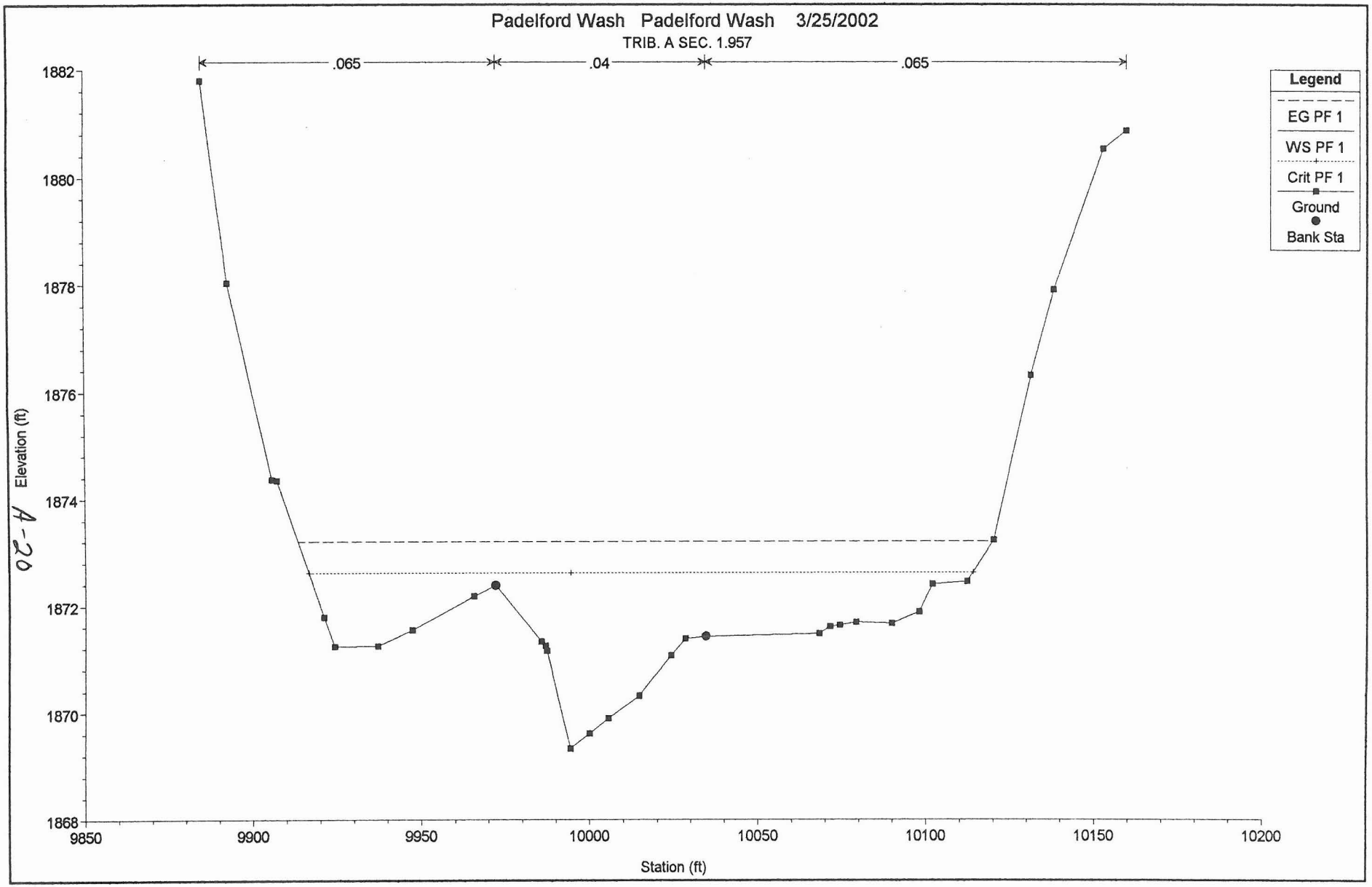
.04
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1876
1874
1872
1870
1868
1866
1864
1862
1860
9850
9900
9950
10000
10050
10100
10150
10200

61-4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TRIB. A SEC. 1.957
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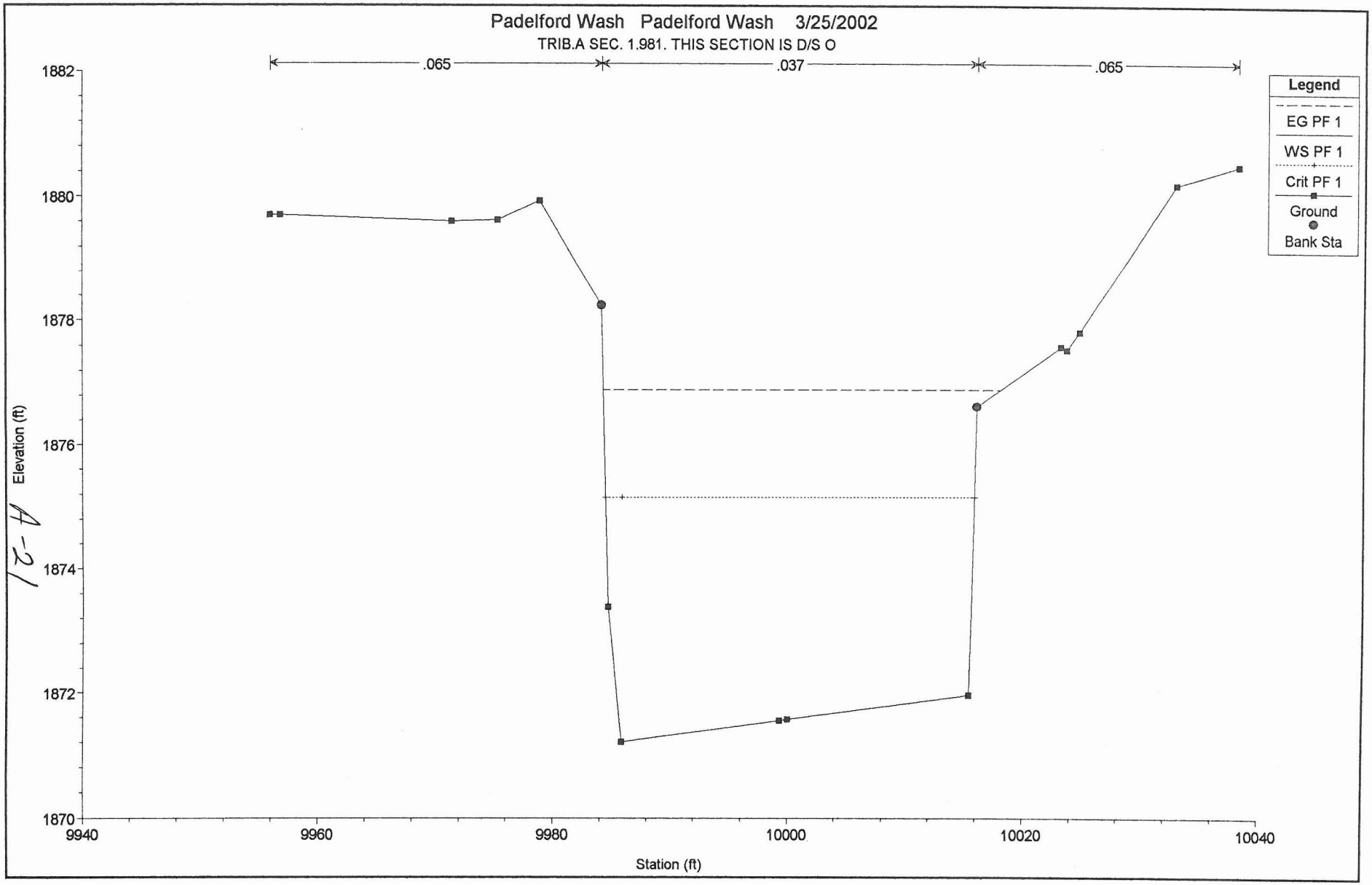
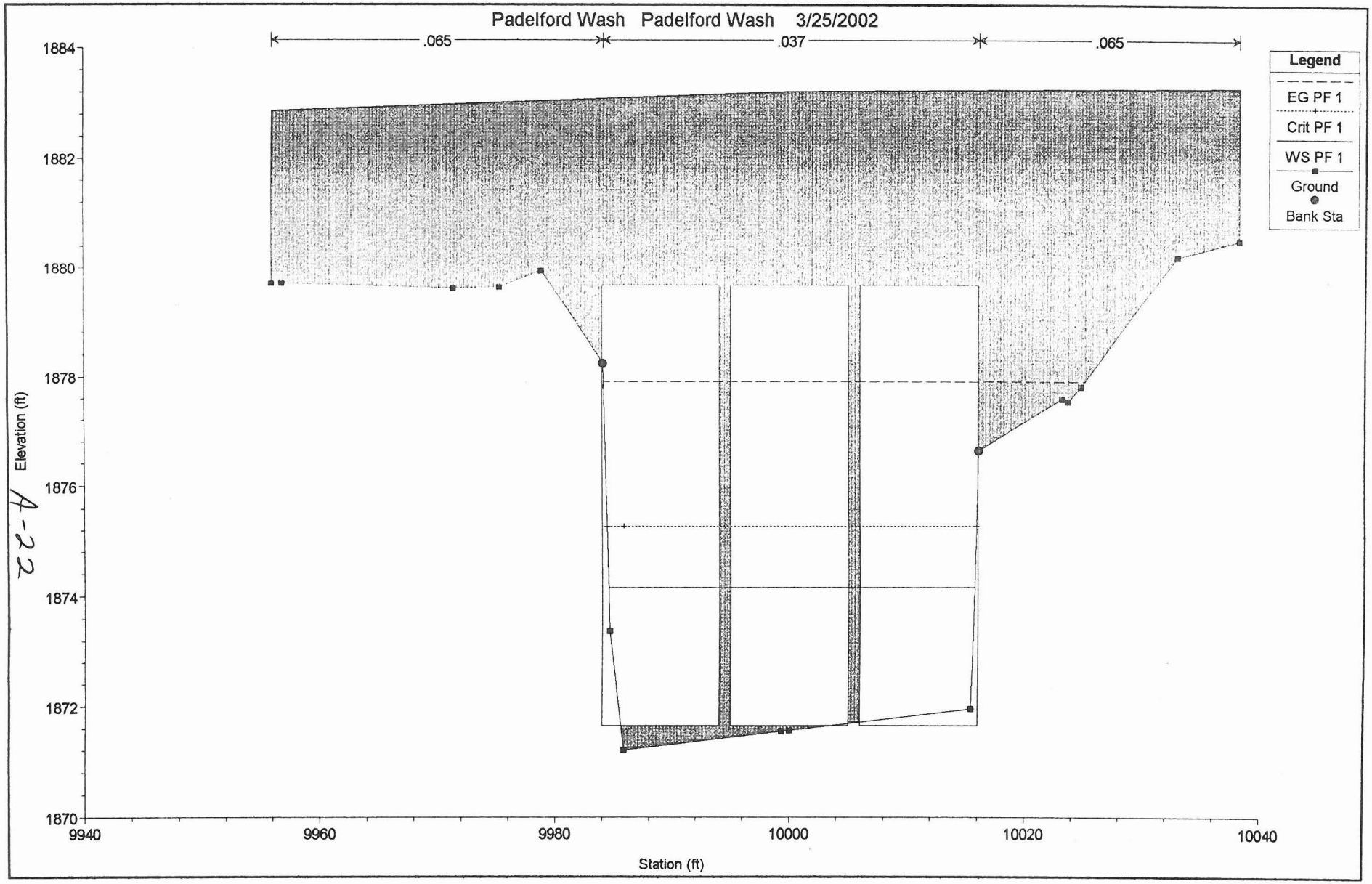
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1882
1880
1878
1876
1874
1872
1870
1868
9850
9900
9950
10000
10050
10100
10150
10200
Station (ft)

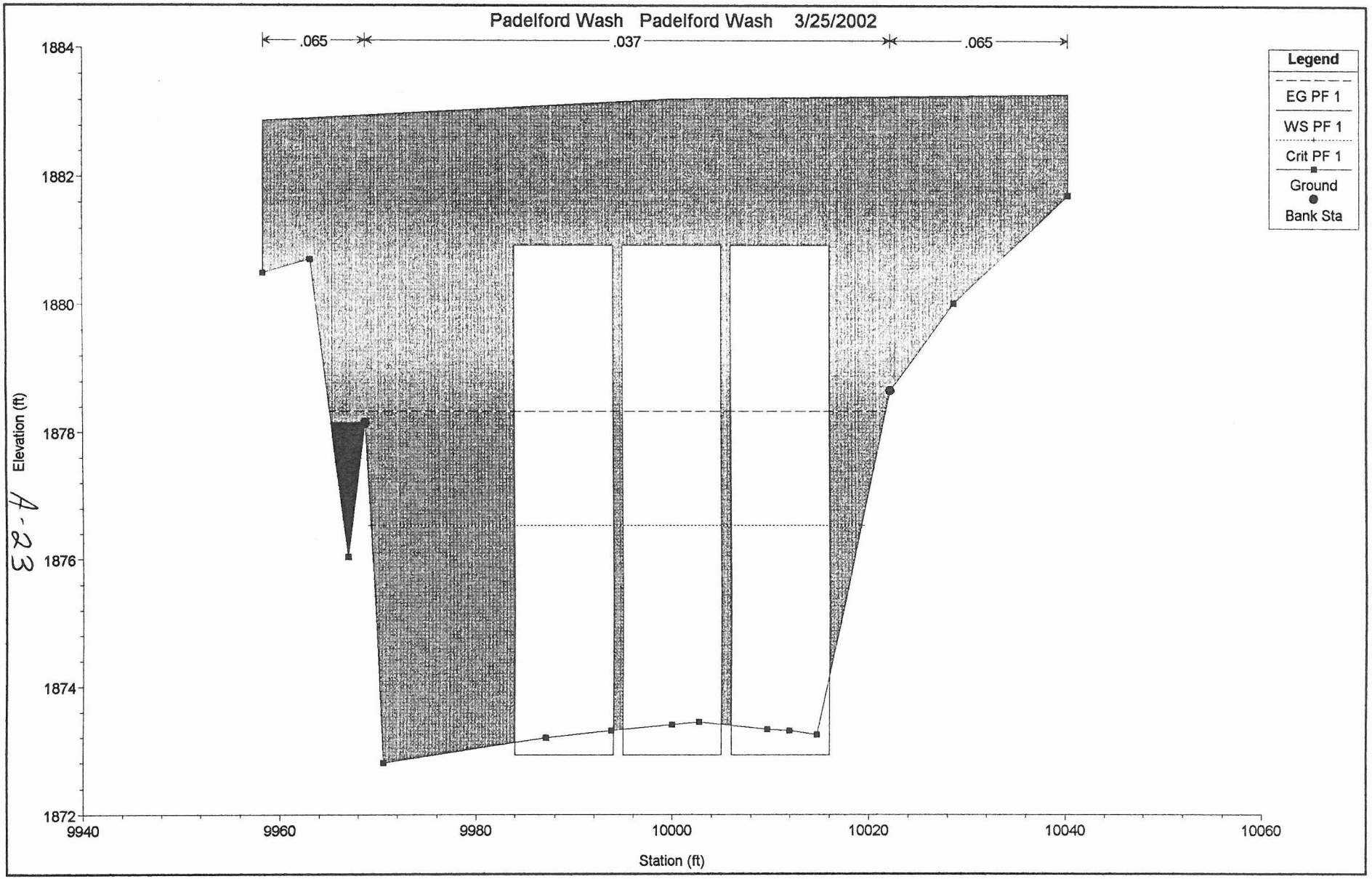
A-20


Padelford Wash Padelford Wash 3/25/2002
TRIB.A SEC. 1.981. THIS SECTION IS D/S O
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1882
1880
1878
1876
1874
1872
1870
9940
9960
9980
10000
10020
10040
Station (ft)

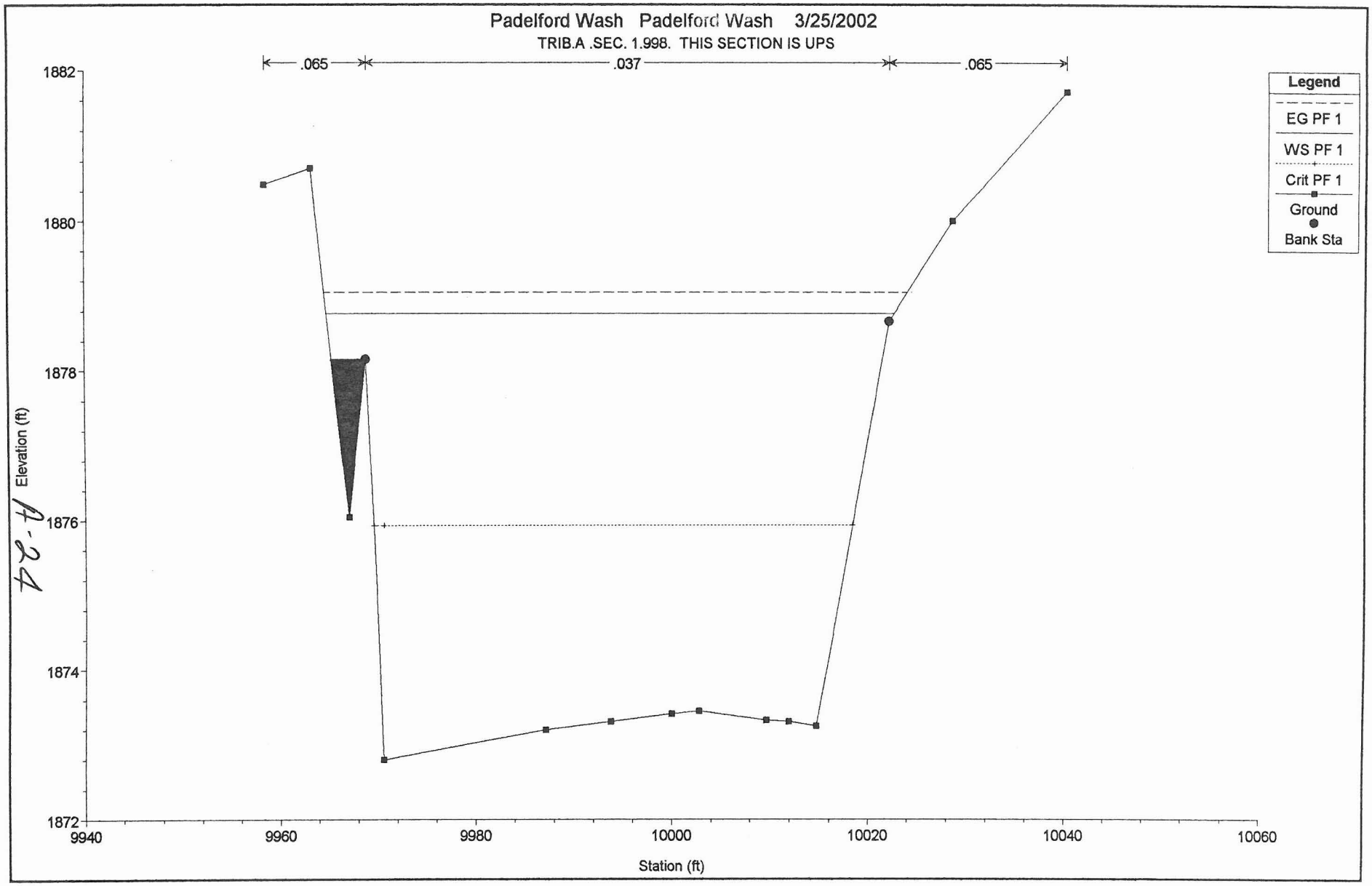
A-21


Padelford Wash Padelford Wash 3/25/2002
.065
.037
.065
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
1884
1882
1880
1878
1876
1874
1872
1870
Elevation (ft)
9940
9960
9980
10000
10020
10040
Station (ft)

A-22


Padelford Wash Padelford Wash 3/25/2002
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1884
1882
1880
1878
1876
1874
1872
9940
9960
9980
10000
10020
10040
10060
Station (ft)

A-23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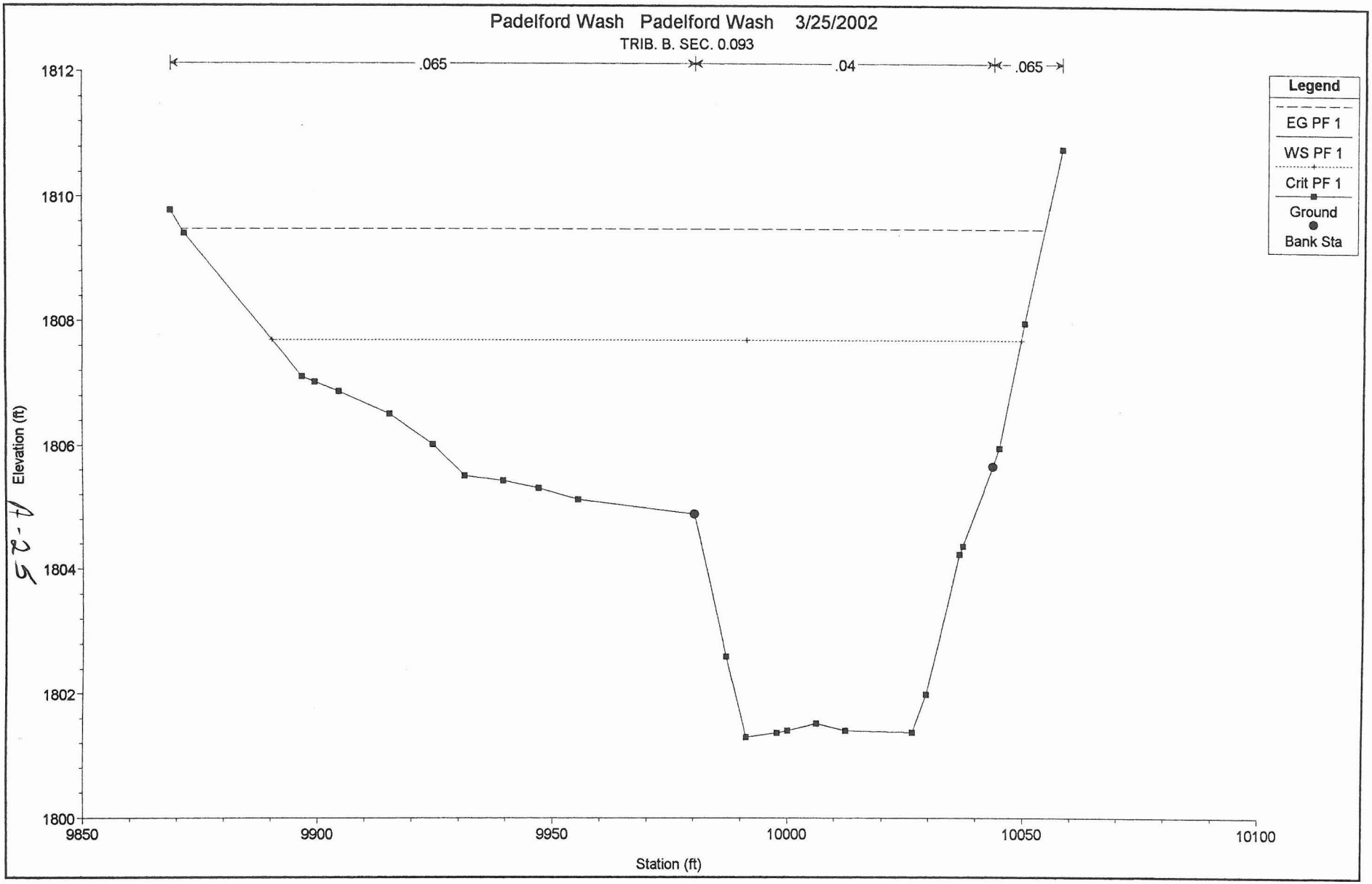
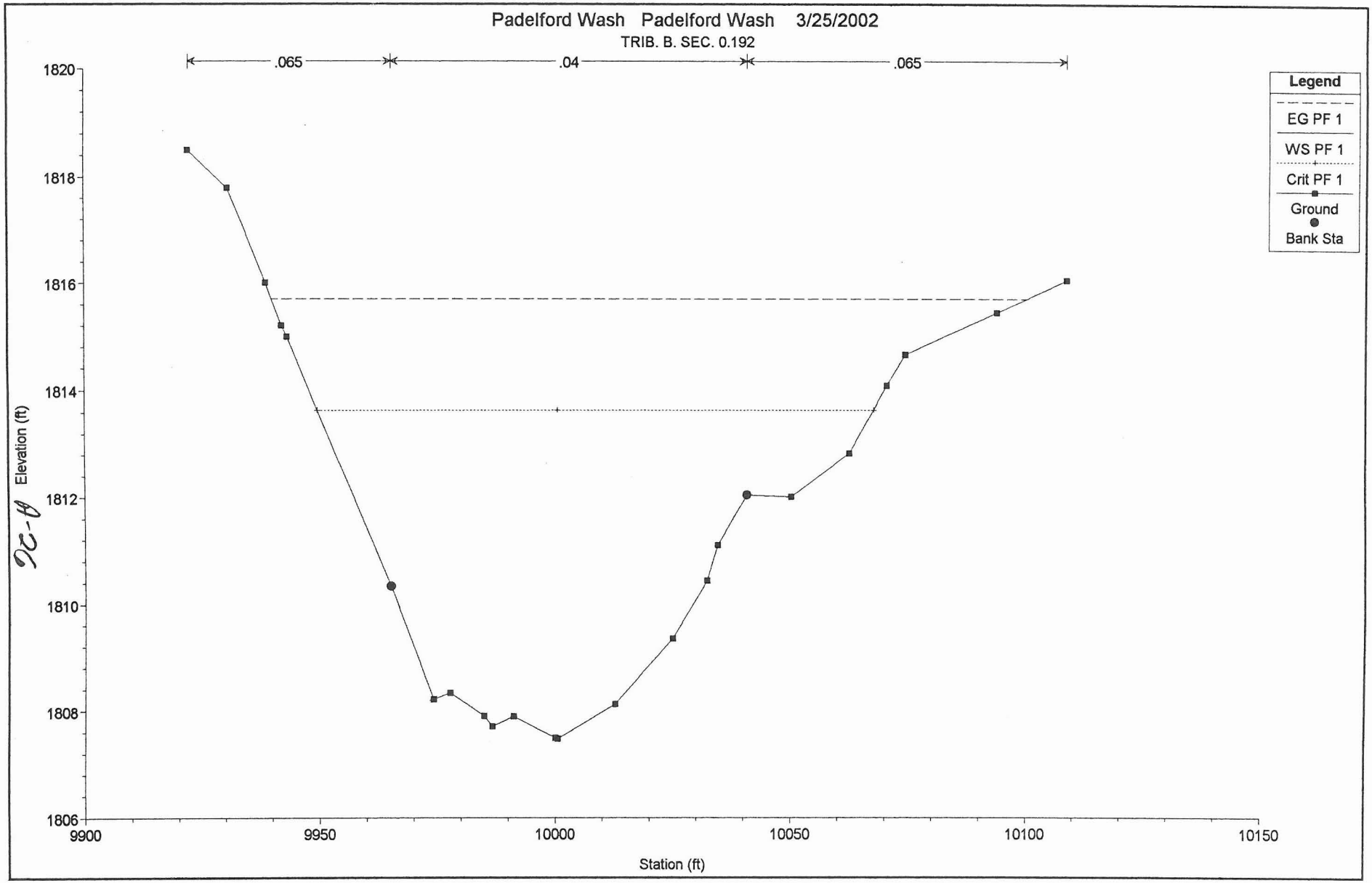
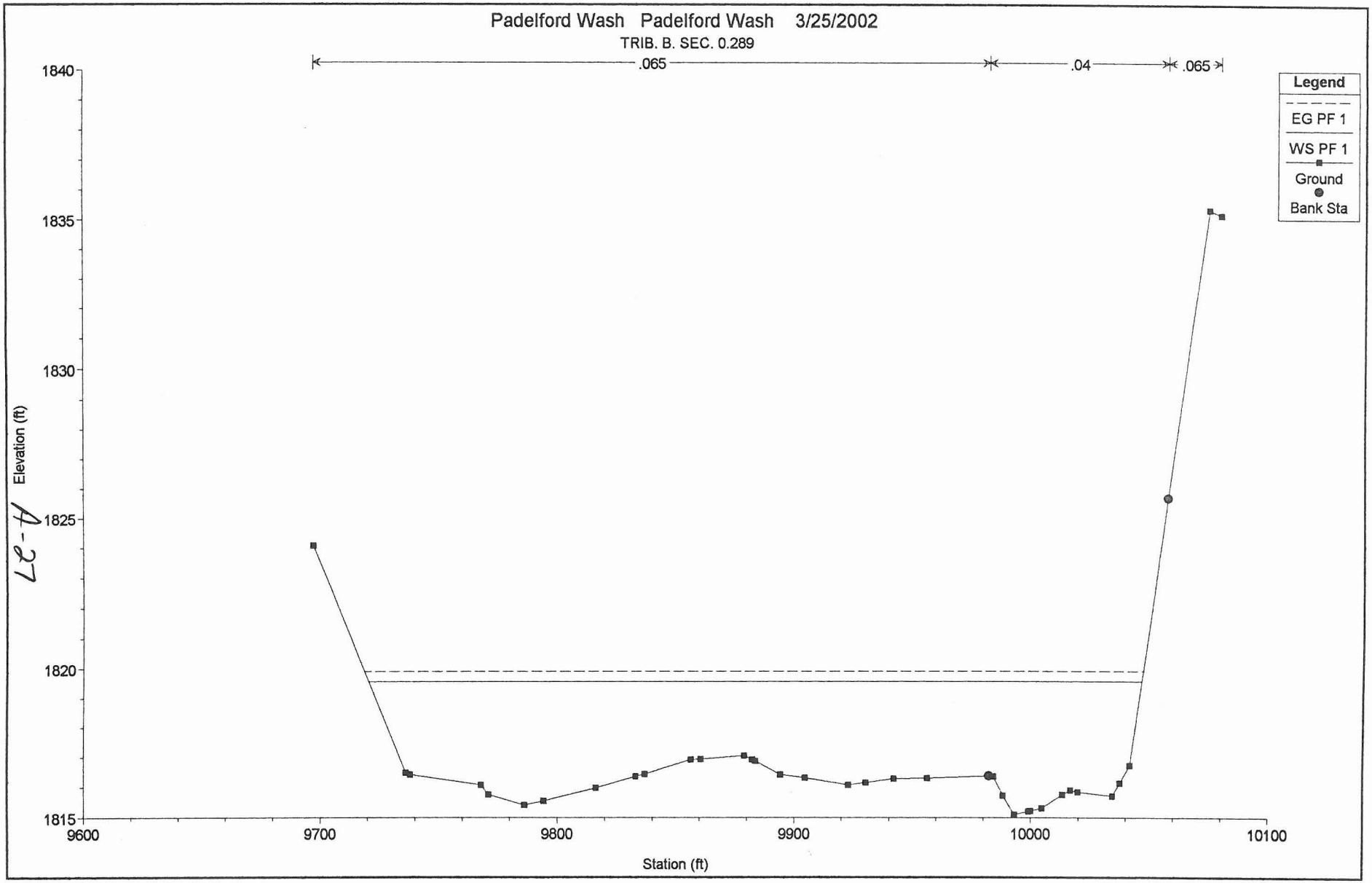
TRIB.A .SEC. 1.998. THIS SECTION IS UPS
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1882
1880
1878
1876
1874
1872
9940
9960
9980
10000
10020
10040
10060
Station (ft)

A-24

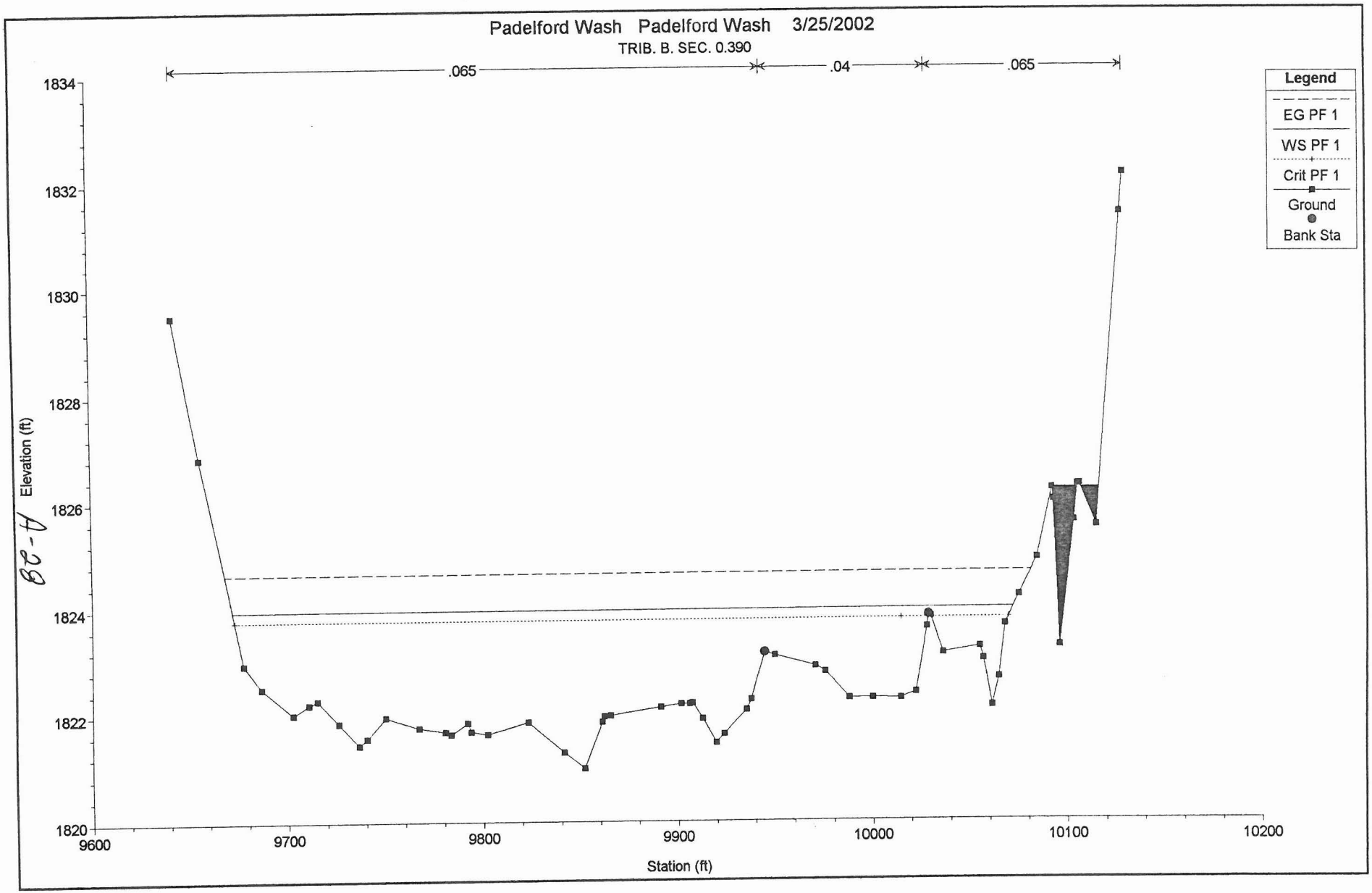

Padelford Wash Padelford Wash 3/25/2002
TRIB. B. SEC. 0.093
.065
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1812
1810
1808
1806
1804
1802
1800
9850
9900
9950
10000
10050
10100
Station (ft)

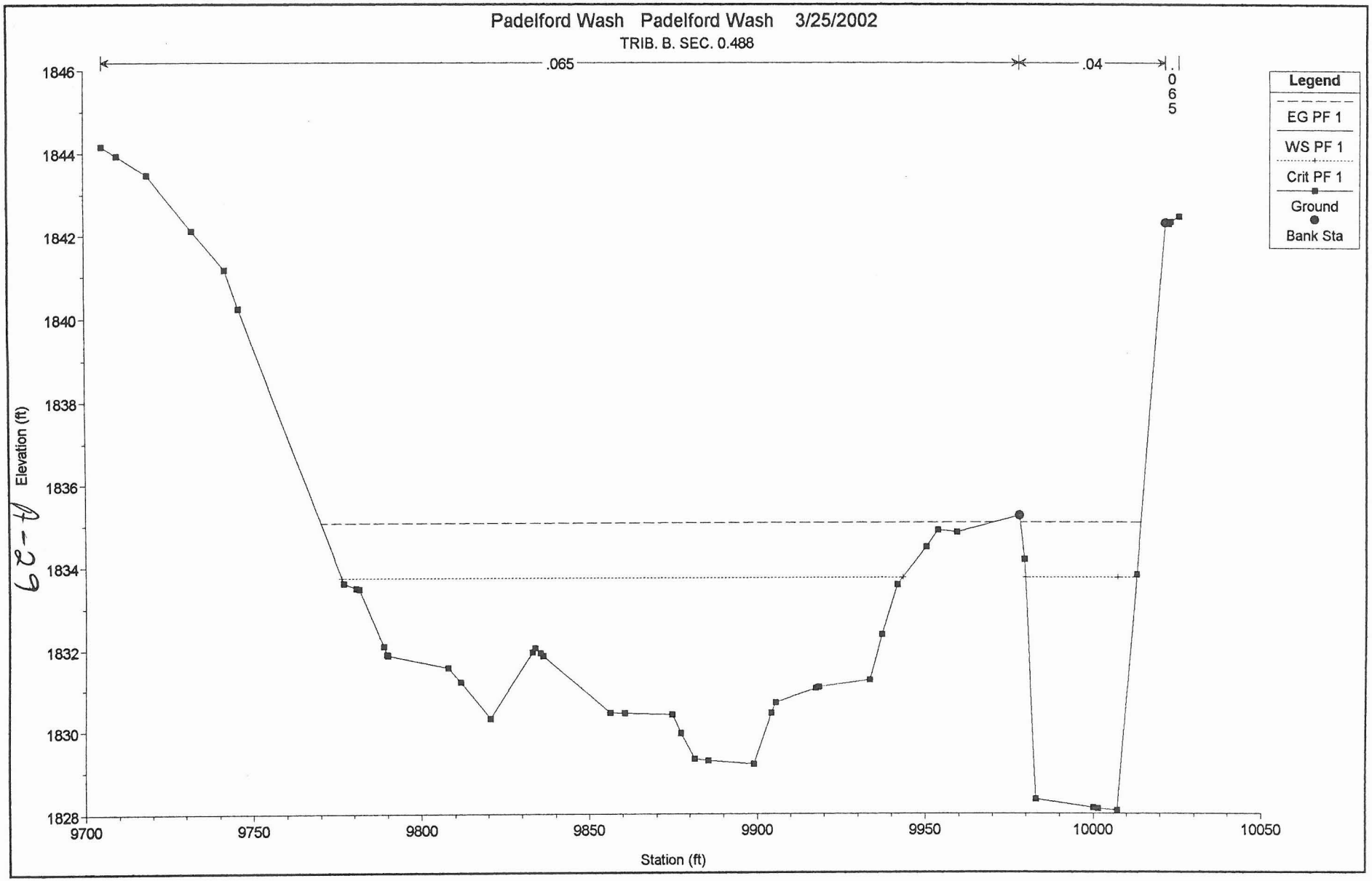
4-25

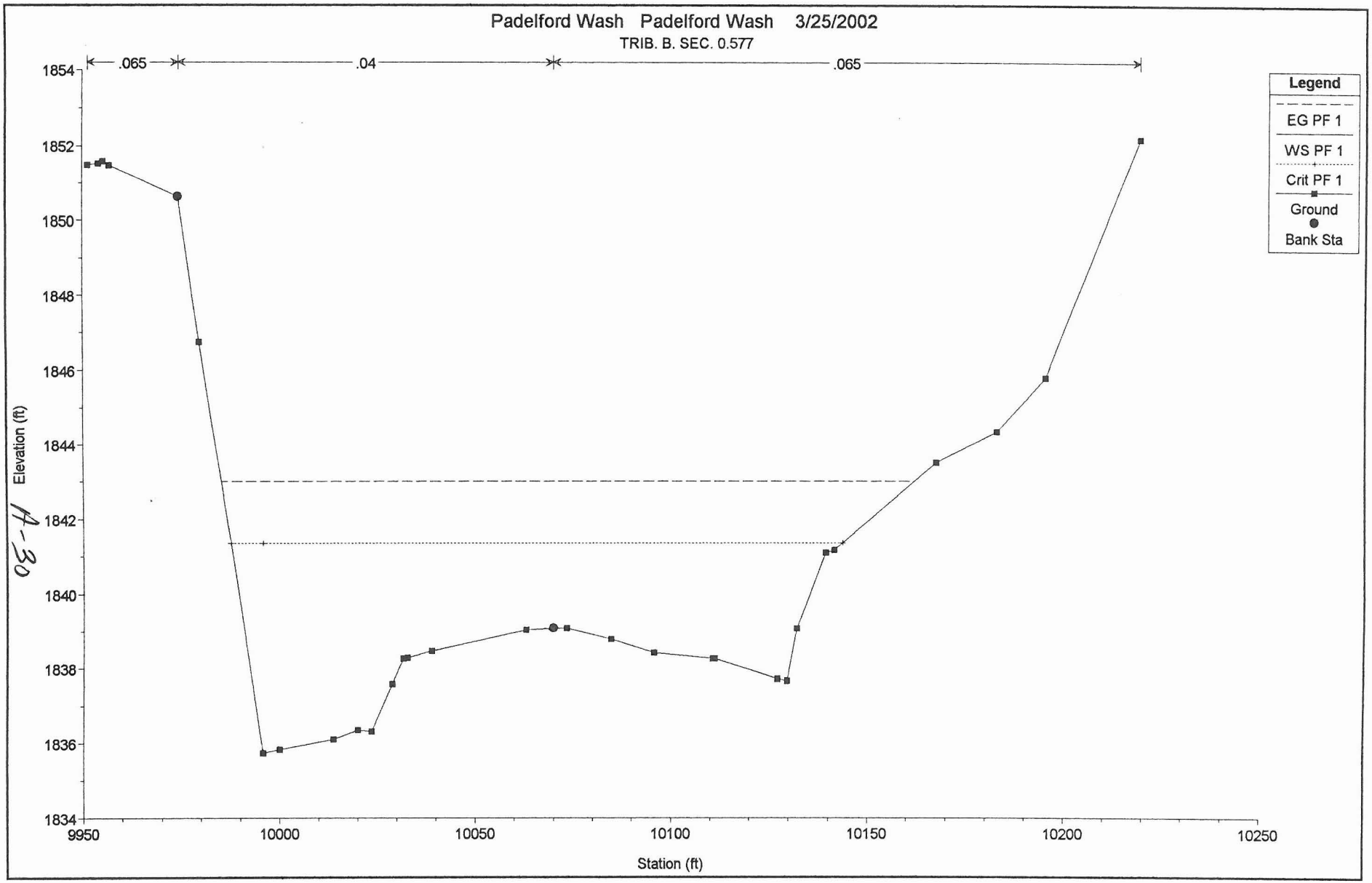

Padelford Wash Padelford Wash 3/25/2002
TRIB. B. SEC. 0.192
.065
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1820
1818
1816
1814
1812
1810
1808
1806
9900
9950
10000
10050
10100
10150
Station (ft)


Padelford Wash Padelford Wash 3/25/2002
TRIB. B. SEC. 0.289
.065
.04
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1840
1835
1830
1825
1820
1815
Elevation (ft)
9600
9700
9800
9900
10000
10100
Station (ft)

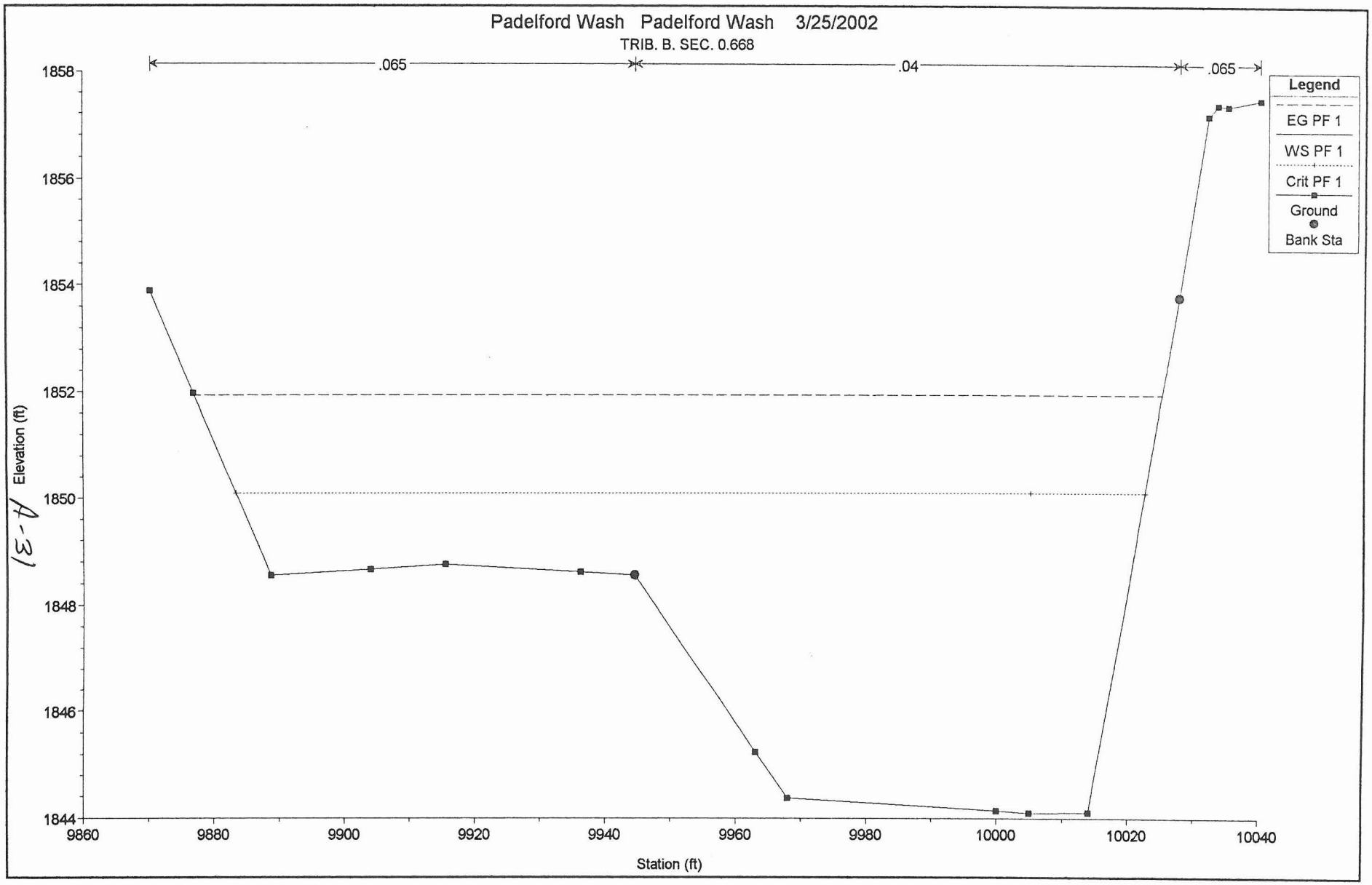
A-27


Padelford Wash Padelford Wash 3/25/2002
TRIB. B. SEC. 0.390
.065
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1834
1832
1830
1828
1826
1824
1822
1820
9600
9700
9800
9900
10000
10100
10200
Station (ft)
BC-H

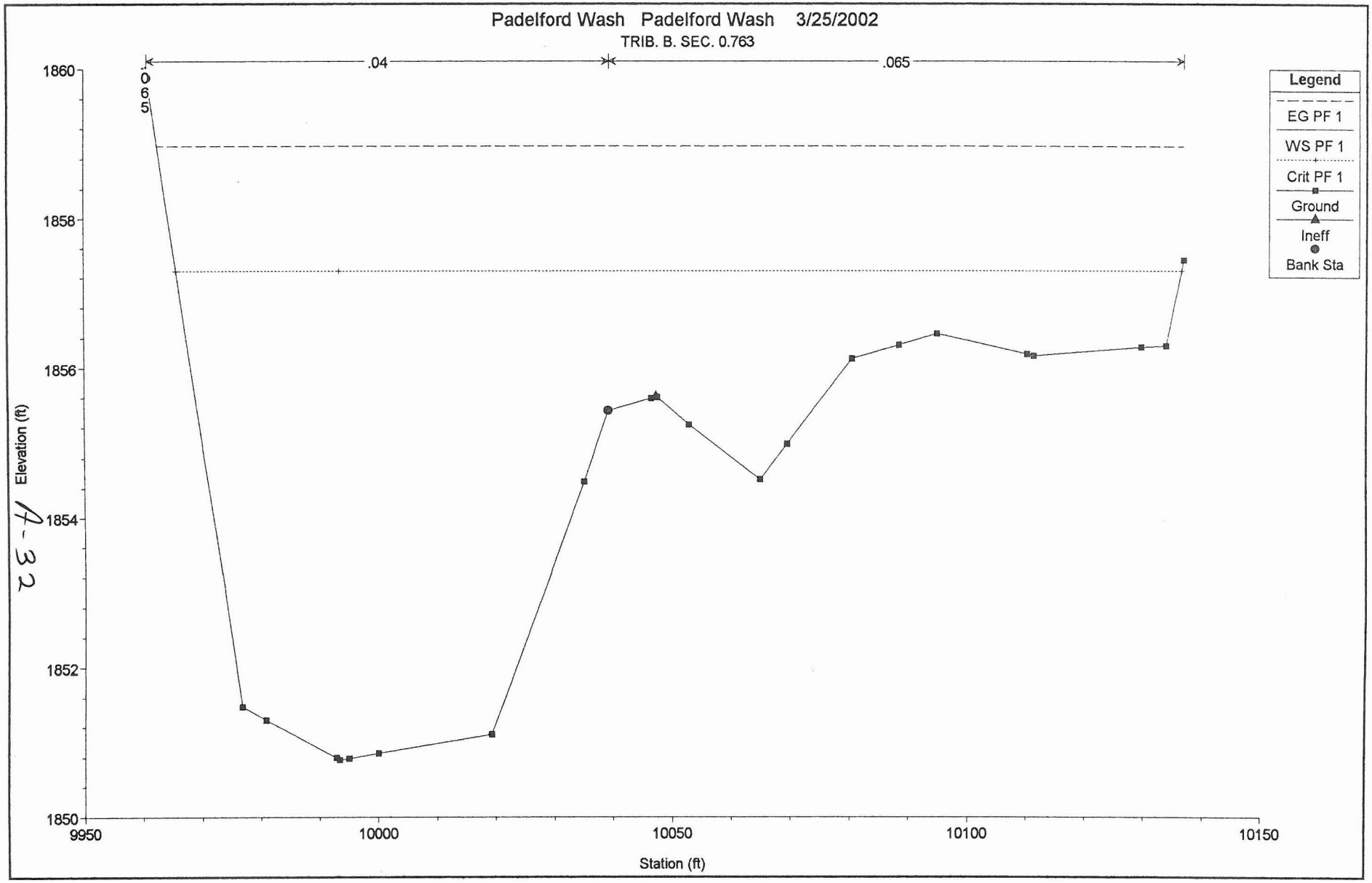

Padelford Wash Padelford Wash 3/25/2002
TRIB. B. SEC. 0.488
.065
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1846
1844
1842
1840
1838
1836
1834
1832
1830
1828
9700
9750
9800
9850
9900
9950
10000
10050
4-29


Padelford Wash Padelford Wash 3/25/2002
TRIB. B. SEC. 0.577
.065
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1854
1852
1850
1848
1846
1844
1842
1840
1838
1836
1834
9950
10000
10050
10100
10150
10200
10250

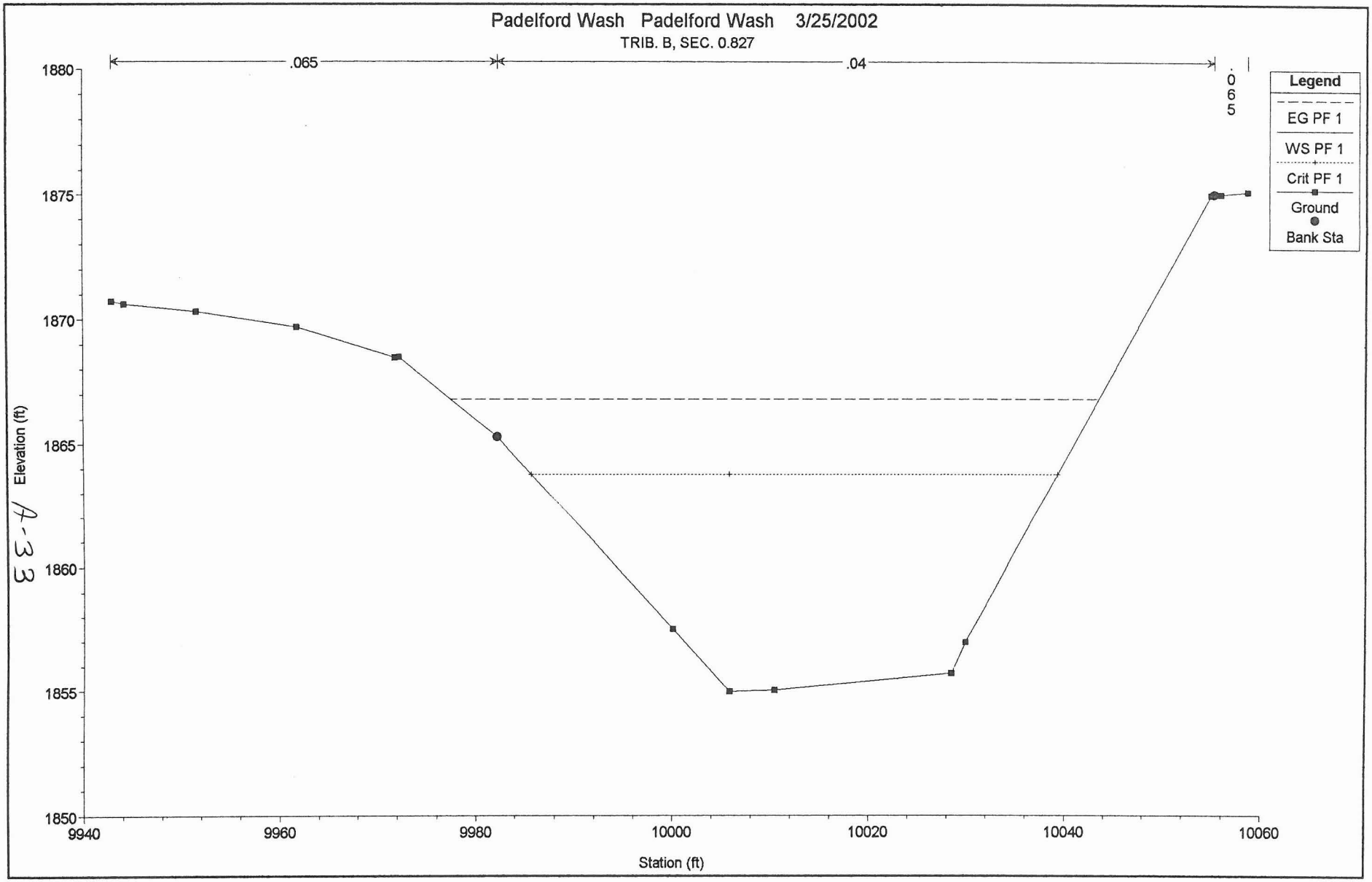
H-30


Padelford Wash Padelford Wash 3/25/2002
TRIB. B. SEC. 0.668
.065
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1858
1856
1854
1852
1850
1848
1846
1844
9860
9880
9900
9920
9940
9960
9980
10000
10020
10040

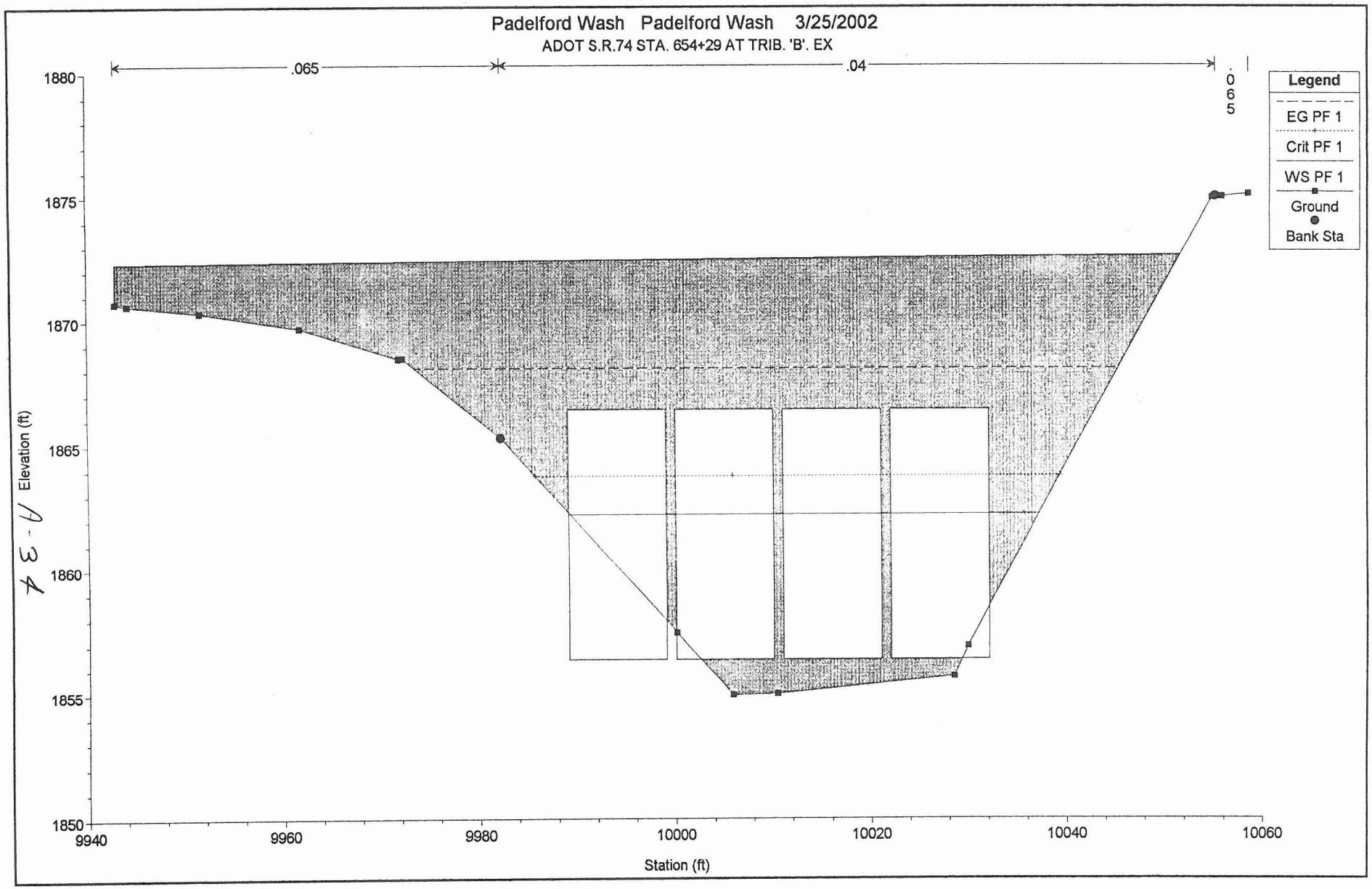
A-31


Padelford Wash Padelford Wash 3/25/2002
TRIB. B. SEC. 0.763
.04
.065
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (ft)
1860
1858
1856
1854
1852
1850
9950
10000
10050
10100
10150
Station (ft)

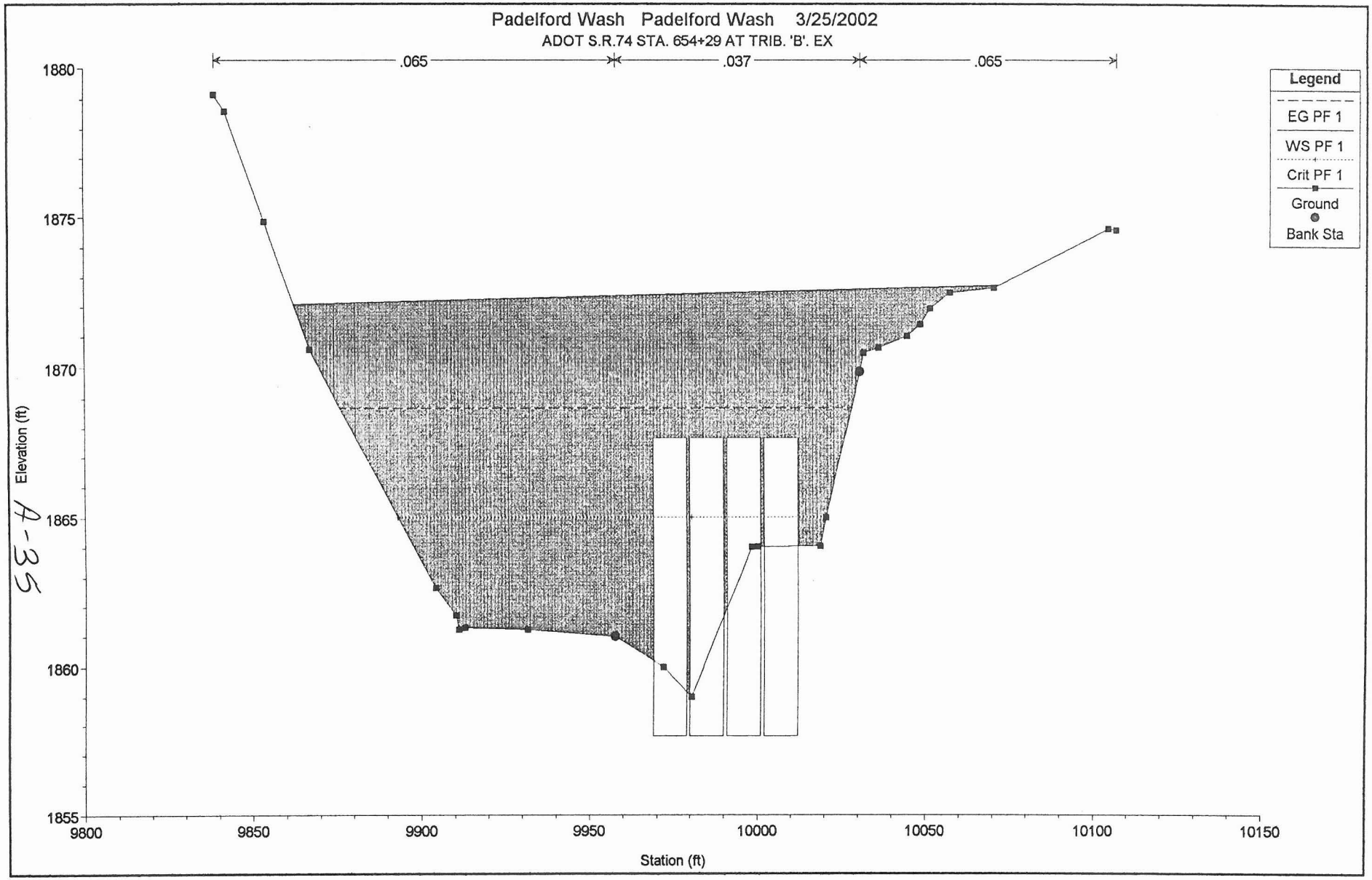
A-32


Padelford Wash Padelford Wash 3/25/2002
TRIB. B, SEC. 0.827
.065
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1880
1875
1870
1865
1860
1855
1850
9940
9960
9980
10000
10020
10040
10060

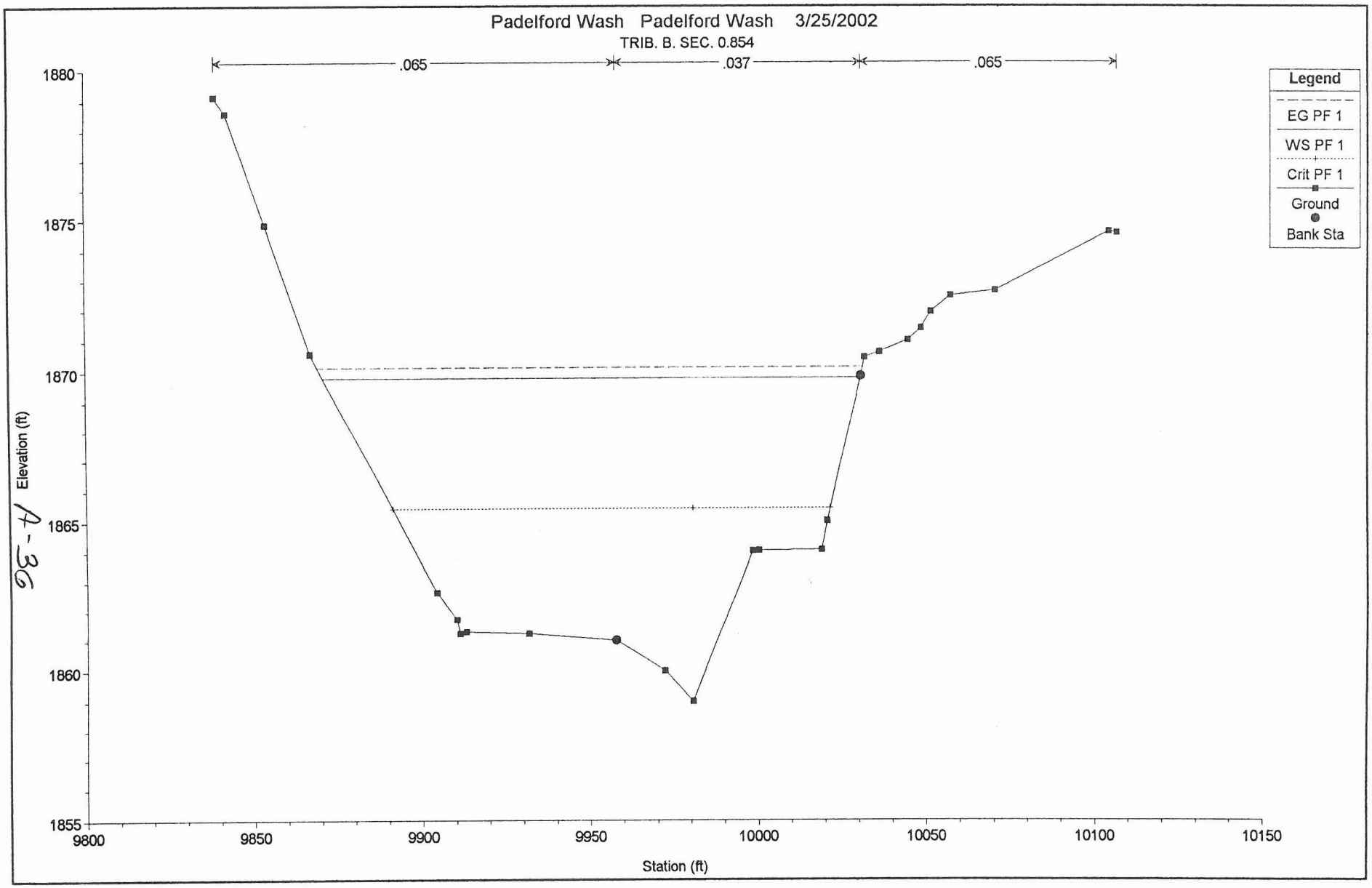
A-33


Padelford Wash Padelford Wash 3/25/2002
ADOT S.R.74 STA. 654+29 AT TRIB. 'B'. EX
.065
.04
.065
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1880
1875
1870
1865
1860
1855
1850
9940
9960
9980
10000
10020
10040
10060
Station (ft)

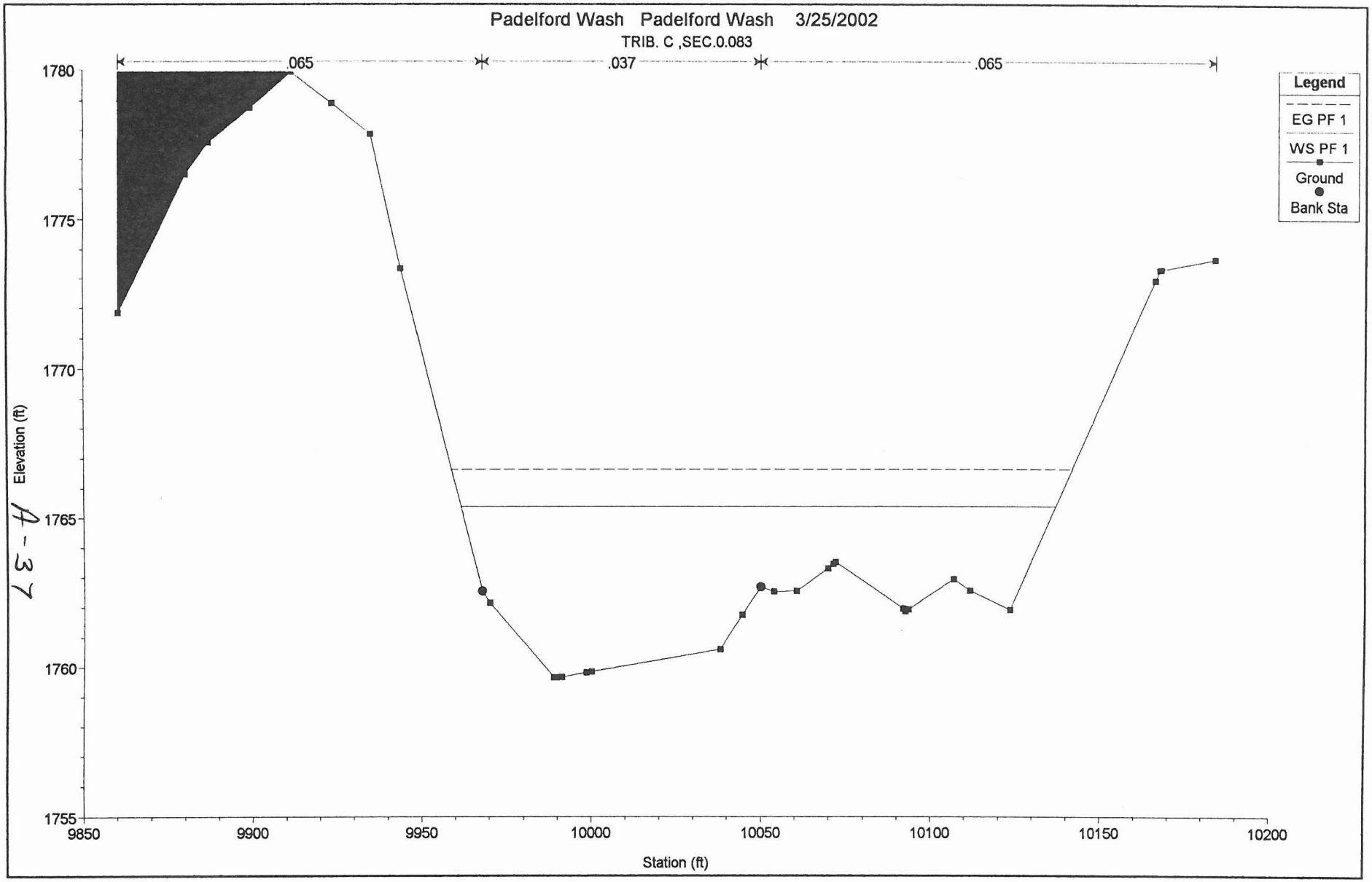
A-34


Padelford Wash Padelford Wash 3/25/2002
ADOT S.R.74 STA. 654+29 AT TRIB. 'B'. EX
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1880
1875
1870
1865
1860
1855
9800
9850
9900
9950
10000
10050
10100
10150

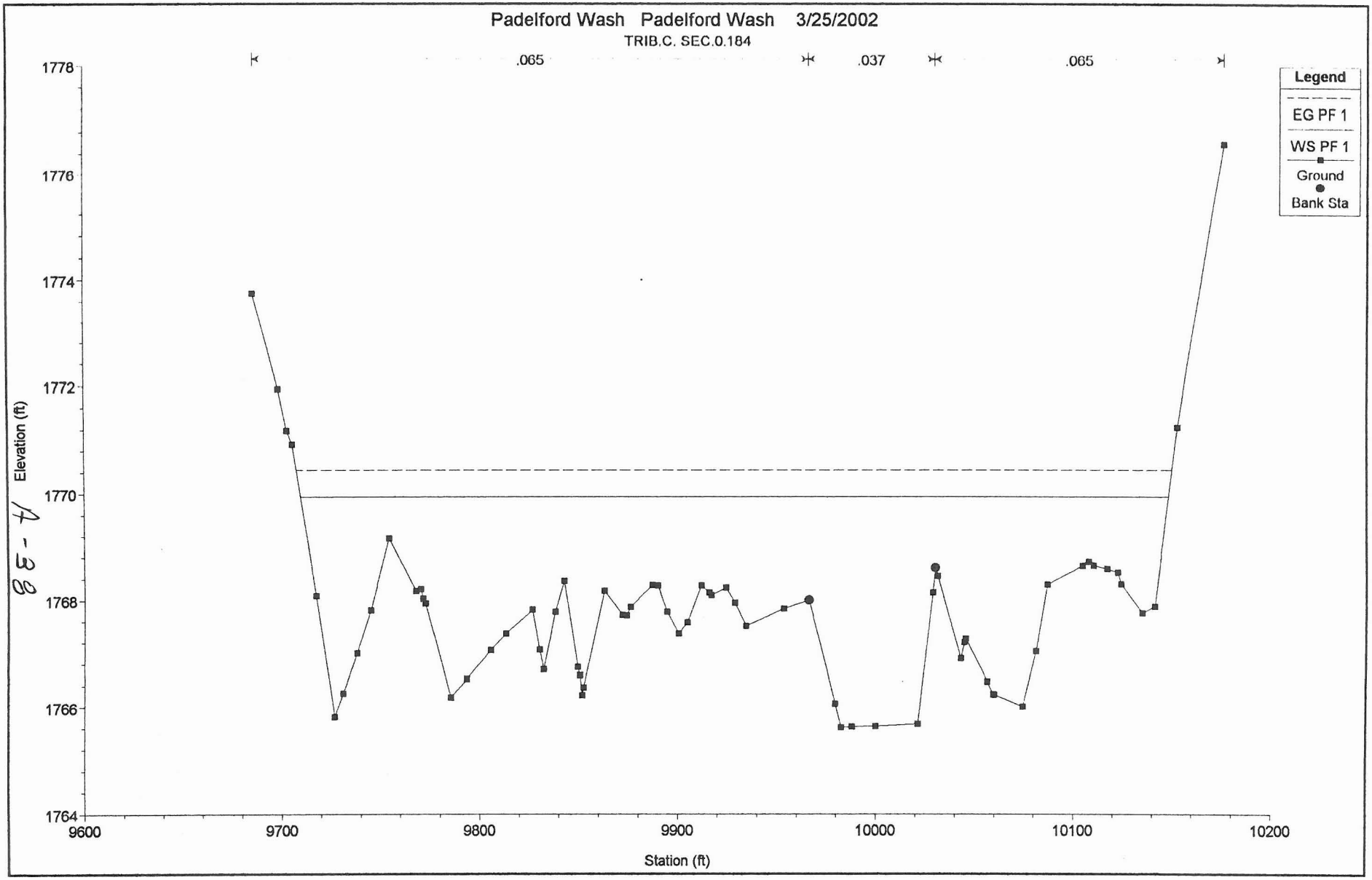
A-35

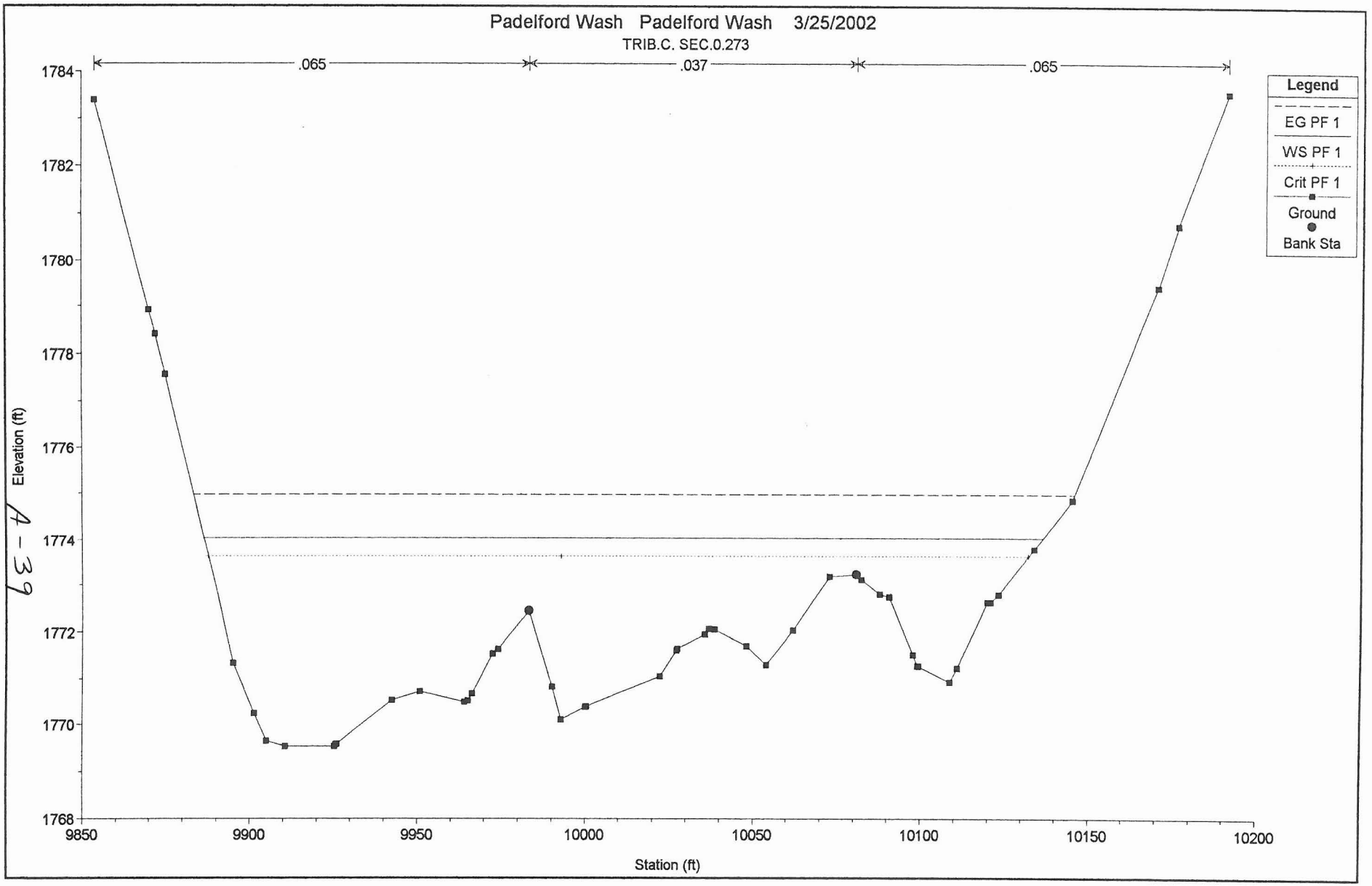

Padelford Wash Padelford Wash 3/25/2002
TRIB. B. SEC. 0.854
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1880
1875
1870
1865
1860
1855
9800
9850
9900
9950
10000
10050
10100
10150

4-36

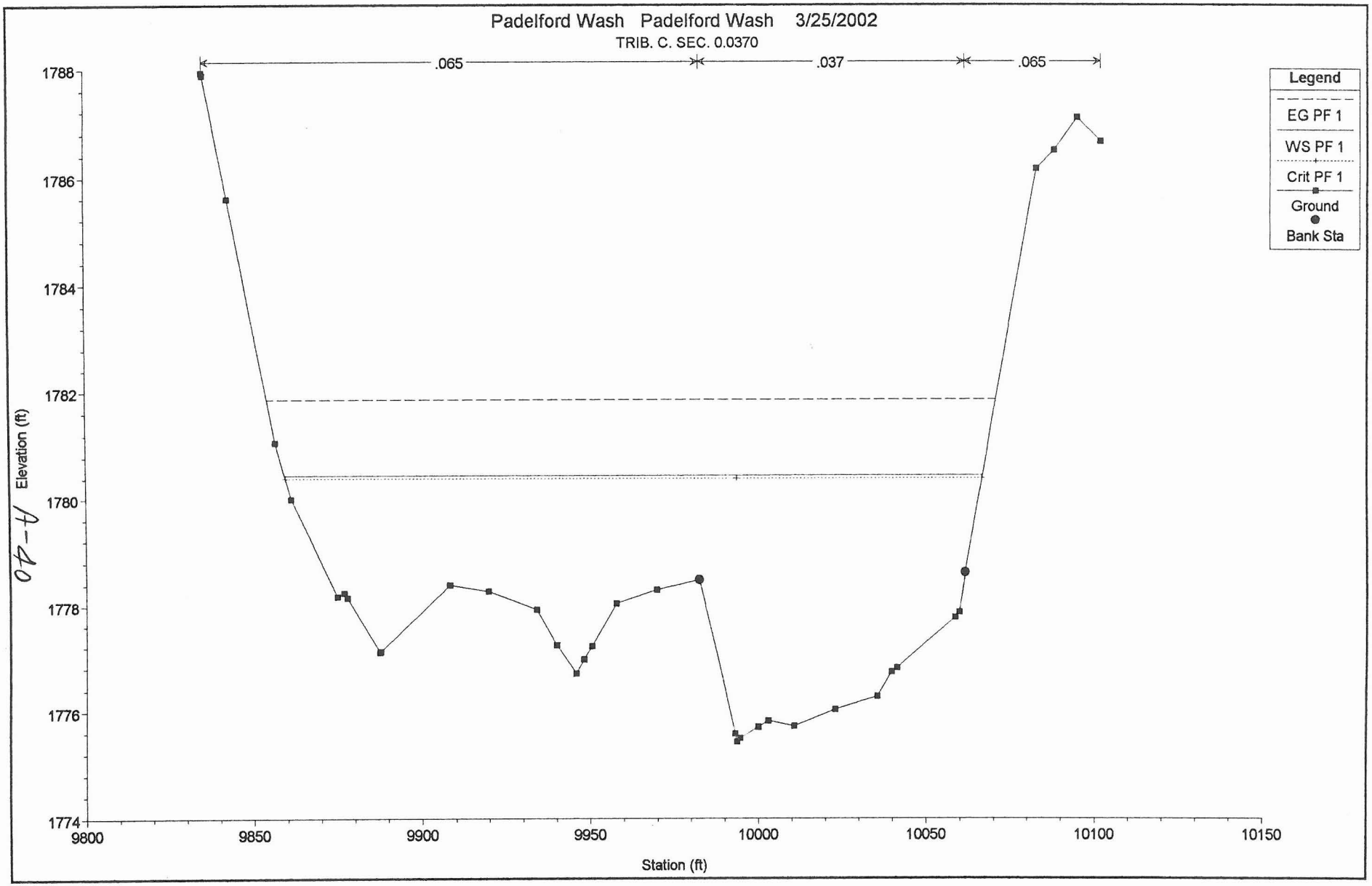

Padelford Wash Padelford Wash 3/25/2002
TRIB. C ,SEC.0.083
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1780
1775
1770
1765
1760
1755
Elevation (ft)
9850
9900
9950
10000
10050
10100
10150
10200
Station (ft)

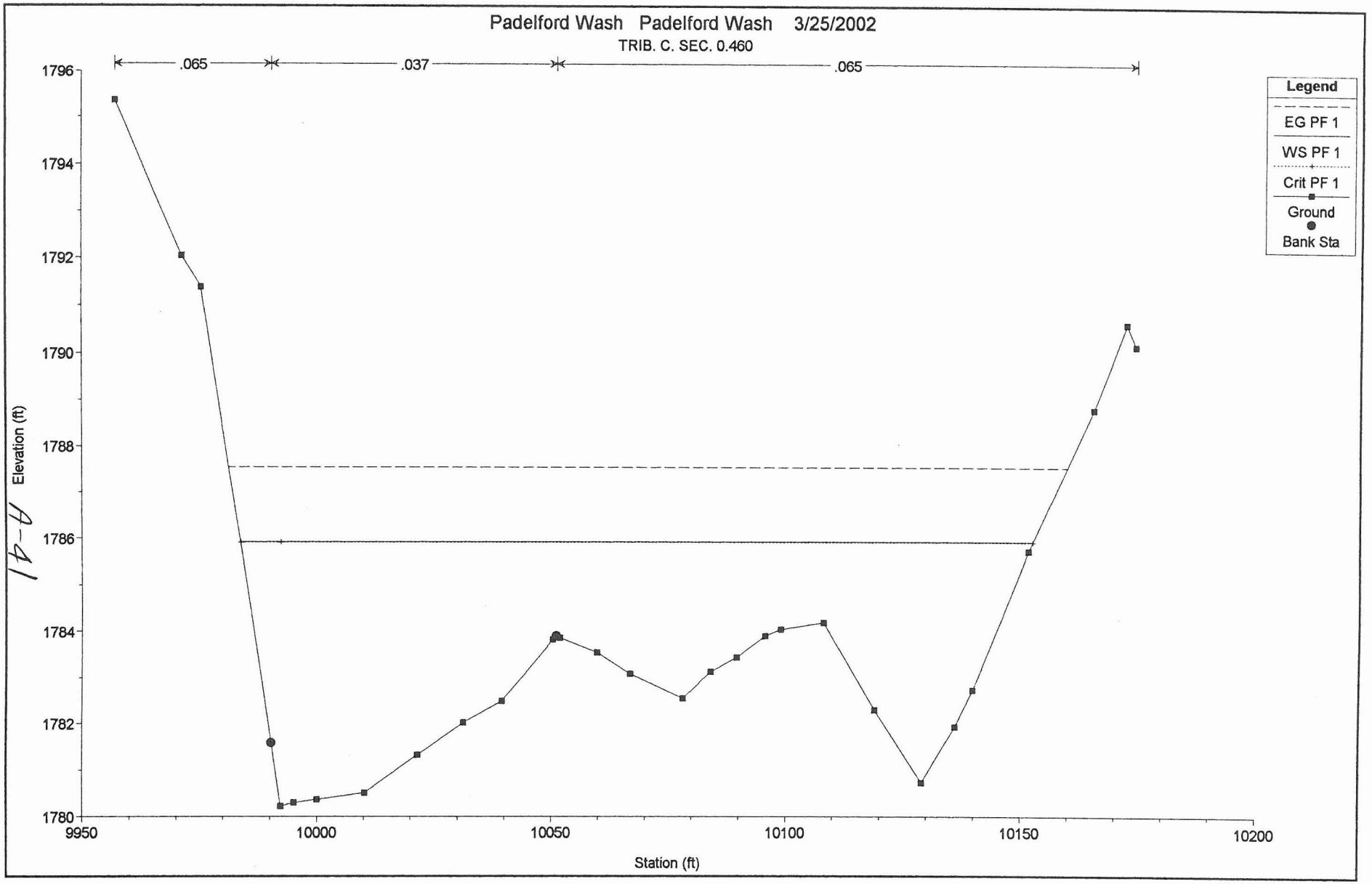
4-37


Padelford Wash Padelford Wash 3/25/2002
TRIB.C. SEC.0.184
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1778
1776
1774
1772
1770
1768
1766
1764
9600
9700
9800
9900
10000
10100
10200
88-4

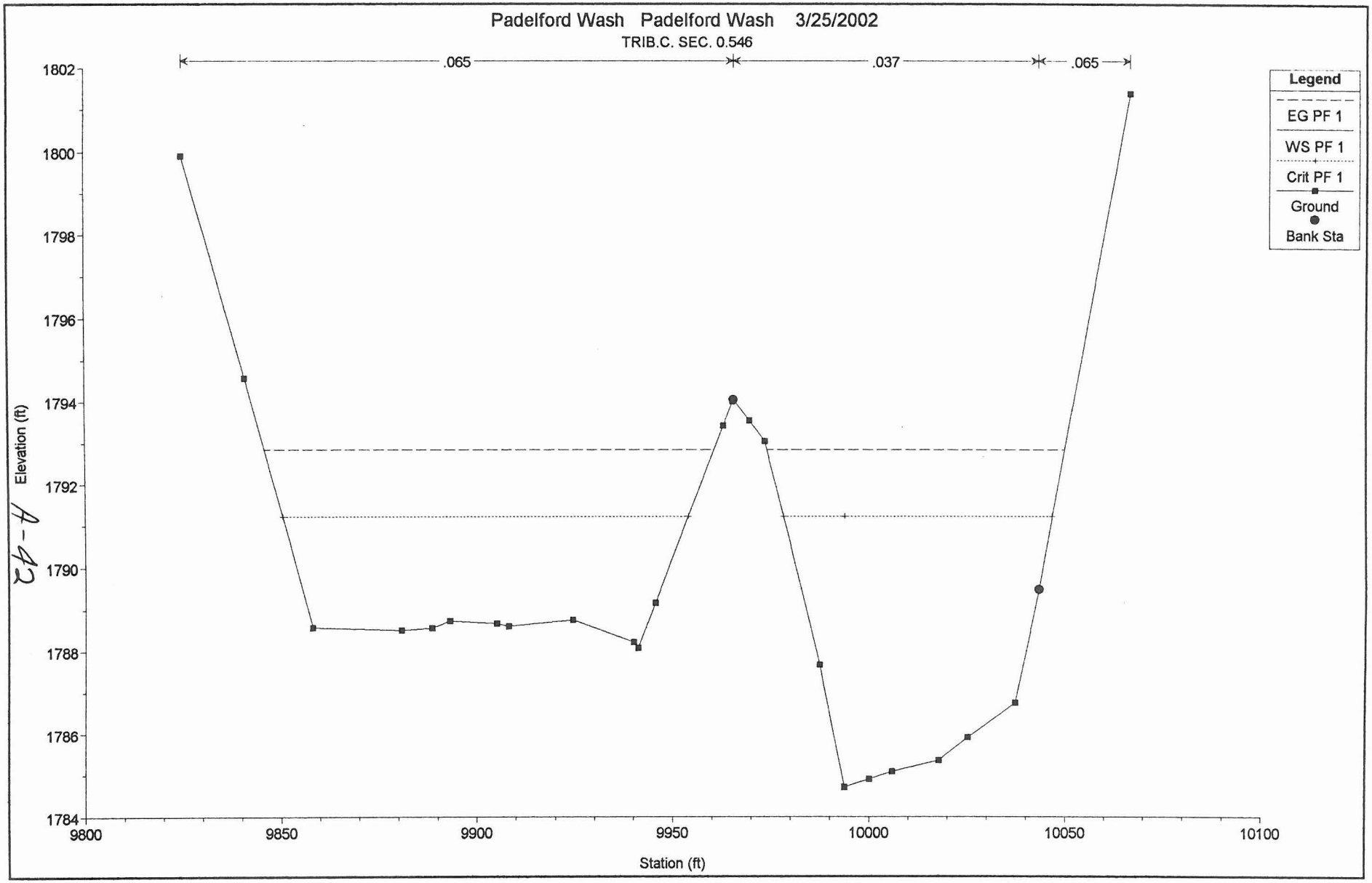

Padelford Wash Padelford Wash 3/25/2002
TRIB.C. SEC.0.273
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1784
1782
1780
1778
1776
1774
1772
1770
1768
9850
9900
9950
10000
10050
10100
10150
10200
Station (ft)

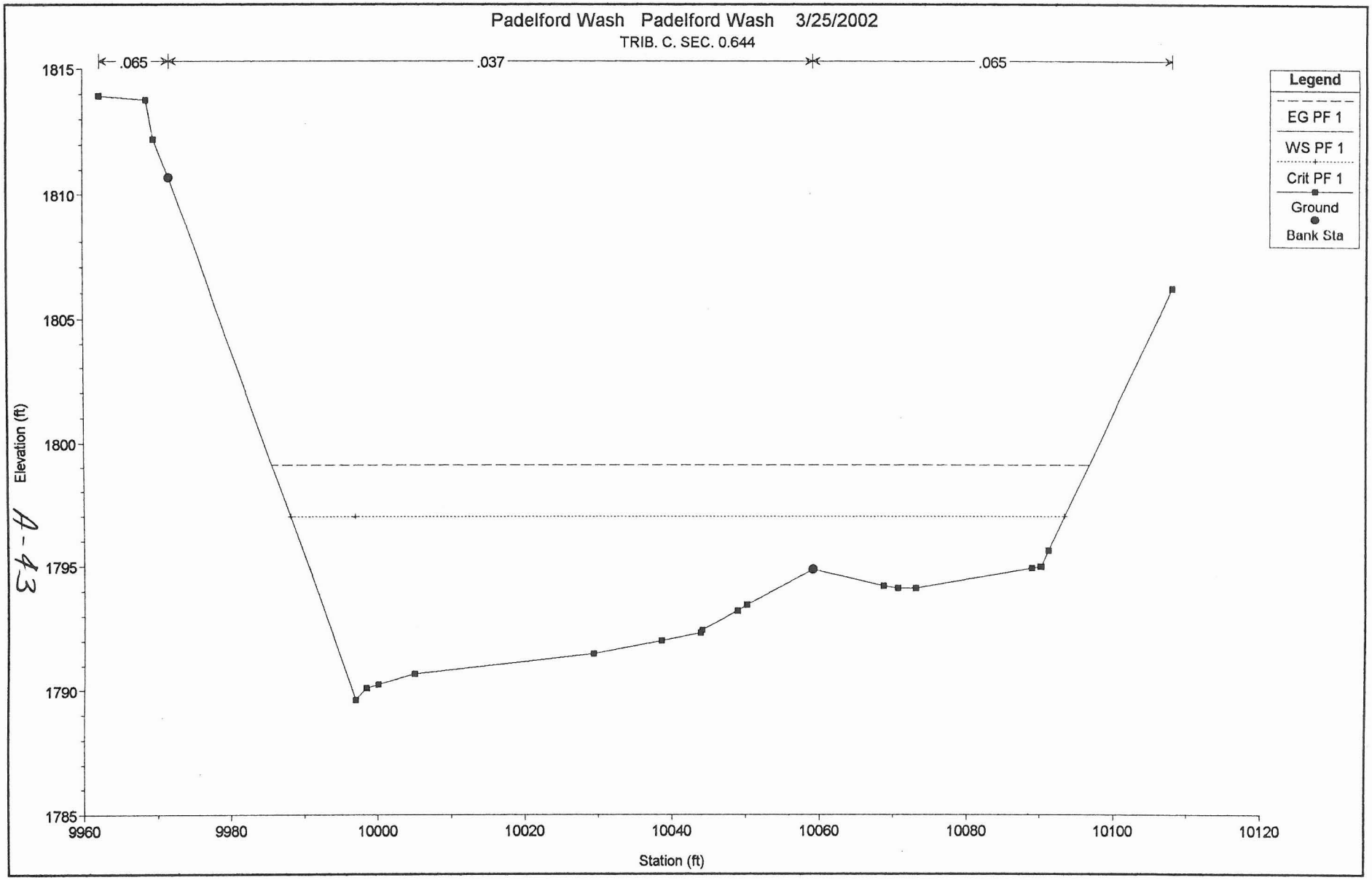
A-39


Padelford Wash Padelford Wash 3/25/2002
TRIB. C. SEC. 0.0370
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1788
1786
1784
1782
1780
1778
1776
1774
9800
9850
9900
9950
10000
10050
10100
10150
A-40

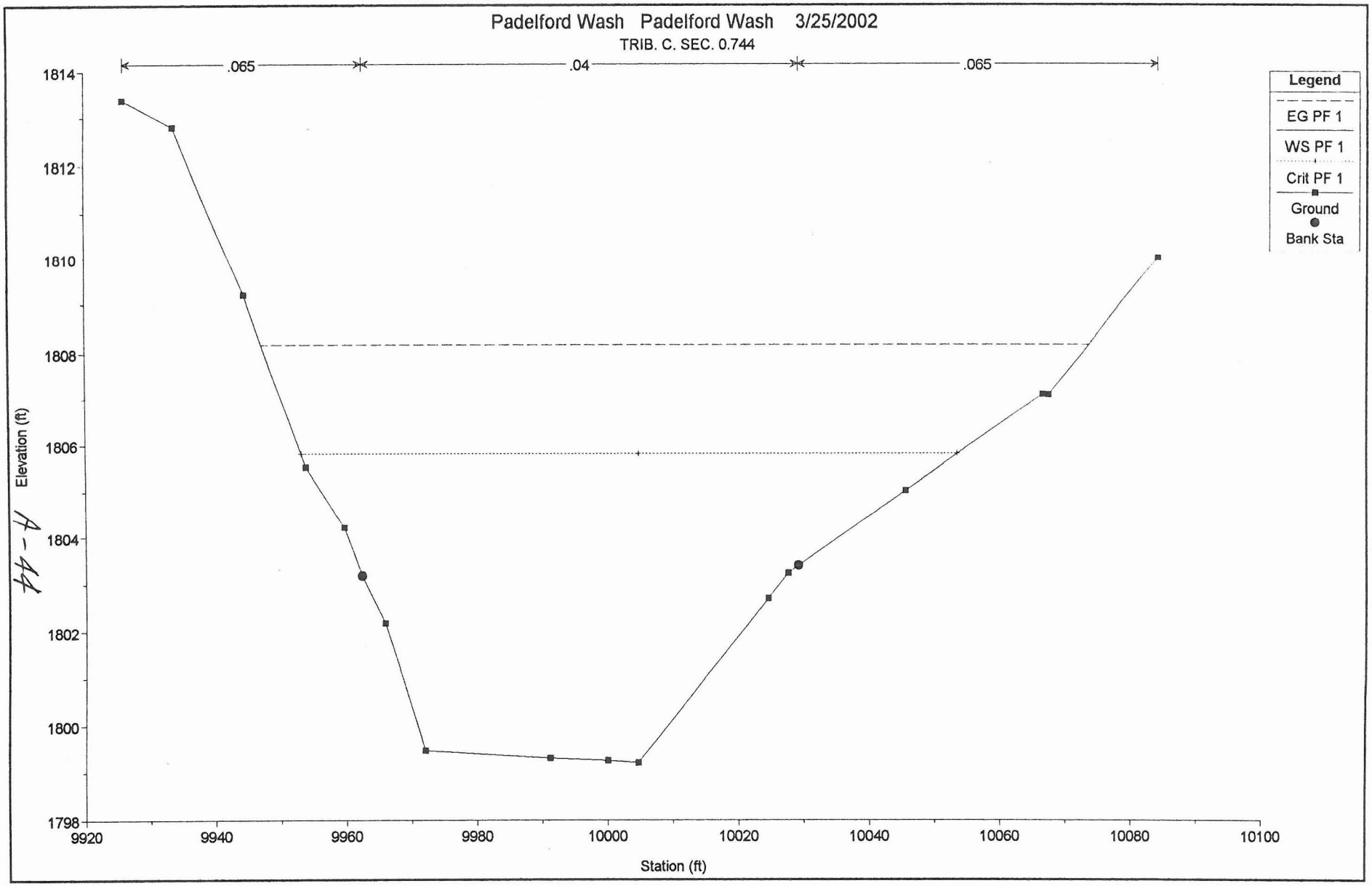

Padelford Wash Padelford Wash 3/25/2002
TRIB. C. SEC. 0.460
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1796
1794
1792
1790
1788
1786
1784
1782
1780
9950
10000
10050
10100
10150
10200
Station (ft)

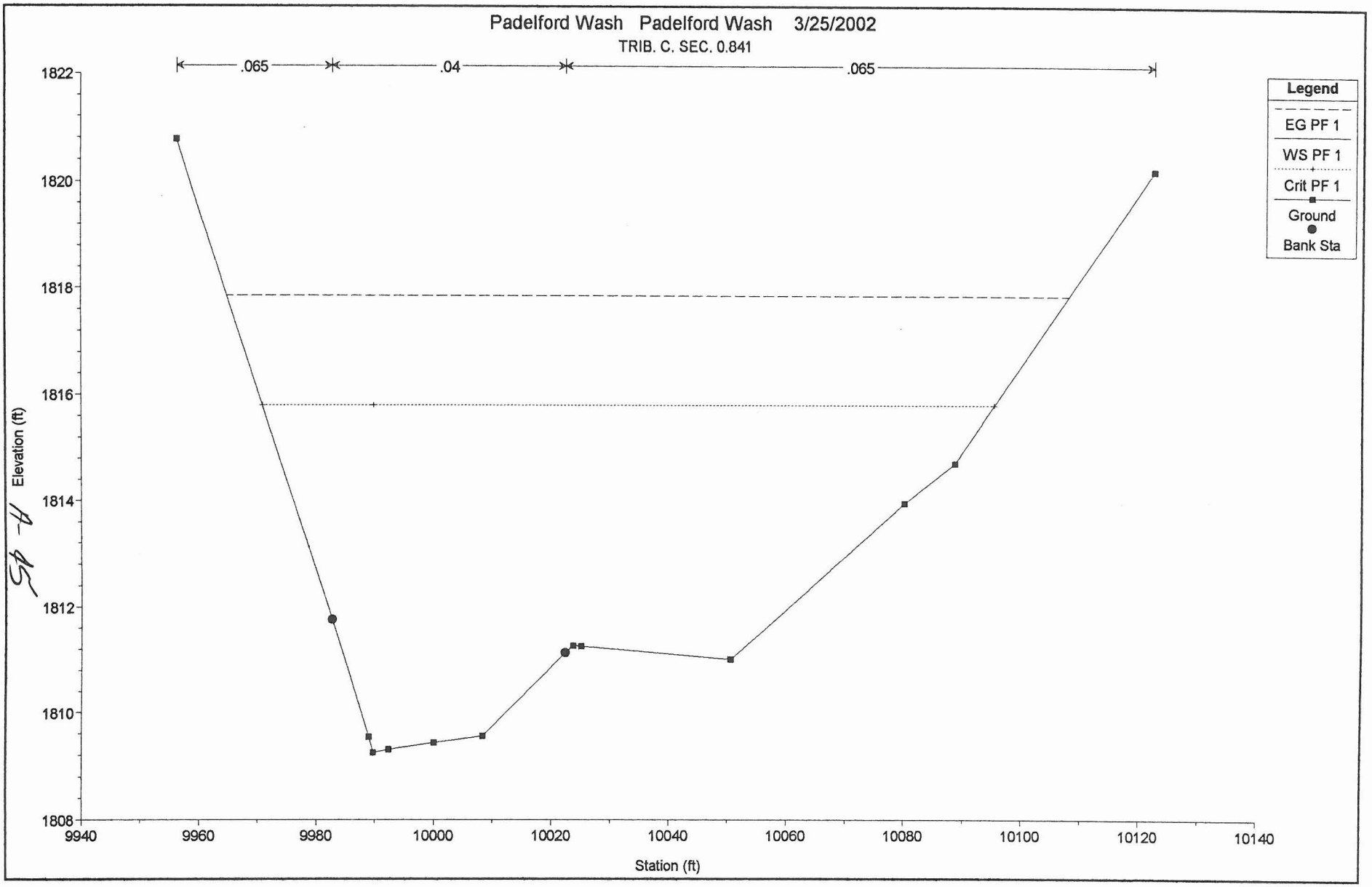
18-4

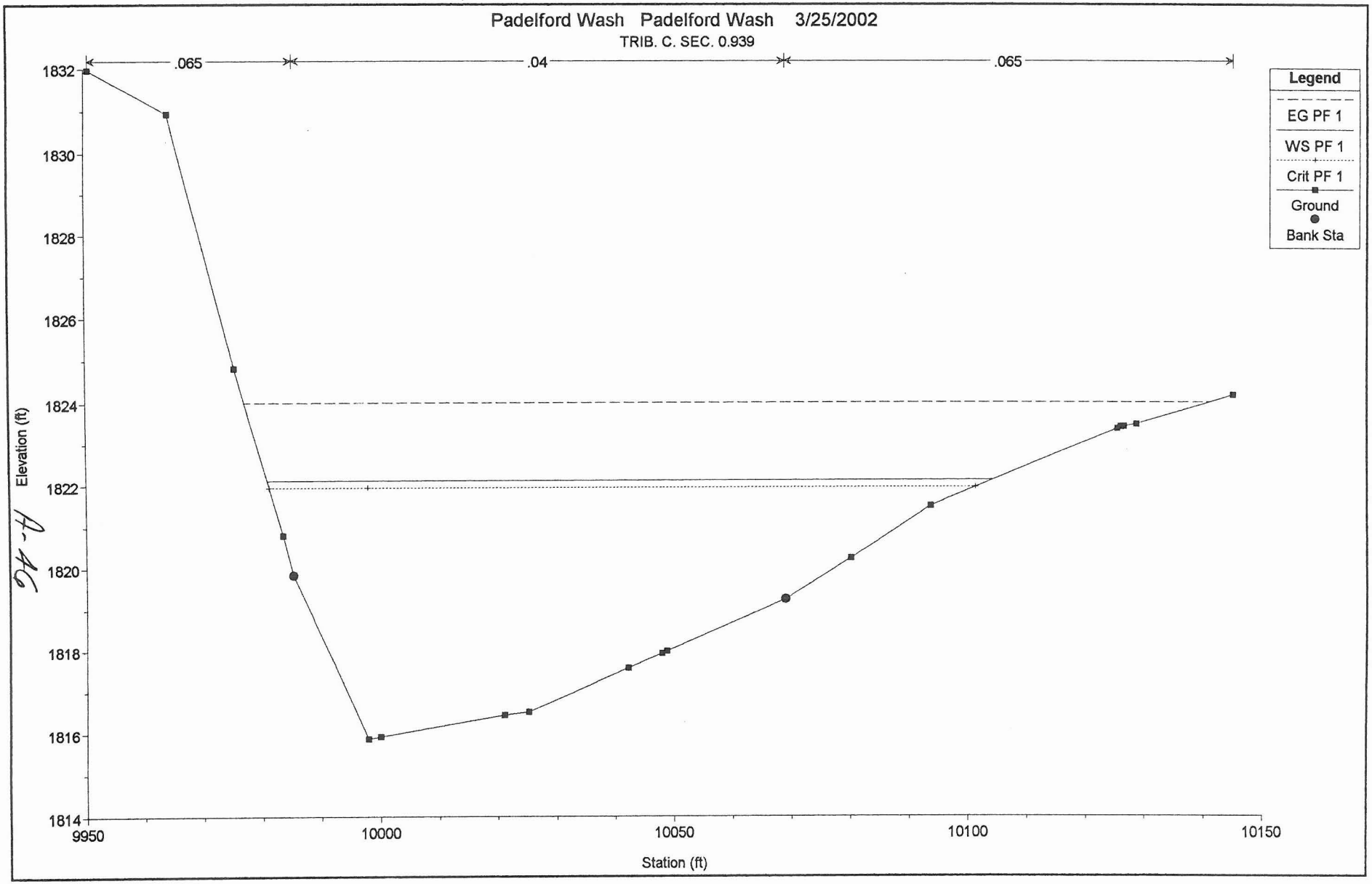

Padelford Wash Padelford Wash 3/25/2002
TRIB.C. SEC. 0.546
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1802
1800
1798
1796
1794
1792
1790
1788
1786
1784
9800
9850
9900
9950
10000
10050
10100

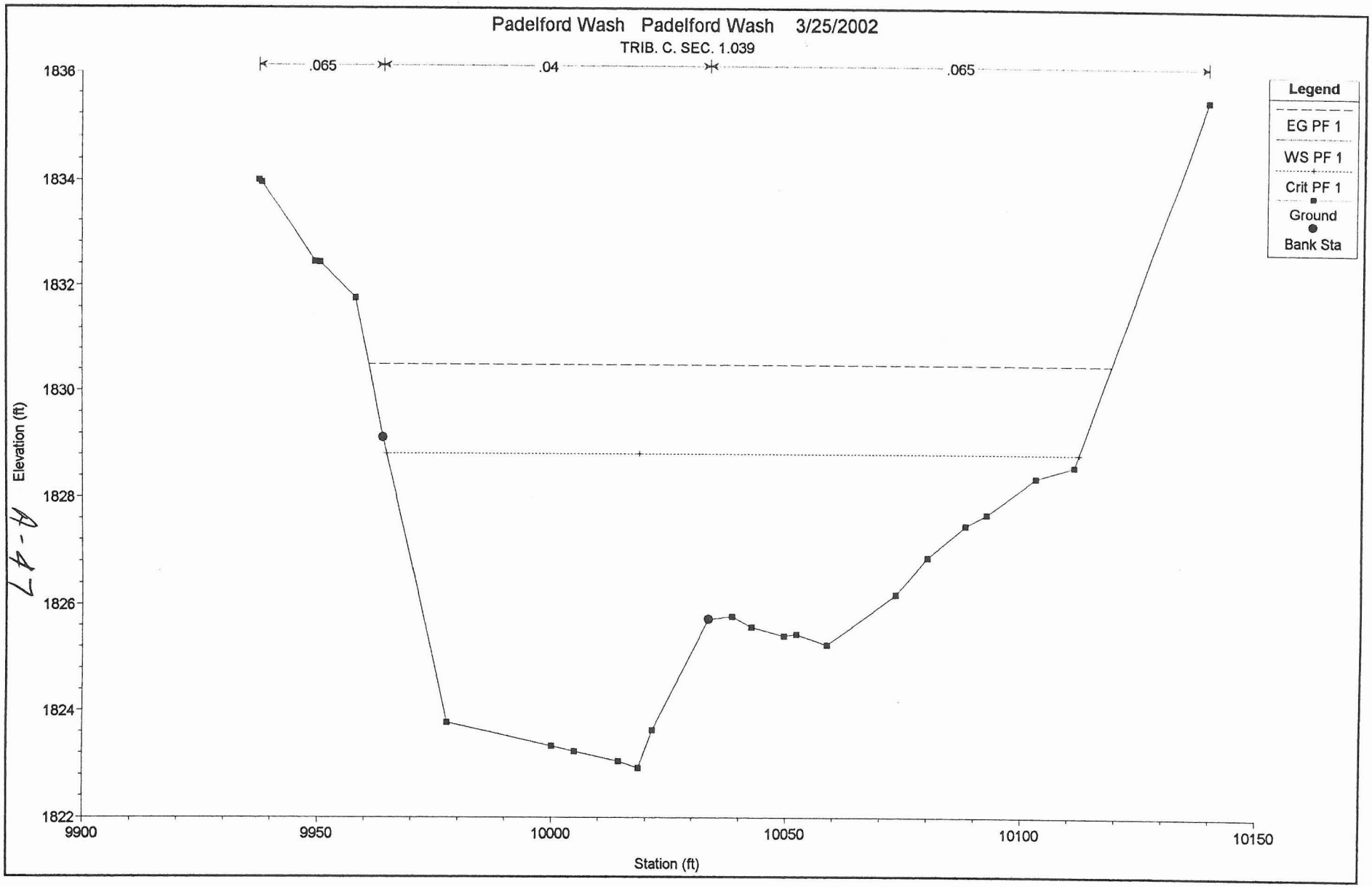

Padelford Wash Padelford Wash 3/25/2002
TRIB. C. SEC. 0.644
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1815
1810
1805
1800
1795
1790
1785
9960
9980
10000
10020
10040
10060
10080
10100
10120
Station (ft)

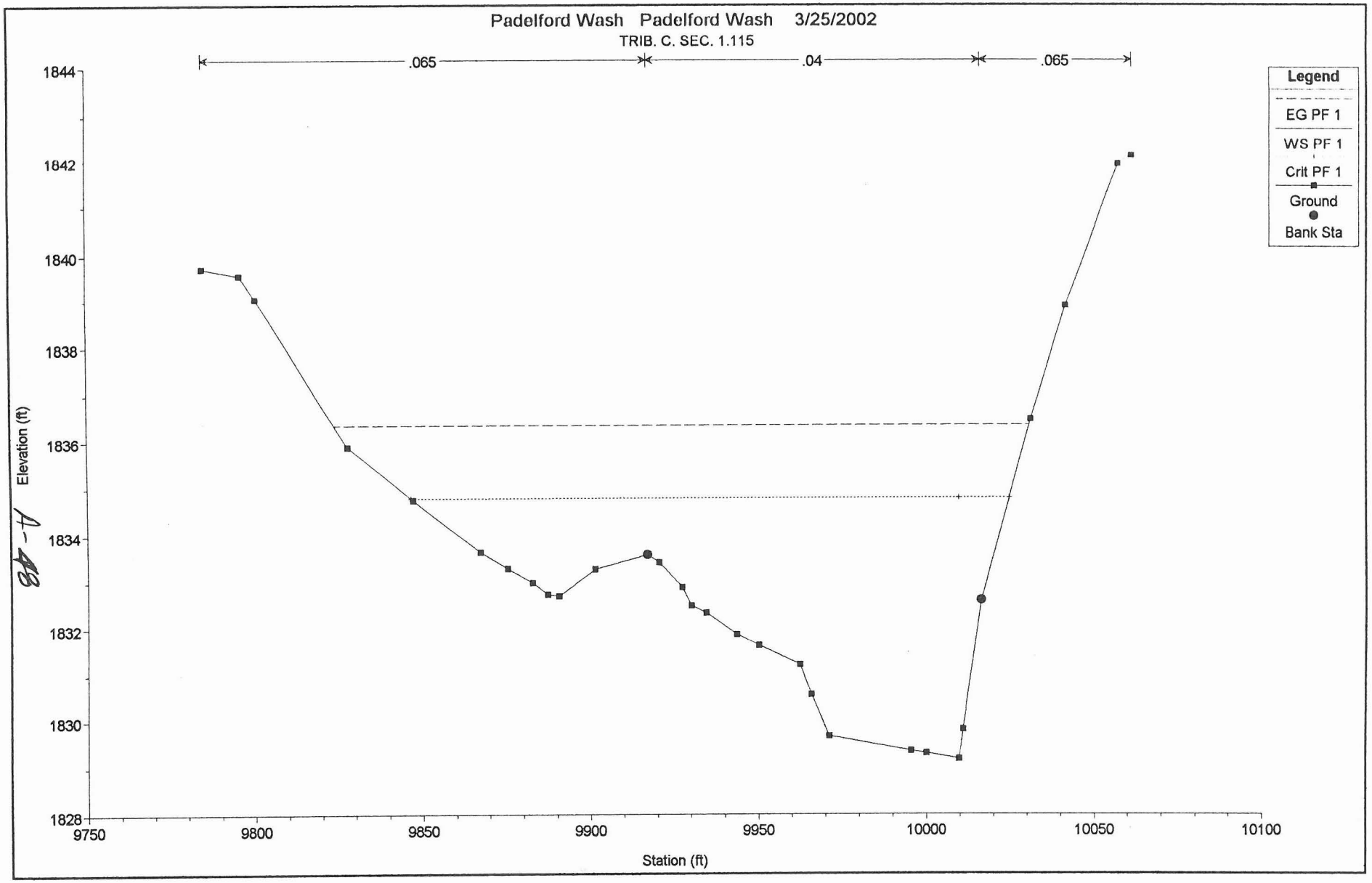
A-43

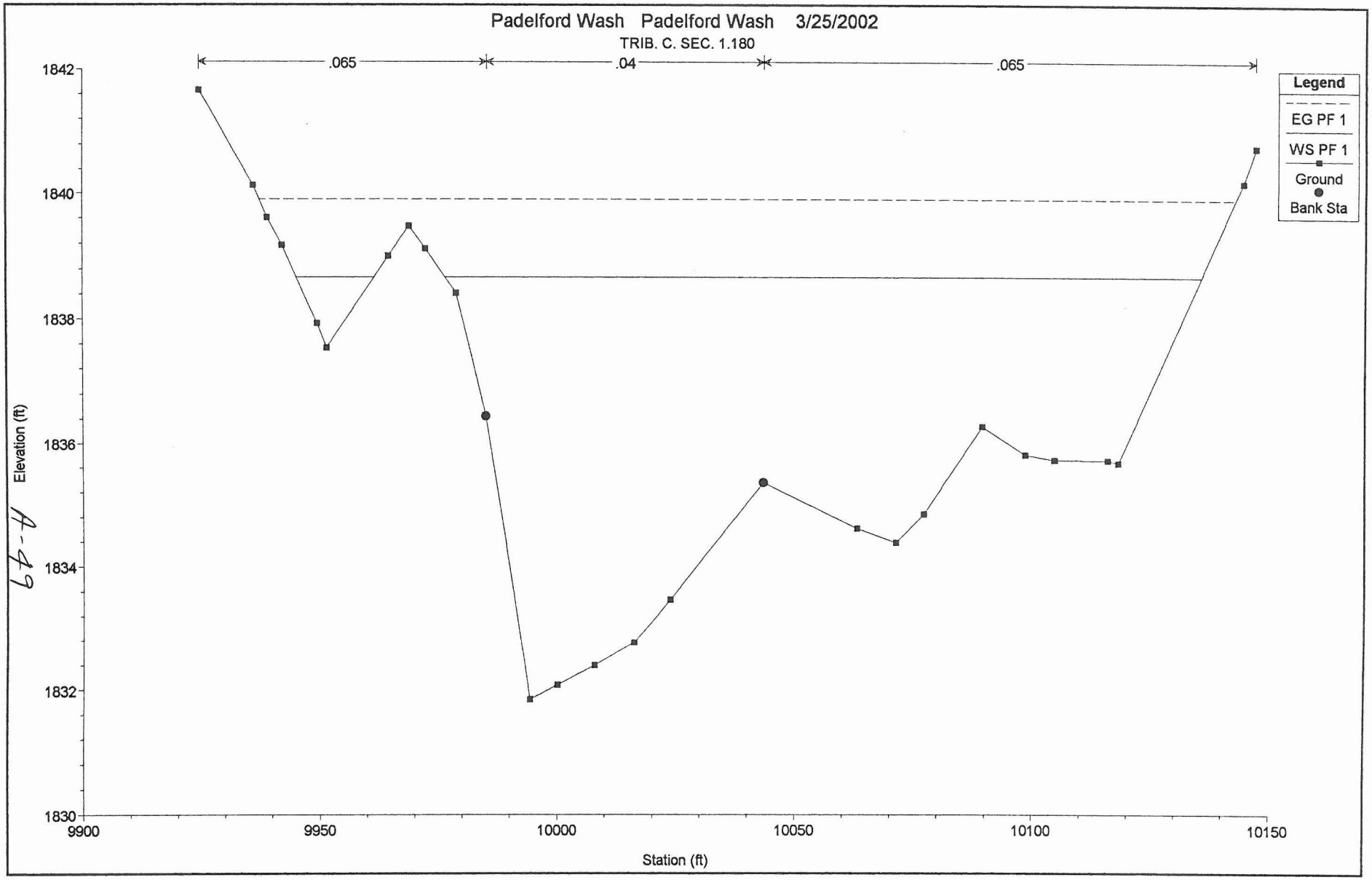

Padelford Wash Padelford Wash 3/25/2002
TRIB. C. SEC. 0.744
.065
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1814
1812
1810
1808
1806
1804
1802
1800
1798
9920
9940
9960
9980
10000
10020
10040
10060
10080
10100


Padelford Wash Padelford Wash 3/25/2002
TRIB. C. SEC. 0.841
.065
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1822
1820
1818
1816
1814
1812
1810
1808
9940
9960
9980
10000
10020
10040
10060
10080
10100
10120
10140

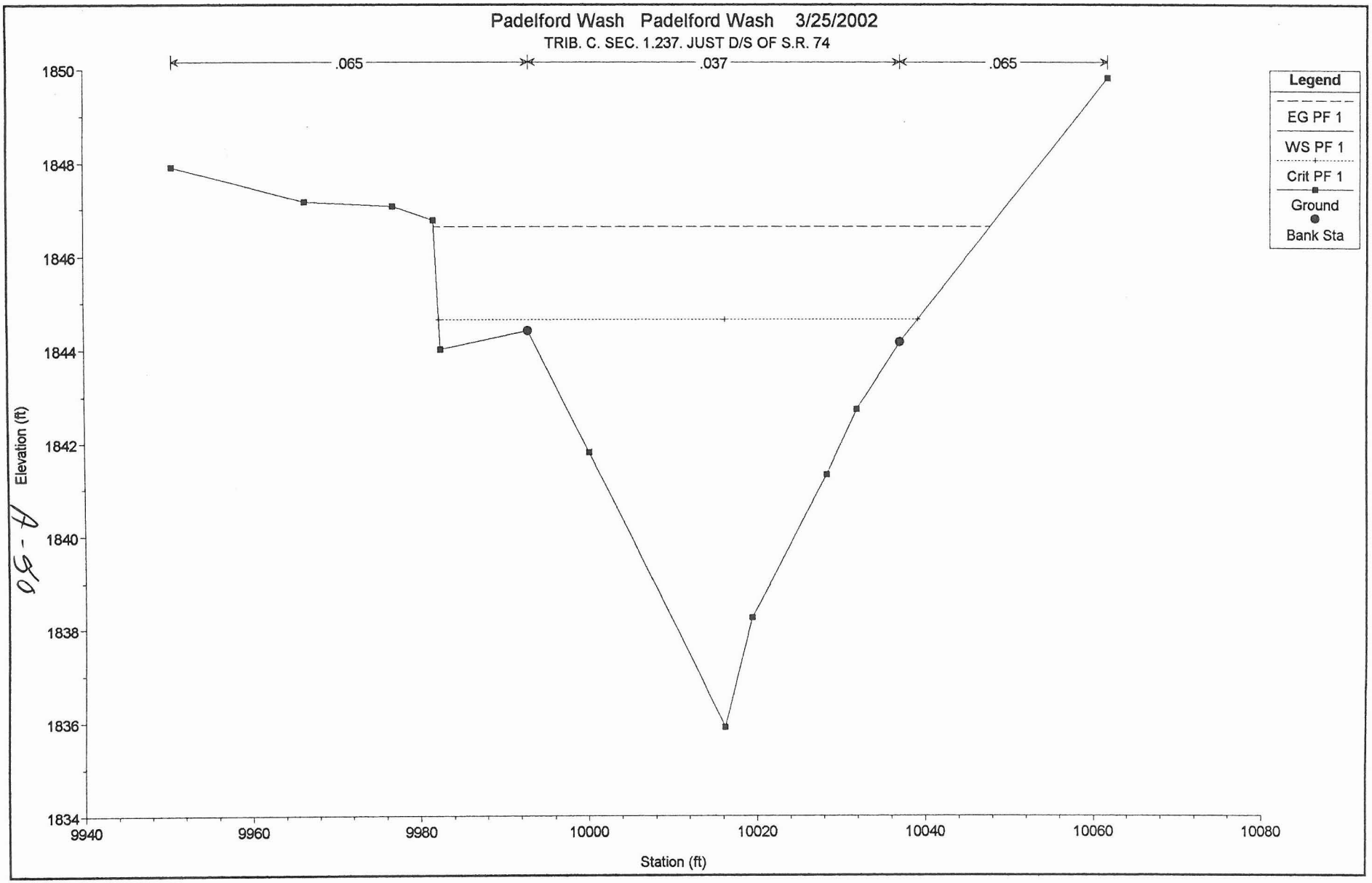

Padelford Wash Padelford Wash 3/25/2002
TRIB. C. SEC. 0.939
.065
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1832
1830
1828
1826
1824
1822
1820
1818
1816
1814
9950
10000
10050
10100
10150
Station (ft)


Padelford Wash Padelford Wash 3/25/2002
TRIB. C. SEC. 1.039
.065
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1836
1834
1832
1830
1828
1826
1824
1822
9900
9950
10000
10050
10100
10150

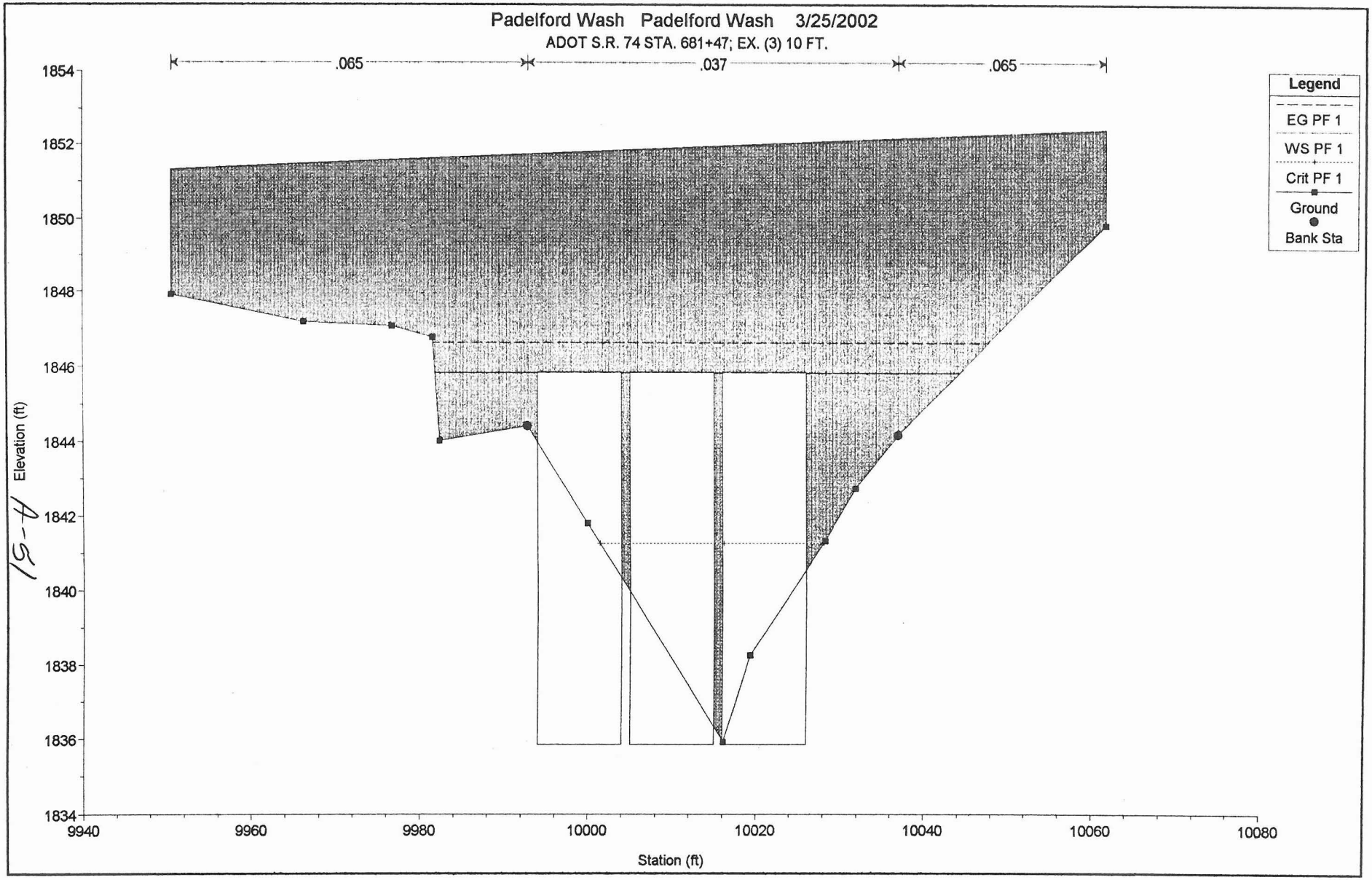

Padelford Wash Padelford Wash 3/25/2002
TRIB. C. SEC. 1.115
.065
.04
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1844
1842
1840
1838
1836
1834
1832
1830
1828
9750
9800
9850
9900
9950
10000
10050
10100


Padelford Wash Padelford Wash 3/25/2002
TRIB. C. SEC. 1.180
.065
.04
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1842
1840
1838
1836
1834
1832
1830
9900
9950
10000
10050
10100
10150
Station (ft)

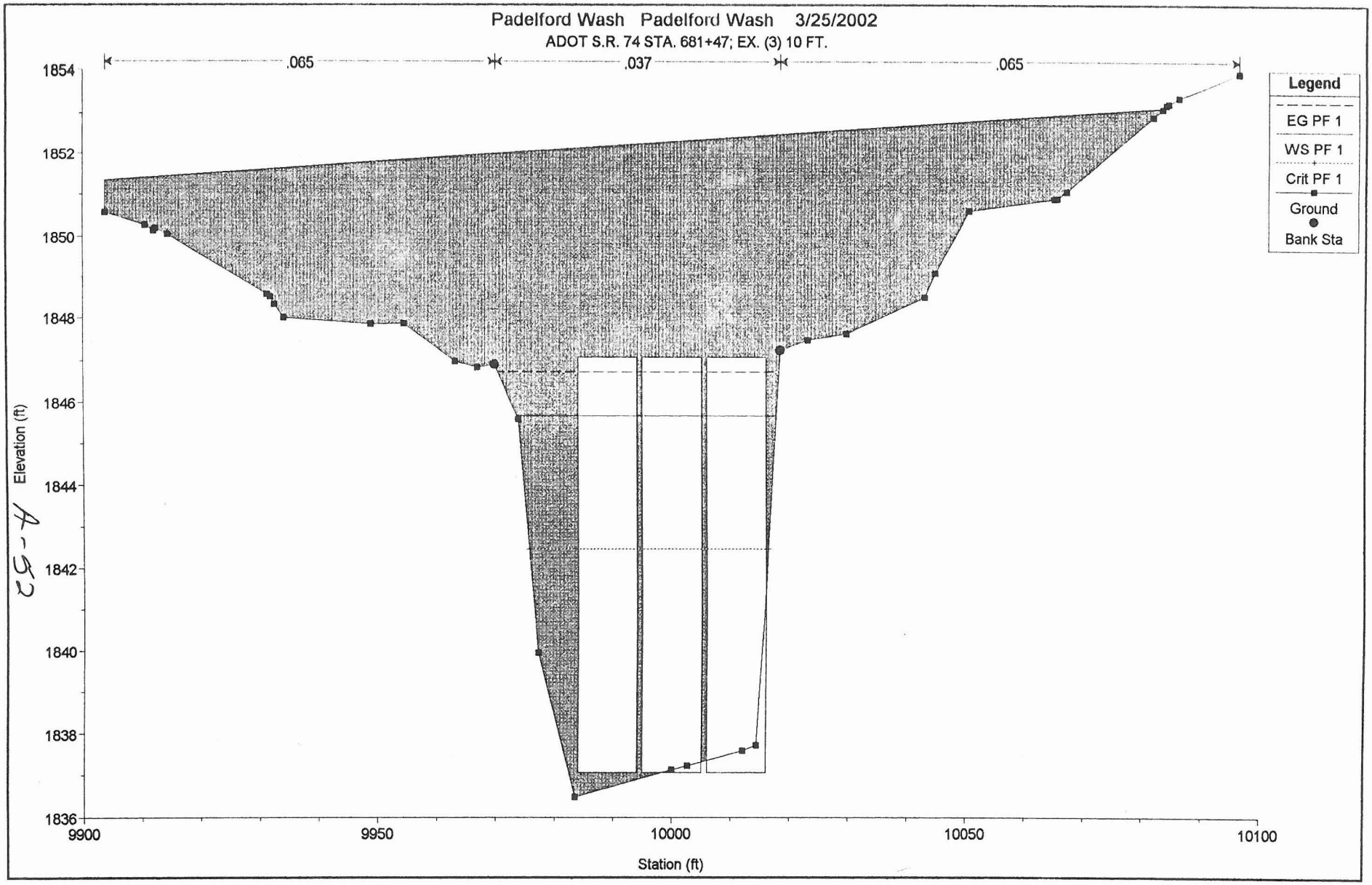
A-49


Padelford Wash Padelford Wash 3/25/2002
TRIB. C. SEC. 1.237. JUST D/S OF S.R. 74
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1850
1848
1846
1844
1842
1840
1838
1836
1834
9940
9960
9980
10000
10020
10040
10060
10080
Station (ft)

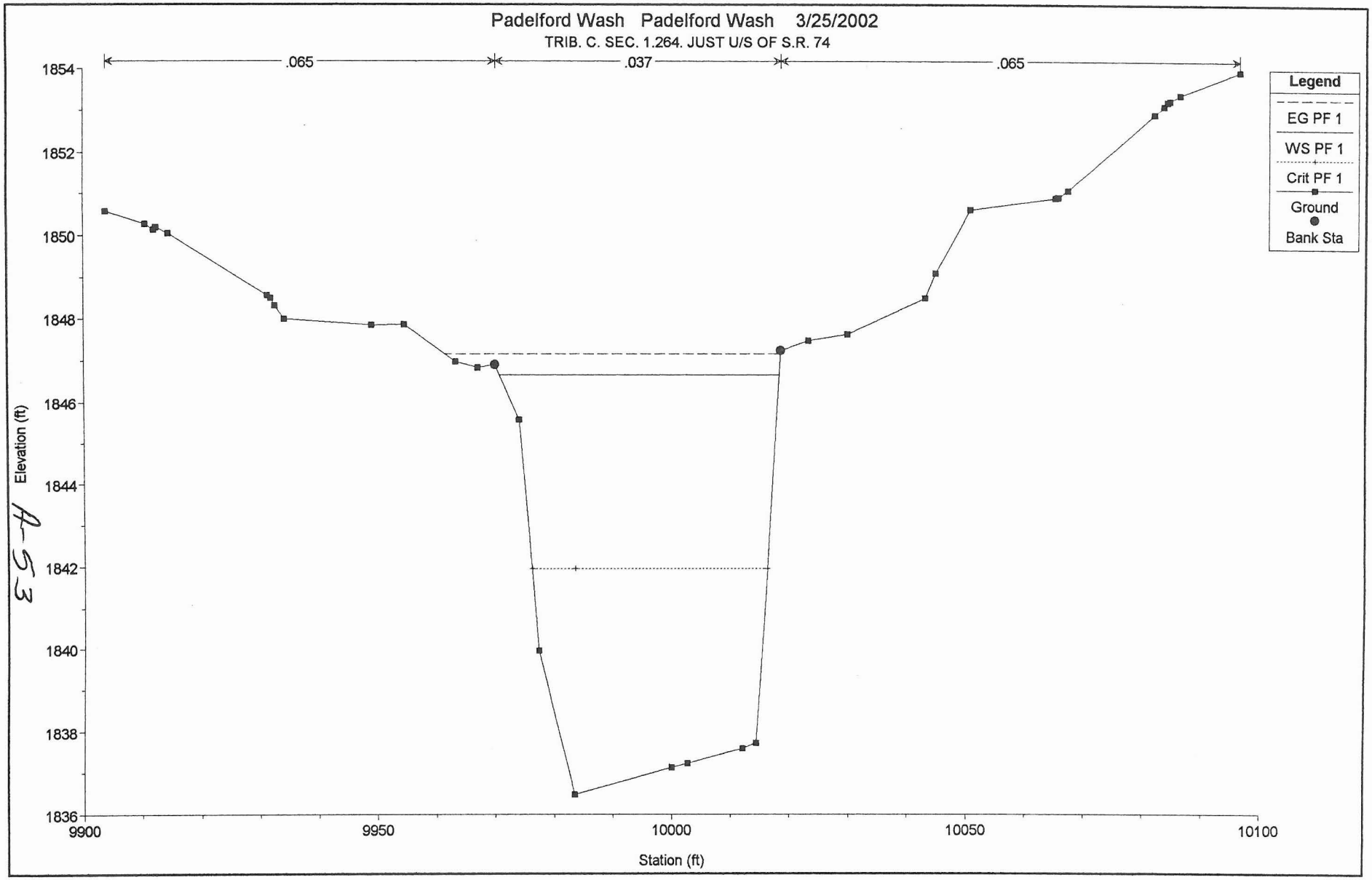
A-50

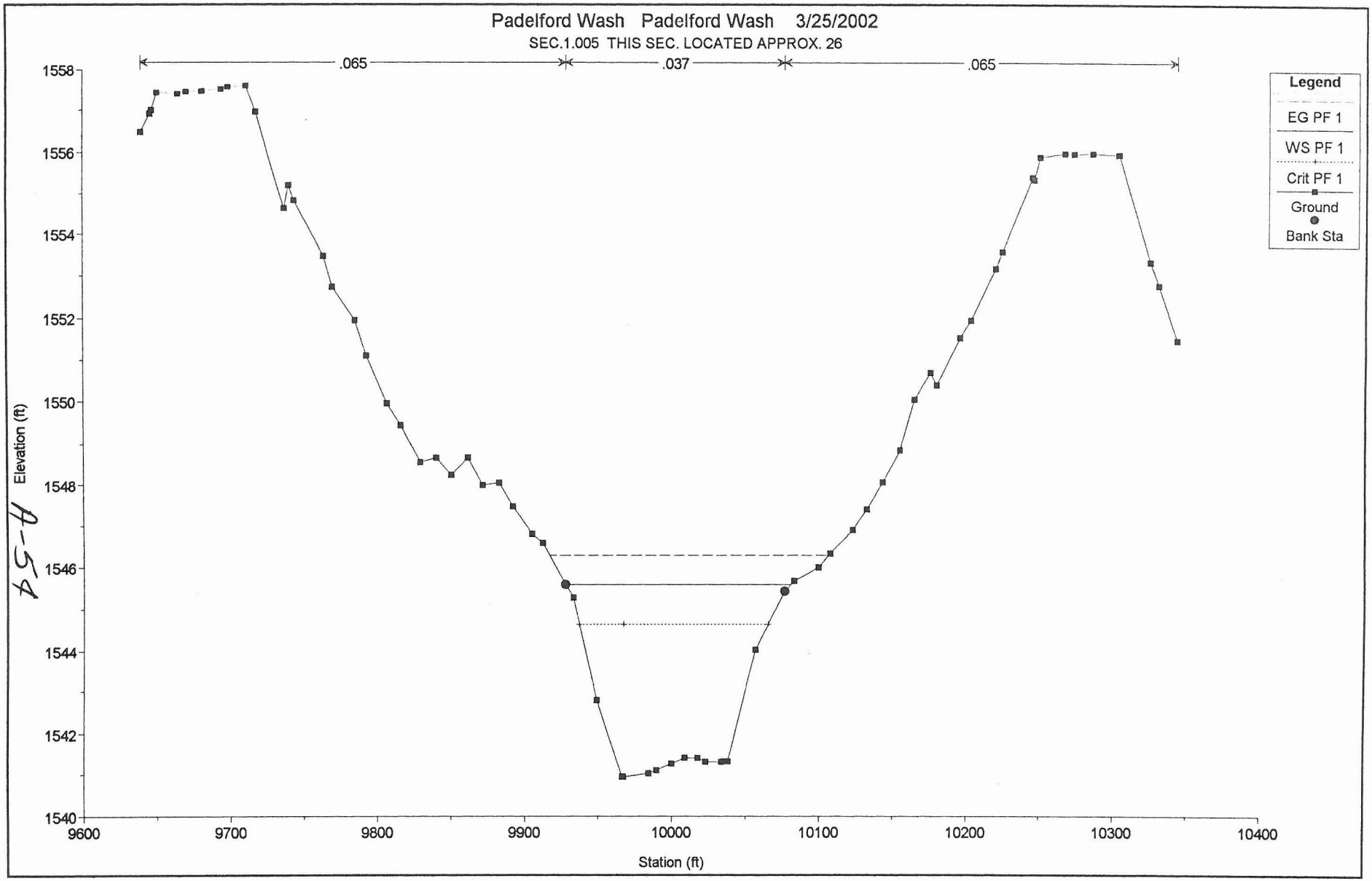

Padelford Wash Padelford Wash 3/25/2002
ADOT S.R. 74 STA. 681+47; EX. (3) 10 FT.
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1854
1852
1850
1848
1846
1844
1842
1840
1838
1836
1834
9940
9960
9980
10000
10020
10040
10060
10080

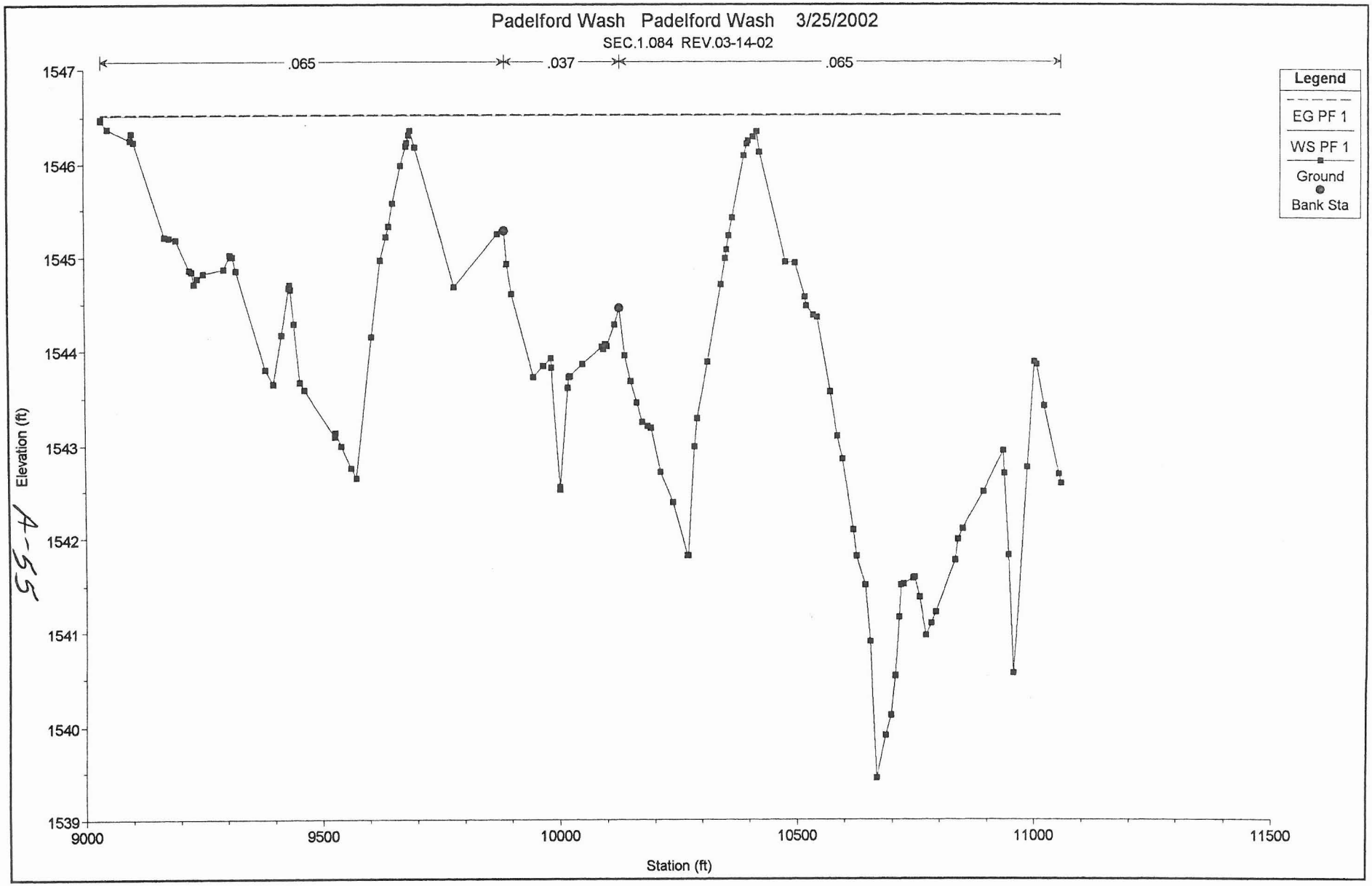
IS-4


Padelford Wash Padelford Wash 3/25/2002
ADOT S.R. 74 STA. 681+47; EX. (3) 10 FT.
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1854
1852
1850
1848
1846
1844
1842
1840
1838
1836
9900
9950
10000
10050
10100

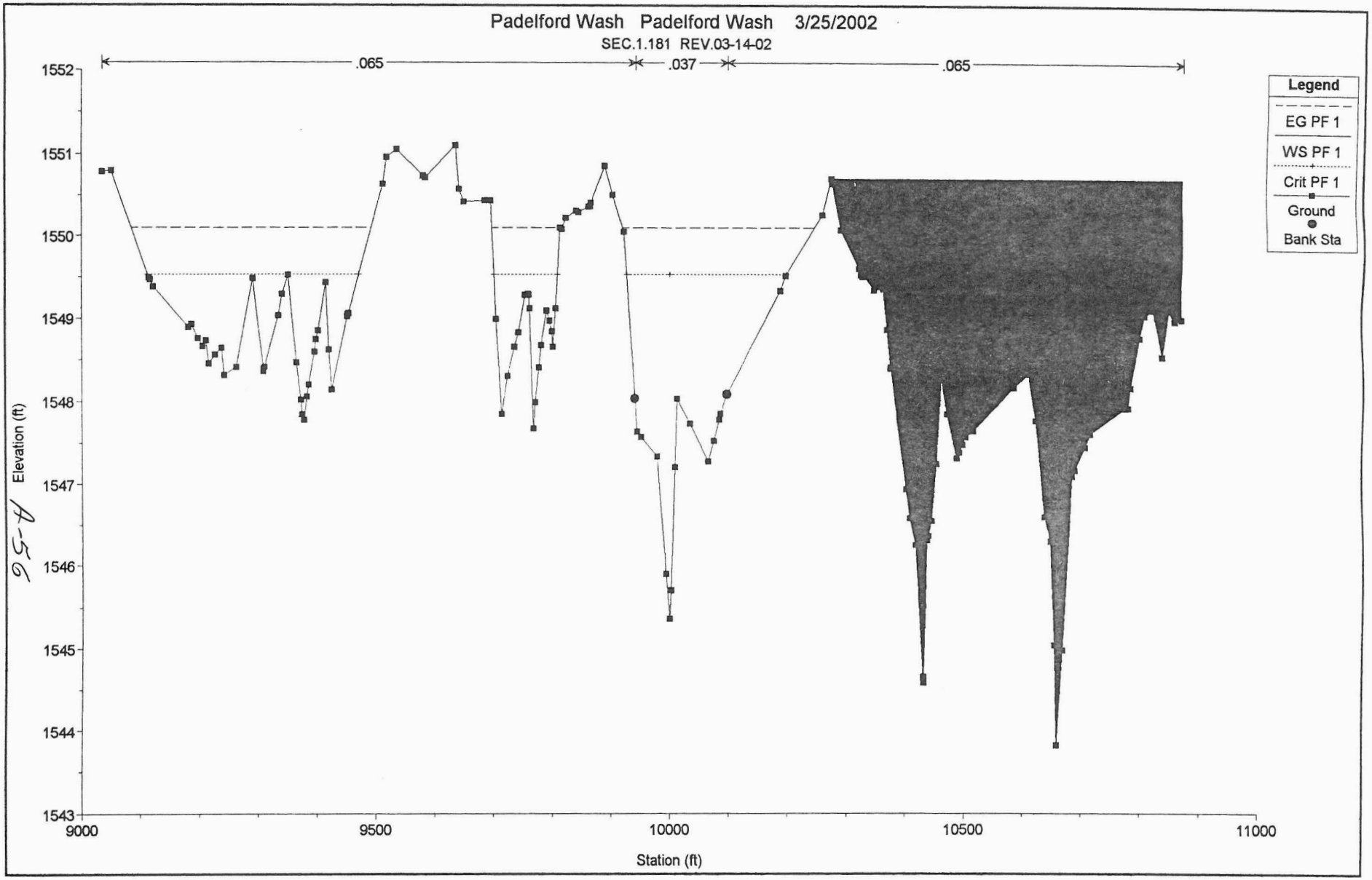
A-52

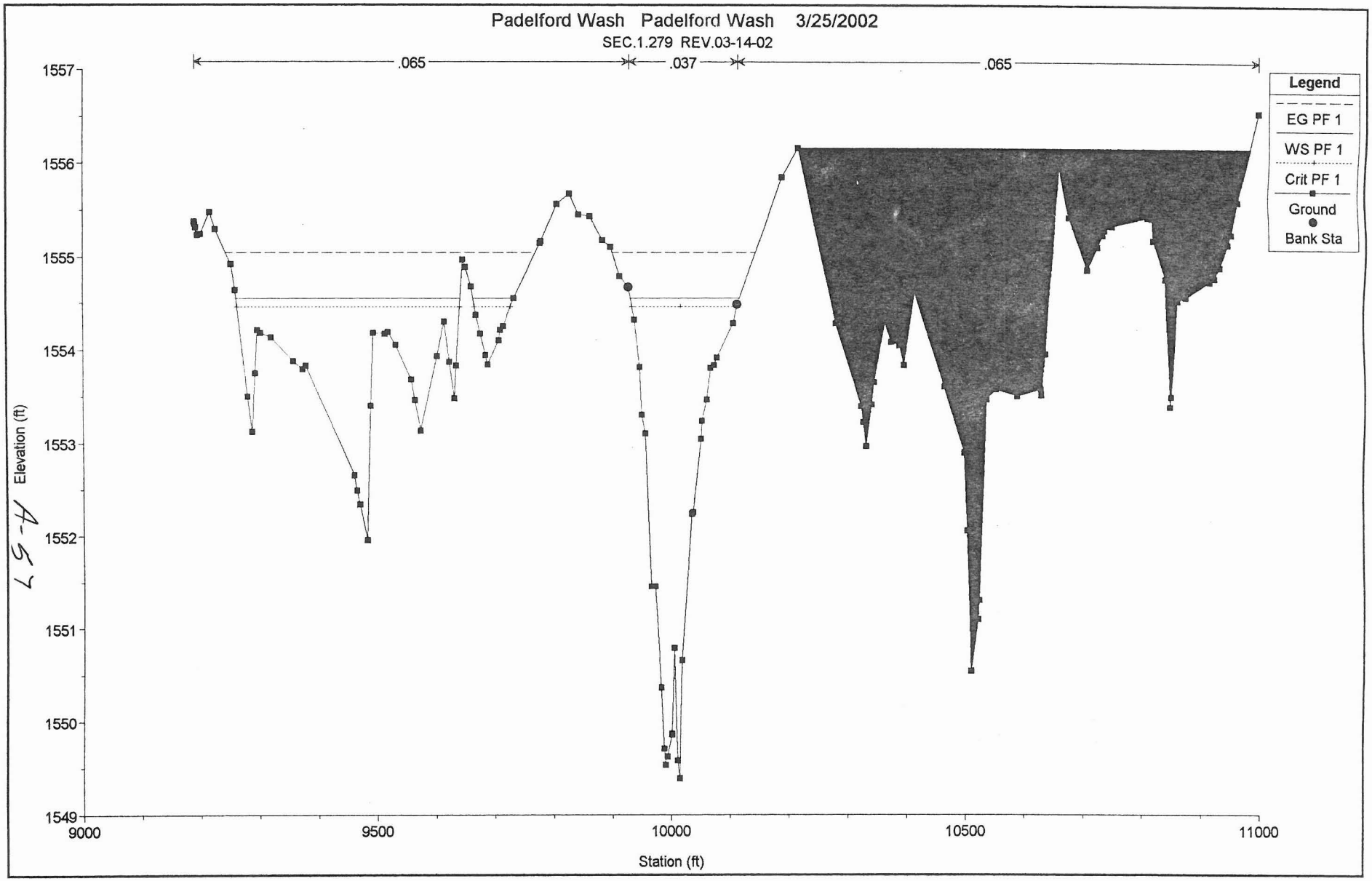

Padelford Wash Padelford Wash 3/25/2002
TRIB. C. SEC. 1.264. JUST U/S OF S.R. 74
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1854
1852
1850
1848
1846
1844
1842
1840
1838
1836
9900
9950
10000
10050
10100
A-53


Padelford Wash Padelford Wash 3/25/2002
SEC.1.005 THIS SEC. LOCATED APPROX. 26
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1558
1556
1554
1552
1550
1548
1546
1544
1542
1540
9600
9700
9800
9900
10000
10100
10200
10300
10400
A-54

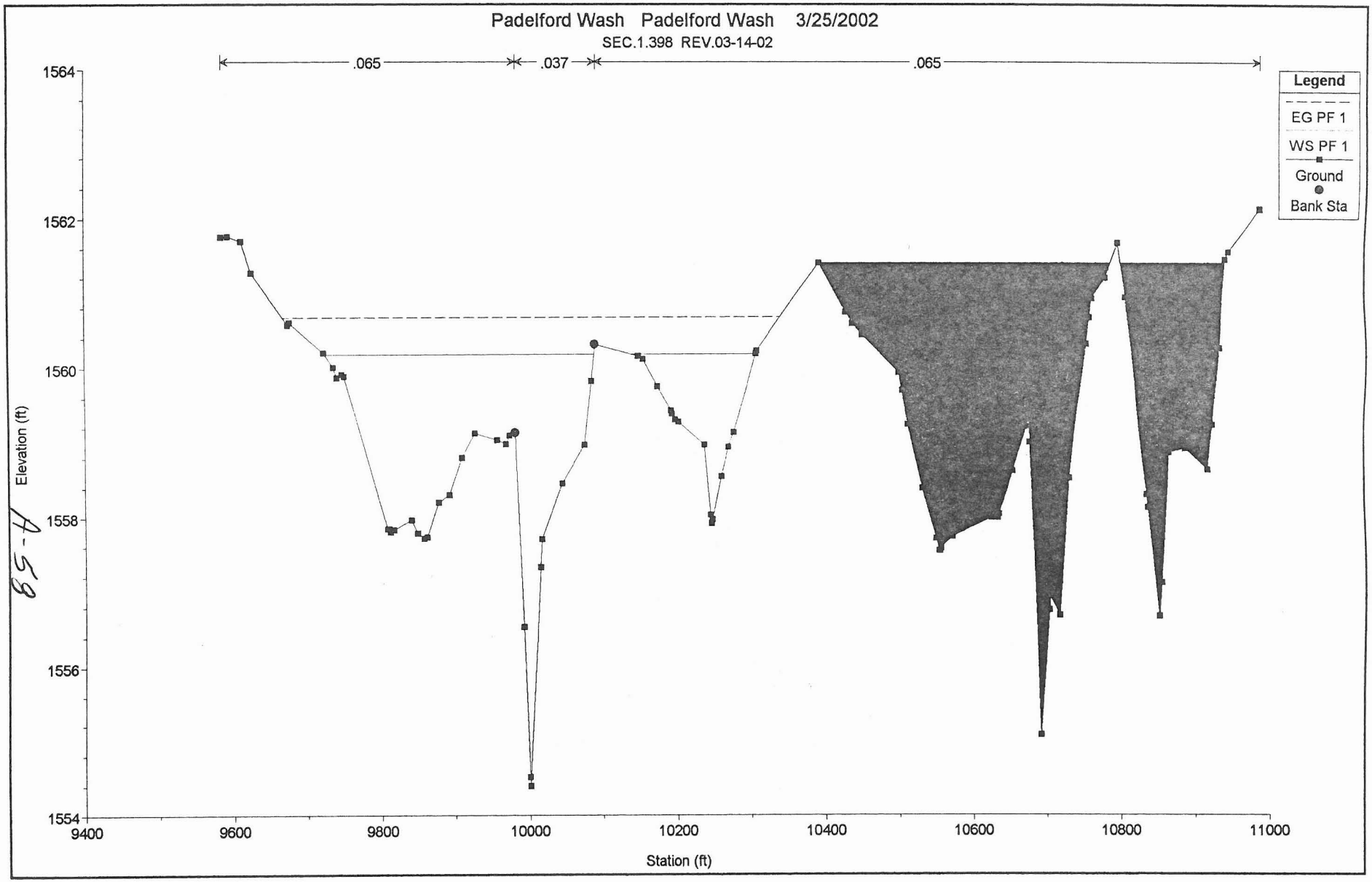

Padelford Wash Padelford Wash 3/25/2002
SEC.1.084 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1547
1546
1545
1544
1543
1542
1541
1540
1539
9000
9500
10000
10500
11000
11500

A-55

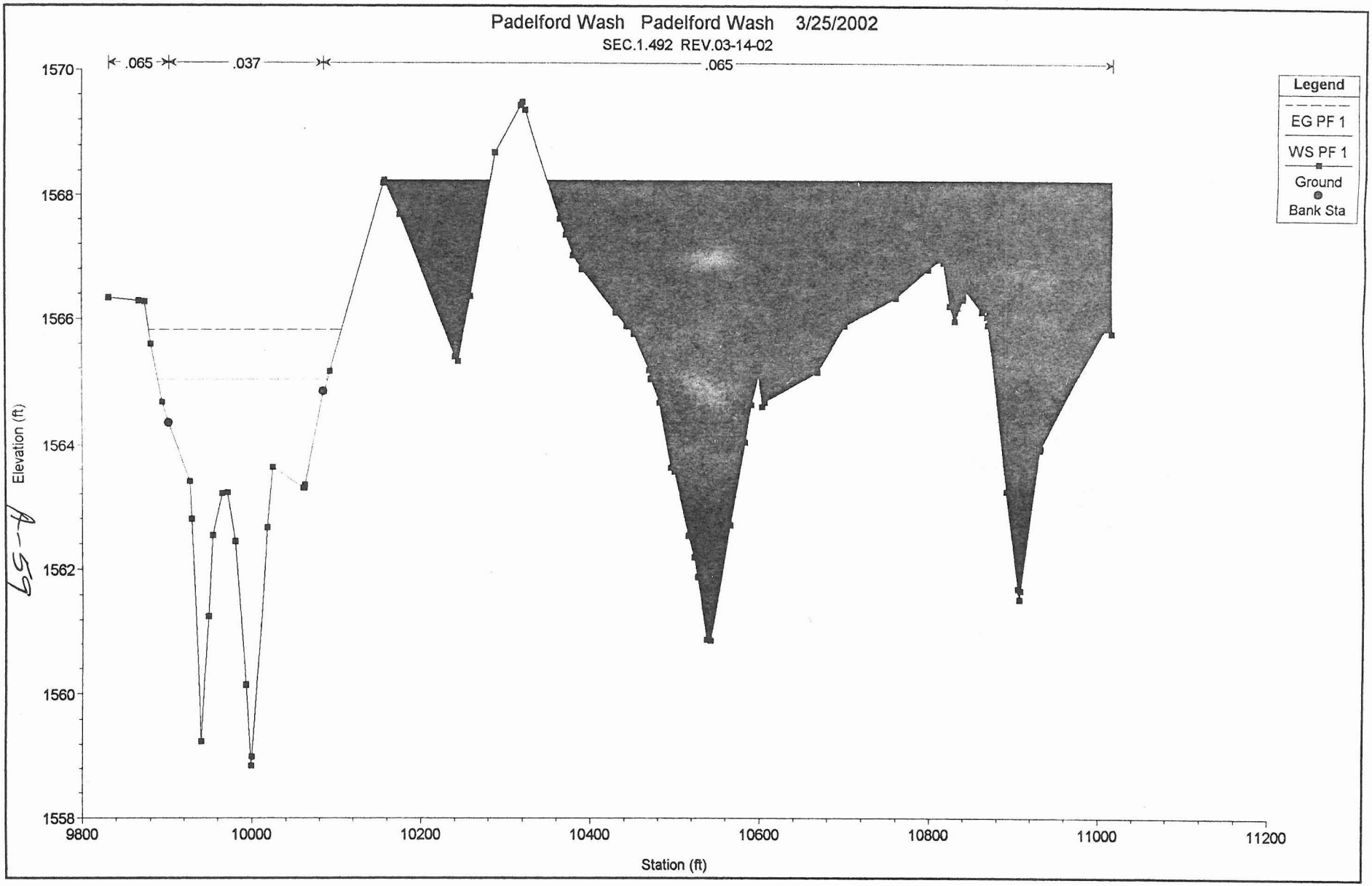

Padelford Wash Padelford Wash 3/25/2002
SEC.1.181 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1552
1551
1550
1549
1548
1547
1546
1545
1544
1543
9000
9500
10000
10500
11000
A-56


Padelford Wash Padelford Wash 3/25/2002
SEC.1.279 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1557
1556
1555
1554
1553
1552
1551
1550
1549
9000
9500
10000
10500
11000

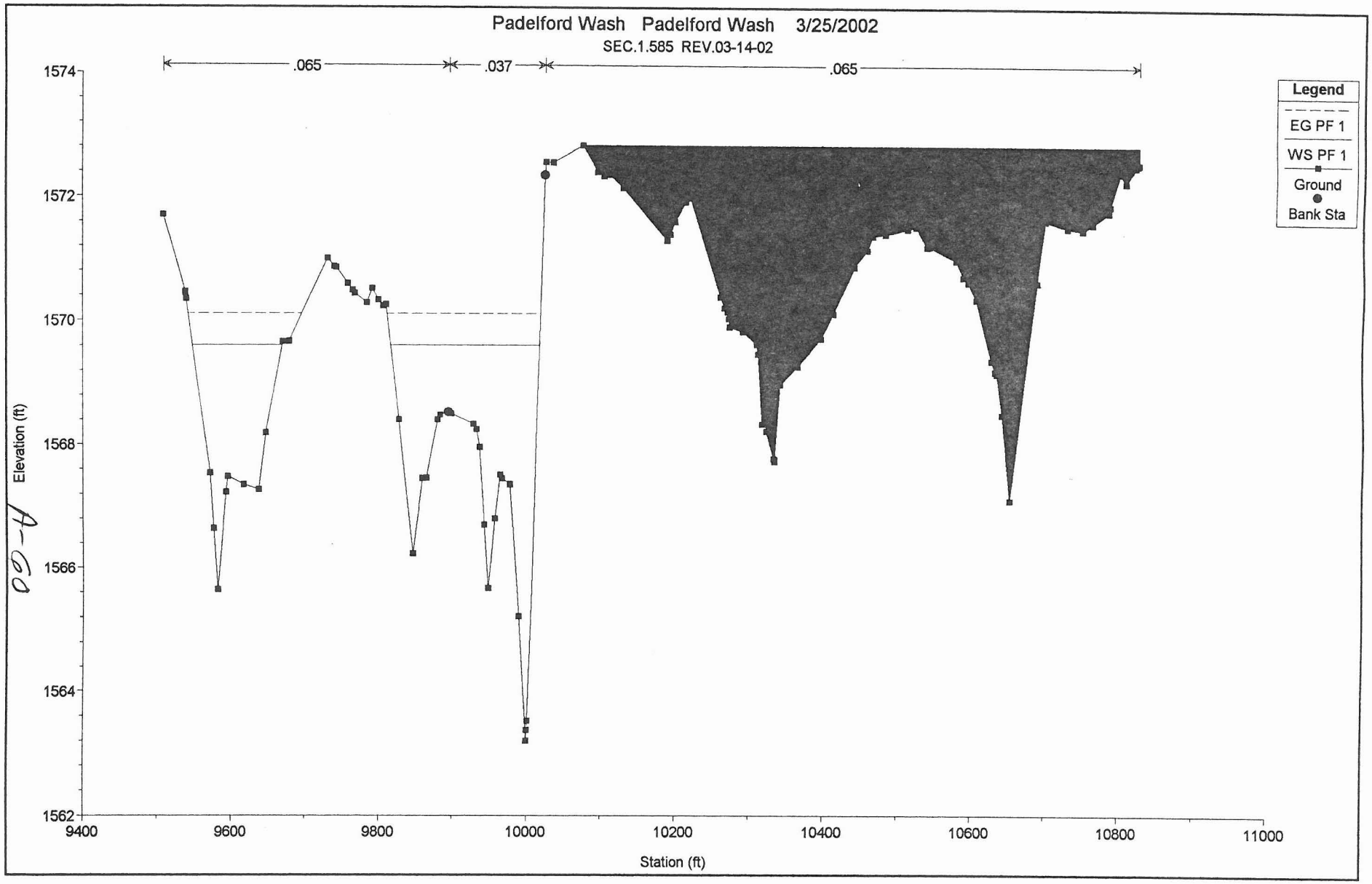
A-57

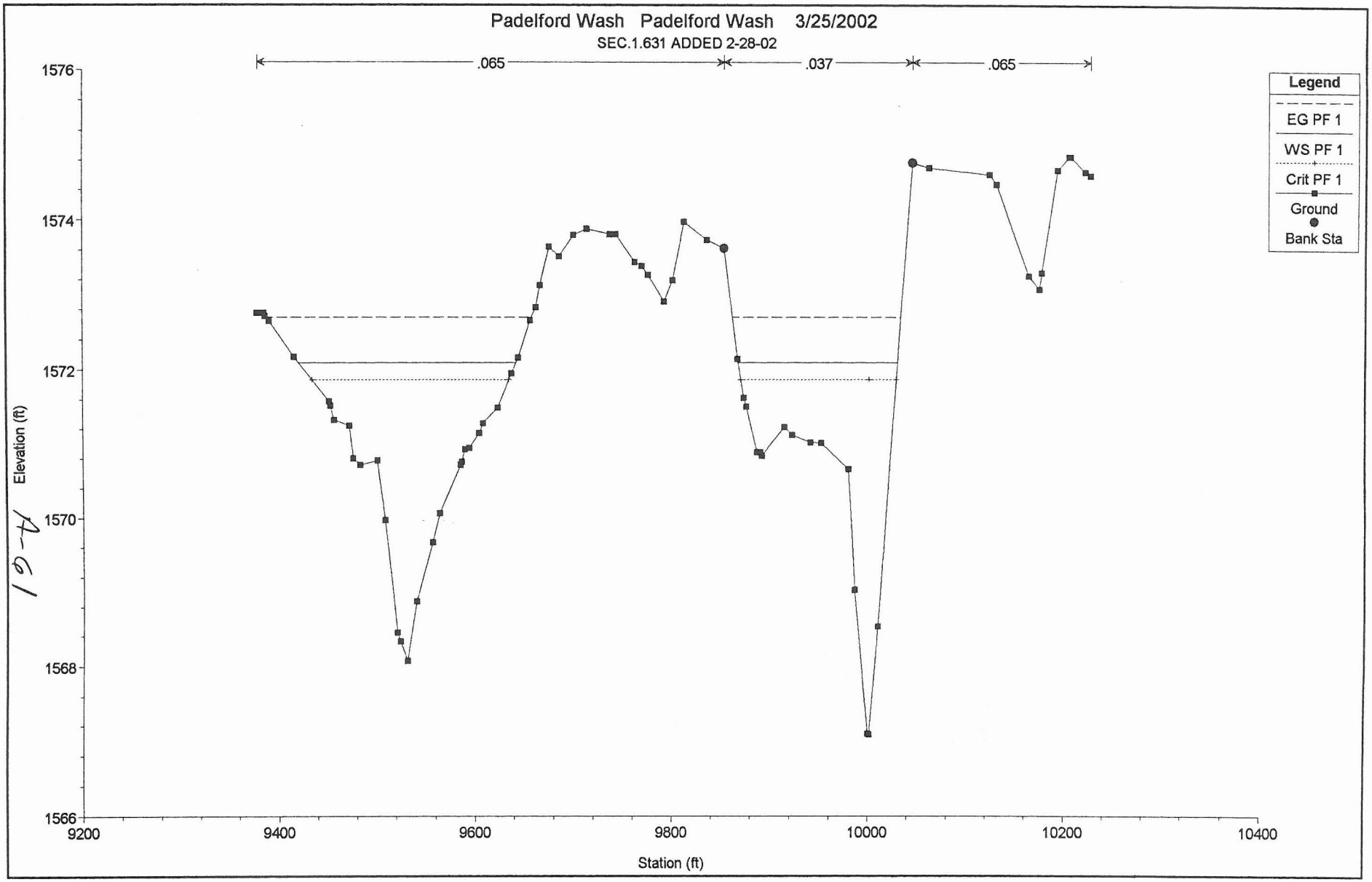

Padelford Wash Padelford Wash 3/25/2002
SEC.1.398 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1564
1562
1560
1558
1556
1554
9400
9600
9800
10000
10200
10400
10600
10800
11000

A-58

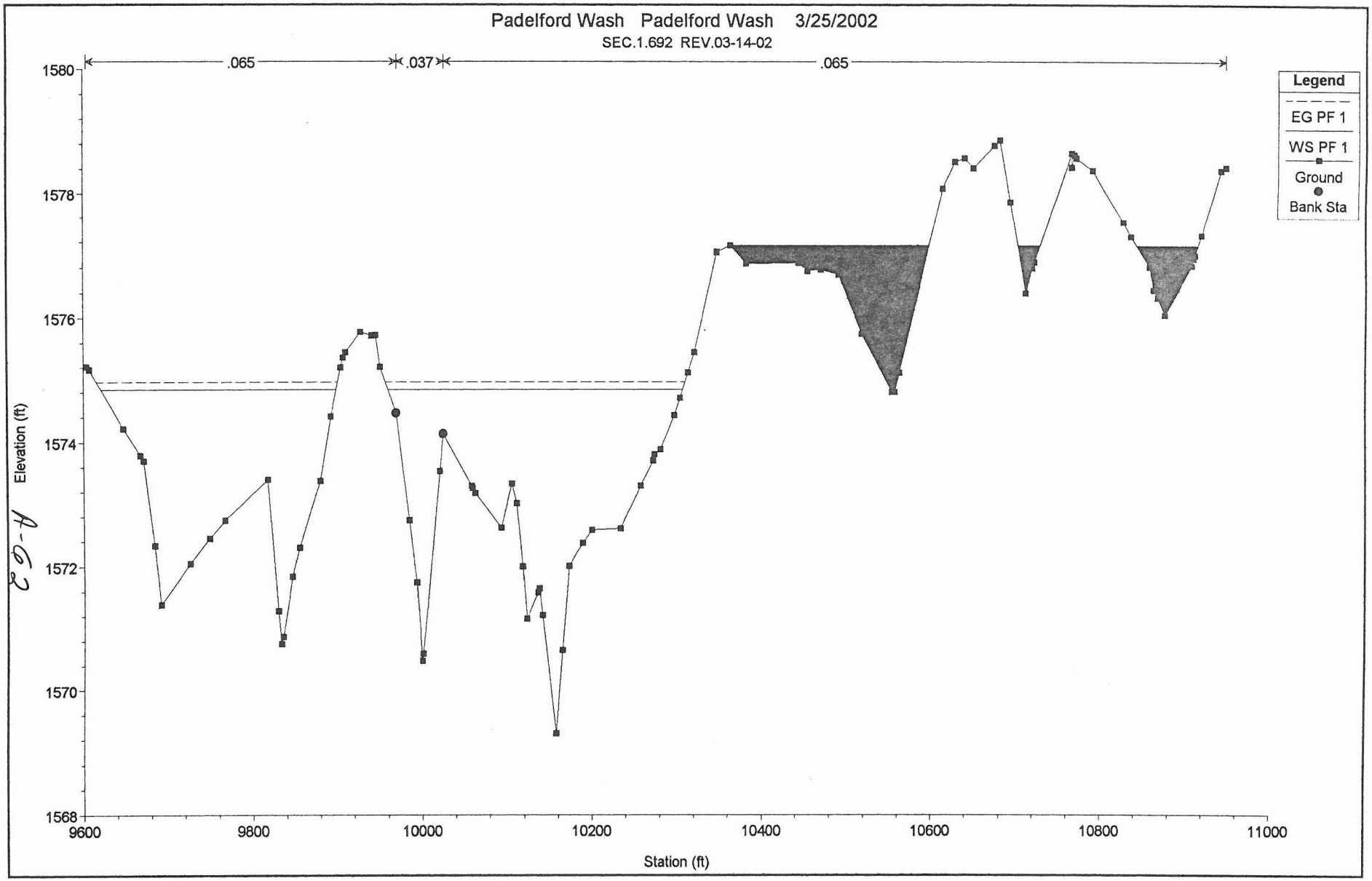

Padelford Wash Padelford Wash 3/25/2002
SEC.1.492 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1570
1568
1566
1564
1562
1560
1558
9800
10000
10200
10400
10600
10800
11000
11200
Station (ft)

A-57

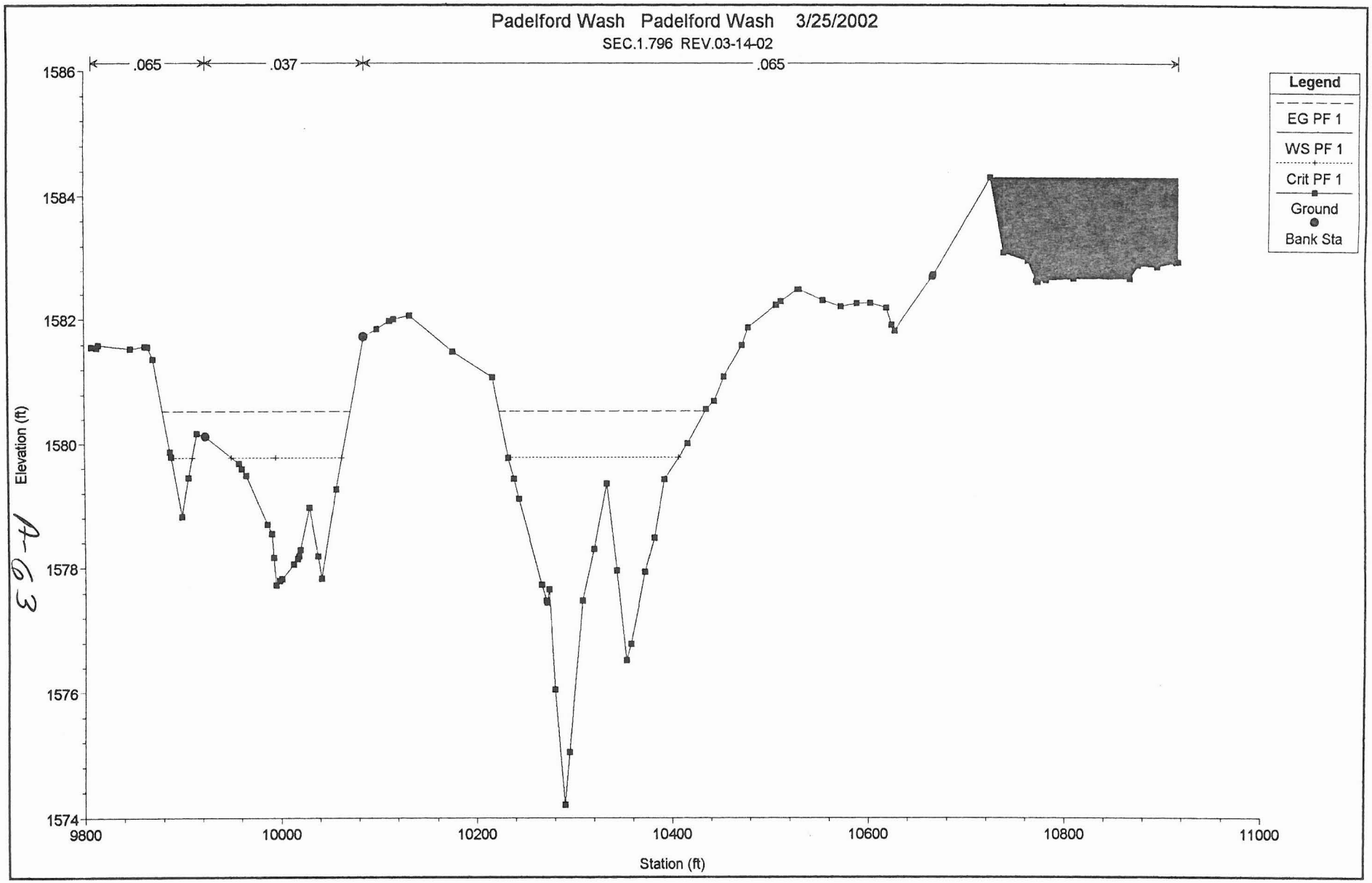

Padelford Wash Padelford Wash 3/25/2002
SEC.1.585 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1574
1572
1570
1568
1566
1564
1562
9400
9600
9800
10000
10200
10400
10600
10800
11000


Padelford Wash Padelford Wash 3/25/2002
SEC.1.631 ADDED 2-28-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1576
1574
1572
1570
1568
1566
9200
9400
9600
9800
10000
10200
10400

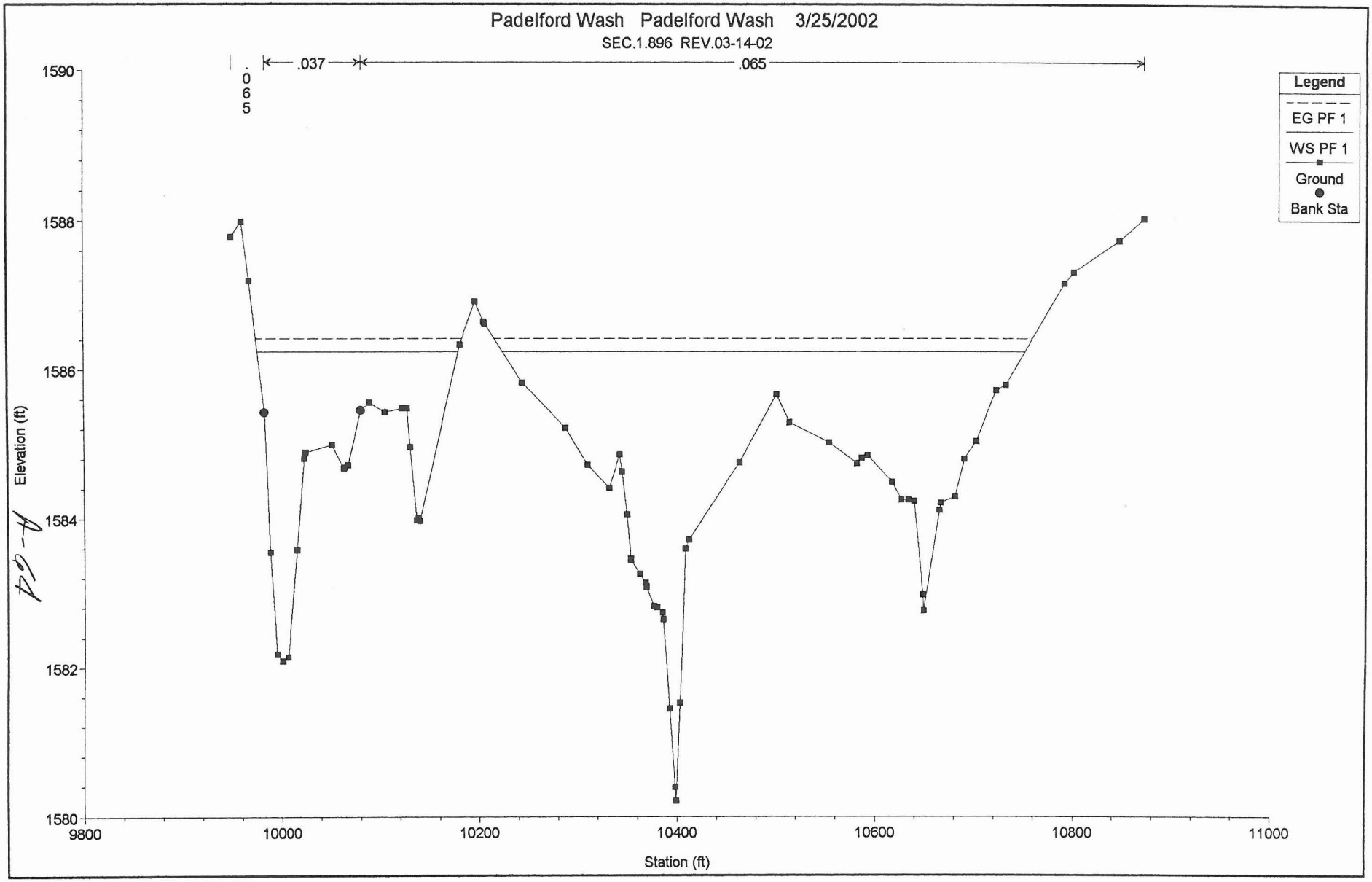
A-61

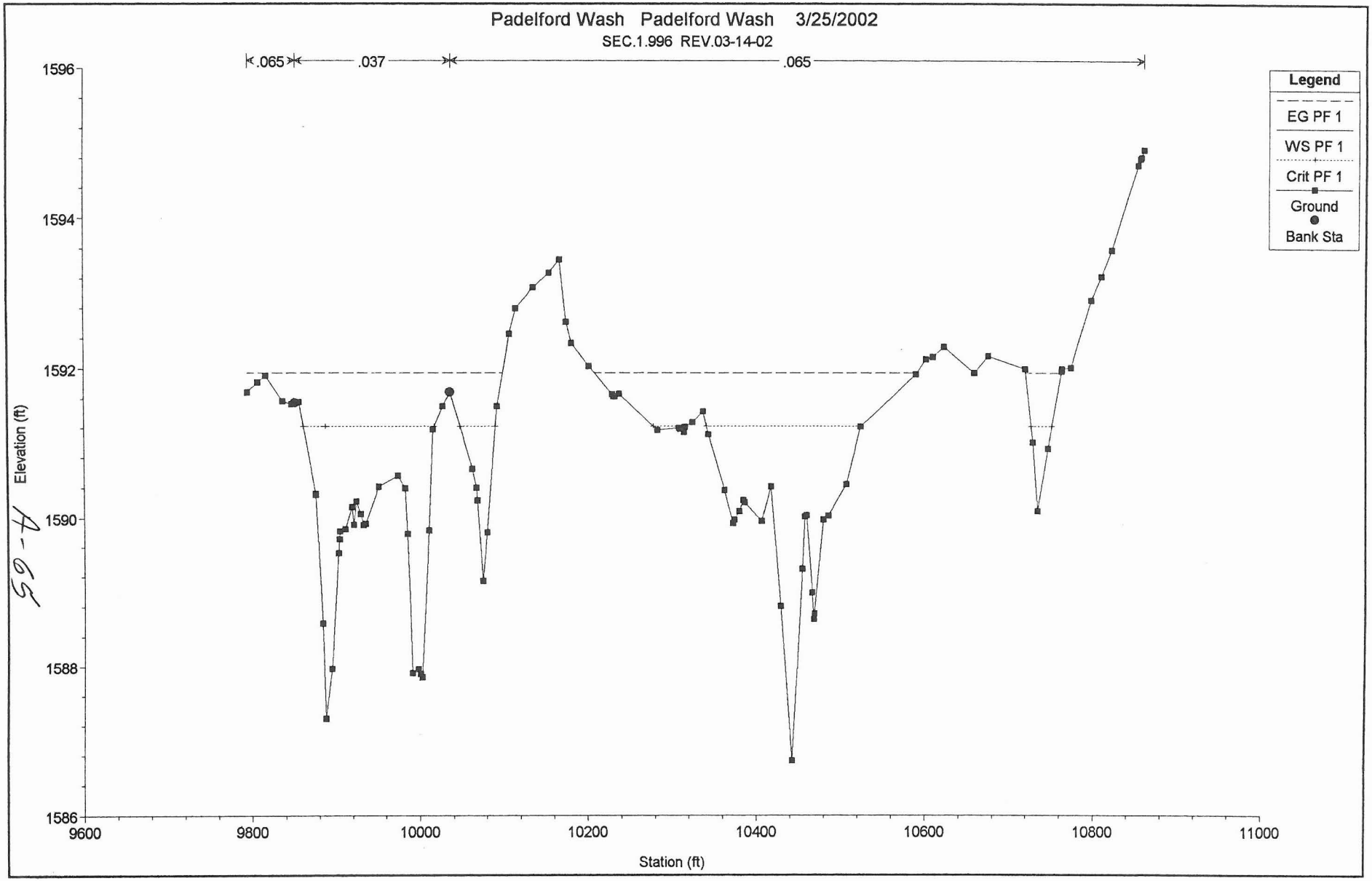

Padelford Wash Padelford Wash 3/25/2002
SEC.1.692 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1580
1578
1576
1574
1572
1570
1568
Elevation (ft)
9600
9800
10000
10200
10400
10600
10800
11000
Station (ft)

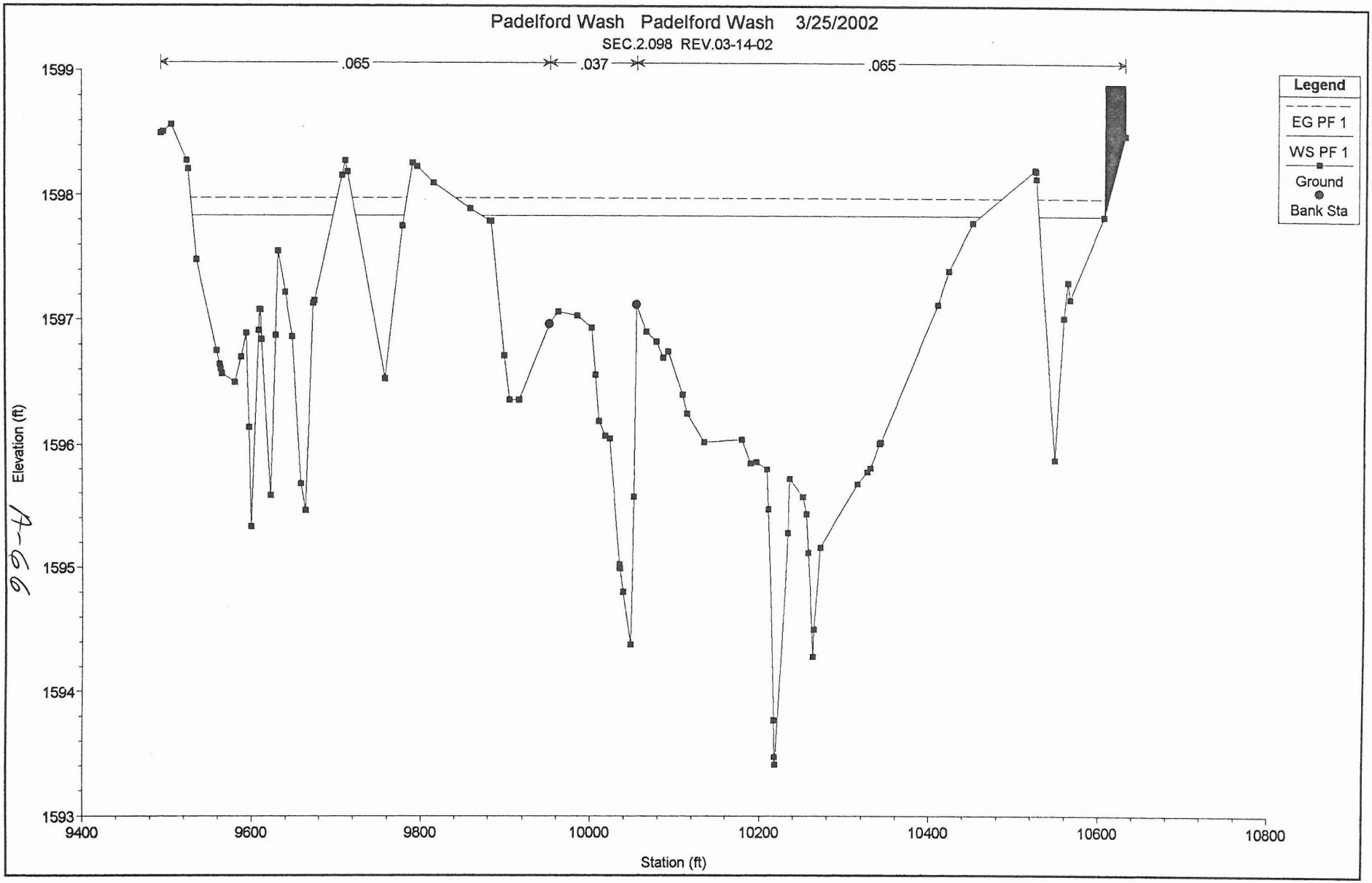
E0-4

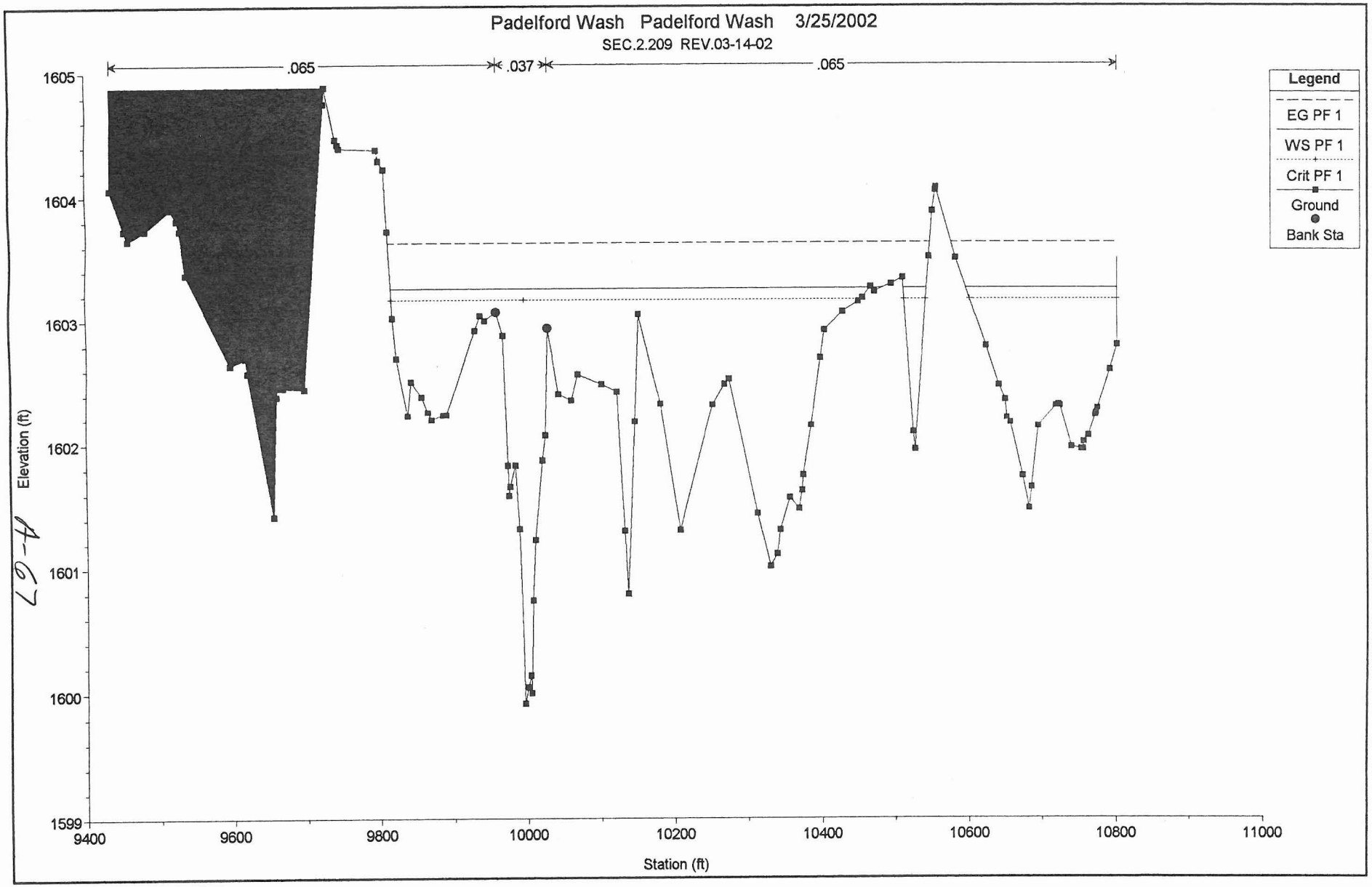

Padelford Wash Padelford Wash 3/25/2002
SEC.1.796 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1586
1584
1582
1580
1578
1576
1574
9800
10000
10200
10400
10600
10800
11000

A-63

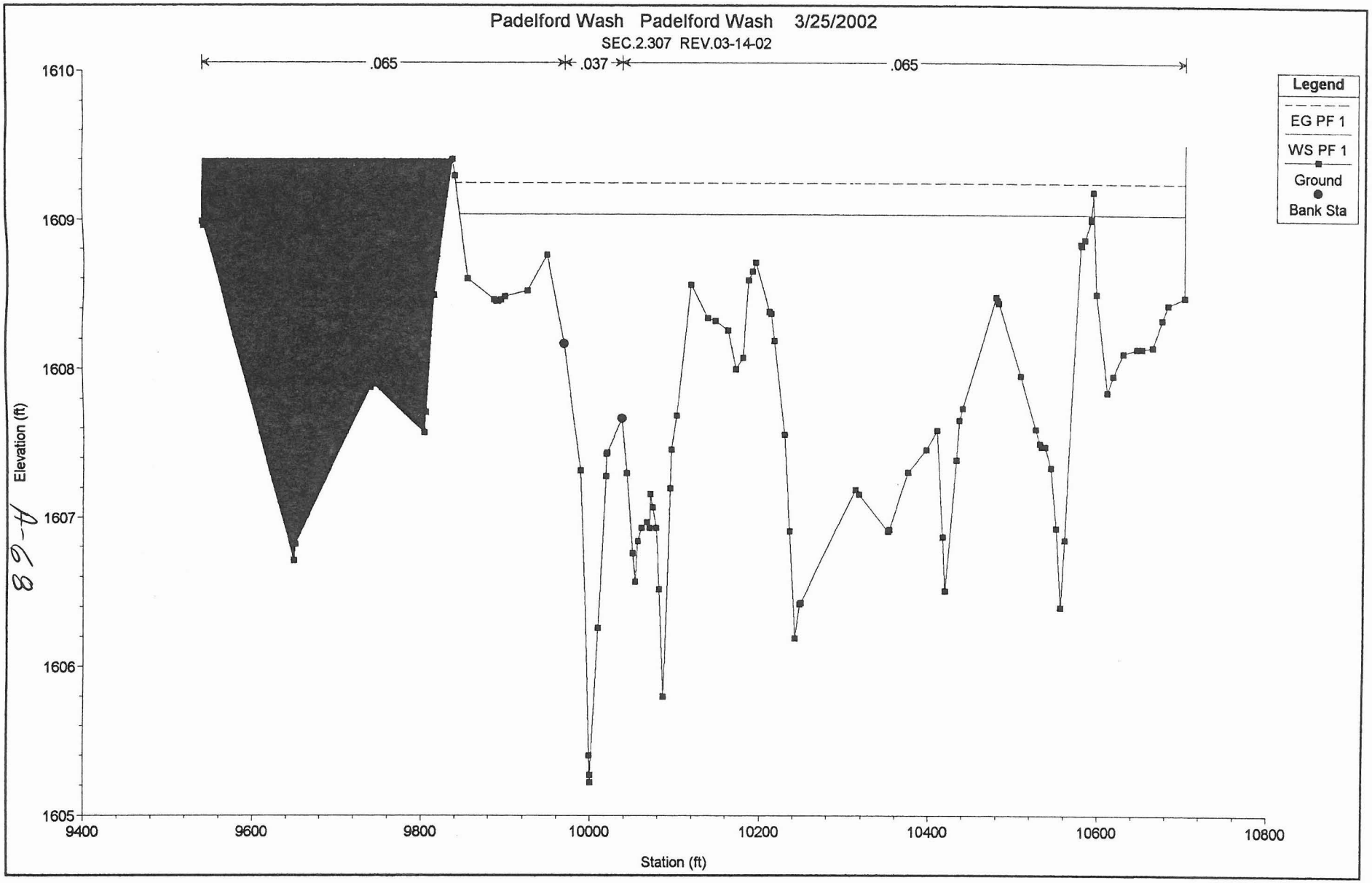

Padelford Wash Padelford Wash 3/25/2002
SEC.1.896 REV.03-14-02
.037
.065
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1590
1588
1586
1584
1582
1580
9800
10000
10200
10400
10600
10800
11000


Padelford Wash Padelford Wash 3/25/2002
SEC.1.996 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1596
1594
1592
1590
1588
1586
9600
9800
10000
10200
10400
10600
10800
11000
A-65

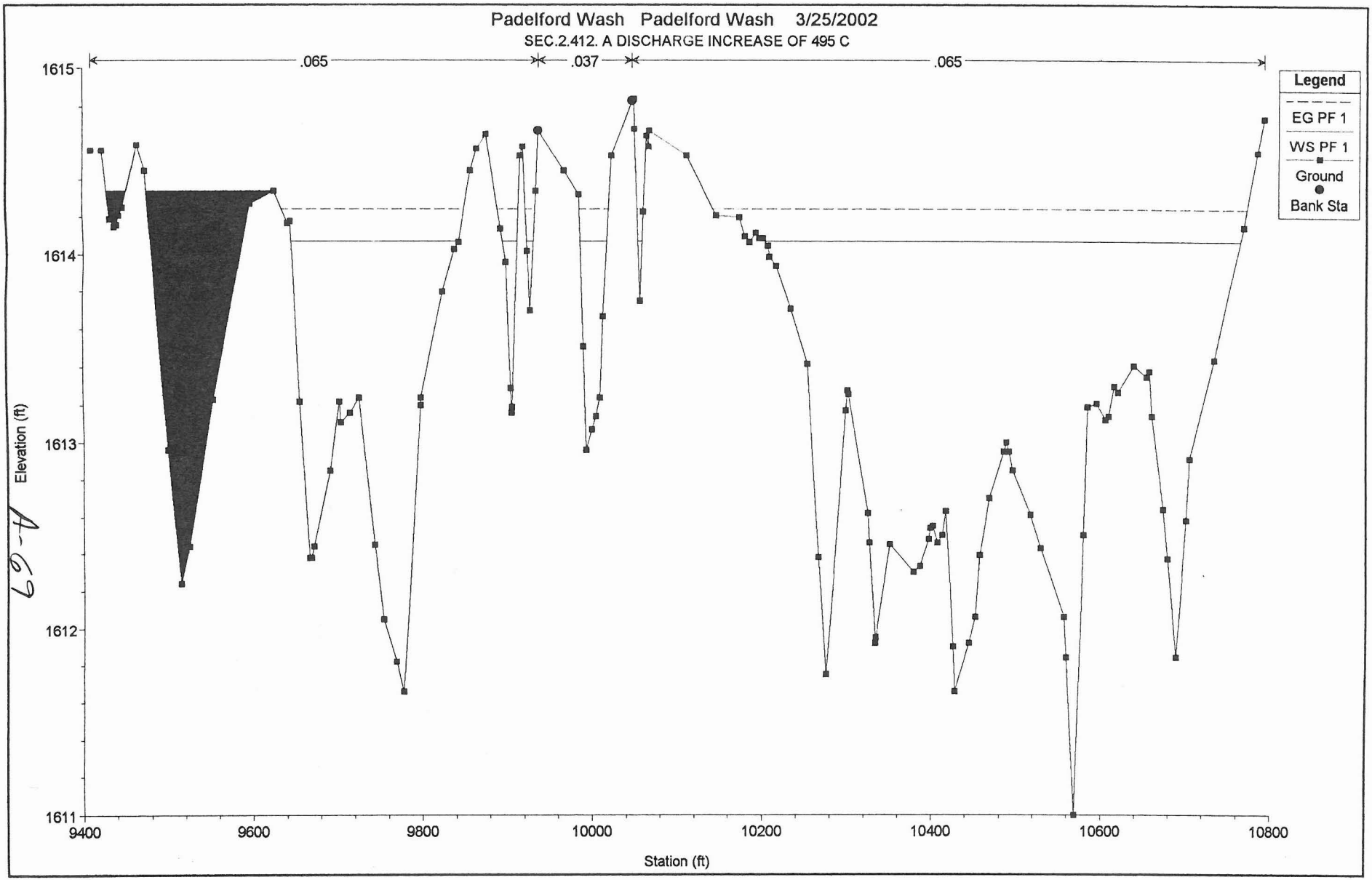

Padelford Wash Padelford Wash 3/25/2002
SEC.2.098 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1599
1598
1597
1596
1595
1594
1593
9400
9600
9800
10000
10200
10400
10600
10800


Padelford Wash Padelford Wash 3/25/2002
SEC.2.209 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1605
1604
1603
1602
1601
1600
1599
9400
9600
9800
10000
10200
10400
10600
10800
11000

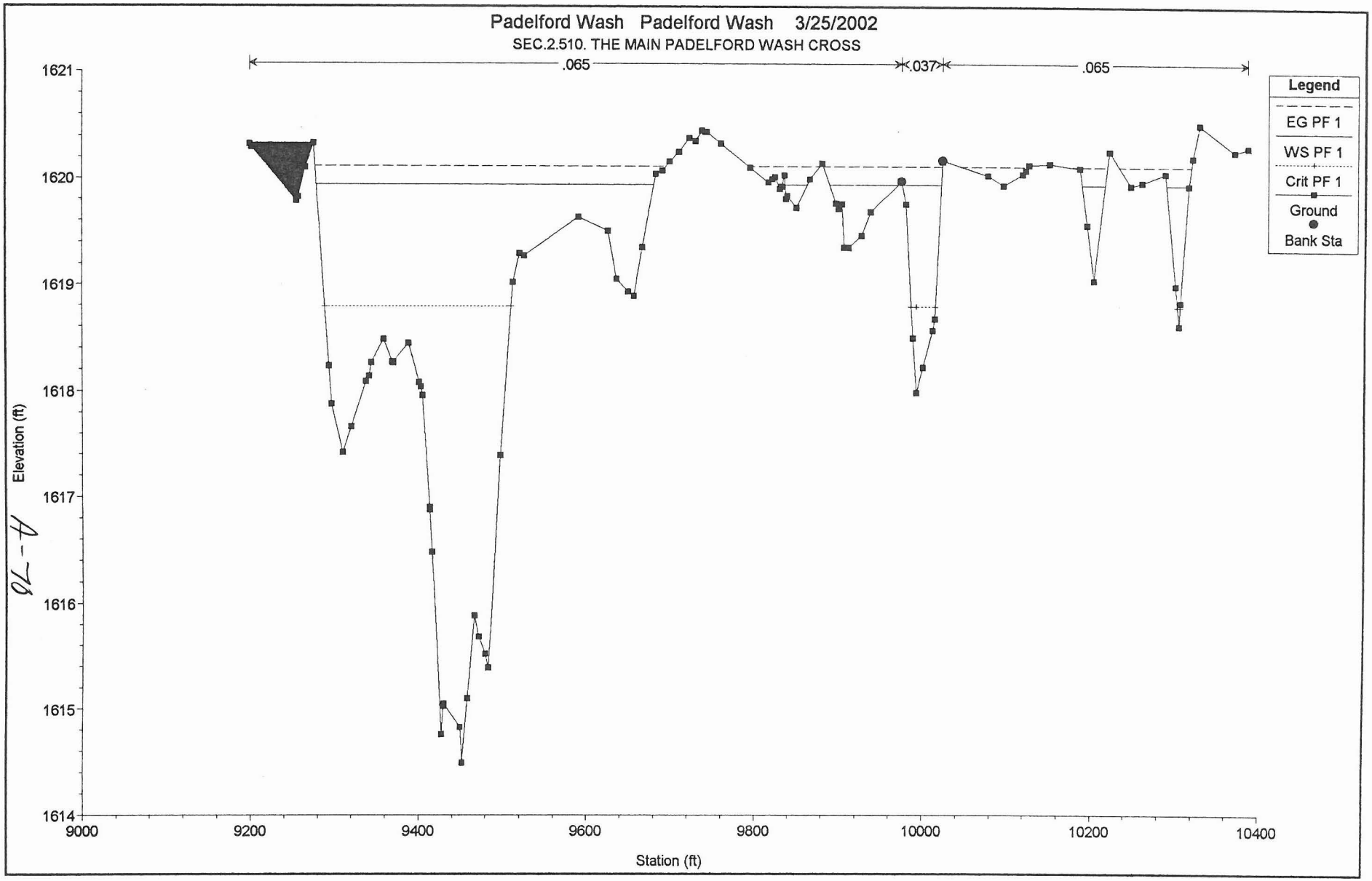
D-4


Padelford Wash Padelford Wash 3/25/2002
SEC.2.307 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1610
1609
1608
1607
1606
1605
9400
9600
9800
10000
10200
10400
10600
10800
Station (ft)

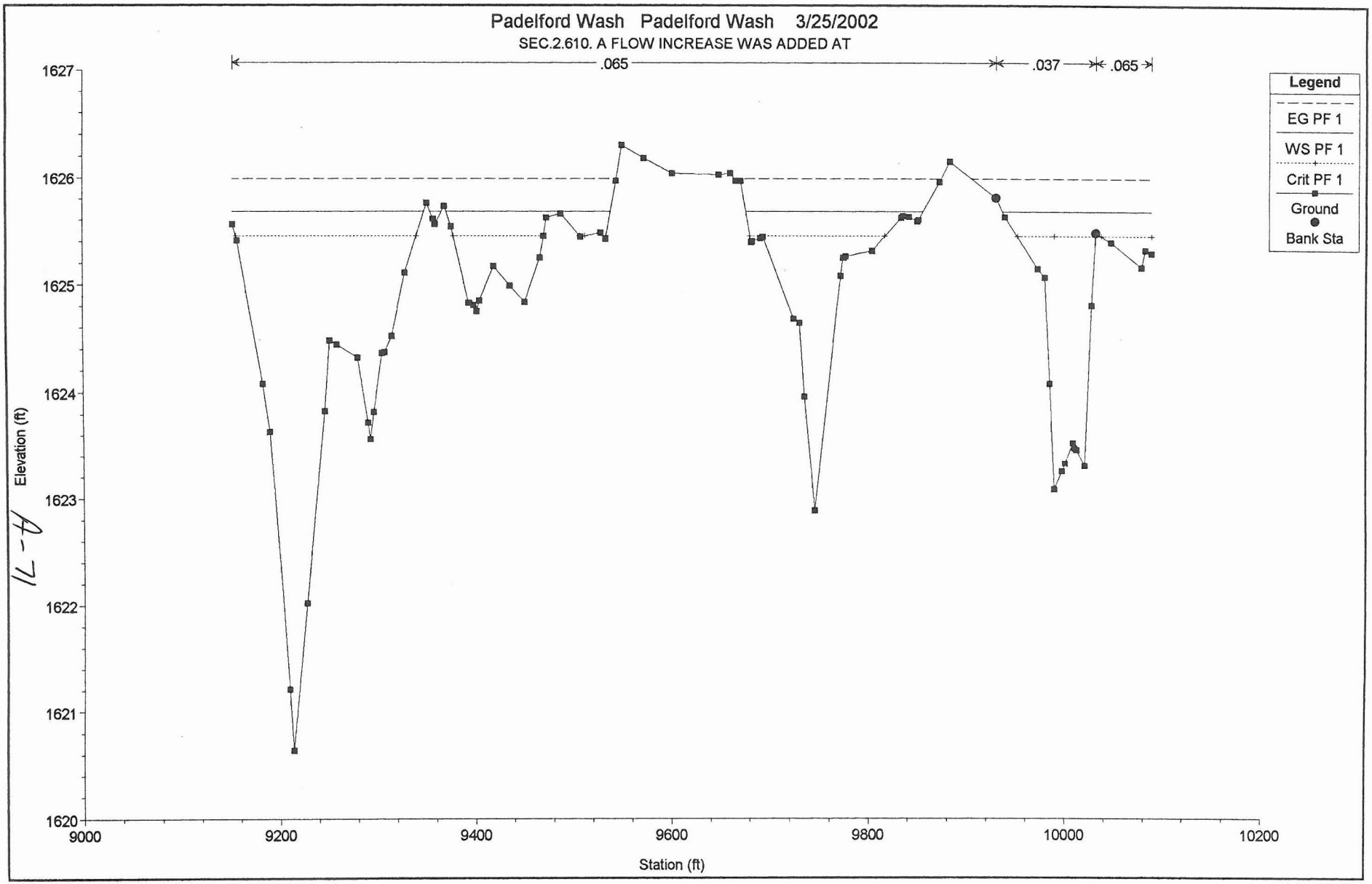
A-68


Padelford Wash Padelford Wash 3/25/2002
SEC.2.412. A DISCHARGE INCREASE OF 495 C
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1615
1614
1613
1612
1611
9400
9600
9800
10000
10200
10400
10600
10800

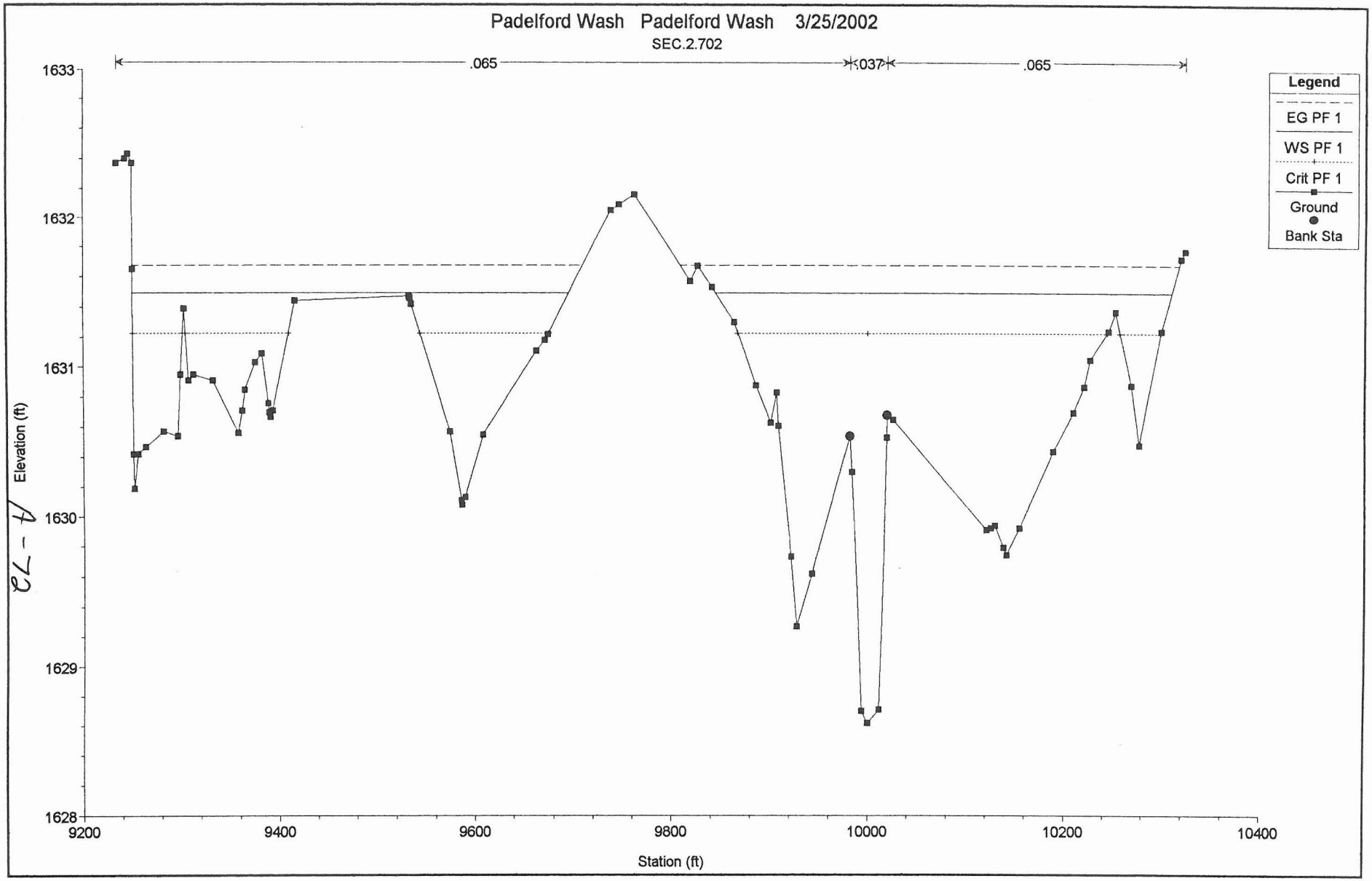
A-69

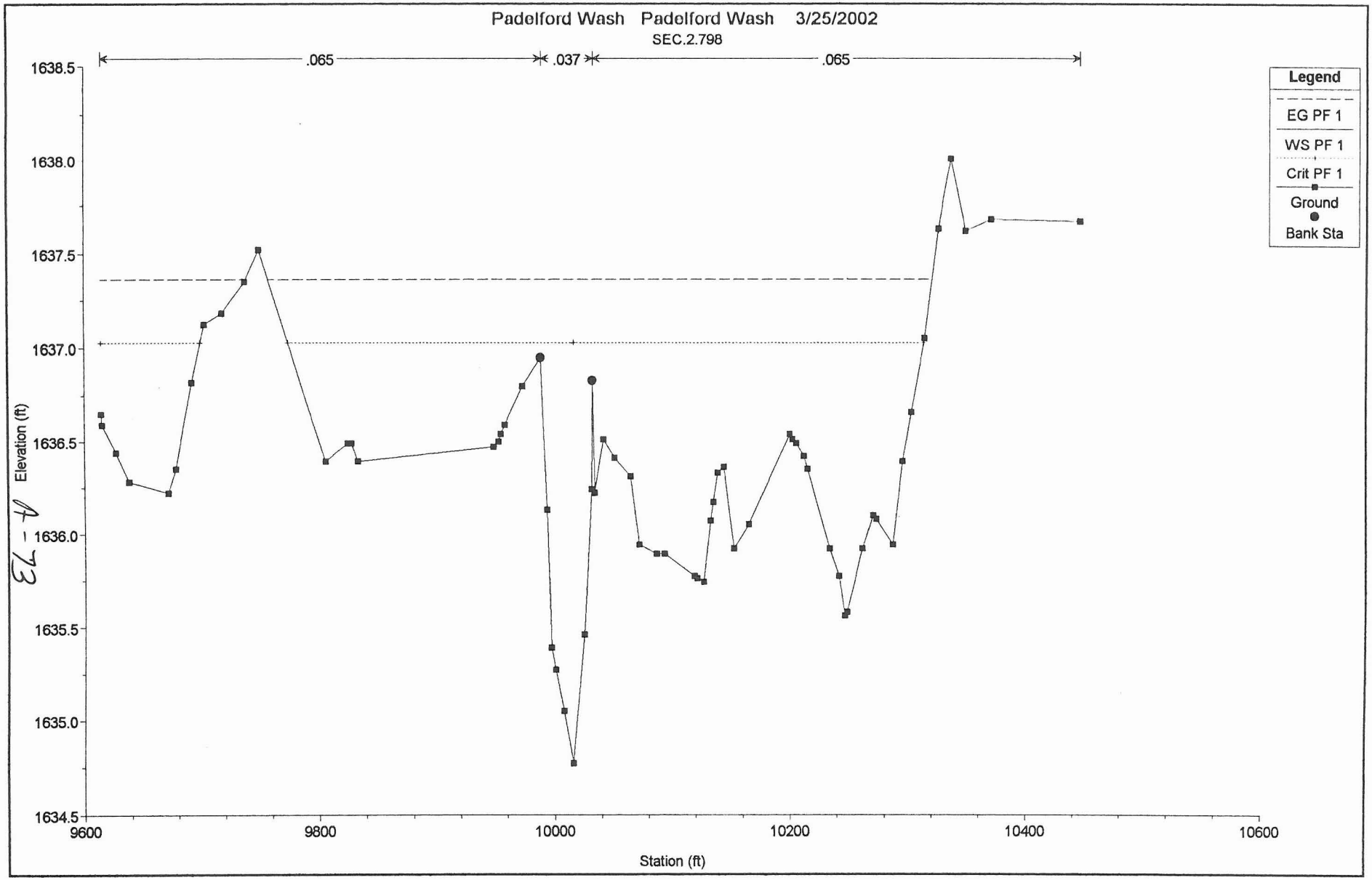

Padelford Wash Padelford Wash 3/25/2002
SEC.2.510. THE MAIN PADELFORD WASH CROSS
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1621
1620
1619
1618
1617
1616
1615
1614
9000
9200
9400
9600
9800
10000
10200
10400

A-76

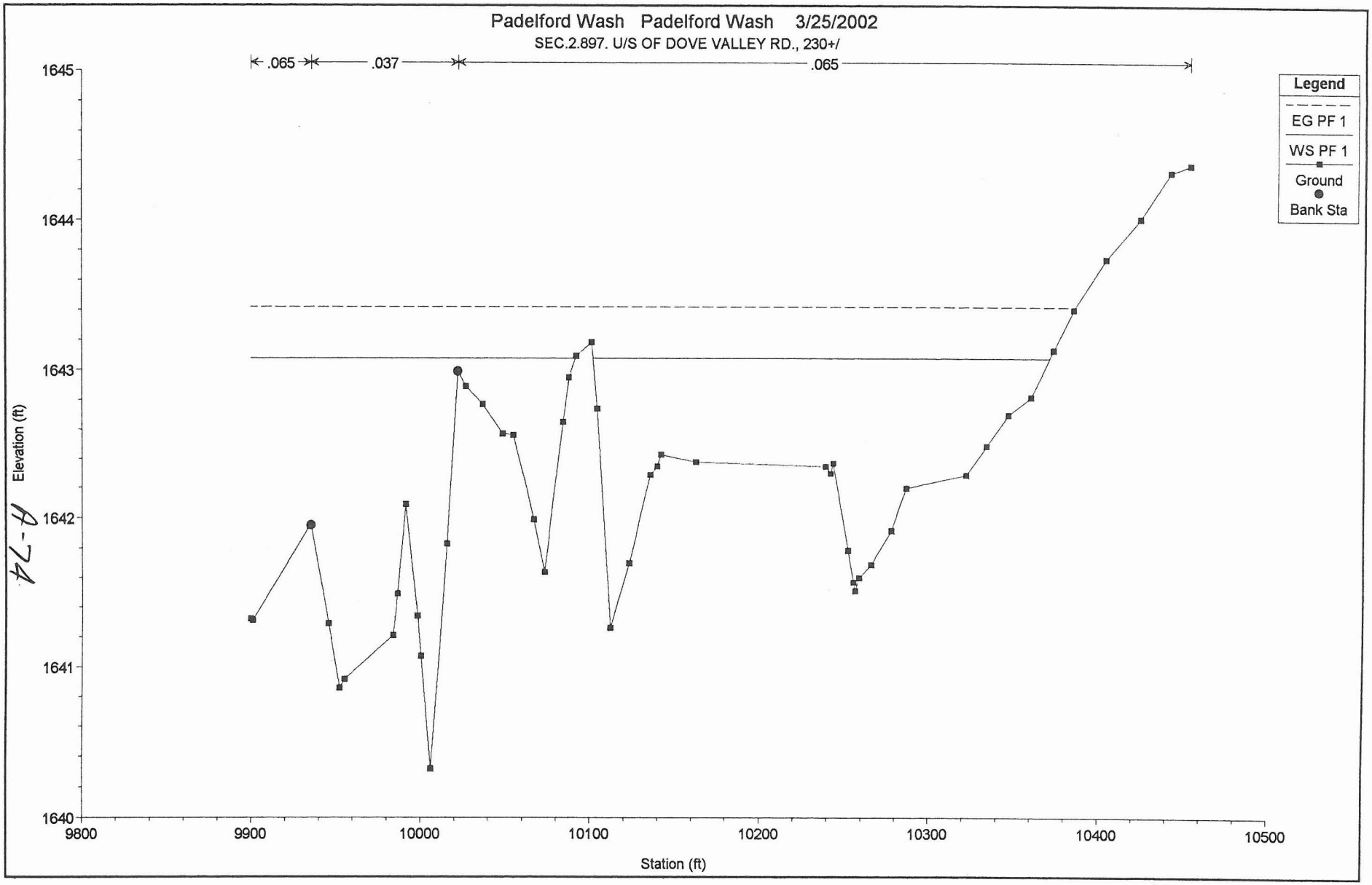

Padelford Wash Padelford Wash 3/25/2002
SEC.2.610. A FLOW INCREASE WAS ADDED AT
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1627
1626
1625
1624
1623
1622
1621
1620
9000
9200
9400
9600
9800
10000
10200

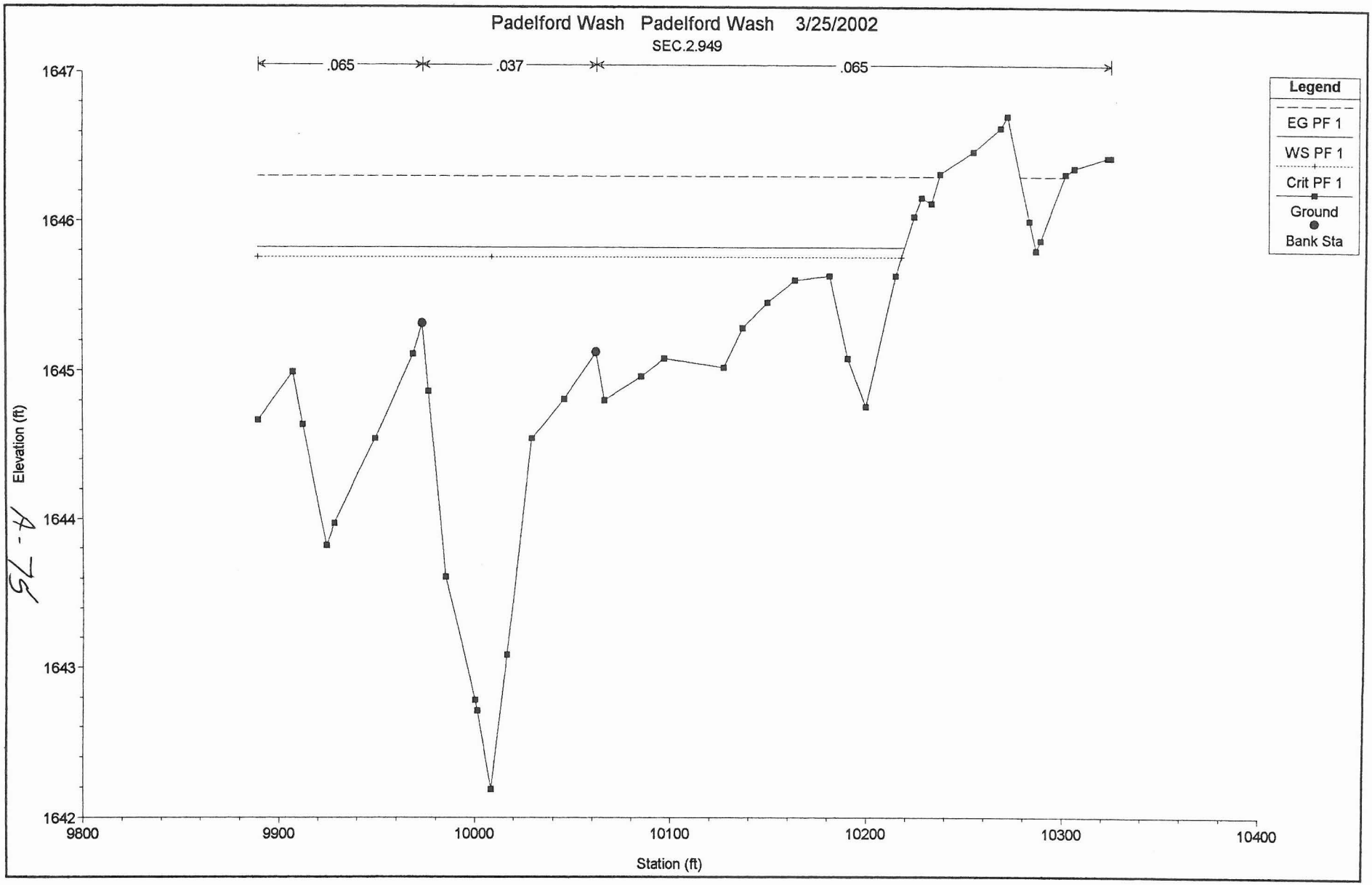
IL-H


Padelford Wash Padelford Wash 3/25/2002
SEC.2.702
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1633
1632
1631
1630
1629
1628
9200
9400
9600
9800
10000
10200
10400

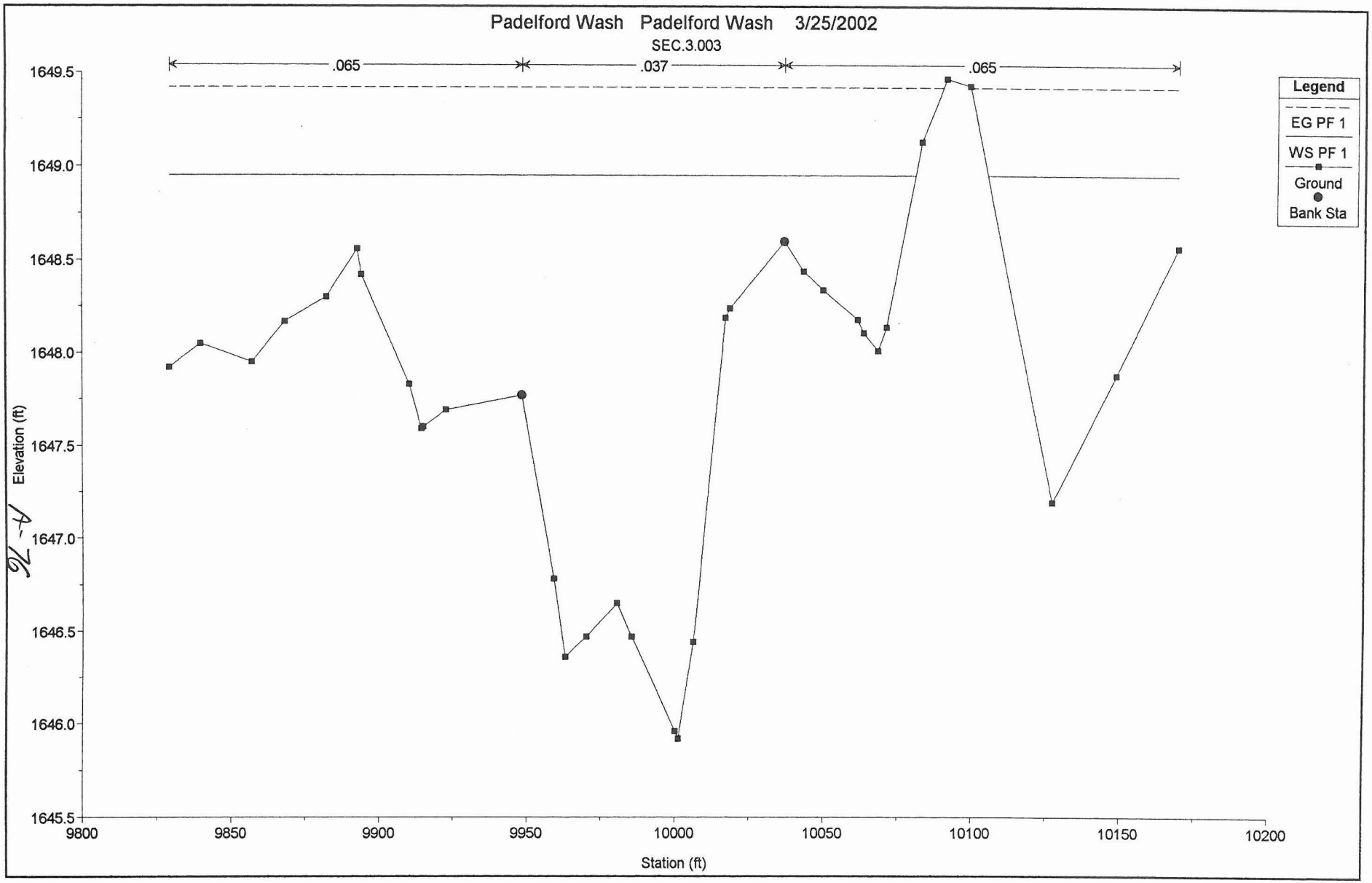

Padelford Wash Padelford Wash 3/25/2002
SEC.2.798
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1638.5
1638.0
1637.5
1637.0
1636.5
1636.0
1635.5
1635.0
1634.5
9600
9800
10000
10200
10400
10600

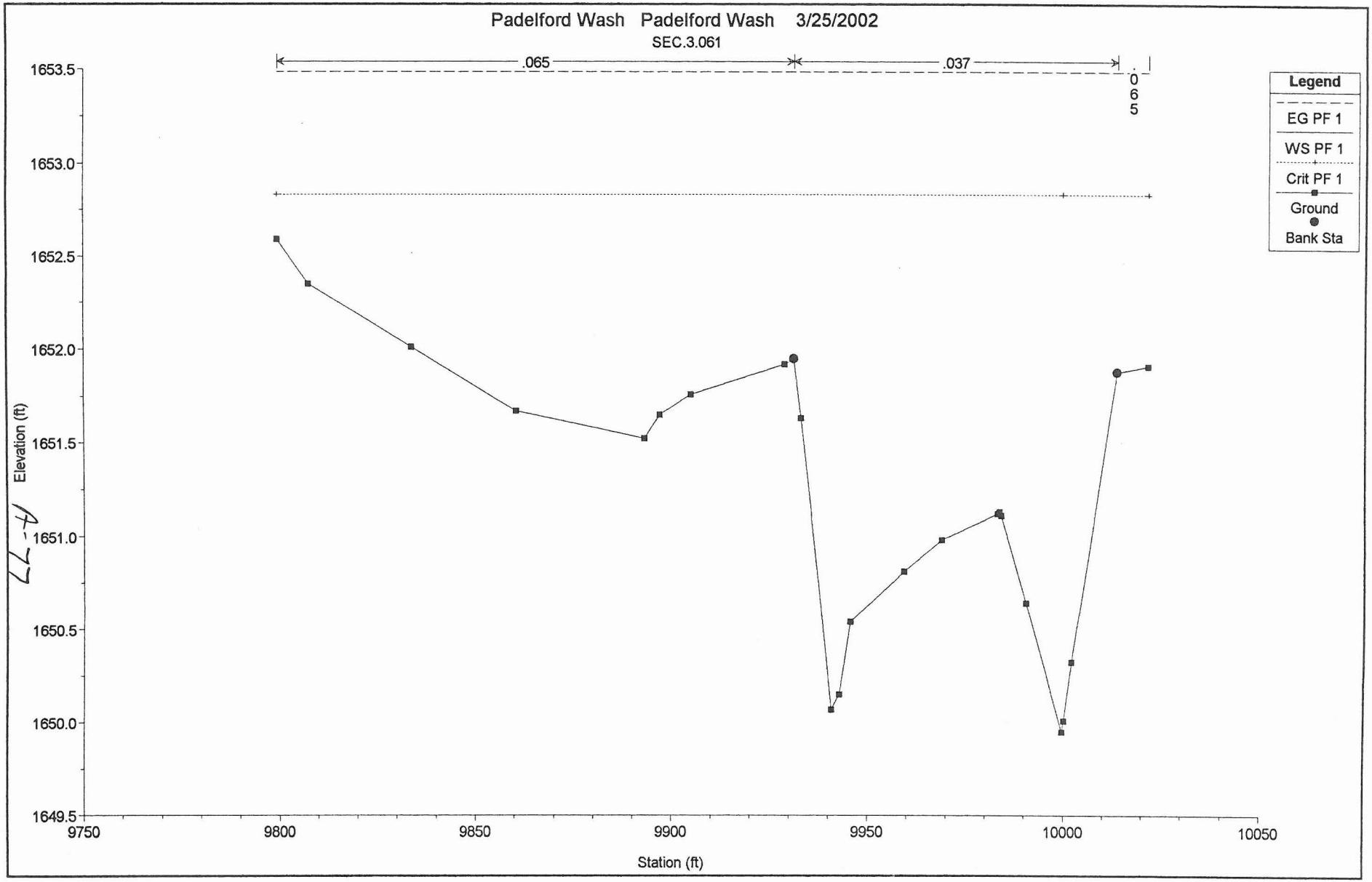
4-73


Padelford Wash Padelford Wash 3/25/2002
SEC.2.897. U/S OF DOVE VALLEY RD., 230+/
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1645
1644
1643
1642
1641
1640
9800
9900
10000
10100
10200
10300
10400
10500
A-74

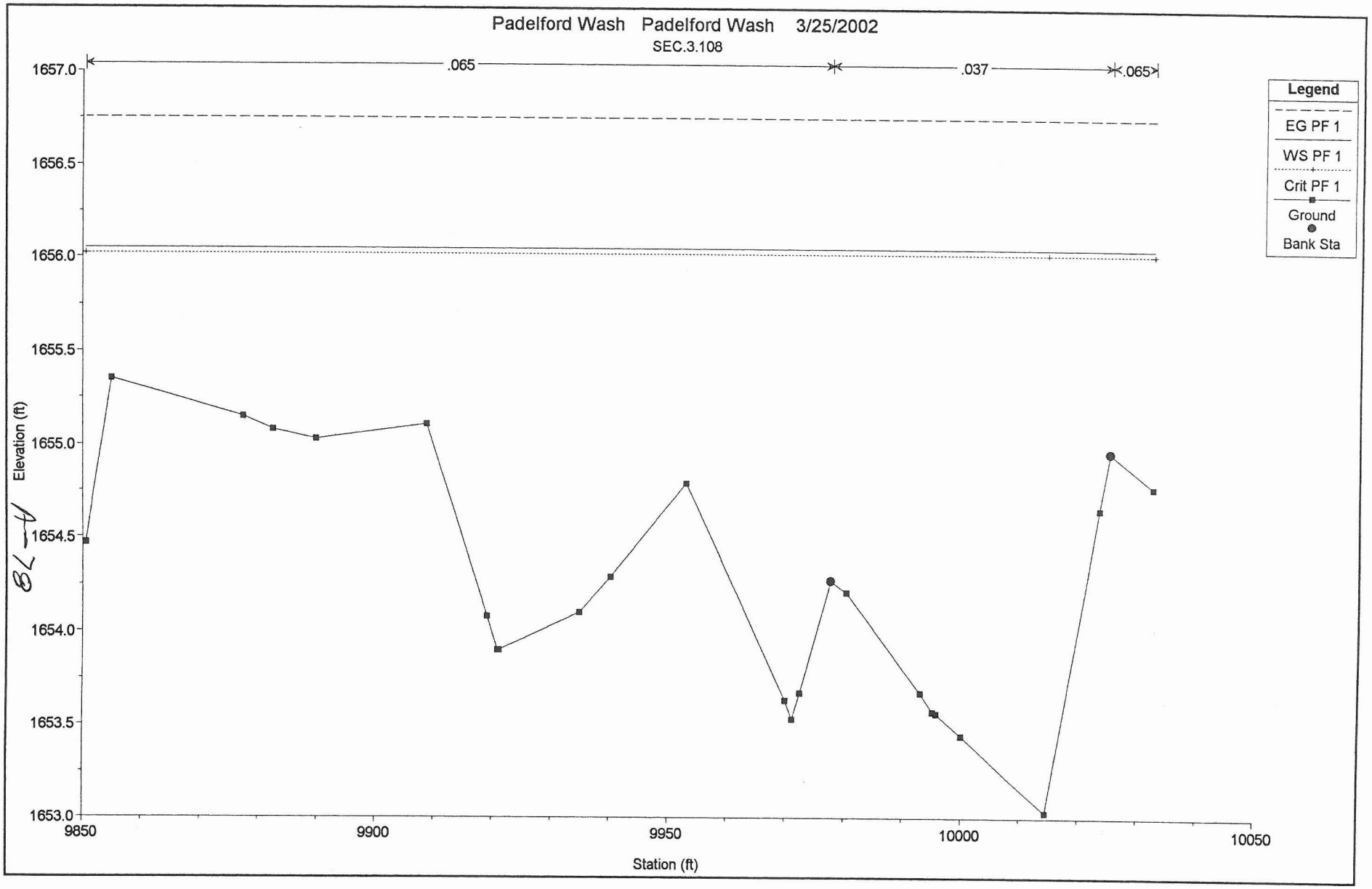

Padelford Wash Padelford Wash 3/25/2002
SEC.2.949
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1647
1646
1645
1644
1643
1642
9800
9900
10000
10100
10200
10300
10400

A-75

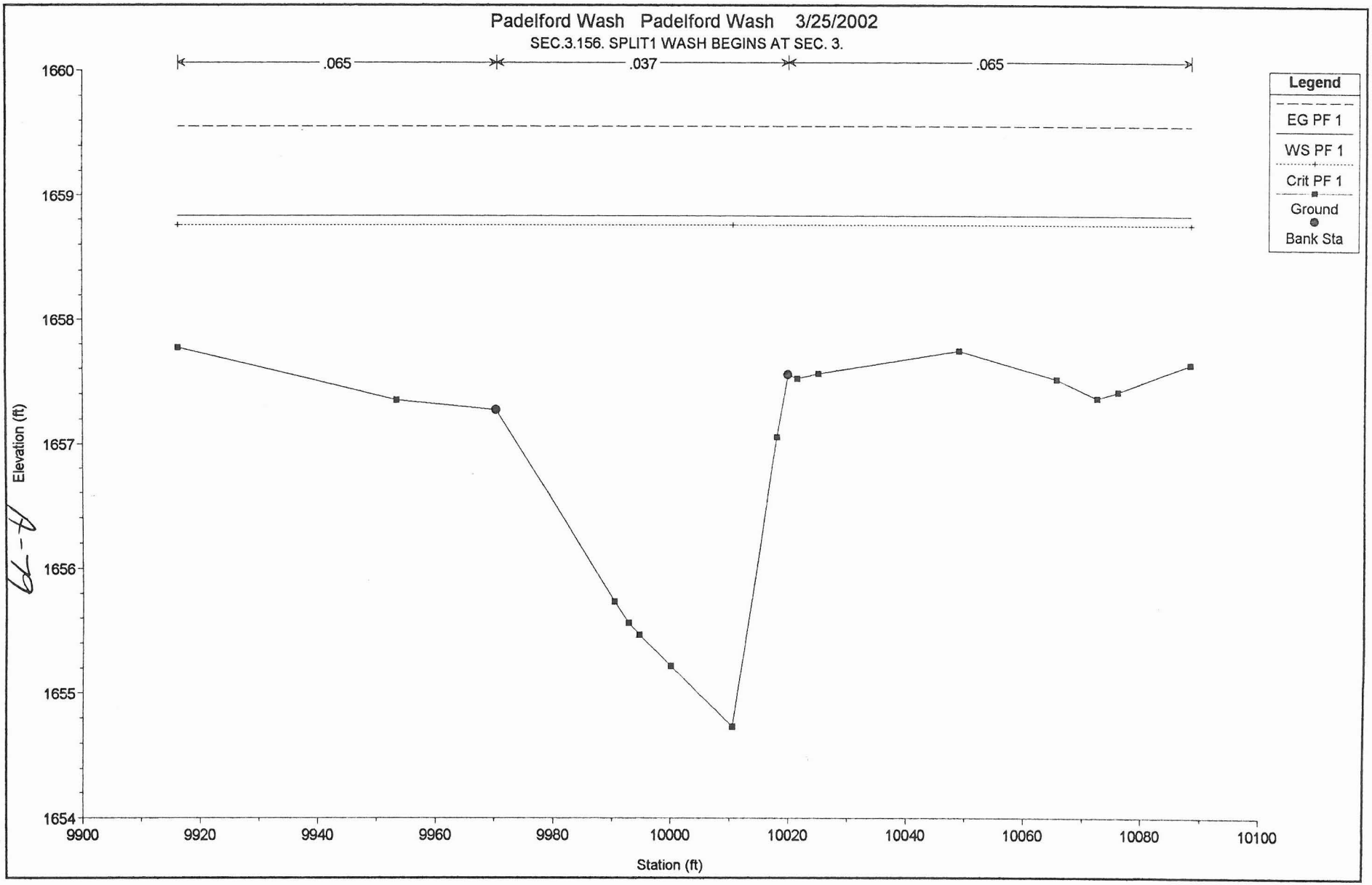

Padelford Wash Padelford Wash 3/25/2002
SEC.3.003
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1649.5
1649.0
1648.5
1648.0
1647.5
1647.0
1646.5
1646.0
1645.5
9800
9850
9900
9950
10000
10050
10100
10150
10200

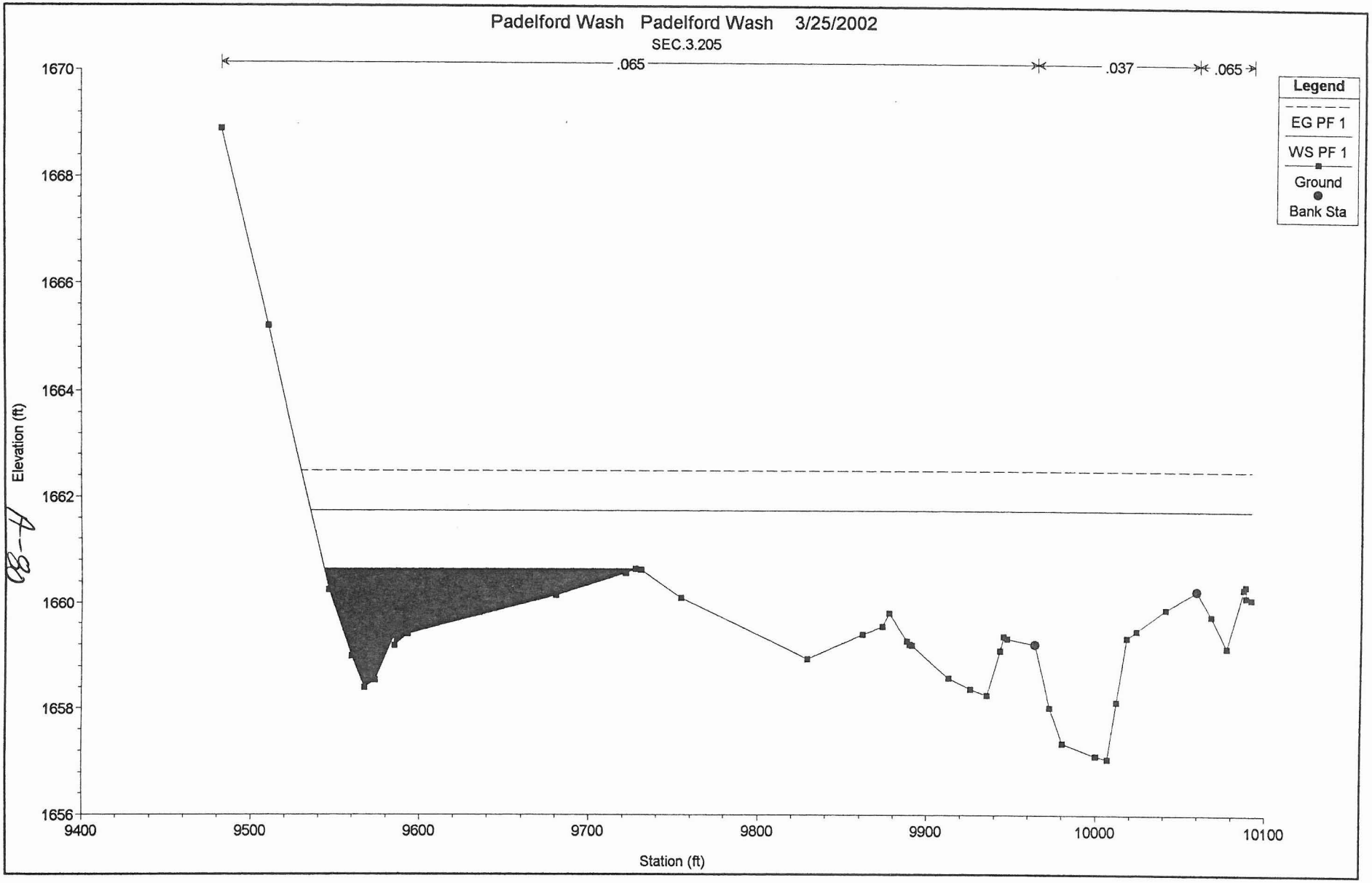

Padelford Wash Padelford Wash 3/25/2002
SEC.3.061
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1653.5
1653.0
1652.5
1652.0
1651.5
1651.0
1650.5
1650.0
1649.5
9750
9800
9850
9900
9950
10000
10050
Station (ft)

A-77

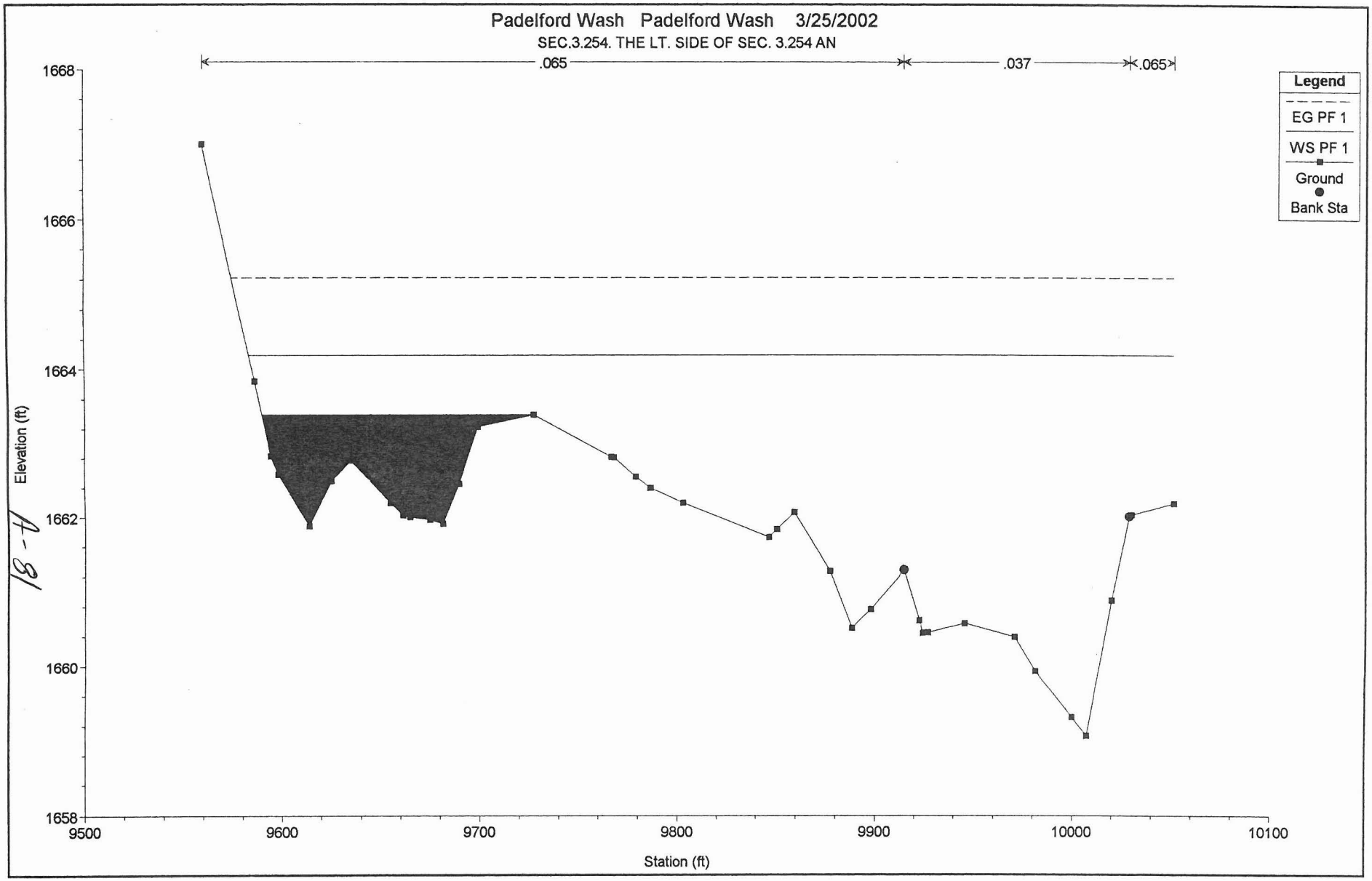

Padelford Wash Padelford Wash 3/25/2002
SEC.3.108
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
1657.0
1656.5
1656.0
1655.5
1655.0
1654.5
1654.0
1653.5
1653.0
Elevation (ft)
9850
9900
9950
10000
10050
Station (ft)

87-4

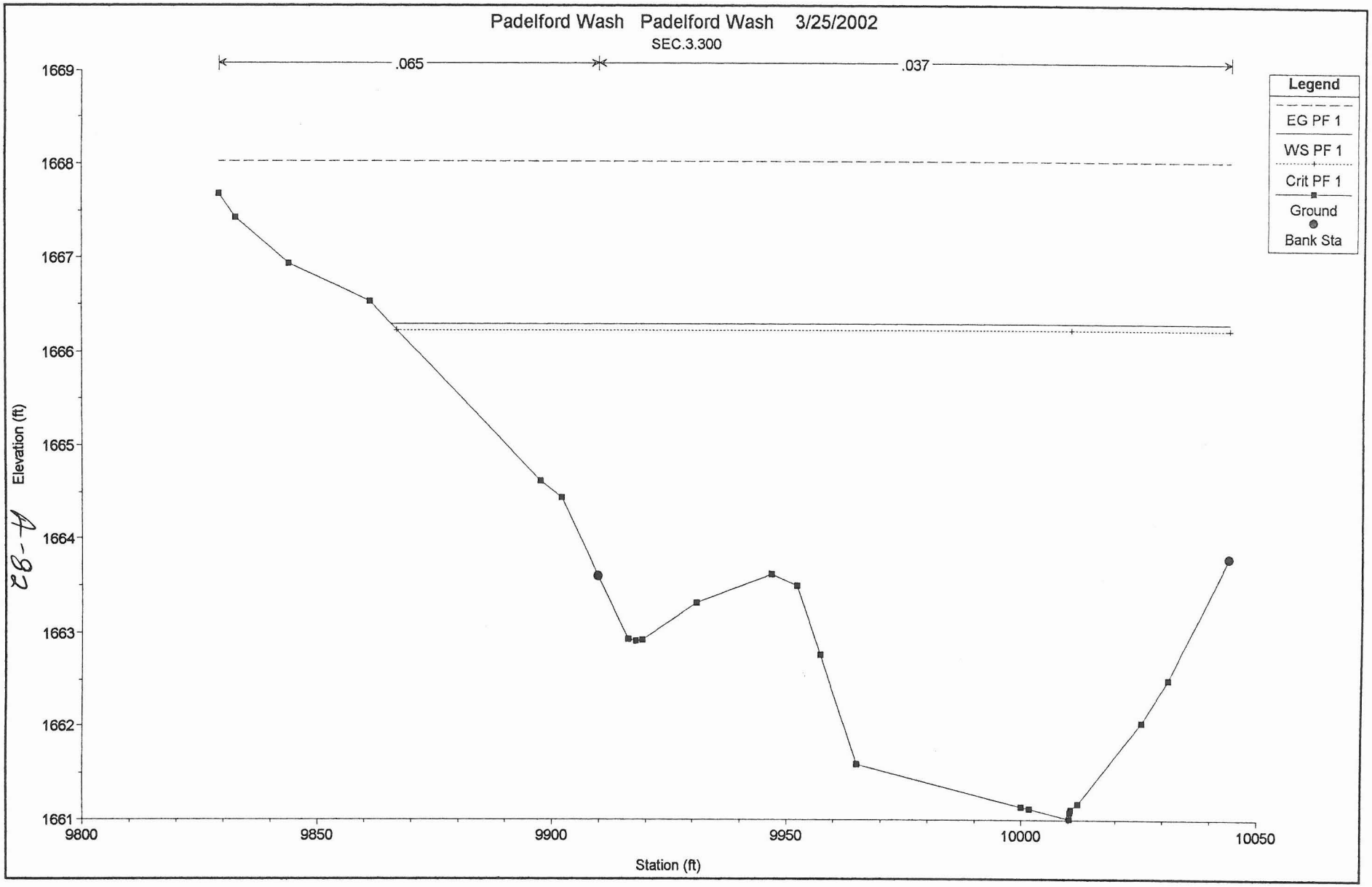

Padelford Wash Padelford Wash 3/25/2002
SEC.3.156. SPLIT1 WASH BEGINS AT SEC. 3.
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1660
1659
1658
1657
1656
1655
1654
9900
9920
9940
9960
9980
10000
10020
10040
10060
10080
10100


Padelford Wash Padelford Wash 3/25/2002
SEC.3.205
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1670
1668
1666
1664
1662
1660
1658
1656
9400
9500
9600
9700
9800
9900
10000
10100
Station (ft)

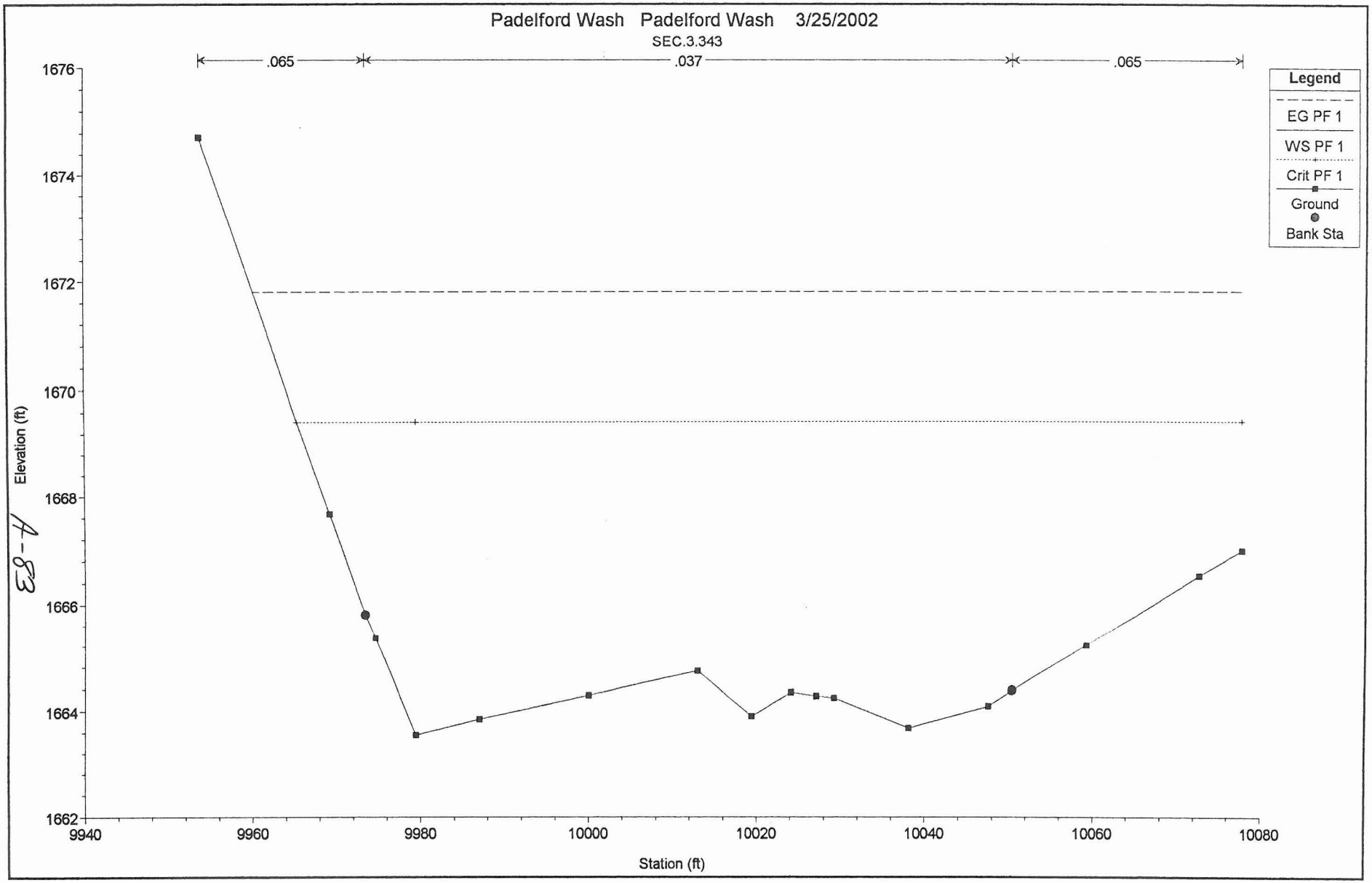
A-30


Padelford Wash Padelford Wash 3/25/2002
SEC.3.254. THE LT. SIDE OF SEC. 3.254 AN
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1668
1666
1664
1662
1660
1658
9500
9600
9700
9800
9900
10000
10100
Station (ft)

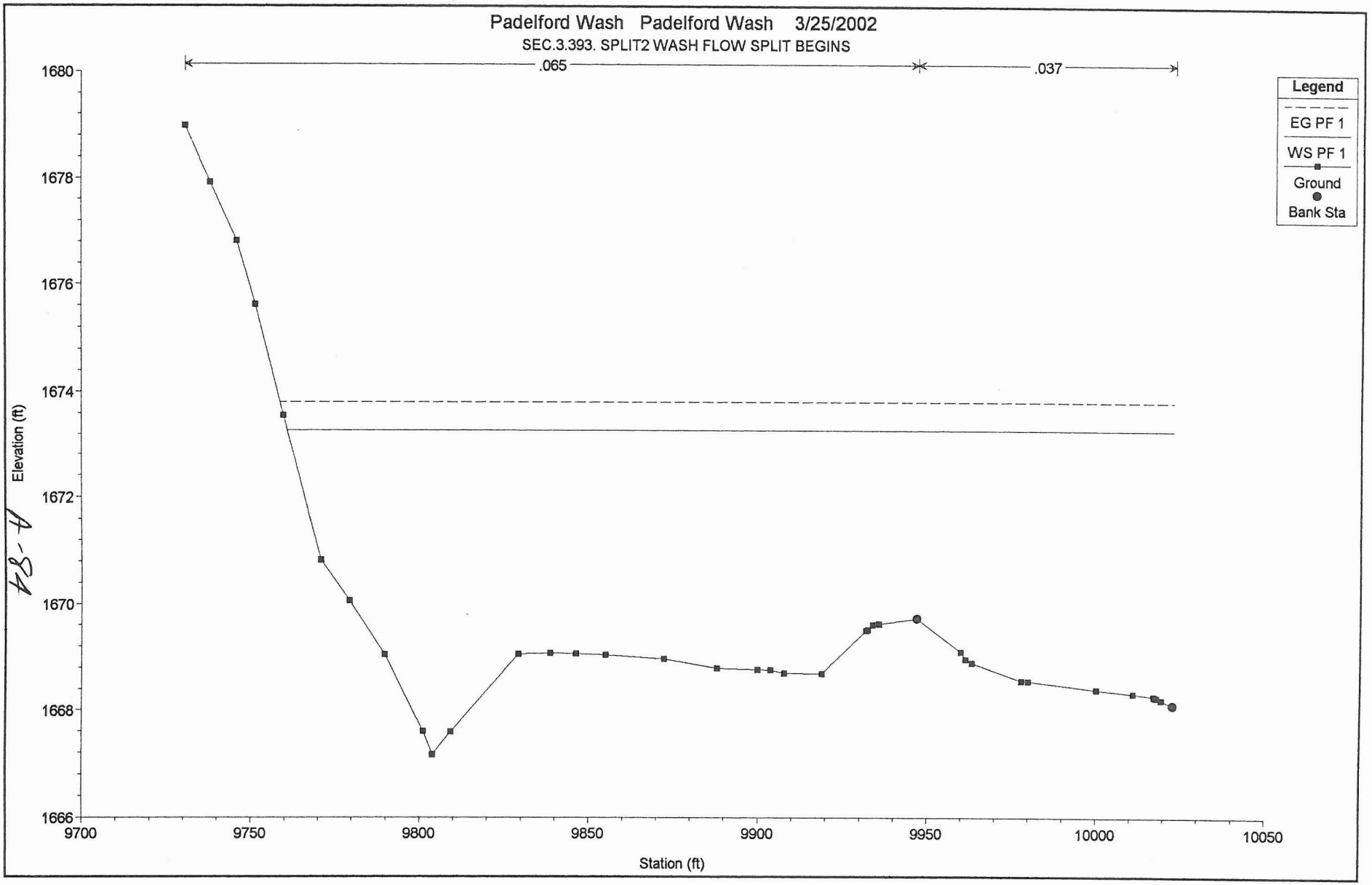
18-4

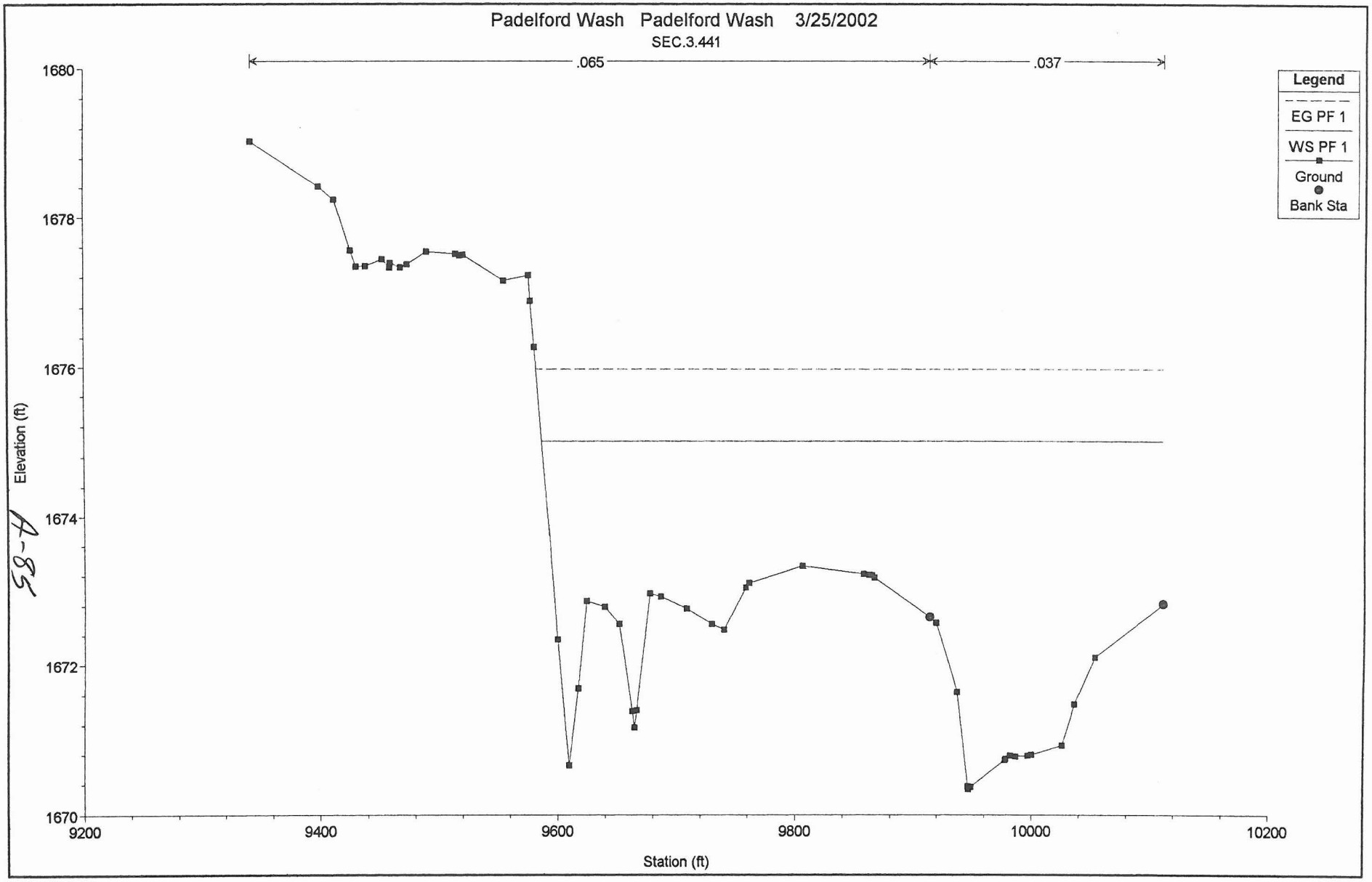

Padelford Wash Padelford Wash 3/25/2002
SEC.3.300
.065
.037
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1669
1668
1667
1666
1665
1664
1663
1662
1661
9800
9850
9900
9950
10000
10050

4-92

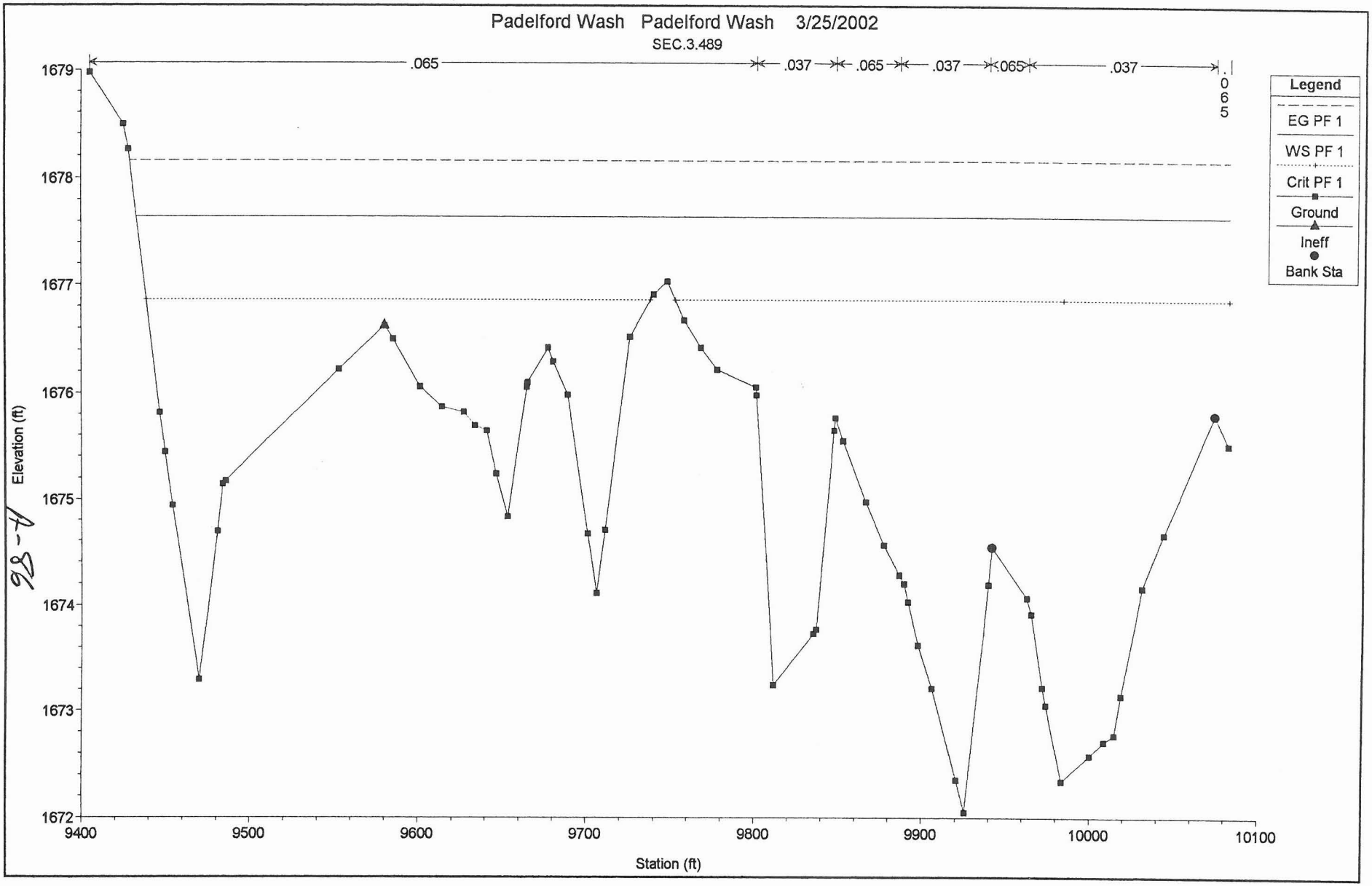

Padelford Wash Padelford Wash 3/25/2002
SEC.3.343
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1676
1674
1672
1670
1668
1666
1664
1662
9940
9960
9980
10000
10020
10040
10060
10080
Station (ft)

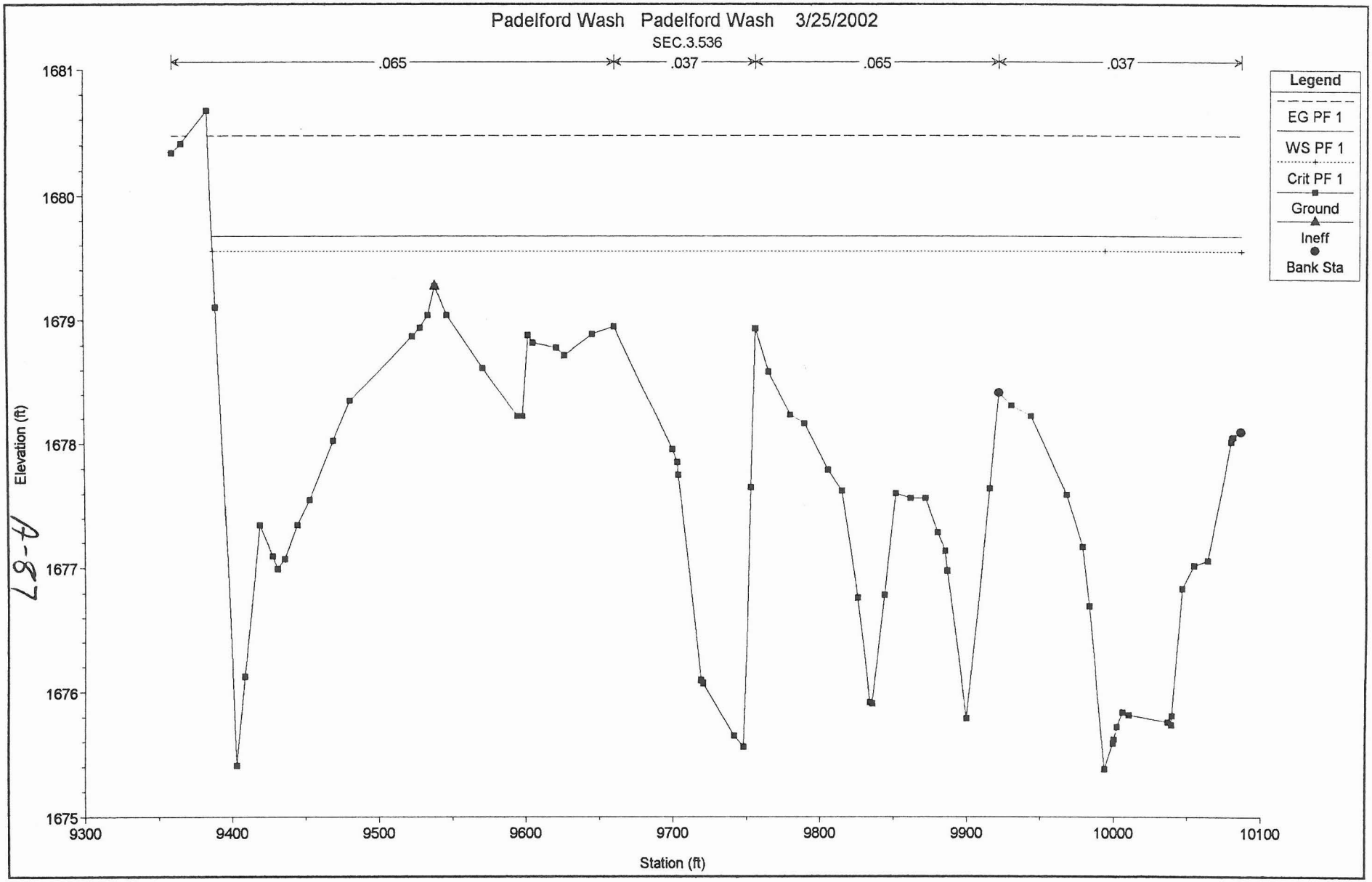
A-83

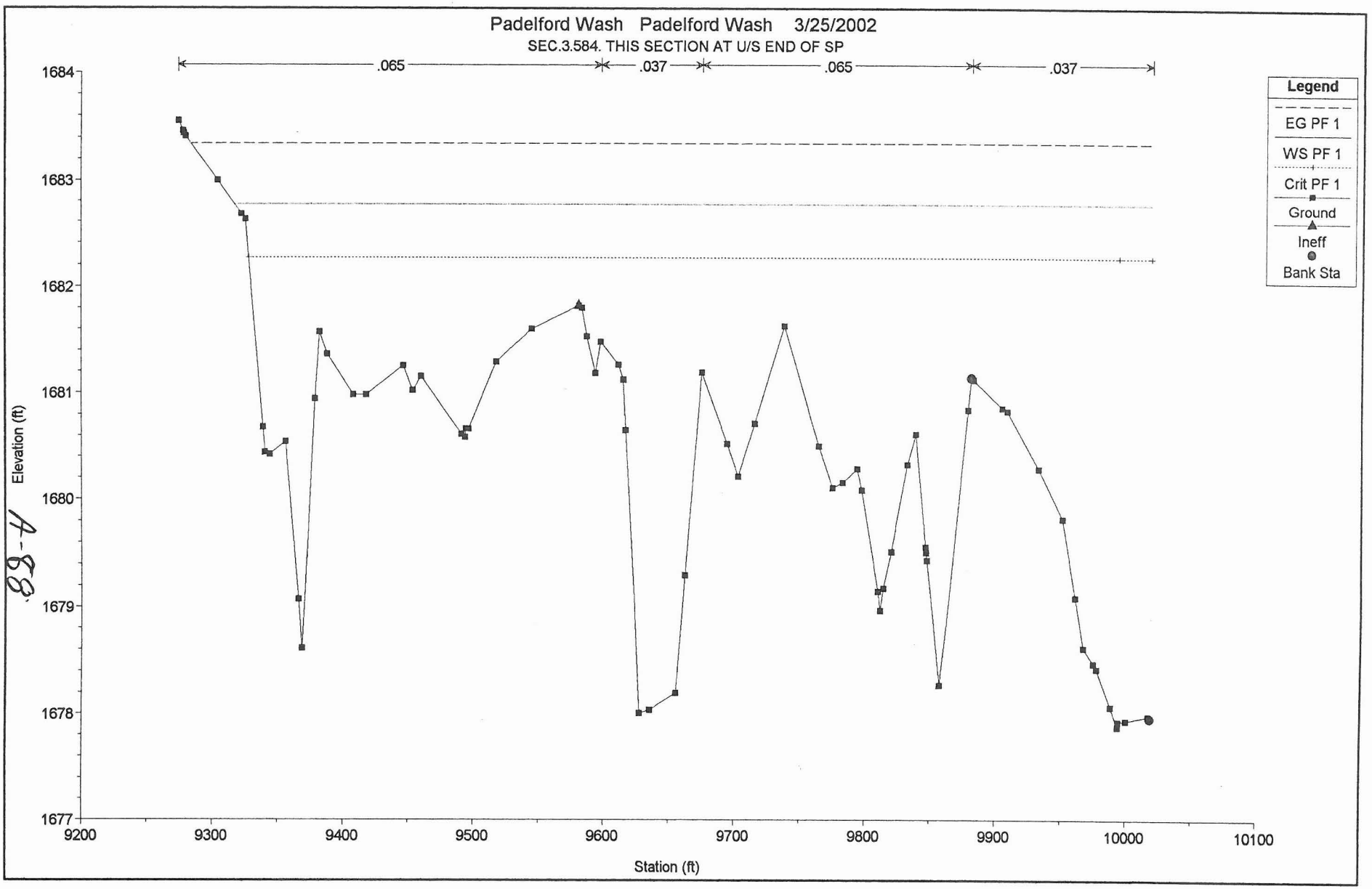

Padelford Wash Padelford Wash 3/25/2002
SEC.3.393. SPLIT2 WASH FLOW SPLIT BEGINS
.065
.037
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1680
1678
1676
1674
1672
1670
1668
1666
9700
9750
9800
9850
9900
9950
10000
10050
A-8-4


Padelford Wash Padelford Wash 3/25/2002
SEC.3.441
.065
.037
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1680
1678
1676
1674
1672
1670
9200
9400
9600
9800
10000
10200

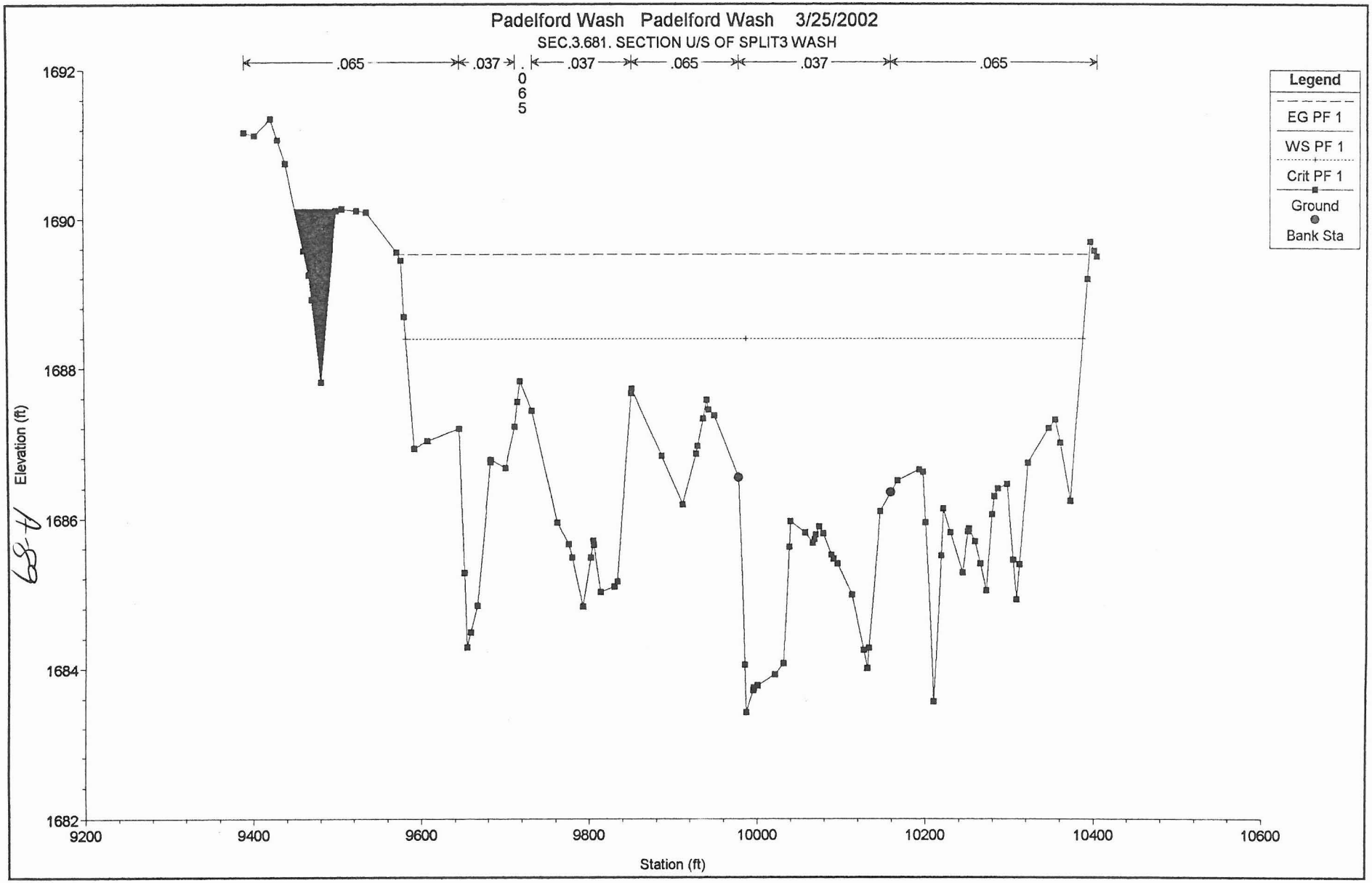
A-85

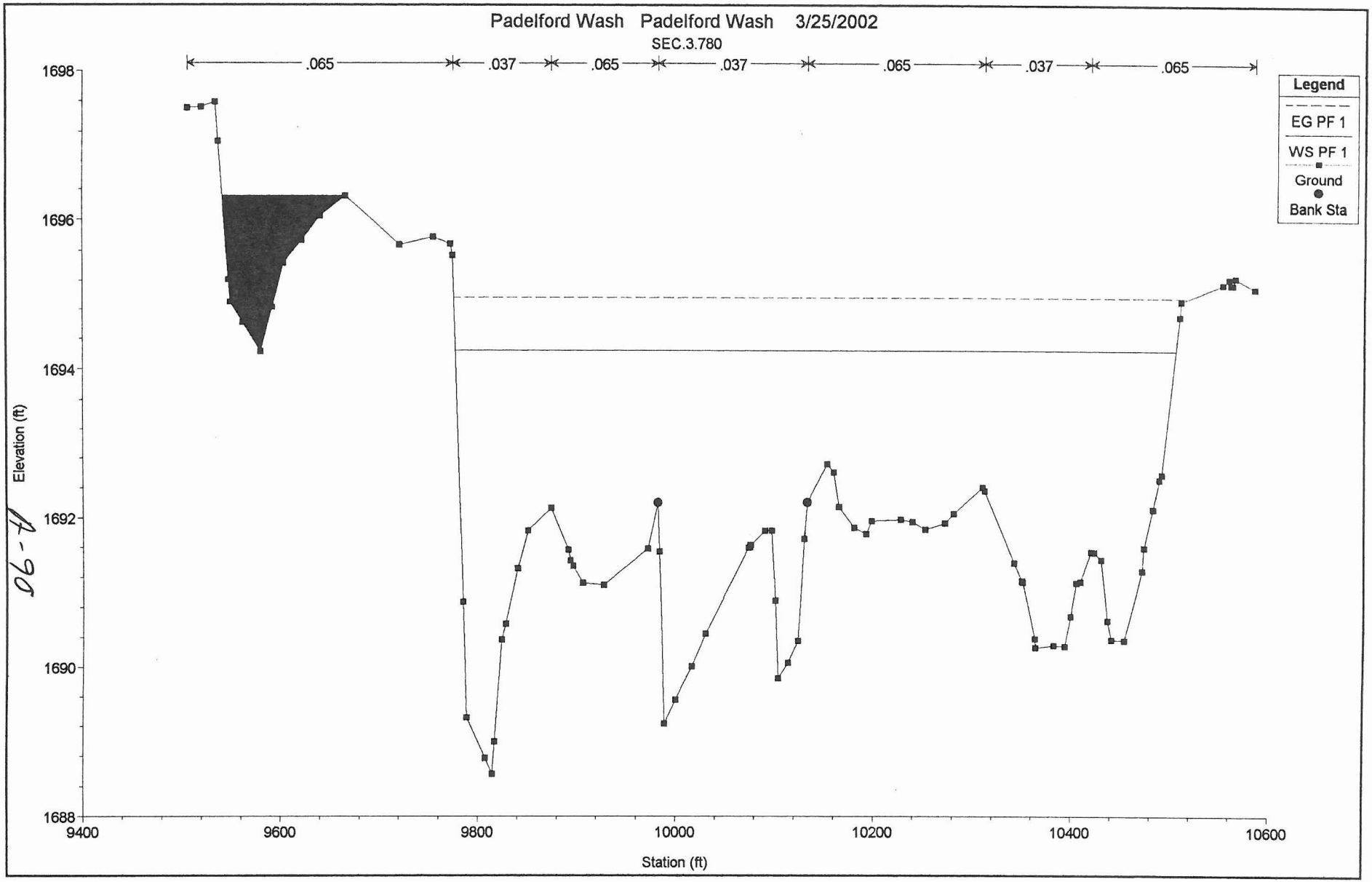

Padelford Wash Padelford Wash 3/25/2002
SEC.3.489
.065
.037
.065
.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (ft)
1679
1678
1677
1676
1675
1674
1673
1672
9400
9500
9600
9700
9800
9900
10000
10100
Station (ft)


Padelford Wash Padelford Wash 3/25/2002
SEC.3.536
.065
.037
.065
.037
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
1681
1680
1679
1678
1677
1676
1675
9300
9400
9500
9600
9700
9800
9900
10000
10100
L8-t

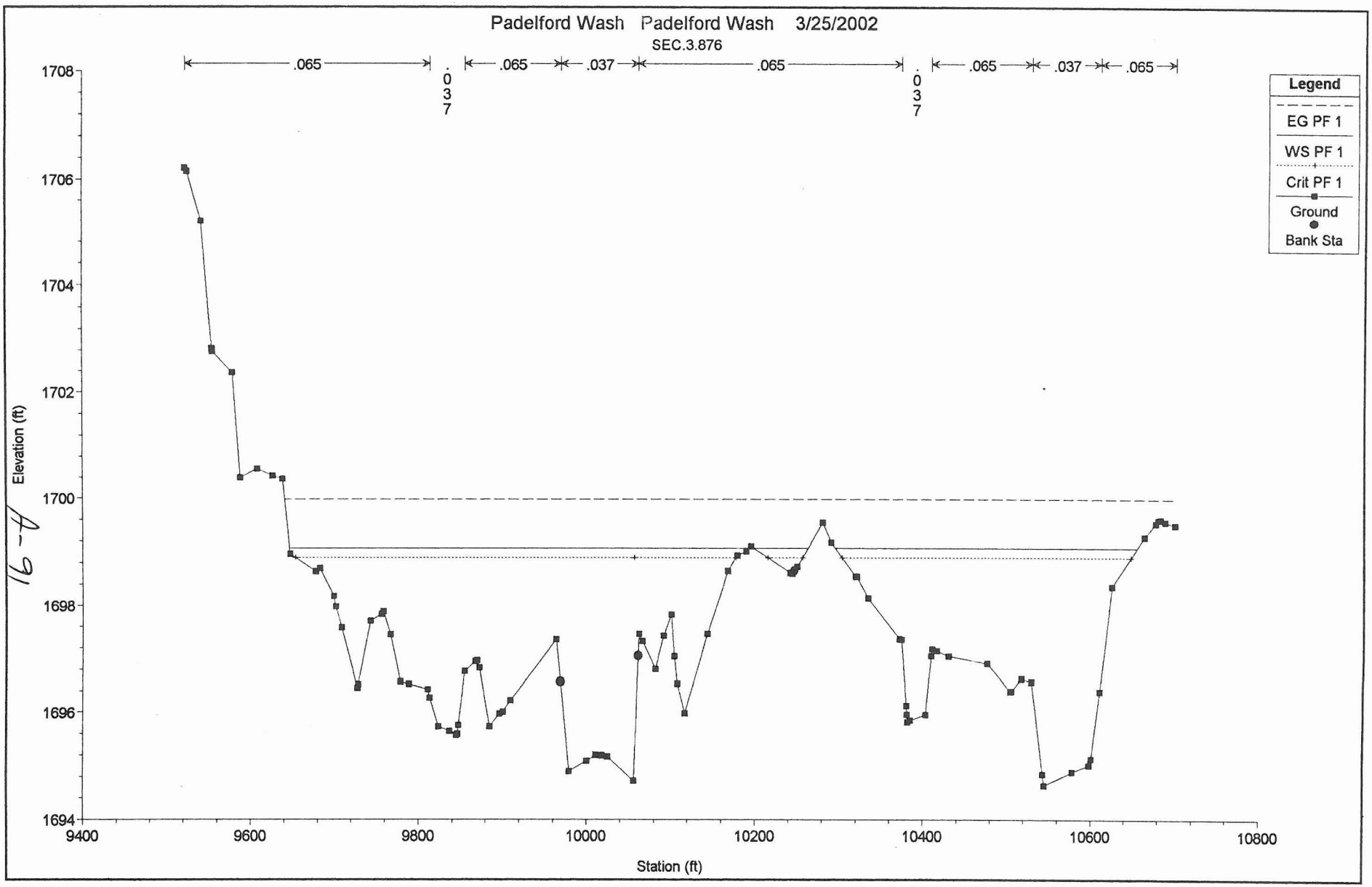

Padelford Wash Padelford Wash 3/25/2002
SEC.3.584. THIS SECTION AT U/S END OF SP
.065
.037
.065
.037
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
1684
1683
1682
1681
1680
1679
1678
1677
9200
9300
9400
9500
9600
9700
9800
9900
10000
10100

A-88

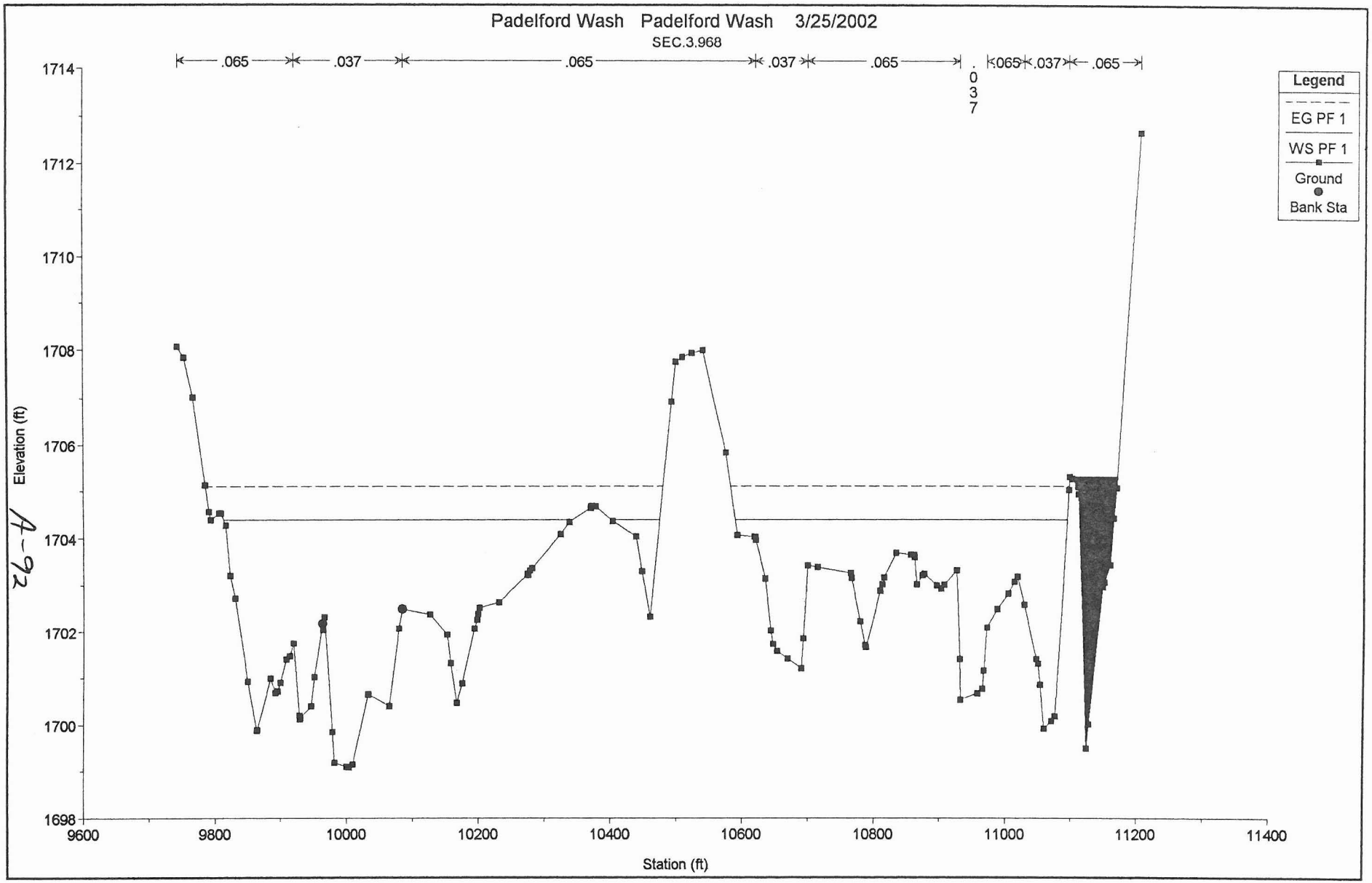

Padelford Wash Padelford Wash 3/25/2002
SEC.3.681. SECTION U/S OF SPLIT3 WASH
.065
.037
.037
.065
.037
.065
0
6
5
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1692
1690
1688
1686
1684
1682
9200
9400
9600
9800
10000
10200
10400
10600
Station (ft)


Padelford Wash Padelford Wash 3/25/2002
SEC.3.780
.065
.037
.065
.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1698
1696
1694
1692
1690
1688
Elevation (ft)
9400
9600
9800
10000
10200
10400
10600
Station (ft)

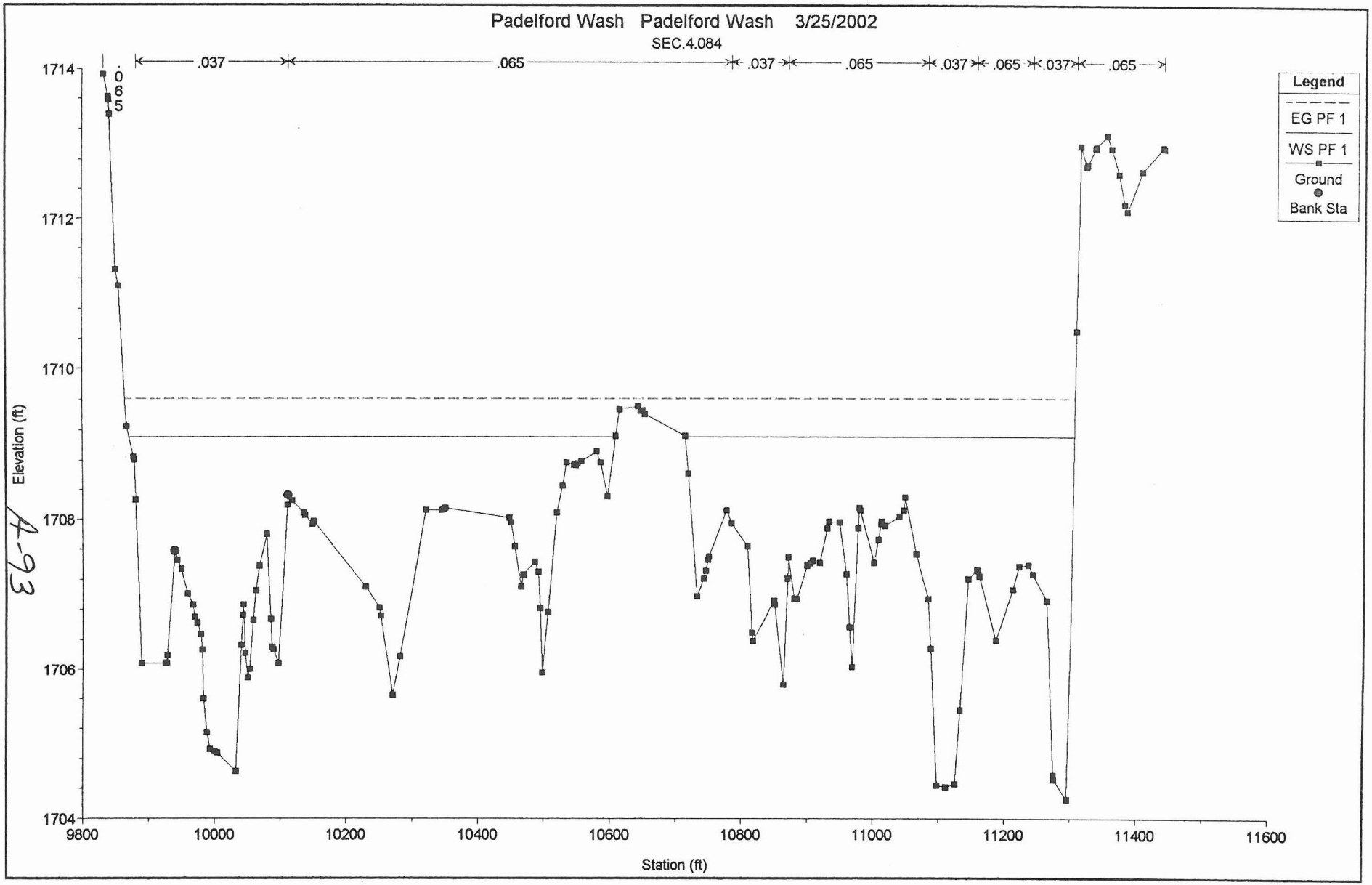
A-96


Padelford Wash Padelford Wash 3/25/2002
SEC.3.876
.065
.037
.065
.037
.065
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1708
1706
1704
1702
1700
1698
1696
1694
9400
9600
9800
10000
10200
10400
10600
10800

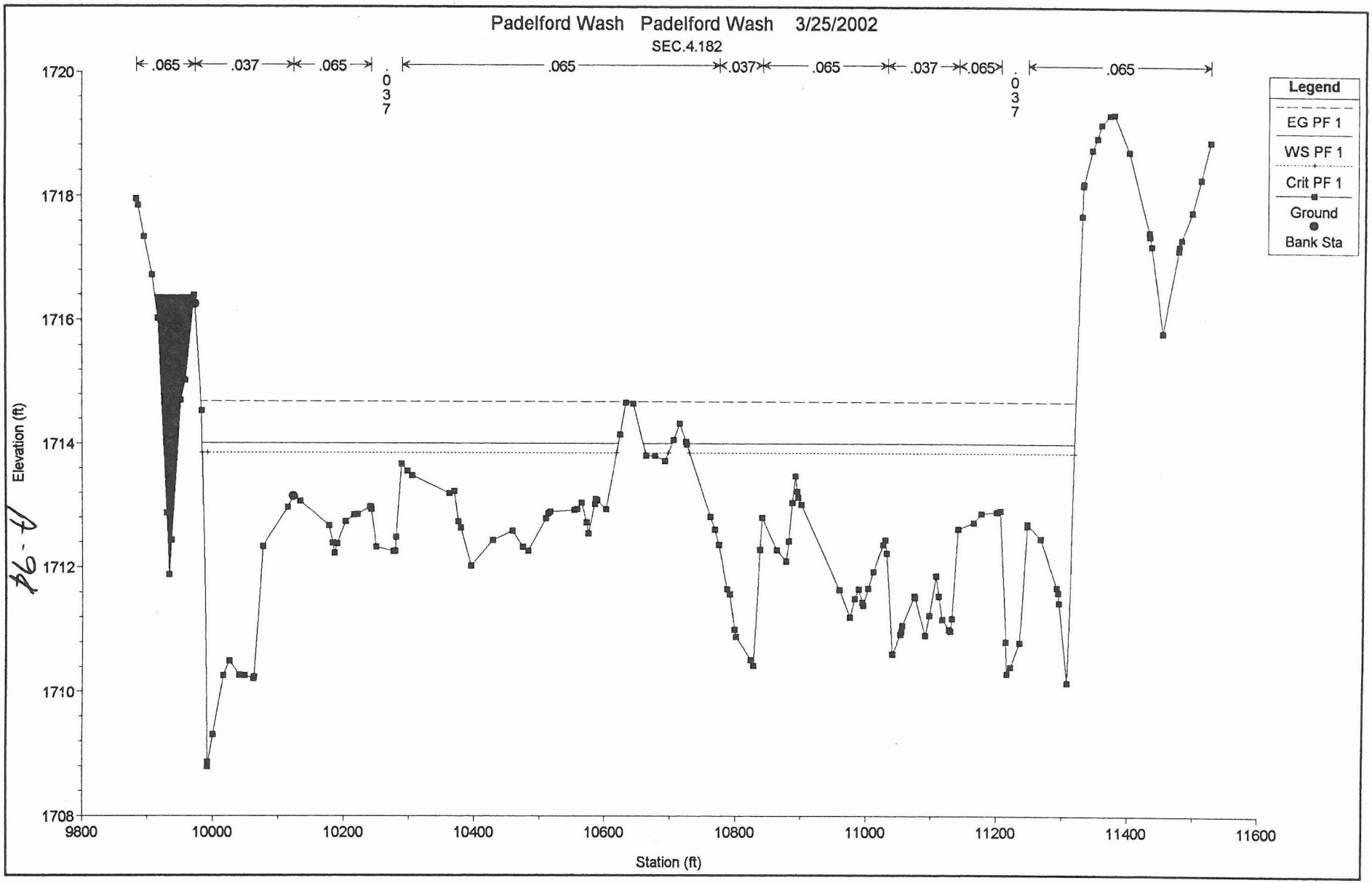
16-4

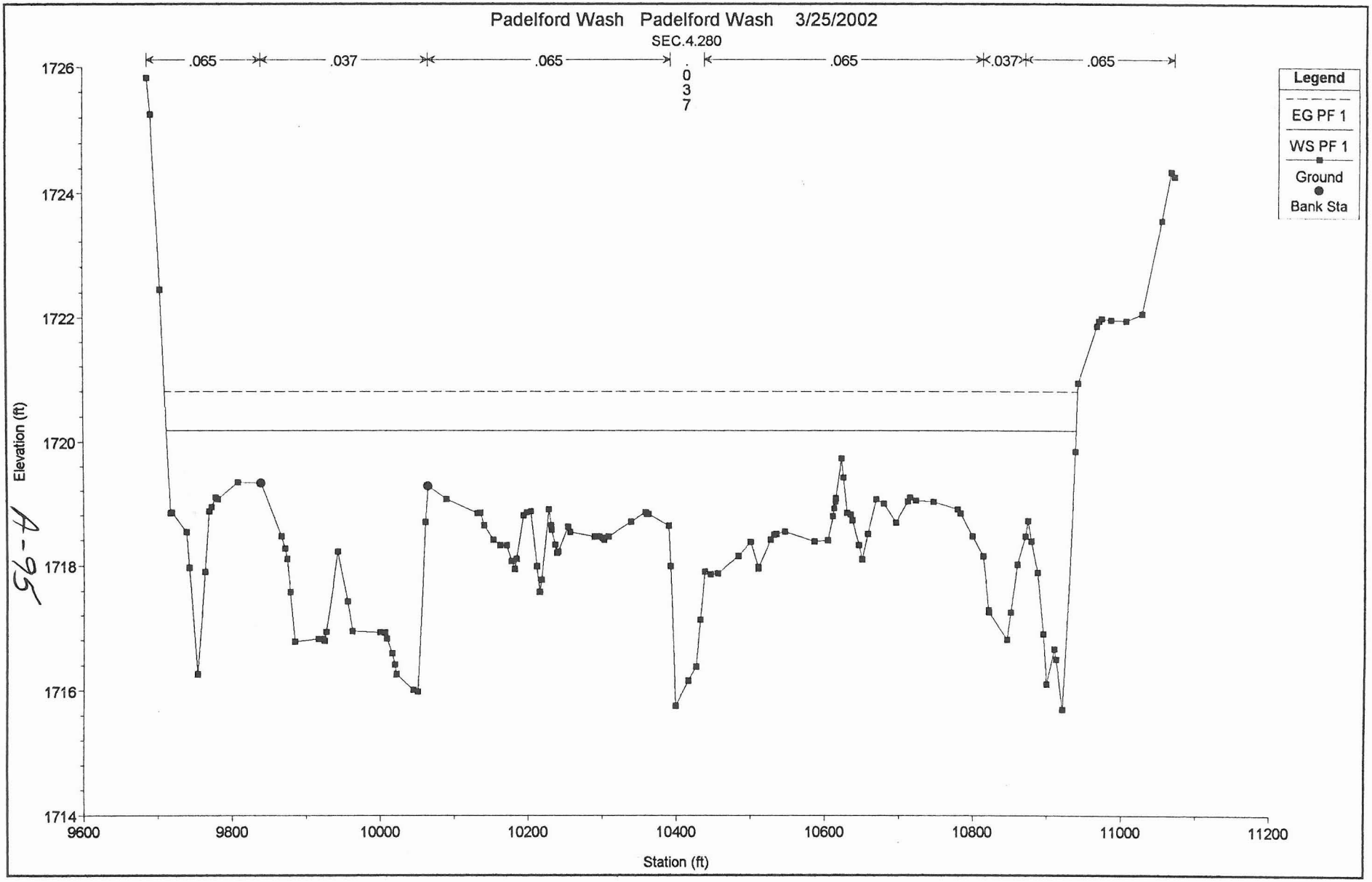

Padelford Wash Padelford Wash 3/25/2002
SEC.3.968
.065
.037
.065
.037
.065
.
0
3
7
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1714
1712
1710
1708
1706
1704
1702
1700
1698
9600
9800
10000
10200
10400
10600
10800
11000
11200
11400
Station (ft)

4-92

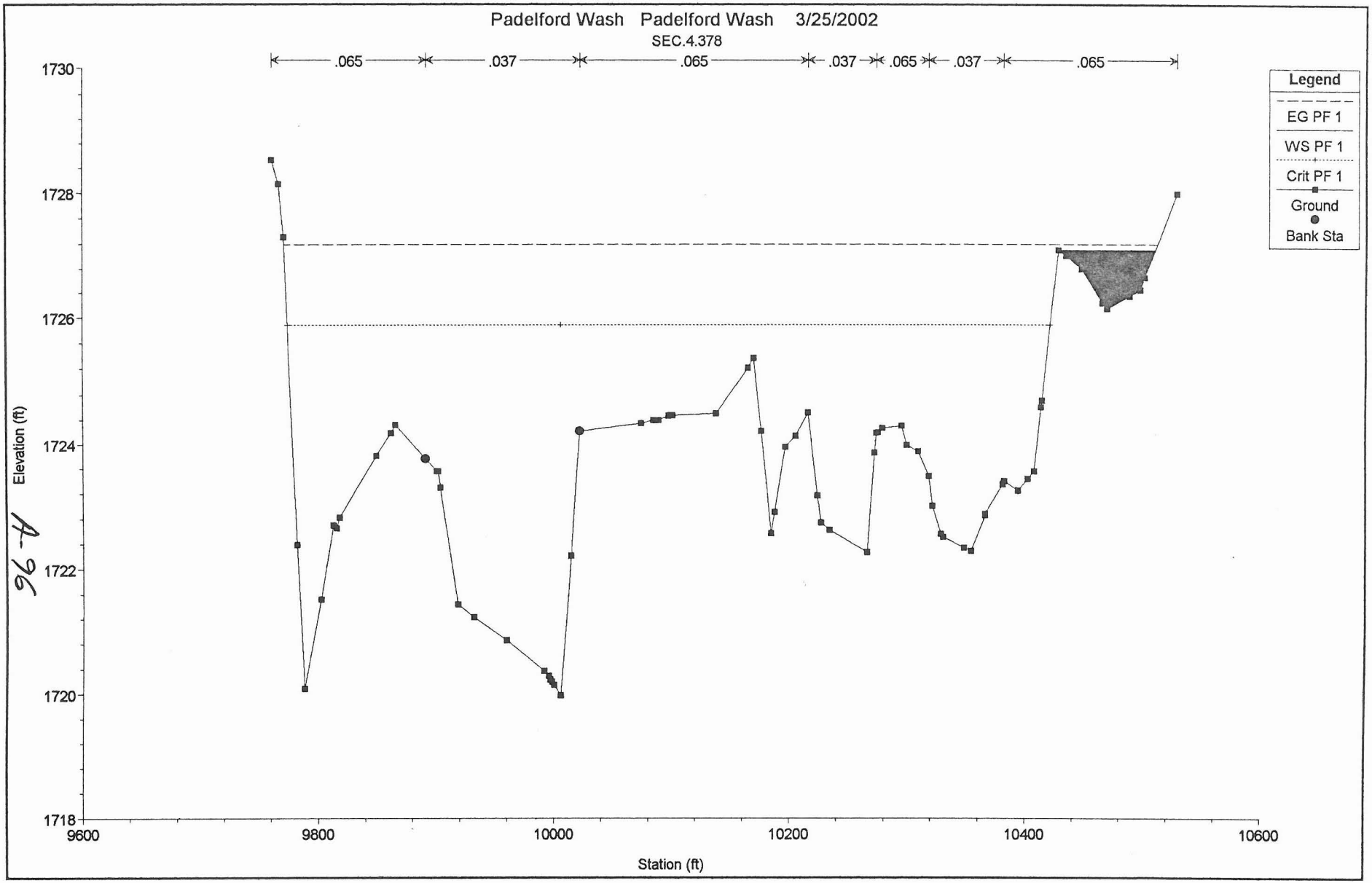

Padelford Wash Padelford Wash 3/25/2002
SEC.4.084
.037
.065
.037
.065
.037
.065
.037
.065
0
6
5
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1714
1712
1710
1708
1706
1704
Elevation (ft)
9800
10000
10200
10400
10600
10800
11000
11200
11400
11600
Station (ft)

A-93

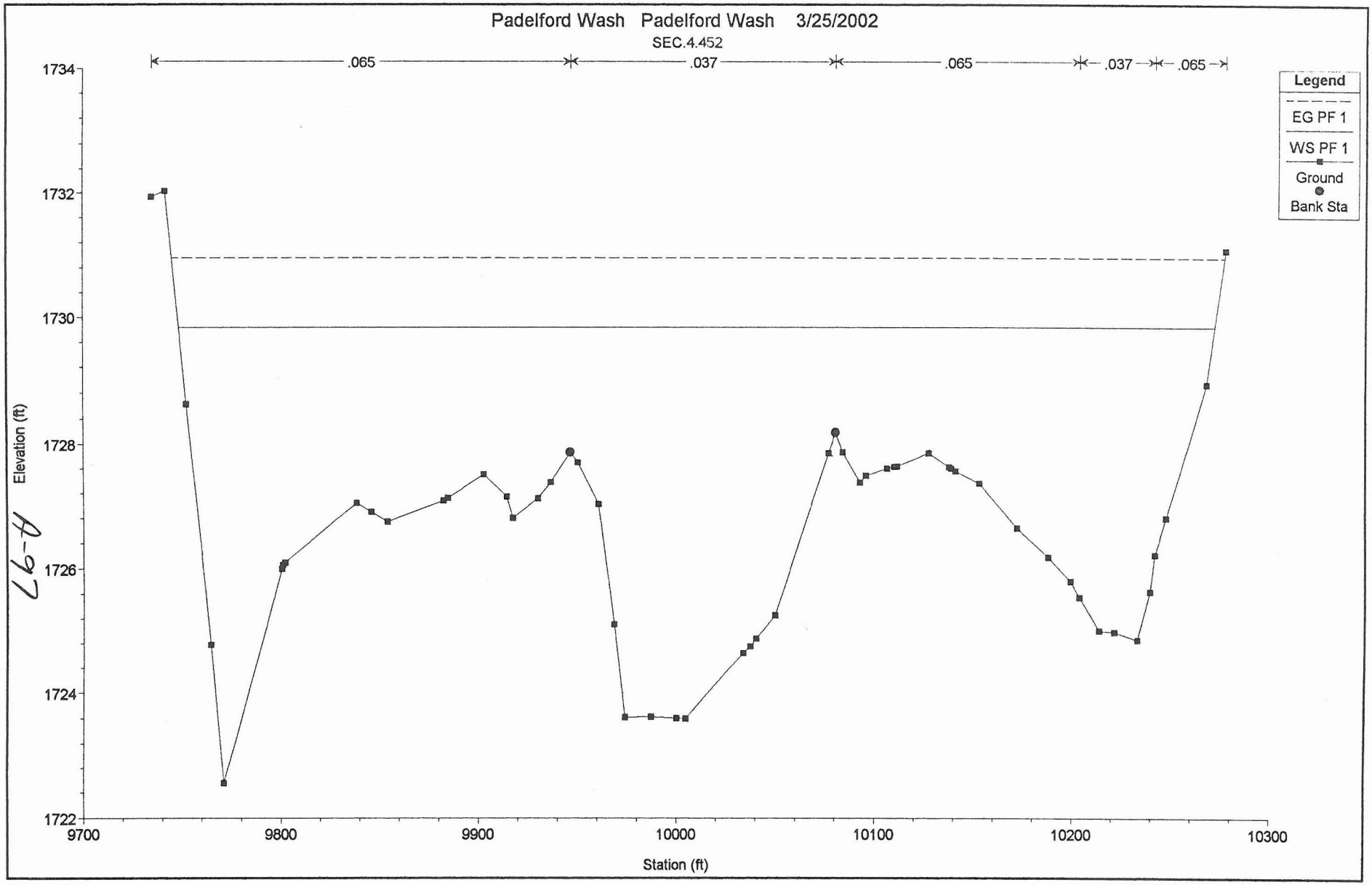

Padelford Wash Padelford Wash 3/25/2002
SEC.4.182
.065
.037
.065
.037
.065
.037
.065
.037
.065
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1720
1718
1716
1714
1712
1710
1708
9800
10000
10200
10400
10600
10800
11000
11200
11400
11600
Station (ft)


Padelford Wash Padelford Wash 3/25/2002
SEC.4.280
.065
.037
.065
.065
.037
.065
0
3
7
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1726
1724
1722
1720
1718
1716
1714
9600
9800
10000
10200
10400
10600
10800
11000
11200
Station (ft)

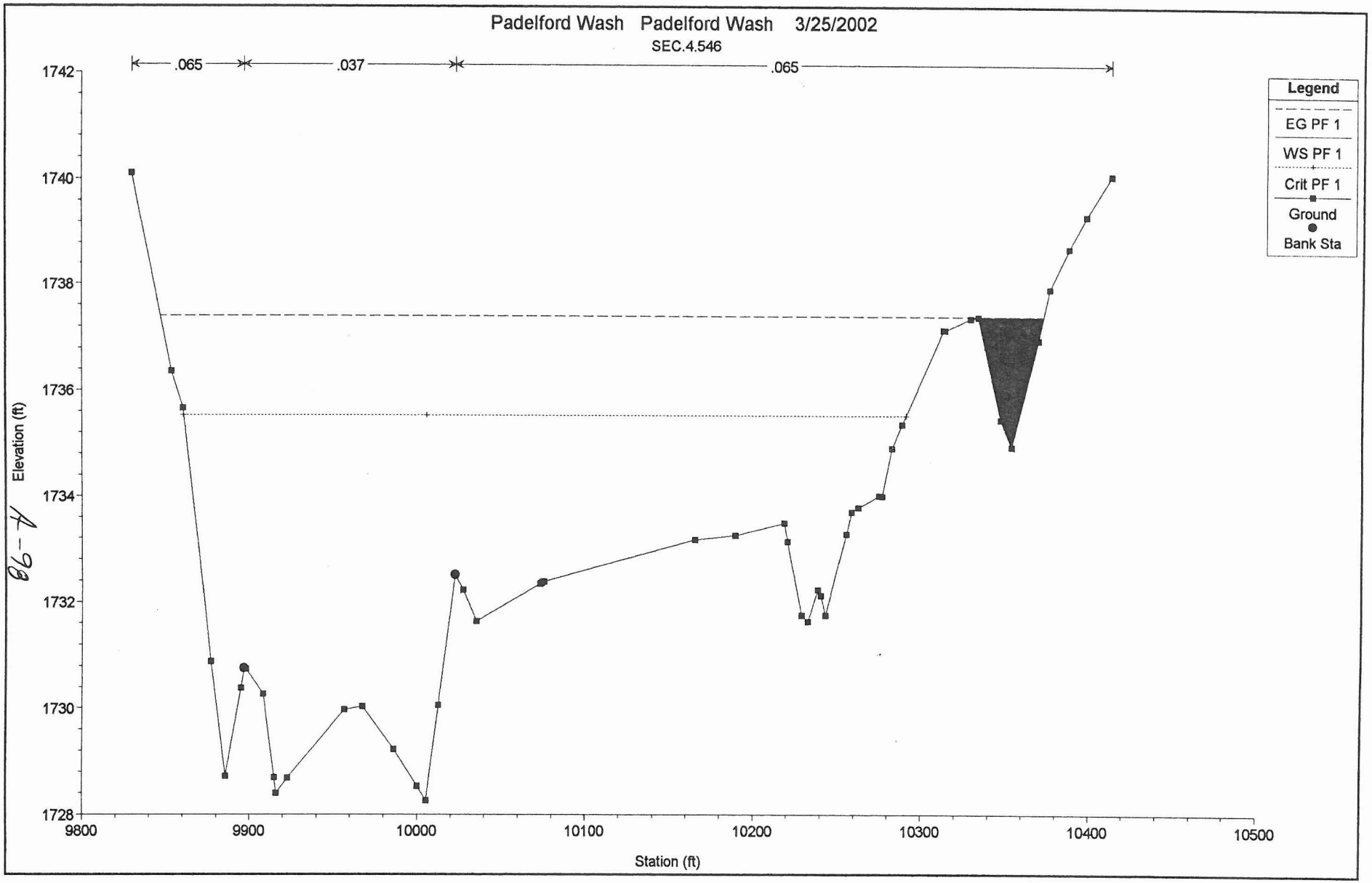
A-95


Padelford Wash Padelford Wash 3/25/2002
SEC.4.378
.065
.037
.065
.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1730
1728
1726
1724
1722
1720
1718
9600
9800
10000
10200
10400
10600
Station (ft)

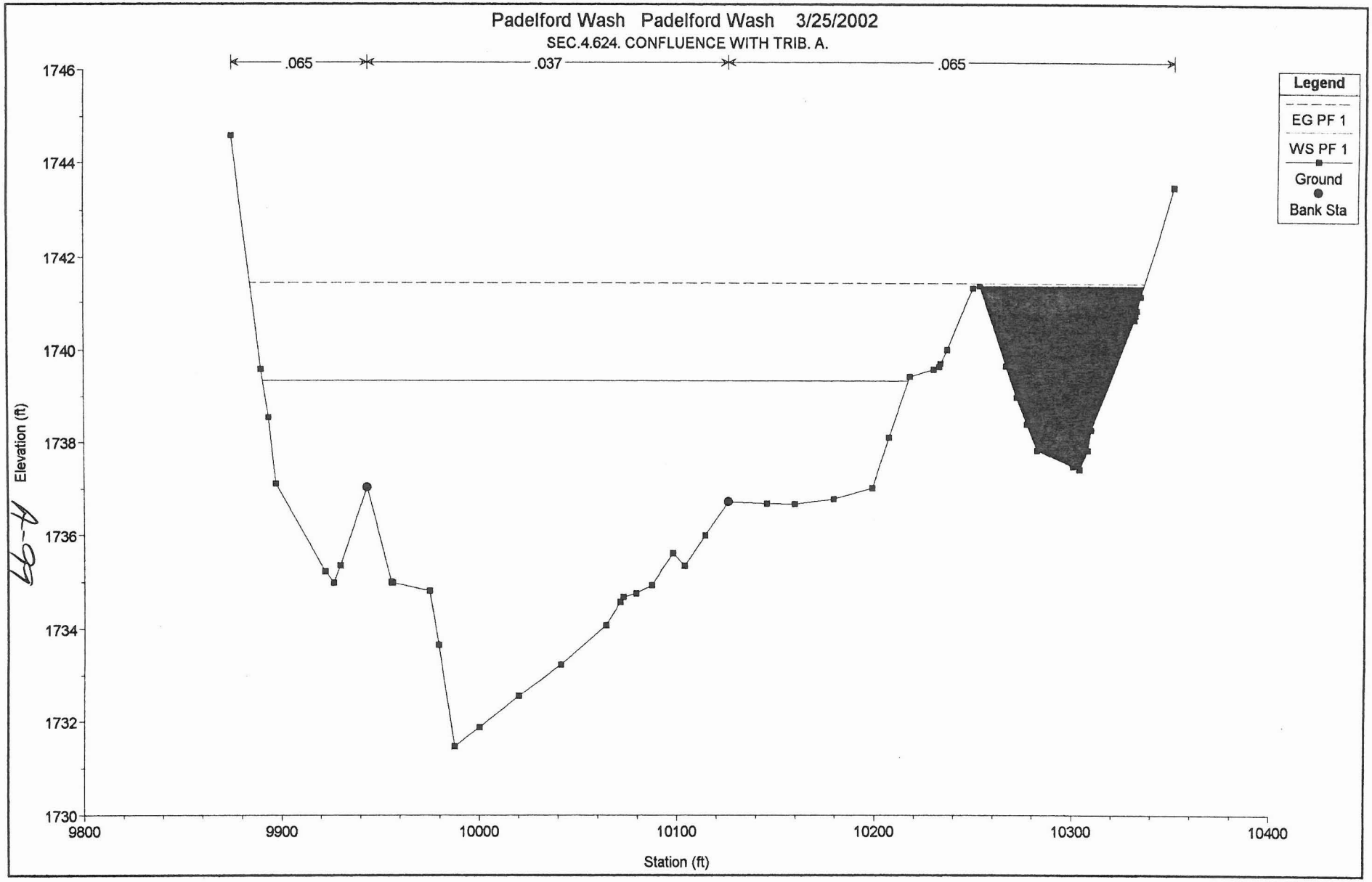
A-96

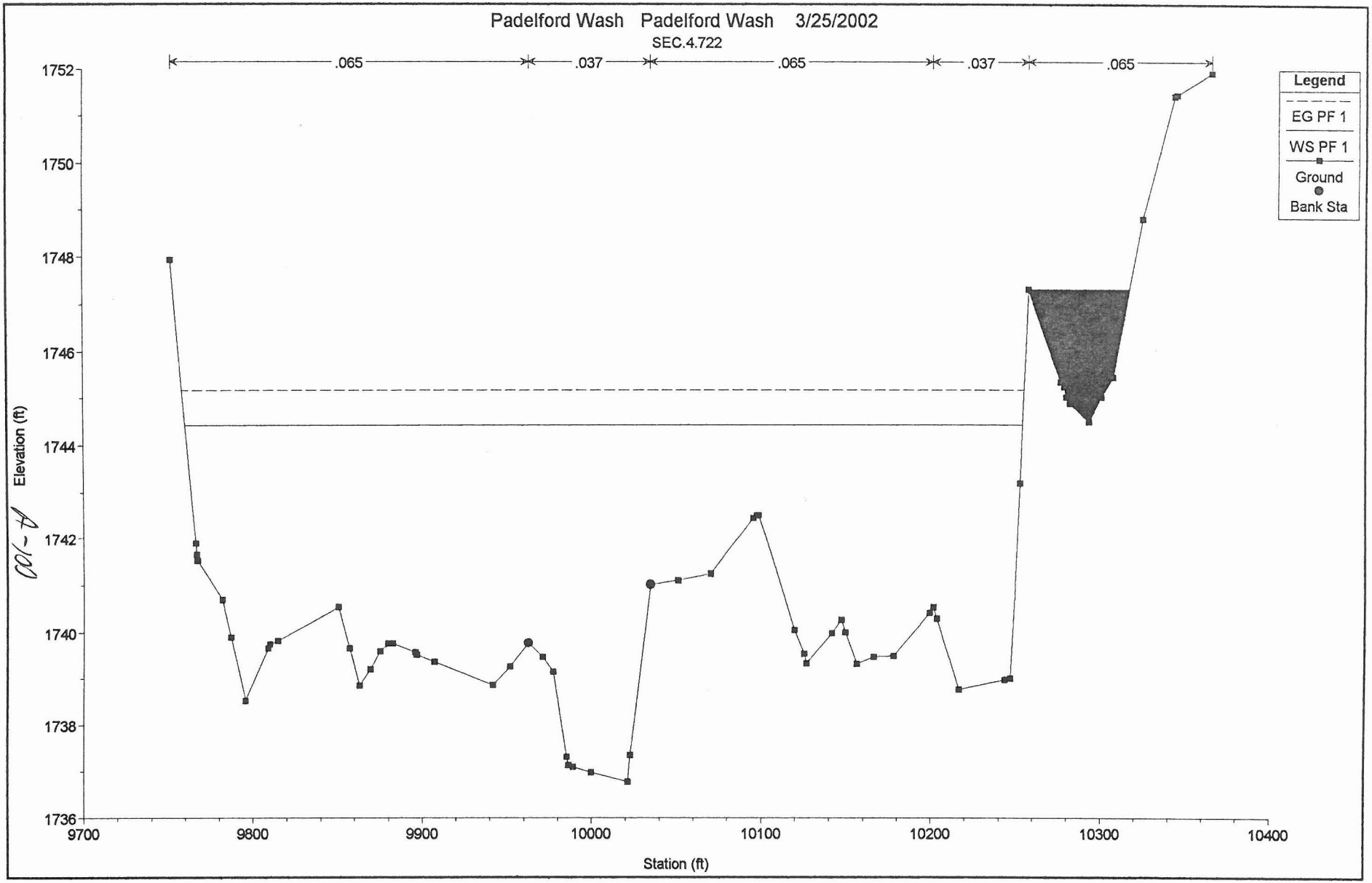

Padelford Wash Padelford Wash 3/25/2002
SEC.4.452
.065
.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1734
1732
1730
1728
1726
1724
1722
Elevation (ft)
9700
9800
9900
10000
10100
10200
10300
Station (ft)

L6-H

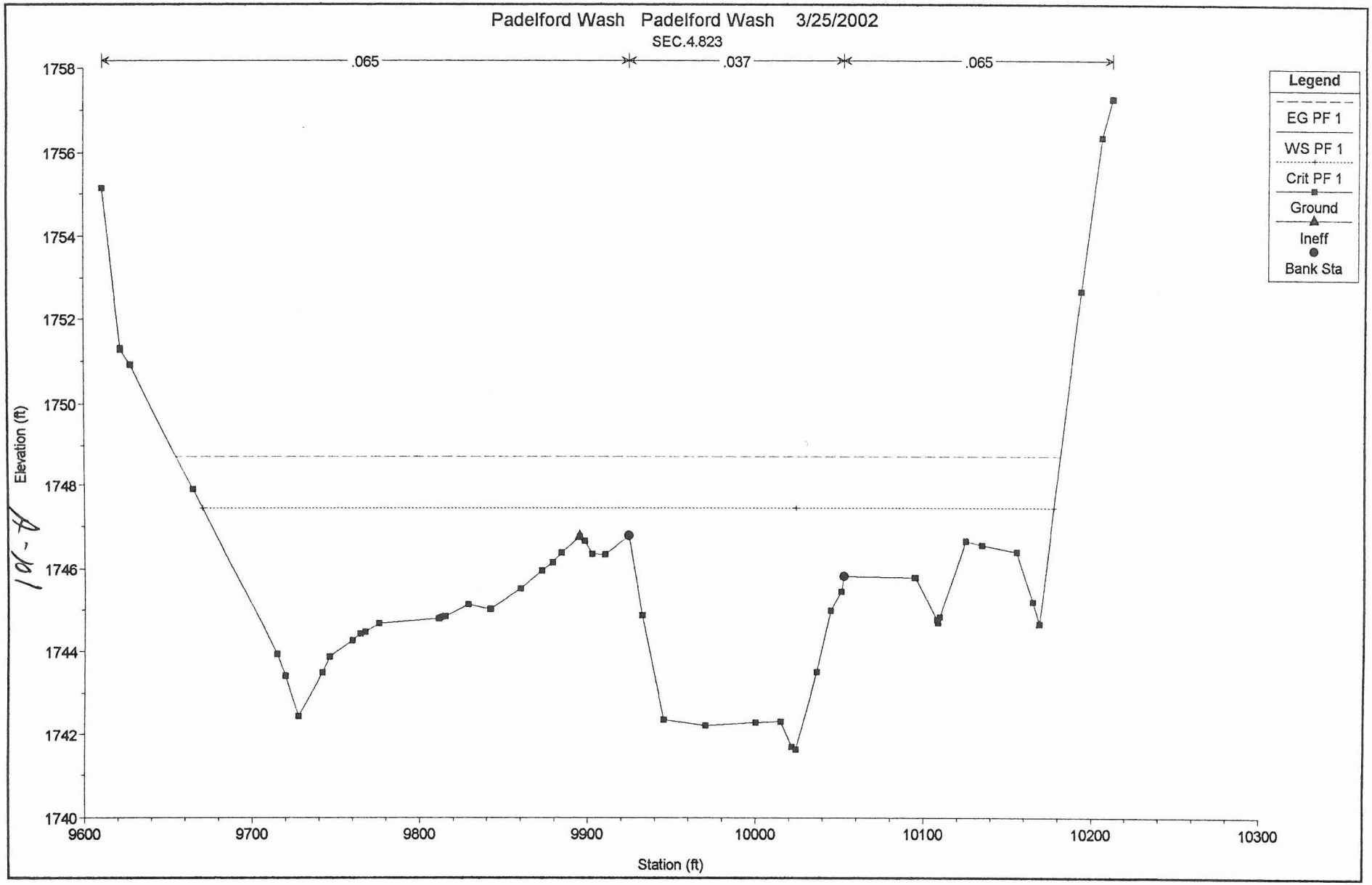

Padelford Wash Padelford Wash 3/25/2002
SEC.4.546
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1742
1740
1738
1736
1734
1732
1730
1728
9800
9900
10000
10100
10200
10300
10400
10500

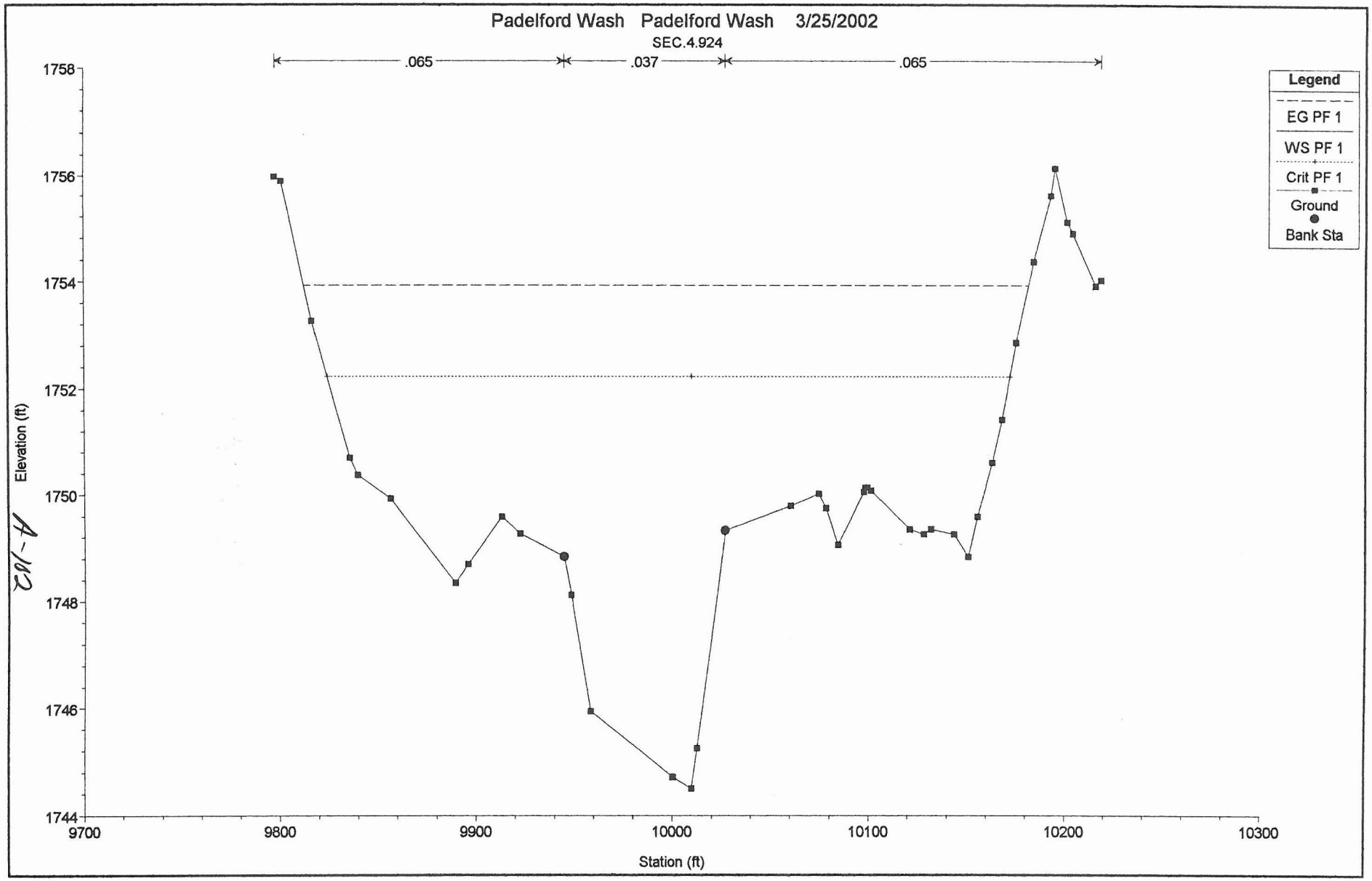
A-98


Padelford Wash Padelford Wash 3/25/2002
SEC.4.624. CONFLUENCE WITH TRIB. A.
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1746
1744
1742
1740
1738
1736
1734
1732
1730
9800
9900
10000
10100
10200
10300
10400

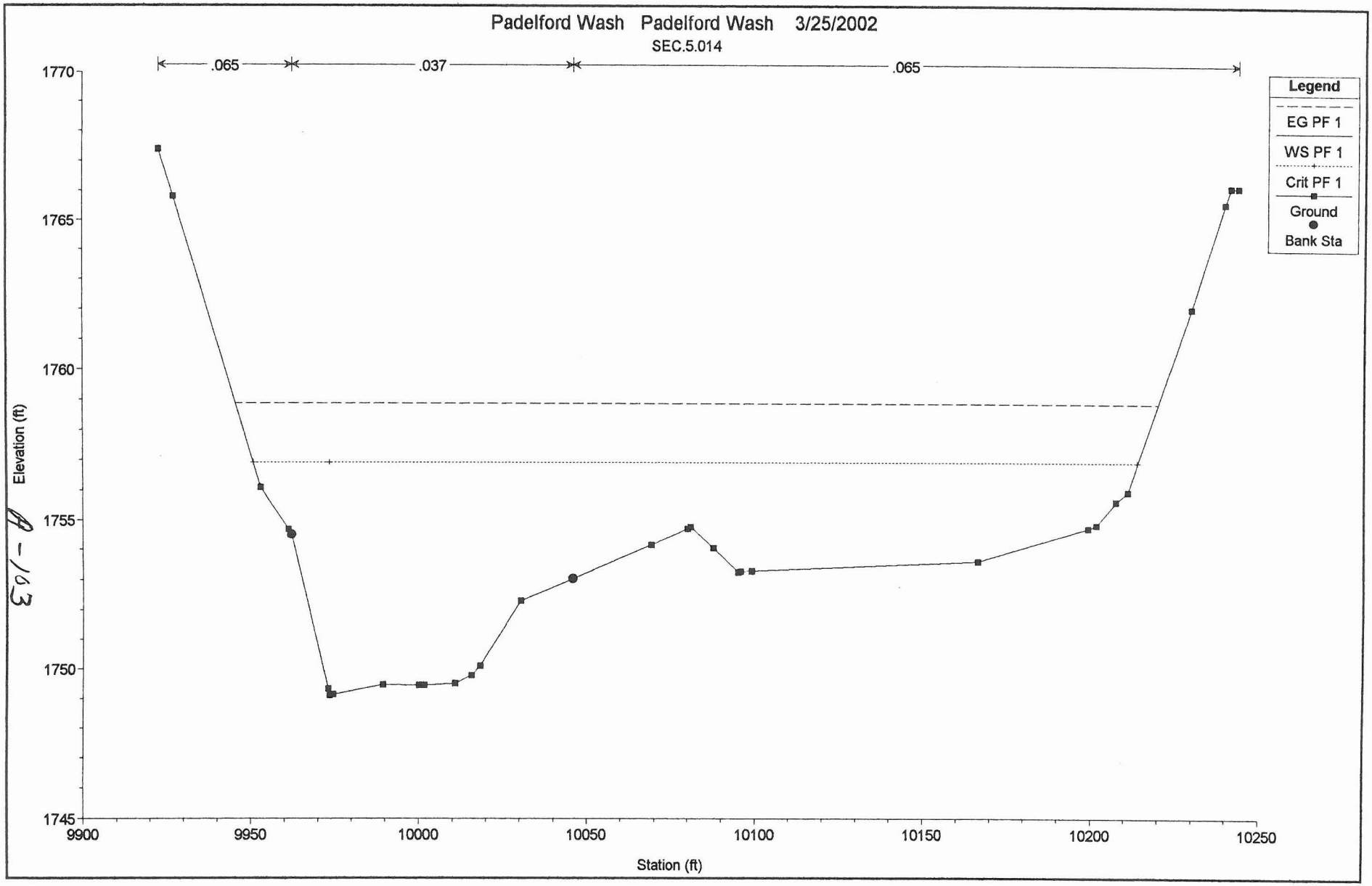

Padelford Wash Padelford Wash 3/25/2002
SEC.4.722
.065
.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1752
1750
1748
1746
1744
1742
1740
1738
1736
9700
9800
9900
10000
10100
10200
10300
10400
Station (ft)

A-101

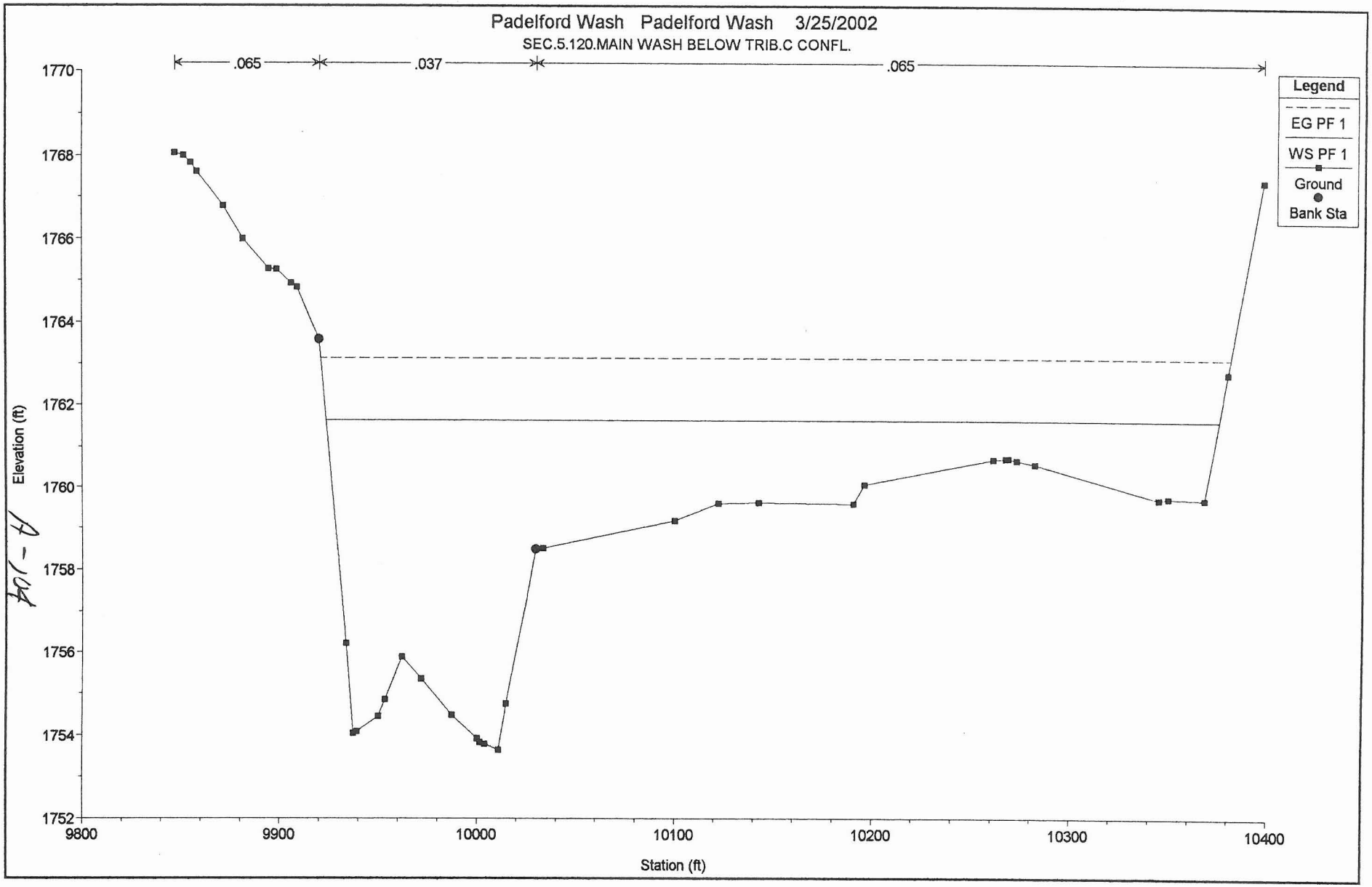

Padelford Wash Padelford Wash 3/25/2002
SEC.4.823
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (ft)
1758
1756
1754
1752
1750
1748
1746
1744
1742
1740
9600
9700
9800
9900
10000
10100
10200
10300
Station (ft)

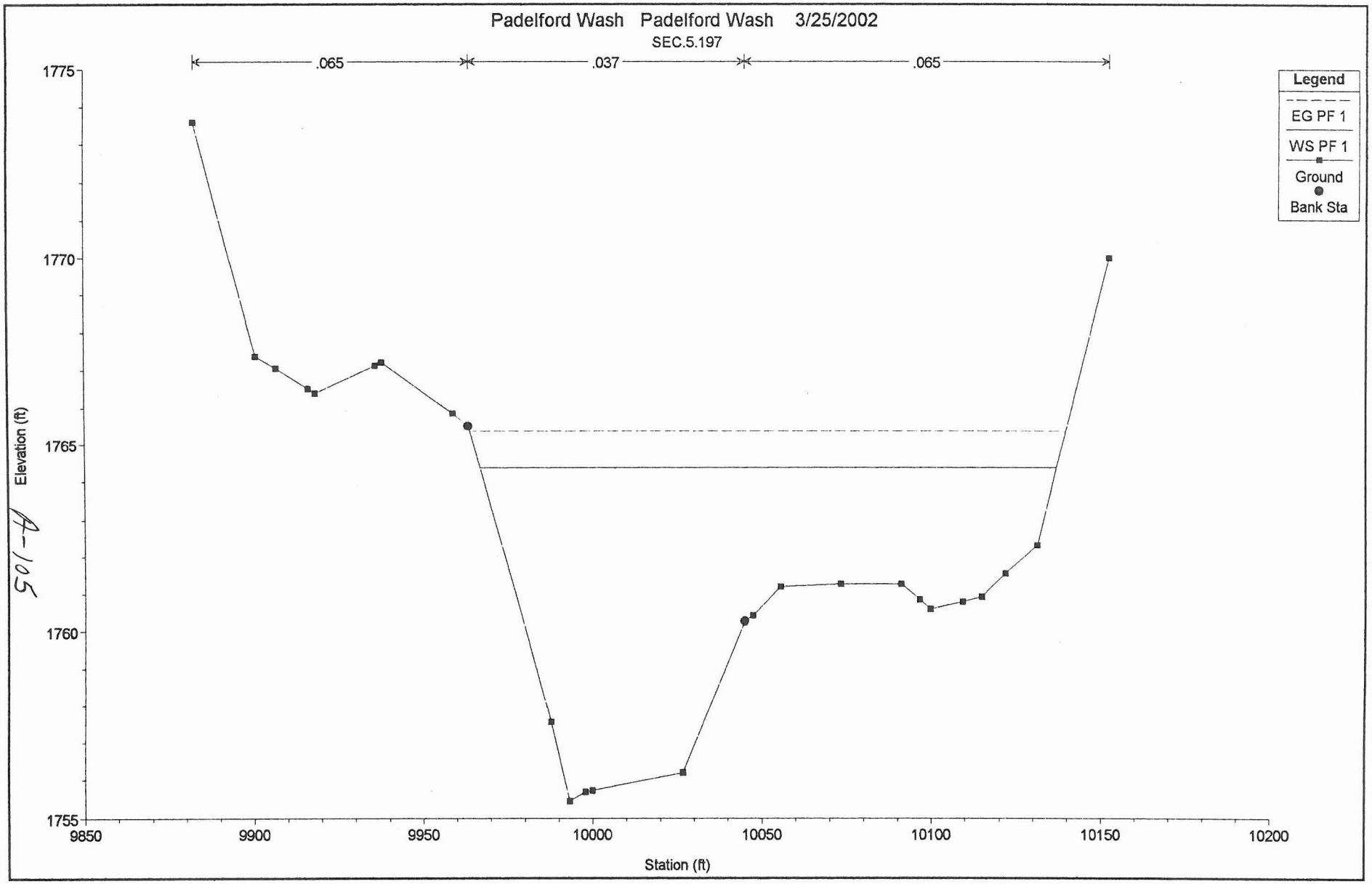

Padelford Wash Padelford Wash 3/25/2002
SEC.4.924
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1758
1756
1754
1752
1750
1748
1746
1744
9700
9800
9900
10000
10100
10200
10300

A-102

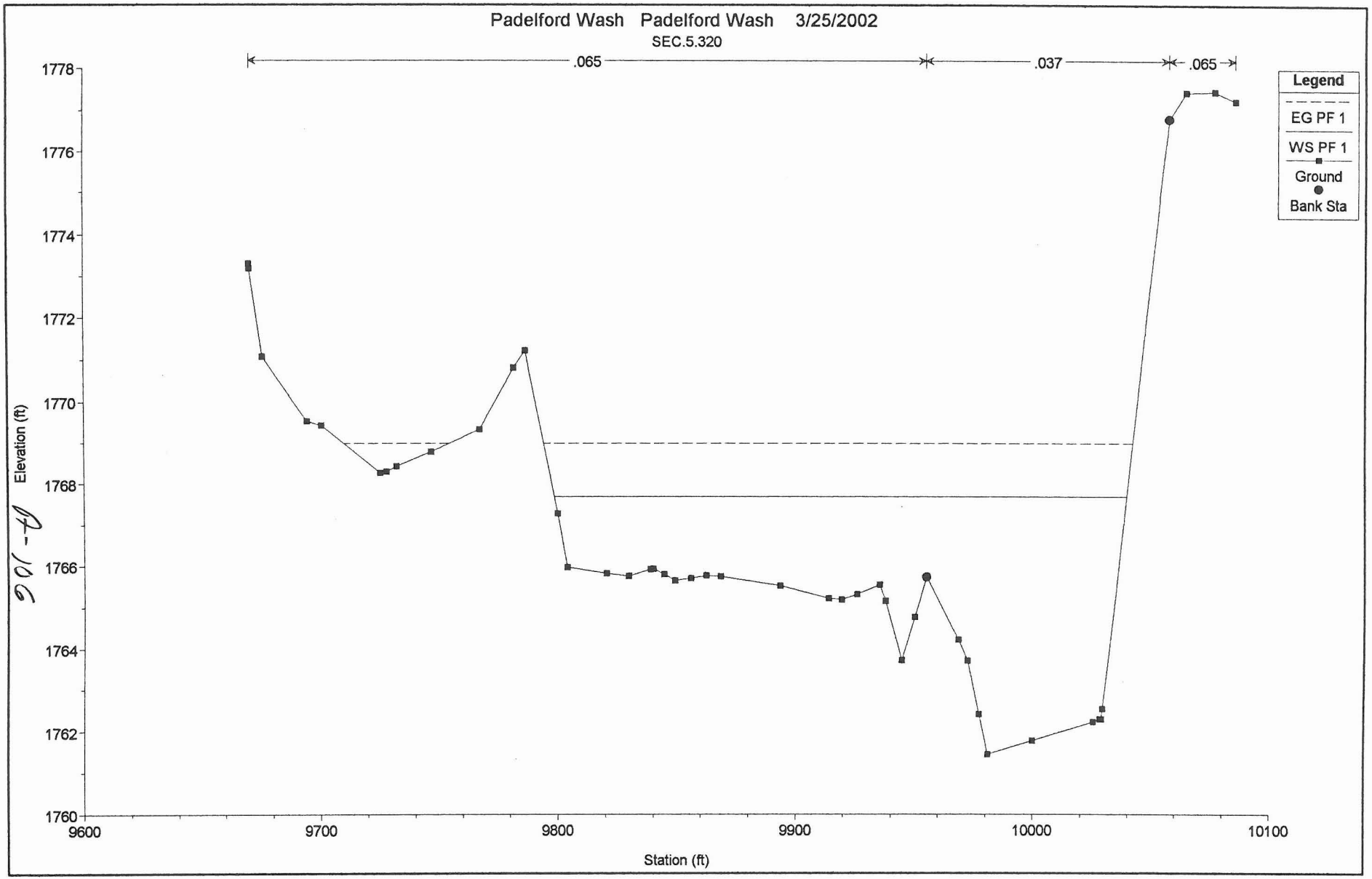

Padelford Wash Padelford Wash 3/25/2002
SEC.5.014
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1770
1765
1760
1755
1750
1745
9900
9950
10000
10050
10100
10150
10200
10250
Station (ft)

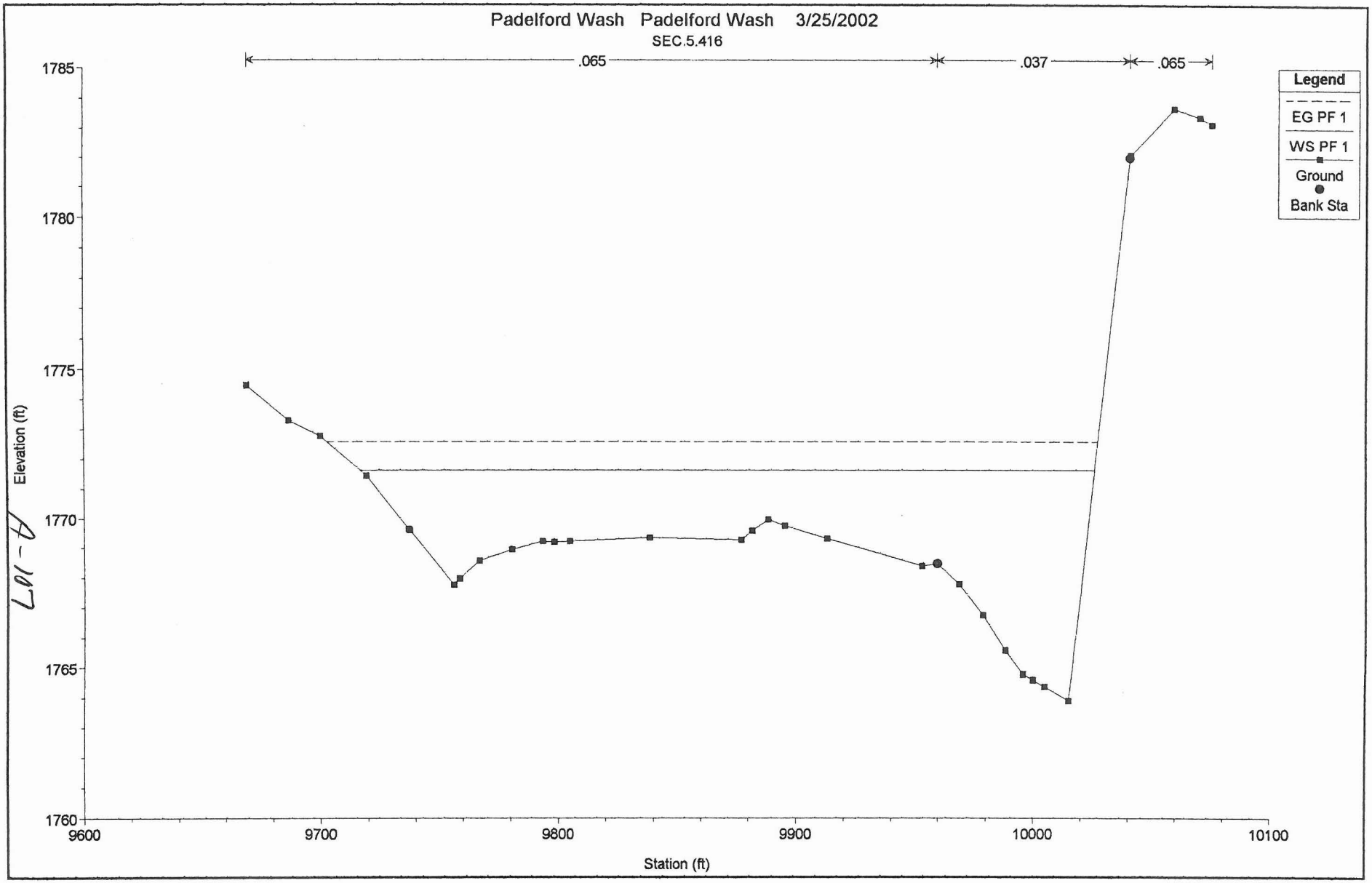
9-103


Padelford Wash Padelford Wash 3/25/2002
SEC.5.120.MAIN WASH BELOW TRIB.C CONFL.
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1770
1768
1766
1764
1762
1760
1758
1756
1754
1752
9800
9900
10000
10100
10200
10300
10400
Station (ft)

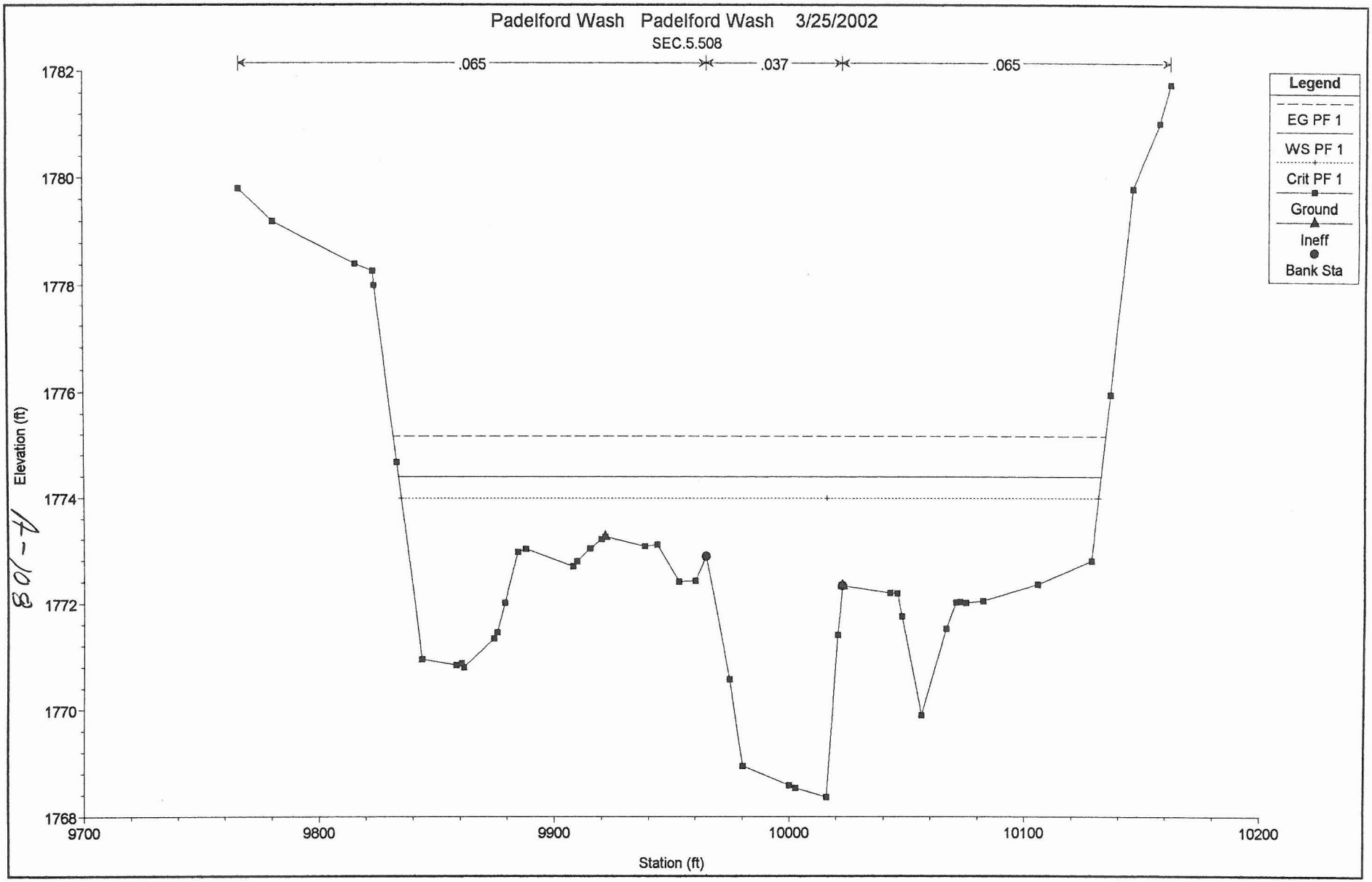

Padelford Wash Padelford Wash 3/25/2002
SEC.5.197
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1775
1770
1765
1760
1755
Elevation (ft)
9850
9900
9950
10000
10050
10100
10150
10200
Station (ft)

A-105

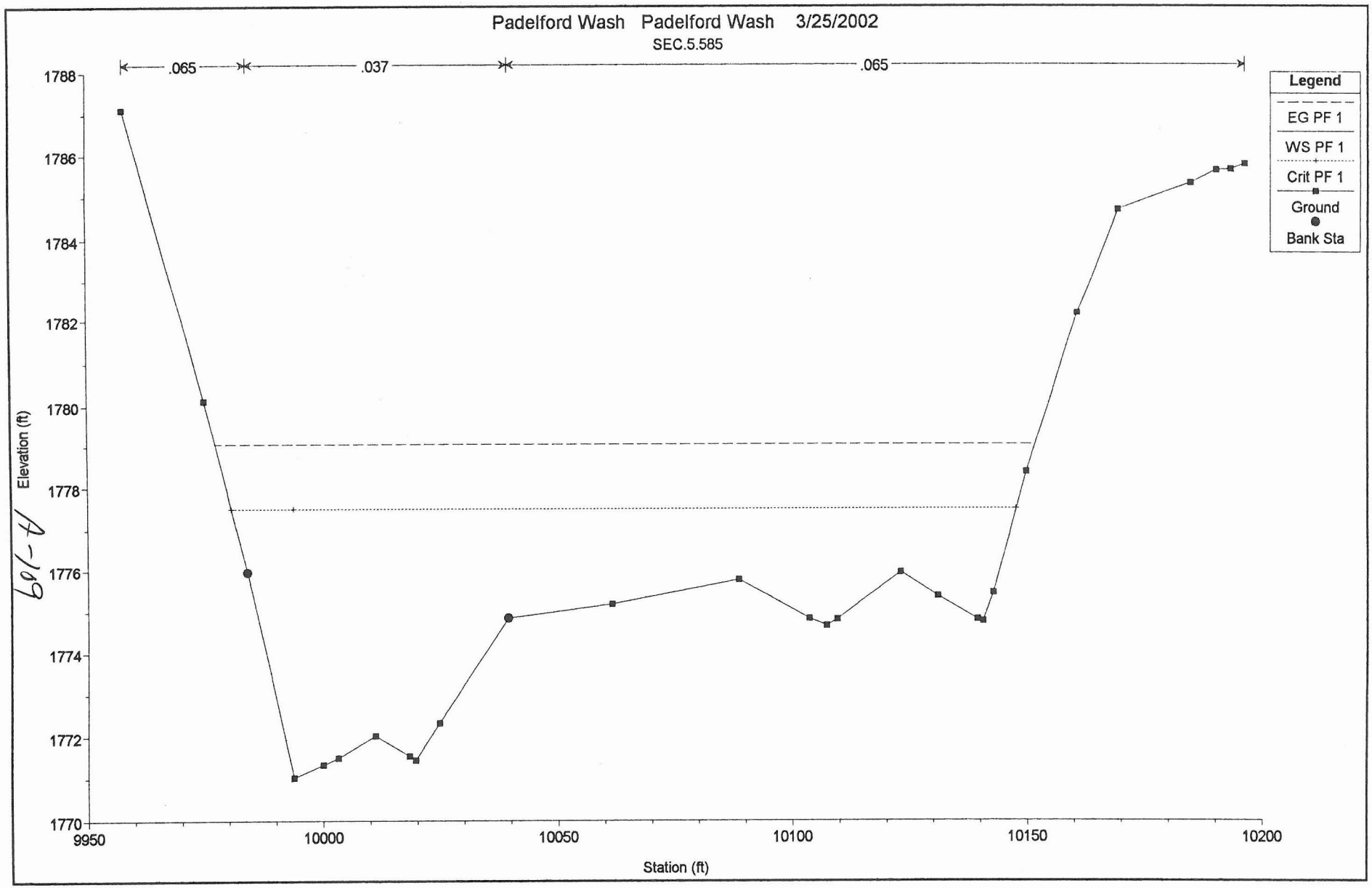

Padelford Wash Padelford Wash 3/25/2002
SEC.5.320
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1778
1776
1774
1772
1770
1768
1766
1764
1762
1760
9600
9700
9800
9900
10000
10100
Station (ft)

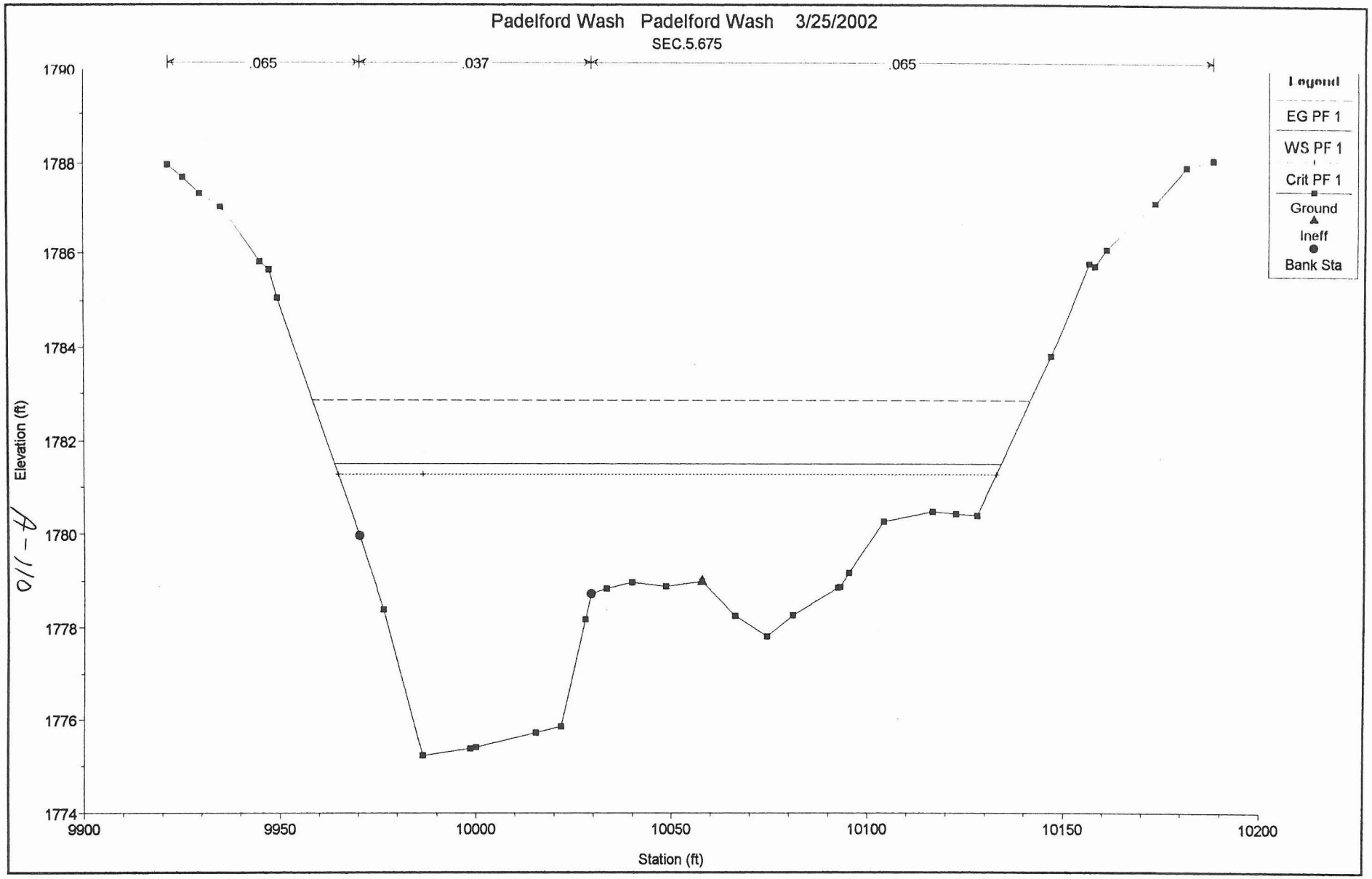

Padelford Wash Padelford Wash 3/25/2002
SEC.5.416
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1785
1780
1775
1770
1765
1760
Elevation (ft)
9600
9700
9800
9900
10000
10100
Station (ft)

L01-b

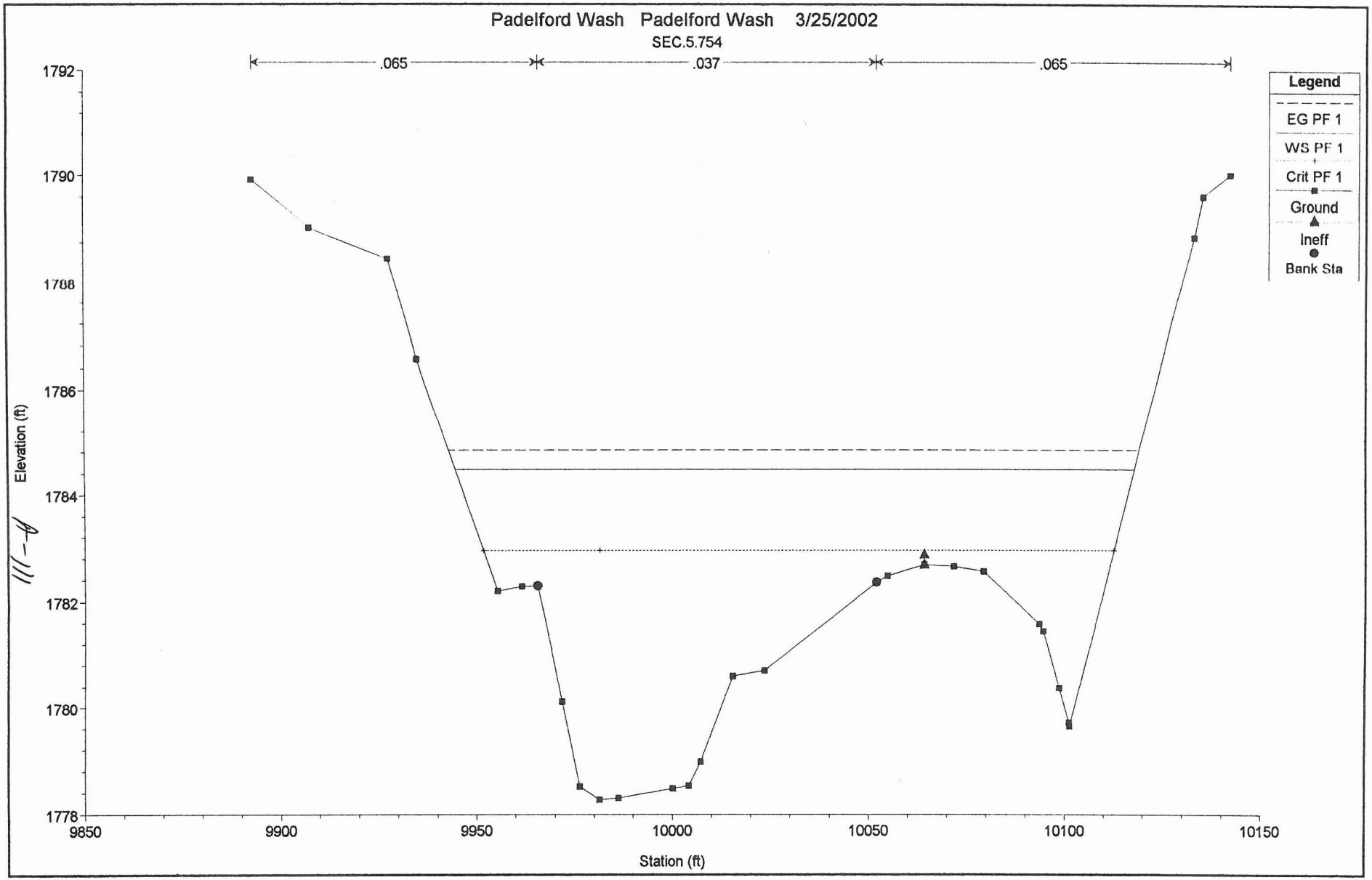

Padelford Wash Padelford Wash 3/25/2002
SEC.5.508
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (ft)
1782
1780
1778
1776
1774
1772
1770
1768
9700
9800
9900
10000
10100
10200
Station (ft)

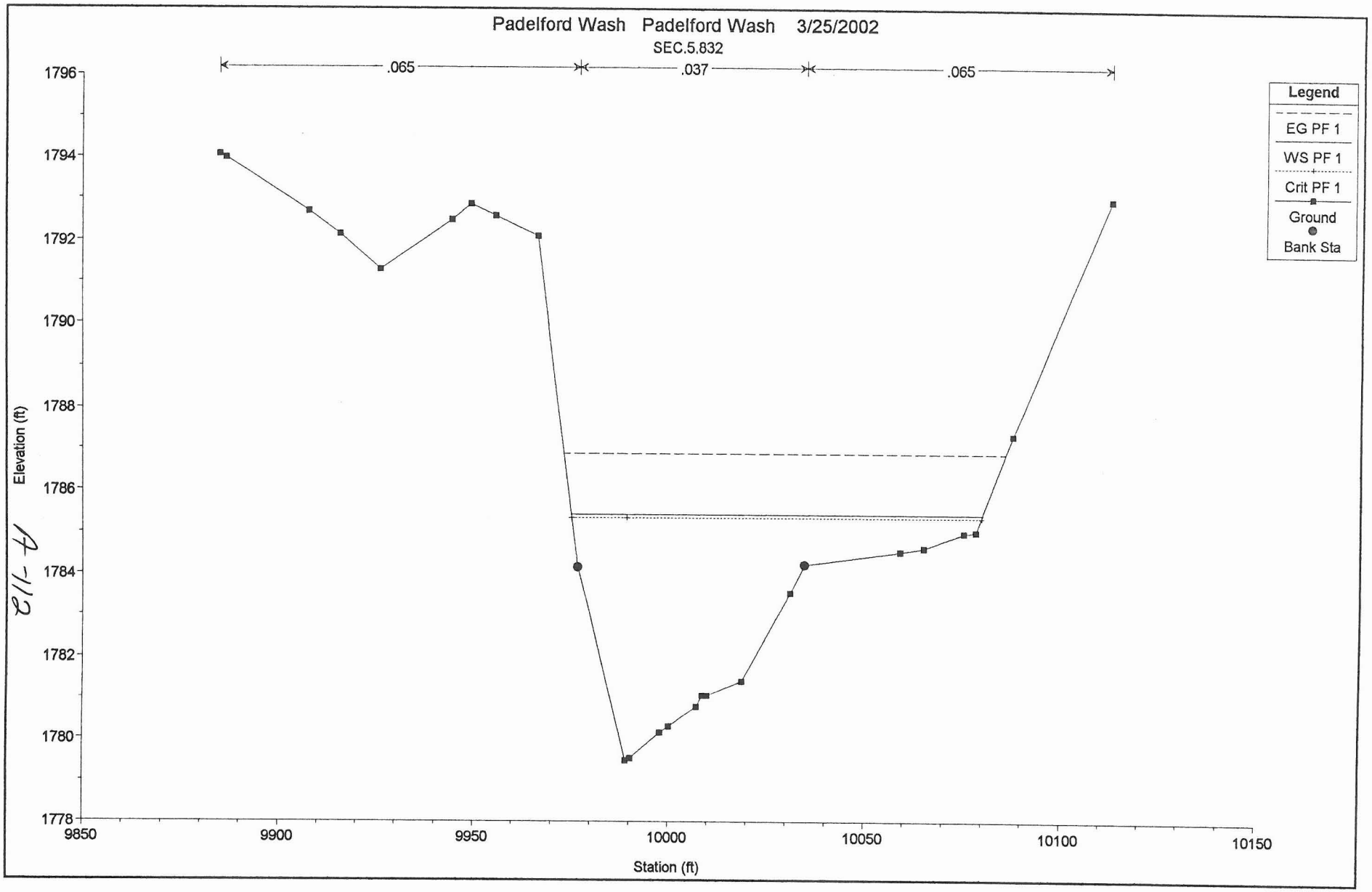
A-103

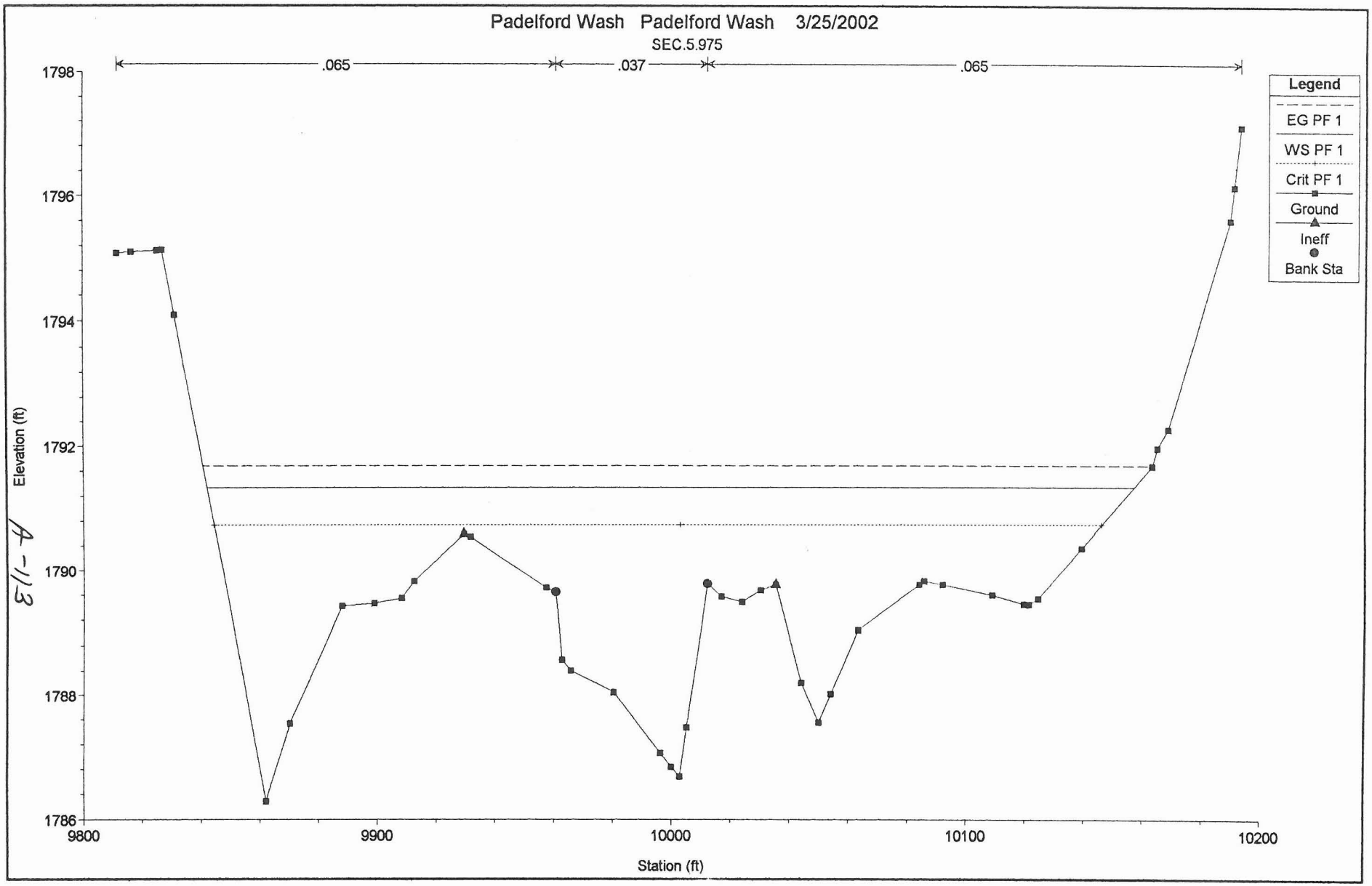

Padelford Wash Padelford Wash 3/25/2002
SEC.5.585
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1788
1786
1784
1782
1780
1778
1776
1774
1772
1770
9950
10000
10050
10100
10150
10200
Station (ft)


Padelford Wash Padelford Wash 3/25/2002
SEC.5.675
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
1790
1788
1786
1784
1782
1780
1778
1776
1774
9900
9950
10000
10050
10100
10150
10200

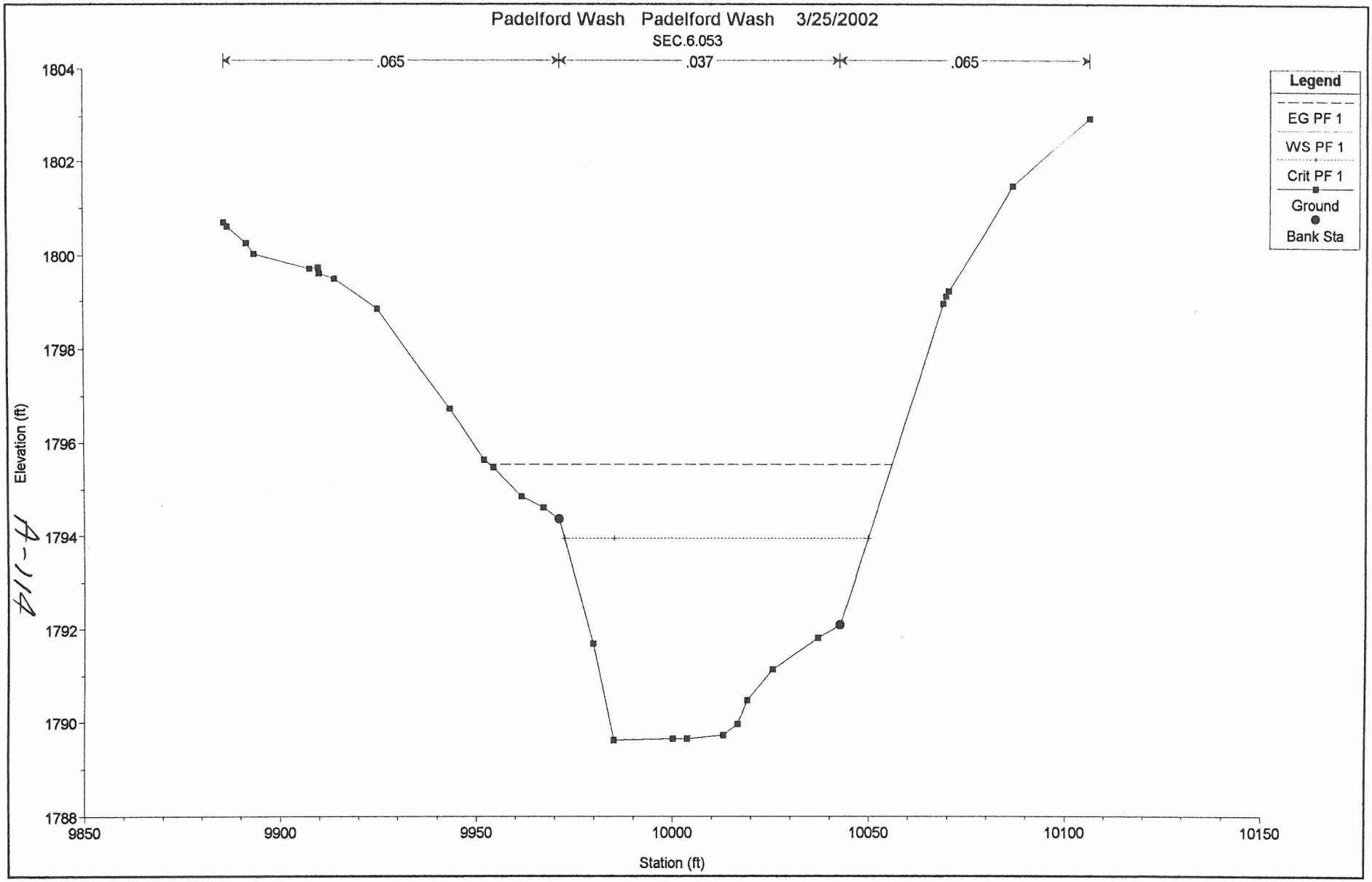
0/1-4

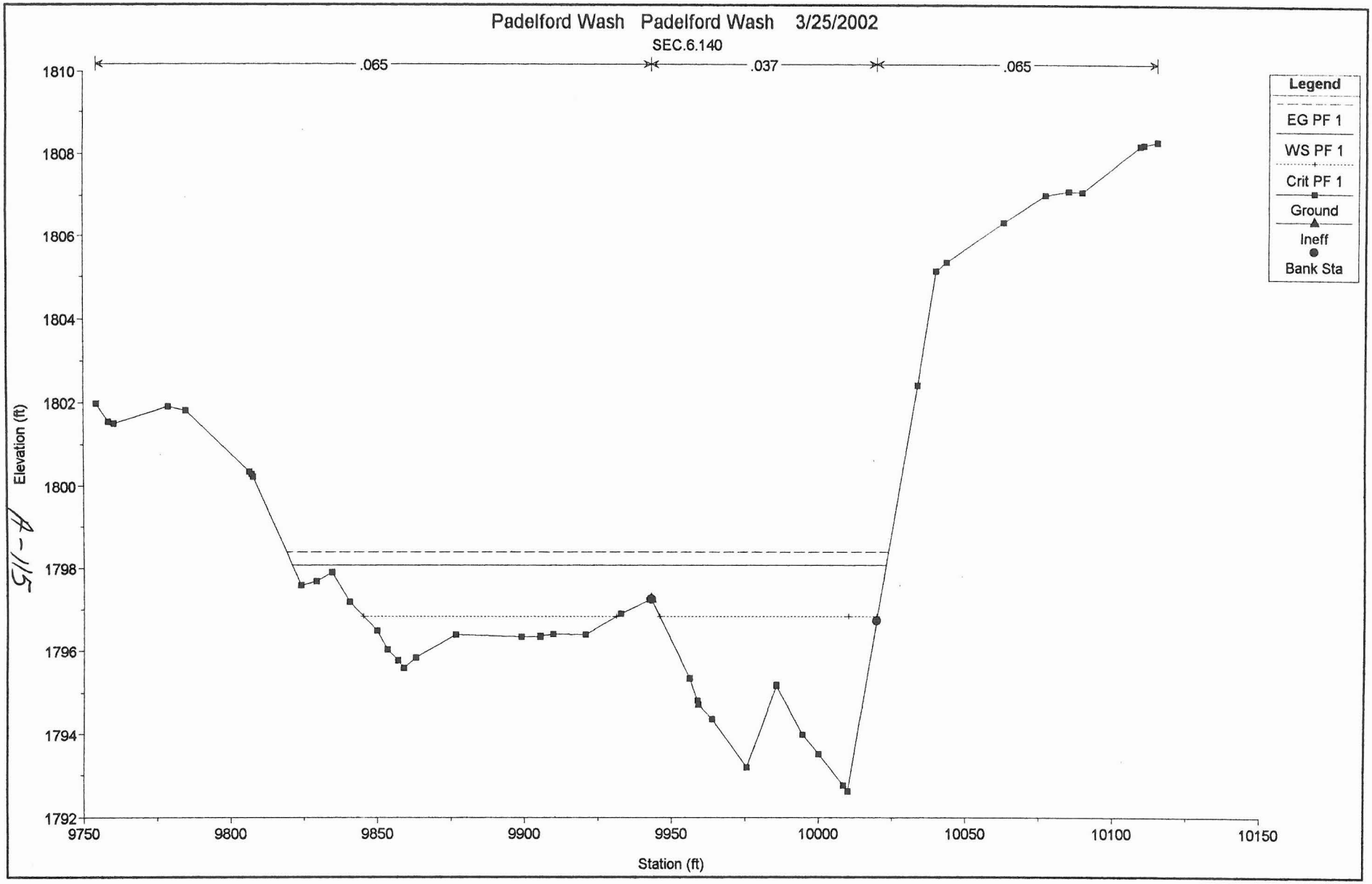

Padelford Wash Padelford Wash 3/25/2002
SEC.5.754
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
1792
1790
1788
1786
1784
1782
1780
1778
9850
9900
9950
10000
10050
10100
10150


Padelford Wash Padelford Wash 3/25/2002
SEC.5.832
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1796
1794
1792
1790
1788
1786
1784
1782
1780
1778
9850
9900
9950
10000
10050
10100
10150
Station (ft)

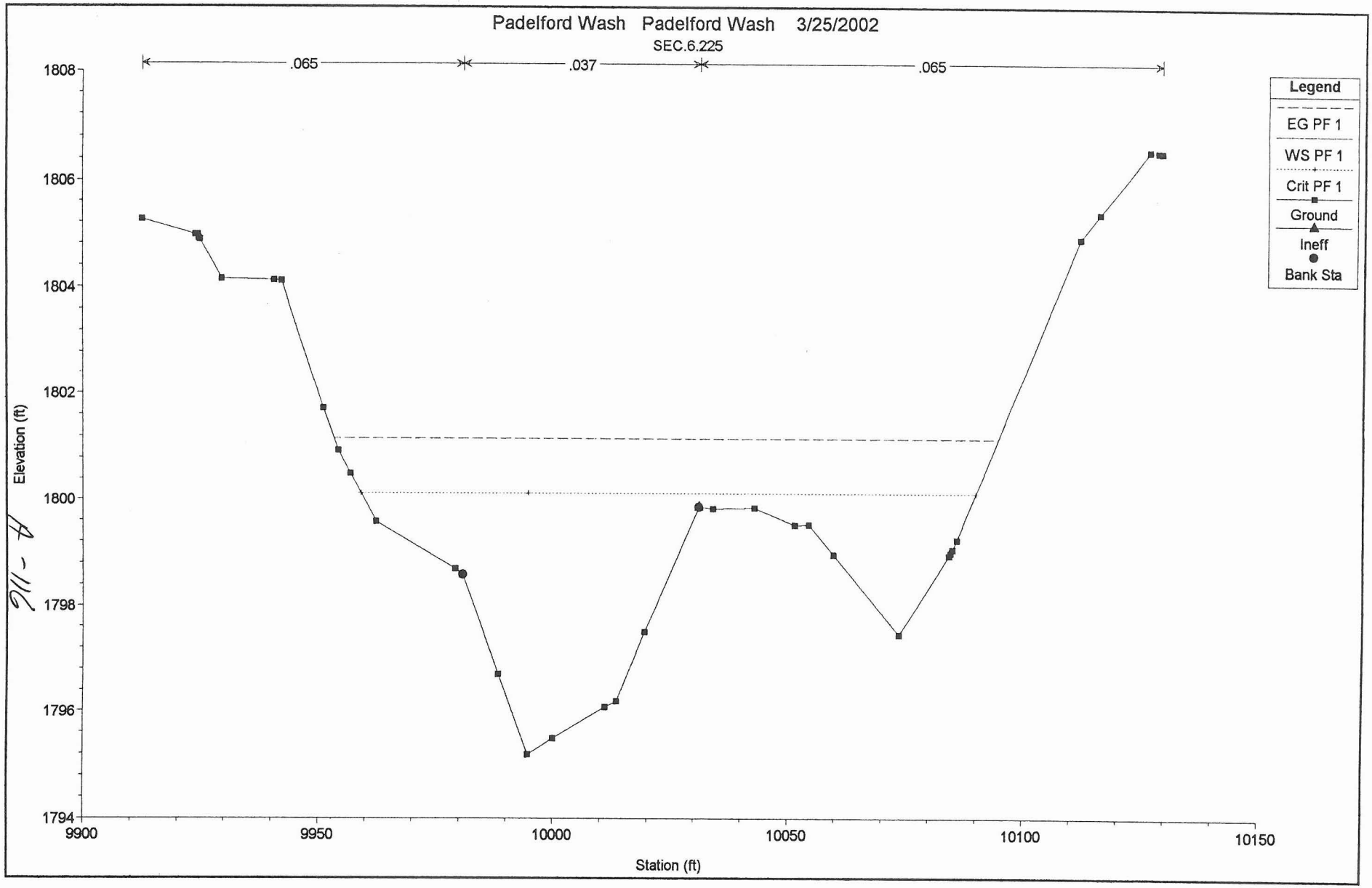

Padelford Wash Padelford Wash 3/25/2002
SEC.5.975
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (ft)
1798
1796
1794
1792
1790
1788
1786
9800
9900
10000
10100
10200
Station (ft)

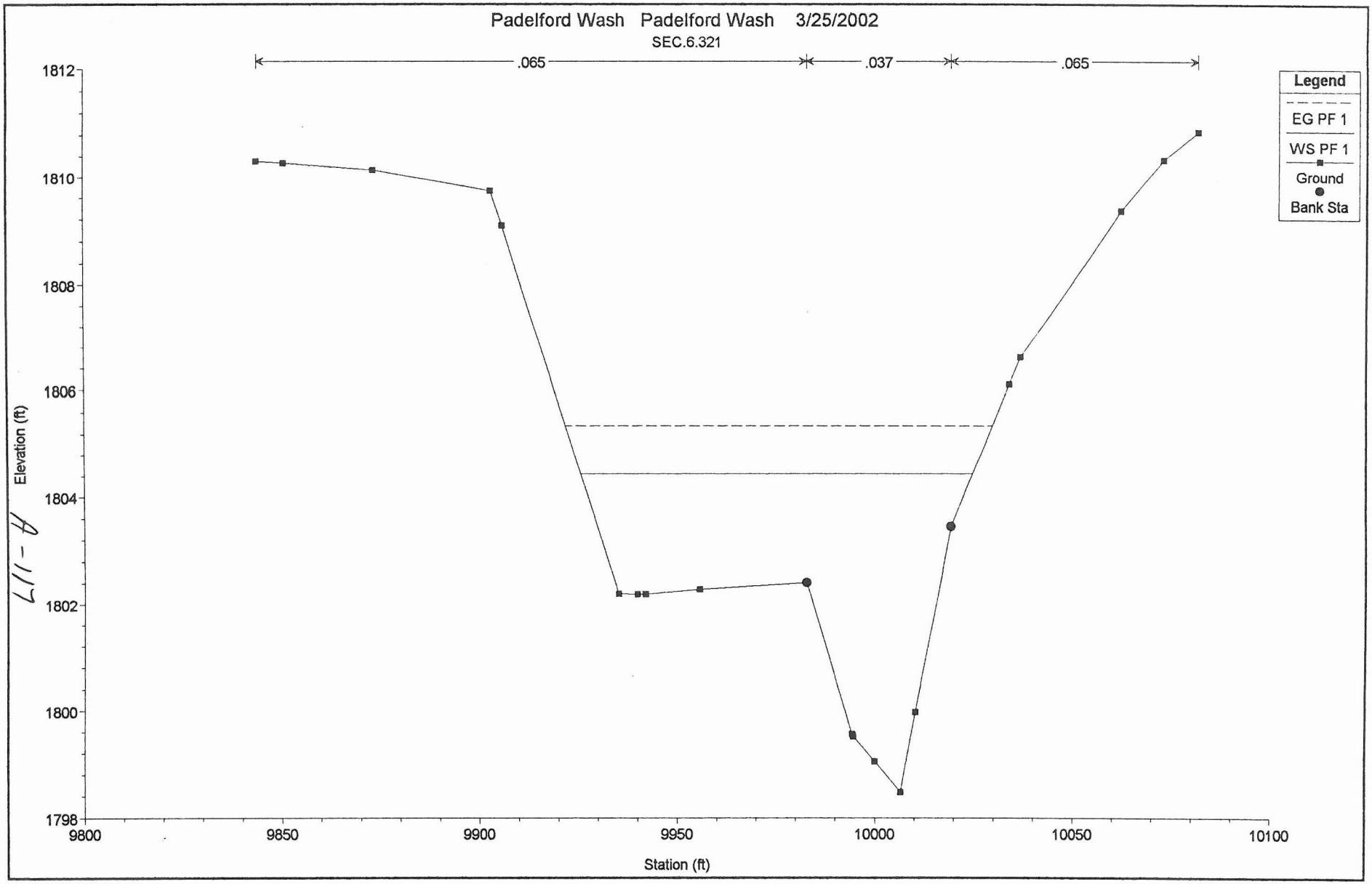
4-1/3

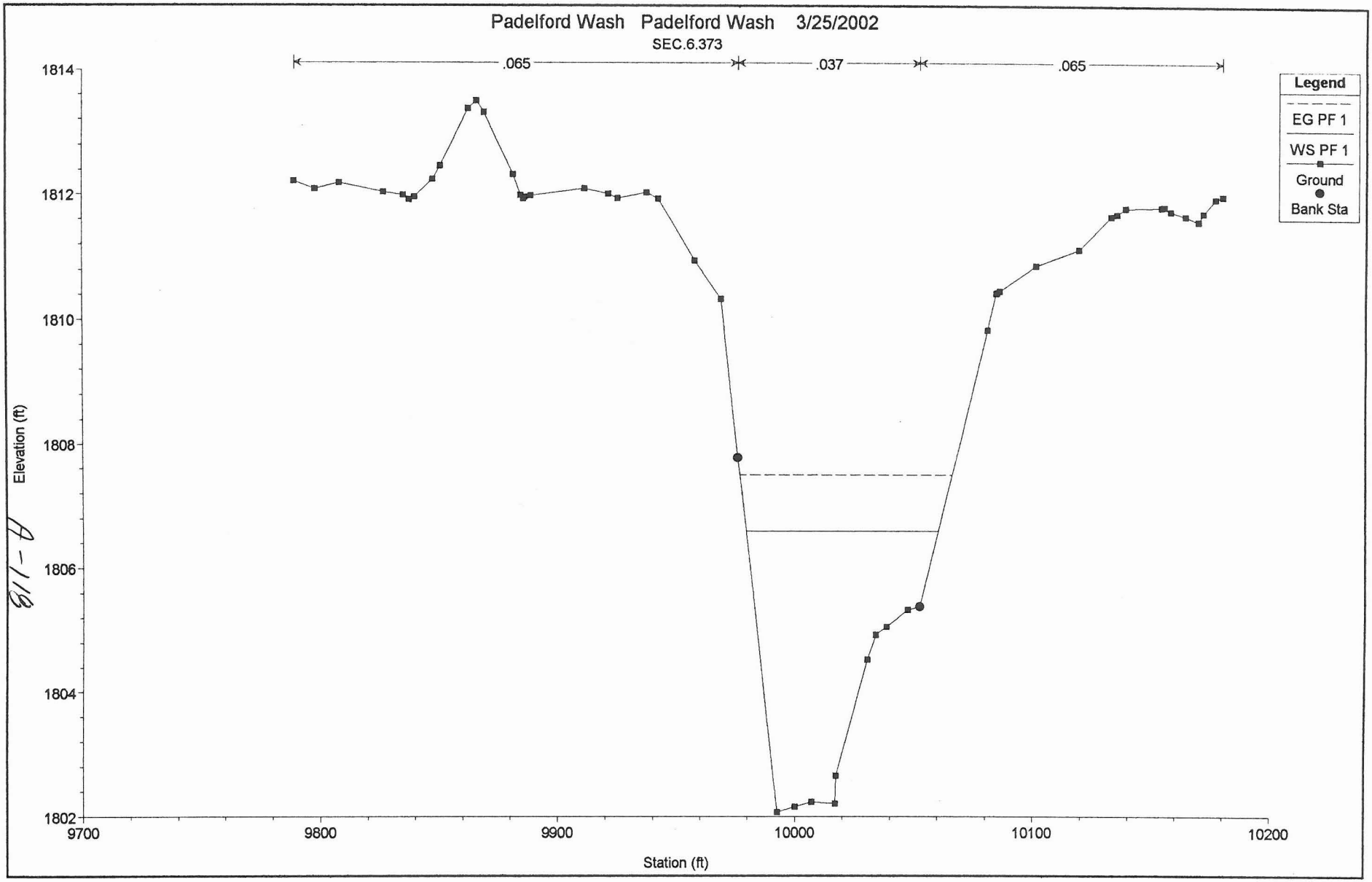

Padelford Wash Padelford Wash 3/25/2002
SEC.6.053
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1804
1802
1800
1798
1796
1794
1792
1790
1788
9850
9900
9950
10000
10050
10100
10150

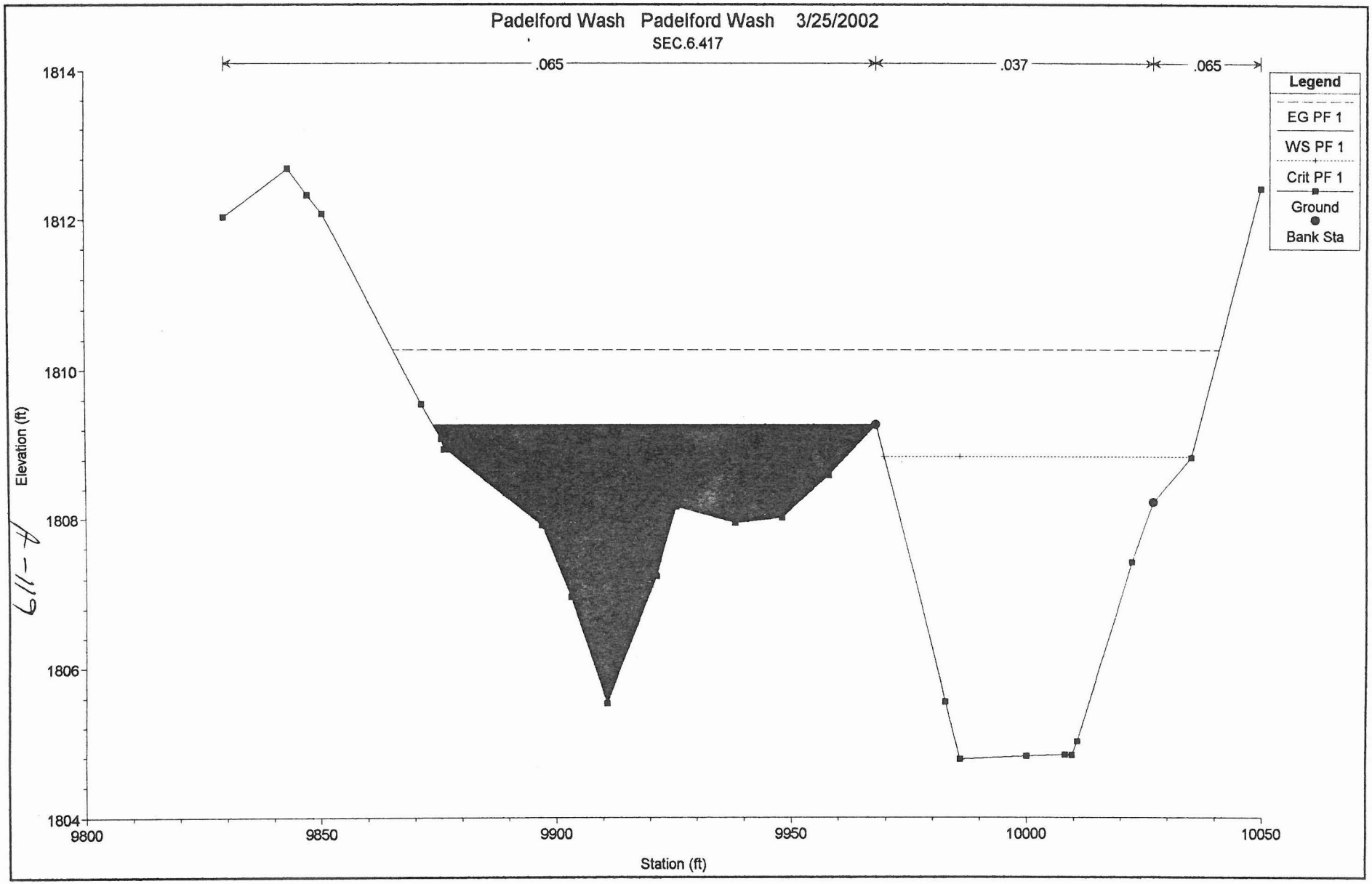

Padelford Wash Padelford Wash 3/25/2002
SEC.6.140
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
1810
1808
1806
1804
1802
1800
1798
1796
1794
1792
9750
9800
9850
9900
9950
10000
10050
10100
10150

A-115

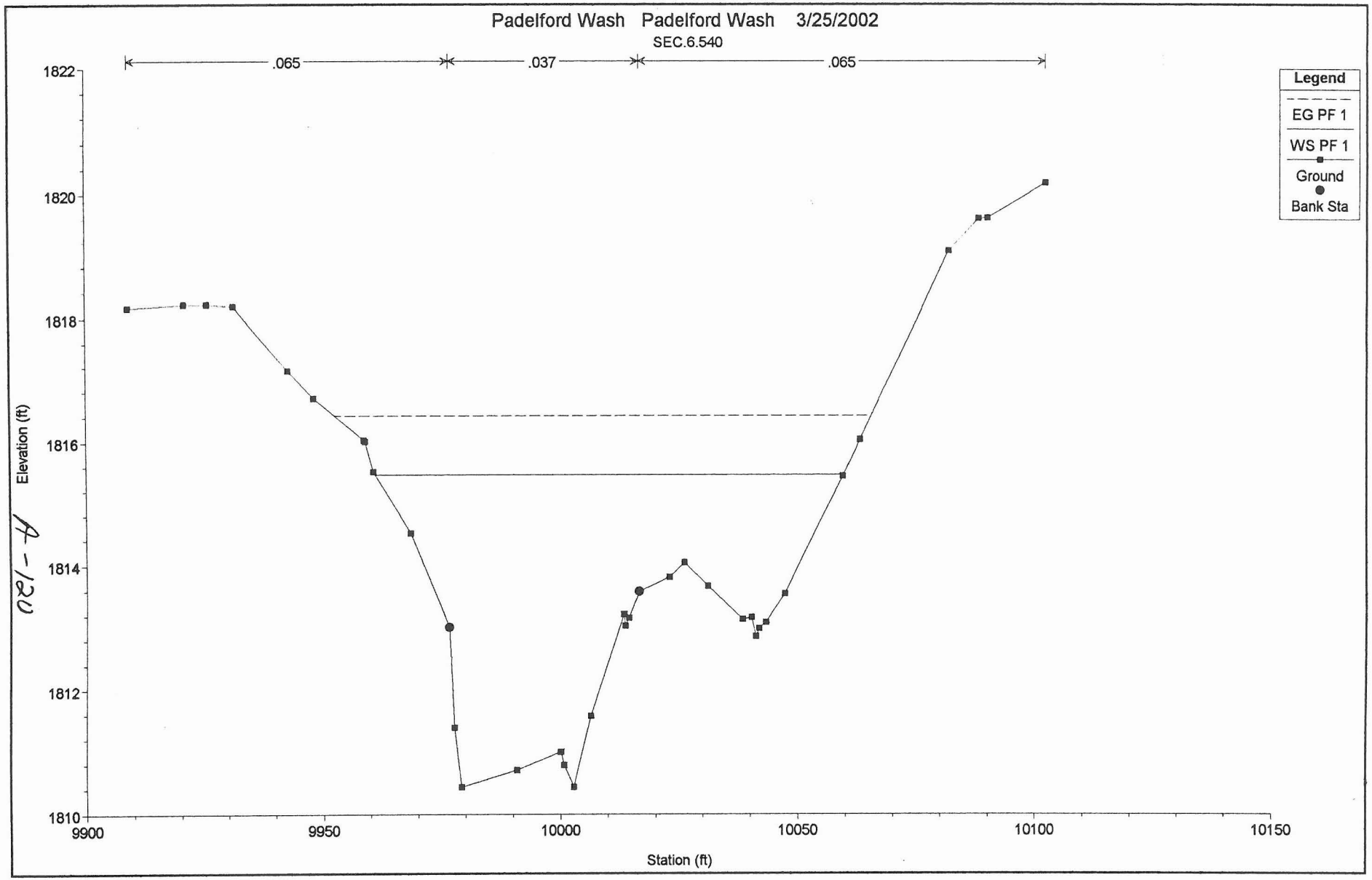

Padelford Wash Padelford Wash 3/25/2002
SEC.6.225
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (ft)
1808
1806
1804
1802
1800
1798
1796
1794
9900
9950
10000
10050
10100
10150
Station (ft)


Padelford Wash Padelford Wash 3/25/2002
SEC.6.321
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1812
1810
1808
1806
1804
1802
1800
1798
9800
9850
9900
9950
10000
10050
10100
L11-4


Padelford Wash Padelford Wash 3/25/2002
SEC.6.373
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1814
1812
1810
1808
1806
1804
1802
9700
9800
9900
10000
10100
10200
Station (ft)


Padelford Wash Padelford Wash 3/25/2002
SEC.6.417
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
1814
1812
1810
1808
1806
1804
Elevation (ft)
9800
9850
9900
9950
10000
10050
Station (ft)

6/1-4


Padelford Wash Padelford Wash 3/25/2002
SEC.6.540
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1822
1820
1818
1816
1814
1812
1810
9900
9950
10000
10050
10100
10150

A-120

HEC-RAS September 1998 Version 2.2
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Split 1 of Padelford Wash
Project File : split1.prj
Run Date and Time: 6/7/2002 12:01:56 PM

Project in English units

Project Description:
THE SPLIT 1 WASH UPSTREAM END IS APPRX.1400 FT. N. OF DOVE VALLEY RD. ALIGN.
IT FORMS AS A SPLIT FROM PADELFORD WASH'S MAIN WASH. A HEC-RAS MODEL RATING CURVE ANALYSIS WAS PERFORMED NEAR THIS SPLIT , WHICH WAS USED IN THE HEC-1 ANALYSIS TO DETERMINE THE DISCHARGE SPLIT RELATIONSHIP. THE ENERGY GRADE VS. DISCHARGE AT PADELFORD WASH SEC. 3.108 AND AT SPLIT 1 SEC. 12.019 WERE USED FOR THIS DETERMINATION.
THE SPLIT 1 D/S LIMIT FOR THIS STUDY WAS THE CAP CANAL.
ANOTHER SPLIT "SPLT1" FROM SPLIT1 BACK TO PADELFORD WASH, MAIN WASH WAS DETERMINED TO OCCUR AT SEC. 11.523 OF SPLIT1 . A WEIR SEC.OF L=800 FT., N=0.055, S=0.02 FT/FT. AND I.E.=24.4 WAS ESTIMATED WITH NORMAL DEPTH CALCS TO ESTIMATE SPLIT BASED ON WSEL VS. Q.
ANOTHER SPLIT FROM SPLIT1 TO SPLIT5 WASH OCCURS AT SPLIT1 SEC. 11.093. AT THIS LOCATION ENERGY GRADE VS. Q RATING CURVES WERE MADE BY HEC-RAS MODEL TO DETERMINE THE SPLIT RELATIONSHIP IN HEC-1 MODEL ANALYSIS.

PLAN DATA

Plan Title: Split 1 of Padelford Wash
Plan File : n:\Files\7158-07\Hec-Ras\8TH SET\split1.p01

Geometry Title: Split 1 of Padelford Wash
Geometry File : n:\Files\7158-07\Hec-Ras\8TH SET\split1.g01

Flow Title : Split 1 of Padelford Wash
Flow File : n:\Files\7158-07\Hec-Ras\8TH SET\split1.f01

Plan Summary Information:
Number of: Cross Sections = 27 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

FLOW DATA

Flow Title: Split 1 of Padelford Wash
Flow File : n:\Files\7158-07\Hec-Ras\8TH SET\split1.f01

Flow Data (cfs)

River	Reach	RS	PF 1
SPLIT1	SPLIT1	12.066	4324
SPLIT1	SPLIT1	11.621	4324
SPLIT1	SPLIT1	11.523	3589
SPLIT1	SPLIT1	11.423	2854
SPLIT1	SPLIT1	11.140	2952
SPLIT1	SPLIT1	11.044	1904

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
SPLIT1	SPLIT1	PF 1	Normal S = .01	Normal S = .01

GEOMETRY DATA

Geometry Title: Split 1 of Padelford Wash
Geometry File : n:\Files\7158-07\Hec-Ras\8TH SET\split1.g01

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 12.066

INPUT
Description: SEC.12.066. UPSTREAM SEC. OF SPLIT 1. A RATING CURVE ANYLSIS BY
HEC-RAS MODEL WAS PERFORMED AT SEC. 3.108 (MAIN) AND SEC. 12.019
(SPLIT1) FOR ENERGY GRADE VS. Q'S AND INPUT TO THE HYDROLOGY HEC-1
MODEL TO DETERMINE THE FLOW SPLIT AT THIS AREA.
THE LT. SIDE OF
THIS SEC. BELOW A RIDGE LINE WAS BLOCKED OFF TO SIMULATE WEIR FLOW
OVER THIS RIDGE THAT CONTRIBUTES TO SPLIT1 WASH . THIS LT. SIDE
BLOCKAGE WAS APPLIED FROM SEC. 12.066 TO 11.816.
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9530.83	1665.44	9558	1661.35	9570.99	1659.78	9581.59	1658.62	9612.69	1654.87
9613.01	1654.83	9613.1	1654.82	9613.19	1654.82	9623.51	1655.67	9661.56	1656.61
9682.34	1657.16	9694.8	1657.65	9715	1658.21	9723.89	1658.08	9733.87	1657.89
9759.71	1657.53	9787.33	1657.97	9811.2	1658.31	9813.88	1658.53	9824.81	1658.74
9833.44	1658.72	9856.57	1658.53	9884.9	1657.46	9885.04	1657.45	9885.19	1657.45
9940.27	1657.37	9944.77	1657.58	9948.21	1657.68	9962.76	1655.94	9969.34	1655.19
9978.42	1655.22	10000	1655.14	10004.25	1655.13	10036.08	1654.99	10047.76	1654.88
10053.38	1654.81	10065.33	1654.43	10075.17	1656.89	10079.72	1658.02	10086.14	1657.78
10086.75	1657.77								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9530.83	.065	9948.21	.037	10079.72	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9948.21	10079.72	235	248.2	250	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
9530.83	9824.81	1658.74

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1659.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.46	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1658.52	Reach Len. (ft)	235.00	248.20	250.00
Crit W.S. (ft)	1658.52	Flow Area (sq ft)	84.34	413.49	4.45
E.G. Slope (ft/ft)	0.013346	Area (sq ft)	84.34	413.49	4.45
Q Total (cfs)	4324.00	Flow (cfs)	210.98	4104.91	8.10
Top Width (ft)	229.99	Top Width (ft)	91.45	131.51	7.03
Vel Total (ft/s)	8.61	Avg. Vel. (ft/s)	2.50	9.93	1.82
Max Chl Dpth (ft)	4.09	Hydr. Depth (ft)	0.92	3.14	0.63
Conv. Total (cfs)	37429.4	Conv. (cfs)	1826.3	35533.0	70.2
Length Wtd. (ft)		Wetted Per. (ft)	91.47	132.10	7.79
Min Ch El (ft)	1654.43	Shear (lb/sq ft)	0.77	2.61	0.48
Alpha	1.27	Stream Power (lb/ft s)	1.92	25.89	0.87
Frctn Loss (ft)		Cum Volume (acre-ft)	83.40	46.99	64.90
C & E Loss (ft)		Cum SA (acres)	60.13	23.60	54.78

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9739.52	9948.21	210.98	84.34	91.47	4.88	0.92	2.50
LB 9948.21	RB 10079.72	4104.91	413.49	132.10	94.93	3.14	9.93
10079.72	10083.23	3.62	2.00	3.52	0.08	0.57	1.81
10083.23	10086.75	4.49	2.46	4.27	0.10	0.70	1.83

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 12.019

INPUT
Description: SEC.12.019. THE RT.
SIDE OF SECS. 12.066 TO 11.719 MAY NOT BE CONTAINED BY EX. GROUND
AS THE SECTIONS SHARE BOUNDARY WITH ADJ. MAIN WASH.

Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9501.53	1665.2	9502.72	1665.01	9562.47	1656.85	9568.62	1656.05	9589.66	1652.2
9591.46	1651.85	9593.06	1651.96	9616.42	1653.73	9626.76	1653.41	9640.9	1652.93
9652.54	1653.36	9665.52	1653.91	9701.52	1655.45	9736.33	1655.14	9746.59	1655.07
9749.76	1655.05	9751.36	1655.04	9757.69	1655.06	9759.43	1655.08	9764.78	1655.1
9818.93	1655.15	9836.75	1655.09	9865.19	1655.02	9896.17	1655.02	9903.84	1654.84
9904.12	1654.82	9905.55	1654.82	9955.69	1654.47	9959.78	1654.31	9971.6	1653.26
9980.14	1652.86	9983.26	1652.85	9986.55	1652.69	9989.88	1652.49	10000	1652.54
10000.5	1652.54	10046.42	1652.46	10057.68	1652.64	10067.6	1652.75	10071.62	1653.78
10073.9	1654.14	10074.94	1654.07	10077.85	1654.08	10081.86	1654.1	10093.76	1653.97
10107.54	1654.09	10115.41	1654.37	10128.8	1653.76	10132.79	1653.1	10138.4	1652.53
10142.64	1653.15	10149.98	1654.47						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9501.53	.065	9955.69	.037	10071.62	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9955.69	10071.62	235	242.9	245	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
9501.53	9836.75	1655.09

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1656.75	Element			
Vel Head (ft)	0.66	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1656.09	Reach Len. (ft)	235.00	242.90	245.00
Crit W.S. (ft)		Flow Area (sq ft)	400.39	380.43	174.89
E.G. Slope (ft/ft)	0.007547	Area (sq ft)	400.39	380.43	174.89
Q Total (cfs)	4324.00	Flow (cfs)	812.77	2927.55	583.69
Top Width (ft)	581.63	Top Width (ft)	387.34	115.93	78.36
Vel Total (ft/s)	4.52	Avg. Vel. (ft/s)	2.03	7.70	3.34
Max Chl Dpth (ft)	3.63	Hydr. Depth (ft)	1.03	3.28	2.23
Conv. Total (cfs)	49773.6	Conv. (cfs)	9355.8	33699.0	6718.8
Length Wtd. (ft)	242.41	Wetted Per. (ft)	387.45	116.13	80.28
Min Ch El (ft)	1652.46	Shear (lb/sq ft)	0.49	1.54	1.03
Alpha	2.07	Stream Power (lb/ft s)	0.99	11.88	3.43
Frctn Loss (ft)	2.41	Cum Volume (acre-ft)	82.10	44.73	64.39
C & E Loss (ft)	0.10	Cum SA (acres)	58.83	22.90	54.54

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9501.53	9728.61	282.13	149.46	160.36	6.52	0.93	1.89
9728.61	9955.69	530.63	250.93	227.08	12.27	1.11	2.11
LB 9955.69	RB 10071.62	2927.54	380.43	116.13	67.70	3.28	7.70
10071.62	10110.80	254.86	79.97	39.21	5.89	2.04	3.19
10110.80	10149.98	328.83	94.92	41.06	7.60	2.42	3.46

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 11.973

```
INPUT
Description: SEC.11.973
Station Elevation Data    num=      58
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  9471.9 1660.26 9494.47 1657.35 9509.46 1655.73 9514.91 1655.21 9530.87 1653.69
  9531.9 1653.58 9532.55 1653.51 9564.57 1651.02 9570.08 1650.44 9587.44 1648.55
 9589.79 1648.91 9598.61 1650.38 9612.64 1651.49 9627.51 1652.43 9643.72 1652.29
 9682.34 1651.42 9688.13  1651.3 9693.58 1651.16 9726.99 1652.01 9735.16 1652.01
 9764.38    1652 9785.12 1651.27 9794.22  1651.1 9810.62 1651.56 9826.82 1652.07
 9850.83 1652.71 9854.18 1652.71 9895.12 1652.52  9908.6 1652.49 9962.32 1651.87
 9964.67 1651.84 9983.71 1648.69 9985.87  1648.3 9988.89 1648.35   10000 1648.33
 10000.8 1648.3310040.41  1648.310049.48 1649.4910054.16 1650.0610058.63  1650.6
10060.36 1650.2510068.59 1650.4810068.89 1650.4810069.08 1650.51 10069.3 1650.51
10080.68 1650.4810087.52 1650.1910105.94 1650.0110107.45 1650.2110116.41 1652.58
10119.59 1652.6510126.03 1652.7110156.85  1653.210168.93 1653.27   10183 1653.28
 10207.4 1653.0510216.43 1652.7510221.18 1652.59

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  9471.9    .065 9962.32    .03710058.63    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9962.3210058.63              260   258.7     255             .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
  9471.9 9850.83 1652.71

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1654.23   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                1.66   Wt. n-Val.                0.065      0.037      0.065
  W.S. Elev (ft)            1652.58   Reach Len. (ft)          260.00     258.70     255.00
  Crit W.S. (ft)            1652.58   Flow Area (sq ft)         22.64     343.21     122.37
  E.G. Slope (ft/ft)       0.013747   Area (sq ft)              22.64     343.21     122.37
  Q Total (cfs)             4324.00   Flow (cfs)                26.28    3758.99     538.73
  Top Width (ft)             233.54   Top Width (ft)            79.46      96.31      57.77
  Vel Total (ft/s)              8.86   Avg. Vel. (ft/s)          1.16      10.95       4.40
  Max Chl Dpth (ft)             4.28   Hydr. Depth (ft)          0.28       3.56       2.12
  Conv. Total (cfs)         36878.7    Conv. (cfs)             224.1     32059.8     4594.8
  Length Wtd. (ft)                     Wetted Per. (ft)          79.46      96.75      58.14
  Min Ch El (ft)            1648.30   Shear (lb/sq ft)          0.24       3.04       1.81
  Alpha                        1.36   Stream Power (lb/ft s)    0.28      33.35       7.95
  Frctn Loss (ft)                     Cum Volume (acre-ft)     80.96      42.71      63.55
  C & E Loss (ft)                     Cum SA (acres)           57.57      22.30      54.16


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta        Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)         (ft)             (cfs)    (sq ft)      (ft)                 (ft)     (ft/s)
  9717.11      9962.32          26.28      22.64      79.46       0.61       0.28      1.16
  LB 9962.32   RB 10058.63    3758.99     343.21      96.75      86.93       3.56     10.95
  10058.63     10139.90         538.73     122.37      58.14      12.46       2.12      4.40


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT1
REACH: SPLIT1             RS: 11.924
```

INPUT
Description: SEC.11.924
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9468.68	1650.2	9476.09	1650.32	9483.61	1649.8	9491.99	1649.29	9530.97	1647.69
9540.91	1647.27	9551.69	1647.05	9558.45	1646.39	9561.13	1646.04	9572.41	1646.35
9580.45	1646.49	9585.02	1646.61	9606.55	1647.16	9618.68	1647.39	9628.06	1647.79
9672.69	1647.08	9684.66	1646.81	9684.98	1646.82	9687.4	1646.39	9700.83	1644.17
9715.49	1646.05	9717.76	1646.34	9721.52	1646.5	9758.61	1647.69	9763.16	1647.76
9773.45	1647.46	9775.17	1647.4	9783.11	1647.47	9796.3	1647.55	9809.34	1647.84
9809.41	1647.84	9809.43	1647.84	9821.82	1647.53	9835.65	1647.97	9840.3	1648.13
9881.45	1648.41	9899.79	1648.67	9931.58	1648.95	9947.77	1649.13	9953.58	1647.9
9961.38	1646.34	9975.58	1646.14	10000	1645.89	10006.99	1645.82	10040.28	1648.79
10040.66	1648.83	10041	1648.84	10041.3	1648.83	10059.69	1647.73	10072.55	1647.85
10087.22	1648.06	10095.97	1645.87	10100.99	1644.73	10112.14	1646.34	10122.23	1647.76
10131.68	1648.02	10156.95	1648.71	10167.62	1648.85	10183.07	1648.99	10199	1649.1
10202.46	1649.12	10214.92	1649.11	10226.64	1648.67	10239.19	1648.41	10249.04	1649
10260.63	1647.93	10264.88	1647.92	10265.47	1647.92				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9468.68	.065	9947.77	.037	10041	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9947.77	10041	295	290.4	270	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
9468.68	9947.77	1649.13

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1650.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.84	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1649.76	Reach Len. (ft)	295.00	290.40	270.00
Crit W.S. (ft)		Flow Area (sq ft)	287.68	278.77	358.26
E.G. Slope (ft/ft)	0.012260	Area (sq ft)	287.68	278.77	358.26
Q Total (cfs)	4324.00	Flow (cfs)	529.86	2565.08	1229.07
Top Width (ft)	781.17	Top Width (ft)	463.47	93.23	224.47
Vel Total (ft/s)	4.68	Avg. Vel. (ft/s)	1.84	9.20	3.43
Max Chl Dpth (ft)	5.03	Hydr. Depth (ft)	0.62	2.99	1.60
Conv. Total (cfs)	39052.2	Conv. (cfs)	4785.4	23166.5	11100.3
Length Wtd. (ft)	284.11	Wetted Per. (ft)	463.48	93.65	227.05
Min Ch El (ft)	1645.82	Shear (lb/sq ft)	0.48	2.28	1.21
Alpha	2.47	Stream Power (lb/ft s)	0.87	20.96	4.14
Frctn Loss (ft)	3.66	Cum Volume (acre-ft)	80.03	40.86	62.14
C & E Loss (ft)	0.06	Cum SA (acres)	55.95	21.74	53.33

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9468.68	9708.22	250.69	137.27	223.94	5.80	0.61	1.83
9708.22	9947.77	279.16	150.42	239.54	6.46	0.63	1.86
LB 9947.77	RB 10041.00	2565.08	278.77	93.65	59.32	2.99	9.20
10041.00	10153.23	983.37	249.30	112.89	22.74	2.22	3.94
10153.23	10265.47	245.70	108.96	114.16	5.68	0.97	2.25

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 11.869

INPUT
Description: SEC.11.869
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9432.34	1646.31	9433.44	1646.28	9435.39	1646.26	9471	1645.87	9481.28	1645.71

```
 9504.45 1645.08 9506.34 1644.99 9518.09  1644.9 9537.27 1645.66 9538.16 1645.66
 9543.96 1645.41 9550.35 1644.69 9570.63 1643.91 9572.78 1643.86 9575.77 1644.08
 9592.29 1643.52  9596.4 1643.57 9622.16 1643.83 9625.49 1643.02 9636.18 1639.74
 9649.41 1641.68 9652.71 1642.25 9660.68 1641.73 9672.13 1641.05 9683.77 1640.23
 9686.26 1639.84 9695.23 1641.05 9703.92 1642.52 9719.64 1642.74 9722.52 1642.78
  9723.9 1642.82 9735.09 1642.62 9745.13 1642.24 9750.95 1642.78 9769.16 1644.61
 9771.48 1644.53 9782.86 1644.14 9785.06 1644.18 9799.73 1644.61  9814.3 1644.68
 9881.45 1645.17 9886.35  1645.2 9897.57 1645.28 9910.36 1644.45 9917.79 1644.06
 9924.69 1644.64  9935.1 1644.93 9976.82 1645.64 9983.78  1643.5 9990.38 1641.72
   10000 1641.4410001.37  1641.410008.22 1641.1910012.53 1642.0210023.13 1644.04
10043.48 1644.8910045.19 1644.9310047.72 1644.9810057.63 1645.0710067.63 1645.27
10078.74 1645.3810081.88 1645.3810084.73  1645.410086.56 1645.0810093.71 1644.21
10100.26 1643.9410105.77 1643.7210115.75 1644.0710120.94 1644.28 10131.8 1644.11
10133.24 1644.07 10154.9 1640.6910156.83 1640.4410160.52 1641.5910175.64  1646.5
10185.77 1646.3610198.95 1646.1110214.67  1645.510218.03 1645.2310237.99 1643.91
10266.64 1645.6610268.09 1645.7410317.41  1645.610325.22 1645.51 10330.3 1644.81
10332.52  1644.510335.19 1644.4510339.09 1644.5110350.91 1644.67

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9432.34    .065 9976.82    .03710078.74    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9976.8210078.74              275   279.8     270             .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 9432.34 9976.82 1645.64

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1646.87   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.64   Wt. n-Val.               0.065      0.037      0.065
  W.S. Elev (ft)           1646.23   Reach Len. (ft)         275.00     279.80     270.00
  Crit W.S. (ft)           1646.23   Flow Area (sq ft)       302.94     248.47     409.52
  E.G. Slope (ft/ft)      0.013586   Area (sq ft)            302.94     248.47     409.52
  Q Total (cfs)            4324.00   Flow (cfs)              549.92    2095.12    1678.96
  Top Width (ft)            895.04   Top Width (ft)          538.73     101.92     254.38
  Vel Total (ft/s)            4.50   Avg. Vel. (ft/s)          1.82       8.43       4.10
  Max Chl Dpth (ft)           5.79   Hydr. Depth (ft)          0.56       2.44       1.61
  Conv. Total (cfs)        37096.6   Conv. (cfs)             4717.9    17974.5    14404.2
  Length Wtd. (ft)          275.54   Wetted Per. (ft)        538.74     102.78     257.43
  Min Ch El (ft)           1641.19   Shear (lb/sq ft)          0.48       2.05       1.35
  Alpha                       2.04   Stream Power (lb/ft s)    0.87      17.29       5.53
  Frctn Loss (ft)             3.32   Cum Volume (acre-ft)     78.03      39.11      59.76
  C & E Loss (ft)             0.02   Cum SA (acres)           52.56      21.09      51.85

Warning: The energy equation could not be balanced within the specified number of iterations.  The
        program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
        section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to
        critical depth, the calculated water surface came back below critical depth.  This
indicates
        that there is not a valid subcritical answer.  The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)             (cfs)      (sq ft)    (ft)                (ft)      (ft/s)
  9432.34      9704.58         248.89     142.19     266.50      5.76       0.53      1.75
  9704.58      9976.82         301.03     160.75     272.24      6.96       0.59      1.87
  LB 9976.82   RB 10078.74    2095.12     248.47     102.78     48.45       2.44      8.43
  10078.74     10214.83       1225.07     258.64     119.60     28.33       2.19      4.74
  10214.83     10350.91        453.89     150.88     137.83     10.50       1.11      3.01

Warning: The energy equation could not be balanced within the specified number of iterations.  The
        program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
        section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to
```

critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 11.816

INPUT
Description: SEC.11.816
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9454.56	1646.18	9468.37	1645.89	9472.58	1645.77	9488.28	1645.15	9500.1	1645.09
9518.6	1644	9532.99	1644.02	9544.16	1644.23	9556.17	1644.02	9559.22	1643.91
9565.36	1643.64	9589.54	1642.96	9604.57	1642.21	9608.08	1642.13	9614.39	1641.98
9619.13	1641.62	9628.43	1640.32	9641.37	1637.67	9643.37	1637.55	9653.6	1638.14
9655.14	1638.19	9661.37	1637.91	9687.04	1637.19	9693.67	1636.79	9705.06	1639.06
9707.31	1639.43	9709.1	1639.56	9731.75	1640.62	9771.65	1640.68	9781.87	1640.79
9788.84	1640.75	9794.65	1640.77	9822.61	1640.36	9841.01	1640.72	9843.89	1640.84
9857.51	1640.91	9868.48	1640.76	9882.36	1640.75	9890.89	1640.82	9901.01	1640.87
9910.26	1640.77	9946.4	1641.31	9954.21	1641.3	9960.29	1641.3	9961.54	1641.32
9963.69	1641.24	9972.72	1639.26	9976.44	1638.58	9990.22	1638.68	10000	1638.66
10006.25	1638.64	10009.88	1638.96	10010.48	1639	10021.85	1639.71	10026.61	1640.14
10028.3	1640.28	10031.69	1640.19	10045.66	1640.09	10049.79	1641.34	10051.09	1641.61
10057.83	1641.36	10076.04	1640.63	10088.44	1638.83	10092.45	1638.28	10099.1	1639.14
10104.85	1640.01	10105.99	1640.06	10111.37	1640.64	10114.54	1640.43	10127.24	1640.09
10132.95	1640.88	10133.91	1641.06	10138.7	1640.63	10140.07	1640.53	10140.92	1640.43
10147.25	1639.55	10152.01	1639.41	10155.64	1639.97	10164.16	1642.67	10185.14	1641.98
10225.38	1640.67	10243	1640.86	10243.91	1640.87	10244.09	1640.86	10245.92	1640.89
10279.97	1641.38	10284.91	1641.23	10291.41	1641.51	10314.19	1641.73	10324.89	1640.61
10327.5	1640.31	10336.05	1641.7	10336.98	1641.84	10342.07	1641.82	10409.95	1641.32

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9454.56	.065	9961.54	.037	10051.09	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9961.54 10051.09 490 512.2 450 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
9454.56	9961.54	1641.32

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1642.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1642.33	Reach Len. (ft)	490.00	512.20	450.00
Crit W.S. (ft)	1642.33	Flow Area (sq ft)	350.82	252.83	458.17
E.G. Slope (ft/ft)	0.010760	Area (sq ft)	350.82	252.83	458.17
Q Total (cfs)	4324.00	Flow (cfs)	818.54	2095.24	1410.22
Top Width (ft)	796.42	Top Width (ft)	359.39	89.55	347.48
Vel Total (ft/s)	4.07	Avg. Vel. (ft/s)	2.33	8.29	3.08
Max Chl Dpth (ft)	4.05	Hydr. Depth (ft)	0.98	2.82	1.32
Conv. Total (cfs)	41685.8	Conv. (cfs)	7891.2	20199.3	13595.3
Length Wtd. (ft)		Wetted Per. (ft)	359.43	90.11	349.66
Min Ch El (ft)	1638.58	Shear (lb/sq ft)	0.66	1.88	0.88
Alpha	2.26	Stream Power (lb/ft s)	1.53	15.62	2.71
Frctn Loss (ft)		Cum Volume (acre-ft)	75.97	37.50	57.08
C & E Loss (ft)		Cum SA (acres)	49.73	20.48	49.98

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9454.56	9708.05	207.45	94.54	105.94	4.80	0.89	2.19
9708.05	9961.54	611.09	256.28	253.49	14.13	1.01	2.38
LB 9961.54	RB 10051.09	2095.24	252.83	90.11	48.46	2.82	8.29
10051.09	10230.52	986.66	283.11	169.00	22.82	1.68	3.49
10230.52	10409.95	423.56	175.06	180.66	9.80	0.98	2.42

```
Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT1
REACH: SPLIT1             RS: 11.719

INPUT
Description: SEC.11.719  REVISED 6-7-02
Station Elevation Data    num=     100
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9360.53 1638.05 9362.65 1638.02 9368.81 1637.96  9383.2 1637.74 9392.41 1637.54
 9402.58 1637.57 9412.86 1637.41 9448.47 1637.22 9449.44  1637.2 9450.72 1637.18
 9466.14 1636.84 9487.89 1636.36 9488.32 1636.35 9498.48  1636.1 9508.36 1635.96
 9525.47 1635.91 9536.84 1635.79 9551.71 1635.98 9553.84 1635.93 9555.08 1635.84
 9570.41 1635.08 9587.55 1633.55 9593.17 1633.46 9602.58 1634.27 9613.68 1636.06
 9627.49  1635.8 9645.69 1636.08 9693.94 1636.27 9723.64  1636.4 9733.23 1636.25
 9733.88 1636.25 9735.73 1636.44 9766.38 1635.22 9789.32 1634.31  9793.4  1634.3
 9814.86 1633.73 9819.24 1634.43 9822.77 1632.99 9826.32 1631.58 9828.62 1631.71
 9834.02 1632.69 9840.26 1632.06 9847.64 1632.64 9854.72 1633.29  9866.1  1633.3
 9875.19 1633.49 9882.22 1633.92 9914.66 1633.73 9915.19 1633.68 9915.24 1634.11
 9919.95 1634.41    9923 1634.58 9926.91 1634.89 9932.02 1635.41 9938.86 1635.22
 9943.44 1635.18 9963.35 1634.96 9974.32 1634.61 9976.19 1634.49 9984.43 1632.69
 9987.16  1632.1 9987.87 1631.86 9998.04    1632   10000 1632.03   10014 1632.23
10017.19    163310025.61 1634.8410028.01 1634.8310032.36  1634.810039.75 1633.82
10039.92 1633.8310049.81 1634.7110051.52 1634.5410061.71 1634.75 10068.7 1635.18
10088.45  1636.110090.93 1636.2310096.71 1636.5310101.58 1636.4910106.16 1636.66
10108.27 1636.7710117.66 1635.4610117.89 1635.4210132.54 1635.2710147.04 1635.39
10147.62 1635.5210151.86 1636.2710153.85  1636.110156.84 1635.7110159.09 1635.53
10166.11 1635.3310177.21 1634.9210186.53 1634.44 10188.5 1634.6710200.77 1636.75
10222.26 1636.5910249.64 1636.2110253.85 1636.1410274.53 1636.2110276.88 1636.27

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9360.53    .065 9932.02    .03710025.61    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9932.0210025.61              310   332.6     335             .1       .3
Blocked Obstructions     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 9360.53 9735.73 1636.44 10200.810276.88 1636.75

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1637.41   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.33   Wt. n-Val.               0.065      0.037      0.065
  W.S. Elev (ft)           1637.07   Reach Len. (ft)         310.00     332.60     335.00
  Crit W.S. (ft)                     Flow Area (sq ft)       757.52     307.53     323.91
  E.G. Slope (ft/ft)       0.005285  Area (sq ft)            757.52     307.53     323.91
  Q Total (cfs)            4324.00   Flow (cfs)             1711.93    1976.01     636.06
  Top Width (ft)            821.28   Top Width (ft)          476.42      93.59     251.27
  Vel Total (ft/s)            3.11   Avg. Vel. (ft/s)          2.26       6.43       1.96
  Max Chl Dpth (ft)           5.49   Hydr. Depth (ft)          1.59       3.29       1.29
  Conv. Total (cfs)        59478.7   Conv. (cfs)            23548.4    27181.0     8749.3
  Length Wtd. (ft)          325.94   Wetted Per. (ft)        477.72      94.19     252.19
  Min Ch El (ft)           1631.86   Shear (lb/sq ft)          0.52       1.08       0.42
  Alpha                       2.21   Stream Power (lb/ft s)    1.18       6.92       0.83
  Frctn Loss (ft)             3.06   Cum Volume (acre-ft)     69.73      34.20      53.04
  C & E Loss (ft)             0.12   Cum SA (acres)           45.02      19.40      46.89


Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1
```

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9360.53	9646.28	112.49	111.55	190.69	2.60	0.59	1.01
9646.28	9932.02	1599.44	645.98	287.03	36.99	2.26	2.48
LB 9932.02	RB 10025.61	1976.01	307.53	94.19	45.70	3.29	6.43
10025.61	10151.25	476.40	213.19	125.97	11.02	1.70	2.23
10151.25	10276.88	159.65	110.72	126.22	3.69	0.88	1.44

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 11.656

INPUT
Description: SEC.11.656
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9589.83	1634.4	9602.31	1634.3	9610.38	1633.29	9612.1	1633.18	9616.63	1633.09
9624.67	1632.81	9628.18	1632.74	9634.52	1633.12	9644.29	1632.59	9653.38	1632.49
9665.43	1631.85	9666.65	1631.42	9670.15	1631.37	9686.61	1632.15	9687.12	1632.14
9688.81	1632.14	9713.02	1632.03	9715.87	1632	9721.18	1632.08	9733.65	1630.83
9745.6	1629.71	9758.53	1630.53	9771.96	1631.34	9786.86	1632.46	9795.73	1632.39
9805.05	1632.17	9838.06	1631.62	9847.28	1631.15	9869.31	1631.33	9879.22	1631.52
9886.29	1630.6	9892.91	1629.9	9903.75	1630.12	9919.71	1630.51	9933.62	1630.85
9936.8	1630.91	9943.76	1630.66	9959.15	1630.66	9967.37	1630.71	9977.67	1629.07
9980.28	1628.58	10000	1628.64	10002.06	1628.65	10006.47	1628.63	10014.4	1630.63
10015.39	1630.91	10016.75	1630.93	10020.52	1631.25	10026.09	1630.84	10038.01	1631.05
10042.3	1631.18	10049.09	1630.53	10054.66	1630.02	10057.93	1630.19	10066.66	1630.7
10071.52	1630.64	10083.68	1630.46	10092.73	1630.08	10099.82	1629.81	10106.24	1630.54
10111.59	1631.24	10115.91	1631.58	10126.86	1632.34	10140.06	1632.46	10154.16	1632.53

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9589.83	.065	9967.37	.037	10020.52	.065

Bank Sta: Left	Right	Lengths: Left Channel		Right	Coeff Contr.	Expan.
9967.37	10020.52	180	184.8	165	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
9589.83	9786.86	1632.46

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1634.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.53	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1632.70	Reach Len. (ft)	180.00	184.80	165.00
Crit W.S. (ft)	1632.39	Flow Area (sq ft)	313.48	180.69	215.03
E.G. Slope (ft/ft)	0.020723	Area (sq ft)	313.48	180.69	215.03
Q Total (cfs)	4324.00	Flow (cfs)	1006.61	2347.70	969.69
Top Width (ft)	511.89	Top Width (ft)	325.10	53.15	133.64
Vel Total (ft/s)	6.10	Avg. Vel. (ft/s)	3.21	12.99	4.51
Max Chl Dpth (ft)	4.12	Hydr. Depth (ft)	0.96	3.40	1.61
Conv. Total (cfs)	30037.5	Conv. (cfs)	6992.6	16308.8	6736.1
Length Wtd. (ft)	178.35	Wetted Per. (ft)	325.24	53.63	134.04
Min Ch El (ft)	1628.58	Shear (lb/sq ft)	1.25	4.36	2.08
Alpha	2.65	Stream Power (lb/ft s)	4.00	56.64	9.36
Frctn Loss (ft)	2.86	Cum Volume (acre-ft)	65.92	32.34	50.96
C & E Loss (ft)	0.22	Cum SA (acres)	42.17	18.84	45.41

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9589.83	9778.60	31.48	31.54	136.33	0.73	0.23	1.00
9778.60	9967.37	975.13	281.94	188.91	22.55	1.49	3.46
LB 9967.37	RB 10020.52	2347.70	180.69	53.63	54.29	3.40	12.99
10020.52	10087.34	688.09	135.60	66.92	15.91	2.03	5.07
10087.34	10154.16	281.60	79.43	67.13	6.51	1.19	3.55

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 11.621

INPUT
Description: SEC.11.621
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9748.75	1632.08	9753.97	1631.97	9775.59	1631.67	9786.11	1631.5	9794.34	1631.33
9798.11	1631.32	9803.32	1630.98	9808.91	1630.51	9817.97	1629.68	9819.88	1629.49
9827.27	1629.15	9842.84	1629.01	9851.69	1628.79	9867.16	1628.63	9873.24	1628.54
9878.07	1628.54	9883.5	1627.62	9889.78	1626.57	9894.44	1627.29	9898.86	1628.21
9927.3	1628.13	9950.21	1628.2	9962.09	1628.09	9967.99	1628.15	9970.51	1628.18
9972.95	1627.9	9980.72	1626.69	10000	1626.13	10005	1625.98	10005.18	1625.99
10005.23	1625.98	10019.17	1628.34	10021.64	1628.49	10032.37	1627.51	10033.68	1627.76
10036.59	1627.69	10039.44	1627.83	10053.59	1628.68	10058.89	1628.73	10079.47	1628.97
10096.03	1628.97	10096.46	1628.94	10105.17	1628.38	10108.19	1627.99	10112.43	1627.5
10118.23	1628.41	10123.81	1629.34	10176.99	1628.81	10180.49	1628.78	10181.9	1628.77
10182.36	1628.79	10184.9	1628.75	10205.69	1628.77	10240.64	1628.81	10248.03	1628.91

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9748.75	.065	9972.95	.03	10021.64	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9972.95	10021.64	530	517.4	455	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1631.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.82	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1630.35	Reach Len. (ft)	530.00	517.40	455.00
Crit W.S. (ft)	1630.35	Flow Area (sq ft)	311.13	171.25	368.86
E.G. Slope (ft/ft)	0.012670	Area (sq ft)	311.13	171.25	368.86
Q Total (cfs)	4324.00	Flow (cfs)	1233.72	1782.83	1307.45
Top Width (ft)	437.33	Top Width (ft)	162.25	48.69	226.39
Vel Total (ft/s)	5.08	Avg. Vel. (ft/s)	3.97	10.41	3.54
Max Chl Dpth (ft)	4.37	Hydr. Depth (ft)	1.92	3.52	1.63
Conv. Total (cfs)	38414.7	Conv. (cfs)	10960.4	15838.8	11615.5
Length Wtd. (ft)		Wetted Per. (ft)	162.64	49.00	228.15
Min Ch El (ft)	1625.98	Shear (lb/sq ft)	1.51	2.76	1.28
Alpha	2.05	Stream Power (lb/ft s)	6.00	28.78	4.53
Frctn Loss (ft)		Cum Volume (acre-ft)	64.63	31.59	49.86
C & E Loss (ft)		Cum SA (acres)	41.17	18.62	44.73

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9748.75	9860.85	161.24	58.67	50.20	3.73	1.17	2.75
9860.85	9972.95	1072.47	252.46	112.43	24.80	2.25	4.25
LB 9972.95	RB 10021.64	1782.83	171.25	49.00	41.23	3.52	10.41

10021.64	10134.83	760.38	202.23	113.52	17.59	1.79	3.76
10134.83	10248.03	547.07	166.63	114.64	12.65	1.47	3.28

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 11.523

INPUT
Description: SEC.11.523. WEIR OVERFLOW NEAR THIS SEC. TO THE MAIN PADELFORD WASH WAS ESTMATED HERE. A RATING CURVE OF WATER SURFACE ELS. VS. Q'S WAS DEVELOPED WITH WEIR FLOW ESTIMATED BASED ON A RECTANGULAR SECTION WITH BOTT. WIDTH OF 800 FT. I.E.=1624.4 , N=0.055, AND LONG.S=0.02 FT./FT. . SECTION 11.523 RATING CURVE DATA WAS FROM THE HEC-RAS MODEL. THE DATA WAS INPUT TO THE HEC-1 HYDROLOGY MODEL TO DETERMINE THE FLOW SPLITS.THE FLOW WAS DECREASED AT 11.523 BY HALF THE EST. WEIR AMOUNT, W/REMAIN. DEC. AT 11.423.

Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9819.21	1625.31	9820.98	1625.32	9839.13	1625.55	9851.4	1625.34	9863.92	1624.67
9903.68	1622.97	9906.04	1623.03	9917.61	1620.95	9918.91	1620.7	9920.94	1621.07
9928.74	1622.21	9935	1621.96	9937.15	1621.89	9939.26	1622.02	9948.89	1623.12
9951.19	1623.08	9954.73	1622.54	9958.01	1622.17	9961.05	1621.97	9966.07	1621.94
9968.86	1621.71	9976.99	1623.04	9983.03	1622.53	9989.93	1621.65	9999.46	1621.17
10000	1621.14	10010.72	1620.61	10014.67	1622.69	10016.99	1623.92	10039.06	1622.15
10046.01	1621.58	10046.39	1621.62	10109.93	1623.92	10116.59	1624.07	10142.09	1624.16
10151.16	1624.78	10155.95	1624.78	10186.18	1623.66	10188.35	1623.59	10190.32	1623.44
10199.49	1622.78	10208.88	1623.73	10212.6	1624.05	10218.04	1624.16	10271.82	1623.81
10273.55	1623.79	10275.75	1623.76	10289.07	1623.93	10304.98	1624.14	10315.73	1624.25
10319	1624.42	10338.57	1625.6	10345.18	1625.28				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9819.21	.065	9976.99	.037	10016.99	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9976.99	10016.99	500	528	580	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1625.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1625.25	Reach Len. (ft)	500.00	528.00	580.00
Crit W.S. (ft)		Flow Area (sq ft)	288.30	141.38	499.02
E.G. Slope (ft/ft)	0.008064	Area (sq ft)	288.30	141.38	499.02
Q Total (cfs)	3589.00	Flow (cfs)	1035.15	1165.14	1388.71
Top Width (ft)	479.84	Top Width (ft)	123.99	40.00	315.85
Vel Total (ft/s)	3.86	Avg. Vel. (ft/s)	3.59	8.24	2.78
Max Chl Dpth (ft)	4.65	Hydr. Depth (ft)	2.33	3.53	1.58
Conv. Total (cfs)	39967.6	Conv. (cfs)	11527.6	12975.1	15464.9
Length Wtd. (ft)	539.54	Wetted Per. (ft)	124.63	40.93	316.16
Min Ch El (ft)	1620.60	Shear (lb/sq ft)	1.16	1.74	0.79
Alpha	1.93	Stream Power (lb/ft s)	4.18	14.33	2.21
Frctn Loss (ft)	6.09	Cum Volume (acre-ft)	60.98	29.74	45.32
C & E Loss (ft)	0.06	Cum SA (acres)	39.42	18.10	41.89

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9819.21	9898.10	94.20	48.14	45.15	2.62	1.07	1.96
9898.10	9976.99	940.94	240.15	79.48	26.22	3.04	3.92

LB 9976.99	RB 10016.99	1165.14	141.38	40.93	32.46	3.53	8.24
10016.99	10181.08	916.52	302.26	164.27	25.54	1.84	3.03
10181.08	10345.18	472.20	196.77	151.89	13.16	1.30	2.40

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 11.423

INPUT
Description: SEC.11.423
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9854.45	1619.86	9855.84	1619.92	9883.85	1619.37	9915.04	1618.88	9924.68	1618.9
9928.01	1618.86	9929.69	1618.38	9946.28	1614.78	9947.51	1614.87	9950.62	1615.13
9960.39	1615.92	9963.05	1616.19	9971.14	1616.35	9975.53	1616.43	9984.95	1615.87
9984.97	1615.87	10000	1615.53	10005.63	1615.41	10011.23	1615.32	10013.89	1615.95
10021.09	1617.38	10031.24	1616.73	10037.31	1616.31	0043.48	1616.19	10050.04	1616.05
10056.77	1616.14	10063.09	1616.05	10072.28	1616.58	10073.36	1616.68	10079.2	1616.59
10100.19	1616.36	10123.32	1617.98	10127.68	1618.17	10135.53	1618.84	10137.89	1618.83
10168.96	1618.94	10180.76	1618.97	10189.47	1618.97	10212.89	1618.83	10213.45	1618.83
10214.3	1618.83	10215.29	1618.83	10216.35	1618.84	10231.63	1618.86		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9854.45	.065	9975.53	.037	10021.09	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9975.53	10021.09	485	496.3	495	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1619.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.03	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1618.52	Reach Len. (ft)	485.00	496.30	495.00
Crit W.S. (ft)	1618.52	Flow Area (sq ft)	110.98	120.53	198.35
E.G. Slope (ft/ft)	0.019526	Area (sq ft)	110.98	120.53	198.35
Q Total (cfs)	2854.00	Flow (cfs)	630.51	1289.38	934.11
Top Width (ft)	202.55	Top Width (ft)	46.32	45.56	110.67
Vel Total (ft/s)	6.64	Avg. Vel. (ft/s)	5.68	10.70	4.71
Max Chl Dpth (ft)	3.74	Hydr. Depth (ft)	2.40	2.65	1.79
Conv. Total (cfs)	20424.5	Conv. (cfs)	4512.2	9227.3	6684.9
Length Wtd. (ft)	491.24	Wetted Per. (ft)	46.79	45.80	110.80
Min Ch El (ft)	1615.32	Shear (lb/sq ft)	2.89	3.21	2.18
Alpha	1.50	Stream Power (lb/ft s)	16.43	34.32	10.28
Frctn Loss (ft)	4.85	Cum Volume (acre-ft)	58.69	28.15	40.68
C & E Loss (ft)	0.24	Cum SA (acres)	38.45	17.58	39.06

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9914.99	9975.53	630.51	110.98	46.79	22.09	2.40	5.68

LB 9975.53	RB 10021.09	1289.37	120.53	45.80	45.18	2.65	10.70
10021.09	10126.36	932.73	197.14	105.39	32.68	1.87	4.73
10126.36	10231.63	1.38	1.21	5.41	0.05	0.22	1.15

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 11.329

INPUT
Description: SEC.11.329
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9296.25	1616.43	9298.4	1616.37	9326.93	1615.66	9329.73	1615.62	9333.33	1615.54
9340.23	1615.49	9417.51	1613.4	9421.69	1613.43	9432.79	1613.39	9453.88	1613.38
9466.2	1613.49	9484.97	1613.92	9513.23	1614.17	9513.73	1614.18	9517.25	1614
9540.51	1612.87	9551.16	1612.89	9585.52	1611.85	9586.13	1611.84	9593.77	1611.47
9613.17	1610.54	9614.51	1610.48	9632.59	1608.15	9640.16	1607.65	9656.3	1608.15
9657.66	1608.18	9664.15	1608.96	9682.01	1611.1	9683.89	1611.04	9696.16	1610.95
9713.26	1610.86	9718.35	1610.92	9740.21	1610.24	9744.35	1610.14	9748.56	1609.98
9749.55	1609.83	9756.15	1608.55	9763	1609.6	9783.49	1611.75	9784.21	1611.75
9788.6	1611.79	9813.56	1611.34	9846.6	1610.48	9877.8	1609.73	9881.69	1609.75
9894.16	1609.9	9948.3	1611.07	9972.13	1611.73	9981.52	1609.74	9982.39	1609.56
9984.91	1609.56	10000	1609.37	10007.46	1609.27	10019.61	1609.45	10027.66	1609.86
10057.48	1610.82	10057.6	1610.83	10074.62	1612.81	10076.21	1612.95	10076.88	1612.97
10077.85	1613.01	10114.51	1613.38	10145.55	1612.71	10148.17	1612.67	10149.01	1612.66
10152.25	1612.66	10191.22	1612.97	10222.56	1613.27	10226.82	1613.24	10242.53	1613.08

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9296.25	.065	9972.13	.03	10074.62	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9972.13	10074.62	470	506.9	510 .1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1612.41	Element			
Vel Head (ft)	0.21	Wt. n-Val.	0.065	0.037	
W.S. Elev (ft)	1612.20	Reach Len. (ft)	470.00	506.90	510.00
Crit W.S. (ft)		Flow Area (sq ft)	705.86	204.53	
E.G. Slope (ft/ft)	0.005936	Area (sq ft)	705.86	204.53	
Q Total (cfs)	2854.00	Flow (cfs)	1818.23	1035.77	
Top Width (ft)	495.66	Top Width (ft)	398.31	97.34	
Vel Total (ft/s)	3.13	Avg. Vel. (ft/s)	2.58	5.06	
Max Chl Dpth (ft)	4.55	Hydr. Depth (ft)	1.77	2.10	
Conv. Total (cfs)	37042.9	Conv. (cfs)	23599.3	13443.6	
Length Wtd. (ft)	491.32	Wetted Per. (ft)	399.09	97.68	
Min Ch El (ft)	1609.27	Shear (lb/sq ft)	0.66	0.78	
Alpha	1.38	Stream Power (lb/ft s)	1.69	3.93	
Frctn Loss (ft)	4.65	Cum Volume (acre-ft)	54.15	26.30	39.55
C & E Loss (ft)	0.04	Cum SA (acres)	35.97	16.76	38.43

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9296.25	9634.19	209.12	90.83	60.56	7.33	1.50	2.30
9634.19	9972.13	1609.11	615.03	338.53	56.38	1.82	2.62
LB 9972.13	RB 10074.62	1035.77	204.53	97.68	36.29	2.10	5.06

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 11.233

INPUT
Description: SEC.11.233.
Station Elevation Data num= 84

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9322.06	1610.25	9329.52	1609.99	9339.06	1610.11	9350.3	1609.93	9353.19	1609.81
9364.4	1609.85	9367.3	1609.8	9368.51	1609.69	9378.33	1608.4	9382.48	1608.06
9387.81	1607.5	9389.28	1607.16	9405.08	1608.14	9418.73	1608.55	9424.56	1608.6
9436.99	1608.16	9449.01	1607.73	9453.17	1607.59	9462.01	1607.55	9473.72	1607.46
9478.11	1607.53	9483.04	1607.34	9496.32	1605.76	9504.31	1605.17	9521.04	1603.51
9526.18	1603.21	9535.88	1602.47	9538.87	1602.16	9549.85	1600.95	9554.64	1600.64
9561.75	1601.34	9585.44	1603.63	9627.65	1602.46	9635.49	1602.31	9641.14	1603.03
9662.35	1605.72	9717.91	1605.98	9753.2	1606.08	9760.78	1606.26	9764.58	1606.38
9793.77	1606.92	9800.7	1607.19	9817.4	1606.75	9836.64	1606.23	9868.94	1605.03
9870.55	1604.67	9878.28	1603.44	9885.11	1603.96	9890.23	1604.47	9910.26	1606.1
9913.79	1606.56	9919.27	1606.53	9943.63	1606.22	9949.44	1606.35	9957.15	1606.62
9973.03	1605.57	9973.45	1605.54	9973.72	1605.48	9977.58	1604.4	110000.01	1603.88
10000.05	1603.88	10005.46	1603.65	10005.68	1603.66	10021.88	1606.39	10021.98	1606.4
10040.29	1605.64	10043.21	1605.59	10077.9	1605.98	10096.27	1606.11	10098.46	1606.2
10100	1606.25	10108.9	1605.92	10145.64	1604.64	10146.71	1604.61	0146.97	1604.59
10163.92	1605.21	0171.73	1605.45	10199.08	1606.36	10220.77	1607.05	10248.31	1608.52
10257.51	1608.57	10270.91	1608.26	10285.11	1607.83	10350.65	1607.78		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9322.06	.065	9957.15	.03	710021.98	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9957.15	10021.98	500	491	460	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
9322.06	9800.7	1607.19

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1607.72	Element			
Vel Head (ft)	0.66	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1607.06	Reach Len. (ft)	500.00	491.00	460.00
Crit W.S. (ft)	1607.06	Flow Area (sq ft)	190.14	141.78	256.65
E.G. Slope (ft/ft)	0.017541	Area (sq ft)	190.14	141.78	256.65
Q Total (cfs)	2854.00	Flow (cfs)	668.65	1265.00	920.35
Top Width (ft)	415.43	Top Width (ft)	151.59	64.83	199.01
Vel Total (ft/s)	4.85	Avg. Vel. (ft/s)	3.52	8.92	3.59
Max Chl Dpth (ft)	3.62	Hydr. Depth (ft)	1.25	2.19	1.29
Conv. Total (cfs)	21548.7	Conv. (cfs)	5048.6	9551.2	6949.0
Length Wtd. (ft)	489.57	Wetted Per. (ft)	151.91	65.26	199.10
Min Ch El (ft)	1603.65	Shear (lb/sq ft)	1.37	2.38	1.41
Alpha	1.80	Stream Power (lb/ft s)	4.82	21.23	5.06
Frctn Loss (ft)	4.38	Cum Volume (acre-ft)	49.31	24.28	38.05
C & E Loss (ft)	0.15	Cum SA (acres)	33.00	15.82	37.26

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to

critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9639.61	9957.15	668.65	190.14	151.91	23.43	1.25	3.52
LB 9957.15	RB 10021.98	1265.00	141.78	65.26	44.32	2.19	8.92
10021.98	10186.32	881.97	237.23	164.41	30.90	1.44	3.72
10186.32	10350.65	38.37	19.41	34.69	1.34	0.56	1.98

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 11.140

INPUT
Description: SEC.11.140. DISCHARGE INCREASES FOR ADDITIONAL CONTRIBUTING SUBEREA .
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9566.94	1602.39	9595.08	1601.8	9596.13	1601.78	9633.48	1601.03	9637.81	1600.84
9638.95	1600.9	9673.7	1600.94	9693.05	1600.99	9702.94	1601.13	9713.89	1601.12
9722.45	1600.78	9733.51	1599.79	9734.52	1599.7	9735.68	1599.7	9763.6	1600.08
9764.71	1599.99	9778.32	1598.92	9786.85	1599.13	9798.53	1599.37	9807.17	1598.11
9812.23	1597.36	9817.64	1598.26	9825.42	1599.45	9829.11	1599.54	9835.57	1598.64
9841.1	1598.17	9860.82	1599.54	9863.15	1599.7	9871.37	1599.8	9897.45	1600.12
9921.81	1600.61	9922.63	1600.62	9923.26	1600.62	9924.47	1600.63	9947.9	1600.46
9952.42	1600.22	9954.28	1600.34	9956.85	1600.5	9966.42	1601.14	9975	1600.5
9981.19	1599.91	9997.94	1599.29	10000	1599.2	10009.6	1598.81	10014.51	1599.56
10023.64	1600.75	10032.18	1600.54	10047.8	1599.92	10071.54	1601.58	10079.85	1602.15
10107.65	1601.98	10114.16	1601.98	10115.51	1601.93	10138.47	1601.05	10159.2	1601.19
10194.79	1601.41	10232.13	1602.32	10241.9	1603.03	10252.85	1602.78	10279.28	1603.43
10283.65	1603.51	10293.39	1603.75	10359.34	1603.39				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9566.94	.065	9966.42	.037	10079.85	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9966.42 10079.85 255 248.1 245 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1602.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.17	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1602.14	Reach Len. (ft)	255.00	248.10	245.00
Crit W.S. (ft)		Flow Area (sq ft)	733.56	212.55	80.71
E.G. Slope (ft/ft)	0.005487	Area (sq ft)	733.56	212.55	80.71
Q Total (cfs)	2952.00	Flow (cfs)	1898.67	960.18	93.14
Top Width (ft)	644.31	Top Width (ft)	387.58	113.29	143.44
Vel Total (ft/s)	2.87	Avg. Vel. (ft/s)	2.59	4.52	1.15
Max Chl Dpth (ft)	4.78	Hydr. Depth (ft)	1.89	1.88	0.56
Conv. Total (cfs)	39850.6	Conv. (cfs)	25631.2	12962.0	1257.4
Length Wtd. (ft)	250.57	Wetted Per. (ft)	388.20	113.59	143.47
Min Ch El (ft)	1598.80	Shear (lb/sq ft)	0.65	0.64	0.19
Alpha	1.33	Stream Power (lb/ft s)	1.68	2.90	0.22
Frctn Loss (ft)	1.70	Cum Volume (acre-ft)	44.01	22.28	36.27
C & E Loss (ft)	0.02	Cum SA (acres)	29.91	14.82	35.45

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9566.94	9766.68	417.56	229.76	187.92	14.14	1.22	1.82
9766.68	9966.42	1481.12	503.80	200.27	50.17	2.52	2.94
LB 9966.42	RB 10079.85	960.18	212.55	113.59	32.53	1.88	4.52
10079.85	10219.59	93.05	80.37	138.22	3.15	0.58	1.16
10219.59	10359.34	0.09	0.34	5.25	0.00	0.06	0.27

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 11.093

INPUT
Description: SEC.11.093. SPLIT5 WASH WAS ESTIMATED TO SPLIT AT THIS SEC. AGAIN A RATING CURVE OF E.G. ELS VS. Q'S BY HEC-RAS MODEL AT SEC. 11.093 (SPLIT1) VS SEC. 51.088 (SPLIT5) WAS INPUT TO THE HEC-1 MODEL TO DETERMINE THE SPLITS.

Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9791.22	1600.2	9792.64	1600.23	9793.33	1600.21	9793.79	1600.2	9816.42	1599.46
9843.36	1598.98	9845.6	1598.93	9846.31	1598.92	9848.37	1598.88	9852.89	1598.21
9857.49	1597.68	9859.44	1597.54	9861.04	1597.65	9869.17	1598.11	9881.17	1596.55
9885.18	1595.84	9895.4	1597.76	9897.19	1598.33	9899.96	1598.46	9905.76	1598.6
9907.88	1598.52	9914.26	1598.44	9920.11	1597.13	9921.81	1596.82	9927.88	1596.73
9936.91	1596.61	9940.6	1596.65	9952.64	1597.92	9966.33	1598.63	9970.01	1598.65
9984.1	1598.27	9988.15	1597.83	9995.11	1597.94	10000	1597.96	10008.92	1598.01
10016.98	1598.69	10022.35	1599.06	10032.88	1598.97	10041	1598.84	10046.56	1598.75
10061.09	1598.41	10069.91	1597.26	10072.97	1596.78	10076.35	1597.03	10079.17	1597.37
10081.08	1597.63	10082.99	1597.51	10088.2	1596.63	10095.35	1597.79	10099.02	1598.48
10101.25	1598.82	10103.7	1598.82	10110.6	1598.98	10125.12	1599.38	10139.2	1598.92
10153.85	1598.24	10161.09	1598.79	10180.25	1599.51	10180.56	1599.51	10220.4	1600.23
10243.46	1600.69	10260.83	1600.65	10277.29	1600.45	10299.02	1600.23	10335.38	1599.83
10348.13	1600.25	10357.02	1600.61	10379.29	1600.66	10381.44	1600.69		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9791.22	.065	9907.88	.037	10022.35	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9907.88	10022.35	250 258.7	245	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10243.51	10381.44	1600.69

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1600.58	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1600.17	Reach Len. (ft)	250.00	258.70	245.00
Crit W.S. (ft)		Flow Area (sq ft)	190.53	261.89	268.24
E.G. Slope (ft/ft)	0.008533	Area (sq ft)	190.53	261.89	268.24
Q Total (cfs)	2952.00	Flow (cfs)	567.90	1683.56	700.54
Top Width (ft)	422.06	Top Width (ft)	113.06	114.47	194.53
Vel Total (ft/s)	4.10	Avg. Vel. (ft/s)	2.98	6.43	2.61
Max Chl Dpth (ft)	4.33	Hydr. Depth (ft)	1.69	2.29	1.38
Conv. Total (cfs)	31957.7	Conv. (cfs)	6147.9	18225.9	7583.9
Length Wtd. (ft)	254.06	Wetted Per. (ft)	113.62	114.80	195.03
Min Ch El (ft)	1596.61	Shear (lb/sq ft)	0.89	1.22	0.73
Alpha	1.60	Stream Power (lb/ft s)	2.66	7.81	1.91
Frctn Loss (ft)	2.55	Cum Volume (acre-ft)	41.31	20.93	35.29
C & E Loss (ft)	0.05	Cum SA (acres)	28.45	14.17	34.50

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9791.22	9849.55	61.35	40.95	54.76	2.08	0.75	1.50
9849.55	9907.88	506.55	149.58	58.86	17.16	2.56	3.39
LB 9907.88	RB 10022.35	1683.56	261.89	114.80	57.03	2.29	6.43
10022.35	10201.89	699.46	266.21	180.04	23.69	1.48	2.63
10201.89	10381.44	1.08	2.03	14.99	0.04	0.14	0.53

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 11.044

INPUT
Description: SEC.11.044
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9897.15	1598.45	9901.1	1598.56	9919.38	1598.55	9963.58	1596.94	9965.22	1596.83
9969.7	1596.12	9980.69	1594.39	9990.97	1594.06	10000	1593.75	10014.73	1593.24
10014.78	1593.26	10020.36	1595.71	10031.91	1595.58	10040.42	1595.21	10045.5	1594.96
10052.88	1595.29	10054.8	1595.48	10057.22	1596	10077.35	1595.71	10084.18	1595.62
10087.53	1595.55	10092.89	1595.21	10101.61	1594.62	10107.42	1594.98	10112.39	1595.42
10120.69	1596.12	10135.67	1597.29	10138.28	1597.27	10163.11	1597.42	10198.69	1597.54
10226.3	1597.55	10234.59	1597.04	10255.66	1595.69	10262.12	1595.91	10282.81	1596.02
10284.53	1596.06	10296.91	1595.46	10309.15	1596.46	10314.25	1596.77	10320.08	1596.79
10325.34	1596.89	10342.33	1597.42	10361.22	1597.74	10361.27	1597.74	10361.31	1597.75
10361.33	1597.74	10372.13	1597.91	10375.73	1598.32	10379.55	1598.34	10387.86	1598.28

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9897.15	.065	9965.22	.037	10020.36	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9965.22	10020.36	465	517.4	530	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10226.31	10387.86	1597.55

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1597.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.90	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1597.09	Reach Len. (ft)	465.00	517.40	530.00
Crit W.S. (ft)	1597.09	Flow Area (sq ft)	0.63	148.68	169.58
E.G. Slope (ft/ft)	0.013229	Area (sq ft)	0.63	148.68	169.58
Q Total (cfs)	1904.00	Flow (cfs)	0.38	1318.92	584.70
Top Width (ft)	173.53	Top Width (ft)	5.68	55.14	112.71
Vel Total (ft/s)	5.97	Avg. Vel. (ft/s)	0.61	8.87	3.45
Max Chl Dpth (ft)	3.85	Hydr. Depth (ft)	0.11	2.70	1.50
Conv. Total (cfs)	16554.2	Conv. (cfs)	3.3	11467.3	5083.6
Length Wtd. (ft)	522.29	Wetted Per. (ft)	5.68	55.87	112.93
Min Ch El (ft)	1593.24	Shear (lb/sq ft)	0.09	2.20	1.24
Alpha	1.63	Stream Power (lb/ft s)	0.06	19.50	4.28
Frctn Loss (ft)	5.85	Cum Volume (acre-ft)	40.76	19.71	34.06
C & E Loss (ft)	0.22	Cum SA (acres)	28.10	13.66	33.64

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9931.19	9965.22	0.38	0.63	5.68	0.02	0.11	0.61
LB 9965.22	RB 10020.36	1318.92	148.68	55.87	69.27	2.70	8.87
10020.36	10204.11	584.70	169.58	112.93	30.71	1.50	3.45

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 10.946

INPUT
Description: SEC.10.946
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9815.67	1593.13	9830.72	1592.63	9833.6	1592.58	9834.97	1592.42	9838.74	1592.15
9845.55	1591.77	9856.6	1590.84	9873.01	1589.71	9879.69	1590.19	9884.61	1590.44
9889.91	1590.42	9893.87	1590.44	9928.38	1590.72	9932.03	1590.71	9944.79	1589.84
9946.2	1589.73	9947.7	1589.86	9953.73	1590.4	9955.85	1590.42	9962.45	1590.39
9970.86	1589.79	9977.52	1589.39	9987.26	1590.17	9988.02	1590.22	9991.9	1590.13
10000	1589.79	10007.52	1589.48	10013.49	1590.63	10014.33	1590.81	10015.43	1590.78
10049.9	1590.14	10057.54	1590.17	10067.84	1590.09	10072.77	1590.06	10076.28	1590.16
10078.75	1589.72	10087.43	1588.84	10097.31	1588.85	10118.71	1589.22	10124.22	1590.06
10125.75	1590.26	10134.93	1589.87	10139.45	1589.68	10139.99	1589.71	10153.94	1590.41
10167.18	1589.74	10167.91	1589.78	10169.03	1589.61	10176.93	1589.04	10184.68	1590.01
10188.23	1590.38	10199.6	1590.79	10216.88	1590.22	10227.35	1589.98	10246.87	1589.8
10275.38	1589.27	10282.02	1589.12	10287.76	1589.17	10290.03	1589.07	10295.94	1589.05
10296.94	1589.08	10299.87	1589.12	10303.6	1589.23	10334.12	1590.09	10378.41	1591.18
10381.15	1591.26	10385.37	1591.41	10386.36	1591.32	10388.67	1591.17	10416.56	1589.19
10477.62	1589.13	10514.01	1589.05	10517.08	1589.13	10541.07	1589.93	10544.3	1589.96
10557.71	1590.46	10579.33	1589.79	10579.42	1589.79	10579.49	1589.78	10579.85	1589.78
10626.89	1591.28	10632.12	1591.34	10650.68	1591.57				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9815.67	.065	9955.85	.03	710014.33	.06	510076.28	.03	710153.94	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9955.85	10014.33	485	528	475	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10385.41	10650.68	1591.4

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1591.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.18	Wt. n-Val.	0.065	0.037	0.052
W.S. Elev (ft)	1591.13	Reach Len. (ft)	485.00	528.00	475.00
Crit W.S. (ft)		Flow Area (sq ft)	75.33	68.59	443.51
E.G. Slope (ft/ft)	0.009621	Area (sq ft)	75.33	68.59	443.51
Q Total (cfs)	1904.00	Flow (cfs)	137.30	299.76	1466.94
Top Width (ft)	523.00	Top Width (ft)	102.65	58.48	361.87
Vel Total (ft/s)	3.24	Avg. Vel. (ft/s)	1.82	4.37	3.31
Max Chl Dpth (ft)	2.29	Hydr. Depth (ft)	0.73	1.17	1.23
Conv. Total (cfs)	19411.7	Conv. (cfs)	1399.8	3056.1	14955.7
Length Wtd. (ft)	489.97	Wetted Per. (ft)	102.78	58.69	362.26
Min Ch El (ft)	1589.39	Shear (lb/sq ft)	0.44	0.70	0.74
Alpha	1.11	Stream Power (lb/ft s)	0.80	3.07	2.43
Frctn Loss (ft)	4.59	Cum Volume (acre-ft)	40.35	18.42	30.33
C & E Loss (ft)	0.01	Cum SA (acres)	27.53	12.99	30.75

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9815.67	9885.76	53.39	27.08	32.63	2.80	0.83	1.97
9885.76	9955.85	83.92	48.25	70.15	4.41	0.69	1.74
LB 9955.85	RB 10014.33	299.76	68.59	58.69	15.74	1.17	4.37
10014.33	10332.50	1432.77	420.00	318.55	75.25	1.32	3.41
10332.50	10650.68	34.16	23.50	43.71	1.79	0.54	1.45

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 10.849

INPUT
Description: SEC.10.849
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9845.05	1587.94	9850.88	1588.12	9852.23	1588.01	9854.5	1587.84	9876.52	1586.3
9896.21	1586.1	9911.46	1586.07	9937.19	1586	9944.8	1585.92	9963.86	1585.99
9972.6	1583.74	9972.71	1583.71	9972.76	1583.7	9973.94	1583.74	9988.57	1584.44
9990.06	1584.32	9992.51	1583.9	10000	1583.49	10002.56	1583.35	10007.87	1584.15
10014.5	1584.99	10016.68	1585.26	10027.55	1585	10043.82	1584.62	10051.29	1584.98
10074.49	1586.23	10089.82	1586.16	10127.88	1585.53	10137.63	1585.38	10146.25	1585.25
10150.45	1585.79	10156.61	1586.72	10164.31	1586.48	10169.84	1586.33	10190.38	1585.73
10194.28	1585.78	10210.63	1586.36	10213.59	1585.47	10217.1	1584.28	10218.25	1583.95
10240.64	1584.21	10244.22	1584.18	10245.11	1584.45	10253.35	1586.49	10258.53	1586.06
10281.33	1585.42	10285.36	1585.5	10287.31	1585.55	10292.69	1585.72	10309.86	1586.04
10317.37	1586.42	10319.93	1586.03	10336.13	1586.1	10345.66	1585.93	10365.3	1585.33
10374.48	1584.85	10385.72	1585.11	10400.21	1585.22	10404.62	1584.35	10407.48	1583.56
10414.03	1584.34	10419.14	1585.05	10440.92	1585.26	10461.94	1585.25	10473.97	1585.75
10512.08	1587.66	10533.99	1586.02	10562.36	1583.87	10574.94	1583.75	10623.15	1583.74
10662.8	158410669.85		1584.04	10731.35	1587.36	10735.81	1587.59	10770.91	1588.27
10776.26	1588.37								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9845.05	.065	9963.86	.03710016.68		.06510210.63		.03710253.35		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9963.86	10016.68	470	464.6	390	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10512.11	0776.26	1587.66

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1586.71	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.	0.065	0.037	0.054
W.S. Elev (ft)	1586.39	Reach Len. (ft)	470.00	464.60	390.00
Crit W.S. (ft)		Flow Area (sq ft)	29.04	115.70	418.47
E.G. Slope (ft/ft)	0.009128	Area (sq ft)	29.04	115.70	418.47
Q Total (cfs)	1904.00	Flow (cfs)	30.15	744.20	1129.65
Top Width (ft)	595.76	Top Width (ft)	88.61	52.82	454.33
Vel Total (ft/s)	3.38	Avg. Vel. (ft/s)	1.04	6.43	2.70
Max Chl Dpth (ft)	3.04	Hydr. Depth (ft)	0.33	2.19	0.92
Conv. Total (cfs)	19928.4	Conv. (cfs)	315.6	7789.3	11823.5
Length Wtd. (ft)	433.12	Wetted Per. (ft)	88.61	53.31	455.55
Min Ch El (ft)	1583.35	Shear (lb/sq ft)	0.19	1.24	0.52
Alpha	1.79	Stream Power (lb/ft s)	0.19	7.96	1.41
Frctn Loss (ft)	4.67	Cum Volume (acre-ft)	39.77	17.31	25.63
C & E Loss (ft)	0.01	Cum SA (acres)	26.46	12.31	26.30

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9845.05	9904.46	4.69	6.22	29.21	0.25	0.21	0.75
9904.46	9963.86	25.47	22.82	59.41	1.34	0.38	1.12
LB 9963.86	RB 10016.68	744.20	115.70	53.31	39.09	2.19	6.43
10016.68	10396.47	860.27	309.91	364.99	45.18	0.85	2.78
10396.47	10776.26	269.37	108.56	90.56	14.15	1.20	2.48

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 10.761

INPUT
Description: SEC.10.761
Station Elevation Data num= 102

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9734.41	1582.53	9737.93	1582.4	9788.4	1580.69	9809.31	1580.48	9848.72	1580.08
9857.45	1580.65	9875.74	1581.32	9883.14	1580.6	9893.91	1580.3	9902.33	1580.57
9917.44	1579.52	9920.16	1579.42	9924.64	1579.83	9933.23	1580.83	9939.36	1580.63
9952.98	1580.41	9956.77	1580.35	9958	1580.37	9961.23	1580.26	9971.66	1580.05
9980.71	1580.48	9980.93	1580.44	9990.28	1578.83	9993.26	1578.5	9998.95	1578.13
10000	1578.25	10007.4	1579.12	10020.86	1581.27	10022.14	1581.54	10023.25	1581.53
10047.62	1581.31	10054.34	1581.11	10063.8	1580.86	10084.59	1580.31	10092.85	1581.17
10101.36	1582.07	10131.65	1582.08	10166.4	1581.41	10173.69	1581.33	10174.55	1581.37
10186.75	1581.78	10189.68	1581.33	10199.53	1580.47	10202.35	1580.85	10207.44	1581.67
10227.57	1581.22	10228.59	1581.18	10248.58	1580.95	10263.1	1581.11	10274.54	1580.39
10275.39	1580.36	10285.33	1579.91	10286.69	1579.82	10290.03	1580.62	10294.93	1581.82
10304.01	1580.92	10310.31	1580.26	10313.18	1580.41	10326.64	1581.71	10330.27	1581.74
10343.32	1581.88	10343.91	1581.85	10354.18	1581.12	10359.42	1581.37	10370.21	1581.07
10372.48	1581.04	10383.44	1582.25	10388.02	1580.79	10389.56	1580.35	10394.05	1580.39
10399.62	1580.39	10401.1	1580.34	10410.45	1581.33	10412.78	1581.62	10420.06	1580.98
10420.84	1580.91	10422.71	1581.19	10429.48	1582.06	10432.83	1582.08	10436.08	1581.67
10442.38	1580.75	10445.08	1580.93	10453.41	1581.81	10469.32	1581.89	10469.46	1581.89
10469.52	1581.89	10481.04	1581.18	10482.25	1581.24	10486.48	1580.77	10498.63	1581.59
10501.81	1581.43	10508.24	1582.03	10515.21	1582.26	10528.88	1582.64	10543.85	1583.02
10554	1583.03	10602.53	1582.98	10614.31	1583.22	10627.76	1583.09	10632.3	1583.17
10638	1583.23	10680.68	1583.72						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9734.41	.065	9980.71	.03	10022.14	.065	10263.1	.03	10330.27	.065
10383.44	.03	10410.45	.065						

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9980.71	10022.14	485	528	540	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1582.02	Element			
Vel Head (ft)	0.41	Wt. n-Val.	0.065	0.037	0.047
W.S. Elev (ft)	1581.61	Reach Len. (ft)	485.00	528.00	540.00
Crit W.S. (ft)	1581.61	Flow Area (sq ft)	242.68	90.70	192.02
E.G. Slope (ft/ft)	0.013092	Area (sq ft)	242.68	90.70	192.02
Q Total (cfs)	1904.00	Flow (cfs)	678.46	697.88	527.66
Top Width (ft)	607.95	Top Width (ft)	219.40	41.43	347.12
Vel Total (ft/s)	3.62	Avg. Vel. (ft/s)	2.80	7.69	2.75
Max Chl Dpth (ft)	3.48	Hydr. Depth (ft)	1.11	2.19	0.55
Conv. Total (cfs)	16640.1	Conv. (cfs)	5929.4	6099.2	4611.5
Length Wtd. (ft)	521.76	Wetted Per. (ft)	219.63	41.86	348.32
Min Ch El (ft)	1578.13	Shear (lb/sq ft)	0.90	1.77	0.45
Alpha	2.02	Stream Power (lb/ft s)	2.52	13.63	1.24
Frctn Loss (ft)	5.85	Cum Volume (acre-ft)	38.30	16.21	22.90
C & E Loss (ft)	0.07	Cum SA (acres)	24.80	11.81	22.71

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9734.41	9857.56	254.59	97.10	96.29	13.37	1.01	2.62
9857.56	9980.71	423.87	145.58	123.34	22.26	1.18	2.91
LB 9980.71	RB 10022.14	697.88	90.70	41.86	36.65	2.19	7.69
10022.14	10351.41	374.04	136.31	236.59	19.64	0.58	2.74
10351.41	10680.68	153.62	55.71	111.73	8.07	0.50	2.76

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 10.661

INPUT
Description: SEC.10.661
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9588.34	1578.74	9592.09	1578.77	9603.96	1578.79	9609.68	1578.77	9617.43	1578.69
9649.48	1576.66	9688.2	1573.82	9696.91	1573.83	9711.23	1574.02	9715.88	1573.54
9719.43	1573.15	9725.08	1573.5	9733.29	1573.89	9757.26	1574.72	9762.95	1574.94
9775.07	1575.02	9783.31	1575.38	9795.76	1575.84	9809.04	1576.33	9812.49	1576.2
9815.64	1576.09	9830.75	1575.65	9835.82	1575.29	9865.38	1575.48	9883.19	1573.71
9889.16	1573.37	9891.2	1573.8	9904.25	1574.97	9910.76	1574.54	9922.09	1574.47
9924.46	1574.63	9927.7	1574.42	9937.9	1574.3	9949	1574.81	9963.31	1575.44
9968.78	1575.49	9982.99	1575.26	9990.48	1573.59	9999.55	1571.56	10000	1571.64
10008.08	1573.15	10015.61	1574.41	10044.46	1575.33	10046.02	1575.38	10047.11	1575.42
10048.57	1575.34	10066.73	1574.63	10077.93	1573.59	10080.89	1573.31	10096.77	1575.13
10097.7	1575.25	10098.87	1574.95	10108.94	1572.37	10120.67	1572.43	10124.85	1572.49
10128.31	1573.04	10136.87	1574.4	10139.6	1574.38	10158.44	1574.26	10167.62	1574.27
10176.19	1574.42	10184.52	1574.23	10187.4	1574.16	10190.88	1574.31	10203.81	1575.16
10210.97	1574.96	10251.07	1574.61	10280.41	1574.18	10340.87	1573.04	10342.65	1573.09
10351.22	1573.22	10361.81	1573.48	10400.32	1575.01	10421.12	1575.8	10449.4	1576.93
10455.99	1576.63	10460.92	1576.44						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9588.34	.065	9968.78	.03	10047.11	.065	10097.7	.03	10136.87	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9968.78	10047.11	455 501.6	485	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1575.37	Element			
Vel Head (ft)	0.17	Wt. n-Val.	0.065	0.037	0.053
W.S. Elev (ft)	1575.20	Reach Len. (ft)	455.00	501.60	485.00
Crit W.S. (ft)		Flow Area (sq ft)	172.83	74.36	387.91
E.G. Slope (ft/ft)	0.009699	Area (sq ft)	172.83	74.36	387.91
Q Total (cfs)	1904.00	Flow (cfs)	356.36	347.98	1199.65
Top Width (ft)	609.11	Top Width (ft)	199.44	57.11	352.56
Vel Total (ft/s)	3.00	Avg. Vel. (ft/s)	2.06	4.68	3.09
Max Chl Dpth (ft)	3.64	Hydr. Depth (ft)	0.87	1.30	1.10
Conv. Total (cfs)	19333.1	Conv. (cfs)	3618.5	3533.4	12181.2
Length Wtd. (ft)	478.49	Wetted Per. (ft)	199.81	57.78	353.35
Min Ch El (ft)	1571.56	Shear (lb/sq ft)	0.52	0.78	0.66
Alpha	1.20	Stream Power (lb/ft s)	1.08	3.65	2.06
Frctn Loss (ft)	5.33	Cum Volume (acre-ft)	35.99	15.21	19.30
C & E Loss (ft)	0.00	Cum SA (acres)	22.47	11.21	18.38

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9588.34	9778.56	233.22	105.90	109.31	12.25	0.97	2.20
9778.56	9968.78	123.14	66.93	90.50	6.47	0.74	1.84
LB 9968.78	RB 10047.11	347.98	74.36	57.78	18.28	1.30	4.68
10047.11	10254.02	690.93	191.85	202.00	36.29	0.95	3.60
10254.02	10460.92	508.73	196.05	151.35	26.72	1.30	2.59

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 10.566

INPUT
Description: SEC.10.566
Station Elevation Data num= 99

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9484.61	1570.93	9502.38	1571.07	9521.36	1571.08	9594.65	1570.09	9613.81	1569.77
9619.97	1569.54	9644.23	1568.82	9700.6	1570.79	9729.84	1571.71	9738.42	1571.04
9758.63	1569.3	9770.39	1567.44	9778.27	1566.43	9782.31	1566.89	9791.57	1567.88
9809.14	1567.86	9833.2	1567.63	9834.84	1567.51	9838.33	1567.52	9841.4	1567.68
9856.69	1568.08	9864.88	1568.55	9889.51	1569.99	9905.48	1569.84	9919.9	1569.72
9936.22	1569.62	9948.98	1569.44	9954.35	1569.33	9962.86	1569.25	9978.37	1569.07
9980.81	1568.81	9999.95	1566.72	10000	1566.7	10010.97	1569.09	10012.96	1569.5
10013.86	1569.49	10019.52	1569.42	10029.52	1569.5	10049.81	1569.74	10053.93	1569.57
10069	1569.07	10072.24	1568.93	10075.33	1568.9	10087.42	1568.86	10089.65	1568.98
10094.35	1569.38	10102.29	1570	10104	1570.12	10119.51	1569.61	10120.92	1569.58
10136.73	1569.96	10141.45	1569.96	10145.13	1569.12	10147.08	1569.08	10150.2	1568.62
10158.43	1568.41	10172.02	1568.21	10178.45	1570.22	10180.54	1570.85	10182.69	1570.84
10195.32	1570.8	10205.36	1570.75	10241.7	1570.6	10251.97	1570.55	10271.9	1569.99
10282.38	1569.6	10287.99	1568.83	10293.58	1567.81	10303.35	1568.22	10307.43	1568.51
10316.78	1568.64	10324.28	1568.81	10338.27	1569.9	10352.69	1569.39	10357.39	1568.49
10361.29	1568.59	10365.55	1568.22	10367.57	1568.11	10373.6	1568.16	10390.8	1568.71
10418.84	1569.65	10424.52	1569.83	10433.14	1570.47	10442.83	1571.41	10451.94	1571.41
10466.87	1572.28	10471.17	1572.08	10487.85	1572.33	10487.89	1572.33	10509.98	1572.34
10514.64	1572.51	10532.71	1572.72	10541.28	1572.75	10554.49	1572.83	10566.55	1572.35
10575.92	1572.21	10591.54	1571.71	10596.77	1571.52	10602.07	1571.4		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9484.61	.065	9936.22	.037	10012.96	.065	10141.45	.037	10180.54	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9936.22	10012.96	440	492	500	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
9484.61	9729.84	1571.71

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1570.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.22	Wt. n-Val.	0.065	0.037	0.056
W.S. Elev (ft)	1569.82	Reach Len. (ft)	440.00	492.00	500.00
Crit W.S. (ft)		Flow Area (sq ft)	237.56	84.09	219.20
E.G. Slope (ft/ft)	0.012958	Area (sq ft)	237.56	84.09	219.20
Q Total (cfs)	1904.00	Flow (cfs)	887.48	407.12	609.40
Top Width (ft)	522.03	Top Width (ft)	161.73	76.74	283.56
Vel Total (ft/s)	3.52	Avg. Vel. (ft/s)	3.74	4.84	2.78
Max Chl Dpth (ft)	3.39	Hydr. Depth (ft)	1.47	1.10	0.77
Conv. Total (cfs)	16726.2	Conv. (cfs)	7796.4	3576.5	5353.4
Length Wtd. (ft)	480.89	Wetted Per. (ft)	162.10	77.17	284.34
Min Ch El (ft)	1566.72	Shear (lb/sq ft)	1.19	0.88	0.62
Alpha	1.13	Stream Power (lb/ft s)	4.43	4.27	1.73
Frctn Loss (ft)	5.07	Cum Volume (acre-ft)	33.85	14.29	15.92
C & E Loss (ft)	0.00	Cum SA (acres)	20.58	10.44	14.84

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9710.42	9936.22	887.48	237.56	162.10	46.61	1.47	3.74
LB 9936.22	RB 10012.96	407.12	84.09	77.17	21.38	1.10	4.84
10012.96	10307.52	371.87	119.90	171.06	19.53	0.70	3.10
10307.52	10602.07	237.53	99.31	113.28	12.48	0.88	2.39

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 10.471

INPUT
Description: SEC.10.471
Station Elevation Data num= 101

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9501.06	1566.41	9507.54	1566.31	9517.92	1566.12	9544.62	1565.66	9571.35	1565.46
9581.61	1565.59	9599.53	1565.58	9619.8	1564.92	9620.23	1564.91	9644.63	1565.05
9664.33	1565.67	9667.9	1565.57	9677.91	1565.21	9693.61	1564.58	9698.32	1564.5
9698.36	1564.46	9715.07	1563.52	9729.27	1562.72	9766.71	1565.89	9779.72	1566.92
9838.59	1566.35	9838.64	1566.35	9838.65	1566.35	9859.18	1564.22	9862.52	1564.13
9868.17	1564.03	9893.55	1563.61	9913.38	1564.49	9913.53	1564.5	9913.8	1564.49
9926.11	1563.98	9933.06	1563.69	9943.15	1563.25	9963.64	1564.51	9967.23	1564.68
9984.97	1562.31	9986.48	1562.13	9987.93	1562.1	10000	1561.87	10006.39	1561.75
10013.79	1562.25	10025.88	1563.92	10041.78	1563.47	10060.99	1564.15	10061.33	1564.15
10064.16	1564.23	10065.06	1564.24	10081.25	1563.67	10082.14	1563.68	10095.3	1563.89
10100.13	1564.01	10101.48	1563.99	10114.1	1564.02	10132.06	1563.98	10140.74	1564.05
10146.27	1564.04	10164.36	1564.13	10193.27	1563.93	10218.62	1564.09	10225.76	1564.32
10250.41	1564.46	10261.19	1564.71	10286.59	1564.48	10370.71	1563.88	10392.8	1563.73
10405.92	1563.83	10408.96	1563.87	10412.75	1563.12	10418.23	1561.98	10419.82	1562.47
10429.64	1564.32	10464.57	1564.04	10471.91	1563.98	10473.84	1563.96	10474.77	1564.01
10486.69	1564.71	10548.12	1563.18	10554.13	1563.07	10554.77	1562.99	10566.61	1561.68
10575.62	1561.88	10583.67	1561.98	10587.1	1562.52	10592.47	1563.18	10684.09	1565.97
10695.29	1566.32	10695.67	1566.33	10696.7	1566.36	10697.28	1566.39	10698.54	1566.39
10707.28	1566.37	10740.42	1566.32	10749.89	1565.91	10777.46	1564.58	10782.25	1564.46
10787.63	1564.17	10791.62	1563.98	10795.01	1563.78	10821.4	1564.91	10844.58	1566.66
10873.32	1566.77								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9501.06	.065	9967.23	.03	10065.06	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9967.23	10065.06	500	464.6	425	.1	.3

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
9501.06	9779.72	1566.92	10698.51	10873.32	1566.39

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1564.96	Element			
Vel Head (ft)	0.21	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1564.75	Reach Len. (ft)	500.00	464.60	425.00
Crit W.S. (ft)	1564.50	Flow Area (sq ft)	88.62	159.60	482.93
E.G. Slope (ft/ft)	0.008747	Area (sq ft)	88.62	159.60	482.93
Q Total (cfs)	1904.00	Flow (cfs)	160.87	828.94	914.19
Top Width (ft)	789.95	Top Width (ft)	113.16	97.83	578.96
Vel Total (ft/s)	2.60	Avg. Vel. (ft/s)	1.82	5.19	1.89
Max Chl Dpth (ft)	3.07	Hydr. Depth (ft)	0.78	1.63	0.83
Conv. Total (cfs)	20358.1	Conv. (cfs)	1720.1	8863.3	9774.7
Length Wtd. (ft)	441.07	Wetted Per. (ft)	113.28	98.15	579.65
Min Ch El (ft)	1561.75	Shear (lb/sq ft)	0.43	0.89	0.45
Alpha	2.03	Stream Power (lb/ft s)	0.78	4.61	0.86
Frctn Loss (ft)	5.04	Cum Volume (acre-ft)	32.20	12.92	11.89
C & E Loss (ft)	0.01	Cum SA (acres)	19.19	9.46	9.89

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9734.14	9967.23	160.87	88.62	113.28	8.45	0.78	1.82
LB 9967.23	RB 10065.06	828.94	159.60	98.15	43.54	1.63	5.19
10065.06	10469.19	440.52	276.42	404.59	23.14	0.68	1.59
10469.19	10873.32	473.66	206.51	175.06	24.88	1.18	2.29

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 10.383

INPUT
Description: SEC.10.383
Station Elevation Data num= 119

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9334.25	1558.82	9334.6	1558.82	9346.33	1558.78	9369.07	1559.23	9381.38	1559.5
9387.92	1560.29	9389.42	1560.29	9391.24	1560.28	9406.45	1560.1	9414	1560.18
9443.81	1559.96	9457.77	1559.72	9471.79	1559.53	9499.3	1559	9506	1558.96
9521.56	1558.19	9529.46	1557.84	9550.72	1558.89	9558.61	1559.25	9563.48	1559.26
9609.4	1559.43	9620.93	1559.44	9641.01	1559.45	9649.93	1559.46	9667.13	1559.25
9683.78	1558.72	9694.02	1558.19	9716.49	1557.87	9721.02	1557.8	9730.8	1557.89
9768.74	1558.39	9798.77	1558.58	9803.14	1558.71	9812.73	1558.88	9822.15	1558.91
9830.43	1559.12	9838.21	1558.86	9840.14	1558.83	9864.34	1559.35	9873.88	1559.59
9874.56	1559.59	9875.31	1559.62	9878.54	1559.75	9896.88	1560.45	9905.64	1560.88
9926.01	1560.69	9936.33	1560.61	9973.95	1560.87	9994.56	1560.97	9995.75	1560.58
10000	1558.31	10000.93	1557.82	10005.88	1558.35	10018.5	1559.51	10025.14	1559.28
10030.94	1559.16	10047.98	1558.84	10071.17	1558.32	10071.74	1558.31	10072.37	1558.28
10088.24	1558.96	10098.2	1559.67	10102.59	1559.16	10102.78	1559.14	10103.52	1559.04
10109.99	1558.91	10117.75	1557.34	10145.42	1558.29	10161.92	1558.98	10194.77	1559.53
10195.52	1559.54	10196.35	1559.53	10227.47	1558.51	10237.78	1558.17	10322.38	1558.68
10326.47	1558.71	10331.37	1558.69	10366.08	1558.58	10395.56	1558.54	10421.37	1558.55
10440.75	1559.03	10447.86	1559.33	10457.74	1558.16	10464.83	1557.45	10481.34	1557.95
10489.33	1558.53	10500.65	1558.72	10526.85	1559.63	10534.75	1559.95	10559.42	1561.05
10581.83	1562.11	10604.25	1562.11	10614.45	1562.01	10643.2	1561.46	10656.6	1561.18
10664.35	1561.02	10668.74	1560.99	10672.12	1560.95	10675.48	1560.84	10733.46	1560.63
10753.78	1559.24	10764.45	1558.46	10780.41	1557.78	10791.81	1558.74	10809.15	1559.96
10816.94	1560.45	10837.07	1559.63	10837.58	1559.61	10838.76	1559.5	10847.6	1558.98
10855.9	1559.03	10865.12	1559.09	10867.3	1559.11	10868.62	1559.09	10870.61	1559.01
10885.65	1558.53	10910.77	1559.32	10935.77	1560.31	10937.13	1560.28		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9334.25	.065	9994.56	.037	10098.2	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9994.56	10098.2	500	596.6	500	.1	.3

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
9334.25	9994.56	1560.97	10581.81	10937.13	1562.11

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1559.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.		0.037	0.065
W.S. Elev (ft)	1559.73	Reach Len. (ft)	500.00	596.60	500.00
Crit W.S. (ft)		Flow Area (sq ft)		89.36	483.62
E.G. Slope (ft/ft)	0.015638	Area (sq ft)		89.36	483.62
Q Total (cfs)	1904.00	Flow (cfs)		412.33	1491.67
Top Width (ft)	531.96	Top Width (ft)		100.86	431.10
Vel Total (ft/s)	3.32	Avg. Vel. (ft/s)		4.61	3.08
Max Chl Dpth (ft)	2.39	Hydr. Depth (ft)		0.89	1.12
Conv. Total (cfs)	15225.6	Conv. (cfs)		3297.3	11928.4
Length Wtd. (ft)	541.65	Wetted Per. (ft)		101.47	431.52
Min Ch El (ft)	1557.82	Shear (lb/sq ft)		0.86	1.09
Alpha	1.09	Stream Power (lb/ft s)		3.97	3.37
Frctn Loss (ft)	4.71	Cum Volume (acre-ft)	31.69	11.59	7.18
C & E Loss (ft)	0.00	Cum SA (acres)	18.54	8.40	4.96

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9994.56	RB 10098.20	412.33	89.36	101.47	21.66	0.89	4.61
10098.20	10517.67	1489.13	481.12	419.88	78.21	1.15	3.10
10517.67	10937.13	2.53	2.50	11.65	0.13	0.21	1.01

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 10.270

INPUT
Description: SEC.10.270
Station Elevation Data num= 180

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
8836.78	1554.59	8855.56	1554.74	8870.37	1554.51	8878.28	1554.41	8887.73	1554.99
8889.93	1555.14	8911.15	1553.64	8924.36	1552.05	8936.8	1552.47	8960.55	1552.65
8965.71	1552.42	8979.78	1553.52	8996.47	1554.48	8998.87	1554.56	9000.58	1554.58
9009.61	1554.57	9068.03	1554.58	9078.64	1554.58	9083.29	1554.6	9085.3	1554.72
9087.88	1554.56	9099.95	1554.54	9103.38	1554.47	9124.97	1553.8	9128.04	1553.71
9128.88	1553.68	9144.03	1553.66	9146.46	1553.7	9152.63	1553.83	9171.82	1554.21
9182.55	1554.61	9200.73	1555.12	9205.77	1555	9207.68	1555.02	9230.08	1555.19
9249.44	1555.33	9253.28	1555.17	9268.56	1554.43	9276.99	1554.05	9282.2	1553.68
9290.68	1553.62	9296.63	1553.54	9315.78	1553.39	9323.11	1553.35	9358.49	1554.14
9359.34	1554.14	9360.53	1554.16	9361.82	1554.17	9390.68	1554.19	9400.3	1553.91
9405.09	1553.68	9407.09	1553.53	9415.52	1552.69	9424.79	1553.02	9425.09	1553.03
9438.64	1553.22	9459.59	1553.36	9464.07	1553.24	9464.84	1553.59	9471.74	1553.51
9473.72	1553.56	9482.9	1552.01	9483.6	1551.8	9485.14	1552.2	9494.56	1553.9
9504.42	1553.66	9513.45	1553.49	9515.96	1552.99	9524.59	1550.9	9526.67	1551.4
9538.21	1553.01	9543.25	1553.79	9561.73	1553.73	9562.7	1553.73	9564.34	1553.56
9573.92	1552.54	9573.94	1552.54	9574.02	1552.55	9591.52	1553.89	9602.2	1554.62
9606.76	1554.94	9610.19	1554.91	9620.54	1554.78	9633.25	1554.67	9652.08	1555.09
9669.42	1555.17	9671.11	1555.18	9681.43	1555.01	9709.42	1554.79	9752.57	1554
9771.44	1553.76	9781.93	1553.88	9787.02	1553.61	9794.64	1553.66	9797.78	1553.74
9807.43	1553.88	9826	1554.02	9835.38	1553.58	9843.16	1553.39	9852.48	1552.1
9852.7	1552.07	9853.15	1552.1	9853.25	1552.11	9863.77	1553.33	9871.79	1553.4
9892.78	1553.17	9905.15	1553.15	9934.59	1553.72	9942.86	1553.89	9945.78	1553.96
9952.28	1553.95	9964.58	1553.91	9980.42	1554.16	9985.95	1554.25	9989.09	1553.8
9999.68	1552.36	10000	1552.38	10005.91	1552.65	10033.04	1553.33	10033.91	1553.32
10035.77	1553.35	10047.1	1553.37	10071.03	1553.51	10076.86	1553.51	10084.61	1552.77
10088.69	1552.36	10090.68	1552.39	10116.07	1553.08	10117.01	1553.11	10137.08	1554.02
10162.88	1555.16	10167.08	1555.35	10172.73	1555.63	10177.83	1555.58	10201.35	1555.45
10219.03	1555.09	10224.03	1554.92	10236.73	1554.05	10248.28	1553.76	10252.02	1553.68
10278.09	1552.98	10282.38	1553.08	10286.66	1553.16	10300.93	1553.29	10312.53	1553.15
10319.44	1553.06	10324.98	1552.54	10329.14	1552.14	10333.3	1552.68	10336.37	1553.23
10345.13	1553.3	10356.7	1553.28	10384.35	1552.93	10401.52	1552.84	10413.62	1552.83
10427.87	1552.78	10468.48	1552.69	10502.68	1552.37	10505.74	1552.08	10517.88	1551.97
10519.41	1551.94	10527.43	1553.73	10530.48	1554.16	10549.23	1554.21	10557.68	1554.27
10572.56	1554.19	10589.6	1554.09	10593.08	1554.07	10604.31	1553.96	10620.1	1553.58
10644.51	1554.32	10650.9	1554.29	10659.28	1554.66	10662.66	1554.08	10667.1	1553.82
10678.59	1554.85	10687.61	1555.19	10690.66	1555.19	10704.97	1555.23	10707.69	1555.23

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
8836.78	.065	9985.95	.037	10172.73	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9985.95	10172.73	460	533.3	525 .1	.3

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
8836.78	9671.11	1555.18	10172.71	10707.69	1555.63

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1555.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.20	Wt. n-Val.	0.065	0.037	
W.S. Elev (ft)	1555.01	Reach Len. (ft)	460.00	533.30	525.00
Crit W.S. (ft)		Flow Area (sq ft)	358.06	292.95	
E.G. Slope (ft/ft)	0.005455	Area (sq ft)	358.06	292.95	
Q Total (cfs)	1904.00	Flow (cfs)	673.25	1230.75	
Top Width (ft)	477.98	Top Width (ft)	304.46	173.52	
Vel Total (ft/s)	2.92	Avg. Vel. (ft/s)	1.88	4.20	
Max Chl Dpth (ft)	2.94	Hydr. Depth (ft)	1.18	1.69	
Conv. Total (cfs)	25779.6	Conv. (cfs)	9115.6	16664.0	
Length Wtd. (ft)	503.22	Wetted Per. (ft)	304.67	173.78	
Min Ch El (ft)	1552.36	Shear (lb/sq ft)	0.40	0.57	
Alpha	1.48	Stream Power (lb/ft s)	0.75	2.41	
Frctn Loss (ft)	5.42	Cum Volume (acre-ft)	29.64	8.97	4.40
C & E Loss (ft)	0.03	Cum SA (acres)	16.80	6.52	2.48

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9411.37	9985.95	673.25	358.06	304.67	35.36	1.18	1.88
LB 9985.95	RB 10172.73	1230.75	292.95	173.78	64.64	1.69	4.20

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 10.169

INPUT
Description: SEC.10.169
Station Elevation Data num= 150

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
8779.9	1549.21	8784.61	1549.39	8792.76	1549.16	8832.67	1549.18	8850.52	1549.04
8865.98	1549.75	8868.28	1549.63	8882.51	1549.01	8889.87	1548.82	8893.68	1548.61
8907.08	1547.77	8928.17	1546.62	8940.56	1545.73	8950.65	1547.44	8959.81	1548.76
8979.96	1548.26	8991.54	1547.87	9000.24	1546.88	9001.46	1546.87	9006.5	1546.96
9026.97	1547.32	9028.85	1547.28	9044.95	1546.96	9060.23	1546.88	9067.47	1547.13
9079.47	1547.6	9098.85	1548.07	9120.76	1547.58	9150.62	1546.92	9158.81	1546.73
9164.54	1547.04	9199.58	1549.1	9219.99	1548.69	9253.28	1548.18	9258.72	1547.42
9259.8	1547.39	9276.04	1546.97	9283.54	1546.82	9284.87	1546.81	9286.3	1546.83
9311.74	1547.39	9322.36	1547.75	9332.4	1547.69	9340.49	1547.74	9367	1547.4
9373.47	1546.55	9381.83	1545.37	9382.81	1545.58	9390.72	1547.02	9400.86	1545.97
9404.58	1546.76	9411.01	1545.1	9420.13	1546.73	9427.92	1548.18	9441.8	1548.25
9461.87	1548.3	9470.02	1548.54	9492.21	1549.66	9495.44	1549.78	9498.55	1549.89
9516.69	1548.81	9535.23	1548.31	9535.52	1548.3	9536.42	1548.44	9548.42	1550.31
9551.84	1550.37	9583.6	1550.31	9657.99	1549.5	9700.8	1548.89	9703.38	1548.37
9706.1	1547.89	9716.82	1548.19	9717.53	1548.21	9719.68	1548.23	9743.13	1548.5
9746.11	1548.01	9750.04	1547.36	9751.74	1547.87	9754.39	1548.45	9772.34	1548.41
9783.67	1548.25	9787.42	1548.23	9790.33	1548.25	9795.7	1548.05	9797.05	1547.99
9798.7	1548.12	9802.12	1548.24	9802.98	1548.3	9813.48	1548.19	9841.26	1547.92
9849.7	1547.09	9855.65	1546.31	9868.14	1547.48	9884.97	1549.03	9888.04	1549.02
9889.34	1549.02	9907.84	1549.02	9930.55	1549.03	9936.35	1548.5	9942.78	1548.1
9964.9	1548.04	10000	1547.96	10011.28	1547.94	10015.35	1547.92	10015.35	1547.93
10031.83	1548.14	10033.94	1548.15	10063.94	1548.89	10088.43	1549.76	10089.87	1549.72
10101.39	1549.01	10106.76	1548.22	10125.35	1546.11	10136.97	1546.02	10227.66	1545.6
10238.57	1545.81	10241.9	1545.79	10244.67	1545.76	10248.89	1545.88	10257.38	1546.21
10266.72	1546.38	10269.95	1546.64	10289.94	1547.41	10294.8	1547.64	10317.59	1548.69
10322.07	1548.47	10329.79	1547.97	10331.36	1547.32	10336.88	1546.65	10349.32	1546.2
10352.93	1546.24	10368.81	1546.73	10369	1546.73	10370.65	1546.74	10401.12	1546.96
10402.13	1546.97	10402.62	1546.98	10403.64	1546.96	10421.13	1548.48	10422	1548.54
10451.81	1549.42	10473.9	1550.13	10481.83	1550.39	10493.9	1550.76	10529.59	1550.71
10548.97	1550.59	10554.62	1550.59	10558.37	1550.63	10570.02	1550.58	10581.52	1550.66

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
8779.9	.065	9930.55	.03710088.43		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9930.5510088.43		340 369.6	350	.1	.3

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
8779.9	9551.84	1550.3710088.4310581.52			1549.76

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1549.76	Element			
Vel Head (ft)	0.51	Wt. n-Val.	0.065	0.037	
W.S. Elev (ft)	1549.25	Reach Len. (ft)	340.00	369.60	350.00
Crit W.S. (ft)	1549.25	Flow Area (sq ft)	235.86	144.52	
E.G. Slope (ft/ft)	0.030257	Area (sq ft)	235.86	144.52	
Q Total (cfs)	1904.00	Flow (cfs)	889.58	1014.42	
Top Width (ft)	398.20	Top Width (ft)	254.77	143.43	
Vel Total (ft/s)	5.01	Avg. Vel. (ft/s)	3.77	7.02	
Max Chl Dpth (ft)	2.94	Hydr. Depth (ft)	0.93	1.01	
Conv. Total (cfs)	10945.9	Conv. (cfs)	5114.1	5831.8	
Length Wtd. (ft)	350.77	Wetted Per. (ft)	255.34	143.49	
Min Ch El (ft)	1547.92	Shear (lb/sq ft)	1.74	1.90	
Alpha	1.31	Stream Power (lb/ft s)	6.58	13.35	
Frctn Loss (ft)	0.27	Cum Volume (acre-ft)	26.50	6.29	4.40
C & E Loss (ft)	0.15	Cum SA (acres)	13.84	4.58	2.48

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9355.22	9930.55	889.58	235.86	255.34	46.72	0.93	3.77
LB 9930.55	RB 10088.43	1014.42	144.52	143.49	53.28	1.01	7.02

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 10.099

INPUT
Description: SEC.10.099
Station Elevation Data num= 121

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
8639.49	1545.48	8641.82	1545.56	8645.7	1545.75	8663.48	1545.48	8724.24	1544.28
8730.05	1544.05	8762.39	1543.82	8766.11	1543.81	8779.52	1543.67	8794.17	1543.73
8815.57	1543.7	8821.97	1543.7	8826.36	1543.69	8834.4	1543.74	8863.1	1543.88
8867.49	1543.92	8879.71	1543.91	8911.38	1544	8914.19	1543.99	8914.85	1543.97

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 8929.83 1543.63 8934.01 1543.55 8949.85 1543.47 8980.66 1543.11 8998.22 1542.67
 9021.74 1542.07 9030.73 1542.31 9034.05 1542.34 9037.18 1542.35 9043.71  1542.2
 9055.72 1542.17 9075.38 1541.49 9096.75 1542.39 9116.12 1543.77 9120.59 1543.95
 9137.35  1543.7 9175.01 1542.39 9181.42 1541.76 9194.16 1542.68 9203.81 1543.39
 9205.04  1543.4    9209 1543.34 9213.65 1543.45 9223.54 1543.84 9247.94 1543.96
 9249.35 1543.96 9250.23 1543.88 9266.95 1542.14 9267.26 1542.21 9275.14 1543.48
 9276.46 1543.44 9289.42 1543.16 9299.46 1543.56 9313.34 1544.16 9316.39 1544.02
 9325.95 1543.04 9332.93 1542.45 9346.37 1543.65 9347.02 1543.72 9347.43  1543.7
 9354.08  1543.7 9401.75 1543.72 9408.96 1544.36 9409.57 1544.51 9411.06 1544.65
 9424.15 1544.27 9431.13 1544.13 9434.37 1544.12 9440.44 1544.66 9442.99 1544.95
 9454.94 1545.06 9486.37 1544.84 9525.93 1546.11 9541.54 1546.01 9593.24 1544.85
 9596.41 1544.83 9604.48 1544.71 9605.52 1544.73 9607.48 1544.54 9615.49 1543.86
 9619.08 1544.49 9625.11 1543.97 9625.67 1543.97  9625.8 1543.91 9632.82 1544.79
 9634.41  1545.1 9636.85 1545.13 9653.75 1545.29 9673.85 1545.51 9678.76 1545.55
 9684.43 1545.41 9705.82  1545.1 9710.66 1545.16 9730.42 1544.99  9780.9 1545.39
 9839.27 1546.19 9857.26 1546.11 9898.35 1545.49 9945.97 1544.94  9947.7 1544.94
 9949.64 1544.94  9998.8 1544.65   10000 1544.63 10000.7 1544.61   10029 1544.47
 10069.9  1544.710081.56 1544.8910112.98 1544.5510164.04 1544.3210178.53 1544.57
10195.97 1545.2410208.55 1544.8910228.68 1544.3710274.65 1543.6810365.84 1543.52
10366.89 1543.5210382.76 1543.7210398.73  1544.610423.99 1546.0310433.94 1545.98
10456.69 1545.99

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 8639.49    .065 9839.27    .03710195.97    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9839.2710195.97              600   501.6     480            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1546.10   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.01   Wt. n-Val.                0.065      0.037      0.065
  W.S. Elev (ft)            1546.10   Reach Len. (ft)          600.00     501.60     480.00
  Crit W.S. (ft)                      Flow Area (sq ft)       2370.81     419.66     461.99
  E.G. Slope (ft/ft)        0.000226  Area (sq ft)            2370.81     419.66     461.99
  Q Total (cfs)             1904.00   Flow (cfs)              1378.97     292.67     232.36
  Top Width (ft)            1789.59   Top Width (ft)          1190.93     337.94     260.72
  Vel Total (ft/s)             0.59   Avg. Vel. (ft/s)           0.58       0.70       0.50
  Max Chl Dpth (ft)            4.61   Hydr. Depth (ft)           1.99       1.24       1.77
  Conv. Total (cfs)         126663.6  Conv. (cfs)             91735.9    19470.1    15457.5
  Length Wtd. (ft)           535.93   Wetted Per. (ft)        1192.53     337.97     260.91
  Min Ch El (ft)            1544.32   Shear (lb/sq ft)           0.03       0.02       0.02
  Alpha                        1.02   Stream Power (lb/ft s)     0.02       0.01       0.01
  Frctn Loss (ft)              0.37   Cum Volume (acre-ft)      16.33       3.90       2.55
  C & E Loss (ft)              0.08   Cum SA (acres)             8.20       2.54       1.44


Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)      (sq ft)    (ft)                (ft)      (ft/s)
  8639.49      9239.38       1020.12    1548.49     600.77      53.58      2.58       0.66
  9239.38      9839.27        358.85     822.32     591.76      18.85      1.39       0.44
  LB 9839.27   RB 10195.97    292.67     419.66     337.97      15.37      1.24       0.70
  10195.97     10326.33       144.52     265.19     130.38       7.59      2.03       0.54
  10326.33     10456.69        87.83     196.80     130.53       4.61      1.51       0.45


Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
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CROSS SECTION RIVER: SPLIT1
REACH: SPLIT1 RS: 10.004

INPUT
Description: SEC.10.004. SPLIT FLOW 1. SPLIT FLOW 1 HYDRAULIC BASELINE CONNECTS
TO CAP OVERCHUTE STRUCTURE STA. 279+00, SINGLE 72 INCH I.D. X
222.3 FT LONG STEEL PIPE WITH CONC. HEADWALL (SQ. EDGE) AND INLET
I.E.=1539.61 AND OUTLET I.E.=1538.34.
CROSS-SEC. ARE CODED FROM
LT TO RT. LOOKING D/S WITH STA. 10000 AT HYD. B.L.
SEC. I.D'S
ARE IN RIVER MILES INCR. U/S WITH I.D. 10.00 AT INLET FACE HEADWALL
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9899.13	1555.88	9900.43	1555.91	9908.71	1556.18	9913.08	1556.21	9921.83	1553.55
9934.24	1549.47	9949.37	1544.59	9957.96	1541.73	9966.77	1541.24	9973.48	1541.26
9974.56	1541.22	9984.9	1541.21	9999.03	1541.05	10000	1541.09	10010.3	1541.55
10011.23	1541.57	10011.91	1541.83	10036.87	1544.01	10040.52	1544.19	10059.21	1545.24
10060.8	1545.31	10073.74	1548.78	10093.35	1553.96	10097.23	1554.89	10105.89	1557.22
10121.8	1557.15	10123.3	1557.13	10123.79	1557.13				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9899.13	.065	9913.08	.037	10105.89	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9913.08	10105.89	0	0	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1545.65	Element			
Vel Head (ft)	0.85	Wt. n-Val.		0.037	
W.S. Elev (ft)	1544.80	Reach Len. (ft)			
Crit W.S. (ft)	1544.42	Flow Area (sq ft)		257.71	
E.G. Slope (ft/ft)	0.010019	Area (sq ft)		257.71	
Q Total (cfs)	1904.00	Flow (cfs)		1904.00	
Top Width (ft)	102.74	Top Width (ft)		102.74	
Vel Total (ft/s)	7.39	Avg. Vel. (ft/s)		7.39	
Max Chl Dpth (ft)	3.75	Hydr. Depth (ft)		2.51	
Conv. Total (cfs)	19022.1	Conv. (cfs)		19022.1	
Length Wtd. (ft)		Wetted Per. (ft)		103.43	
Min Ch El (ft)	1541.05	Shear (lb/sq ft)		1.56	
Alpha	1.00	Stream Power (lb/ft s)		11.51	
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9913.08	RB 10105.89	1904.00	257.71	103.43	100.00	2.51	7.39

SUMMARY OF MANNING'S N VALUES

River:SPLIT1

Reach	River Sta.	n1	n2	n3	n4	n5	n6	n7
SPLIT1	12.066	.065	.037	.065				
SPLIT1	12.019	.065	.037	.065				
SPLIT1	11.973	.065	.037	.065				
SPLIT1	11.924	.065	.037	.065				
SPLIT1	11.869	.065	.037	.065				
SPLIT1	11.816	.065	.037	.065				
SPLIT1	11.719	.065	.037	.065				
SPLIT1	11.656	.065	.037	.065				
SPLIT1	11.621	.065	.037	.065				
SPLIT1	11.523	.065	.037	.065				
SPLIT1	11.423	.065	.037	.065				
SPLIT1	11.329	.065	.037	.065				
SPLIT1	11.233	.065	.037	.065				

SPLIT1	11.140	.065	.037	.065				
SPLIT1	11.093	.065	.037	.065				
SPLIT1	11.044	.065	.037	.065				
SPLIT1	10.946	.065	.037	.065	.037	.065		
SPLIT1	10.849	.065	.037	.065	.037	.065		
SPLIT1	10.761	.065	.037	.065	.037	.065	037	065
SPLIT1	10.661	.065	.037	.065	.037	.065		
SPLIT1	10.566	.065	.037	.065	.037	.065		
SPLIT1	10.471	.065	.037	.065				
SPLIT1	10.383	.065	.037	.065				
SPLIT1	10.270	.065	.037	.065				
SPLIT1	10.169	.065	.037	.065				
SPLIT1	10.099	.065	.037	.065				
SPLIT1	10.004	.065	.037	.065				

SUMMARY OF REACH LENGTHS

River: SPLIT1

Reach	River Sta.	Left	Channel	Right
SPLIT1	12.066	235	248.2	250
SPLIT1	12.019	235	242.9	245
SPLIT1	11.973	260	258.7	255
SPLIT1	11.924	295	290.4	270
SPLIT1	11.869	275	279.8	270
SPLIT1	11.816	490	512.2	450
SPLIT1	11.719	310	332.6	335
SPLIT1	11.656	180	184.8	165
SPLIT1	11.621	530	517.4	455
SPLIT1	11.523	500	528	580
SPLIT1	11.423	485	496.3	495
SPLIT1	11.329	470	506.9	510
SPLIT1	11.233	500	491	460
SPLIT1	11.140	255	248.1	245
SPLIT1	11.093	250	258.7	245
SPLIT1	11.044	465	517.4	530
SPLIT1	10.946	485	528	475
SPLIT1	10.849	470	464.6	390
SPLIT1	10.761	485	528	540
SPLIT1	10.661	455	501.6	485
SPLIT1	10.566	440	492	500
SPLIT1	10.471	500	464.6	425
SPLIT1	10.383	500	596.6	500
SPLIT1	10.270	460	533.3	525
SPLIT1	10.169	340	369.6	350
SPLIT1	10.099	600	501.6	480
SPLIT1	10.004	0	0	0

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: SPLIT1

Reach	River Sta.	Contr.	Expan.
SPLIT1	12.066	.1	.3
SPLIT1	12.019	.1	.3
SPLIT1	11.973	.1	.3
SPLIT1	11.924	.1	.3
SPLIT1	11.869	.1	.3
SPLIT1	11.816	.1	.3
SPLIT1	11.719	.1	.3
SPLIT1	11.656	.1	.3
SPLIT1	11.621	.1	.3
SPLIT1	11.523	.1	.3
SPLIT1	11.423	.1	.3
SPLIT1	11.329	.1	.3
SPLIT1	11.233	.1	.3
SPLIT1	11.140	.1	.3
SPLIT1	11.093	.1	.3

SPLIT1	11.044	.1	.3
SPLIT1	10.946	.1	.3
SPLIT1	10.849	.1	.3
SPLIT1	10.761	.1	.3
SPLIT1	10.661	.1	.3
SPLIT1	10.566	.1	.3
SPLIT1	10.471	.1	.3
SPLIT1	10.383	.1	.3
SPLIT1	10.270	.1	.3
SPLIT1	10.169	.1	.3
SPLIT1	10.099	.1	.3
SPLIT1	10.004	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
SPLIT1	12.066	4324.00	1654.43	1658.52	1658.52	1659.98	0.013346	9.93	502.28	229.99	0.99
SPLIT1	12.019	4324.00	1652.46	1656.09		1656.75	0.007547	7.70	955.71	581.63	0.75
SPLIT1	11.973	4324.00	1648.30	1652.58	1652.58	1654.23	0.013747	10.95	488.22	233.54	1.02
SPLIT1	11.924	4324.00	1645.82	1649.76		1650.60	0.012260	9.20	924.72	781.17	0.94
SPLIT1	11.869	4324.00	1641.19	1646.23	1646.23	1646.87	0.013586	8.43	960.93	895.04	0.95
SPLIT1	11.816	4324.00	1638.58	1642.33	1642.33	1642.91	0.010760	8.29	1061.82	796.42	0.87
SPLIT1	11.719	4324.00	1631.86	1637.07		1637.41	0.005285	6.43	1388.97	821.28	0.62
SPLIT1	11.656	4324.00	1628.58	1632.70	1632.39	1634.23	0.020723	12.99	709.20	511.89	1.24
SPLIT1	11.621	4324.00	1625.98	1630.35	1630.35	1631.17	0.012670	10.41	851.23	437.33	0.98
SPLIT1	11.523	3589.00	1620.60	1625.25		1625.70	0.008064	8.24	928.71	479.84	0.77
SPLIT1	11.423	2854.00	1615.32	1618.52	1618.52	1619.54	0.019526	10.70	429.86	202.55	1.16
SPLIT1	11.329	2854.00	1609.27	1612.20		1612.41	0.005936	5.06	910.39	495.66	0.62
SPLIT1	11.233	2854.00	1603.65	1607.06	1607.06	1607.72	0.017541	8.92	588.57	415.43	1.06
SPLIT1	11.140	2952.00	1598.80	1602.14		1602.31	0.005487	4.52	1026.82	644.31	0.58
SPLIT1	11.093	2952.00	1596.61	1600.17		1600.58	0.008533	6.43	720.66	422.06	0.75
SPLIT1	11.044	1904.00	1593.24	1597.09	1597.09	1597.99	0.013229	8.87	318.89	173.53	0.95
SPLIT1	10.946	1904.00	1589.39	1591.13		1591.31	0.009621	4.37	587.43	523.00	0.71
SPLIT1	10.849	1904.00	1583.35	1586.39		1586.71	0.009128	6.43	563.21	595.76	0.77
SPLIT1	10.761	1904.00	1578.13	1581.61	1581.61	1582.02	0.013092	7.69	525.40	607.95	0.92
SPLIT1	10.661	1904.00	1571.56	1575.20		1575.37	0.009699	4.68	635.10	609.11	0.72
SPLIT1	10.566	1904.00	1566.72	1569.82		1570.03	0.012958	4.84	540.85	522.03	0.82
SPLIT1	10.471	1904.00	1561.75	1564.75	1564.50	1564.96	0.008747	5.19	731.15	789.95	0.72
SPLIT1	10.383	1904.00	1557.82	1559.73		1559.92	0.015638	4.61	572.98	531.96	0.86
SPLIT1	10.270	1904.00	1552.36	1555.01	1555.21	0.005455		4.20	651.00	477.98	0.57
SPLIT1	10.169	1904.00	1547.92	1549.25	1549.25	1549.76	0.030257	7.02	380.39	398.20	1.23
SPLIT1	10.099	1904.00	1544.32	1546.10	1546.10	0.000226		0.70	3252.46	1789.59	0.11
SPLIT1	10.004	1904.00	1541.05	1544.80	1544.42	1545.65	0.010019	7.39	257.71	102.74	0.82

Profile Output Table - Standard Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
SPLIT1	12.066	1659.98	1658.52	1.46			210.98	4104.91	8.10	229.99
SPLIT1	12.019	1656.75	1656.09	0.66	2.41	0.10	812.77	2927.55	583.69	581.63
SPLIT1	11.973	1654.23	1652.58	1.66			26.28	3758.99	538.73	233.54
SPLIT1	11.924	1650.60	1649.76	0.84	3.66	0.06	529.86	2565.08	1229.07	781.17
SPLIT1	11.869	1646.87	1646.23	0.64	3.32	0.02	549.92	2095.12	1678.96	895.04
SPLIT1	11.816	1642.91	1642.33	0.58			818.54	2095.24	1410.22	796.42
SPLIT1	11.719	1637.41	1637.07	0.33	3.06	0.12	1711.93	1976.01	636.06	821.28
SPLIT1	11.656	1634.23	1632.70	1.53	2.86	0.22	1006.61	2347.70	969.69	511.89
SPLIT1	11.621	1631.17	1630.35	0.82			1233.72	1782.83	1307.45	437.33
SPLIT1	11.523	1625.70	1625.25	0.45	6.09	0.06	1035.15	1165.14	1388.71	479.84
SPLIT1	11.423	1619.54	1618.52	1.03	4.85	0.24	630.51	1289.38	934.11	202.55
SPLIT1	11.329	1612.41	1612.20	0.21	4.65	0.04	1818.23	1035.77		495.66
SPLIT1	11.233	1607.72	1607.06	0.66	4.38	0.15	668.65	1265.00	920.35	415.43
SPLIT1	11.140	1602.31	1602.14	0.17	1.70	0.02	1898.67	960.18	93.14	644.31
SPLIT1	11.093	1600.58	1600.17	0.42	2.55	0.05	567.90	1683.56	700.54	422.06
SPLIT1	11.044	1597.99	1597.09	0.90	5.85	0.22	0.38	1318.92	584.70	173.53
SPLIT1	10.946	1591.31	1591.13	0.18	4.59	0.01	137.30	299.76	1466.94	523.00
SPLIT1	10.849	1586.71	1586.39	0.32	4.67	0.01	30.15	744.20	1129.65	595.76
SPLIT1	10.761	1582.02	1581.61	0.41	5.85	0.07	678.46	697.88	527.66	607.95
SPLIT1	10.661	1575.37	1575.20	0.17	5.33	0.00	356.36	347.98	1199.65	609.11
SPLIT1	10.566	1570.03	1569.82	0.22	5.07	0.00	887.48	407.12	609.40	522.03
SPLIT1	10.471	1564.96	1564.75	0.21	5.04	0.01	160.87	828.94	914.19	789.95

SPLIT1	10.383	1559.92	1559.73	0.19	4.71	0.00		412.33	1491.67	531.96
SPLIT1	10.270	1555.21	1555.01	0.20	5.42	0.03	673.25	1230.75		477.98
SPLIT1	10.169	1549.76	1549.25	0.51	0.27	0.15	889.58	1014.42		398.20
SPLIT1	10.099	1546.10	1546.10	0.01	0.37	0.08	1378.97	292.67	232.36	1789.59
SPLIT1	10.004	1545.65	1544.80	0.85				1904.00		102.74

Profile Output Table - TABLE 3

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Sta W.S. Lft (ft)	Sta W.S. Rgt	Length Chnl (ft)	Froude # Chl	Froude # XS	Max Chl Dpth
SPLIT1	12.066	4324.00	1654.43	1658.52	9856.76	10086.75	248.20	0.99	1.03	4.09
SPLIT1	12.019	4324.00	1652.46	1656.09	9568.35	10149.98	242.90	0.75	0.62	3.63
SPLIT1	11.973	4324.00	1648.30	1652.58	9882.86	10116.40	258.70	1.02	1.08	4.28
SPLIT1	11.924	4324.00	1645.82	1649.76	9484.30	10265.47	290.40	0.94	0.76	5.03
SPLIT1	11.869	4324.00	1641.19	1646.23	9438.09	10350.91	279.80	0.95	0.77	5.79
SPLIT1	11.816	4324.00	1638.58	1642.33	9602.15	10409.95	512.20	0.87	0.62	4.05
SPLIT1	11.719	4324.00	1631.86	1637.07	9455.60	10276.88	332.60	0.62	0.42	5.49
SPLIT1	11.656	4324.00	1628.58	1632.70	9642.27	10154.16	184.80	1.24	0.91	4.12
SPLIT1	11.621	4324.00	1625.98	1630.35	9810.70	10248.03	517.40	0.98	0.64	4.37
SPLIT1	11.523	3589.00	1620.60	1625.25	9853.00	10332.84	528.00	0.77	0.49	4.65
SPLIT1	11.423	2854.00	1615.32	1618.52	9929.21	10131.75	496.30	1.16	0.80	3.74
SPLIT1	11.329	2854.00	1609.27	1612.20	9573.82	10069.47	506.90	0.62	0.41	4.55
SPLIT1	11.233	2854.00	1603.65	1607.06	9805.56	10220.99	491.00	1.06	0.72	3.62
SPLIT1	11.140	2952.00	1598.80	1602.14	9578.84	10224.85	248.10	0.58	0.40	4.78
SPLIT1	11.093	2952.00	1596.61	1600.17	9794.82	10216.88	258.70	0.75	0.55	4.33
SPLIT1	11.044	1904.00	1593.24	1597.09	9959.54	10133.07	517.40	0.95	0.78	3.85
SPLIT1	10.946	1904.00	1589.39	1591.13	9853.20	10376.20	528.00	0.71	0.54	2.29
SPLIT1	10.849	1904.00	1583.35	1586.39	9875.25	10486.72	464.60	0.77	0.61	3.04
SPLIT1	10.761	1904.00	1578.13	1581.61	9761.31	10503.71	528.00	0.92	0.69	3.48
SPLIT1	10.661	1904.00	1571.56	1575.20	9669.39	10405.31	501.60	0.72	0.52	3.64
SPLIT1	10.566	1904.00	1566.72	1569.82	9752.64	10424.07	492.00	0.82	0.61	3.39
SPLIT1	10.471	1904.00	1561.75	1564.75	9854.07	10644.02	464.60	0.72	0.48	3.07
SPLIT1	10.383	1904.00	1557.82	1559.73	9997.34	10529.30	596.60	0.86	0.56	2.39
SPLIT1	10.270	1904.00	1552.36	1555.01	9681.49	10159.47	533.30	0.57	0.44	2.94
SPLIT1	10.169	1904.00	1547.92	1549.25	9675.78	10073.98	369.60	1.23	0.90	2.94
SPLIT1	10.099	1904.00	1544.32	1546.10	8639.49	10456.69	501.60	0.11	0.08	4.61
SPLIT1	10.004	1904.00	1541.05	1544.80	9948.71	10051.44		0.82	0.82	3.75

Std. Table 1

HEC-RAS Plan: Split 1 of P River: SPLIT1 Reach: SPLIT1

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
SPLIT1	12.066	4324.00	1654.43	1658.52	1658.52	1659.98	0.013346	9.93	502.28	229.99	0.99
SPLIT1	12.019	4324.00	1652.46	1656.09		1656.75	0.007547	7.70	955.71	581.63	0.75
SPLIT1	11.973	4324.00	1648.30	1652.58	1652.58	1654.23	0.013747	10.95	488.22	233.54	1.02
SPLIT1	11.924	4324.00	1645.82	1649.76		1650.60	0.012260	9.20	924.72	781.17	0.94
SPLIT1	11.869	4324.00	1641.19	1646.23	1646.23	1646.87	0.013586	8.43	960.93	895.04	0.95
SPLIT1	11.816	4324.00	1638.58	1642.33	1642.33	1642.91	0.010760	8.29	1061.82	796.42	0.87
SPLIT1	11.719	4324.00	1631.86	1637.07		1637.41	0.005285	6.43	1388.97	821.28	0.62
SPLIT1	11.656	4324.00	1628.58	1632.70	1632.39	1634.23	0.020723	12.99	709.20	511.89	1.24
SPLIT1	11.621	4324.00	1625.98	1630.35	1630.35	1631.17	0.012670	10.41	851.23	437.33	0.98
SPLIT1	11.523	3589.00	1620.60	1625.25		1625.70	0.008064	8.24	928.71	479.84	0.77
SPLIT1	11.423	2854.00	1615.32	1618.52	1618.52	1619.54	0.019526	10.70	429.86	202.55	1.16
SPLIT1	11.329	2854.00	1609.27	1612.20		1612.41	0.005936	5.06	910.39	495.66	0.62
SPLIT1	11.233	2854.00	1603.65	1607.06	1607.06	1607.72	0.017541	8.92	588.57	415.43	1.06
SPLIT1	11.140	2952.00	1598.80	1602.14		1602.31	0.005487	4.52	1026.82	644.31	0.58
SPLIT1	11.093	2952.00	1596.61	1600.17		1600.58	0.008533	6.43	720.66	422.06	0.75
SPLIT1	11.044	1904.00	1593.24	1597.09	1597.09	1597.99	0.013229	8.87	318.89	173.53	0.95
SPLIT1	10.946	1904.00	1589.39	1591.13		1591.31	0.009621	4.37	587.43	523.00	0.71
SPLIT1	10.849	1904.00	1583.35	1586.39		1586.71	0.009128	6.43	563.21	595.76	0.77
SPLIT1	10.761	1904.00	1578.13	1581.61	1581.61	1582.02	0.013092	7.69	525.40	607.95	0.92
SPLIT1	10.86	1904.00	1571.56	1575.20		1575.37	0.009699	4.68	635.10	609.11	0.72
SPLIT1	10.563	1904.00	1566.72	1569.82		1570.03	0.012958	4.84	540.85	522.03	0.82
SPLIT1	10.471	1904.00	1561.75	1564.75	1564.50	1564.96	0.008747	5.19	731.15	789.95	0.72
SPLIT1	10.363	1904.00	1557.82	1559.73		1559.92	0.015638	4.61	572.98	531.96	0.86
SPLIT1	10.270	1904.00	1552.36	1555.01		1555.21	0.005455	4.20	651.00	477.98	0.57
SPLIT1	10.169	1904.00	1547.92	1549.25	1549.25	1549.76	0.030257	7.02	380.39	398.20	1.23
SPLIT1	10.099	1904.00	1544.32	1546.10		1546.10	0.000226	0.70	3252.46	1789.59	0.11
SPLIT1	10.004	1904.00	1541.05	1544.80	1544.42	1545.65	0.010019	7.39	257.71	102.74	0.82

Std. Table 2

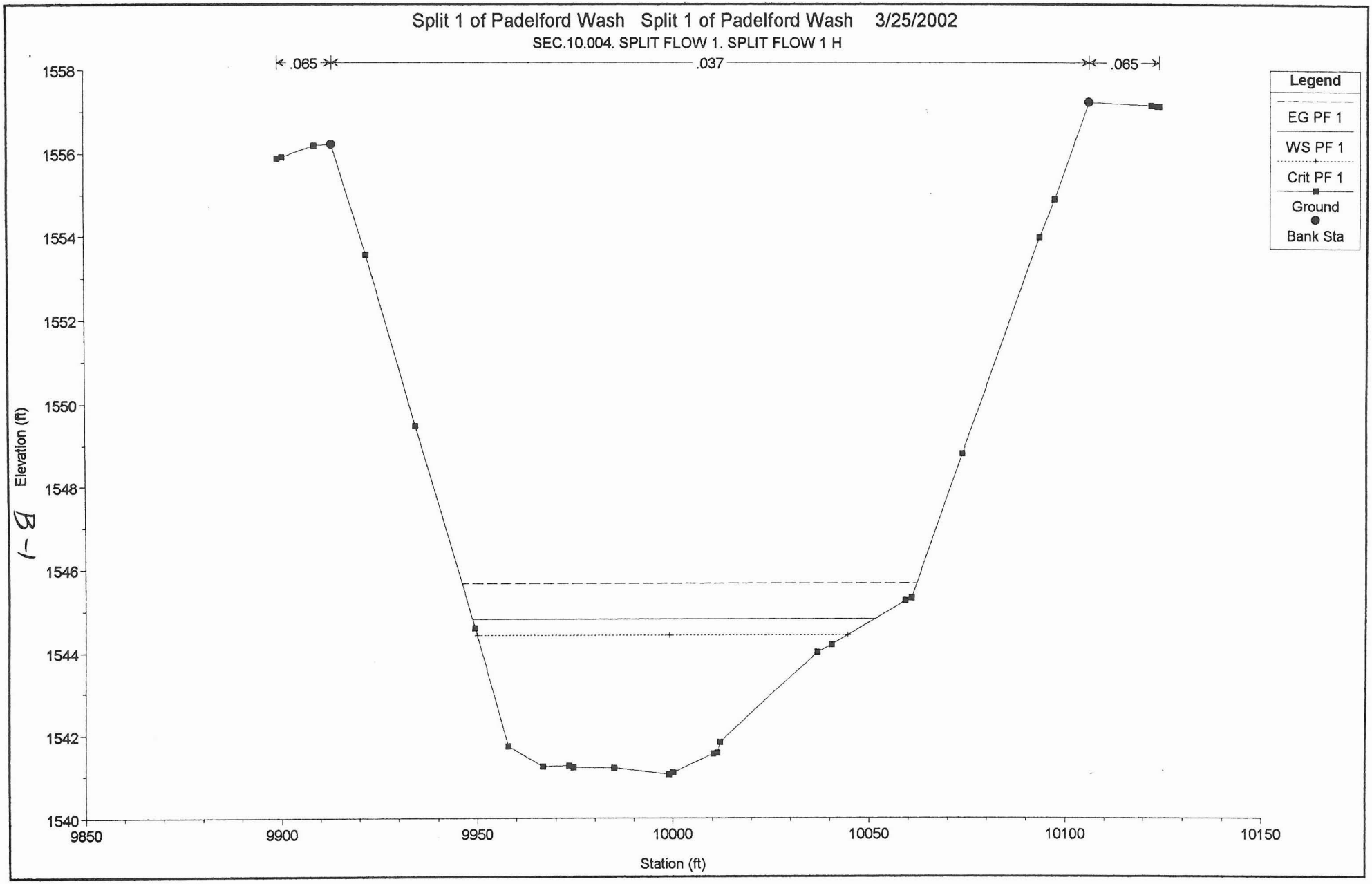
HEC-RAS Plan: Split 1 of P River: SPLIT1 Reach: SPLIT1

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
SPLIT1	12.066	1659.98	1658.52	1.46			210.98	4104.91	8.10	229.99
SPLIT1	12.019	1656.75	1656.09	0.66	2.41	0.10	812.77	2927.55	583.69	581.63
SPLIT1	11.973	1654.23	1652.58	1.66			26.28	3758.99	538.73	233.54
SPLIT1	11.924	1650.60	1649.76	0.84	3.66	0.06	529.86	2565.08	1229.07	781.17
SPLIT1	11.869	1646.87	1646.23	0.64	3.32	0.02	549.92	2095.12	1678.96	895.04
SPLIT1	11.816	1642.91	1642.33	0.58			818.54	2095.24	1410.22	796.42
SPLIT1	11.719	1637.41	1637.07	0.33	3.06	0.12	1711.93	1976.01	636.06	821.28
SPLIT1	11.656	1634.23	1632.70	1.53	2.86	0.22	1006.61	2347.70	969.69	511.89
SPLIT1	11.621	1631.17	1630.35	0.82			1233.72	1782.83	1307.45	437.33
SPLIT1	11.526	1625.70	1625.25	0.45	6.09	0.06	1035.15	1165.14	1388.71	479.84
SPLIT1	11.423	1619.54	1618.52	1.03	4.85	0.24	630.51	1289.38	934.11	202.55
SPLIT1	11.329	1612.41	1612.20	0.21	4.65	0.04	1818.23	1035.77		495.66
SPLIT1	11.233	1607.72	1607.06	0.66	4.38	0.15	668.65	1265.00	920.35	415.43
SPLIT1	11.140	1602.31	1602.14	0.17	1.70	0.02	1898.67	960.18	93.14	644.31
SPLIT1	11.093	1600.58	1600.17	0.42	2.55	0.05	567.90	1683.56	700.54	422.06
SPLIT1	11.044	1597.99	1597.09	0.90	5.85	0.22	0.38	1318.92	584.70	173.53
SPLIT1	10.946	1591.31	1591.13	0.18	4.59	0.01	137.30	299.76	1466.94	523.00
SPLIT1	10.849	1586.71	1586.39	0.32	4.67	0.01	30.15	744.20	1129.65	595.76
SPLIT1	10.761	1582.02	1581.61	0.41	5.85	0.07	678.46	697.88	527.66	607.95
SPLIT1	10.661	1575.37	1575.20	0.17	5.33	0.00	356.36	347.98	1199.65	609.11
SPLIT1	10.566	1570.03	1569.82	0.22	5.07	0.00	887.48	407.12	609.40	522.03
SPLIT1	10.471	1564.96	1564.75	0.21	5.04	0.01	160.87	828.94	914.19	789.95
SPLIT1	10.363	1559.92	1559.73	0.19	4.71	0.00		412.33	1491.67	531.96
SPLIT1	10.270	1555.21	1555.01	0.20	5.42	0.03	673.25	1230.75		477.98
SPLIT1	10.169	1549.76	1549.25	0.51	0.27	0.15	889.58	1014.42		398.20
SPLIT1	10.099	1546.10	1546.10	0.01	0.37	0.08	1378.97	292.67	232.36	1789.59
SPLIT1	10.004	1545.65	1544.80	0.85				1904.00		102.74

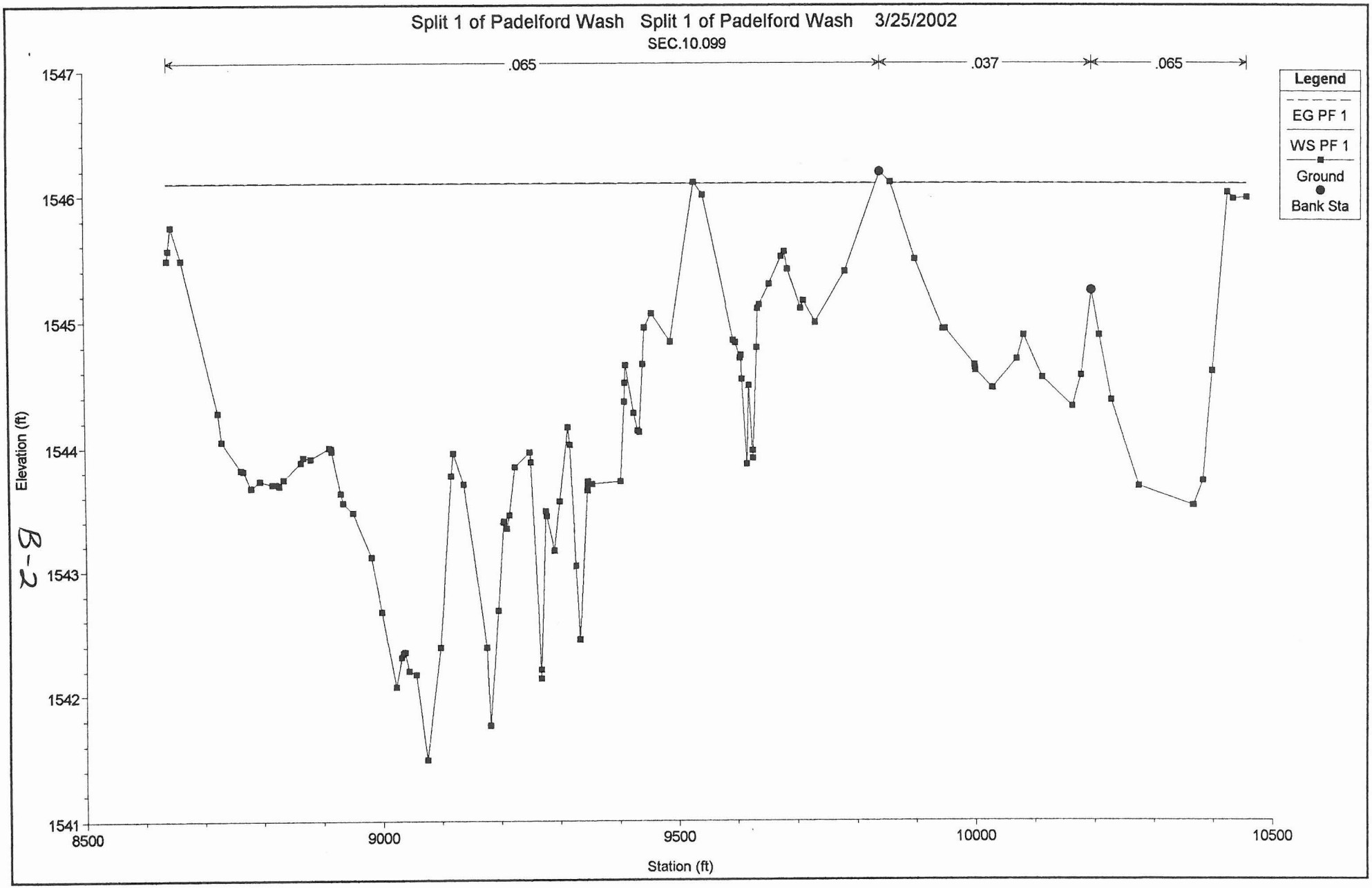
Table 3

HEC-RAS Plan: Split 1 of P River: SPLIT1 Reach: SPLIT1

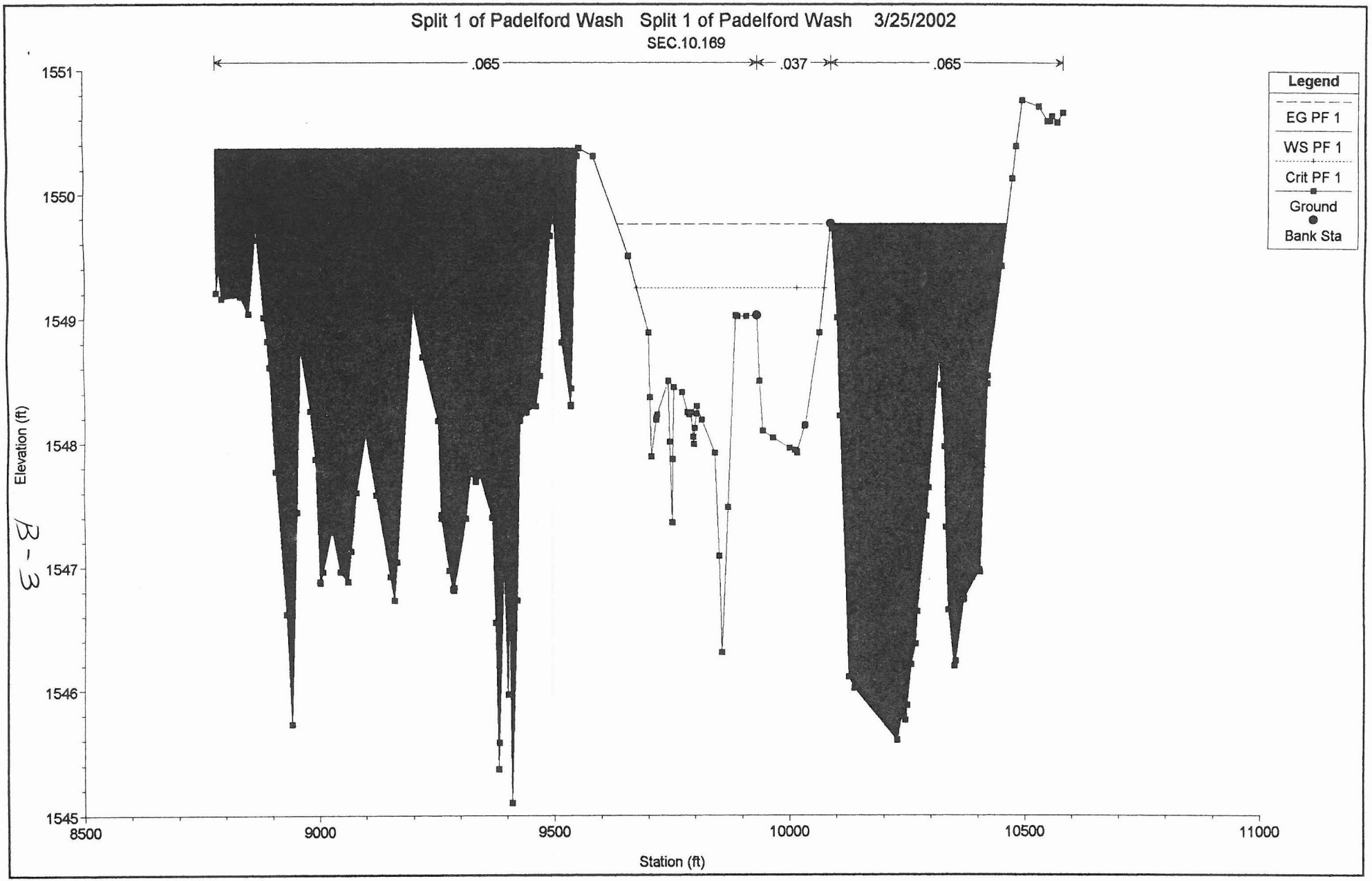
Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Sta W.S. Lft (ft)	Sta W.S. Rgt (ft)	Length Chnl (ft)	Froude # Chl	Froude # XS	Max Chl Dpth (ft)
SPLIT1	12.066	4324.00	1654.43	1658.52	9856.76	10086.75	248.20	0.99	1.03	4.09
SPLIT1	12.019	4324.00	1652.46	1656.09	9568.35	10149.98	242.90	0.75	0.62	3.63
SPLIT1	11.973	4324.00	1648.30	1652.58	9882.86	10116.40	258.70	1.02	1.08	4.28
SPLIT1	11.924	4324.00	1645.82	1649.76	9484.30	10265.47	290.40	0.94	0.76	5.03
SPLIT1	11.869	4324.00	1641.19	1646.23	9438.09	10350.91	279.80	0.95	0.77	5.79
SPLIT1	11.816	4324.00	1638.58	1642.33	9602.15	10409.95	512.20	0.87	0.62	4.05
SPLIT1	11.719	4324.00	1631.86	1637.07	9455.60	10276.88	332.60	0.62	0.42	5.49
SPLIT1	11.656	4324.00	1628.58	1632.70	9642.27	10154.16	184.80	1.24	0.91	4.12
SPLIT1	11.621	4324.00	1625.98	1630.35	9810.70	10248.03	517.40	0.98	0.64	4.37
SPLIT1	11.523	3589.00	1620.60	1625.25	9853.00	10332.84	528.00	0.77	0.49	4.65
SPLIT1	11.428	2854.00	1615.32	1618.52	9929.21	10131.75	496.30	1.16	0.80	3.74
SPLIT1	11.329	2854.00	1609.27	1612.20	9573.82	10069.47	506.90	0.62	0.41	4.55
SPLIT1	11.233	2854.00	1603.65	1607.06	9805.56	10220.99	491.00	1.06	0.72	3.62
SPLIT1	11.140	2952.00	1598.80	1602.14	9578.84	10224.85	248.10	0.58	0.40	4.78
SPLIT1	11.093	2952.00	1596.61	1600.17	9794.82	10216.88	258.70	0.75	0.55	4.33
SPLIT1	11.044	1904.00	1593.24	1597.09	9959.54	10133.07	517.40	0.95	0.78	3.85
SPLIT1	10.946	1904.00	1589.39	1591.13	9853.20	10376.20	528.00	0.71	0.54	2.29
SPLIT1	10.849	1904.00	1583.35	1586.39	9875.25	10486.72	464.60	0.77	0.61	3.04
SPLIT1	10.761	1904.00	1578.13	1581.61	9761.31	10503.71	528.00	0.92	0.69	3.48
SPLIT1	10.661	1904.00	1571.56	1575.20	9669.39	10405.31	501.60	0.72	0.52	3.64
SPLIT1	10.566	1904.00	1566.72	1569.82	9752.64	10424.07	492.00	0.82	0.61	3.39
SPLIT1	10.471	1904.00	1561.75	1564.75	9854.07	10644.02	464.60	0.72	0.48	3.07
SPLIT1	10.383	1904.00	1557.82	1559.73	9997.34	10529.30	596.60	0.86	0.56	2.39
SPLIT1	10.270	1904.00	1552.36	1555.01	9681.49	10159.47	533.30	0.57	0.44	2.94
SPLIT1	10.169	1904.00	1547.92	1549.25	9675.78	10073.98	369.60	1.23	0.90	2.94
SPLIT1	10.099	1904.00	1544.32	1546.10	8639.49	10456.69	501.60	0.11	0.08	4.61
SPLIT1	10.004	1904.00	1541.05	1544.80	9948.71	10051.44		0.82	0.82	3.75


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.10.004. SPLIT FLOW 1. SPLIT FLOW 1 H
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1558
1556
1554
1552
1550
1548
1546
1544
1542
1540
9850
9900
9950
10000
10050
10100
10150

B-1


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.10.099
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1547
1546
1545
1544
1543
1542
1541
Elevation (ft)
8500
9000
9500
10000
10500
Station (ft)

B-2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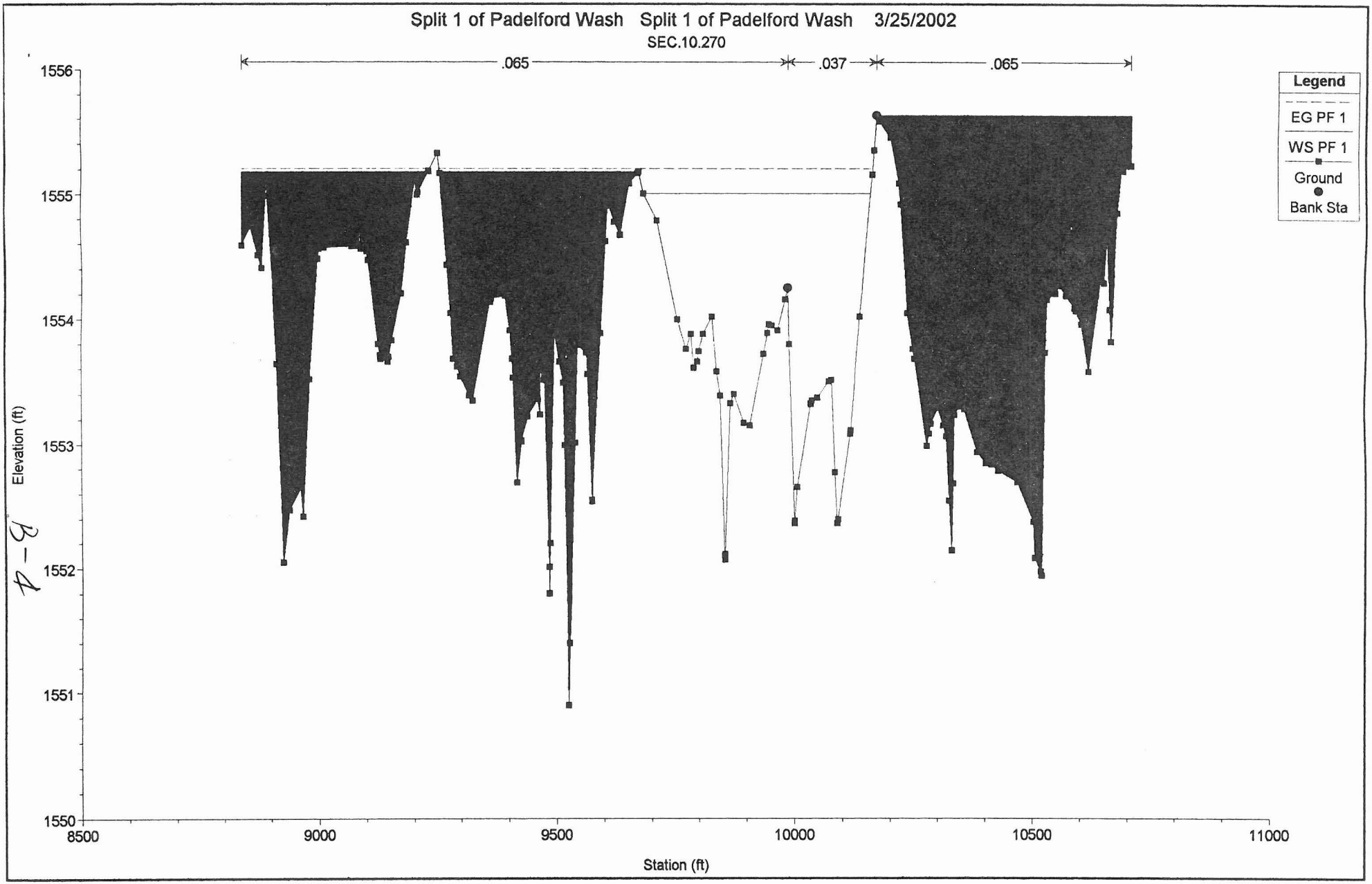
SEC.10.169
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1551
1550
1549
1548
1547
1546
1545
8500
9000
9500
10000
10500
11000
Station (ft)

B-3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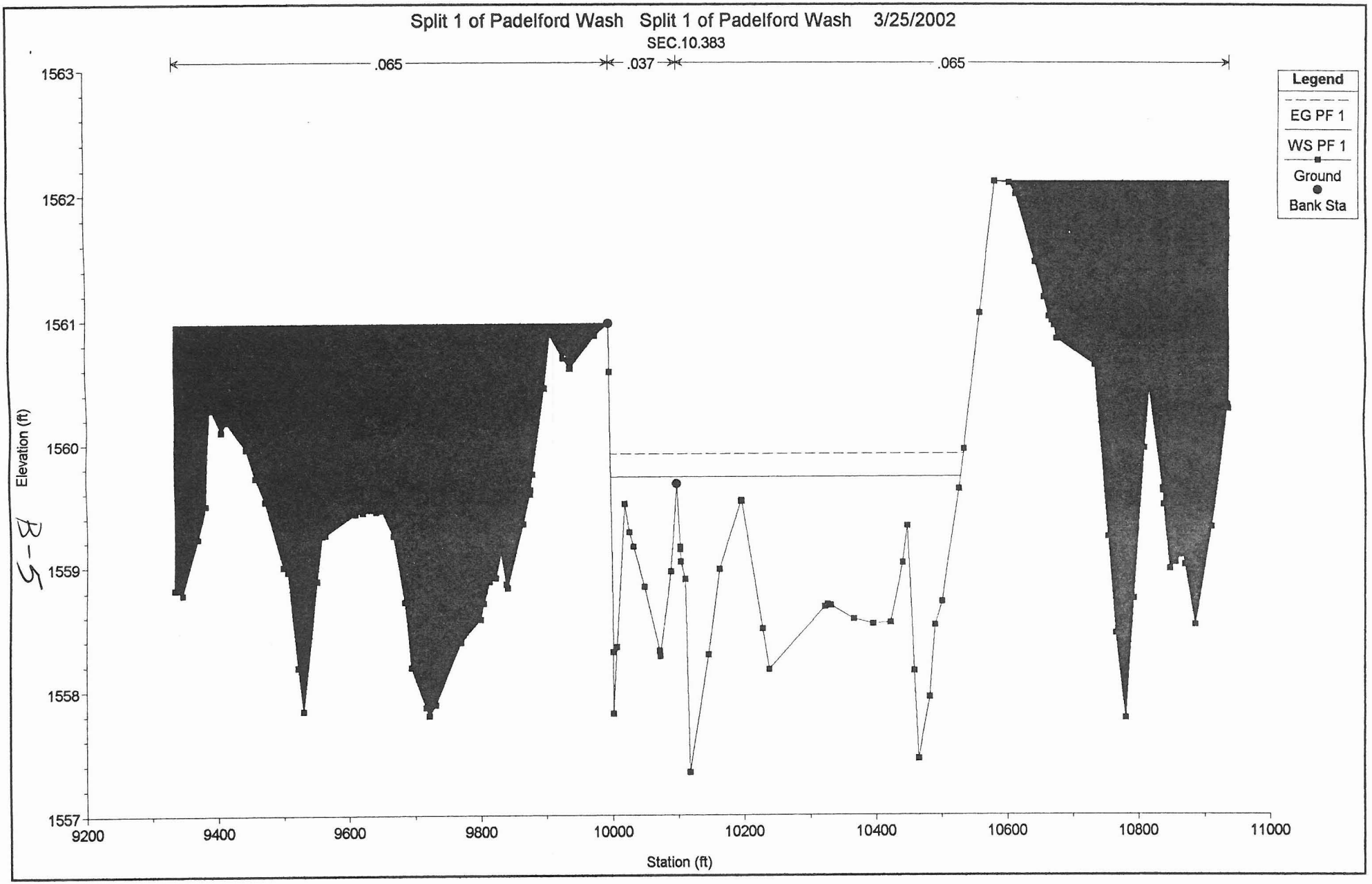
SEC.10.270
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1556
1555
1554
1553
1552
1551
1550
8500
9000
9500
10000
10500
11000

D-4


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.10.383
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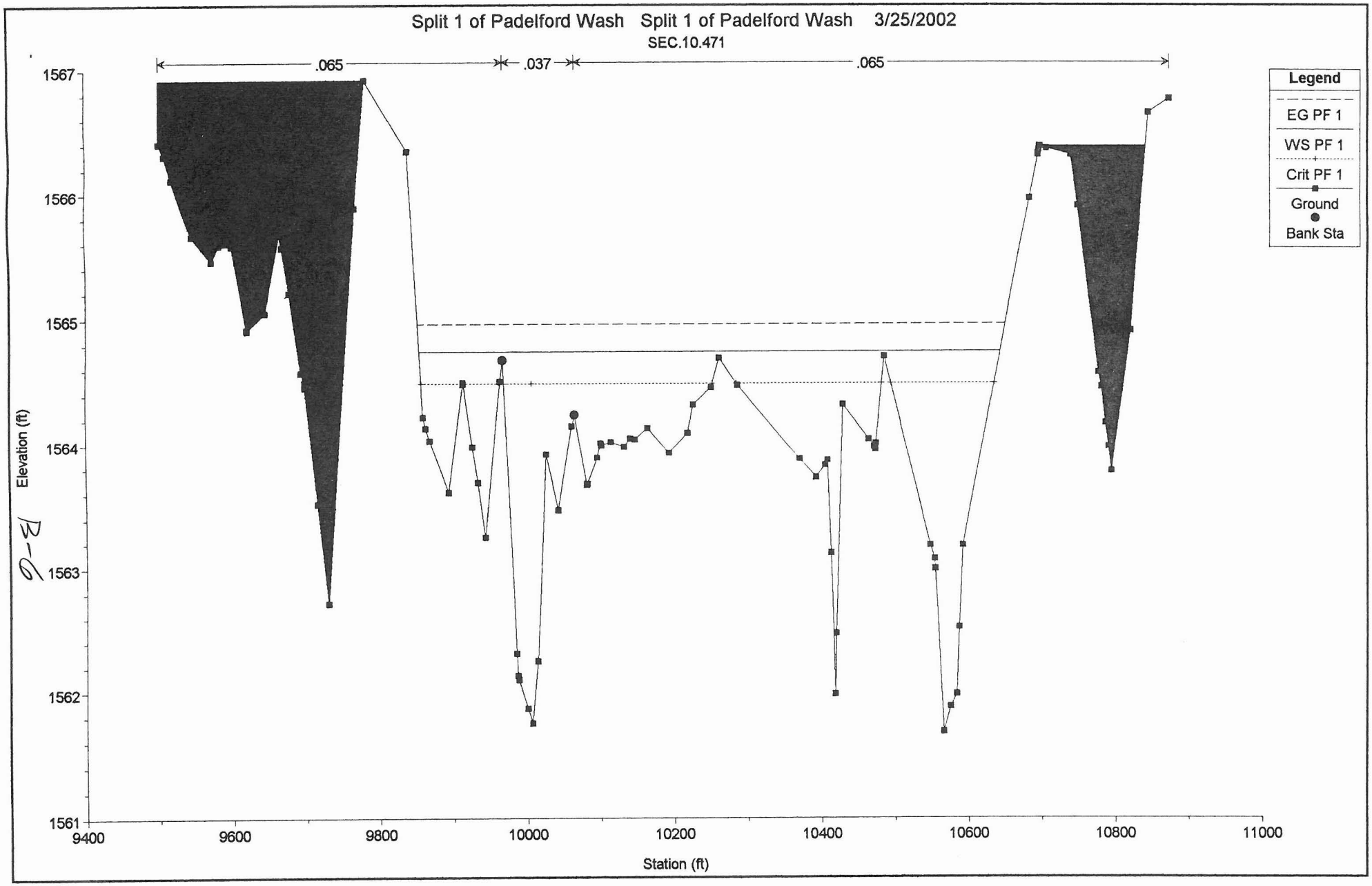
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1563
1562
1561
1560
1559
1558
1557
9200
9400
9600
9800
10000
10200
10400
10600
10800
11000
Station (ft)

B-5


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.10.471
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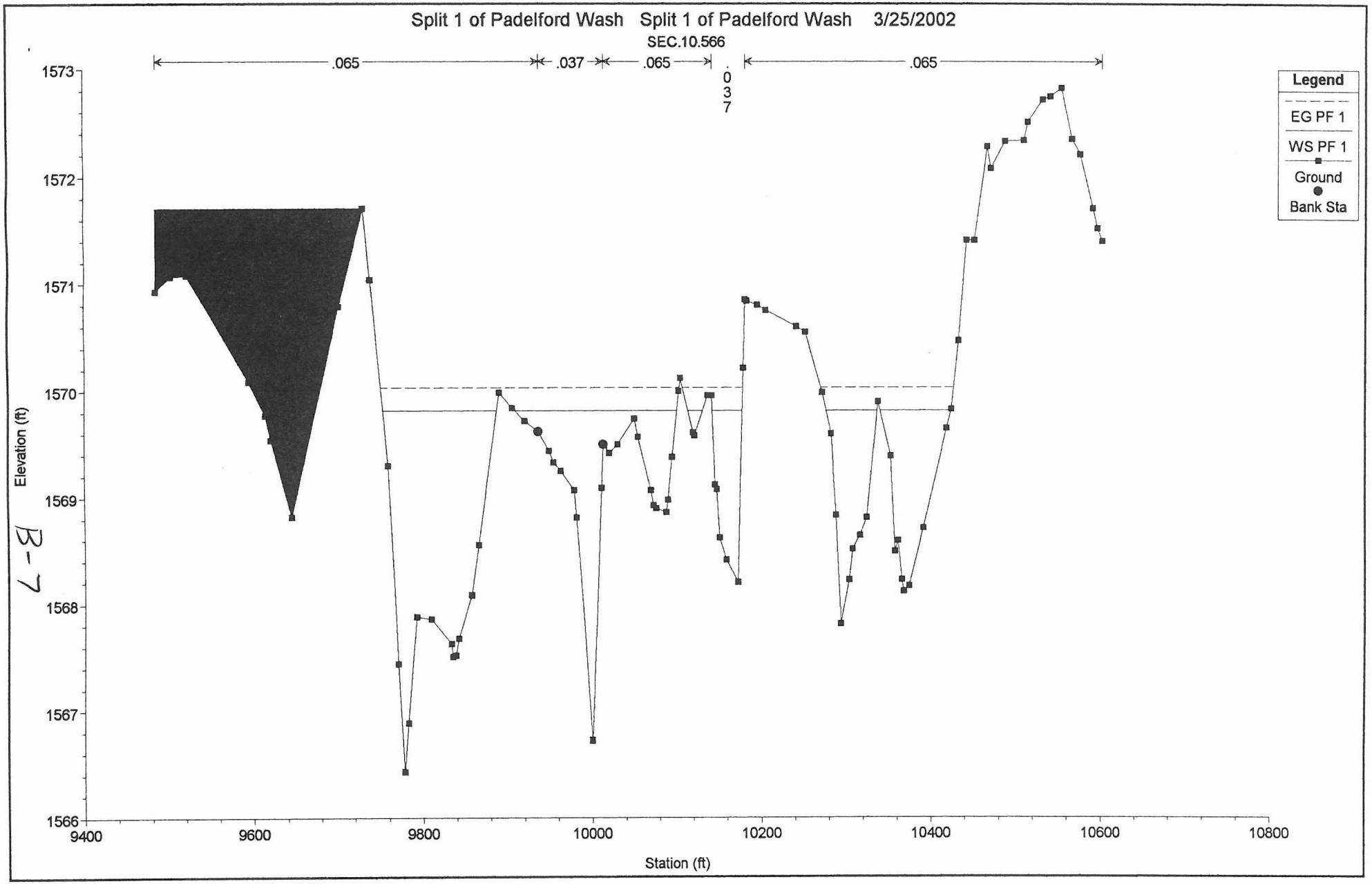
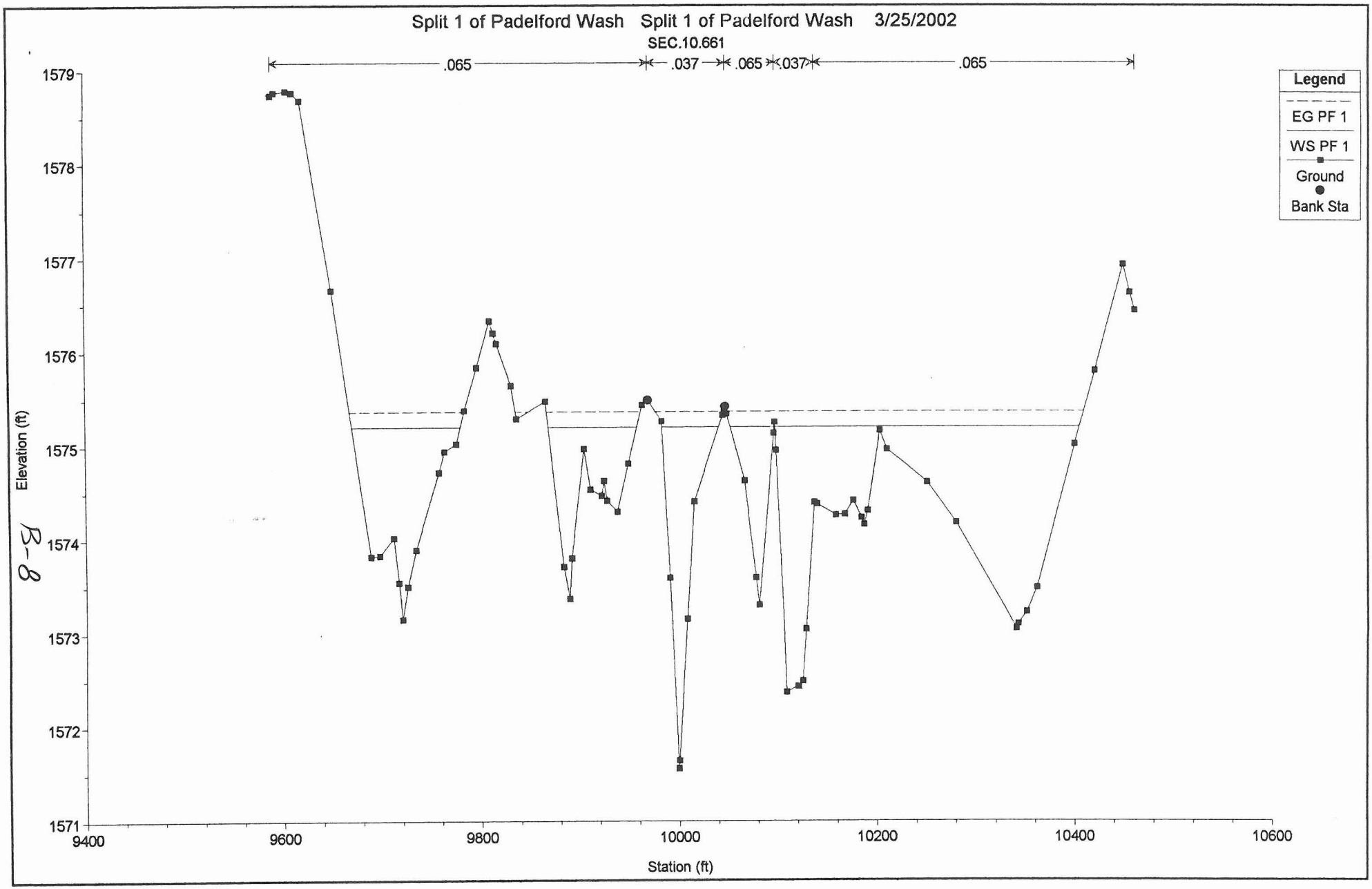
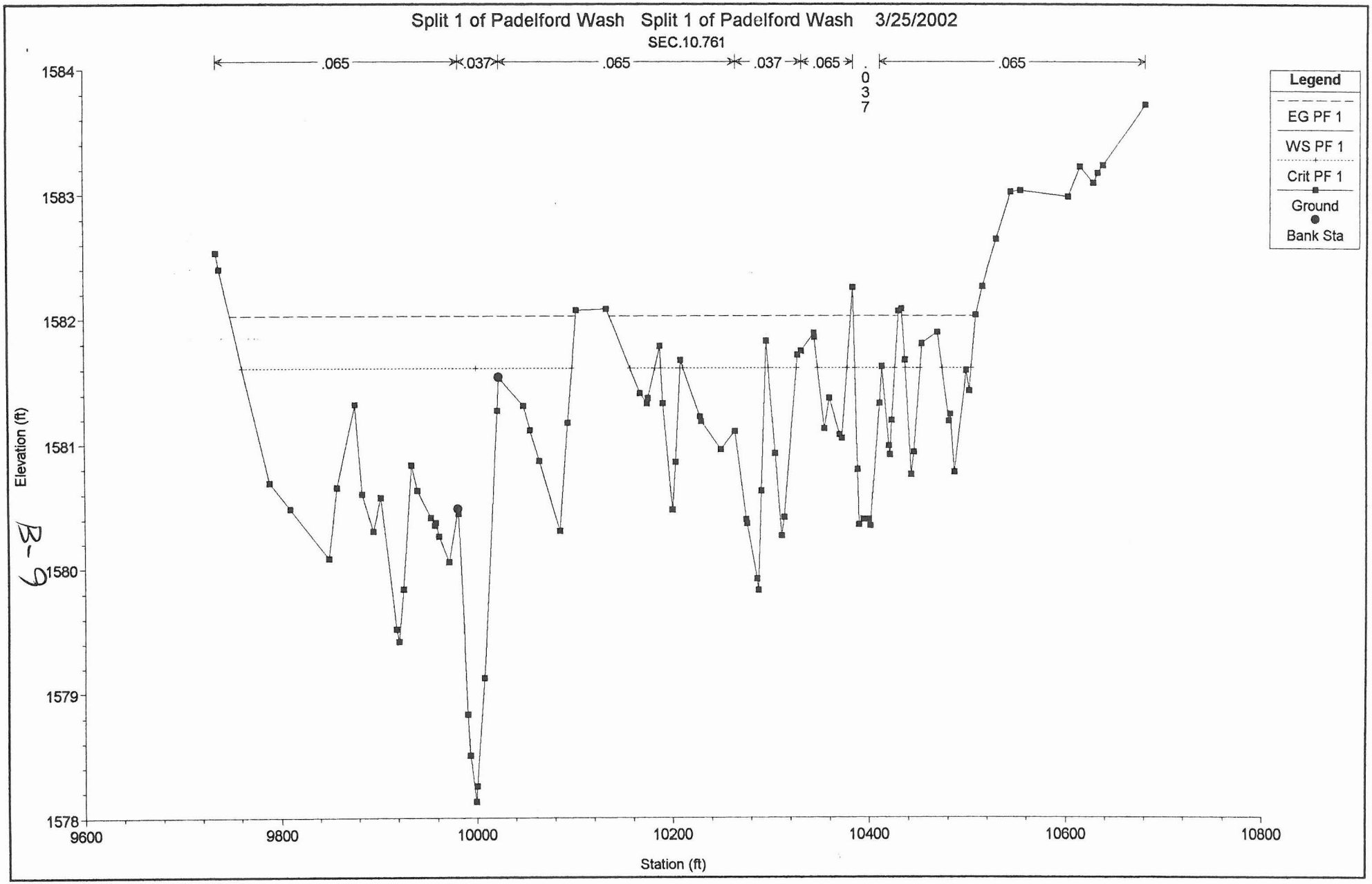
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1567
1566
1565
1564
1563
1562
1561
9400
9600
9800
10000
10200
10400
10600
10800
11000


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.10.566
.065
.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1573
1572
1571
1570
1569
1568
1567
1566
9400
9600
9800
10000
10200
10400
10600
10800

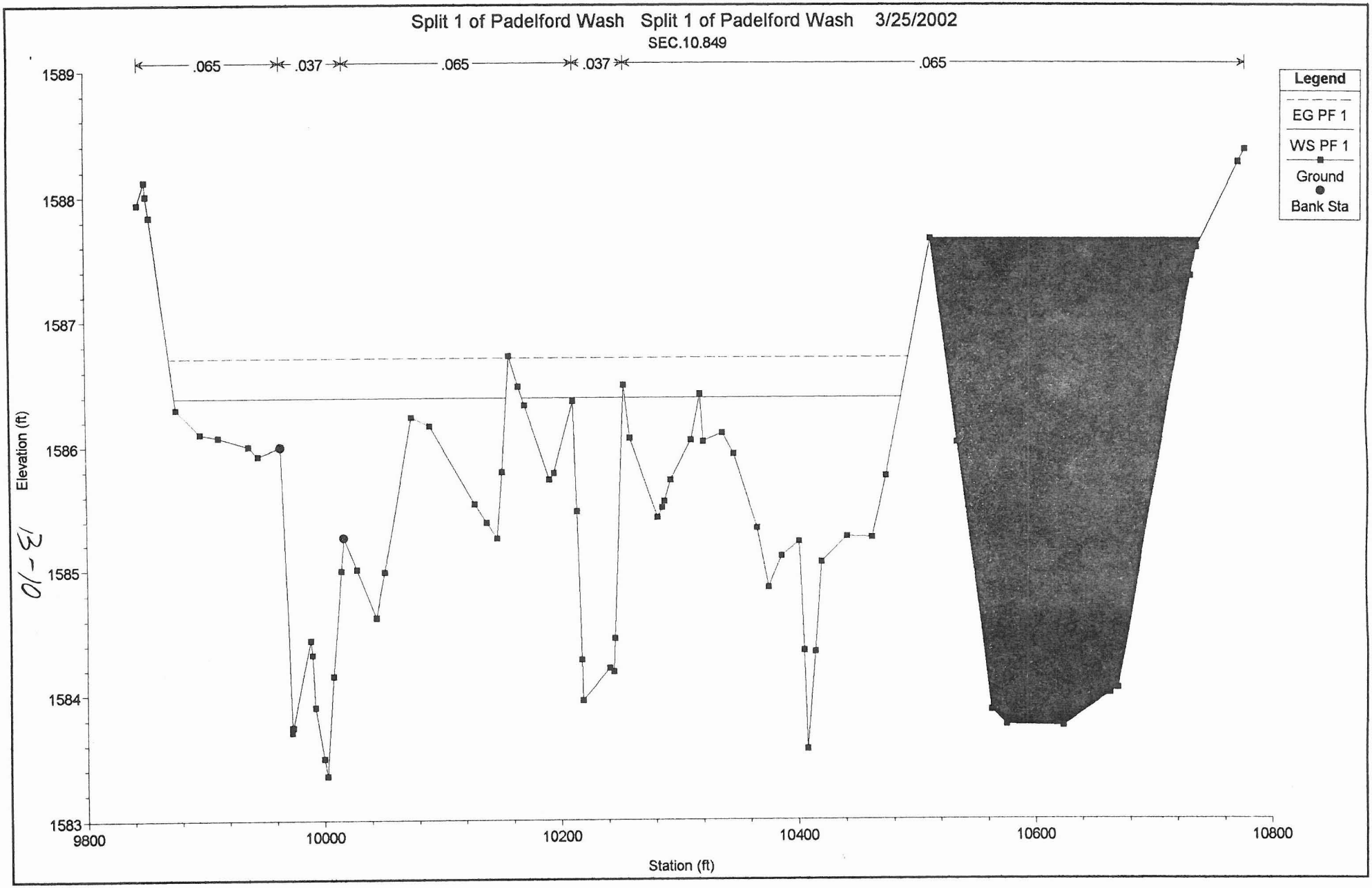
B-7


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.10.661
.065
.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1579
1578
1577
1576
1575
1574
1573
1572
1571
9400
9600
9800
10000
10200
10400
10600
Station (ft)

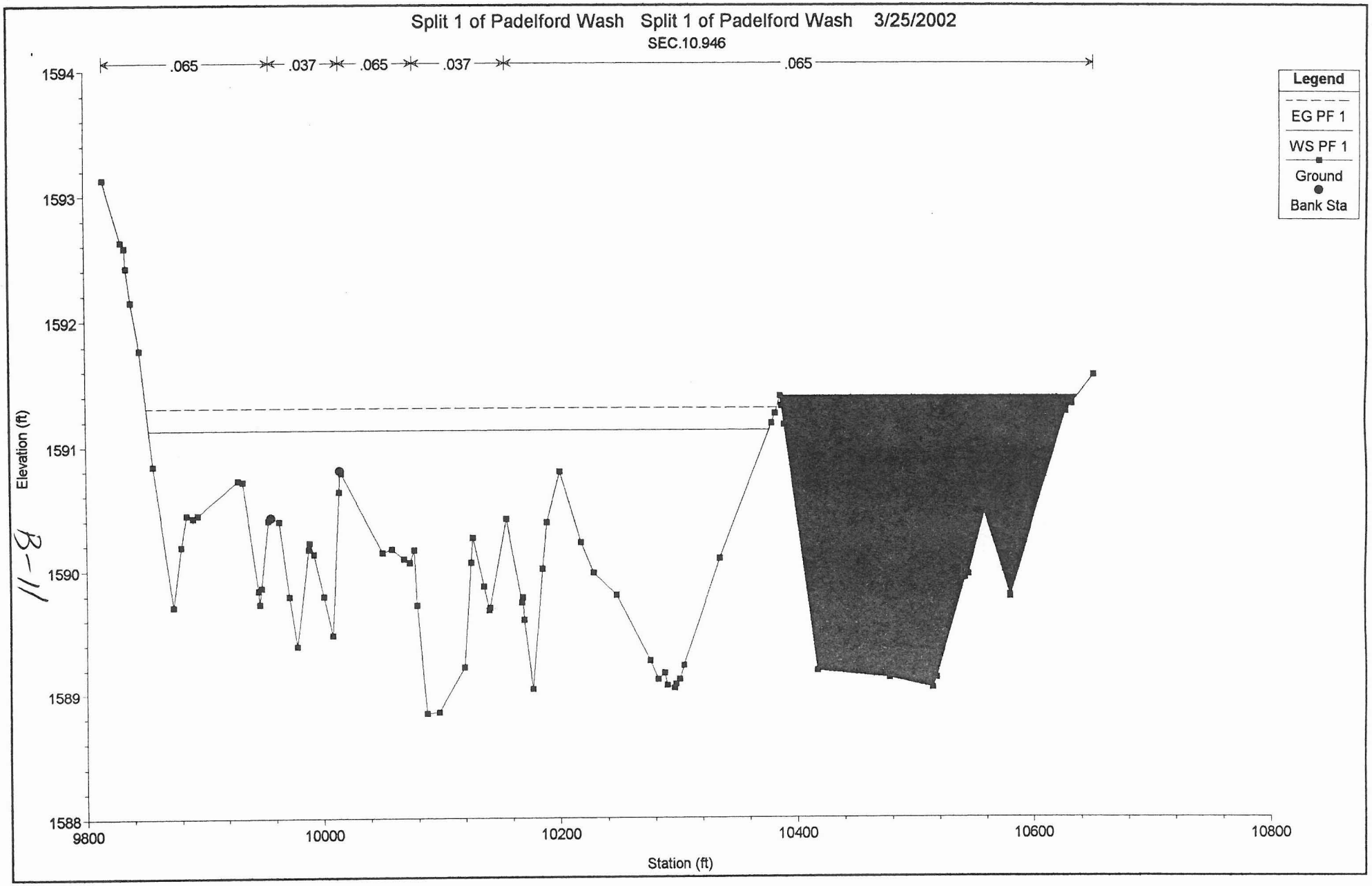
B-8


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.10.761
.065
.037
.065
.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1584
1583
1582
1581
1580
1579
1578
9600
9800
10000
10200
10400
10600
10800
Station (ft)

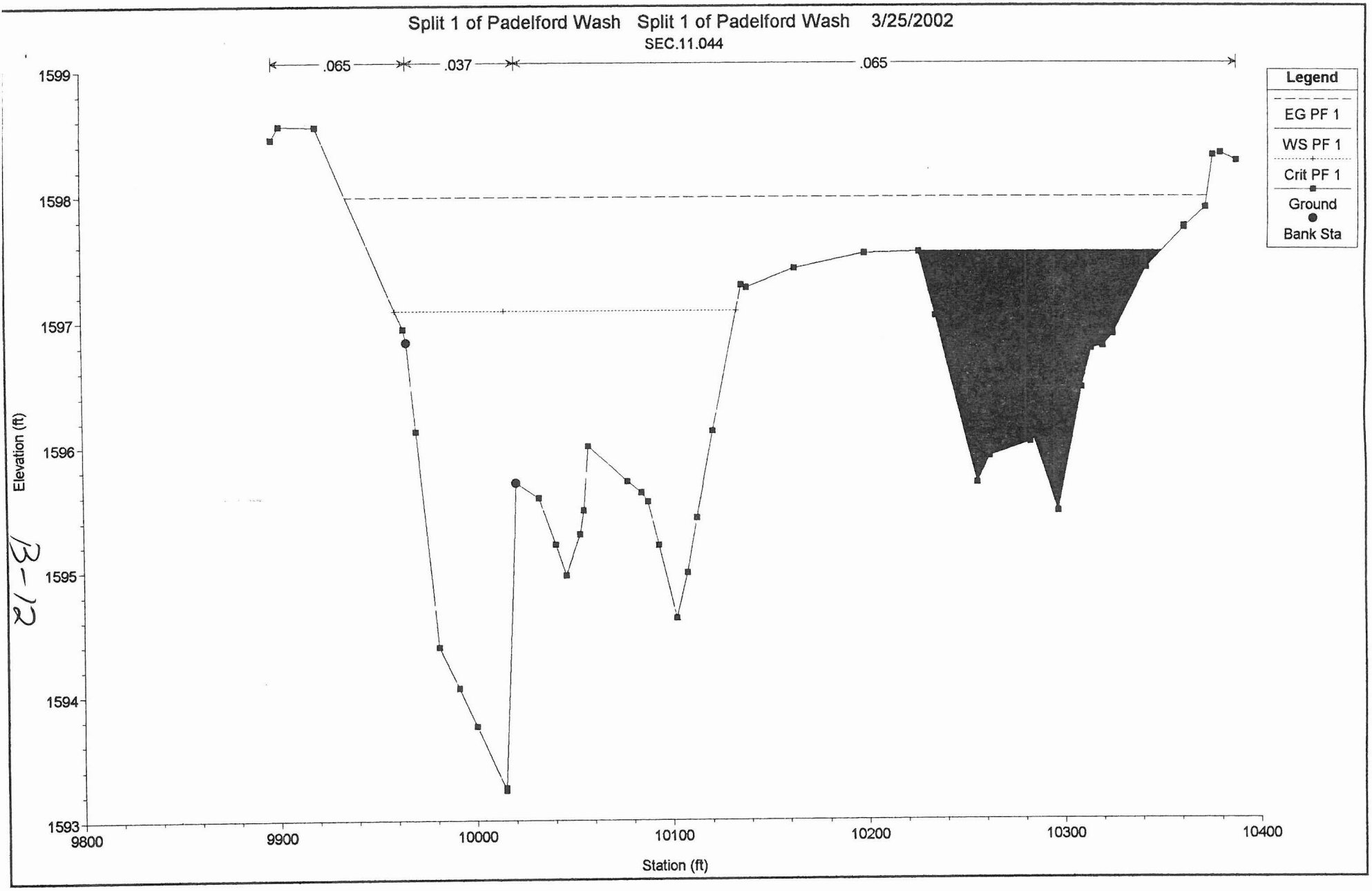
B-6


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.10.849
.065
.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1589
1588
1587
1586
1585
1584
1583
9800
10000
10200
10400
10600
10800
Station (ft)

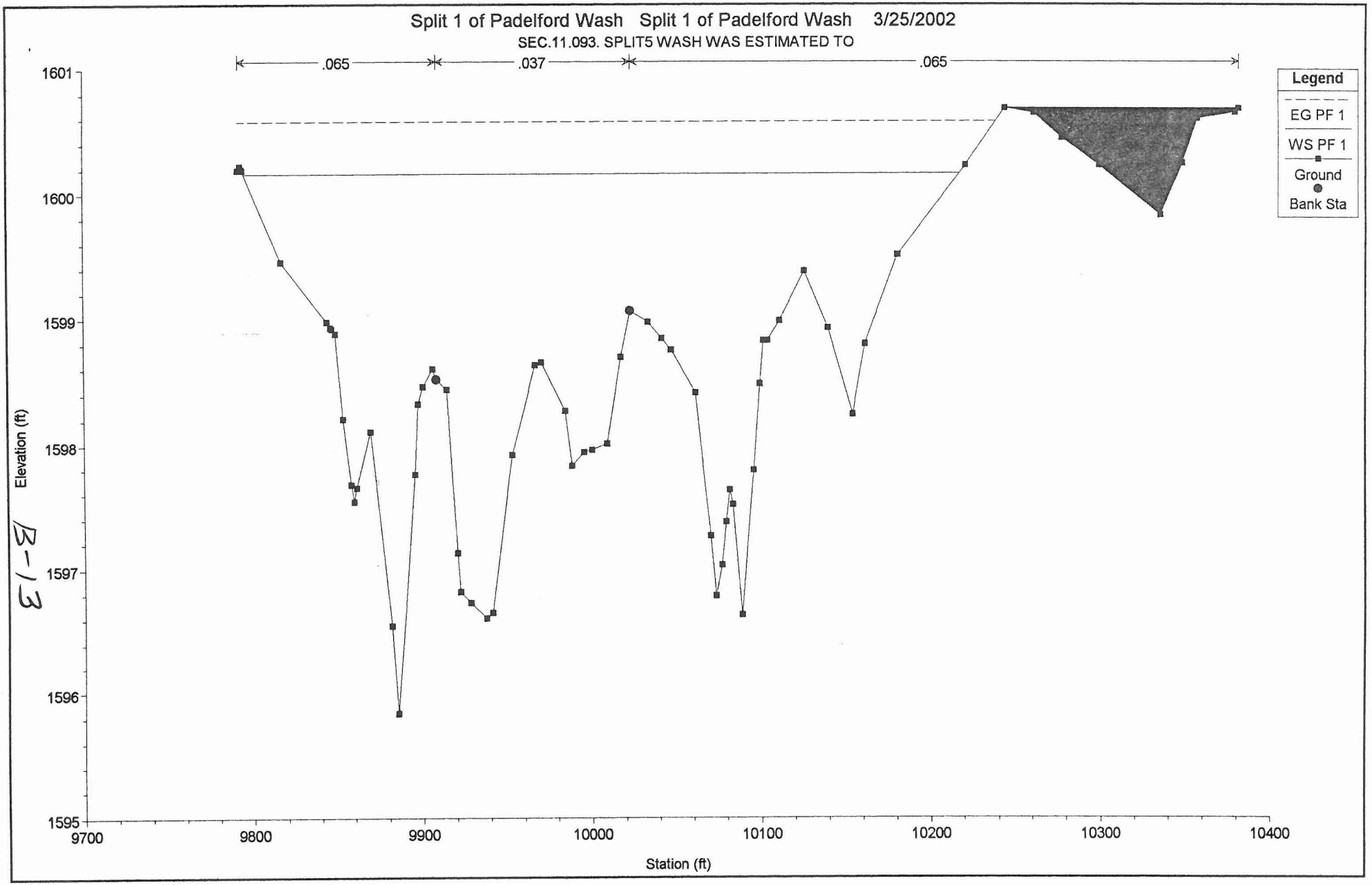
3-10


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.10.946
.065
.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1594
1593
1592
1591
1590
1589
1588
Elevation (ft)
9800
10000
10200
10400
10600
10800
Station (ft)

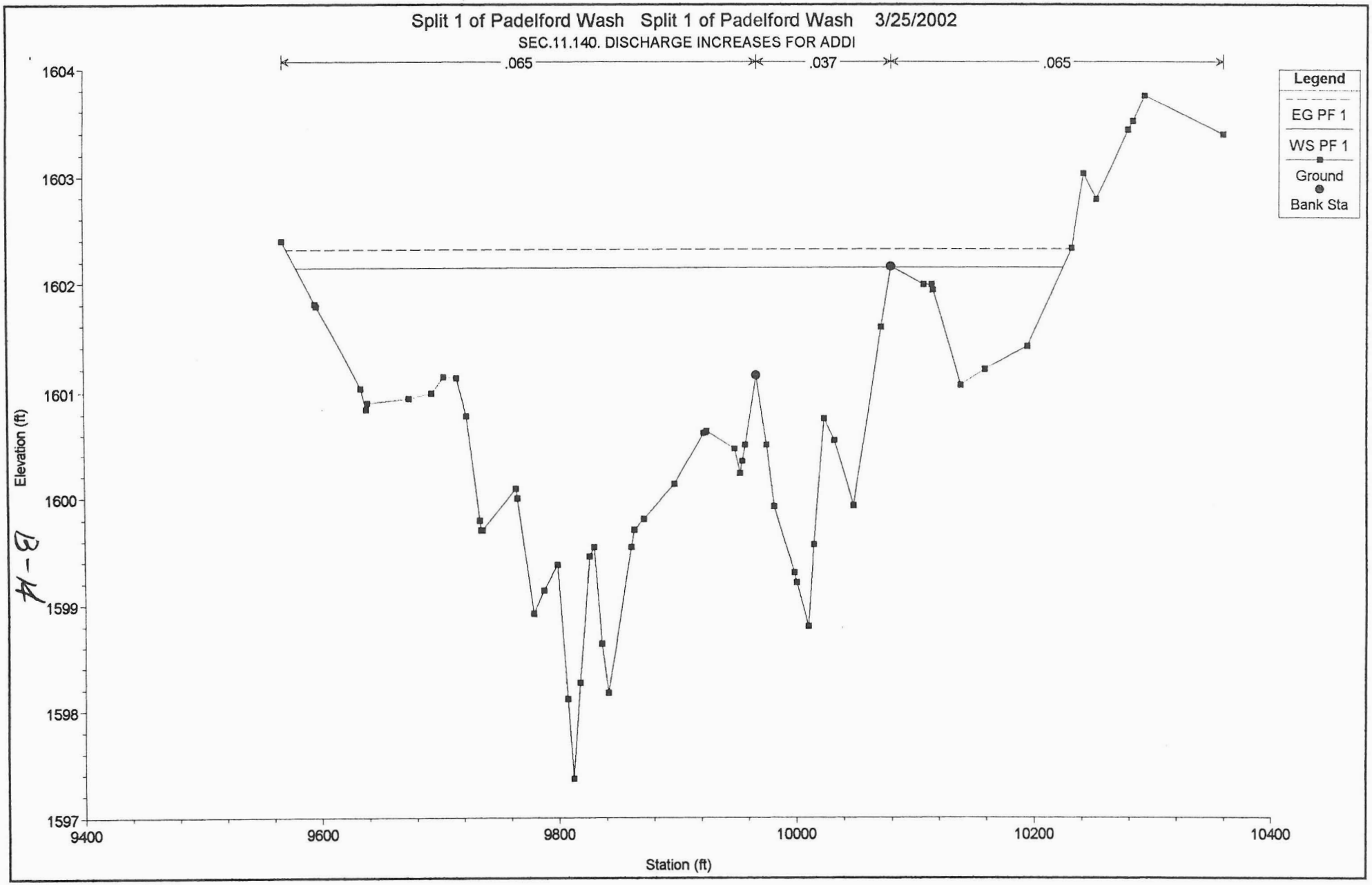
B-11


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.11.044
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
1599
1598
1597
1596
1595
1594
1593
Elevation (ft)
9800
9900
10000
10100
10200
10300
10400
Station (ft)

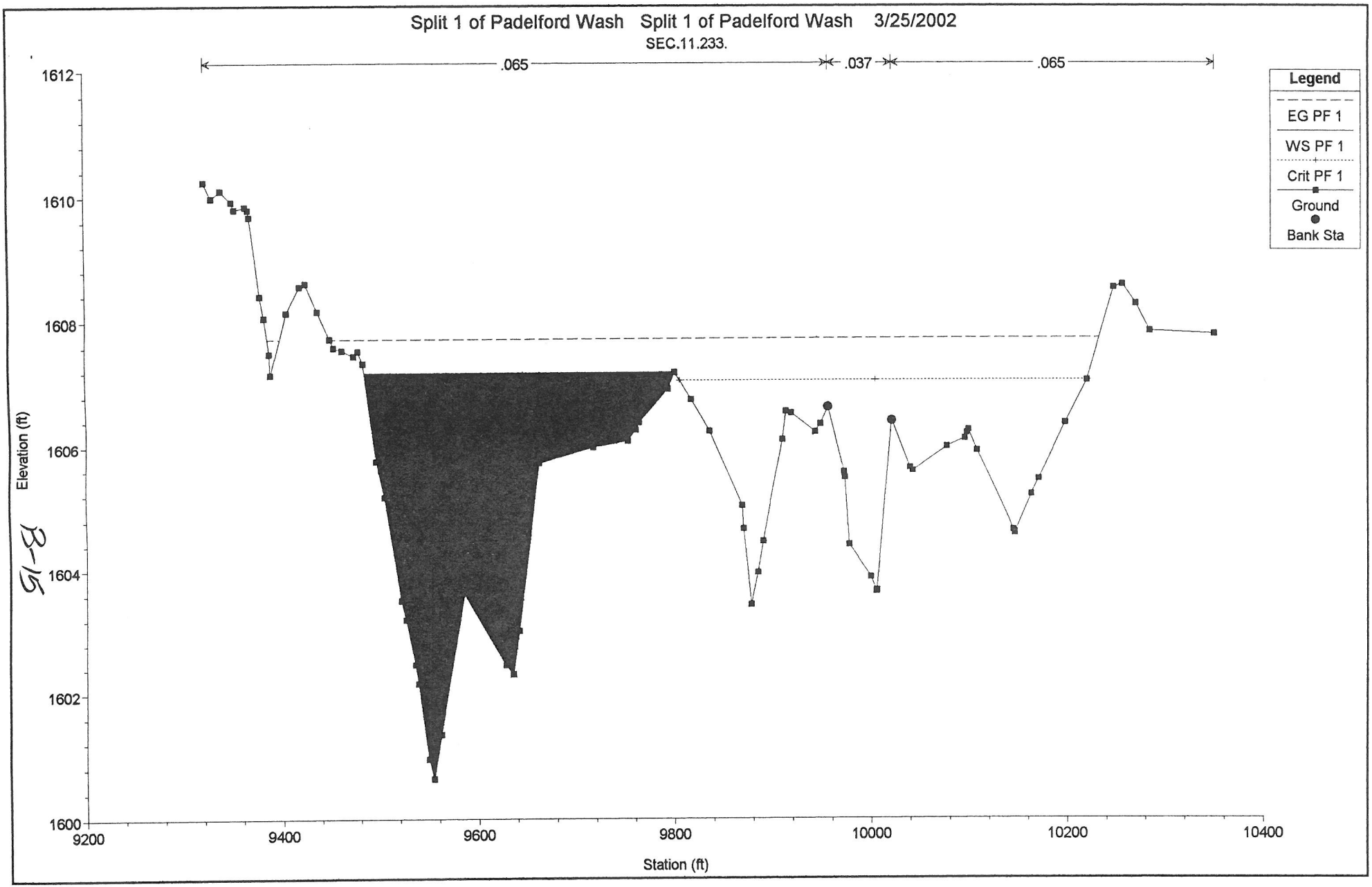
3-21


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.11.093. SPLIT5 WASH WAS ESTIMATED TO
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1601
1600
1599
1598
1597
1596
1595
9700
9800
9900
10000
10100
10200
10300
10400
Station (ft)

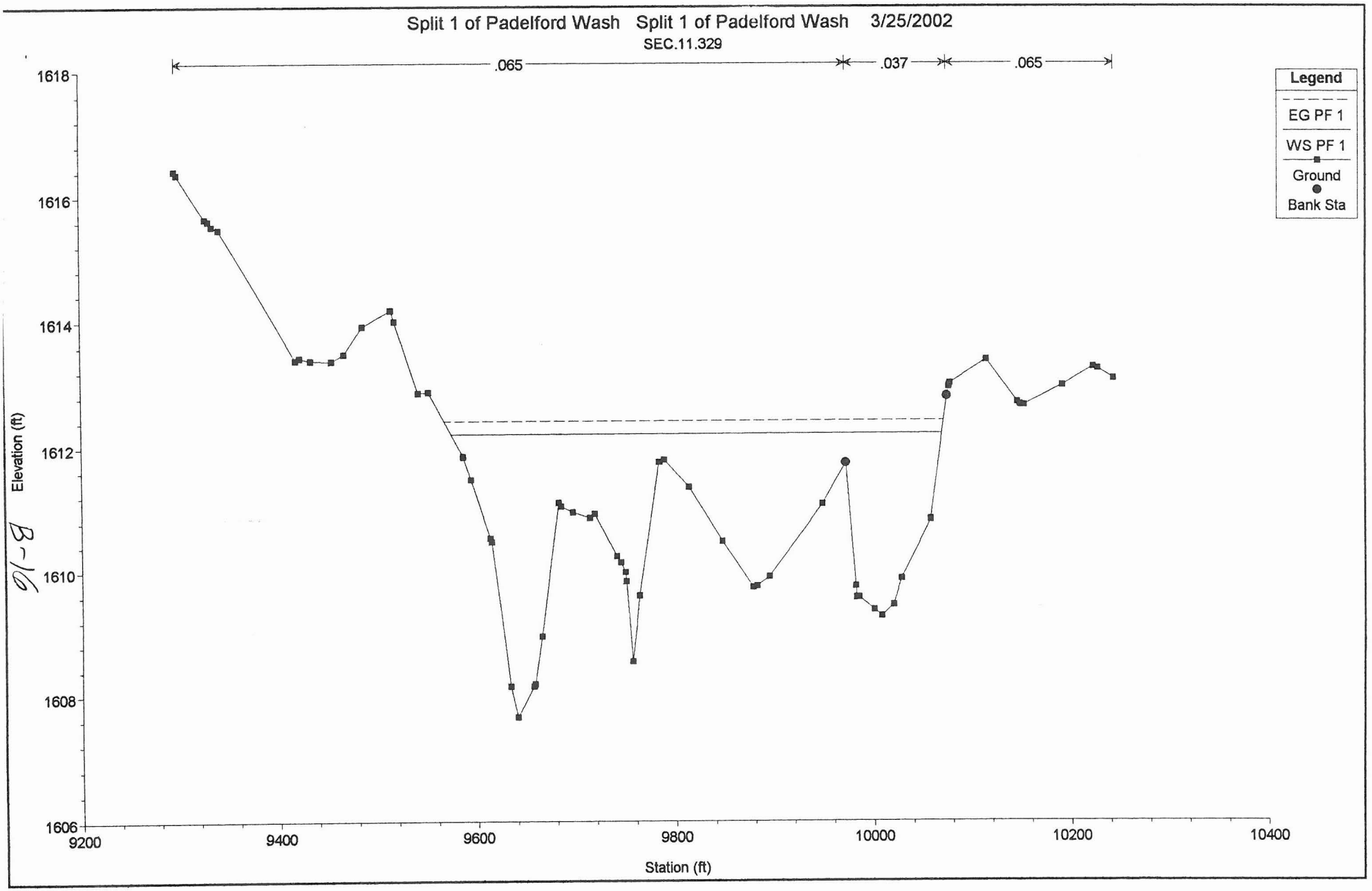
B-13


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.11.140. DISCHARGE INCREASES FOR ADDI
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1604
1603
1602
1601
1600
1599
1598
1597
9400
9600
9800
10000
10200
10400

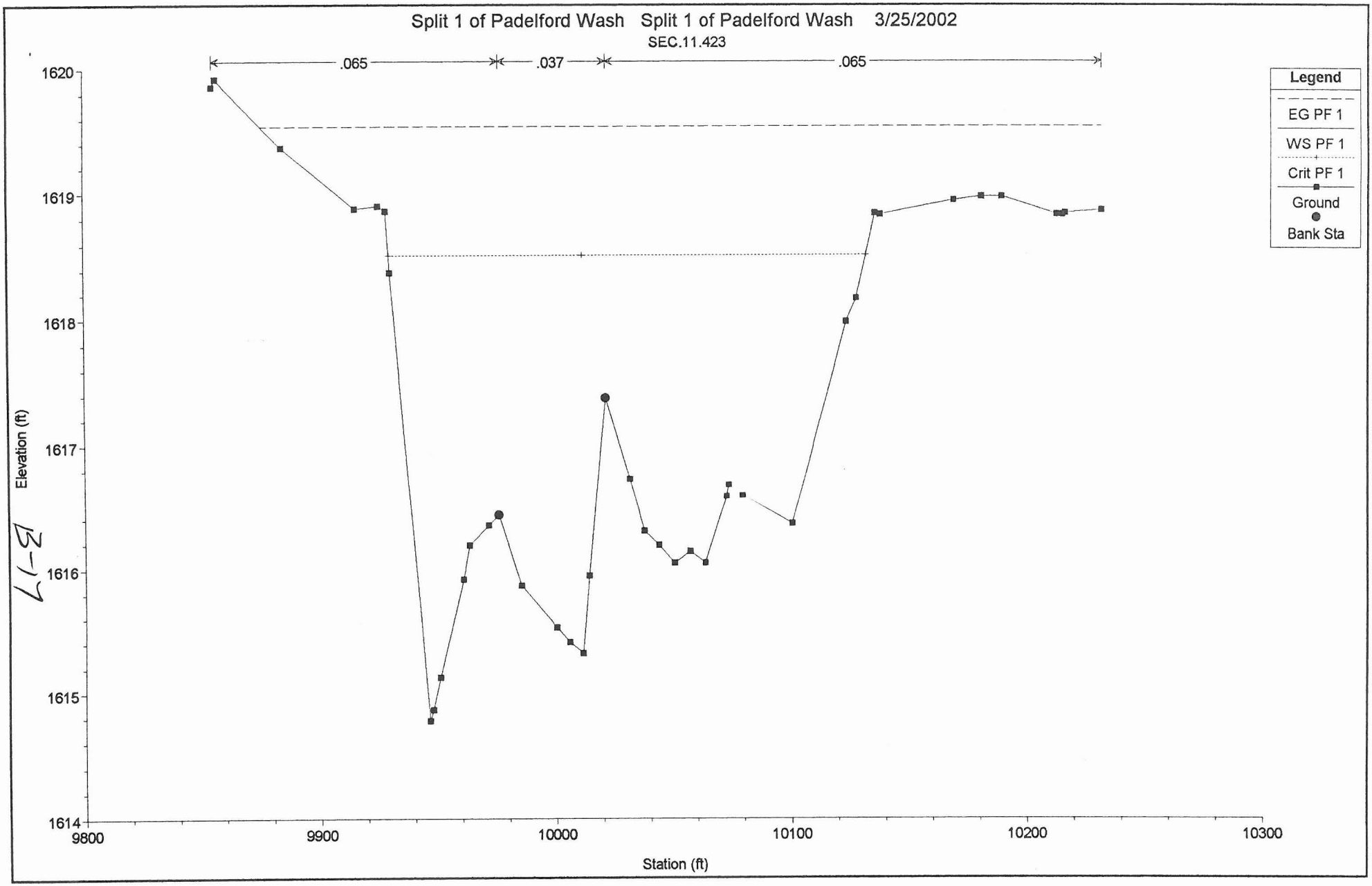
B-4


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.11.233.
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1612
1610
1608
1606
1604
1602
1600
9200
9400
9600
9800
10000
10200
10400
Station (ft)

B-15


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.11.329
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1618
1616
1614
1612
1610
1608
1606
Elevation (ft)
9200
9400
9600
9800
10000
10200
10400
Station (ft)

B-10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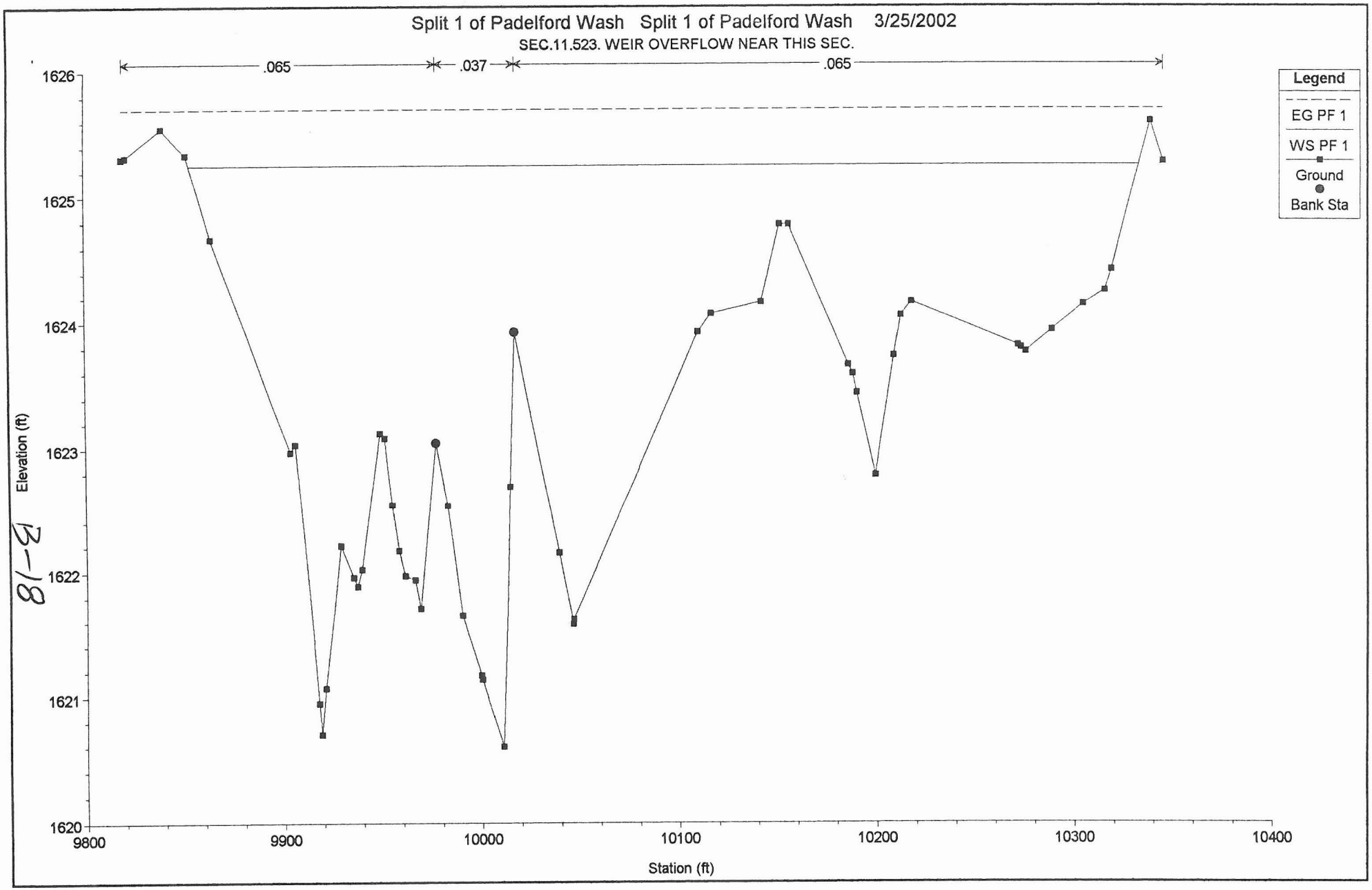
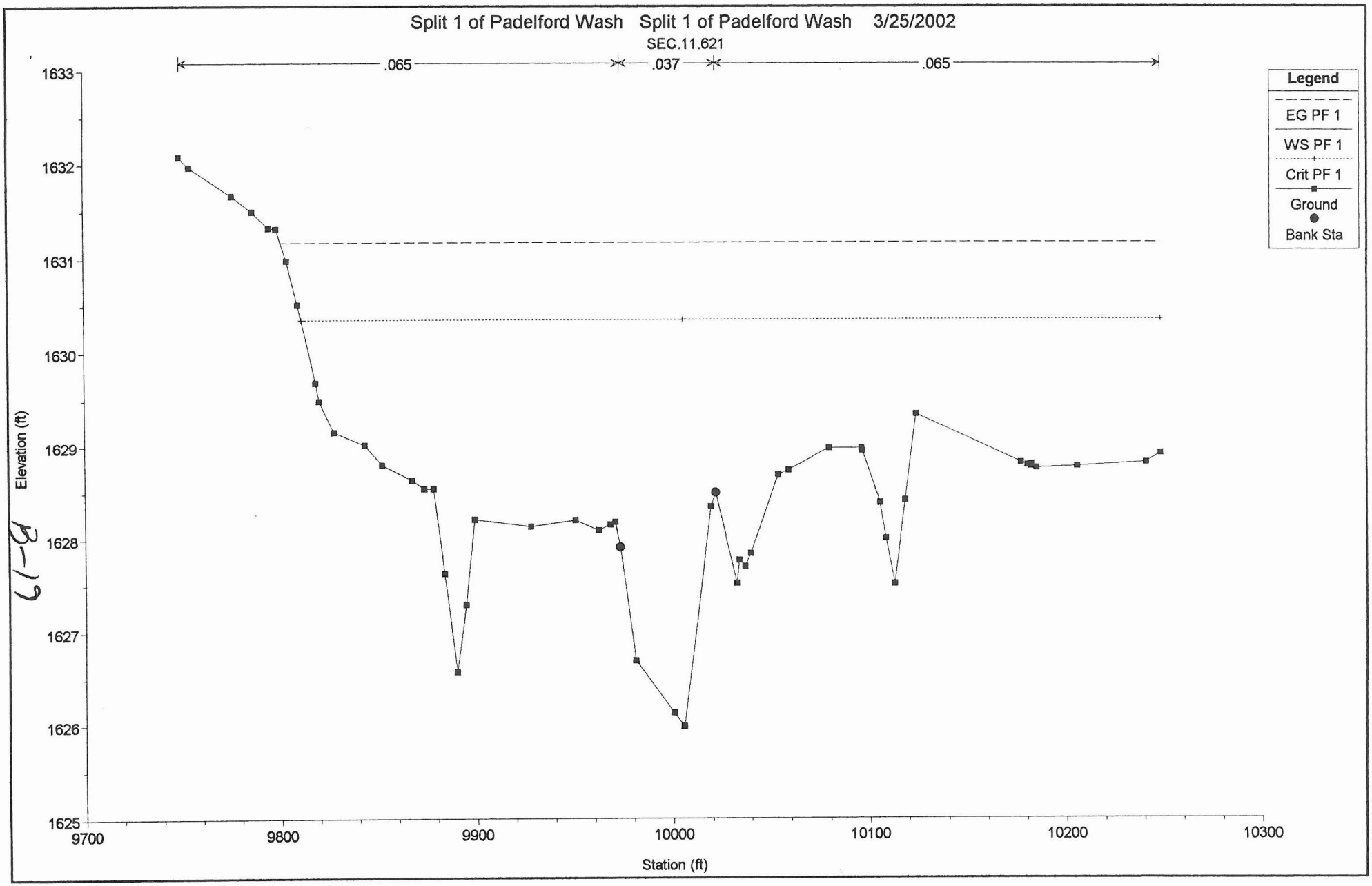
SEC.11.423
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1620
1619
1618
1617
1616
1615
1614
9800
9900
10000
10100
10200
10300

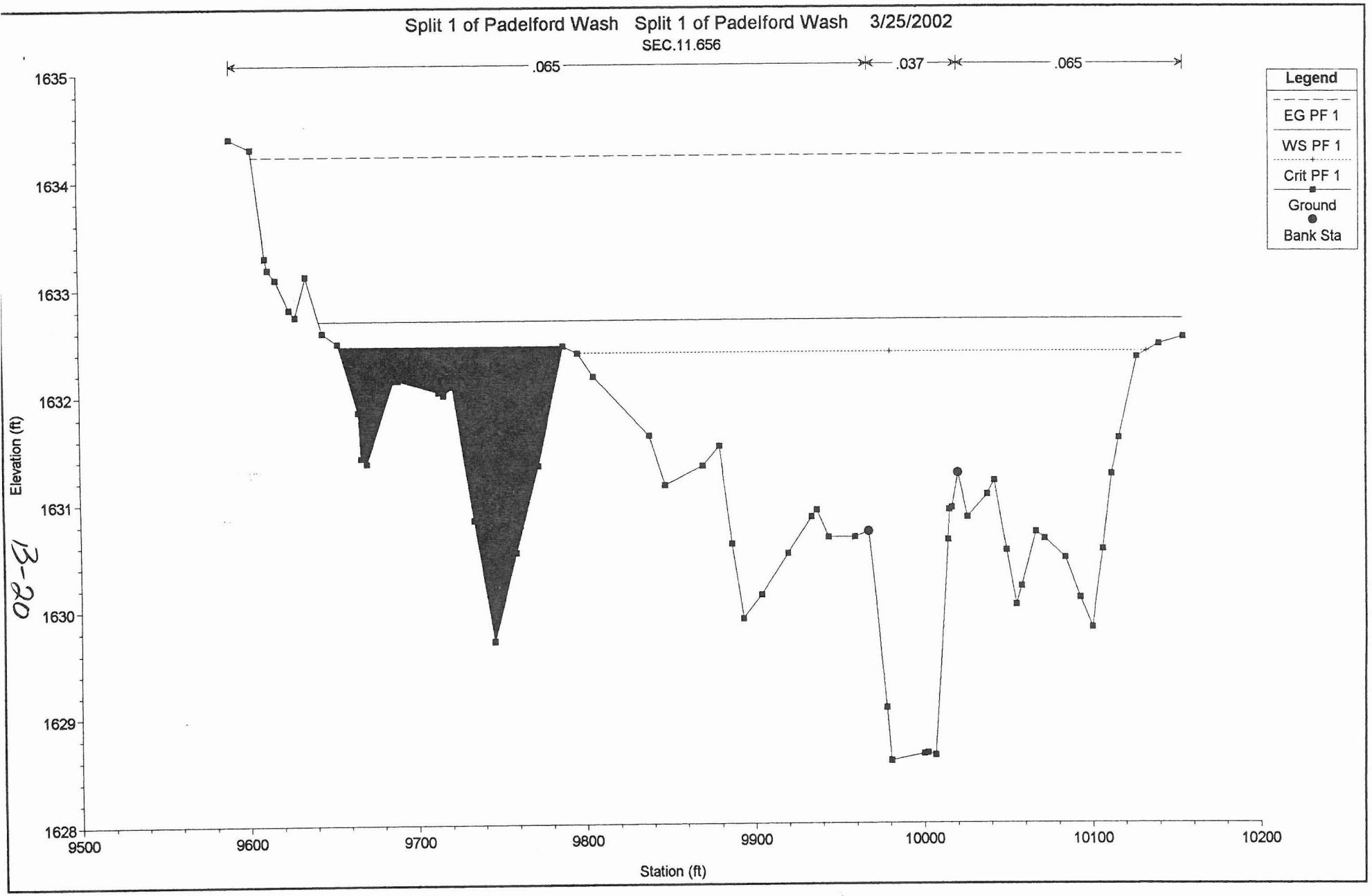
B-17


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.11.523. WEIR OVERFLOW NEAR THIS SEC.
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1626
1625
1624
1623
1622
1621
1620
9800
9900
10000
10100
10200
10300
10400

B-18


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.11.621
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1633
1632
1631
1630
1629
1628
1627
1626
1625
9700
9800
9900
10000
10100
10200
10300

B-19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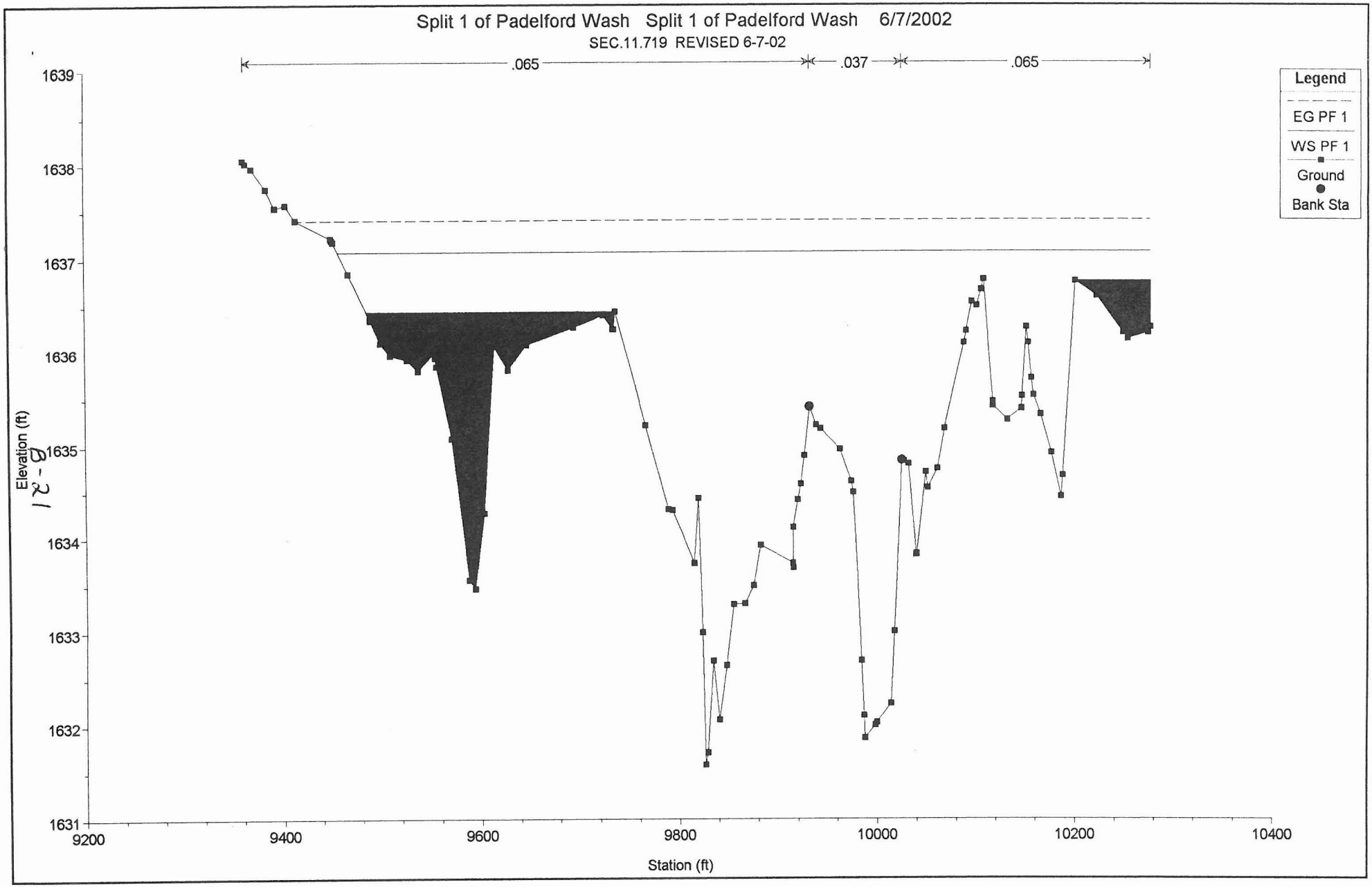
SEC.11.656
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1635
1634
1633
1632
1631
1630
1629
1628
9500
9600
9700
9800
9900
10000
10100
10200

B-20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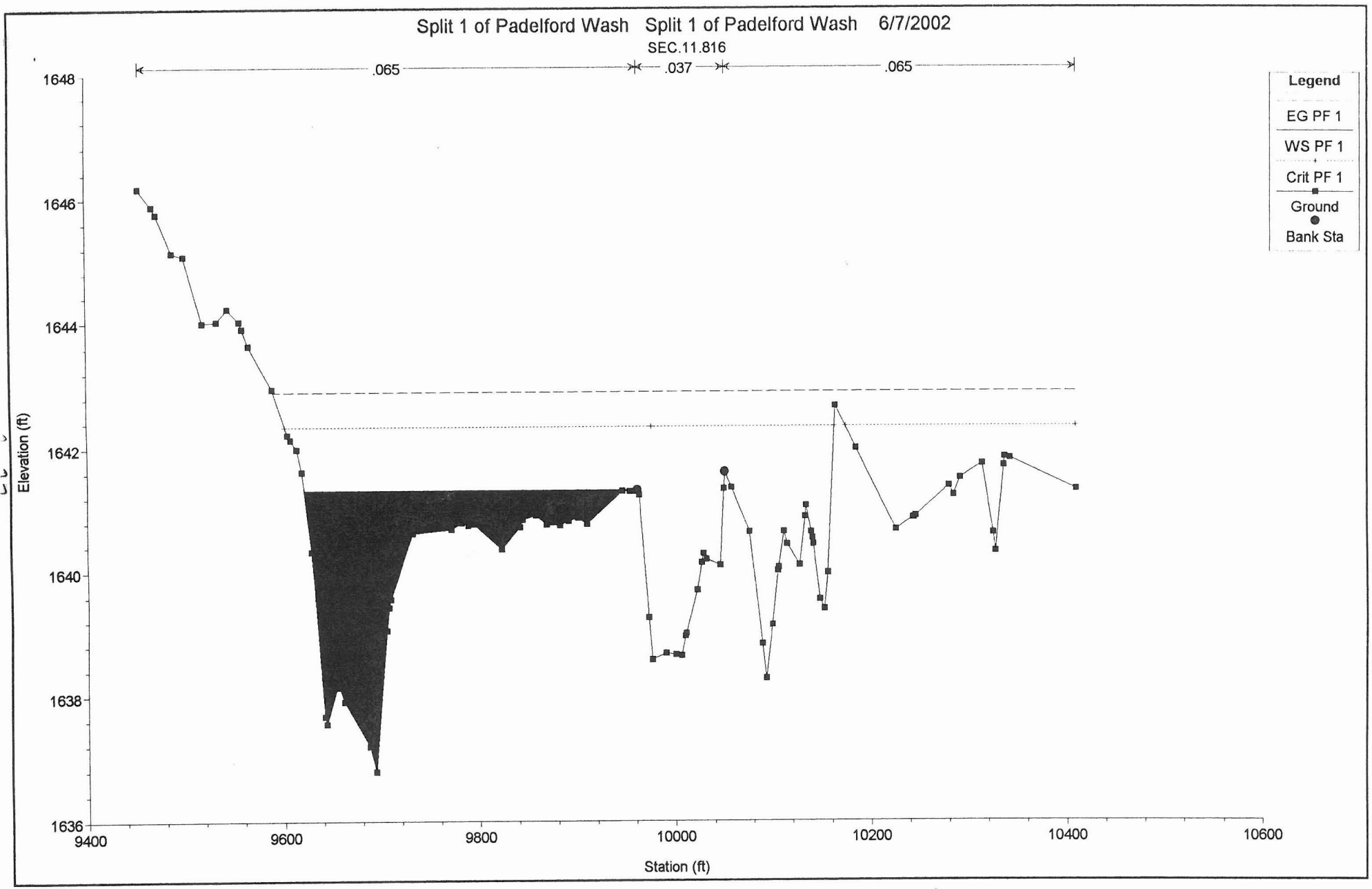
SEC.11.719 REVISED 6-7-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1639
1638
1637
1636
1635
1634
1633
1632
1631
9200
9400
9600
9800
10000
10200
10400
Station (ft)

B-21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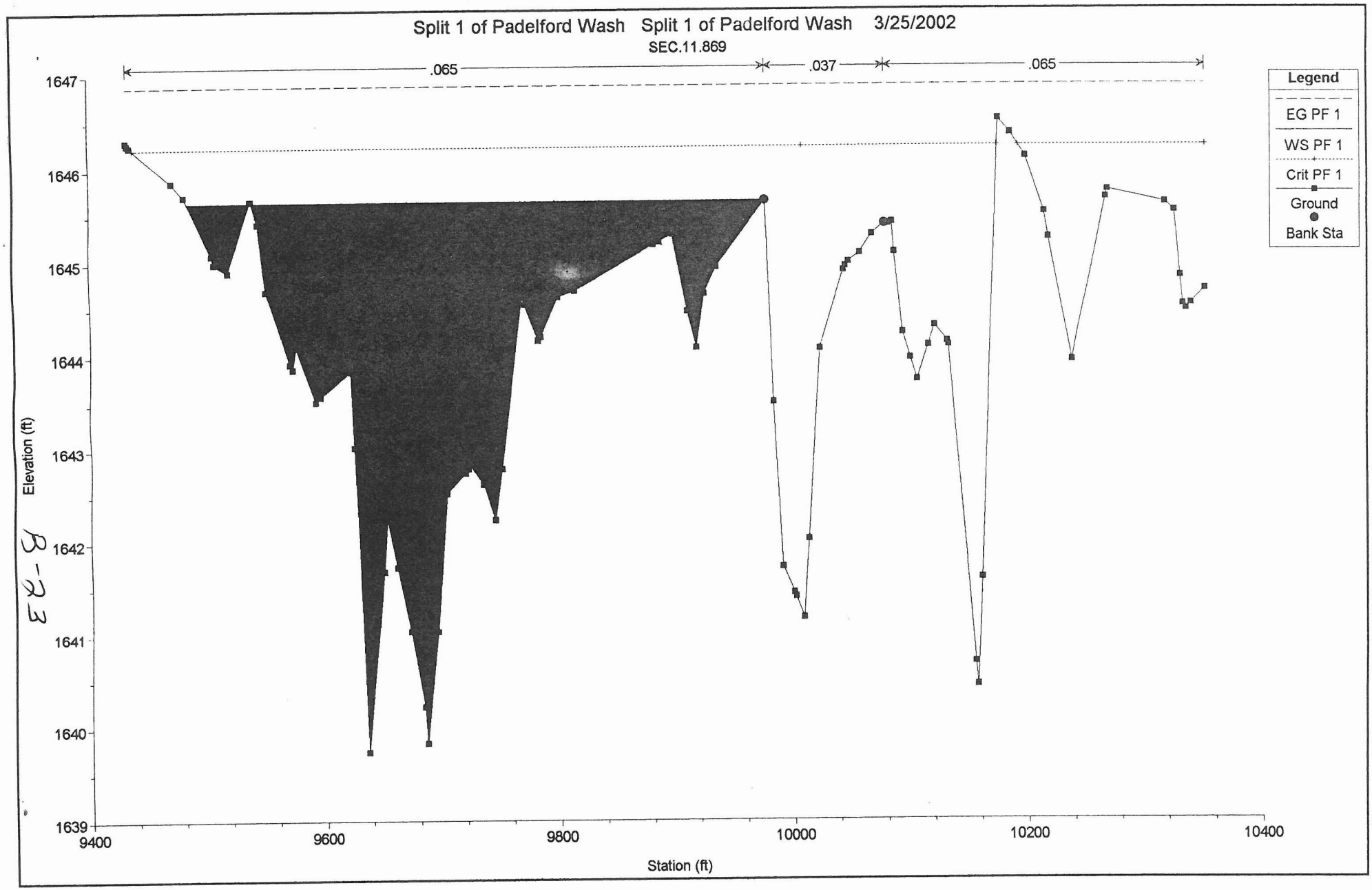
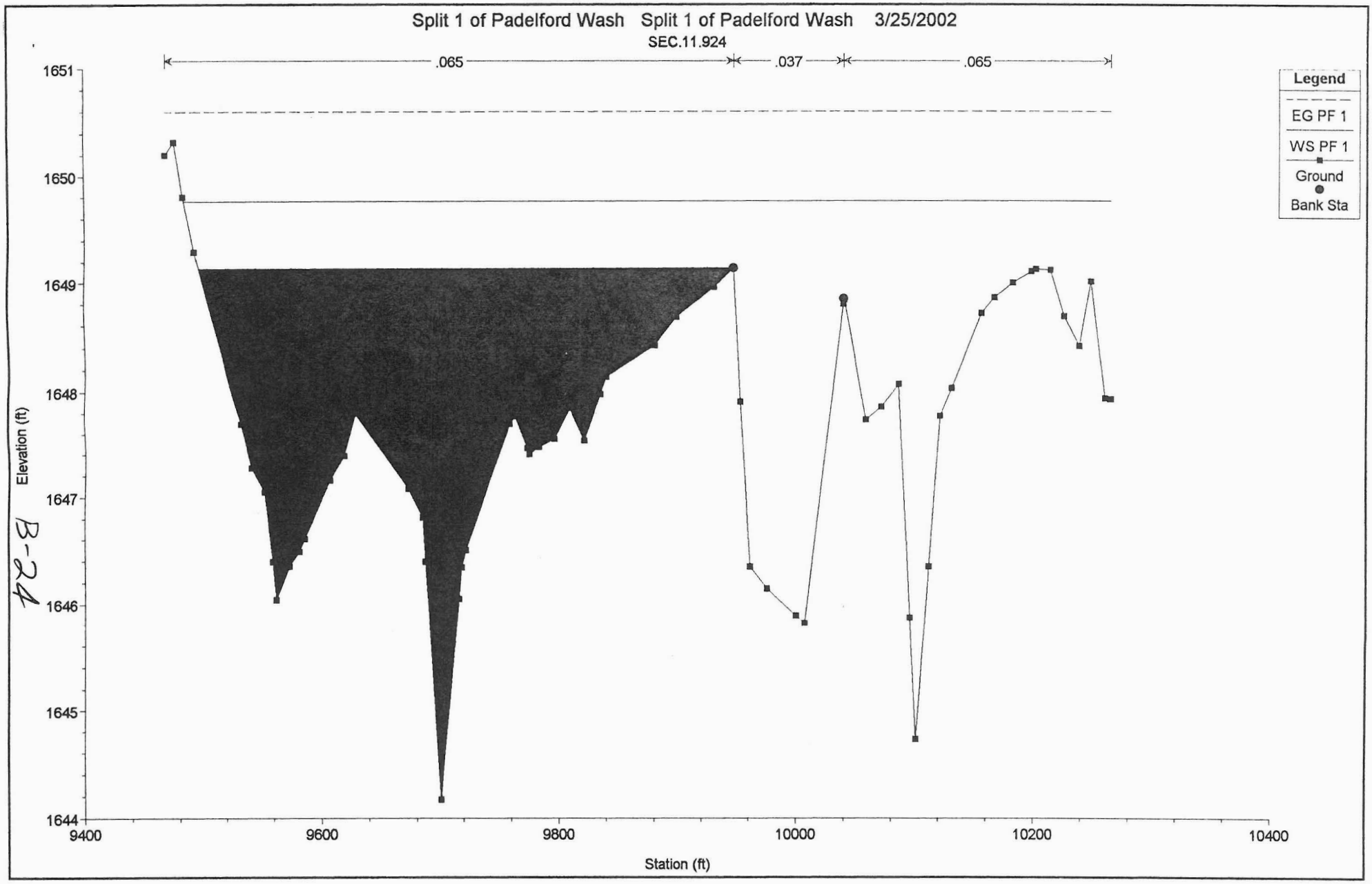
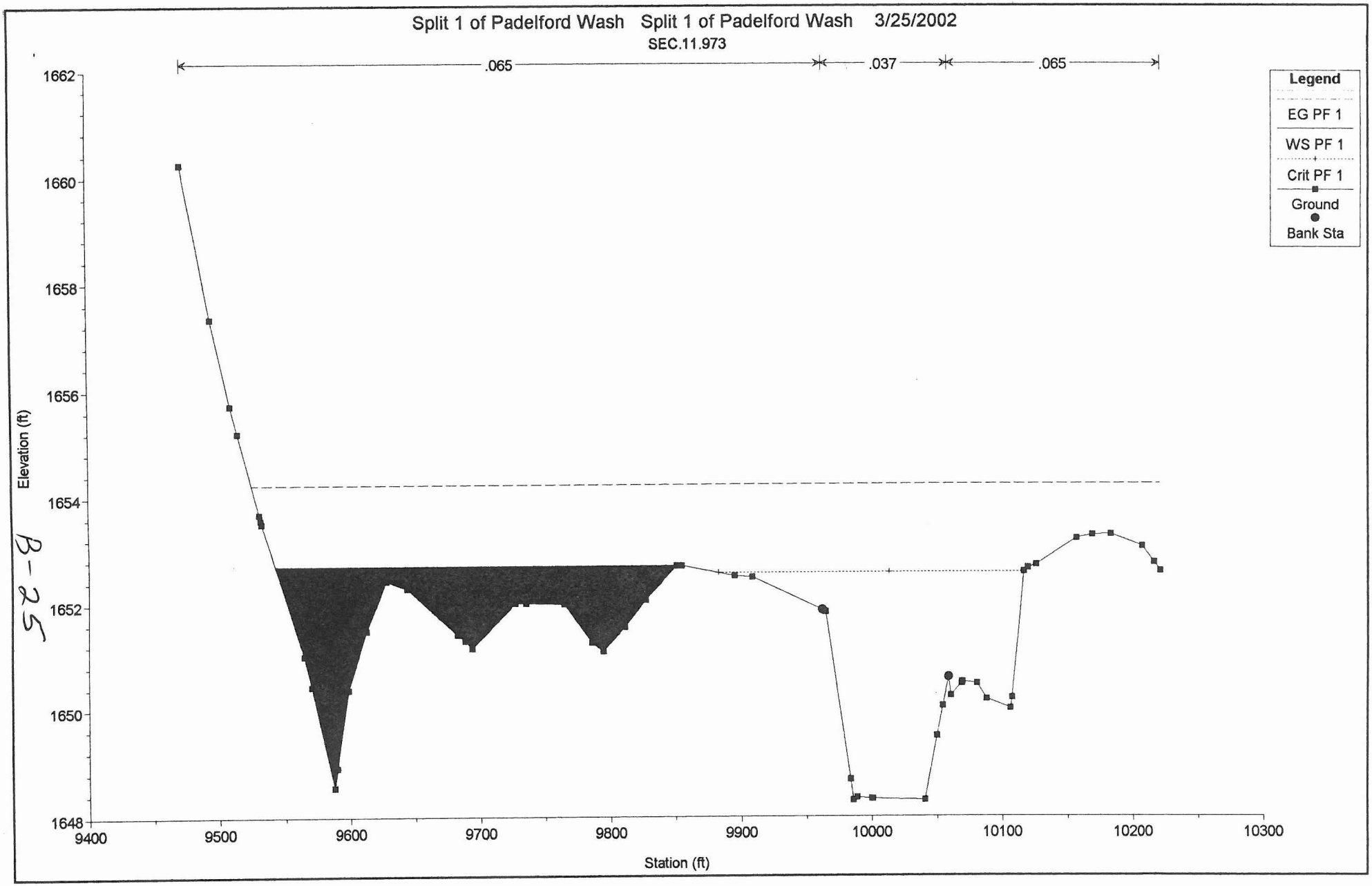
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
1648
1646
1644
1642
1640
1638
1636
Elevation (ft)
9400
9600
9800
10000
10200
10400
10600
Station (ft)


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.11.869
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
1647
1646
1645
1644
1643
1642
1641
1640
1639
Elevation (ft)
9400
9600
9800
10000
10200
10400
Station (ft)

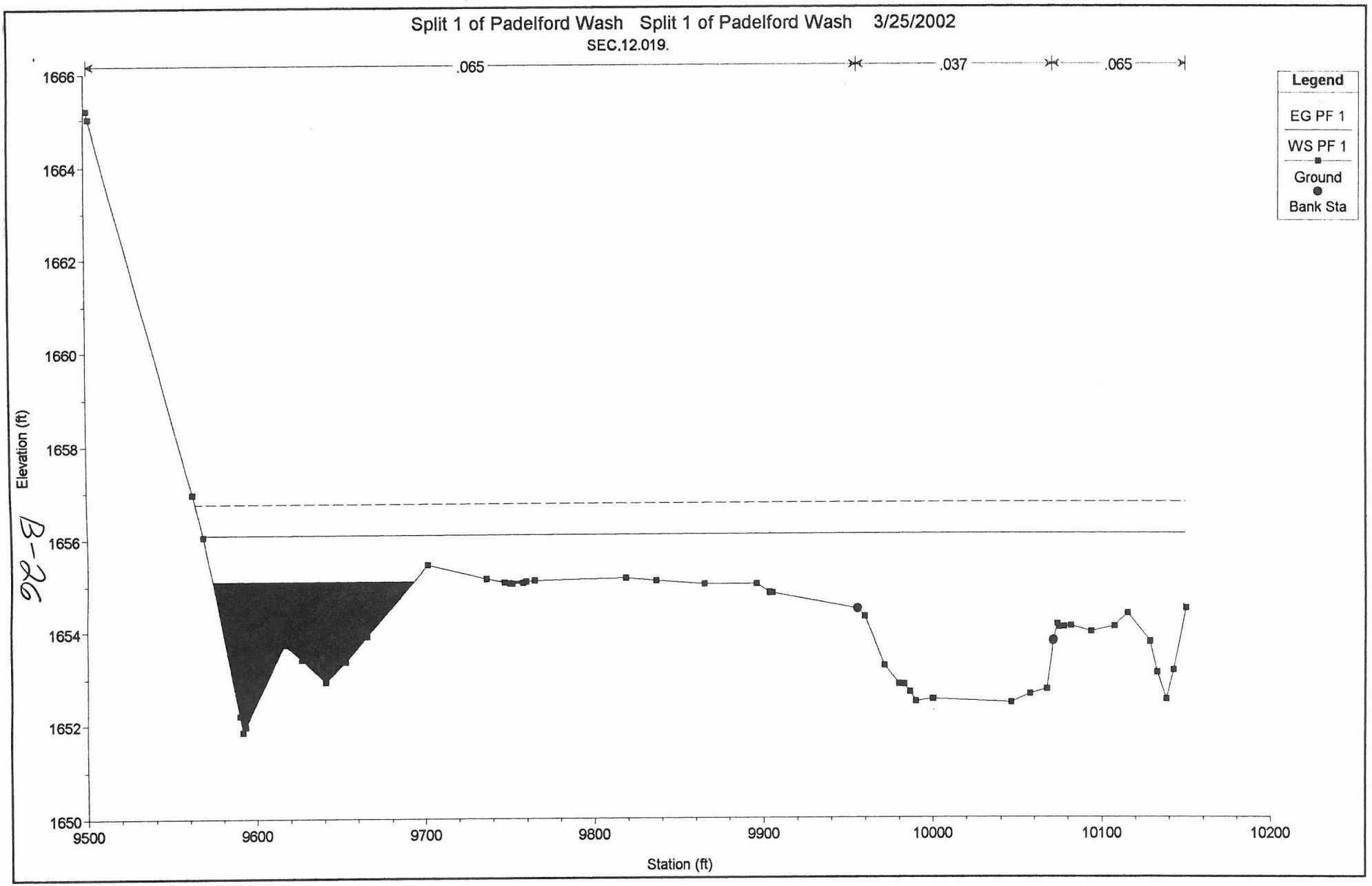
B-33


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.11.924
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1651
1650
1649
1648
1647
1646
1645
1644
Elevation (ft)
9400
9600
9800
10000
10200
10400
Station (ft)

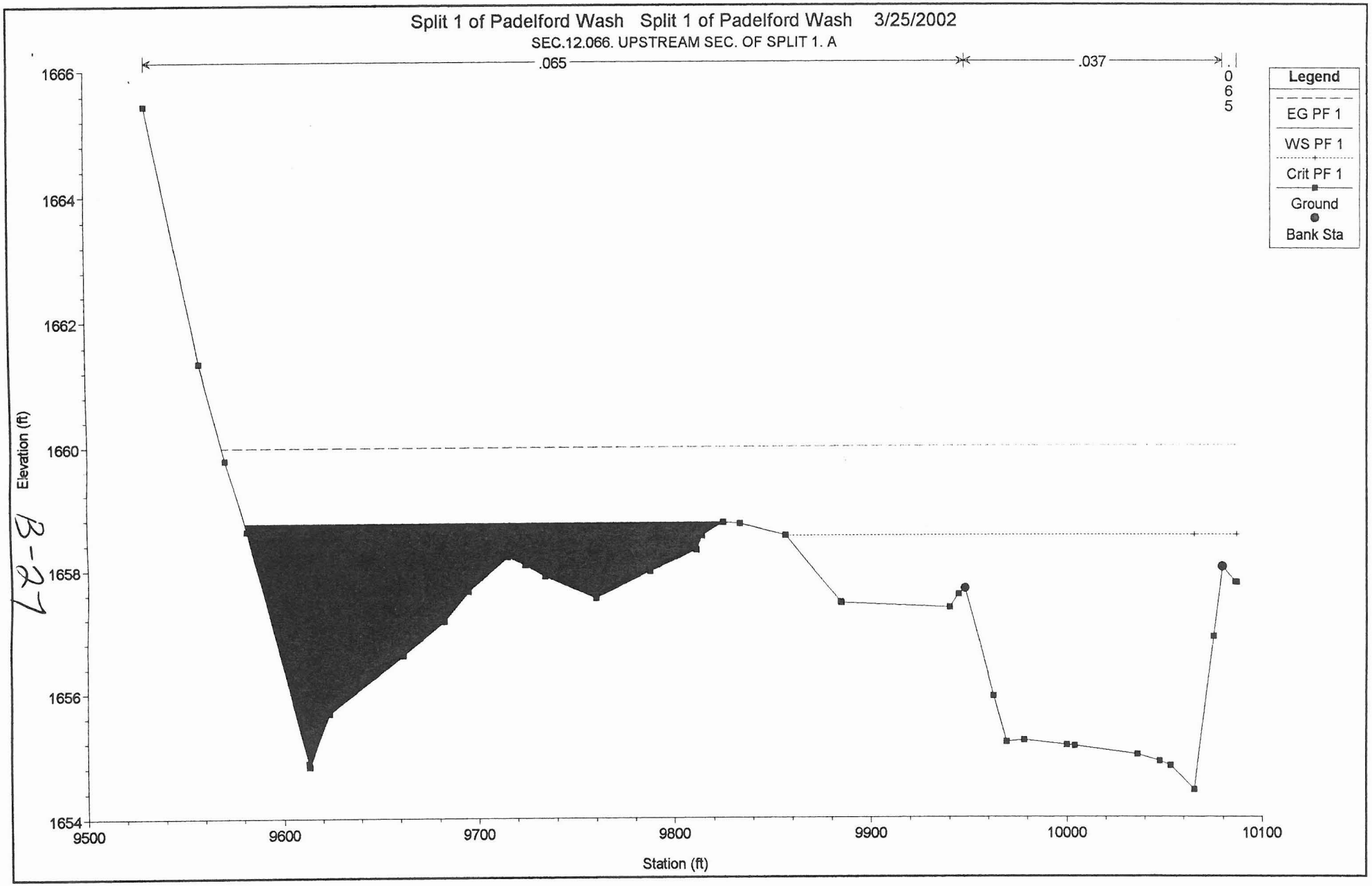
B-24


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.11.973
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1662
1660
1658
1656
1654
1652
1650
1648
9400
9500
9600
9700
9800
9900
10000
10100
10200
10300

B-25


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.12.019.
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1666
1664
1662
1660
1658
1656
1654
1652
1650
9500
9600
9700
9800
9900
10000
10100
10200
Station (ft)

B-26


Split 1 of Padelford Wash Split 1 of Padelford Wash 3/25/2002
SEC.12.066. UPSTREAM SEC. OF SPLIT 1. A
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1666
1664
1662
1660
1658
1656
1654
9500
9600
9700
9800
9900
10000
10100
Station (ft)

B-27

HEC-RAS September 1998 Version 2.2
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

HEC-RAS

PROJECT DATA
Project Title: Split 2 of Padelford Wash
Project File : split2.prj
Run Date and Time: 3/19/2002 11:36:46 AM

Project in English units

Project Description:
SPLIT2 OF PADELFORD WASH. SPLIT2 BEGINS APPROX. 0.5 MILES UPSTREAM OF DOVE VALLEY RD. AND PROCEEDS DOWNSTREAM TO THE CAP CANAL..

CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH STA. 10000 AT THE HYDRAULIC BASELINE.

SECTIONS ARE IDENTIFIED IN RIVER MILES, INCREASING UPSTREAM ALONG
THE HYDRAULIC BASELINE WITH STA. 20.0 AT THE UPSTREAM FACE OF CAP CANAL OVERCHUTE STRUCTURE (STA. 253+00 WITH INLET I.E.=1540.76)

PLAN DATA

Plan Title: Split 2 of Padelford Wash
Plan File : n:\Files\7158-07\Hec-Ras\8TH SET\split2.p02

Geometry Title: Split 2 of Padelford Wash
Geometry File : n:\Files\7158-07\Hec-Ras\8TH SET\split2.g01

Flow Title : Split 2 of Padelford Wash
Flow File : n:\Files\7158-07\Hec-Ras\8TH SET\split2.f01

Plan Summary Information:
Number of: Cross Sections = 31 Multiple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculation tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

FLOW DATA

Flow Title: Split 2 of Padelford Wash
Flow File : n:\Files\7158-07\Hec-Ras\8TH SET\split2.f01

Flow Data (cfs)

River	Reach	RS	PF 1
SPLIT2	SPLIT2	22.212	3149
SPLIT2	SPLIT2	21.248	2654
SPLIT2	SPLIT2	21.055	2409
SPLIT2	SPLIT2	20.760	2409

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
SPLIT2	SPLIT2	PF 1	Normal S = .01	Normal S = .01

GEOMETRY DATA

Geometry Title: Split 2 of Padelford Wash
Geometry File : n:\Files\7158-07\Hec-Ras\8TH SET\split2.g01

CROSS SECTION RIVER: SPLIT2

REACH: SPLIT2 RS: 22.212

INPUT
Description: SEC. 22.212. U/S LIMIT OF SPLIT2 WASH . THE DISCHARGES TO THESE
SPLIT2 WASH WERE ESTIMATED BY PERFORMING A RATING CURVE ANALYSIS
BY HEC-RAS MODEL OF ENERGY GRADE EL. VS Q'S AT SEC. 22.114(SPLIT2)
AND SEC. 3.300 (MAIN)
AND INPUTTING TO THE HEC-1 MODEL HYDROLOGY
ANALYSIS.
AS A RESULT SPLIT2 WASH SECS. FROM SEC. 22.212 D/S TO
SEC. 21.631 MAY NOT BE CONTAINED BY EX. GROUND AS THE RT. SIDE IS
THE BOUNDARY WITH SPLIT3 WASH, AND THE LT. SIDE IS THE BOUNDARY
WITH THE MAIN PADELFORD WASH.

Station Elevation Data num= 11

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9977.33	1668.09	10000	1667.42	10012.24	1667.07	10025.89	1668.73	10027.98	1669.01
10032.4	1669.14	10066.2	1670.08	10073.97	1670.37	10076.22	1670.46	10078.48	1670.44
10085.29	1670.35								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9977.33	.065	9977.33	.037	10027.98	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9977.33	10027.98	260	269.3	270	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1673.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.29	Wt. n-Val.		0.037	0.065
W.S. Elev (ft)	1672.62	Reach Len. (ft)	260.00	269.30	270.00
Crit W.S. (ft)		Flow Area (sq ft)		248.20	160.87
E.G. Slope (ft/ft)	0.008455	Area (sq ft)		248.20	160.87
Q Total (cfs)	3149.00	Flow (cfs)		2493.48	655.52
Top Width (ft)	107.96	Top Width (ft)		50.65	57.31
Vel Total (ft/s)	7.70	Avg. Vel. (ft/s)		10.05	4.07
Max Chl Dpth (ft)	5.55	Hydr. Depth (ft)		4.90	2.81
Conv. Total (cfs)	34246.2	Conv. (cfs)		27117.3	7128.9
Length Wtd. (ft)	269.17	Wetted Per. (ft)		55.31	59.60
Min Ch El (ft)	1667.07	Shear (lb/sq ft)		2.37	1.42
Alpha	1.41	Stream Power (lb/ft s)		23.80	5.81
Frctn Loss (ft)	2.54	Cum Volume (acre-ft)	109.50	43.51	55.12
C & E Loss (ft)	0.01	Cum SA (acres)	102.71	20.68	55.62

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9977.33	RB 10027.98	2493.48	248.20	55.31	79.18	4.90	10.05
10027.98	10056.63	411.58	91.75	28.67	13.07	3.20	4.49
10056.63	10085.29	243.94	69.11	30.93	7.75	2.41	3.53

Warning: The cross-section end points had to be extended vertically for the computed water surface.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 22.161

INPUT
Description: SEC.22.161
Station Elevation Data num= 19

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9954.31	1666.98	9958.12	1667.32	9960.14	1667.32	9968.44	1667.57	9971.88	1667.5
9978.9	1666.65	9979.19	1666.58	9985.1	1664.86	10000	1665.27	10007.3	1665.47
10015.89	1665.69	10017.99	1665.97	10026.04	1667.07	10043.34	1667.77	10045.42	1667.85
10046.69	1667.79	10063.3	1666.81	10068.87		10067		10075.57	1667.29

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9954.31	.065	9971.88	.037	10026.04	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9971.88	10026.04	232.6 248.28	255	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1671.36	Element			
Vel Head (ft)	1.42	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1669.94	Reach Len. (ft)	232.60	248.28	255.00
Crit W.S. (ft)		Flow Area (sq ft)	44.91	225.63	130.20
E.G. Slope (ft/ft)	0.010629	Area (sq ft)	44.91	225.63	130.20
Q Total (cfs)	3149.00	Flow (cfs)	178.23	2406.64	564.14
Top Width (ft)	121.26	Top Width (ft)	17.57	54.16	49.53
Vel Total (ft/s)	7.86	Avg. Vel. (ft/s)	3.97	10.67	4.33
Max Chl Dpth (ft)	5.08	Hydr. Depth (ft)	2.56	4.17	2.63
Conv. Total (cfs)	30544.3	Conv. (cfs)	1728.7	23343.6	5471.9
Length Wtd. (ft)	247.02	Wetted Per. (ft)	20.55	54.57	52.24
Min Ch El (ft)	1664.86	Shear (lb/sq ft)	1.45	2.74	1.65
Alpha	1.48	Stream Power (lb/ft s)	5.75	29.26	7.17
Frctn Loss (ft)	3.04	Cum Volume (acre-ft)	109.37	42.04	54.21
C & E Loss (ft)	0.01	Cum SA (acres)	102.66	20.36	55.29

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9954.31	9963.09	87.61	23.53	11.76	2.78	2.68	3.72
9963.09	9971.88	90.61	21.37	8.79	2.88	2.43	4.24
LB 9971.88	RB 10026.04	2406.64	225.63	54.57	76.43	4.17	10.67
10026.04	10050.80	255.29	60.07	24.79	8.11	2.43	4.25
10050.80	10075.57	308.85	70.14	27.45	9.81	2.83	4.40

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 22.114

INPUT
Description: SEC.22.114
Station Elevation Data num= 19

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9917.2	1663.77	9917.58	1663.8	9932.25	1664.29	9937.32	1664.49	9938.86	1664.5
9949.64	1664.61	9951.79	1664.63	9952	1664.63	9953.58	1664.55	9965.57	1663.83
9972.26	1663.79	9980.57	1663.39	9993.61	1663.04	10000	1662.91	10007.56	1662.76
10013.59	1663.47	10019.7	1664.22	10044.13	1664.61	10056.64	1664.79		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9917.2	.065	9972.26	.037	10019.7	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9972.26	10019.7	245 247.37	240	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1668.32	Element			
Vel Head (ft)	1.40	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1666.92	Reach Len. (ft)	245.00	247.37	240.00
Crit W.S. (ft)	1666.92	Flow Area (sq ft)	147.93	173.69	89.06
E.G. Slope (ft/ft)	0.014264	Area (sq ft)	147.93	173.69	89.06
Q Total (cfs)	3149.00	Flow (cfs)	751.82	1976.04	421.14
Top Width (ft)	139.44	Top Width (ft)	55.06	47.44	36.94
Vel Total (ft/s)	7.67	Avg. Vel. (ft/s)	5.08	11.38	4.73
Max Chl Dpth (ft)	4.16	Hydr. Depth (ft)	2.69	3.66	2.41
Conv. Total (cfs)	26366.8	Conv. (cfs)	6295.0	16545.5	3526.3
Length Wtd. (ft)		Wetted Per. (ft)	58.24	47.55	39.07
Min Ch El (ft)	1662.76	Shear (lb/sq ft)	2.26	3.25	2.03
Alpha	1.54	Stream Power (lb/ft s)	11.49	37.01	9.60
Frctn Loss (ft)		Cum Volume (acre-ft)	108.85	40.90	53.57
C & E Loss (ft)		Cum SA (acres)	102.47	20.07	55.04

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9917.20	9944.73	361.76	73.89	30.69	11.49	2.68	4.90
9944.73	9972.26	390.05	74.04	27.55	12.39	2.69	5.27
LB 9972.26	RB 10019.70	1976.04	173.69	47.55	62.75	3.66	11.38
10019.70	10038.17	238.87	47.17	18.47	7.59	2.55	5.06
10038.17	10056.64	182.27	41.89	20.60	5.79	2.27	4.35

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 22.066

INPUT
Description: SEC.22.066
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9919.27	1662.18	9920.76	1662.17	9922.7	1662.25	9940.18	1662.07	9942.62	1662.01
9970.88	1661.72	9974.65	1661.65	9978.52	1661.16	9986.65	1660.18	9991.35	1660.2
10000	1660.35	10002.43	1660.39	10004.28	1660.68	10013.59	1661.5	10032.4	1661.1
10042.55	1661.03	10043.27	1660.89	10047.29	1660.93	10066.41	1661.24	10071.56	1660.86
10076.64	1660.56	10078.53	1660.86	10085.31	1662.06	10109.7	1662.13	10109.8	1662.13
10109.99	1662.13	10120.3	1662.05						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9919.27	.065	9974.65	.037	10013.59	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

Left	Right	Left	Channel	Right	Coeff	Contr.	Expan.
9974.65	10013.59	260	248.2	245		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1665.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1664.32	Reach Len. (ft)	260.00	248.20	245.00
Crit W.S. (ft)		Flow Area (sq ft)	129.96	142.05	307.18
E.G. Slope (ft/ft)	0.009332	Area (sq ft)	129.96	142.05	307.18
Q Total (cfs)	3149.00	Flow (cfs)	494.14	1302.65	1352.21
Top Width (ft)	201.03	Top Width (ft)	55.38	38.94	106.71
Vel Total (ft/s)	5.44	Avg. Vel. (ft/s)	3.80	9.17	4.40
Max Chl Dpth (ft)	4.14	Hydr. Depth (ft)	2.35	3.65	2.88
Conv. Total (cfs)	32597.2	Conv. (cfs)	5115.2	13484.5	13997.5
Length Wtd. (ft)	249.07	Wetted Per. (ft)	57.53	39.09	109.15
Min Ch El (ft)	1660.18	Shear (lb/sq ft)	1.32	2.12	1.64
Alpha	1.54	Stream Power (lb/ft s)	5.00	19.42	7.22
Frctn Loss (ft)	3.02	Cum Volume (acre-ft)	108.07	40.01	52.48
C & E Loss (ft)	0.01	Cum SA (acres)	102.16	19.82	54.64

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9919.27	9946.96	214.29	60.75	29.83	6.81	2.19	3.53
9946.96	9974.65	279.86	69.21	27.69	8.89	2.50	4.04
LB 9974.65	RB 10013.59	1302.65	142.05	39.09	41.37	3.65	9.17
10013.59	10066.95	801.82	169.52	53.38	25.46	3.18	4.73
10066.95	10120.30	550.39	137.66	55.78	17.48	2.58	4.00

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 22.019

INPUT
Description: SEC.22.019
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9794.57	1660.09	9847.48	1659.42	9861.86	1659.37	9867.56	1659.53	9872.92	1659.67
9879.92	1659.9	9886.21	1660.01	9902.09	1660.21	9916.01	1660.68	9941.36	1661.02
9947.11	1658.48	9950.06	1657.23	9953.15	1657.81	9964.16	1659.74	9973.15	1659.95
9974.31	1659.97	9975.3	1659.73	9981.09	1658.45	9998.96	1658.35	10000	1658.32
10008.1	1658.11	10013.46	1658.95	10013.84	1658.99	10015.2	1659.01	10032.82	1659.24
10037.93	1659.23	10101.36	1658.6						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9794.57	.065	9941.36	.037	10032.82	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9941.36	10032.82	235 256.53	255	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1662.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.84	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1661.15	Reach Len. (ft)	235.00	256.53	255.00
Crit W.S. (ft)	1661.15	Flow Area (sq ft)	168.66	211.17	151.84
E.G. Slope (ft/ft)	0.016326	Area (sq ft)	168.66	211.17	151.84
Q Total (cfs)	3149.00	Flow (cfs)	537.77	1875.71	735.51
Top Width (ft)	306.79	Top Width (ft)	146.79	91.46	68.54
Vel Total (ft/s)	5.92	Avg. Vel. (ft/s)	3.19	8.88	4.84
Max Chl Dpth (ft)	3.92	Hydr. Depth (ft)	1.15	2.31	2.22
Conv. Total (cfs)	24645.5	Conv. (cfs)	4208.9	14680.2	5756.4
Length Wtd. (ft)	249.73	Wetted Per. (ft)	147.88	92.72	71.10
Min Ch El (ft)	1657.23	Shear (lb/sq ft)	1.16	2.32	2.18
Alpha	1.55	Stream Power (lb/ft s)	3.71	20.62	10.54
Frctn Loss (ft)	2.74	Cum Volume (acre-ft)	107.18	39.00	51.19
C & E Loss (ft)	0.11	Cum SA (acres)	101.55	19.45	54.15

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9794.57	9867.96	395.78	109.70	74.47	12.57	1.49	3.61

9867.96	9941.36	141.99	58.96	73.41	4.51	0.80	2.41
LB 9941.36	RB 10032.82	1875.71	211.17	92.72	59.57	2.31	8.88
10032.82	10067.09	329.94	70.14	34.27	10.48	2.05	4.70
10067.09	10101.36	405.58	81.70	36.83	12.88	2.38	4.96

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 21.970

INPUT
Description: SEC.21.97
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9728.29	1657.63	9729.04	1657.64	9742.71	1657.55	9766.66	1657.6	9783.77	1656.76
9785.45	1656.67	9786.42	1656.66	9803.42	1656.57	9813.91	1656.17	9815.21	1656.12
9818.14	1656.2	9830.02	1656.51	9844.3	1656.87	9859.92	1657.09	9875.29	1656.83
9885.93	1656.67	9893.18	1656.58	9910.16	1656.58	9931.83	1656.59	9938.04	1656.6
9942.94	1656.69	9979	1657.08	9984.49	1655.62	9986.98	1654.85	9997.02	1654.71
10000	1654.65	10005.03	1654.56	10015.16	1655.72	10018.22	1656.29	10025.12	1656.26
10040.64	1656.68	10056.2	1656.55	10058.7	1656.49	10059.02	1656.53	10067.07	1656.66
10103.96	1657.06								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9728.29	.065	9979	.037	10040.64	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9979	10040.64	264.63	246.7	254.52	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1659.14	Element			
Vel Head (ft)	0.46	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1658.68	Reach Len. (ft)	264.63	246.70	254.52
Crit W.S. (ft)		Flow Area (sq ft)	455.13	187.62	121.88
E.G. Slope (ft/ft)	0.007900	Area (sq ft)	455.13	187.62	121.88
Q Total (cfs)	3149.00	Flow (cfs)	1372.18	1400.03	376.79
Top Width (ft)	375.67	Top Width (ft)	250.71	61.64	63.32
Vel Total (ft/s)	4.12	Avg. Vel. (ft/s)	3.01	7.46	3.09
Max Chl Dpth (ft)	4.12	Hydr. Depth (ft)	1.82	3.04	1.92
Conv. Total (cfs)	35429.0	Conv. (cfs)	15438.2	15751.5	4239.2
Length Wtd. (ft)	256.30	Wetted Per. (ft)	251.81	62.07	64.94
Min Ch El (ft)	1654.56	Shear (lb/sq ft)	0.89	1.49	0.93
Alpha	1.76	Stream Power (lb/ft s)	2.69	11.12	2.86
Frctn Loss (ft)	2.76	Cum Volume (acre-ft)	105.50	37.83	50.39
C & E Loss (ft)	0.01	Cum SA (acres)	100.48	19.00	53.76

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9728.29	9853.64	620.25	214.82	126.44	19.70	1.71	2.89
9853.64	9979.00	751.93	240.31	125.36	23.88	1.92	3.13
LB 9979.00	RB 10040.64	1400.03	187.62	62.07	44.46	3.04	7.46
10040.64	10072.30	213.82	65.29	31.67	6.79	2.06	3.27
10072.30	10103.96	162.97	56.59	33.28	5.18	1.79	2.88

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 21.923

INPUT
Description: SEC. 21.923
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9594.79	1654.77	9638.09	1653.61	9639.62	1653.58	9640.58	1653.62	9660.86	1654.27
9682.02	1654.17	9684.7	1654.12	9687.8	1654.24	9699.43	1654.67	9725.34	1654.86
9739.5	1654.86	9744.99	1654.89	9748.64	1654.92	9766.74	1655.22	9768.14	1655.14
9788.52	1654.46	9789.48	1654.43	9804.49	1654.92	9823.28	1655.37	9832.06	1655.61
9839.39	1655.11	9850.37	1654.4	9862.7	1654.55	9883.05	1654.29	9895.65	1654.13
9916.63	1654.08	9984.89	1654	9987.18	1654.02	9993.14	1652.38	9994.1	1652.09
9996.74	1652.15	10000	1652.21	10011.69	1652.42	10016.8	1653.42	10020.78	1654.14
10026.6	1654.28	10043.56	1654.65	10087.81	1654.89	10093.06	1654.91	10098.58	1655.1
10122.2	1655.87	10123.26	1655.86						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9594.79	.065	9984.89	.037	10043.56	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9984.89 10043.56 240 253.4 265 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1656.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1655.78	Reach Len. (ft)	240.00	253.40	265.00
Crit W.S. (ft)	1655.78	Flow Area (sq ft)	515.61	138.91	60.94
E.G. Slope (ft/ft)	0.015575	Area (sq ft)	515.61	138.91	60.94
Q Total (cfs)	3149.00	Flow (cfs)	1768.22	1230.69	150.09
Top Width (ft)	524.73	Top Width (ft)	390.10	58.67	75.96
Vel Total (ft/s)	4.40	Avg. Vel. (ft/s)	3.43	8.86	2.46
Max Chl Dpth (ft)	3.69	Hydr. Depth (ft)	1.32	2.37	0.80
Conv. Total (cfs)	25232.7	Conv. (cfs)	14168.6	9861.4	1202.7
Length Wtd. (ft)		Wetted Per. (ft)	391.23	59.10	75.98
Min Ch El (ft)	1652.09	Shear (lb/sq ft)	1.28	2.29	0.78
Alpha	1.94	Stream Power (lb/ft s)	4.39	20.25	1.92
Frctn Loss (ft)		Cum Volume (acre-ft)	102.55	36.90	49.86

C & E Loss (ft)	Cum SA (acres)	98.53	18.66	53.36

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9594.79	9789.84	853.45	252.70	196.12	27.10	1.30	3.38
9789.84	9984.89	914.78	262.90	195.11	29.05	1.35	3.48
LB 9984.89	RB 10043.56	1230.69	138.91	59.10	39.08	2.37	8.86
10043.56	10083.41	113.02	40.83	39.85	3.59	1.02	2.77
10083.41	10123.26	37.06	20.11	36.13	1.18	0.56	1.84

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 21.875

INPUT
Description: SEC.21.875
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9480.94	1651.91	9483.49	1651.94	9497.11	1651.88	9505.39	1650.37	9507.03	1650.06
9507.81	1650.09	9518.15	1650.42	9520.71	1650.94	9528.12	1652.47	9530.03	1652.48
9556.73	1652.62	9579.54	1652.27	9593.94	1651.91	9608.21	1651.63	9615.17	1650.9
9619.34	1650.43	9629.4	1651.18	9633.4	1651.66	9639	1651.12	9645.91	1650.62
9655.17	1651.2	9661.05	1651.55	9664.59	1651.58	9669.46	1651.66	9683.28	1651.67
9706.07	1651.75	9719.58	1651.82	9742.75	1651.93	9747.84	1651.72	9760.77	1651.2
9763.6	1651.05	9784.82	1651.55	9801.03	1652.13	9809.92	1651.44	9817.57	1651.1
9827.28	1651.68	9830.27	1651.62	9840.08	1651.1	9847.77	1650.55	9856.87	1651.2
9865.05	1651.73	9907.77	1651.47	9908.89	1651.45	9916.6	1651.47	9920.38	1651.66
9930.18	1652.22	9961.89	1651.79	9982.65	1651.37	9986.65	1651.37	9991.66	1650.48
9997.38	1649.47	10000	1649.57	10008.72	1649.91	10017.69	1650.24	10022.49	1650.85
10028.64	1651.58	10037.93	1651.51	10049.81	1651.46	10057.93	1651.53	10059.96	1651.54
10062.66	1651.95	10068.97	1653.23	10092.45	1652.81	10105.13	1652.5		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9480.94	.065	9961.89	.037	10028.64	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9961.89	10028.64	250	252.04	261.36	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1653.39	Element	0.065	0.037	0.065
Vel Head (ft)	0.31	Wt. n-Val.	250.00	252.04	261.36
W.S. Elev (ft)	1653.08	Reach Len. (ft)			

Crit W.S. (ft)		Flow Area (sq ft)	700.50	155.80	63.61
E.G. Slope (ft/ft)	0.009005	Area (sq ft)	700.50	155.80	63.61
Q Total (cfs)	3149.00	Flow (cfs)	1947.27	1041.93	159.80
Top Width (ft)	615.26	Top Width (ft)	480.95	66.75	67.56
Vel Total (ft/s)	3.42	Avg. Vel. (ft/s)	2.78	6.69	2.51
Max Chl Dpth (ft)	3.61	Hydr. Depth (ft)	1.46	2.33	0.94
Conv. Total (cfs)	33184.9	Conv. (cfs)	20520.8	10980.1	1684.0
Length Wtd. (ft)	251.75	Wetted Per. (ft)	482.89	67.02	68.30
Min Ch El (ft)	1649.47	Shear (lb/sq ft)	0.82	1.31	0.52
Alpha	1.70	Stream Power (lb/ft s)	2.27	8.74	1.32
Frctn Loss (ft)	3.14	Cum Volume (acre-ft)	99.20	36.04	49.48
C & E Loss (ft)	0.02	Cum SA (acres)	96.13	18.30	52.92

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9480.94	9721.42	930.12	341.31	242.23	29.54	1.42	2.73
9721.42	9961.89	1017.15	359.19	240.66	32.30	1.49	2.83
LB 9961.89	RB 10028.64	1041.93	155.80	67.02	33.09	2.33	6.69
10028.64	10066.88	153.11	55.91	38.36	4.86	1.46	2.74
10066.88	10105.13	6.68	7.70	29.93	0.21	0.26	0.87

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 21.827

INPUT
Description: SEC. 21.827
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9444.44	1648.57	9463.45	1649.19	9463.68	1649.2	9463.78	1649.18	9471.8	1647.51
9479.46	1647.55	9491.35	1647.58	9495.92	1648.21	9502.56	1649.2	9507.96	1649.1
9515.28	1648.25	9520.05	1647.87	9534.22	1649.19	9538.27	1649.52	9570.68	1649.09
9586.89	1648.88	9587.8	1648.84	9605.47	1648.3	9613.39	1648.29	9625.32	1648.19
9647.57	1649.29	9650.34	1649.4	9651.98	1649.47	9656.4	1649.53	9662.3	1649.58
9677.73	1649.74	9681.76	1649.49	9701.33	1648.61	9702.65	1648.62	9708.17	1648.65
9738.11	1648.74	9757.35	1648.81	9763.57	1648.51	9776.24	1648.1	9783.79	1648.61
9800.61	1649.61	9804.1	1649.2	9816.24	1649.43	9853.94	1648.74	9855.77	1648.34
9865.06	1647.1	9866.81	1647.35	9879.76	1648.94	9890.85	1648.91	9897.44	1648.58
9922.48	1647.98	9927.42	1647.43	9937.37	1646.4	9948.82	1647.84	9952.54	1648.21
9975.62	1647.73	9977.35	1647.73	9985.35	1648.26	9985.76	1648.26	9994.41	1648.19
10000	1648.57	10013.73	1649.49	10015.05	1649.55	10059.94	1648.45	10066.52	1648.33
10075.92	1647.75	10076.52	1647.71	10077.44	1647.66	10089.47	1647.18	10097.68	1649.34

10099.86 1650.1110110.85 1650.03

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9444.44	.065	9890.85	.03710015.05		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9890.8510015.05		285 279.8	265	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1650.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1649.71	Reach Len. (ft)	285.00	279.80	265.00
Crit W.S. (ft)	1649.71	Flow Area (sq ft)	416.61	203.17	98.69
E.G. Slope (ft/ft)	0.018839	Area (sq ft)	416.61	203.17	98.69
Q Total (cfs)	3149.00	Flow (cfs)	1251.78	1552.58	344.64
Top Width (ft)	650.54	Top Width (ft)	442.67	124.20	83.67
Vel Total (ft/s)	4.38	Avg. Vel. (ft/s)	3.00	7.64	3.49
Max Chl Dpth (ft)	3.31	Hydr. Depth (ft)	0.94	1.64	1.18
Conv. Total (cfs)	22942.5	Conv. (cfs)	9120.0	11311.5	2510.9
Length Wtd. (ft)	280.96	Wetted Per. (ft)	444.66	124.48	84.06
Min Ch El (ft)	1646.40	Shear (lb/sq ft)	1.10	1.92	1.38
Alpha	1.76	Stream Power (lb/ft s)	3.31	14.67	4.82
Frctn Loss (ft)	2.70	Cum Volume (acre-ft)	95.99	35.01	48.99
C & E Loss (ft)	0.05	Cum SA (acres)	93.48	17.74	52.47

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9444.44	9667.64	679.47	219.95	224.83	21.58	0.99	3.09
9667.64	9890.85	572.31	196.65	219.83	18.17	0.90	2.91
LB 9890.85	RB 10015.05	1552.58	203.17	124.48	49.30	1.64	7.64
10015.05	10062.95	83.37	35.59	47.91	2.65	0.74	2.34
10062.95	10110.85	261.27	63.10	36.14	8.30	1.76	4.14

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 21.774

INPUT
Description: SEC. 21.774
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9508.67	1646.43	9514.74	1646.44	9515.14	1646.45	9527.16	1646.11	9602.92	1643.92
9607.35	1643.75	9615.75	1643.72	9617.11	1643.82	9620.36	1644.07	9639.97	1645.76
9644.55	1645.4	9655.45	1644.69	9660.77	1644.62	9677.96	1643.98	9680.56	1643.86
9682.74	1644.1	9697.68	1644.52	9698.25	1644.45	9699.11	1644.6	9707.51	1646.12
9712.67	1645.87	9763.36	1645.17	9818.98	1644.93	9827.13	1645.7	9827.6	1645.76
9828.13	1645.71	9844.05	1644.56	9846.68	1644.67	9862.92	1645.76	9889.88	1646.05
9897.59	1646.12	9899.4	1646.05	9908.38	1645.78	9915.44	1643.9	9920.03	1642.78
9923.35	1642.8	9937.72	1643.14	9938.18	1643.2	9938.59	1643.21	9939.9	1643.34
9951.97	1644.43	9968.26	1643.99	9971.6	1643.96	9987.47	1642.81	9997.73	1642.06
9998.5	1642.13	10000	1642.25	10004.61	1642.59	10010.81	1643.61	10017.62	1644.77
10025.38	1645.31	10037.33	1646.29	10046.05	1646.92	10060.07	1647.08	10116.4	1647.6
10141.07	1647.52	10174.57	1647.23						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9508.67	.065	9899.4	.037	10046.05	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9899.4	10046.05	250 274.78	255	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1646.85	Element			
Vel Head (ft)	0.34	Wt. n-Val.	0.065	0.037	
W.S. Elev (ft)	1646.50	Reach Len. (ft)	250.00	274.78	255.00
Crit W.S. (ft)		Flow Area (sq ft)	530.74	356.04	
E.G. Slope (ft/ft)	0.005814	Area (sq ft)	530.74	356.04	
Q Total (cfs)	3149.00	Flow (cfs)	1133.63	2015.37	
Top Width (ft)	531.61	Top Width (ft)	390.73	140.88	
Vel Total (ft/s)	3.55	Avg. Vel. (ft/s)	2.14	5.66	
Max Chl Dpth (ft)	4.44	Hydr. Depth (ft)	1.36	2.53	
Conv. Total (cfs)	41297.5	Conv. (cfs)	14866.9	26430.6	
Length Wtd. (ft)	267.94	Wetted Per. (ft)	391.29	141.67	
Min Ch El (ft)	1642.06	Shear (lb/sq ft)	0.49	0.91	
Alpha	1.76	Stream Power (lb/ft s)	1.05	5.16	
Frctn Loss (ft)	2.51	Cum Volume (acre-ft)	92.90	33.21	48.69
C & E Loss (ft)	0.08	Cum SA (acres)	90.76	16.89	52.21

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9508.67	9704.04	746.02	316.88	195.73	23.69	1.62	2.35
9704.04	9899.40	387.61	213.86	195.56	12.31	1.09	1.81
LB 9899.40	RB 10046.05	2015.37	356.04	141.67	64.00	2.53	5.66

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 21.719

INPUT
Description: SEC. 21.719. DOVE VALLEY RD. IS 40 FT. D/S.
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9635.17	1644.37	9642.31	1644.39	9663.47	1643.97	9672.29	1643.61	9674.66	1643.61
9682.27	1641.54	9685.04	1640.9	9690.88	1640.91	9697.77	1641.02	9702.88	1640.91
9710.92	1640.95	9720.48	1641.01	9722.46	1641.04	9741.49	1641.54	9742.2	1641.55
9750.2	1642.49	9756.09	1642.99	9760.93	1643.28	9766.51	1643.31	9775.04	1643.62
9785.46	1643.64	9789.81	1643.86	9806.16	1644.05	9811.59	1644.18	9822.57	1644.17
9838.07	1644.16	9858.45	1643.89	9877.15	1643.73	9894	1643.97	9913.94	1643.96
9933.67	1644.1	9949.35	1643.13	9962.89	1643.06	9971.97	1642.68	9978.59	1642.23
9989.74	1639.41	9996.83	1637.51	9997.34	1637.6810000.01		1637.910002.79		1638.13
10013.34	1638.8710024.61		1640.0110032.06		1640.8510038.14		1641.7110041.32		1641.71
10052.62	1641.0210060.74		1640.6610069.77		1642.9910072.14		1643.6810072.34		1643.71
10073.71	1643.7810075.59		1643.6810098.96		1643.7510108.52		1643.8410131.09		1643.87
10150.2	1643.9310167.82		1643.8710184.74		1643.5510203.97		1643.6410222.47		1643.64
10243.13	1643.9710258.68		1644.3310277.96		1644.3410279.66		1644.33		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9635.17	.065	9949.35	.03710072.14		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9949.35	10072.14	435 462.91	480	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1644.27	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.10	Wt. n-Val.	0.065	0.037	
W.S. Elev (ft)	1643.16	Reach Len. (ft)	435.00	462.91	480.00
Crit W.S. (ft)	1643.16	Flow Area (sq ft)	141.48	278.06	
E.G. Slope (ft/ft)	0.017316	Area (sq ft)	141.48	278.06	
Q Total (cfs)	3149.00	Flow (cfs)	607.09	2541.91	
Top Width (ft)	204.20	Top Width (ft)	83.19	121.01	
Vel Total (ft/s)	7.51	Avg. Vel. (ft/s)	4.29	9.14	
Max Chl Dpth (ft)	5.65	Hydr. Depth (ft)	1.70	2.30	
Conv. Total (cfs)	23930.0	Conv. (cfs)	4613.4	19316.6	
Length Wtd. (ft)	456.94	Wetted Per. (ft)	83.57	122.22	
Min Ch El (ft)	1637.51	Shear (lb/sq ft)	1.83	2.46	
Alpha	1.26	Stream Power (lb/ft s)	7.85	22.48	
Frctn Loss (ft)	4.96	Cum Volume (acre-ft)	90.97	31.21	48.69
C & E Loss (ft)	0.17	Cum SA (acres)	89.40	16.07	52.21

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9635.17	9792.26	607.08	141.48	83.04	19.28	1.71	4.29
9792.26	9949.35	0.00	0.01	0.53	0.00	0.02	0.19
LB 9949.35	RB 10072.14	2541.91	278.06	122.22	80.72	2.30	9.14

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 21.631

INPUT
Description: SEC.21.631
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9592.65	1637.67	9598.87	1637.69	9604.76	1638.01	9606.02	1638.05	9607.51	1637.6
9617.87	1635.45	9621.69	1635.57	9630.86	1634.77	9636.34	1635.67	9642.88	1637.36
9647.31	1636.78	9672.96	1636.42	9682.96	1636.32	9685.3	1636.25	9715.33	1636.2
9743.54	1636.21	9788.84	1636.06	9791.49	1635.87	9801.82	1635.35	9808.69	1636.04
9810.51	1636.16	9822.67	1636.72	9826.52	1636.78	9836.16	1636.94	9858.71	1637.25
9865.06	1637.43	9873.01	1636.83	9880.42	1636.25	9887.27	1636.41	9907.91	1636.52
9910.88	1636.43	9918.26	1636.33	9926.18	1636.39	9932	1636.96	9932.34	1637.01
9933.44	1636.99	9955.74	1636.47	9961.64	1635.69	9969.19	1634.77	9978.16	1633.52
9983.16	1633.05	9992.31	1633.11	10000	1633.22	10007.36	1633.33	10017.78	1635.7
10025.34	1637.31	10084.23	1637.16	10098.15	1637.14	10109.86	1637.19	10112.65	1637.03
10144.92	1636.75	10145.77	1636.74	10145.92	1636.73	10159.76	1636.11	10168.83	1635.71
10168.95	1635.71	10169.05	1635.71	10186.07	1637.03	10217.11	1636.98	10241.89	1636.96
10247.66	1636.82	10287.57	1636.96	10293.81	1637.01	10294.91	1636.84	10303.42	1635.85
10309.34	1636.18	10321.82	1636.93	10345	1637.08	10372.92	1637.16		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val

10309.34 1636.1810321.82 1636.93 10345 1637.0810372.92 1637.16

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9592.65	.065	9955.74	.03710025.34		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9955.7410025.34		425 459.4	460	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1638.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1637.64	Reach Len. (ft)	425.00	459.40	460.00
Crit W.S. (ft)	1637.64	Flow Area (sq ft)	434.04	229.65	254.98
E.G. Slope (ft/ft)	0.007434	Area (sq ft)	434.04	229.65	254.98
Q Total (cfs)	3149.00	Flow (cfs)	989.20	1751.52	408.28
Top Width (ft)	765.53	Top Width (ft)	348.35	69.60	347.58
Vel Total (ft/s)	3.43	Avg. Vel. (ft/s)	2.28	7.63	1.60
Max Chl Dpth (ft)	4.59	Hydr. Depth (ft)	1.25	3.30	0.73
Conv. Total (cfs)	36521.9	Conv. (cfs)	11472.6	20314.0	4735.2
Length Wtd. (ft)	449.82	Wetted Per. (ft)	349.11	70.25	348.24
Min Ch El (ft)	1633.05	Shear (lb/sq ft)	0.58	1.52	0.34
Alpha	2.92	Stream Power (lb/ft s)	1.32	11.57	0.54
Frctn Loss (ft)	4.60	Cum Volume (acre-ft)	88.09	28.51	47.28
C & E Loss (ft)	0.00	Cum SA (acres)	87.24	15.05	50.30

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9592.65	9774.20	578.17	235.63	167.40	18.36	1.41	2.45
9774.20	9955.74	411.03	198.41	181.71	13.05	1.09	2.07
LB 9955.74	RB 10025.34	1751.52	229.65	70.25	55.62	3.30	7.63
10025.34	10199.13	197.75	125.02	173.87	6.28	0.72	1.58
10199.13	10372.92	210.54	129.96	174.37	6.69	0.75	1.62

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 21.544

INPUT
Description: SEC. 21.544
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9667.21	1631.85	9674.62	1631.85	9677.05	1631.54	9682.69	1630.74	9696.61	1631.2
9703.42	1631.46	9717.52	1631.55	9742.07	1631.67	9747.65	1631.92	9777.53	1631.13
9794	1630.85	9820.39	1630.53	9826.65	1630.21	9839.22	1628.8	9840.27	1628.87
9856.36	1631.34	9866.61	1631.48	9868.94	1631.49	9878.06	1631.42	9893.43	1630.88
9915.43	1631.15	9929.56	1631.31	9938.92	1631.23	9967.45	1631.23	9976.91	1629.99
9987.59	1628.53	9997.84	1628.66	10000	1628.71	10013.7	1629.02	10015.67	1629.06
10016.99	1629.19	10039.17	1631.25	10053.14	1631.52	10063.35	1631.74	10073.64	1631.42
10080.34	1631.21	0155.04	1631.93	10160.4	1631.97	10163.19	1631.99	10163.77	1631.99
10164.34		163210164.88		163210169.29	1632.02	10216.51	1632.28	10248.93	1632.33
10273.35	1632.34	10276	1632.2	10284.6	1631.78	10284.82	1631.77	10290.35	1631.64
10334.55	1630.65	10344.82	1629.03	10348.53	1628.47	10352.08	1628.91	10362.56	1630.16
10364.44	1630.13	10376.87	1630.44	10391.99	1630.48	10396.82	1630.37	10399.78	1629.75
10402.8	1629.11	0405.99	1629.53	10418.03	1631.04	10422.63	1631.09	10430.25	1631.22
10442.69	1631.45	10450.15	1631.61	10455.2	1631.63	10467.13	1631.53	10490.72	1631.89
10544.63	1632.12	10545.47	1632.11	10551.93	1632.09				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9667.21	.065	9967.45	.03	10063.35	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9967.45	10063.35	500	533.3	525	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1632.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1632.06	Reach Len. (ft)	500.00	533.30	525.00
Crit W.S. (ft)	1632.06	Flow Area (sq ft)	288.82	194.68	310.91
E.G. Slope (ft/ft)	0.014983	Area (sq ft)	288.82	194.68	310.91
Q Total (cfs)	3149.00	Flow (cfs)	786.47	1531.24	831.29
Top Width (ft)	761.17	Top Width (ft)	300.24	95.90	365.03
Vel Total (ft/s)	3.96	Avg. Vel. (ft/s)	2.72	7.87	2.67
Max Chl Dpth (ft)	3.59	Hydr. Depth (ft)	0.96	2.03	0.85
Conv. Total (cfs)	25726.2	Conv. (cfs)	6425.2	12509.7	6791.4
Length Wtd. (ft)		Wetted Per. (ft)	300.85	96.19	365.61
Min Ch El (ft)	1628.53	Shear (lb/sq ft)	0.90	1.89	0.80
Alpha	2.15	Stream Power (lb/ft s)	2.45	14.89	2.13
Frctn Loss (ft)		Cum Volume (acre-ft)	84.57	26.27	44.30
C & E Loss (ft)		Cum SA (acres)	84.08	14.18	46.53

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9667.21	9817.33	255.86	113.31	150.44	8.13	0.75	2.26
9817.33	9967.45	530.60	175.51	150.41	16.85	1.17	3.02
LB 9967.45	RB 10063.35	1531.24	194.68	96.19	48.63	2.03	7.87
10063.35	10307.64	97.01	61.71	142.06	3.08	0.43	1.57
10307.64	10551.93	734.29	249.20	223.55	23.32	1.12	2.95

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 21.443

INPUT
Description: SEC.21.443
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9518.46	1626.02	9541.1	1625.94	9555.65	1625.83	9571.04	1624.89	9574.1	1624.68
9578.4	1625.1	9589.51	1626.19	9596.99	1626.04	9599.44	1625.99	9602.5	1626.04
9609.01	1626.26	9611.23	1626.32	9656.81	1626.53	9681.04	1626.6	9692.81	1625.46
9696.95	1624.99	9704.52	1624.87	9711.82	1624.83	9717.91	1625.72	9727.12	1627.39
9734.55	1627.49	9776.48	1627.29	9786.18	1627.25	9789.27	1627.27	9802.89	1627.19
9825.74	1627.1	9880.08	1625.63	9903.65	1625.48	9907.74	1625.38	9924.99	1624.58
9930.14	1624.16	9941.64	1624.94	9943.36	1625.04	9947.97	1625	9953.62	1624.96
9957.61	1624.56	9963.27	1623.96	9981.74	1623.46	10000	1622.96	10003.93	1622.85
10006.84	1623.37	10020.87	1626.21	10027.6	1626.31	10064.42	1626.08	10077.51	1625.89
10092.64	1625.04	10093.48	1625	10094.33	1625.02	10106.93	1625.25	10116.87	1625.68
10127.72	1626.35	10133.72	1625.64	10134.12	1625.39	10141.84	1624.36	10156.64	1625.78
10160.01	1626.11	10162.42	1626.06	10166.99	1626.03	10219.32	1625.68	10229.26	1625.71
10236.92	1625.66	10238.6	1625.65	10240.1	1625.65	10256.6	1625.75	10259	1625.74
10265.07	1625.74	10279.03	1625.71	10282.52	1625.76	10290.58	1625.68	10309.41	1625.38
10312.32	1625.33	10331.46	1624.98	10334.56	1624.98	10353.12	1624.53	10354.28	1624.43
10354.9	1624.49	10355.41	1624.5	10364.2	1624.71	10376.26	1625.01	10377.7	1625.02
10395.99	1625.42	10401.02	1625.45	10418.46	1625.58	10423.97	1625.45	10438.89	1625.37
10448.06	1625.33	10459.77	1625.27	10472.6	1625.17	10482.35	1625.09	10498.5	1624.76
10505.76	1624.56	10511.92	1624.41	10527.19	1624.42	10532.36	1624.35	10551.34	1623.77
10553.85	1623.83	10575.52	1624.63	10599.12	1625.43	10600.41	1625.48	10601.07	1625.5
10601.42	1625.51	10608.35	1625.68	10622	1626.14	10625.8	1626.2	10640.9	1626.49
10645.19	1626.38	10648.9	1626.55	10654.85	1626.47	10676.25	1625.99	10702	1625.39
10710.92	1624.99	10714.37	1624.83	10717.05	1624.97	10728.69	1625.72	10731.57	1625.79
10745.37	1625.86	10752.07	1626.07	10757.32	1626.09	10762.84	1626.17	10764.78	1626.15

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9518.46	.065	9943.36	.037	10020.87	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9943.36	10020.87	600	512.2	450	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1626.73	Element	Left OB	Channel	Right OB

Vel Head (ft)	0.30	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1626.44	Reach Len. (ft)	600.00	512.20	450.00
Crit W.S. (ft)		Flow Area (sq ft)	201.74	189.59	738.04
E.G. Slope (ft/ft)	0.007995	Area (sq ft)	201.74	189.59	738.04
Q Total (cfs)	3149.00	Flow (cfs)	376.32	1231.72	1540.96
Top Width (ft)	1056.30	Top Width (ft)	249.90	77.51	728.89
Vel Total (ft/s)	2.79	Avg. Vel. (ft/s)	1.87	6.50	2.09
Max Chl Dpth (ft)	3.59	Hydr. Depth (ft)	0.81	2.45	1.01
Conv. Total (cfs)	35217.8	Conv. (cfs)	4208.7	13775.3	17233.7
Length Wtd. (ft)	496.06	Wetted Per. (ft)	250.71	77.91	729.66
Min Ch El (ft)	1622.85	Shear (lb/sq ft)	0.40	1.21	0.50
Alpha	2.45	Stream Power (lb/ft s)	0.75	7.89	1.05
Frctn Loss (ft)	5.81	Cum Volume (acre-ft)	81.75	23.92	37.98
C & E Loss (ft)	0.02	Cum SA (acres)	80.92	13.12	39.94

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9518.46	9730.91	168.11	105.01	157.59	5.34	0.67	1.60
9730.91	9943.36	208.22	96.73	93.12	6.61	1.04	2.15
LB 9943.36	RB 10020.87	1231.72	189.59	77.91	39.11	2.45	6.50
10020.87	10392.83	597.77	326.24	372.31	18.98	0.88	1.83
10392.83	10764.78	943.18	411.80	357.35	29.95	1.15	2.29

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 21.346

INPUT
Description: SEC. 21.346
Station Elevation Data num= 117

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9547.3	1619.92	9551.32	1619.91	9579.06	1619.7	9587.34	1619.7	9591.17	1618.75
9594.47	1617.92	9596.24	1617.97	9606.79	1618.19	9610.2	1618.64	9616.53	1619.56
9674.01	1619.12	9675.86	1619.11	9676.31	1619.14	9692.28	1619.99	9709.24	1620.13
9714.39	1620.18	9722.43	1620.36	9734.6	1620.69	9756.55	1620.74	9800.55	1620.93
9801.42	1620.89	9808.79	1620.42	9876.02	1620.64	9899.2	1620.82	9901.11	1620.99
9906.78	1621.22	9920.4	1621.23	9938.84	1621.37	9957.83	1621.03	9976.39	1620.46
9988.07	1617.42	9988.72	1617.23	9991.31	1617.31	10000	1617.49	10029.34	1618.12
10033.94	1618.78	10036.31	1619.03	10040.12	1619.22	10047.03	1619.75	10050.07	1619.85
10061.51	1620.15	10071.88	1620.26	10080.9	1620.31	10113.47	1620.81	10131.27	1620.27
10142.25	1620.15	10149.08	1620.3	10158.8	1620.46	10160.07	1620.47	10163.27	1620.45
10172.78	1620.23	10194.09	1619.6	10203	1619.02	10209.45	1618.74	10220.94	1619.63

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10228.49 1620.2510233.89 1620.2410236.45 1620.2610237.11 1620.1810244.67 1619.26
10251.85  1619.910256.39 1620.29 10258.7 1620.2910261.43 1620.3910268.34 1620.56
10273.59 1620.6310294.23 1620.8610313.32 1621.15 10315.5 1621.1710322.11 1621.27
10341.13 1621.1310353.73 1621.3210357.15 1621.3510363.78 1622.1910364.36 1622.24
10373.22 1620.99 10376.9 1620.6110379.83 1620.5110414.77 1618.6810417.07 1618.57
 10417.8 1618.5910433.55  1618.910443.79 1618.4610445.51 1618.5410447.99 1618.39
 10460.8 1619.3310464.01 1619.55 10496.8 1621.1510518.01  1622.110521.22 1622.62
10526.66 1622.4310570.15 1619.5110578.57 1619.0310588.46  1618.510600.75 1617.17
10601.14 1617.1310625.46  1618.8   10626 1618.8510627.15 1618.8710685.43 1620.16
10695.12 1620.1410731.75 1620.2410747.82 1620.11 10751.9 1620.0210766.82 1618.45
10767.59 1618.3710767.81  1618.410791.14 1620.0810798.21 1620.21 10804.1 1620.39
10809.42 1620.57 10811.1 1620.5610816.85 1620.0910848.59 1620.8410859.23 1621.07
10891.29  1621.210895.49 1621.22

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  9547.3    .065 9976.39    .03710071.88    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9976.3910071.88               510  507.71     500            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1620.90   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.48   Wt. n-Val.               0.065      0.037     0.065
  W.S. Elev (ft)           1620.43   Reach Len. (ft)         510.00     507.71    500.00
  Crit W.S. (ft)           1620.43   Flow Area (sq ft)       169.95     164.31    442.23
  E.G. Slope (ft/ft)      0.018580   Area (sq ft)            169.95     164.31    442.23
  Q Total (cfs)            3149.00   Flow (cfs)              512.37    1287.95   1348.67
  Top Width (ft)            790.77   Top Width (ft)          180.76      95.37    514.64
  Vel Total (ft/s)            4.06   Avg. Vel. (ft/s)          3.01       7.84      3.05
  Max Chl Dpth (ft)           3.30   Hydr. Depth (ft)          0.94       1.72      0.86
  Conv. Total (cfs)        23102.0   Conv. (cfs)             3758.9     9448.8    9894.3
  Length Wtd. (ft)          505.31   Wetted Per. (ft)        181.61      95.89    515.36
  Min Ch El (ft)           1617.23   Shear (lb/sq ft)          1.09       1.99      1.00
  Alpha                       1.86   Stream Power (lb/ft s)    3.27      15.58      3.04
  Frctn Loss (ft)             5.77   Cum Volume (acre-ft)     79.19      21.84     31.88
  C & E Loss (ft)             0.08   Cum SA (acres)           77.96      12.10     33.52


Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water
surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)      (sq ft)    (ft)                (ft)      (ft/s)
  9547.30       9761.84         512.37      169.94     178.55     16.27      0.96       3.02
  9761.84       9976.39           0.00        0.01       3.06      0.00      0.00       0.09
  LB 9976.39    RB 10071.88    1287.95      164.31      95.89     40.90      1.72       7.84
  10071.88      10483.69        525.02      190.04     247.64     16.67      0.77       2.76
  10483.69      10895.49        823.66      252.18     267.72     26.16      0.94       3.27


Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water
surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
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section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 21.248

INPUT
Description: SEC. 21.248
Station Elevation Data num= 105

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9553.01	1614.35	9564.48	1614.23	9588.21	1613.93	9593.97	1611.98	9594.12	1611.93
9594.42	1611.93	9605.33	1611.95	9618.47	1613.01	9620.75	1613.18	9621.23	1613.27
9627.88	1613.3	9647.97	1613.42	9648.25	1613.8	9650.47	1613.79	9679.44	1613.5
9694.04	1613.47	9699.31	1613.32	9716.14	1612.68	9725.1	1612.09	9728.42	1611.86
9731.63	1612.14	9738.99	1613.01	9742.63	1613.38	9752.82	1613.49	9761.61	1613.23
9765.32	1613.05	9776.66	1613.08	9780.49	1613.35	9785.5	1613.7	9786.73	1613.77
9819.75	1614.29	9838.72	1614.25	9843.68	1614.23	9848	1614.25	9857.49	1615.06
9860.41	1615.24	9893.99	1614.91	9904.05	1614.86	9924.81	1614.66	9972.77	1614.77
9978.55	1614.75	9984.36	1611.88	9986.69	1610.88	9996.43	1611.33	10000	1611.46
10007.27	1611.75	10016.44	1612.96	10023.8	1613.91	10080.23	1613.84	10087	1613.84
10088.55	1613.73	10099.74	1613.06	10109.98	1613.59	10118.63	1613.84	10128.11	1614.21
10132.46	1614.33	10138.66	1614.39	10145.59	1614.36	10151.2	1614.43	10169.91	1614.36
10211.87	1614.22	10238.21	1614.02	10251.66	1614.58	10256.83	1614.75	10266.41	1614.43
10280.08	1614.05	10288.82	1613.91	10301.14	1614.37	10308.06	1614.26	10328.04	1613.76
10334.85	1613.52	10347.62	1611.97	10349.15	1611.84	10350.66	1612.02	10363.95	1613.71
10380.05	1614.04	10388.16	1614.21	10450.9	1614.31	10457.43	1614.24	10461.01	1614.15
10474.28	1613.92	10481.89	1614.05	10491.4	1613.63	10503.79	1611.39	10505.83	1611.11
10511.7	1611.91	10524.76	1613.62	10542.41	1614.37	10543.53	1614.41	10556.58	1614.73
10560.04	1614.82	10573.24	1615.26	10615.03	1616.48	10633.77	1616.32	10656.97	1616.51
10663.68	1616.42	10666.45	1616.34	10671.56	1616.21	10682.82	1615.81	10686.06	1615.94
10690.08	1616.22	10704.17	1616.42	10746.51	1616.91	10755.07	1616.86	10762.2	1616.84

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9553.01	.065	9972.77	.037	10023.8	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9972.77	10023.8	500	506.9	510	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1615.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.21	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1614.84	Reach Len. (ft)	500.00	506.90	510.00
Crit W.S. (ft)		Flow Area (sq ft)	424.17	122.81	492.56
E.G. Slope (ft/ft)	0.007252	Area (sq ft)	424.17	122.81	492.56
Q Total (cfs)	2654.00	Flow (cfs)	1005.22	744.27	904.51
Top Width (ft)	956.61	Top Width (ft)	368.70	51.03	536.88
Vel Total (ft/s)	2.55	Avg. Vel. (ft/s)	2.37	6.06	1.84
Max Chl Dpth (ft)	3.96	Hydr. Depth (ft)	1.15	2.41	0.92
Conv. Total (cfs)	31165.8	Conv. (cfs)	11804.3	8739.9	10621.6
Length Wtd. (ft)	504.25	Wetted Per. (ft)	369.96	52.06	537.62
Min Ch El (ft)	1610.88	Shear (lb/sq ft)	0.52	1.07	0.41
Alpha	2.08	Stream Power (lb/ft s)	1.23	6.47	0.76
Frctn Loss (ft)	5.98	Cum Volume (acre-ft)	75.71	20.17	26.51
C & E Loss (ft)	0.01	Cum SA (acres)	74.74	11.25	27.48

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less

than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9553.01	9762.89	881.18	332.62	211.08	33.20	1.58	2.65
9762.89	9972.77	124.04	91.55	158.88	4.67	0.58	1.35
LB 9972.77	RB 10023.80	744.27	122.81	52.06	28.04	2.41	6.06
10023.80	10393.00	576.07	323.86	369.52	21.71	0.88	1.78
10393.00	10762.20	328.44	168.70	168.10	12.38	1.01	1.95

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 21.152

INPUT
Description: SEC.21.152 REV.03-14-02
Station Elevation Data num= 103

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9137.54	1609.43	9139.43	1609.47	9151.49	1608.72	9156.99	1608.56	9170.14	1608.39
9190.27	1608.06	9192.14	1608.08	9197.86	1608.19	9207.85	1608.35	9210.14	1608.41
9214.28	1608.35	9233.51	1608.05	9248.16	1608.03	9272.83	1607.8	9283.52	1607.63
9289.11	1607.6	9355.35	1608.03	9359.23	1608.08	9391.51	1607.25	9394.92	1607.17
9395.02	1607.16	9396.46	1607.13	9408.9	1606.85	9410.1	1606.8	9412.45	1607.05
9428.67	1608.53	9488.26	1608.42	9498.22	1608.41	9512.59	1608.44	9579.27	1607.58
9586.61	1607.51	9590.02	1606.89	9598.26	1605.44	9609.2	1606.78	9612.42	1607.14
9673.04	1608.05	9707.58	1608.55	9710.49	1608.6	9714.37	1608.61	9721.13	1608.49
9736.39	1608.24	9767.44	1608.03	9773.21	1608.09	9789.36	1607.7	9798.08	1607.49
9800.1	1607.59	9877.72	1608.6	9905.41	1608.75	9924.75	1609.13	9963.13	1609.53
9967.76	1608.4	9973	1607.21	9994.17	1606.78	10000	1606.62	10003.23	1606.54
10020.11	1609.16	10020.71	1609.25	10021.23	1609.24	10036.54	1608.92	10061.65	1608.39
10062.46	1608.37	10062.72	1608.34	10072.19	1606.61	10073.6	1607.06	10081.53	1607.41
10082.98	1607.62	10083.3	1607.61	10083.89	1607.54	10094.29	1608.49	10096.11	1608.64
10109.11	1608.86	10175.48	1609.71	10188.68	1609.93	10193.03	1609.97	10202.27	1610.04
10217.13	1609.49	10243.64	1608.38	10258.28	1607.77	10262.42	1607.87	10277.46	1608.39
10288.1	1608.75	10290.15	1608.89	10294.89	1608.94	10324.59	1609.58	10333.48	1609.64
10364.07	1607.8	10372.99	1607.28	10375.92	1606.92	10385.06	1605.72	10392.28	1607.39
10396.65	1608.58	10409.01	1609.53	10419.63	1609.48	10426.85	1608.19	10434.63	1608.5
10442.06	1608.62	10447.91	1608.49	10451.25	1608.36	10464.13	1609.51	10467.69	1609.84
10483.54	1610.25	10502.34	1610.59	10537.46	1610.46				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9137.54	.065	9963.13	.03	10020.71	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9963.13 10020.71 520 512.2 460 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
10409.01	10537.46	1609.53

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1609.06	Element			
Vel Head (ft)	0.31	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1608.75	Reach Len. (ft)	520.00	512.20	460.00
Crit W.S. (ft)	1608.73	Flow Area (sq ft)	576.62	77.01	132.66
E.G. Slope (ft/ft)	0.021913	Area (sq ft)	576.62	77.01	132.66
Q Total (cfs)	2654.00	Flow (cfs)	1630.82	598.80	424.38
Top Width (ft)	967.15	Top Width (ft)	754.26	51.13	161.76
Vel Total (ft/s)	3.38	Avg. Vel. (ft/s)	2.83	7.78	3.20
Max Chl Dpth (ft)	3.31	Hydr. Depth (ft)	0.76	1.51	0.82
Conv. Total (cfs)	17928.8	Conv. (cfs)	11016.8	4045.1	2866.8
Length Wtd. (ft)	513.66	Wetted Per. (ft)	754.69	51.49	162.60
Min Ch El (ft)	1606.54	Shear (lb/sq ft)	1.05	2.05	1.12
Alpha	1.77	Stream Power (lb/ft s)	2.96	15.91	3.57
Frctn Loss (ft)	6.31	Cum Volume (acre-ft)	69.97	19.01	22.85
C & E Loss (ft)	0.07	Cum SA (acres)	68.29	10.66	23.39

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9137.54	9550.33	754.73	282.17	399.43	28.44	0.71	2.67
9550.33	9963.13	876.09	294.45	355.26	33.01	0.83	2.98
LB 9963.13	RB 10020.71	598.80	77.01	51.49	22.56	1.51	7.78
10020.71	10279.08	168.17	66.61	102.54	6.34	0.65	2.52
10279.08	10537.46	256.21	66.05	60.06	9.65	1.11	3.88

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 21.055

INPUT
Description: SEC.21.055 REV.03-14-02
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
8980.46	1602.64	8983.32	1602.67	8997.96	1601.25	9000.58	1600.99	9001.9	1601
9018.76	1601.07	9024.23	1601.19	9031.96	1601.36	9042.44	1601.59	9049.9	1601.77
9067.4	1600.71	9085.38	1599.69	9094.88	1601.2	9097.31	1601.61	9102.03	1601.55
9115.79	1601.35	9128.86	1601.43	9148.58	1601.33	9155.11	1601.67	9163.27	1602.27
9177.56	1602.48	9186.75	1602.46	9198.42	1602.18	9217.53	1602.1	9226.58	1602.11
9246.23	1601.98	9248.44	1602	9252.94	1602.01	9255.35	1602.02	9269.8	1602.12
9283.33	1601.92	9287.86	1601.84	9298.28	1601.51	9309.42	1601.2	9323.45	1601.4
9335.13	1599.89	9337.11	1599.73	9341.58	1600.33	9352.56	1601.52	9356.39	1601.53
9362.24	1601.44	9425.42	1601.92	9432	1601.94	9442.19	1601.96	9534.23	1601.69
9548.38	1601.71	9561	1601.6	9561.7	1601.6	9576.18	1601.49	9583.92	1601.44
9594.11	1600.08	9600.47	1599.17	9609.32	1599.65	9619.01	1600.16	9627.32	1600.35

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 9643.08 1600.71 9652.27  1600.9 9654.72 1600.98 9657.57 1600.91 9678.07 1600.53
 9690.17 1599.83 9693.64 1599.56 9704.04 1600.17 9708.63 1600.54 9742.35 1602.29
 9744.55 1602.43 9747.07  1602.5 9760.97 1603.67 9770.76 1603.97 9771.88 1604.05
 9778.51  1604.5 9799.01 1602.31  9800.3 1602.18 9802.87 1601.92 9827.55 1601.99
 9845.48 1602.03 9857.47 1600.36  9858.1 1600.26 9859.12 1600.37 9871.76 1601.71
 9882.53 1601.94 9894.08  1602.1 9907.52  1602.3 9911.17  1602.5 9924.36  1602.7
 9933.37 1602.74 9940.54 1602.61 9961.54 1602.78 9975.04 1602.92 9979.16 1602.86
 9992.31 1601.32 9992.51 1601.29 9992.78 1601.28   10000 1600.92 10006.6  1600.6
10009.36 1601.0810018.97 1602.8210029.88 1602.9410042.29 1603.0910052.58 1603.58
10053.46 1603.6310078.23 1603.6510097.57 1603.7210107.08 1603.7210117.31 1603.65
10155.44 1603.49 10177.2 1603.6710195.07  1603.510200.89  1602.610208.84 1601.46
10227.56 1604.2310227.74 1604.2610264.56  1604.110296.63 1604.1910297.63 1604.19

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 8980.46    .065 9975.04    .03710042.29    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9975.0410042.29                350   554.4     575             .1      .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1602.69   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.08   Wt. n-Val.               0.065      0.037      0.065
  W.S. Elev (ft)           1602.60   Reach Len. (ft)         350.00     554.40     575.00
  Crit W.S. (ft)                     Flow Area (sq ft)      1018.14      41.91       8.96
  E.G. Slope (ft/ft)       0.007519  Area (sq ft)           1018.14      41.91       8.96
  Q Total (cfs)            2409.00   Flow (cfs)             2237.36     159.50      12.14
  Top Width (ft)            938.02   Top Width (ft)          885.92      36.41      15.69
  Vel Total (ft/s)            2.25   Avg. Vel. (ft/s)          2.20       3.81       1.36
  Max Chl Dpth (ft)           3.43   Hydr. Depth (ft)          1.15       1.15       0.57
  Conv. Total (cfs)        27782.4   Conv. (cfs)            25802.9     1839.5      140.1
  Length Wtd. (ft)          416.42   Wetted Per. (ft)        887.05      36.68      15.85
  Min Ch El (ft)           1600.60   Shear (lb/sq ft)          0.54       0.54       0.27
  Alpha                       1.07   Stream Power (lb/ft s)    1.18       2.04       0.36
  Frctn Loss (ft)             4.75   Cum Volume (acre-ft)     60.45      18.31      22.11
  C & E Loss (ft)             0.03   Cum SA (acres)           58.51      10.14      22.46


Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)      (sq ft)    (ft)                (ft)      (ft/s)
  8980.46       9477.75        1012.94     503.53     494.30     42.05      1.02       2.01
  9477.75       9975.04        1224.42     514.62     392.75     50.83      1.31       2.38
  LB 9975.04    RB 10042.29     159.50      41.91      36.68      6.62      1.15       3.81
  10042.29      10169.96
  10169.96      10297.63         12.14       8.96      15.85      0.50      0.57       1.36


Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
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CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 20.950

INPUT
Description: SEC.20.950 REV.03-14-02
Station Elevation Data num= 112

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9107.81	1598.63	9127.49	1598.95	9138.58	1596.76	9143.7	1595.8	9148.6	1596.07
9152.84	1596.24	9172.31	1596.68	9179.26	1596.78	9184.04	1596.92	9216.61	1597.04
9226.15	1597.06	9239.78	1597.18	9245.05	1597.23	9246.73	1597.24	9249.16	1597.27
9265.33	1597.4	9276.53	1597.51	9300.93	1597.43	9325.7	1597.47	9341.05	1597.41
9350.58	1597.89	9358.18	1598.04	9375.87	1597.91	9378.56	1597.9	9380.76	1597.88
9381.63	1597.86	9382.61	1597.84	9383.5	1597.84	9396.34	1597.8	9411.04	1597.05
9420.04	1596.46	9428.83	1596.29	9444.17	1595.39	9445.62	1595.38	9456.01	1595.97
9460.79	1596.27	9469.39	1596.95	9477.53	1597.5	9479.84	1597.61	9483.81	1597.7
9487.9	1597.69	9506.41	1597.73	9520.18	1597.4	9523.92	1597.37	9538.14	1597.26
9539.89	1597.26	9543.46	1597.33	9591.67	1597.89	9596.72	1597.91	9602	1598.08
9608.79	1598.22	9612.84	1598.23	9616.08	1598.32	9621.15	1598.47	9623.92	1598.4
9648.34	1598.43	9653.37	1598.43	9673.91	1598.3	9739.77	1596.92	9760.16	1596.51
9763.52	1595.94	9767.97	1595.07	9777.14	1595.19	9790.87	1595.23	9798.43	1595.24
9800.87	1595.28	9820.79	1596.12	9836.18	1596.78	9838.01	1596.86	9850.19	1597.38
9860.23	1597.14	9884.56	1596.78	9889.43	1597.33	9891.82	1597.42	9904.39	1598.13
9904.56	1598.12	9904.72	1598.12	9981.08	1597.42	9988.86	1595.16	9990.34	1594.77
9992.49	1594.62	10000	1594.13	10003.26	1593.91	10009.24	1595.39	10011.65	1595.95
10031.88	1596.29	10053.66	1596.73	10058.28	1597.06	10067.96	1597.79	10078.12	1597.63
10096.25	1597.89	10099.51	1597.97	10102.88	1597.41	10112.82	1595.71	10117.73	1596.06
10129.41	1597.11	10129.83	1597.11	10140.79	1596.36	10144.6	1595.91	10148.42	1596.22
10156.38	1597.03	10195.29	1596.46	10208.82	1596.21	10224.75	1595.83	10225.14	1595.82
10225.22	1595.82	10225.53	1595.86	10235.57	1597.07	10272.37	1598.52	10297.06	1599.57
10298.56	1599.56	10301.99	1599.47						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9107.81	.065	9981.08	.037	10067.96	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

Left	Right	Left	Channel	Right	Coeff Contr.	Expan.
9981.08	10067.96	520	512.57	520	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1597.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1597.50	Reach Len. (ft)	520.00	512.57	520.00
Crit W.S. (ft)	1597.34	Flow Area (sq ft)	360.19	128.67	136.32
E.G. Slope (ft/ft)	0.018690	Area (sq ft)	360.19	128.67	136.32
Q Total (cfs)	2409.00	Flow (cfs)	1057.82	941.22	409.96
Top Width (ft)	734.90	Top Width (ft)	507.91	82.98	144.01
Vel Total (ft/s)	3.85	Avg. Vel. (ft/s)	2.94	7.32	3.01
Max Chl Dpth (ft)	3.59	Hydr. Depth (ft)	0.71	1.55	0.95
Conv. Total (cfs)	17621.3	Conv. (cfs)	7737.7	6884.8	2998.8
Length Wtd. (ft)	517.46	Wetted Per. (ft)	508.46	83.66	144.42
Min Ch El (ft)	1593.91	Shear (lb/sq ft)	0.83	1.79	1.10
Alpha	1.77	Stream Power (lb/ft s)	2.43	13.13	3.31
Frctn Loss (ft)	6.13	Cum Volume (acre-ft)	54.91	17.22	21.15
C & E Loss (ft)	0.08	Cum SA (acres)	52.91	9.38	21.40

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9107.81	9544.45	412.30	170.71	305.82	17.12	0.56	2.42
9544.45	9981.08	645.52	189.48	202.64	26.80	0.94	3.41
LB 9981.08	RB 10067.96	941.22	128.67	83.66	39.07	1.55	7.32
10067.96	10184.97	210.12	73.26	82.93	8.72	0.89	2.87
10184.97	10301.99	199.84	63.07	61.49	8.30	1.03	3.17

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 20.853

INPUT
Description: SEC.20.853 REV.03-14-02
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9118.26	1594.29	9151.79	1594.8	9162.04	1594.69	9166.77	1594.79	9178.58	1594.44
9182.15	1592.93	9184.71	1592.35	9188.42	1591.87	9202.43	1589.21	9209.19	1590.34
9218.69	1591.37	9239.41	1591.5	9247.43	1591.6	9250.42	1591.69	9264.53	1591.29
9274.95	1591	9278.16	1590.82	9286.32	1590.24	9295.32	1590.65	9299.09	1590.8
9308.55	1590.92	9321.26	1590.97	9363.29	1591.34	9380.95	1590.48	9386.97	1590.11
9391.13	1590.23	9391.46	1590.24	9410.3	1591.17	9412.47	1591.28	9419.29	1591.62
9426.66	1591.43	9431.04	1591.18	9447.04	1591.29	9460.51	1591.39	9468.59	1591.21
9503.05	1590.37	9505.34	1590.1	9511.15	1589.71	9520.12	1590.65	9523.75	1591.09
9524.77	1591.07	9529.64	1591.05	9544.51	1590.82	9548.77	1590.97	9556.69	1591.35
9588.54	1591.62	9596.95	1591.67	9604.36	1591.5	9647.98	1590.55	9652.36	1589.91
9663.3	1587.97	9666.03	1587.77	9674.92	1587.28	9687.66	1589.31	9693.84	1590.26
9702.13	1590.47	9724.66	1591.05	9732.79	1591.27	9737.25	1591.44	9753.75	1591.7
9800.52	1591.5	9827.91	1591.6	9833	1591.62	9840.54	1591.63	9852.78	1591.52
9860.26	1591.5	9881.04	1591.65	9884.65	1591.71	9886.38	1591.71	9892.03	1591.76
9907.04	1591.72	9920.59	1591.56	9933.19	1591.43	9950.69	1590.88	9952.17	1590.85
9956.2	1590.78	9961.81	1590.68	9962.41	1590.66	9969.24	1590.46	9971.99	1590.3
9974.51	1589.86	9980.74	1588.6	9995.22	1588.6	10000	1588.67	10007.58	1588.78
10011.1	1589.23	10017.55	1590.49	10032.68	1590.91	10060.49	1591.67	10071.26	1591.83
10077.36	1591.99	10095.06	1592.19	10108.62	1591.54	10132.69	1590.55	10133.86	1590.5
10134.32	1590.48	10151.12	1588.74	10151.5	1588.71	10159.14	1589.09	10167.76	1589.51
10167.96	1589.52	10169.47	1589.53	10210.08	1590.22	10213.68	1590.21	10222.82	1590.21
10239.31	1590.6	10248.86	1590.99	10278.28	1589.91	10287.99	1589.55	10291.62	1589.05
10301.47	1587.62	10305.21	1588.22	10322.43	1591.58	10326.78	1592.46	10336.12	1592.31

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9118.26	.065	9933.19	.037	10060.49	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9933.19	10060.49	510	491	460	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1591.69	Element	Left OB	Channel	Right OB

Vel Head (ft)	0.15	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1591.54	Reach Len. (ft)	510.00	491.00	460.00
Crit W.S. (ft)		Flow Area (sq ft)	408.53	161.68	332.54
E.G. Slope (ft/ft)	0.008162	Area (sq ft)	408.53	161.68	332.54
Q Total (cfs)	2409.00	Flow (cfs)	784.88	703.82	920.30
Top Width (ft)	899.70	Top Width (ft)	563.31	122.69	213.71
Vel Total (ft/s)	2.67	Avg. Vel. (ft/s)	1.92	4.35	2.77
Max Chl Dpth (ft)	4.26	Hydr. Depth (ft)	0.73	1.32	1.56
Conv. Total (cfs)	26664.3	Conv. (cfs)	8687.5	7790.3	10186.4
Length Wtd. (ft)	488.17	Wetted Per. (ft)	564.44	123.03	214.39
Min Ch El (ft)	1588.60	Shear (lb/sq ft)	0.37	0.67	0.79
Alpha	1.36	Stream Power (lb/ft s)	0.71	2.92	2.19
Frctn Loss (ft)	5.55	Cum Volume (acre-ft)	50.32	15.51	18.35
C & E Loss (ft)	0.03	Cum SA (acres)	46.51	8.17	19.27

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9118.26	9525.72	348.84	201.32	319.09	14.48	0.63	1.73
9525.72	9933.19	436.04	207.20	245.35	18.10	0.85	2.10
LB 9933.19	RB 10060.49	703.82	161.68	123.03	29.22	1.32	4.35
10060.49	10198.30	394.25	141.25	89.90	16.37	1.57	2.79
10198.30	10336.12	526.05	191.29	124.49	21.84	1.54	2.75

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 20.760

INPUT
Description: SEC.20.760 REV.03-14-02
Station Elevation Data num= 100

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9102.65	1588.44	9115.24	1588.37	9142.88	1587.55	9163.18	1587.03	9187.61	1587.23
9188.72	1587.13	9196.79	1586.65	9213.62	1586.11	9225.76	1585.39	9246.4	1584.81
9249.06	1584.72	9250.54	1584.96	9253.35	1585.47	9254.52	1585.5	9260.64	1585.59
9263.91	1585.05	9271.51	1584.12	9278.04	1585.66	9280.96	1586.3	9302.65	1585.87
9302.94	1585.86	9303.48	1585.94	9320.48	1588.03	9344.4	1587.8	9394.25	1587.28
9440.04	1587.51	9475.59	1587.7	9480.34	1587.7	9521.87	1587.2	9527.23	1587.34
9531.7	1587.31	9542.34	1587.34	9578.89	1587.89	9580.77	1587.83	9583.3	1587.75
9603.73	1587.1	9610.95	1584.68	9614.2	1583.5	9618.17	1582.04	9622.18	1582.73
9628.25	1583.85	9640.73	1584.26	9642.08	1584.31	9663.33	1584.48	9670.22	1584.48
9682.77	1584.75	9749.75	1584.81	9767.32	1584.68	9771.26	1584.36	9780.58	1583.45
9784.52	1583.1	9800.02	1585.17	9801.65	1585.34	9823.02	1585.58	9840.28	1585.41
9855.83	1585.44	9929.26	1586.48	9936.89	1586.58	9938.18	1586.56	9938.63	1586.53
9940.89	1586.38	9966.33	1584.51	9974.27	1583.68	9979.39	1583.15	9994.02	1583.64
9994.2	1583.65	9994.22	1583.65	9996.9	1583.64	10000	1583.61	10019.99	1583.42
10024.35	1584.14	10034.57	1586.19	10067.46	1586.72	10100.68	1586.43	10120.71	1586.08

10153.97 1585.4310169.12 1585.12 10177.3 1584.9610184.97 1585.4910185.92 1585.53
10208.14 1585.4910217.67 1585.6210237.77 1585.2210260.02 1584.9210263.27 1584.65
10273.89 1583.4110277.64 1583.6410279.36 1583.7610297.71 1583.3810298.98 1583.29
10300.08 1583.1610310.72 1583.8310312.38 1583.9610317.21 1584.0110327.05 1584.05
10331.88 1584.4310333.67 1584.5910348.69 1585.33 10354.1 1585.3910365.79 1585.27

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9102.65	.065	9940.89	.03710034.57		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9940.8	10034.57	575	512.2	460	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1586.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.43	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1585.69	Reach Len. (ft)	575.00	512.20	460.00
Crit W.S. (ft)	1585.54	Flow Area (sq ft)	300.04	137.59	195.67
E.G. Slope (ft/ft)	0.017006	Area (sq ft)	300.04	137.59	195.67
Q Total (cfs)	2409.00	Flow (cfs)	862.79	1016.06	530.14
Top Width (ft)	630.24	Top Width (ft)	323.19	81.83	225.21
Vel Total (ft/s)	3.80	Avg. Vel. (ft/s)	2.88	7.38	2.71
Max Chl Dpth (ft)	3.65	Hydr. Depth (ft)	0.93	1.68	0.87
Conv. Total (cfs)	18472.9	Conv. (cfs)	6616.2	7791.5	4065.3
Length Wtd. (ft)	536.05	Wetted Per. (ft)	324.59	82.17	225.85
Min Ch El (ft)	1583.15	Shear (lb/sq ft)	0.98	1.78	0.92
Alpha	1.91	Stream Power (lb/ft s)	2.82	13.13	2.49
Frctn Loss (ft)	6.41	Cum Volume (acre-ft)	46.18	13.83	15.56
C & E Loss (ft)	0.06	Cum SA (acres)	41.32	7.02	16.95

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9102.65	9521.77	71.27	34.05	57.88	2.96	0.59	2.09
9521.77	9940.89	791.52	265.99	266.71	32.86	1.00	2.98
LB 9940.89	RB 10034.57	1016.07	137.59	82.17	42.18	1.68	7.38
10034.57	10200.18	25.83	19.64	59.63	1.07	0.33	1.32
10200.18	10365.79	504.31	176.03	166.22	20.93	1.06	2.86

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 20.663

INPUT
Description: SEC.20.663 REV.03-14-02
Station Elevation Data num= 113

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9035	1581.6	9050.05	1581.64	9056.95	1581.69	9094.54	1580.42	9118.71	1579.96
9124.14	1579.8	9143.45	1579.21	9171.29	1577.79	9172.5	1577.66	9183.57	1576.76
9193.95	1577.82	9203.75	1578.85	9217.16	1577.14	9221.64	1576.76	9223.76	1576.51
9234.71	1578.93	9237.36	1579.11	9240.75	1578.9	9257.15	1578.1	9267.05	1579.08
9278.64	1580.44	9285.52	1580.38	9288.17	1580.32	9319.69	1579.79	9319.84	1579.77
9320.55	1579.77	9324.81	1579.63	9359.93	1578.55	9368.69	1578.3	9385.93	1578.74
9391.84	1578.92	9399.67	1579.2	9419.21	1579.99	9420.5	1579.99	9423.55	1579.96
9436.41	1580.02	9469.3	1580.49	9493.37	1580.12	9499.54	1580.04	9501.4	1580.02
9504.22	1579.94	9528.26	1579.94	9537.74	1580.03	9561.85	1579.95	9562.33	1579.94
9563.49	1579.98	9577.98	1580.25	9581.4	1580.36	9584.78	1580.08	9593.17	1579.23
9598.57	1578.79	9609.48	1578.17	9623.31	1577.64	9628.99	1577.54	9633.5	1577.55
9636.49	1577.57	9636.79	1577.53	9653.97	1577.89	9663.93	1578.1	9669.29	1578.14
9701.14	1578.1	9710.85	1578.09	9720.29	1578.09	9730.1	1577.97	9741.06	1578.06
9751.42	1577.94	9762.74	1578.03	9773.06	1578	9784.26	1578.12	9795.54	1578.17
9806.5	1578.17	9817.44	1578.27	9828.47	1578.3	9839.87	1578.36	9850.07	1578.41
9860.56	1578.47	9870.93	1578.53	9881.84	1578.64	9892.35	1578.7	9903.42	1578.89
9909.57	1579.01	9915.9	1579.11	9924.58	1579.14	9933.47	1579.22	9944.68	1579.05
9956.08	1578.63	9967.44	1578.25	9977.73	1578.05	9990.76	1577.61	10000	1577.56
10000.44	1577.56	10013.3	1577.54	10023.16	1577.47	10036.36	1577.51	10044.64	1577.6
10057.5	1577.99	10068.31	1578.29	10081.4	1578.45	10092.26	1578.64	10104.61	1578.76
10116.36	1578.86	10127.55	1579.05	10139.56	1579.18	10151.95	1579.27	10162.29	1579.45
10173.38	1579.52	10185.54	1579.49	10194.9	1579.45	10207.77	1579.41	10216.64	1579.35
10230.16	1579.22	10240.47	1579.17	10248.14	1579.15				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9035	.065	9977.73	.037	10057.5	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9977.73	10057.5	450	496.3	470	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10173.38	10248.14	1579.52

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1579.65	Element	0.065	0.037	0.065
Vel Head (ft)	0.22	Wt. n-Val.	450.00	496.30	470.00
W.S. Elev (ft)	1579.43	Reach Len. (ft)	646.15	144.07	66.15
Crit W.S. (ft)		Flow Area (sq ft)	646.15	144.07	66.15
E.G. Slope (ft/ft)	0.008866	Area (sq ft)	1495.64	807.83	105.52
Q Total (cfs)	2409.00	Flow (cfs)	594.41	79.77	103.67
Top Width (ft)	777.85	Top Width (ft)	2.31	5.61	1.60
Vel Total (ft/s)	2.81	Avg. Vel. (ft/s)	1.09	1.81	0.64
Max Chl Dpth (ft)	2.92	Hydr. Depth (ft)	15884.1	8579.4	1120.7
Conv. Total (cfs)	25584.2	Conv. (cfs)	595.23	79.78	103.68
Length Wtd. (ft)	466.76	Wetted Per. (ft)	0.60	1.00	0.35
Min Ch El (ft)	1577.47	Shear (lb/sq ft)	1.39	5.60	0.56
Alpha	1.77	Stream Power (lb/ft s)	39.93	12.17	14.18
Frctn Loss (ft)	4.77	Cum Volume (acre-ft)	35.27	6.07	15.21
C & E Loss (ft)	0.01	Cum SA (acres)			

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
9035.00	9506.37	469.62	212.15	208.60	19.49	1.02	2.21
9506.37	9977.73	1026.02	434.00	386.63	42.59	1.12	2.36
LB 9977.73	RB 10057.50	807.83	144.07	79.78	33.53	1.81	5.61
10057.50	10152.82	105.30	65.54	95.33	4.37	0.69	1.61
10152.82	10248.14	0.22	0.61	8.35	0.01	0.07	0.36

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 20.569

INPUT
Description: SEC.20.569 REV.03-14-02
Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9211.74	1575.32	9223.19	1575.48	9225.46	1575.35	9246.85	1574.49	9264.6	1573.81
9273.99	1573.29	9284.02	1571.69	9289.21	1570.63	9296.6	1572.54	9297.14	1572.65
9317.57	1573.84	9331.57	1574.64	9332.27	1574.6	9349.17	1573.22	9361.36	1573.93
9366.03	1574.18	9384.77	1574.14	9388.08	1574.13	9405.17	1574.38	9428.34	1574.3
9437.27	1573.11	9440.36	1572.59	9447.31	1573.58	9449.84	1574	9460.14	1574.23
9525.61	1575.86	9531.34	1575.92	9537.19	1576.04	9544.16	1576.3	9561.61	1576.25
9586.72	1576.03	9602.29	1575.91	9615.74	1575.88	9682.5	1573.8	9684.14	1573.76
9685.73	1573.74	9719.61	1573.29	9727.13	1571.61	9730.16	1570.86	9732.57	1571.08
9735.96	1571.44	9744.93	1571.39	9745.36	1571.4	9747.29	1571.51	9771.9	1572.91
9783.74	1572.74	9795.64	1572.5	9800.19	1572.78	9808.57	1573.36	9811.75	1573.45
9813.54	1573.43	9839.54	1573.47	9857.5	1573.42	9903.34	1574.07	9922.71	1574.25
9956.36	1574.27	9962.25	1574.4	9971.68	1574.57	9976.57	1574.63	9978.87	1573.75
9985.46	1571.07	9991.49	1571.61	10000	1571.59	10000.33	1571.59	10005.55	1571.64
10015.74	1573.04	10020.14	1573.71	10023.04	1573.71	10023.92	1573.71	10025.85	1573.72
10045.46	1573.86	10051.91	1573.87	10067.01	1574	10069.24	1574.02	10117.24	1573.81
10157.15	1573.61	10165.89	1573.04	10170.83	1572.75	10178.65	1573.59	10199.21	1575.8
10204.6	1575.83	10223.29	1575.72	10233.02	1575.71	10235.77	1575.71	10238.76	1575.72

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9211.74	.065	9976.57	.037	10023.04	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

9976.57	10023.04	420	485.8	450	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1574.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.34	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1574.52	Reach Len. (ft)	420.00	485.80	450.00
Crit W.S. (ft)	1574.42	Flow Area (sq ft)	529.44	104.63	125.72
E.G. Slope (ft/ft)	0.011776	Area (sq ft)	529.44	104.63	125.72
Q Total (cfs)	2409.00	Flow (cfs)	1371.08	777.13	260.79
Top Width (ft)	742.47	Top Width (ft)	531.98	46.19	164.29
Vel Total (ft/s)	3.17	Avg. Vel. (ft/s)	2.59	7.43	2.07
Max Chl Dpth (ft)	3.89	Hydr. Depth (ft)	1.00	2.27	0.77
Conv. Total (cfs)	22199.0	Conv. (cfs)	12634.6	7161.3	2403.2
Length Wtd. (ft)	457.67	Wetted Per. (ft)	533.28	47.03	164.42
Min Ch El (ft)	1571.07	Shear (lb/sq ft)	0.73	1.64	0.56
Alpha	2.20	Stream Power (lb/ft s)	1.89	12.15	1.17
Frctn Loss (ft)	4.65	Cum Volume (acre-ft)	33.86	10.75	13.14
C & E Loss (ft)	0.02	Cum SA (acres)	29.45	5.35	13.77

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9211.74	9594.16	391.87	177.87	223.09	16.27	0.80	2.20
9594.16	9976.57	979.22	351.57	310.19	40.65	1.13	2.79
LB 9976.57	RB 10023.04	777.13	104.63	47.03	32.26	2.27	7.43
10023.04	10130.90	128.29	70.33	107.86	5.33	0.65	1.82
10130.90	10238.76	132.50	55.39	56.55	5.50	0.98	2.39

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 20.477

INPUT
Description: SEC.20.477 REV.03-14-02
Station Elevation Data num= 101

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9193.34	1570.59	9193.95	1570.6	9204.23	1570.8	9240.08	1568.61	9242.39	1568.49
9245.48	1568.59	9267.32	1569.27	9281.81	1569.63	9283.41	1569.64	9307.2	1569.47
9359.44	1568.39	9362.64	1568.49	9372.42	1566.76	9378.69	1567.67	9392.93	1569.74
9426.52	1569.95	9434.02	1569.99	9467.19	1570.06	9484.85	1570.11	9489.28	1570.06
9504.64	1568.37	9516.89	1568.7	9538.41	1568.65	9540.51	1568.78	9557.1	1569.53
9560	1569.62	9564.22	1569.74	9587.76	1570.56	9609.61	1571.19	9621.99	1571.28
9625.61	1571.31	9645.05	1571.29	9659.45	1571.09	9678.22	1570.95	9702.78	1570.9
9727.67	1570.53	9731.32	1570.71	9734.24	1570.47	9741.51	1569.89	9751.19	1569.16
9759.61	1569.44	9771.82	1569.9	9772.54	1569.92	9773.09	1569.93	9801.7	1570.28
9829.45	1570.39	9838.8	1570.62	9854.98	1570.97	9872.7	1570.91	9885.1	1570.93
9894.11	1570.76	9899.86	1569.15	9901.96	1568.49	9911.2	1569.09	9913.49	1569.23
9937.32	1568.9	9939.08	1568.89	9950.25	1568.24	9979.66	1566.58	9981.05	1566.25
9987.44	1564.99	9993.73	1564.85	10000	1564.73	10002.88	1564.67	10007.84	1566.82
10010.53	1567.94	10014.4	1568.03	10023.76	1568.22	10031.13	1566.98	10036.04	1566.45
10044.21	1568.04	10048.43	1568.73	10079.36	1569.02	10084.49	1569.09	10086.72	1568.96
10099.56	1568.07	10111.51	1568.94	10117.94	1569.31	10119.95	1569.17	10139.77	1568.91
10182.08	1568.7	10183.65	1568.75	10187.99	1568.92	10219.03	1569.99	10220.97	1570.26
10235.44	1569.78	10258.34	1568.37	10265.74	1568.41	10274.79	1568.52	10293.7	1568.84
10299.84	1568.35	10313.49	1568.59	10315.14	1568.66	10325.51	1569.17	10330.35	1569.24
10347.65	1569.39	10354.58	1569.83	10362.93	1569.55	10363.83	1569.39	10366.29	1569.34
10368.84	1569.3								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9193.34	.065	9939.08	.0371	0023.76	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9939.08	10023.76	495	496.3	470	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10354.58	10368.84	1569.83

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1570.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1569.62	Reach Len. (ft)	495.00	496.30	470.00
Crit W.S. (ft)	1569.62	Flow Area (sq ft)	175.99	226.19	253.45
E.G. Slope (ft/ft)	0.008892	Area (sq ft)	175.99	226.19	253.45
Q Total (cfs)	2409.00	Flow (cfs)	278.37	1637.39	493.24
Top Width (ft)	670.14	Top Width (ft)	287.82	84.68	297.64
Vel Total (ft/s)	3.67	Avg. Vel. (ft/s)	1.58	7.24	1.95
Max Chl Dpth (ft)	4.95	Hydr. Depth (ft)	0.61	2.67	0.85
Conv. Total (cfs)	25547.5	Conv. (cfs)	2952.1	17364.6	5230.9
Length Wtd. (ft)	490.09	Wetted Per. (ft)	288.54	85.58	298.15
Min Ch El (ft)	1564.67	Shear (lb/sq ft)	0.34	1.47	0.47
Alpha	2.72	Stream Power (lb/ft s)	0.54	10.62	0.92
Frctn Loss (ft)	4.96	Cum Volume (acre-ft)	30.46	8.91	11.18
C & E Loss (ft)	0.04	Cum SA (acres)	25.50	4.62	11.38

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9193.34	9566.21	237.88	146.30	228.22	9.87	0.64	1.63
9566.21	9939.08	40.49	29.69	60.32	1.68	0.49	1.36
LB 9939.08	RB 10023.76	1637.39	226.19	85.58	67.97	2.67	7.24
10023.76	10196.30	347.23	167.53	172.98	14.41	0.97	2.07
10196.30	10368.84	146.02	85.92	125.17	6.06	0.69	1.70

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 20.383

INPUT
Description: SEC.20.383 REV.03-14-02
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9190.24	1564.48	9193.7	1564.5	9199.21	1564.63	9224.2	1564.58	9245.72	1564.1
9302.6	1563.42	9305.4	1563.84	9343.61	1565.18	9348.23	1565.31	9405.94	1564.39
9409.32	1564.3	9412.99	1563.86	9431	1561.48	9444.63	1563.87	9454.01	1565.44
9462.15	1565.47	9471.8	1565.54	9477.09	1565.42	9491.08	1565.39	9492.7	1565.39
9494.81	1565.38	9511.04	1563.62	9521.19	1562.69	9522.65	1562.37	9524.58	1561.99
9535.45	1562.69	9539.78	1563.11	9543.69	1563.19	9567.07	1563.33	9572.18	1563.46

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 9578.66 1563.54 9581.62 1563.52 9591.12 1563.39 9611.99 1563.45 9618.98 1563.67
 9626.97 1564.17 9658.95 1564.21 9713.64 1564.34 9715.43 1564.34  9716.2 1564.34
 9717.02 1564.34 9717.22 1564.35  9717.8 1564.38 9736.62 1565.33 9755.39 1565.12
 9789.89 1564.85 9801.01 1564.79 9816.63 1563.81 9826.85 1563.43 9827.76 1563.15
  9860.2 1565.61 9862.84  1565.8 9865.62 1566.03  9878.3 1565.98 9900.82 1565.88
 9929.39 1564.13 9961.66 1562.37 9962.47 1562.36 9962.88 1562.33 9972.19 1562.04
 9986.01 1561.65 9988.13 1561.55 9990.66 1561.26   10000 1560.04 10001.3 1559.87
10005.29 1560.3710011.52 1561.3910020.54 1562.3810021.57 1562.4710046.22 1563.12
 10047.1 1563.1410047.19 1563.1710048.13 1563.6210049.27 1564.1710051.32 1564.26
10069.89 1563.2610070.25  1563.210078.31 1563.0110090.84 1562.6710091.08 1562.66
10091.35 1562.6610113.37 1562.6210133.74 1562.5510134.49 1562.5610156.68 1562.49
10157.58  1562.510178.69 1562.5210179.82 1562.5310201.94 1562.82 10203.3 1562.86
10222.88 1564.0610224.69 1564.1610243.58 1565.2810246.24 1565.5110262.29  1566.8
10265.46 1566.8810276.89    1567

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9190.24    .065 9929.39    .03710051.32    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9929.3910051.32              500   501.6     504             .1       .3
Blocked Obstructions      num=       1
   Sta L   Sta R    Elev
 9190.24 9348.23 1565.31

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1564.54   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.43   Wt. n-Val.                0.065      0.037      0.065
  W.S. Elev (ft)            1564.10   Reach Len. (ft)          500.00     501.60     504.00
  Crit W.S. (ft)            1563.96   Flow Area (sq ft)        157.34     220.21     213.48
  E.G. Slope (ft/ft)       0.011599   Area (sq ft)             157.34     220.21     213.48
  Q Total (cfs)             2409.00   Flow (cfs)               366.74    1429.23     613.03
  Top Width (ft)             471.31   Top Width (ft)           182.69     119.23     169.40
  Vel Total (ft/s)             4.08   Avg. Vel. (ft/s)           2.33       6.49       2.87
  Max Chl Dpth (ft)            4.23   Hydr. Depth (ft)           0.86       1.85       1.26
  Conv. Total (cfs)         22368.2   Conv. (cfs)              3405.3    13270.8     5692.2
  Length Wtd. (ft)           501.51   Wetted Per. (ft)         183.38     119.80     169.47
  Min Ch El (ft)            1559.87   Shear (lb/sq ft)           0.62       1.33       0.91
  Alpha                        1.68   Stream Power (lb/ft s)     1.45       8.64       2.62
  Frctn Loss (ft)              5.31   Cum Volume (acre-ft)      28.56       6.37       8.66
  C & E Loss (ft)              0.07   Cum SA (acres)            22.82       3.46       8.86


Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta        Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)         (ft)             (cfs)    (sq ft)       (ft)                 (ft)     (ft/s)
  9190.24      9559.81         279.98     104.37      88.85      11.62       1.18       2.68
  9559.81      9929.39          86.76      52.97      94.53       3.60       0.56       1.64
  LB 9929.39   RB 10051.32    1429.23     220.21     119.80      59.33       1.85       6.49
  10051.32     10164.11        417.47     142.64     109.89      17.33       1.30       2.93
  10164.11     10276.89        195.56      70.84      59.58       8.12       1.19       2.76


Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
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section. This may indicate the need for additional cross sections.

```
CROSS SECTION          RIVER: SPLIT2
REACH: SPLIT2             RS: 20.288

INPUT
Description: SEC.20.288  REV.03-14-02
Station Elevation Data    num=      83
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  9084.1 1558.96 9087.88 1558.85 9089.44 1558.81 9089.94 1558.84 9091.99 1558.89
 9126.42 1559.35 9126.56 1559.35 9126.57 1559.35 9126.58 1559.35 9139.37 1559.61
 9183.39 1559.72 9200.73 1559.68 9270.25 1559.47 9296.67 1559.77 9325.26 1559.38
 9359.61 1558.96 9415.05 1557.85  9422.7 1557.76 9423.75 1557.74 9426.55 1557.74
 9430.54 1557.76 9473.75  1557.8 9489.92  1557.8 9516.57 1558.55 9523.09 1558.58
 9524.76 1558.58 9533.61 1558.58 9572.46 1557.92  9581.1 1558.25  9600.1 1558.68
 9622.57 1558.65 9645.86 1558.53 9650.68 1558.63 9654.97 1558.74 9686.98 1559.44
 9692.79 1559.16 9695.88 1559.01 9724.61 1557.84 9749.16 1556.76 9749.87 1556.76
 9751.09 1556.75 9756.52 1556.66 9805.45 1556.08 9817.49 1557.03  9821.8 1557.39
 9826.62 1557.36 9839.01 1557.64 9857.46 1558.06 9888.68 1558.44 9912.22 1558.78
 9917.41 1558.85 9926.92  1558.6 9938.06 1558.04 9940.53 1557.99 9944.86 1557.99
 9973.91 1557.71 9975.92 1557.58   10000 1556.2210000.25  1556.210000.27  1556.2
10020.16 1557.2710031.41 1557.71 10035.1 1557.8510038.01  1557.910063.63 1558.33
10071.67 1558.1710078.21 1558.0710082.85 1557.3710089.04 1556.5410104.77 1556.75
10109.86 1556.8310112.48 1557.0210115.83 1557.1410143.03 1558.6610159.82 1559.37
10174.39 1559.3410180.01 1559.4210206.33  1559.610219.68 1559.7910222.18    1560
10269.83 1562.5410279.34 1562.7110280.18 1562.66

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  9084.1    .065 9973.91    .03710063.63    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9973.9110063.63              410   517.4     495             .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
  9084.1 9183.39 1559.72

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1559.15   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.21   Wt. n-Val.                0.065      0.037     0.065
  W.S. Elev (ft)            1558.95   Reach Len. (ft)          410.00     517.40    495.00
  Crit W.S. (ft)                      Flow Area (sq ft)        563.90     141.75    117.20
  E.G. Slope (ft/ft)        0.009792  Area (sq ft)             563.90     141.75    117.20
  Q Total (cfs)             2409.00   Flow (cfs)              1320.37     763.63    325.01
  Top Width (ft)             756.52   Top Width (ft)           580.62      89.72     86.18
  Vel Total (ft/s)             2.93   Avg. Vel. (ft/s)           2.34       5.39      2.77
  Max Chl Dpth (ft)            2.87   Hydr. Depth (ft)           0.97       1.58      1.36
  Conv. Total (cfs)         24344.7   Conv. (cfs)             13343.3     7717.0    3284.4
  Length Wtd. (ft)           464.63   Wetted Per. (ft)         580.80      89.81     86.35
  Min Ch El (ft)            1556.20   Shear (lb/sq ft)           0.59       0.96      0.83
  Alpha                        1.54   Stream Power (lb/ft s)     1.39       5.20      2.30
  Frctn Loss (ft)              4.62   Cum Volume (acre-ft)      24.43       4.28      6.75
  C & E Loss (ft)              0.03   Cum SA (acres)            18.44       2.26      7.38


Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1
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Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9084.10	9529.00	302.29	142.35	168.75	12.55	0.84	2.12
9529.00	9973.91	1018.07	421.55	412.05	42.26	1.02	2.42
LB 9973.91	RB 10063.63	763.63	141.75	89.81	31.70	1.58	5.39
10063.63	10171.90	325.01	117.20	86.35	13.49	1.36	2.77

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 20.190

INPUT
Description: SEC.20.190 REV.03-14-02
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9054.84	1556.02	9084.18	1556.42	9101.8	1555.82	9102.57	1555.83	9123.58	1556.06
9141.25	1556.36	9143.04	1556.39	9146.9	1556.12	9178	1553.17	9187.33	1553.55
9193.43	1553.81	9211.2	1554.26	9236.84	1555.21	9245.42	1555.1	9292.15	1554.53
9301.18	1553.99	9305.57	1554.04	9321.88	1554.06	9353.46	1553.67	9356.16	1553.6
9379.76	1553.24	9384.55	1553.32	9403.14	1554.09	9407.57	1554.25	9437.7	1553.6
9439.44	1553.57	9440.21	1553.51	9441.73	1553.26	9447.46	1552.27	9454.91	1553.28
9456.81	1553.61	9459.74	1553.5	9463.84	1553.55	9474.72	1553.53	9486.62	1553.53
9503.34	1553.48	9505.7	1553.5	9516.5	1553.31	9523.37	1553.33	9539.36	1553.07
9549.64	1552.89	9576.53	1552.71	9589.74	1552.67	9597.12	1552.55	9600.56	1551.9
9615.87	1552.69	9616.08	1552.7	9616.97	1552.71	9681.42	1553.29	9705.59	1553.66
9730.9	1554.03	9739.21	1554.16	9758.47	1553.61	9791.47	1552.76	9792.57	1552.73
9794.51	1552.43	9803.1	1551.11	9805.58	1551.3	9818.92	1552.43	9835.68	1552.95
9847.07	1553.14	9869.27	1553.55	9881.85	1553.73	9903.4	1553.74	9934.72	1553.39
9941.8	1553.14	9945.3	1552.07	9950.41	1550.33	9954.17	1551.44	9958.67	1552.19
9964.63	1551.8	9974.24	1551.42	9979.34	1551.37	9990.44	1551.37	10000	1550.72
10000.3	1550.710010.11		1552.0910018.58		1553.310027.64		1553.2510035.39		1553.2
10035.4	1553.210041.48		1553.2810065.62		1553.610085.79		1553.810092.87		1553.46
10095.75	1553.3410096.71		1553.310100.42		1553.510106.67		1553.910113.33		1553.95
10127.12	1554.110136.98		1554.0310139.37		1554.0110156.08		1553.8910165.09		1553.97
10169.66	1554.03 10172.1		1553.8510175.01		1553.7410193.66		1553.2110194.67		1553.17
10195.88	1553.2510204.82		1553.8410234.59		1555.8210236.82		1555.9810239.52		1556.06
10260.61	1555.5310263.46		1555.6410271.94		1555.610286.57		1555.6610291.66		1555.67
10295.55	1555.6810348.95		1556.2810363.41		1556.4810365.57		1556.4810367.69		1556.43

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9054.84	.065	9934.72	.03710018.58		.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9934.7210018.58 190 242.62 295 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
9054.84	9236.84	1555.21

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1554.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1554.05	Reach Len. (ft)	190.00	242.62	295.00
Crit W.S. (ft)	1554.05	Flow Area (sq ft)	471.16	193.25	72.84
E.G. Slope (ft/ft)	0.010152	Area (sq ft)	471.16	193.25	72.84

Q Total (cfs)	2409.00	Flow (cfs)	958.68	1354.52	95.80
Top Width (ft)	859.56	Top Width (ft)	598.32	83.86	177.38
Vel Total (ft/s)	3.27	Avg. Vel. (ft/s)	2.03	7.01	1.32
Max Chl Dpth (ft)	3.72	Hydr. Depth (ft)	0.79	2.30	0.41
Conv. Total (cfs)	23908.9	Conv. (cfs)	9514.8	13443.4	950.8
Length Wtd. (ft)	234.96	Wetted Per. (ft)	598.86	84.76	177.46
Min Ch El (ft)	1550.33	Shear (lb/sq ft)	0.50	1.44	0.26
Alpha	2.75	Stream Power (lb/ft s)	1.01	10.13	0.34
Frctn Loss (ft)	1.44	Cum Volume (acre-ft)	19.55	2.29	5.67
C & E Loss (ft)	0.11	Cum SA (acres)	12.89	1.23	5.89

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9054.84	9494.78	103.17	76.52	169.65	4.28	0.45	1.35
9494.78	9934.72	855.51	394.65	429.21	35.51	0.92	2.17
LB 9934.72	RB 10018.58	1354.52	193.25	84.76	56.23	2.30	7.01
10018.58	10193.13	85.36	65.70	162.61	3.54	0.40	1.30
10193.13	10367.69	10.43	7.15	14.85	0.43	0.48	1.46

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 20.144

INPUT
Description: SEC.20.144 REV.03-14-02
Station Elevation Data num= 137

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9040.36	1552.88	9040.78	1552.87	9053.06	1552.58	9060.95	1552.43	9068.38	1552.6
9082.44	1552.76	9128.54	1553.52	9166.8	1554.17	9173.26	1554.11	9191.76	1554.06
9197.44	1554.11	9214.01	1553.35	9234.35	1551.91	9235.68	1551.82	9236.42	1551.76
9261.83	1550.96	9273.12	1550.29	9279.93	1551.22	9280.42	1551.29	9286.97	1550.95
9292.97	1551.08	9296.61	1551.17	9311.13	1551.5	9333.73	1552.32	9347.17	1552.63
9372.42	1552.59	9379.77	1552.36	9386.68	1552.25	9395.49	1552.25	9421.38	1551.98
9445.8	1551.66	9459	1551.68	9473.56	1551.77	9479.37	1551.14	9484.57	1550.67

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 9489.78 1551.27  9491.1 1551.48 9506.61 1551.15 9512.54 1551.01 9538.97 1551.68
 9545.06 1551.74  9555.6 1551.56 9564.44 1550.56 9567.38 1550.24 9584.59 1551.32
 9586.08 1551.54 9598.25 1551.74 9617.59 1551.93  9631.7 1551.39  9670.3  1550.6
 9686.84 1550.61 9712.83 1550.96 9715.87 1550.92 9726.65 1550.26 9728.77 1550.25
 9738.74  1550.2 9747.96 1550.18 9763.65 1550.23 9771.82 1550.02 9786.15 1551.62
 9789.19 1551.88  9854.2 1551.46 9862.06  1551.4 9864.65 1551.29 9877.73 1550.54
 9894.87 1551.36 9904.42 1551.75 9927.38 1550.47 9930.22 1550.29 9931.15  1550.3
 9945.96 1550.24 9961.77 1550.63 9963.62 1550.68 9964.74 1550.67 9966.14 1550.68
 9985.33 1550.52 9992.87 1548.99 9993.67 1548.84   10000 1549.3910005.37 1549.87
10011.36 1550.3910011.92 1550.4410012.78 1550.5210028.32 1551.7210034.98 1551.96
10035.43 1551.9610036.63 1551.9510046.18 1551.8310054.94 1551.5610068.22  1551.1
10074.18 1550.7810078.55 1550.3810088.81 1549.7610090.05 1549.7510091.38 1549.67
10105.57 1549.3710110.43 1549.1710122.25 1550.2910133.27 1551.3510142.22 1551.36
10156.63 1551.3510186.11 1551.3610217.62  1551.610263.95 1551.9710271.68 1551.97
10272.43 1551.9910281.32 1552.1610303.24 1552.0110311.06 1552.4810317.83  1552.9
10332.49 1552.7710333.98 1552.7510348.63 1552.5310357.38 1552.24   10368 1551.82
10378.26 1551.3810388.96 1550.9410397.93 1550.6210410.86 1550.2310422.36 1550.07
10433.99 1549.7810444.89 1549.6910455.64 1549.7110460.99 1549.6610470.63 1549.89
10481.24 1550.0510485.07 1550.29 10493.9 1550.3510507.81 1550.4410518.92 1550.57
10529.76 1550.69 10540.2 1551.07 10550.3 1551.1910561.61 1551.4810571.64 1551.67
10583.56 1551.71   10588 1551.72

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9040.36    .065 9966.14    .03710034.98    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9966.1410034.98              250   274.6     375            .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 9040.36 9347.17 1552.63

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1552.29   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.07   Wt. n-Val.                0.065      0.037      0.065
  W.S. Elev (ft)            1552.22   Reach Len. (ft)          250.00     274.60     375.00
  Crit W.S. (ft)                      Flow Area (sq ft)        595.08     120.61     615.08
  E.G. Slope (ft/ft)       0.004088   Area (sq ft)             595.08     120.61     615.08
  Q Total (cfs)             2409.00   Flow (cfs)               896.82     448.79    1063.39
  Top Width (ft)            1138.63   Top Width (ft)           567.88      68.84     501.91
  Vel Total (ft/s)             1.81   Avg. Vel. (ft/s)           1.51       3.72       1.73
  Max Chl Dpth (ft)            3.38   Hydr. Depth (ft)           1.05       1.75       1.23
  Conv. Total (cfs)         37677.3   Conv. (cfs)             14026.5    7019.2    16631.6
  Length Wtd. (ft)           285.87   Wetted Per. (ft)         568.37      69.13     502.67
  Min Ch El (ft)            1548.84   Shear (lb/sq ft)           0.27       0.45       0.31
  Alpha                        1.45   Stream Power (lb/ft s)     0.40       1.66       0.54
  Frctn Loss (ft)              3.02   Cum Volume (acre-ft)      17.23       1.42       3.34
  C & E Loss (ft)              0.03   Cum SA (acres)            10.35       0.80       3.59


Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water
surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1
```

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9040.36	9503.25	53.07	56.58	105.10	2.20	0.54	0.94
9503.25	9966.14	843.76	538.50	463.27	35.03	1.16	1.57
LB 9966.14	RB 10034.98	448.79	120.61	69.13	18.63	1.75	3.72
10034.98	10311.49	361.65	256.96	271.95	15.01	0.95	1.41
10311.49	10588.00	701.74	358.12	230.71	29.13	1.56	1.96

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 20.092

INPUT
Description: SEC.20.092 REV.03-14-02
Station Elevation Data num= 105

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9060.05	1551.07	9094.81	1550.59	9105.69	1550.59	9125.96	1550.26	9153.79	1549.82
9158.32	1549.78	9162.99	1549.74	9166.88	1549.81	9195.51	1549.91	9213.3	1549.57
9215.84	1549.52	9221.15	1549.42	9250.44	1548.75	9259.14	1548.3	9269.94	1548.38
9292.96	1549.37	9293.26	1549.36	9330.51	1548.38	9404.84	1547.89	9419.32	1547.61
9430.12	1547.48	9438.66	1547.67	9502.58	1548.68	9512.99	1548.86	9531.98	1548.91
9582.04	1548.78	9588.16	1548.84	9594.28	1547.94	9604.35	1546.94	9607.71	1547.46
9611.98	1548.45	9627.42	1548.32	9636.85	1548.16	9658.49	1547.95	9667.29	1547.79
9672.98	1548.12	9682.49	1548.67	9689.06	1548.56	9698.85	1548.57	9704.81	1548.57
9706.16	1548.57	9708.18	1548.44	9713.07	1548.13	9714.91	1548.14	9721.28	1548.14
9723.59	1548.36	9745.59	1548.21	9767.9	1548.3	9780.63	1548.37	9792.93	1546.35
9798	1546.11	9799.68	1545.74	9819.13	1547.27	9828.3	1548.37	9844.13	1548.38
9858.39	1548.32	9874.41	1547.87	9878.49	1547.74	9879.73	1547.78	9882	1547.89
9893.13	1547.99	9904.82	1548.5	9912.29	1548.62	9922.17	1549.07	9930.84	1549.19
9938.09	1549.27	9943.68	1549.22	9945.44	1549.32	9955.32	1549.02	9984.59	1549.26
9988.88	1549.18	9989.68	1549.3	9990.69	1549.14	9996.24	1548.07	10000	1548.26
10012.72	1548.88	10019.84	1549.26	10032.86	1549.21	10043.85	1549.14	10049.04	1549.01
10068.48	1548.55	10075.96	1548.36	10077.9	1548.36	10090.46	1548.74	10111.19	1549.27
10122.27	1549.19	10163.69	1548.89	10167.12	1548.85	10215.6	1548.06	10222.39	1548.55
10238.79	1549.49	10242.52	1549.36	10258.1	1548.57	10262.86	1548.28	10266.01	1548.17
10274.27	1547.92	10280.38	1547.61	10295.65	1550.79	10307.57	1552.14	10322.21	1555.33
10324.84	1555.66	10328.25	1556.61	10342.71	1556.3	10348.5	1556.38	10350.63	1556.35

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9060.05	.065	9984.59	.037	10019.84	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9984.59 10019.84 360 374.9 390 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
9060.05	9292.96	1549.37

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1549.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.36	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1548.89	Reach Len. (ft)	360.00	374.90	390.00

Crit W.S. (ft)	1548.89	Flow Area (sq ft)	437.98	8.59	61.10
E.G. Slope (ft/ft)	0.068469	Area (sq ft)	437.98	8.59	61.10
Q Total (cfs)	2409.00	Flow (cfs)	2138.33	49.64	221.03
Top Width (ft)	757.03	Top Width (ft)	593.80	20.98	142.25
Vel Total (ft/s)	4.75	Avg. Vel. (ft/s)	4.88	5.78	3.62
Max Chl Dpth (ft)	3.15	Hydr. Depth (ft)	0.74	0.41	0.43
Conv. Total (cfs)	9206.4	Conv. (cfs)	8172.0	189.7	844.7
Length Wtd. (ft)	362.30	Wetted Per. (ft)	594.52	21.08	142.46
Min Ch El (ft)	1548.07	Shear (lb/sq ft)	3.15	1.74	1.83
Alpha	1.02	Stream Power (lb/ft s)	15.37	10.07	6.63
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	14.26	1.01	0.43
C & E Loss (ft)	0.10	Cum SA (acres)	7.02	0.52	0.81

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9060.05	9522.32	721.85	150.96	211.31	29.96	0.71	4.78
9522.32	9984.59	1416.48	287.02	383.21	58.80	0.75	4.94
LB 9984.59	RB 10019.84	49.64	8.59	21.08	2.06	0.41	5.78
10019.84	10185.23	32.99	15.06	64.31	1.37	0.23	2.19
10185.23	10350.63	188.03	46.05	78.15	7.81	0.59	4.08

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 20.021

INPUT
Description: SEC.20.021 REV.03-14-02
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9089.11	1548.09	9089.7	1548.07	9096.29	1548.02	9107.83	1548	9124.93	1547.66
9143.82	1547.26	9220.88	1545.92	9240.5	1546.13	9246.35	1546.15	9257.55	1546.31
9303.41	1546.45	9311.54	1545.78	9322.96	1544.73	9340.19	1543.27	9345.21	1542.87
9356.18	1543.87	9359.55	1544.16	9361.16	1544.26	9409.15	1544.35	9412.54	1544.35
9413.54	1544.38	9489.64	1544.34	9545.07	1543.91	9595.56	1544.16	9603.69	1544.37
9612.47	1544.11	9623.68	1544.28	9649.57	1544.32	9686.91	1544.25	9704.07	1544.3
9715.96	1544.4	9722.99	1543.89	9725.12	1543.81	9728.35	1544.03	9737.27	1544.71

```
 9749.71  1544.9 9756.21 1544.95 9759.49 1544.75 9773.94 1543.82 9775.93 1543.99
 9787.16 1545.21 9790.38 1545.22 9793.15 1545.23 9839.71 1544.94 9840.02 1544.91
 9840.89 1544.89 9849.92 1544.57 9863.14 1545.17 9867.92 1545.27 9868.54  1545.1
  9887.2 1544.93 9917.49  1545.4 9924.25  1545.6 9930.97 1545.64 9938.75 1545.73
 9946.68 1545.77 9954.98 1546.21  9962.6 1546.58 9970.06 1545.56    9973 1544.96
 9991.68 1544.86   10000 1545.0310010.52 1545.2310013.13 1545.2910024.58 1546.74
10029.96  1547.310042.22 1546.8610059.44  1546.310068.94 1549.0510098.23 1557.72
10098.49 1557.7210111.44 1557.7710113.49 1556.8110115.09 1556.18

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val      Sta   n Val
 9089.11    .065  9962.6    .03710029.96    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        9962.610029.96               100    89.8      60            .1      .3
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CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1547.73	Element			
Vel Head (ft)	0.02	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1547.71	Reach Len. (ft)	100.00	89.80	60.00
Crit W.S. (ft)		Flow Area (sq ft)	2295.92	151.37	30.60
E.G. Slope (ft/ft)	0.000450	Area (sq ft)	2295.92	151.37	30.60
Q Total (cfs)	2409.00	Flow (cfs)	2174.72	220.61	13.68
Top Width (ft)	941.87	Top Width (ft)	840.16	67.36	34.35
Vel Total (ft/s)	0.97	Avg. Vel. (ft/s)	0.95	1.46	0.45
Max Chl Dpth (ft)	4.84	Hydr. Depth (ft)	2.73	2.25	0.89
Conv. Total (cfs)	113597.6	Conv. (cfs)	102549.9	10402.8	644.9
Length Wtd. (ft)	96.94	Wetted Per. (ft)	840.64	67.62	34.57
Min Ch El (ft)	1544.86	Shear (lb/sq ft)	0.08	0.06	0.02
Alpha	1.06	Stream Power (lb/ft s)	0.07	0.09	0.01
Frctn Loss (ft)	0.12	Cum Volume (acre-ft)	2.97	0.32	0.02
C & E Loss (ft)	0.05	Cum SA (acres)	1.09	0.14	0.02

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9089.11	9525.86	829.52	964.82	403.65	34.43	2.39	0.86
9525.86	9962.60	1345.20	1331.10	436.99	55.84	3.05	1.01
LB 9962.60	RB 10029.96	220.61	151.37	67.62	9.16	2.25	1.46
10029.96	10072.53	13.68	30.60	34.57	0.57	0.89	0.45

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT2
REACH: SPLIT2 RS: 20.004

INPUT
Description: SEC.20.004. SPLIT NO. 2 STARTS AT CAP STA.253+00 OVERCHUTE WHICH CONSISTS OF 1-72 IN. I.D. X 221 FT. LONG STEEL PIPE WITH SQ. EDGE

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            CONC. HDWALL WITH INLET I.E.=1540.78 AND OUTLET I.E.=1539.54 (MAP
            DATUM).
STARTING WSEL IS BASED ON NORMAL DEPTH S=0.01
            FT./FT..
SECS. ARE CODED FROM LT. TO RT. LOOGING D/S WITH STA.
            10000 AT HYD. B.L.
SEC. I.D.'S ARE IN RIVER MILES INCR. U/S
            W/STA.20.0
AT INLET HEADWALL.
Station Elevation Data    num=      29
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9846.34 1543.93  9849.9 1543.85 9871.98 1543.75 9885.02 1543.72 9890.46 1543.99
 9898.99 1544.33 9910.91 1544.47 9924.33 1544.87 9931.94 1545.02 9948.31 1545.14
 9956.19 1545.42 9972.88 1544.83 9979.87 1544.66 9990.57 1543.46 9998.44 1543.99
   10000 1543.9710006.82 1543.9110012.42 1544.4410014.56  1544.410025.58 1548.46
10031.63 1549.17 10041.3 1550.4610054.68 1552.0710070.04 1554.31 10075.2 1555.05
10090.36 1557.2710094.14 1557.2310101.43 1557.36 10109.1 1557.43

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9846.34    .065 9956.19    .03710025.58    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9956.1910025.58                0       0       0             .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1547.55   Element                 Left OB    Channel   Right OB
  Vel Head (ft)               0.55   Wt. n-Val.                0.065      0.037
  W.S. Elev (ft)           1547.01   Reach Len. (ft)
  Crit W.S. (ft)           1546.35   Flow Area (sq ft)         289.41     160.91
  E.G. Slope (ft/ft)      0.010001   Area (sq ft)              289.41     160.91
  Q Total (cfs)            2409.00   Flow (cfs)               1238.81    1170.19
  Top Width (ft)            175.30   Top Width (ft)            109.85      65.45
  Vel Total (ft/s)            5.35   Avg. Vel. (ft/s)            4.28       7.27
  Max Chl Dpth (ft)           3.55   Hydr. Depth (ft)            2.63       2.46
  Conv. Total (cfs)        24089.2   Conv. (cfs)              12387.7    11701.6
  Length Wtd. (ft)                   Wetted Per. (ft)          112.96      66.04
  Min Ch El (ft)           1543.46   Shear (lb/sq ft)            1.60       1.52
  Alpha                       1.23   Stream Power (lb/ft s)      6.85      11.06
  Frctn Loss (ft)                    Cum Volume (acre-ft)
  C & E Loss (ft)                    Cum SA (acres)


FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)             (cfs)    (sq ft)      (ft)                  (ft)     (ft/s)
  9846.34      9901.27         800.71     172.13      58.02      33.24       3.13       4.65
  9901.27      9956.19         438.10     117.28      54.94      18.19       2.14       3.74
  LB 9956.19   RB 10025.58    1170.19     160.91      66.04      48.58       2.46       7.27



SUMMARY OF MANNING'S N VALUES

River:SPLIT2

      Reach          River Sta.       n1        n2        n3
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SPLIT2	22.212	.065	.037	.065
SPLIT2	22.161	.065	.037	.065
SPLIT2	22.114	.065	.037	.065
SPLIT2	22.066	.065	.037	.065
SPLIT2	22.019	.065	.037	.065
SPLIT2	21.970	.065	.037	.065
SPLIT2	21.923	.065	.037	.065
SPLIT2	21.875	.065	.037	.065
SPLIT2	21.827	.065	.037	.065
SPLIT2	21.774	.065	.037	.065
SPLIT2	21.719	.065	.037	.065
SPLIT2	21.631	.065	.037	.065
SPLIT2	21.544	.065	.037	.065
SPLIT2	21.443	.065	.037	.065
SPLIT2	21.346	.065	.037	.065
SPLIT2	21.248	.065	.037	.065
SPLIT2	21.152	.065	.037	.065
SPLIT2	21.055	.065	.037	.065
SPLIT2	20.950	.065	.037	.065
SPLIT2	20.853	.065	.037	.065
SPLIT2	20.760	.065	.037	.065
SPLIT2	20.663	.065	.037	.065
SPLIT2	20.569	.065	.037	.065
SPLIT2	20.477	.065	.037	.065
SPLIT2	20.383	.065	.037	.065
SPLIT2	20.288	.065	.037	.065
SPLIT2	20.190	.065	.037	.065
SPLIT2	20.144	.065	.037	.065
SPLIT2	20.092	.065	.037	.065
SPLIT2	20.021	.065	.037	.065
SPLIT2	20.004	.065	.037	.065

SUMMARY OF REACH LENGTHS

River: SPLIT2

Reach	River Sta.	Left	Channel	Right
SPLIT2	22.212	260	269.3	270
SPLIT2	22.161	232.6	248.28	255
SPLIT2	22.114	245	247.37	240
SPLIT2	22.066	260	248.2	245
SPLIT2	22.019	235	256.53	255
SPLIT2	21.970	264.63	246.7	254.52
SPLIT2	21.923	240	253.4	265
SPLIT2	21.875	250	252.04	261.36
SPLIT2	21.827	285	279.8	265
SPLIT2	21.774	250	274.78	255
SPLIT2	21.719	435	462.91	480
SPLIT2	21.631	425	459.4	460
SPLIT2	21.544	500	533.3	525
SPLIT2	21.443	600	512.2	450
SPLIT2	21.346	510	507.71	500
SPLIT2	21.248	500	506.9	510
SPLIT2	21.152	520	512.2	460
SPLIT2	21.055	350	554.4	575
SPLIT2	20.950	520	512.57	520
SPLIT2	20.853	510	491	460

SPLIT2	20.760	575	512.2	460
SPLIT2	20.663	450	496.3	470
SPLIT2	20.569	420	485.8	450
SPLIT2	20.477	495	496.3	470
SPLIT2	20.383	500	501.6	504
SPLIT2	20.288	410	517.4	495
SPLIT2	20.190	190	242.62	295
SPLIT2	20.144	250	274.6	375
SPLIT2	20.092	360	374.9	390
SPLIT2	20.021	100	89.8	60
SPLIT2	20.004	0	0	0

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: SPLIT2

Reach	River Sta.	Contr.	Expan.
SPLIT2	22.212	.1	.3
SPLIT2	22.161	.1	.3
SPLIT2	22.114	.1	.3
SPLIT2	22.066	.1	.3
SPLIT2	22.019	.1	.3
SPLIT2	21.970	.1	.3
SPLIT2	21.923	.1	.3
SPLIT2	21.875	.1	.3
SPLIT2	21.827	.1	.3
SPLIT2	21.774	.1	.3
SPLIT2	21.719	.1	.3
SPLIT2	21.631	.1	.3
SPLIT2	21.544	.1	.3
SPLIT2	21.443	.1	.3
SPLIT2	21.346	.1	.3
SPLIT2	21.248	.1	.3
SPLIT2	21.152	.1	.3
SPLIT2	21.055	.1	.3
SPLIT2	20.950	.1	.3
SPLIT2	20.853	.1	.3
SPLIT2	20.760	.1	.3
SPLIT2	20.663	.1	.3
SPLIT2	20.569	.1	.3
SPLIT2	20.477	.1	.3
SPLIT2	20.383	.1	.3
SPLIT2	20.288	.1	.3
SPLIT2	20.190	.1	.3
SPLIT2	20.144	.1	.3
SPLIT2	20.092	.1	.3
SPLIT2	20.021	.1	.3
SPLIT2	20.004	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
(cfs)	(ft)	(ft)		(ft)		(ft)	(ft/ft)	(ft/s)		(sq ft)	(ft)
SPLIT2	**22.212**	**3149.00**	**1667.07**	**1672.62**		**1673.91**	**0.008455**	**10.05**	**409.06**	**107.96**	**0.80**

SPLIT2	22.161	3149.00	1664.86	1669.94		1671.36	0.010629	10.67	400.74	121.26	0.92
SPLIT2	22.114	3149.00	1662.76	1666.92	1666.92	1668.32	0.014264	11.38	410.68	139.44	1.05
SPLIT2	22.066	3149.00	1660.18	1664.32		1665.03	0.009332	9.17	579.20	201.03	0.85
SPLIT2	22.019	3149.00	1657.23	1661.15	1661.15	1662.00	0.016326	8.88	531.67	306.79	1.03
SPLIT2	21.970	3149.00	1654.56	1658.68		1659.14	0.007900	7.46	764.63	375.67	0.75
SPLIT2	21.923	3149.00	1652.09	1655.78	1655.78	1656.37	0.015575	8.86	715.46	524.73	1.01
SPLIT2	21.875	3149.00	1649.47	1653.08		1653.39	0.009005	6.69	919.91	615.26	0.77
SPLIT2	21.827	3149.00	1646.40	1649.71	1649.71	1650.23	0.018839	7.64	718.47	650.54	1.05
SPLIT2	21.774	3149.00	1642.06	1646.50		1646.85	0.005814	5.66	886.78	531.61	0.63
SPLIT2	21.719	3149.00	1637.51	1643.16	1643.16	1644.27	0.017316	9.14	419.55	204.20	1.06
SPLIT2	21.631	3149.00	1633.05	1637.64	1637.64	1638.17	0.007434	7.63	918.67	765.53	0.74
SPLIT2	21.544	3149.00	1628.53	1632.06	1632.06	1632.59	0.014983	7.87	794.41	761.17	0.97
SPLIT2	21.443	3149.00	1622.85	1626.44		1626.73	0.007995	6.50	1129.37	1056.30	0.73
SPLIT2	21.346	3149.00	1617.23	1620.43	1620.43	1620.90	0.018580	7.84	776.49	790.77	1.05
SPLIT2	21.248	2654.00	1610.88	1614.84		1615.05	0.007252	6.06	1039.54	956.61	0.69
SPLIT2	21.152	2654.00	1606.54	1608.75	1608.73	1609.06	0.021913	7.78	786.29	967.15	1.12
SPLIT2	21.055	2409.00	1600.60	1602.60		1602.69	0.007519	3.81	1069.01	938.02	0.63
SPLIT2	20.950	2409.00	1593.91	1597.50	1597.34	1597.90	0.018690	7.32	625.18	734.90	1.04
SPLIT2	20.853	2409.00	1588.60	1591.54		1591.69	0.008162	4.35	902.75	899.70	0.67
SPLIT2	20.760	2409.00	1583.15	1585.69	1585.54	1586.12	0.017006	7.38	633.30	630.24	1.00
SPLIT2	20.663	2409.00	1577.47	1579.43		1579.65	0.008866	5.61	856.37	777.85	0.74
SPLIT2	20.569	2409.00	1571.07	1574.52	1574.42	1574.87	0.011776	7.43	759.79	742.47	0.87
SPLIT2	20.477	2409.00	1564.67	1569.62	1569.62	1570.19	0.008892	7.24	655.64	670.14	0.78
SPLIT2	20.383	2409.00	1559.87	1564.10	1563.96	1564.54	0.011599	6.49	591.03	471.31	0.84
SPLIT2	20.288	2409.00	1556.20	1558.95		1559.15	0.009792	5.39	822.85	756.52	0.76
SPLIT2	20.190	2409.00	1550.33	1554.05	1554.05	1554.50	0.010152	7.01	737.25	859.56	0.81
SPLIT2	20.144	2409.00	1548.84	1552.22		1552.29	0.004088	3.72	1330.77	1138.63	0.50
SPLIT2	20.092	2409.00	1548.07	1548.89	1548.89	1549.25	0.068469	5.78	507.68	757.03	1.59
SPLIT2	20.021	2409.00	1544.86	1547.71		1547.73	0.000450	1.46	2477.88	941.87	0.17
SPLIT2	20.004	2409.00	1543.46	1547.01	1546.35	1547.55	0.010001	7.27	450.32	175.30	0.82

Profile Output Table - Standard Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
SPLIT2	22.212	1673.91	1672.62	1.29	2.54	0.01		2493.48	655.52	107.96
SPLIT2	22.161	1671.36	1669.94	1.42	3.04	0.01	178.23	2406.64	564.14	121.26
SPLIT2	22.114	1668.32	1666.92	1.40			751.82	1976.04	421.14	139.44
SPLIT2	22.066	1665.03	1664.32	0.70	3.02	0.01	494.14	1302.65	1352.21	201.03
SPLIT2	22.019	1662.00	1661.15	0.84	2.74	0.11	537.77	1875.71	735.51	306.79
SPLIT2	21.970	1659.14	1658.68	0.46	2.76	0.01	1372.18	1400.03	376.79	375.67
SPLIT2	21.923	1656.37	1655.78	0.58			1768.22	1230.69	150.09	524.73
SPLIT2	21.875	1653.39	1653.08	0.3 1	3.14	0.02	1947.27	1041.93	159.80	615.26
SPLIT2	21.827	1650.23	1649.71	0.52	2.70	0.05	1251.78	1552.58	344.64	650.54
SPLIT2	21.774	1646.85	1646.50	0.34	2.51	0.08	1133.63	2015.37		531.61
SPLIT2	21.719	1644.27	1643.16	1.10	4.96	0.17	607.09	2541.91		204.20
SPLIT2	21.631	1638.17	1637.64	0.53	4.60	0.00	989.20	1751.52	408.28	765.53
SPLIT2	21.544	1632.59	1632.06	0.53			786.47	1531.24	831.29	761.17
SPLIT2	21.443	1626.73	1626.44	0.30	5.81	0.02	376.32	1231.72	1540.96	1056.30
SPLIT2	21.346	1620.90	1620.43	0.48	5.77	0.08	512.37	1287.95	1348.67	790.77
SPLIT2	21.248	1615.05	1614.84	0.21	5.98	0.01	1005.22	744.27	904.51	956.61

SPLIT2	21.152	1609.06	1608.75	0.31	6.31	0.07	1630.82	598.80	424.38	967.15
SPLIT2	21.055	1602.69	1602.60	0.08	4.75	0.03	2237.36	159.50	12.14	938.02
SPLIT2	20.950	1597.90	1597.50	0.41	6.13	0.08	1057.82	941.22	409.96	734.90
SPLIT2	20.853	1591.69	1591.54	0.15	5.55	0.03	784.88	703.82	920.30	899.70
SPLIT2	20.760	1586.12	1585.69	0.43	6.41	0.06	862.79	1016.06	530.14	630.24
SPLIT2	20.663	1579.65	1579.43	0.22	4.77	0.01	1495.64	807.83	105.52	777.85
SPLIT2	20.569	1574.87	1574.52	0.34	4.65	0.02	1371.08	777.13	260.79	742.47
SPLIT2	20.477	1570.19	1569.62	0.57	4.96	0.04	278.37	1637.39	493.24	670.14
SPLIT2	20.383	1564.54	1564.10	0.43	5.31	0.07	366.74	1429.23	613.03	471.31
SPLIT2	20.288	1559.15	1558.95	0.21	4.62	0.03	1320.37	763.63	325.01	756.52
SPLIT2	20.190	1554.50	1554.05	0.46	1.44	0.11	958.68	1354.52	95.80	859.56
SPLIT2	20.144	1552.29	1552.22	0.07	3.02	0.03	896.82	448.79	1063.39	1138.63
SPLIT2	20.092	1549.25	1548.89	0.36	0.56	0.10	2138.33	49.64	221.03	757.03
SPLIT2	20.021	1547.73	1547.71	0.02	0.12	0.05	2174.72	220.61	13.68	941.87
SPLIT2	20.004	1547.55	1547.01	0.55			1238.81	1170.19		175.30

Profile Output Table - TABLE 3

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Sta W.S. Lft (ft)	Sta W.S. Rgt (ft)	Length Chnl (ft)	Froude # Chl	Froude # XS (ft)	Max Chl Dpth
SPLIT2	22.212	3149.00	1667.07	1672.62	9977.33	10085.29	269.30	0.80	0.70	5.55
SPLIT2	22.161	3149.00	1664.86	1669.94	9954.31	10075.57	248.28	0.92	0.76	5.08
SPLIT2	22.114	3149.00	1662.76	1666.92	9917.20	10056.64	247.37	1.05	0.79	4.16
SPLIT2	22.066	3149.00	1660.18	1664.32	9919.27	10120.30	248.20	0.85	0.56	4.14
SPLIT2	22.019	3149.00	1657.23	1661.15	9794.57	10101.36	256.53	1.03	0.79	3.92
SPLIT2	21.970	3149.00	1654.56	1658.68	9728.29	10103.96	246.70	0.75	0.51	4.12
SPLIT2	21.923	3149.00	1652.09	1655.78	9594.79	10119.52	253.40	1.01	0.66	3.69
SPLIT2	21.875	3149.00	1649.47	1653.08	9480.94	10105.13	252.04	0.77	0.49	3.61
SPLIT2	21.827	3149.00	1646.40	1649.71	9444.44	10098.72	279.80	1.05	0.73	3.31
SPLIT2	21.774	3149.00	1642.06	1646.50	9508.67	10040.28	274.78	0.63	0.48	4.44
SPLIT2	21.719	3149.00	1637.51	1643.16	9676.31	10070.36	462.91	1.06	0.92	5.65
SPLIT2	21.631	3149.00	1633.05	1637.64	9607.39	10372.92	459.40	0.74	0.55	4.59
SPLIT2	21.544	3149.00	1628.53	1632.06	9667.21	10530.64	533.30	0.97	0.68	3.59
SPLIT2	21.443	3149.00	1622.85	1626.44	9518.46	10764.78	512.20	0.73	0.48	3.59
SPLIT2	21.346	3149.00	1617.23	1620.43	9547.30	10831.22	507.71	1.05	0.72	3.30
SPLIT2	21.248	2654.00	1610.88	1614.84	9553.01	10560.68	506.90	0.69	0.43	3.96
SPLIT2	21.152	2654.00	1606.54	1608.75	9151.02	10398.85	512.20	1.12	0.66	3.31
SPLIT2	21.055	2409.00	1600.60	1602.60	8984.02	10216.56	554.40	0.63	0.37	3.43
SPLIT2	20.950	2409.00	1593.91	1597.50	9134.85	10246.38	512.57	1.04	0.74	3.59
SPLIT2	20.853	2409.00	1588.60	1591.54	9190.14	10322.25	491.00	0.67	0.47	4.26
SPLIT2	20.760	2409.00	1583.15	1585.69	9220.67	10365.79	512.20	1.00	0.67	3.65
SPLIT2	20.663	2409.00	1577.47	1579.43	9136.24	10161.17	496.30	0.74	0.47	2.92
SPLIT2	20.569	2409.00	1571.07	1574.52	9246.03	10187.33	485.80	0.87	0.55	3.89
SPLIT2	20.477	2409.00	1564.67	1569.62	9223.58	10351.24	496.30	0.78	0.65	4.95
SPLIT2	20.383	2409.00	1559.87	1564.10	9410.97	10223.64	501.60	0.84	0.64	4.23
SPLIT2	20.288	2409.00	1556.20	1558.95	9360.28	10149.81	517.40	0.76	0.49	2.87
SPLIT2	20.190	2409.00	1550.33	1554.05	9300.20	10207.96	242.62	0.81	0.62	3.72
SPLIT2	20.144	2409.00	1548.84	1552.22	9398.26	10588.00	274.60	0.50	0.30	3.38
SPLIT2	20.092	2409.00	1548.07	1548.89	9311.03	10286.57	374.90	1.59	1.02	3.15
SPLIT2	20.021	2409.00	1544.86	1547.71	9122.44	10064.31	89.80	0.17	0.11	4.84
SPLIT2	20.004	2409.00	1543.46	1547.01	9846.34	10021.64		0.82	0.59	3.55

HEC-RAS Plan: Split 2 of P River: SPLIT2 Reach: SPLIT2

Std. Table 1

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
SPLIT2	22.212	3149.00	1667.07	1672.62		1673.91	0.008455	10.05	409.06	107.96	0.80
SPLIT2	22.161	3149.00	1664.86	1669.94		1671.36	0.010629	10.67	400.74	121.26	0.92
SPLIT2	22.114	3149.00	1662.76	1666.92	1666.92	1668.32	0.014264	11.38	410.68	139.44	1.05
SPLIT2	22.066	3149.00	1660.18	1664.32		1665.03	0.009332	9.17	579.20	201.03	0.85
SPLIT2	22.019	3149.00	1657.23	1661.15	1661.15	1662.00	0.016326	8.88	531.67	306.79	1.03
SPLIT2	21.970	3149.00	1654.56	1658.68		1659.14	0.007900	7.46	764.63	375.67	0.75
SPLIT2	21.923	3149.00	1652.09	1655.78	1655.78	1656.37	0.015575	8.86	715.46	524.73	1.01
SPLIT2	21.875	3149.00	1649.47	1653.08		1653.39	0.009005	6.69	919.91	615.26	0.77
SPLIT2	21.827	3149.00	1646.40	1649.71	1649.71	1650.23	0.018839	7.64	718.47	650.54	1.05
SPLIT2	21.774	3149.00	1642.06	1646.50		1646.85	0.005814	5.66	886.78	531.61	0.63
SPLIT2	21.719	3149.00	1637.51	1643.16	1643.16	1644.27	0.017316	9.14	419.55	204.20	1.06
SPLIT2	21.631	3149.00	1633.05	1637.64	1637.64	1638.17	0.007434	7.63	918.67	765.53	0.74
SPLIT2	21.544	3149.00	1628.53	1632.06	1632.06	1632.59	0.014983	7.87	794.41	761.17	0.97
SPLIT2	21.443	3149.00	1622.85	1626.44		1626.73	0.007995	6.50	1129.37	1056.30	0.73
SPLIT2	21.346	3149.00	1617.23	1620.43	1620.43	1620.90	0.018580	7.84	776.49	790.77	1.05
SPLIT2	21.248	2654.00	1610.88	1614.84		1615.05	0.007252	6.06	1039.54	956.61	0.69
SPLIT2	21.152	2654.00	1606.54	1608.75	1608.73	1609.06	0.021913	7.78	786.29	967.15	1.12
SPLIT2	21.055	2409.00	1600.60	1602.60		1602.69	0.007519	3.81	1069.01	938.02	0.63
SPLIT2	20.950	2409.00	1593.91	1597.50	1597.34	1597.90	0.018690	7.32	625.18	734.90	1.04
SPLIT2	20.853	2409.00	1588.60	1591.54		1591.69	0.008162	4.35	902.75	899.70	0.67
SPLIT2	20.760	2409.00	1583.15	1585.69	1585.54	1586.12	0.017006	7.38	633.30	630.24	1.00
SPLIT2	20.663	2409.00	1577.47	1579.43		1579.65	0.008866	5.61	856.37	777.85	0.74
SPLIT2	20.569	2409.00	1571.07	1574.52	1574.42	1574.87	0.011776	7.43	759.79	742.47	0.87
SPLIT2	20.477	2409.00	1564.67	1569.62	1569.62	1570.19	0.008892	7.24	655.64	670.14	0.78
SPLIT2	20.383	2409.00	1559.87	1564.10	1563.96	1564.54	0.011599	6.49	591.03	471.31	0.84
SPLIT2	20.288	2409.00	1556.20	1558.95		1559.15	0.009792	5.39	822.85	756.52	0.76
SPLIT2	20.190	2409.00	1550.33	1554.05	1554.05	1554.50	0.010152	7.01	737.25	859.56	0.81
SPLIT2	20.144	2409.00	1548.84	1552.22		1552.29	0.004088	3.72	1330.77	1138.63	0.50
SPLIT2	20.092	2409.00	1548.07	1548.89	1548.89	1549.25	0.068469	5.78	507.68	757.03	1.59
SPLIT2	20.021	2409.00	1544.86	1547.71		1547.73	0.000450	1.46	2477.88	941.87	0.17
SPLIT2	20.004	2409.00	1543.46	1547.01	1546.35	1547.55	0.010001	7.27	450.32	175.30	0.82

HEC-RAS Plan: Split 2 of P River: SPLIT2 Reach: SPLIT2

Std. Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
SPLIT2	22.212	1673.91	1672.62	1.29	2.54	0.01		2493.48	655.52	107.96
SPLIT2	22.161	1671.36	1669.94	1.42	3.04	0.01	178.23	2406.64	564.14	121.26
SPLIT2	22.114	1668.32	1666.92	1.40			751.82	1976.04	421.14	139.44
SPLIT2	22.066	1665.03	1664.32	0.70	3.02	0.01	494.14	1302.65	1352.21	201.03
SPLIT2	22.019	1662.00	1661.15	0.84	2.74	0.11	537.77	1875.71	735.51	306.79
SPLIT2	21.970	1659.14	1658.68	0.46	2.76	0.01	1372.18	1400.03	376.79	375.67
SPLIT2	21.923	1656.37	1655.78	0.58			1768.22	1230.69	150.09	524.73
SPLIT2	21.875	1653.39	1653.08	0.31	3.14	0.02	1947.27	1041.93	159.80	615.26
SPLIT2	21.827	1650.23	1649.71	0.52	2.70	0.05	1251.78	1552.58	344.64	650.54
SPLIT2	21.774	1646.85	1646.50	0.34	2.51	0.08	1133.63	2015.37		531.61
SPLIT2	21.719	1644.27	1643.16	1.10	4.96	0.17	607.09	2541.91		204.20
SPLIT2	21.631	1638.17	1637.64	0.53	4.60	0.00	989.20	1751.52	408.28	765.53
SPLIT2	21.544	1632.59	1632.06	0.53			786.47	1531.24	831.29	761.17
SPLIT2	21.446	1626.73	1626.44	0.30	5.81	0.02	376.32	1231.72	1540.96	1056.30
SPLIT2	21.346	1620.90	1620.43	0.48	5.77	0.08	512.37	1287.95	1348.67	790.77
SPLIT2	21.248	1615.05	1614.84	0.21	5.98	0.01	1005.22	744.27	904.51	956.61
SPLIT2	21.152	1609.06	1608.75	0.31	6.31	0.07	1630.82	598.80	424.38	967.15
SPLIT2	21.056	1602.69	1602.60	0.08	4.75	0.03	2237.36	159.50	12.14	938.02
SPLIT2	20.950	1597.90	1597.50	0.41	6.13	0.08	1057.82	941.22	409.96	734.90
SPLIT2	20.853	1591.69	1591.54	0.15	5.55	0.03	784.88	703.82	920.30	899.70
SPLIT2	20.760	1586.12	1585.69	0.43	6.41	0.06	862.79	1016.06	530.14	630.24
SPLIT2	20.663	1579.65	1579.43	0.22	4.77	0.01	1495.64	807.83	105.52	777.85
SPLIT2	20.569	1574.87	1574.52	0.34	4.65	0.02	1371.08	777.13	260.79	742.47
SPLIT2	20.477	1570.19	1569.62	0.57	4.96	0.04	278.37	1637.39	493.24	670.14
SPLIT2	20.383	1564.54	1564.10	0.43	5.31	0.07	366.74	1429.23	613.03	471.31
SPLIT2	20.288	1559.15	1558.95	0.21	4.62	0.03	1320.37	763.63	325.01	756.52
SPLIT2	20.190	1554.50	1554.05	0.46	1.44	0.11	958.68	1354.52	95.80	859.56
SPLIT2	20.144	1552.29	1552.22	0.07	3.02	0.03	896.82	448.79	1063.39	1138.63

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HEC-RAS Plan: Split 2 of P River: SPLIT2 Reach: SPLIT2 (Continued)

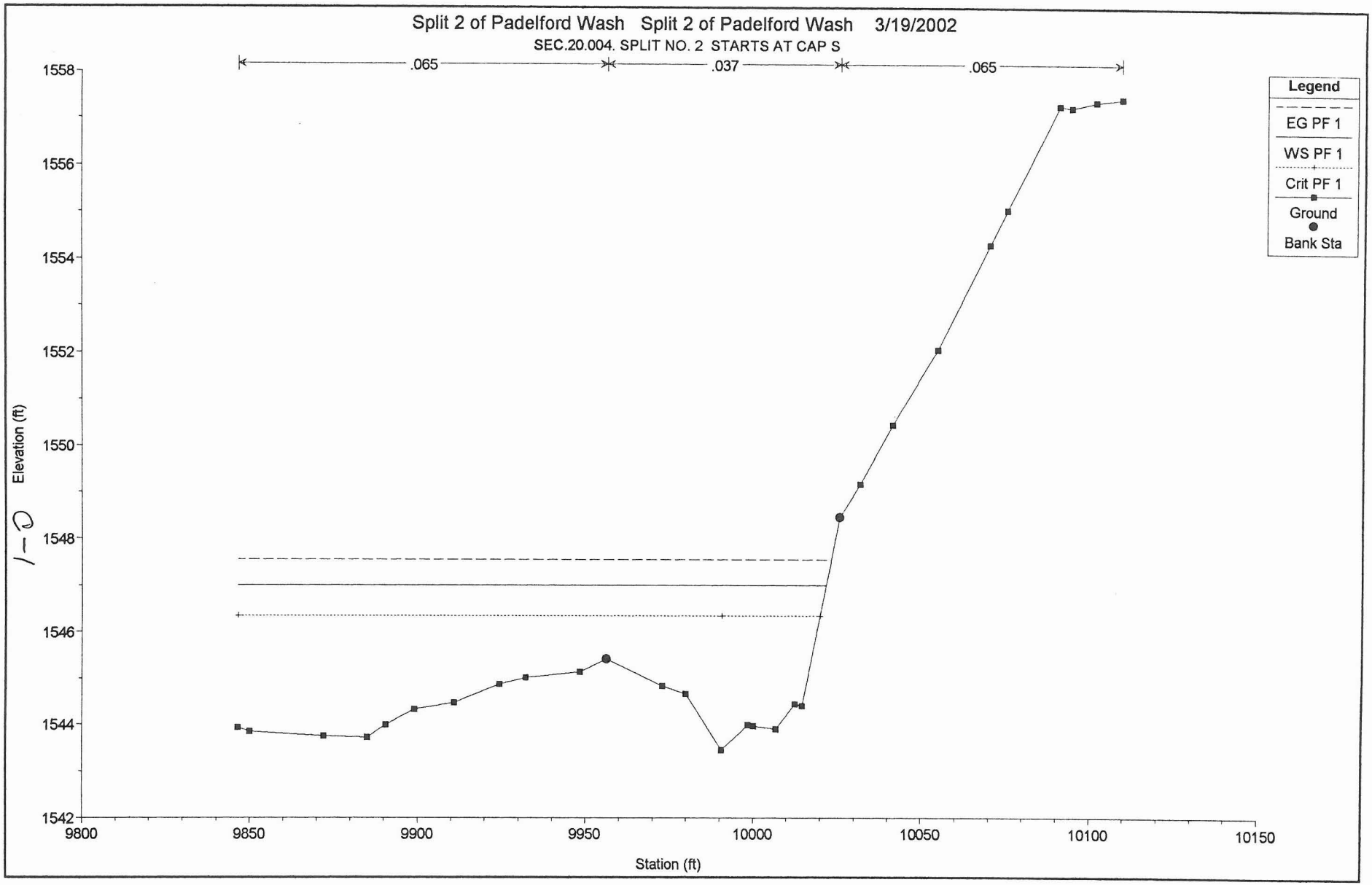
Std. Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
SPLIT2	20.092	1549.25	1548.89	0.36	0.56	0.10	2138.33	49.64	221.03	757.03
SPLIT2	20.021	1547.73	1547.71	0.02	0.12	0.05	2174.72	220.61	13.68	941.87
SPLIT2	20.004	1547.55	1547.01	0.55			1238.81	1170.19		175.30

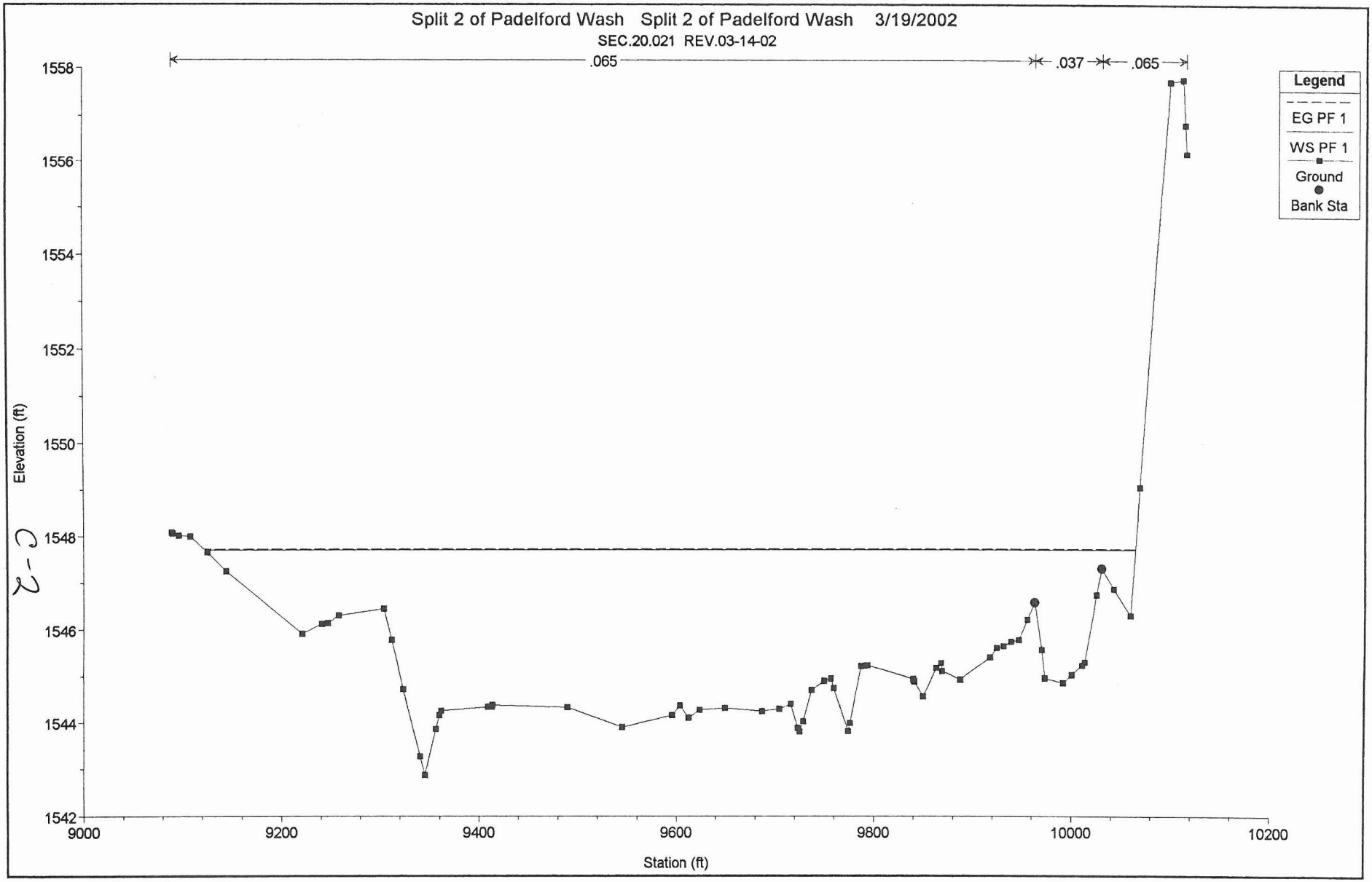
Table 3

HEC-RAS Plan: Split 2 of P River: SPLIT2 Reach: SPLIT2

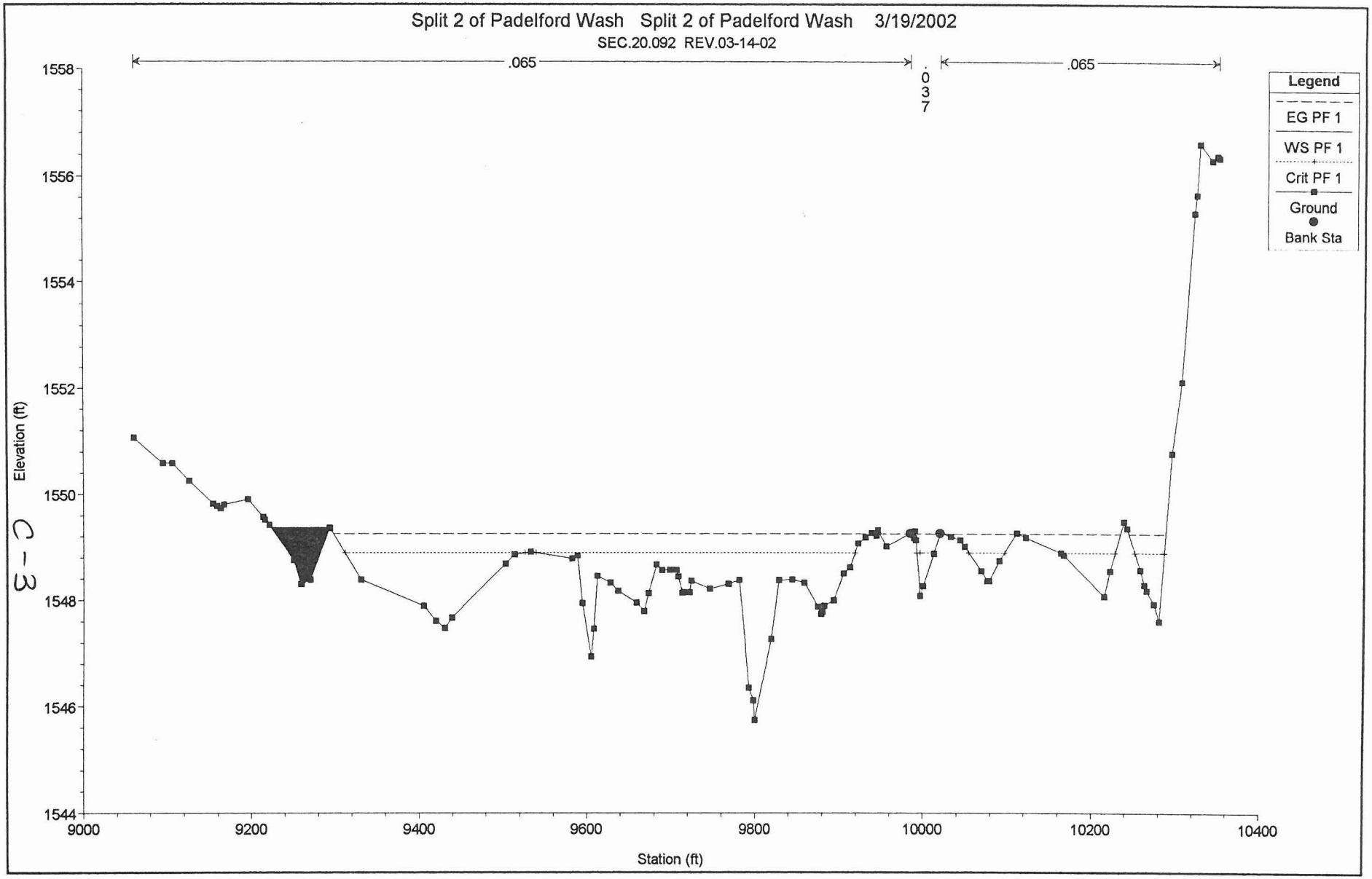
Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Sta W.S. Lft (ft)	Sta W.S. Rgt (ft)	Length Chnl (ft)	Froude # Chl	Froude # XS	Max Chl Dpth (ft)
SPLIT2	22.212	3149.00	1667.07	1672.62	9977.33	10085.29	269.30	0.80	0.70	5.55
SPLIT2	22.161	3149.00	1664.86	1669.94	9954.31	10075.57	248.28	0.92	0.76	5.08
SPLIT2	22.114	3149.00	1662.76	1666.92	9917.20	10056.64	247.37	1.05	0.79	4.16
SPLIT2	22.066	3149.00	1660.18	1664.32	9919.27	10120.30	248.20	0.85	0.56	4.14
SPLIT2	22.019	3149.00	1657.23	1661.15	9794.57	10101.36	256.53	1.03	0.79	3.92
SPLIT2	21.970	3149.00	1654.56	1658.68	9728.29	10103.96	246.70	0.75	0.51	4.12
SPLIT2	21.923	3149.00	1652.09	1655.78	9594.79	10119.52	253.40	1.01	0.66	3.69
SPLIT2	21.875	3149.00	1649.47	1653.08	9480.94	10105.13	252.04	0.77	0.49	3.61
SPLIT2	21.827	3149.00	1646.40	1649.71	9444.44	10098.72	279.80	1.05	0.73	3.31
SPLIT2	21.774	3149.00	1642.06	1646.50	9508.67	10040.28	274.78	0.63	0.48	4.44
SPLIT2	21.719	3149.00	1637.51	1643.16	9676.31	10070.36	462.91	1.06	0.92	5.65
SPLIT2	21.631	3149.00	1633.05	1637.64	9607.39	10372.92	459.40	0.74	0.55	4.59
SPLIT2	21.544	3149.00	1628.53	1632.06	9667.21	10530.64	533.30	0.97	0.68	3.59
SPLIT2	21.443	3149.00	1622.85	1626.44	9518.46	10764.78	512.20	0.73	0.48	3.59
SPLIT2	21.346	3149.00	1617.23	1620.43	9547.30	10831.22	507.71	1.05	0.72	3.30
SPLIT2	21.248	2654.00	1610.88	1614.84	9553.01	10560.68	506.90	0.69	0.43	3.96
SPLIT2	21.152	2654.00	1606.54	1608.75	9151.02	10398.85	512.20	1.12	0.66	3.31
SPLIT2	21.055	2409.00	1600.60	1602.60	8984.02	10216.56	554.40	0.63	0.37	3.43
SPLIT2	20.950	2409.00	1593.91	1597.50	9134.85	10246.38	512.57	1.04	0.74	3.59
SPLIT2	20.853	2409.00	1588.60	1591.54	9190.14	10322.25	491.00	0.67	0.47	4.26
SPLIT2	20.760	2409.00	1583.15	1585.69	9220.67	10365.79	512.20	1.00	0.67	3.65
SPLIT2	20.663	2409.00	1577.47	1579.43	9136.24	10161.17	496.30	0.74	0.47	2.92
SPLIT2	20.569	2409.00	1571.07	1574.52	9246.03	10187.33	485.80	0.87	0.55	3.89
SPLIT2	20.477	2409.00	1564.67	1569.62	9223.58	10351.24	496.30	0.78	0.65	4.95
SPLIT2	20.383	2409.00	1559.87	1564.10	9410.97	10223.64	501.60	0.84	0.64	4.23
SPLIT2	20.286	2409.00	1556.20	1558.95	9360.28	10149.81	517.40	0.76	0.49	2.87
SPLIT2	20.190	2409.00	1550.33	1554.05	9300.20	10207.96	242.62	0.81	0.62	3.72
SPLIT2	20.144	2409.00	1548.84	1552.22	9398.26	10588.00	274.60	0.50	0.30	3.38
SPLIT2	20.092	2409.00	1548.07	1548.89	9311.03	10286.57	374.90	1.59	1.02	3.15
SPLIT2	20.021	2409.00	1544.86	1547.71	9122.44	10064.31	89.80	0.17	0.11	4.84
SPLIT2	20.004	2409.00	1543.46	1547.01	9846.34	10021.64		0.82	0.59	3.55


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.20.004. SPLIT NO. 2 STARTS AT CAP S
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1558
1556
1554
1552
1550
1548
1546
1544
1542
9800
9850
9900
9950
10000
10050
10100
10150

1-D


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.20.021 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1558
1556
1554
1552
1550
1548
1546
1544
1542
9000
9200
9400
9600
9800
10000
10200
Station (ft)

C-2


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.20.092 REV.03-14-02
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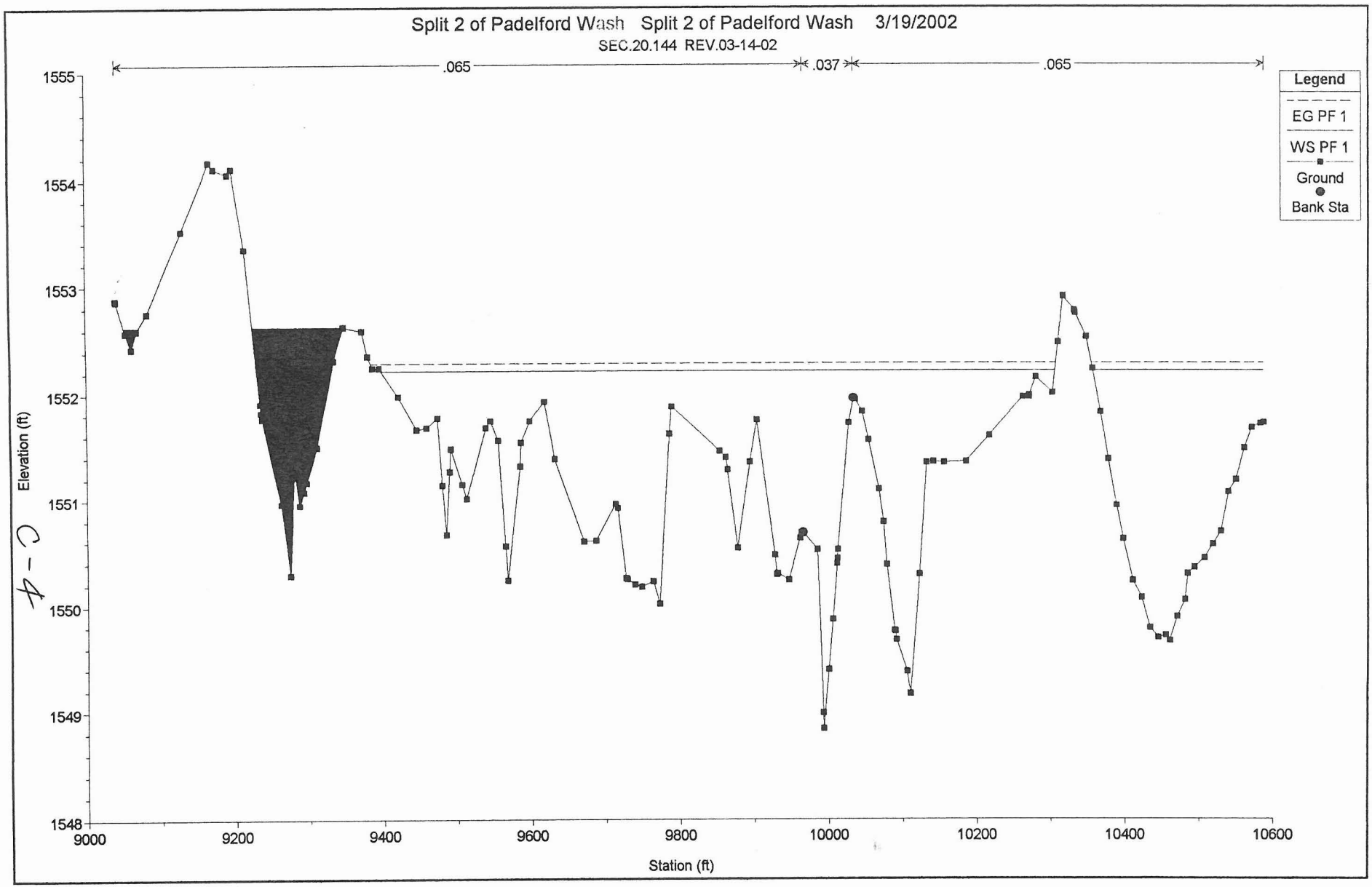
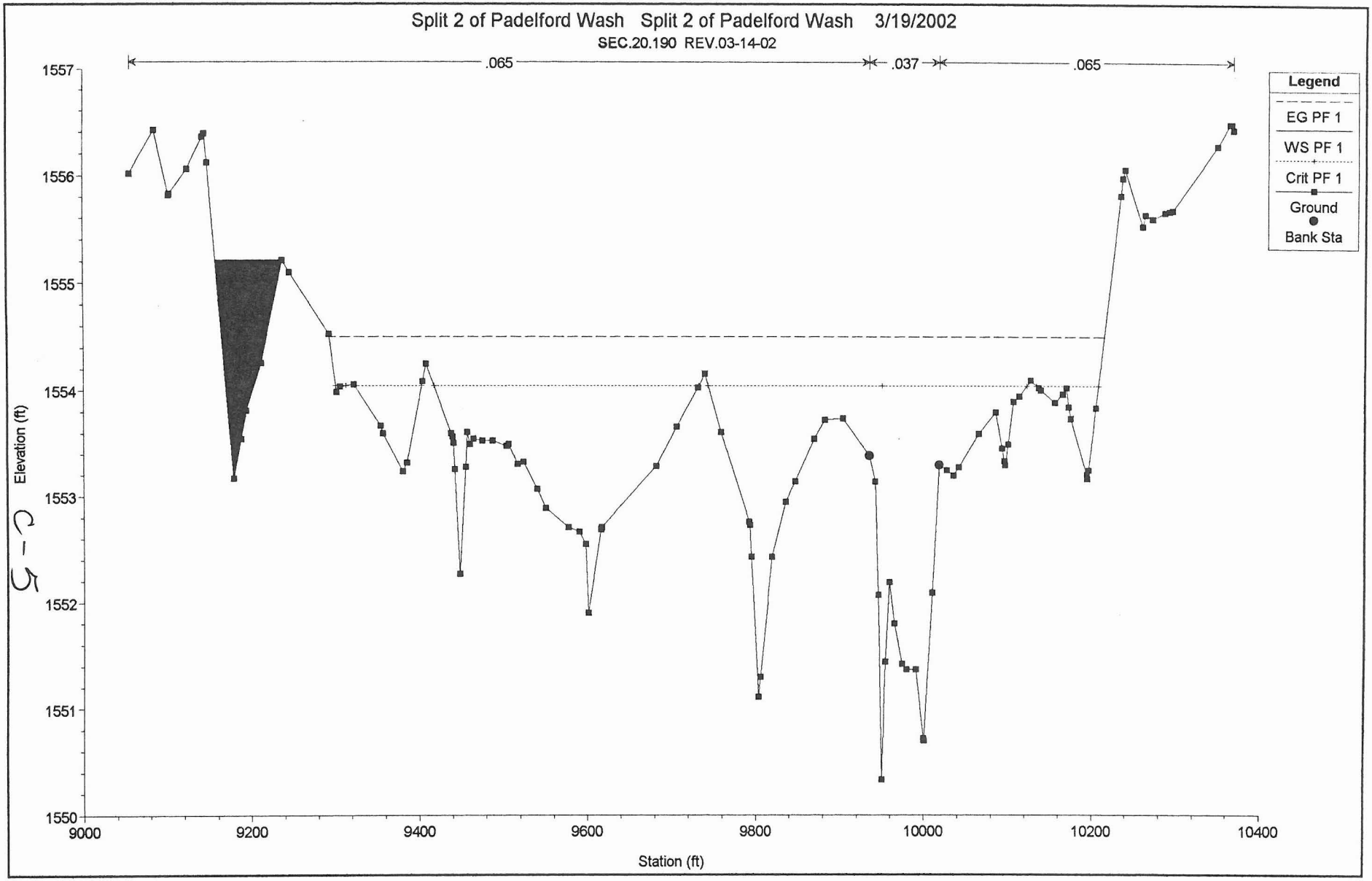
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1558
1556
1554
1552
1550
1548
1546
1544
9000
9200
9400
9600
9800
10000
10200
10400
Station (ft)

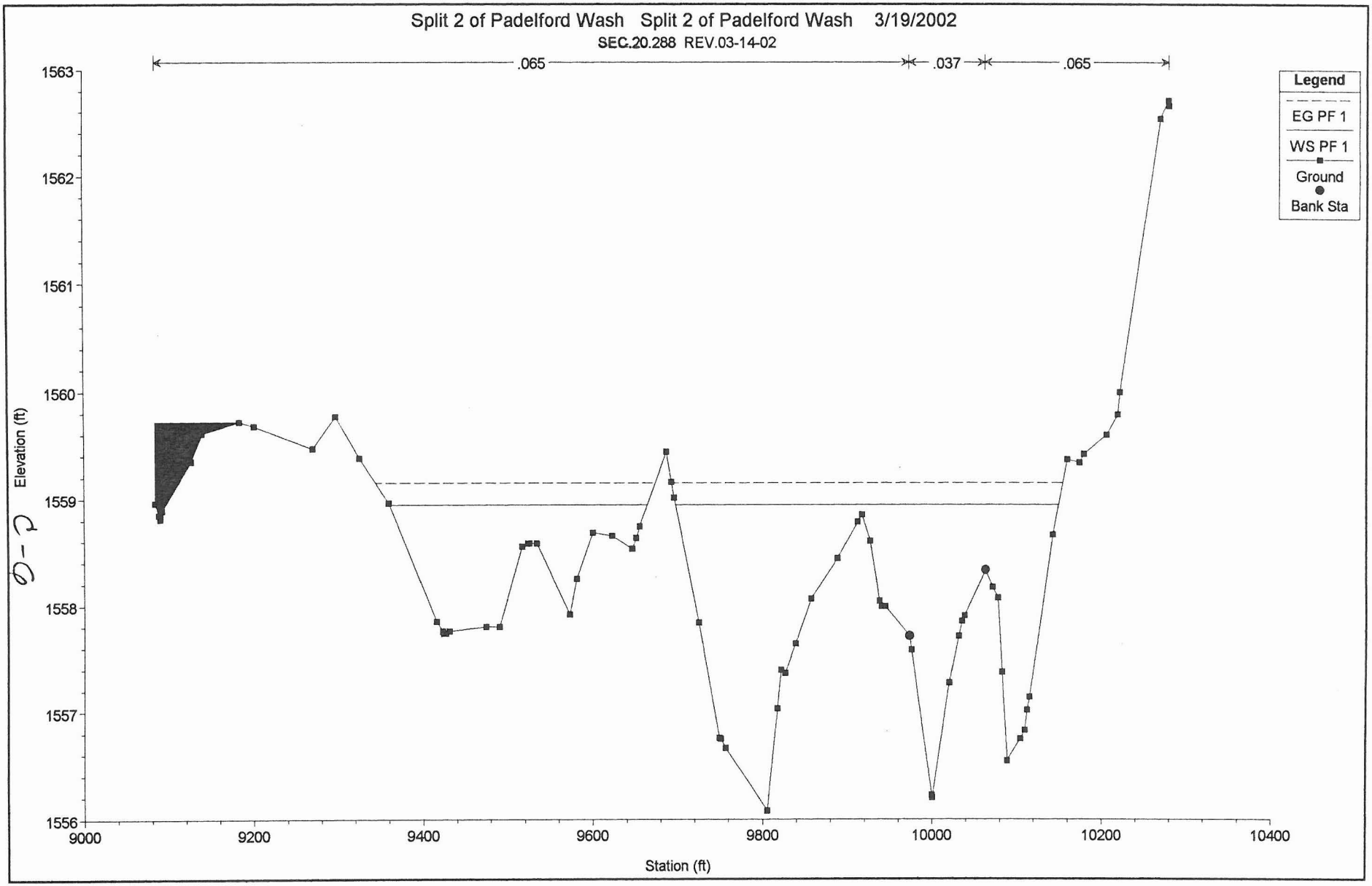
C-3


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.20.144 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1555
1554
1553
1552
1551
1550
1549
1548
9000
9200
9400
9600
9800
10000
10200
10400
10600

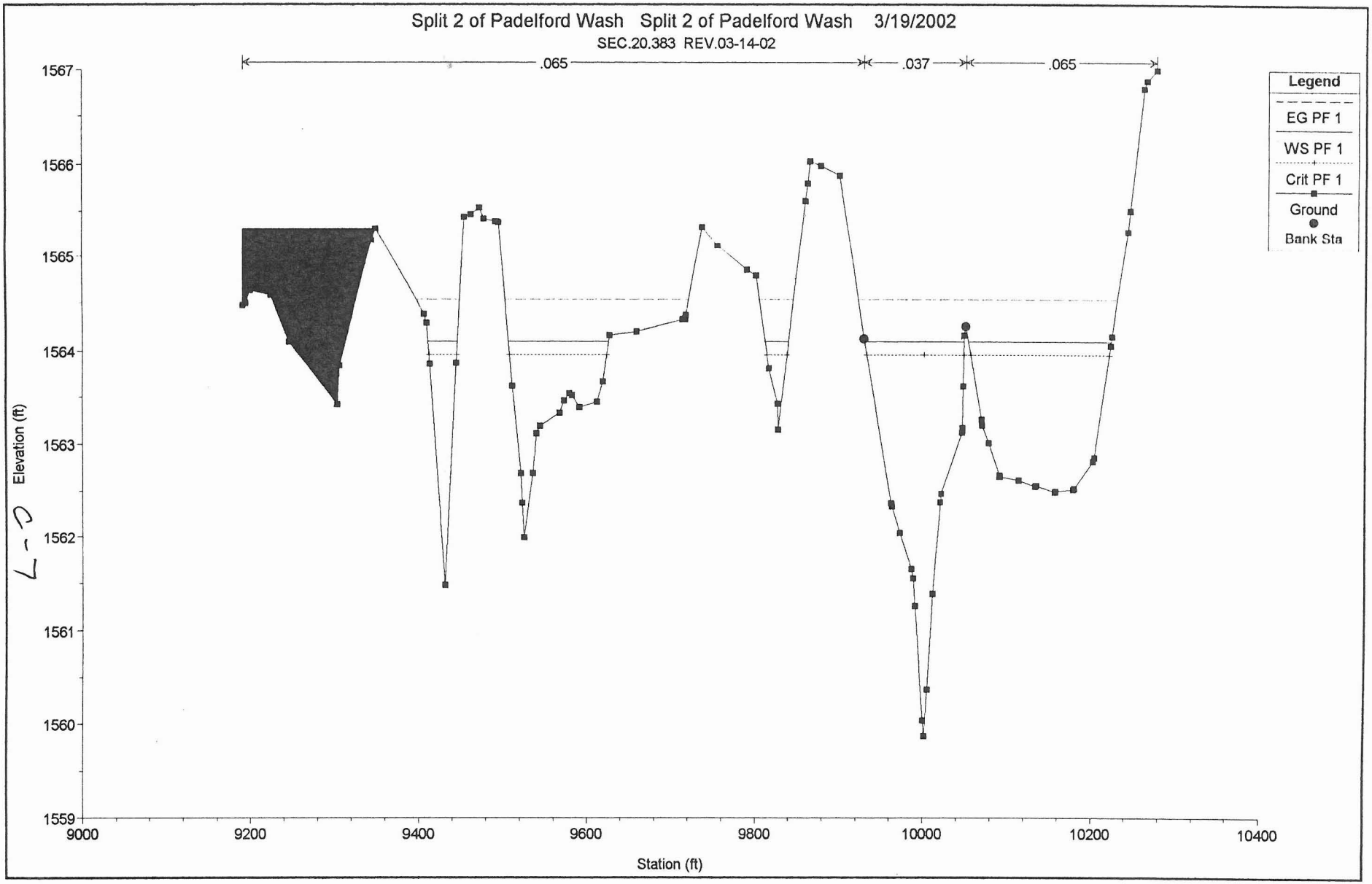
4-C


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.20.190 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1557
1556
1555
1554
1553
1552
1551
1550
9000
9200
9400
9600
9800
10000
10200
10400

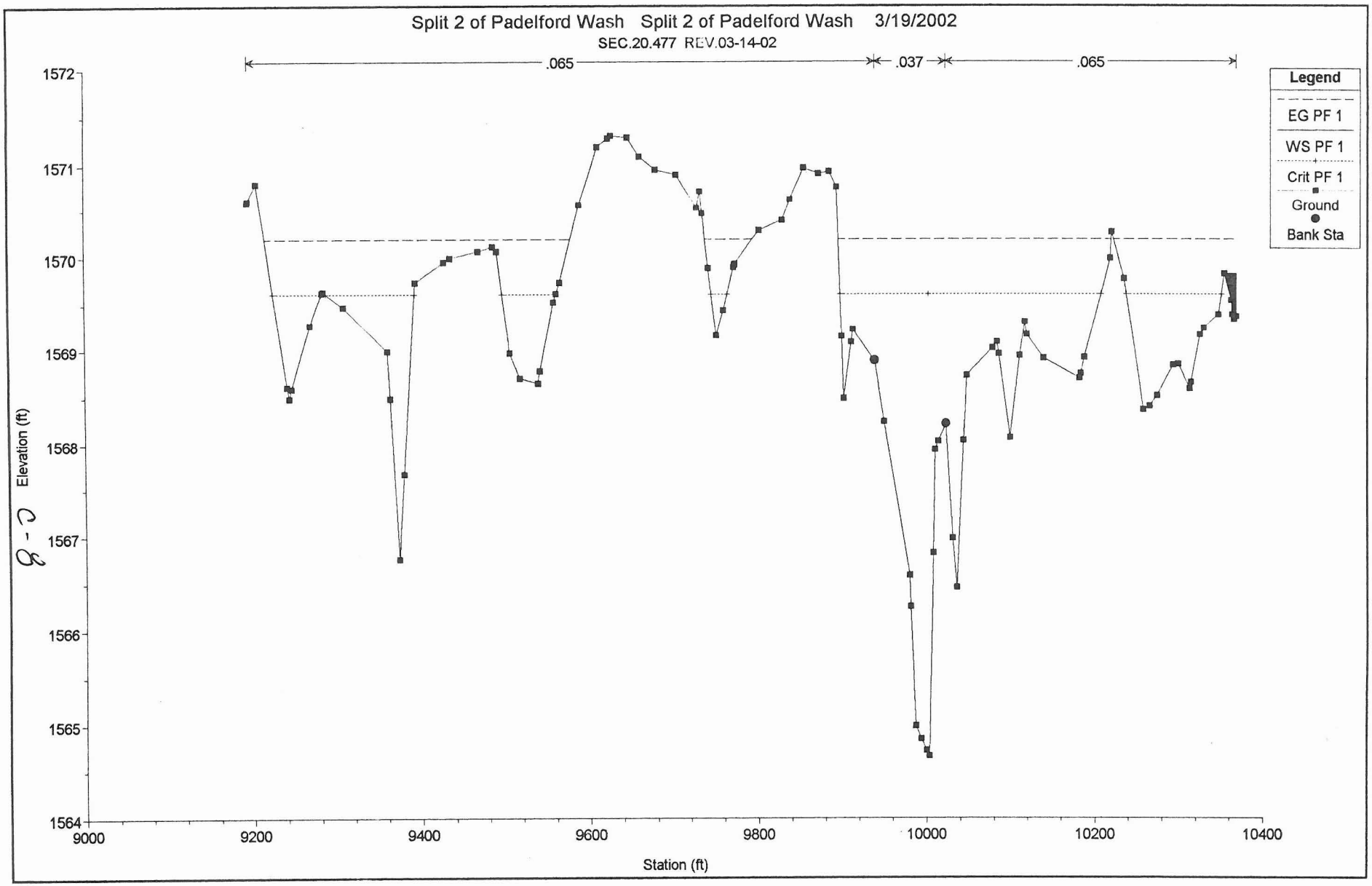
C-3


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.20.288 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1563
1562
1561
1560
1559
1558
1557
1556
9000
9200
9400
9600
9800
10000
10200
10400

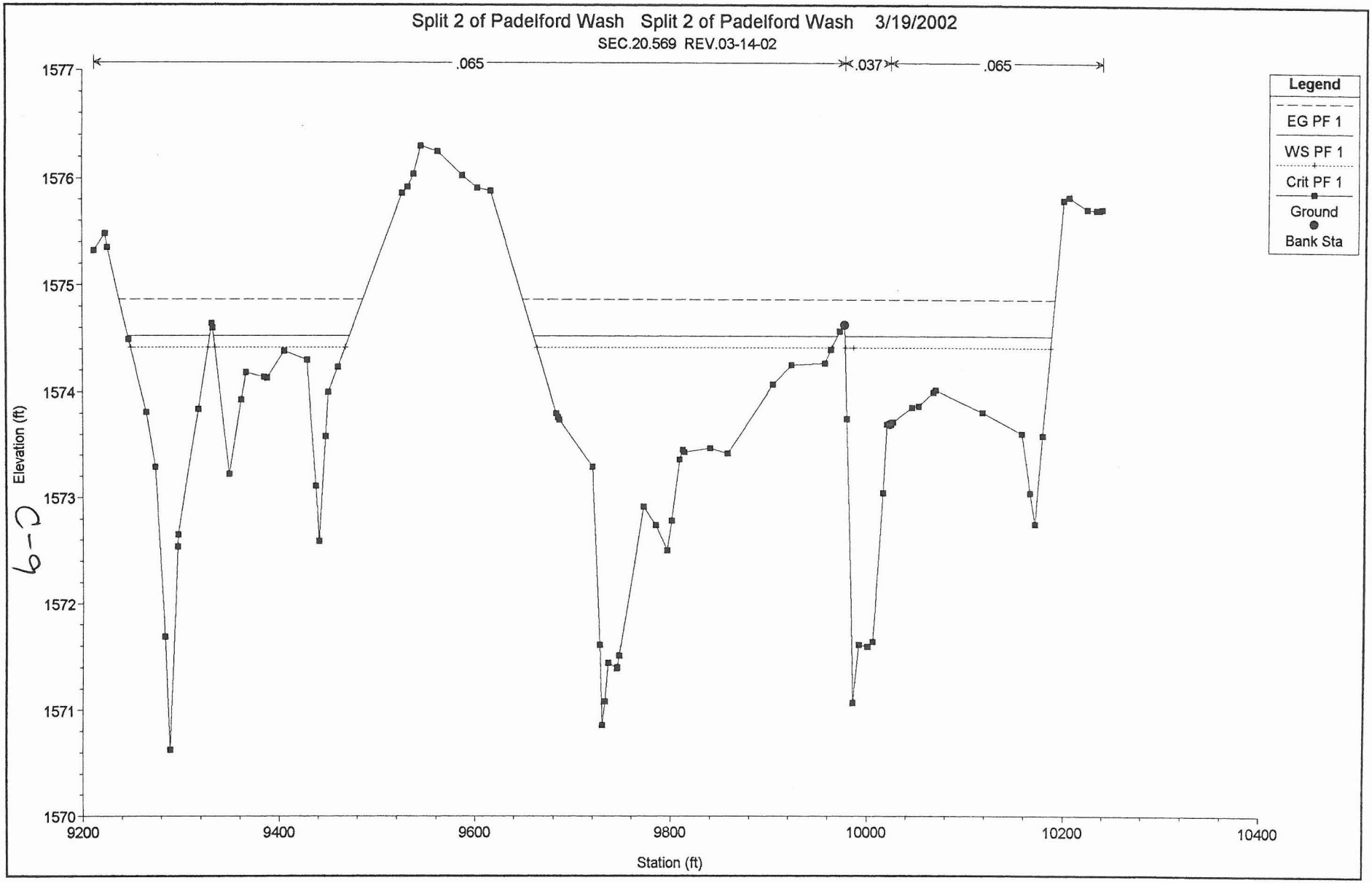
C-9


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.20.383 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1567
1566
1565
1564
1563
1562
1561
1560
1559
9000
9200
9400
9600
9800
10000
10200
10400

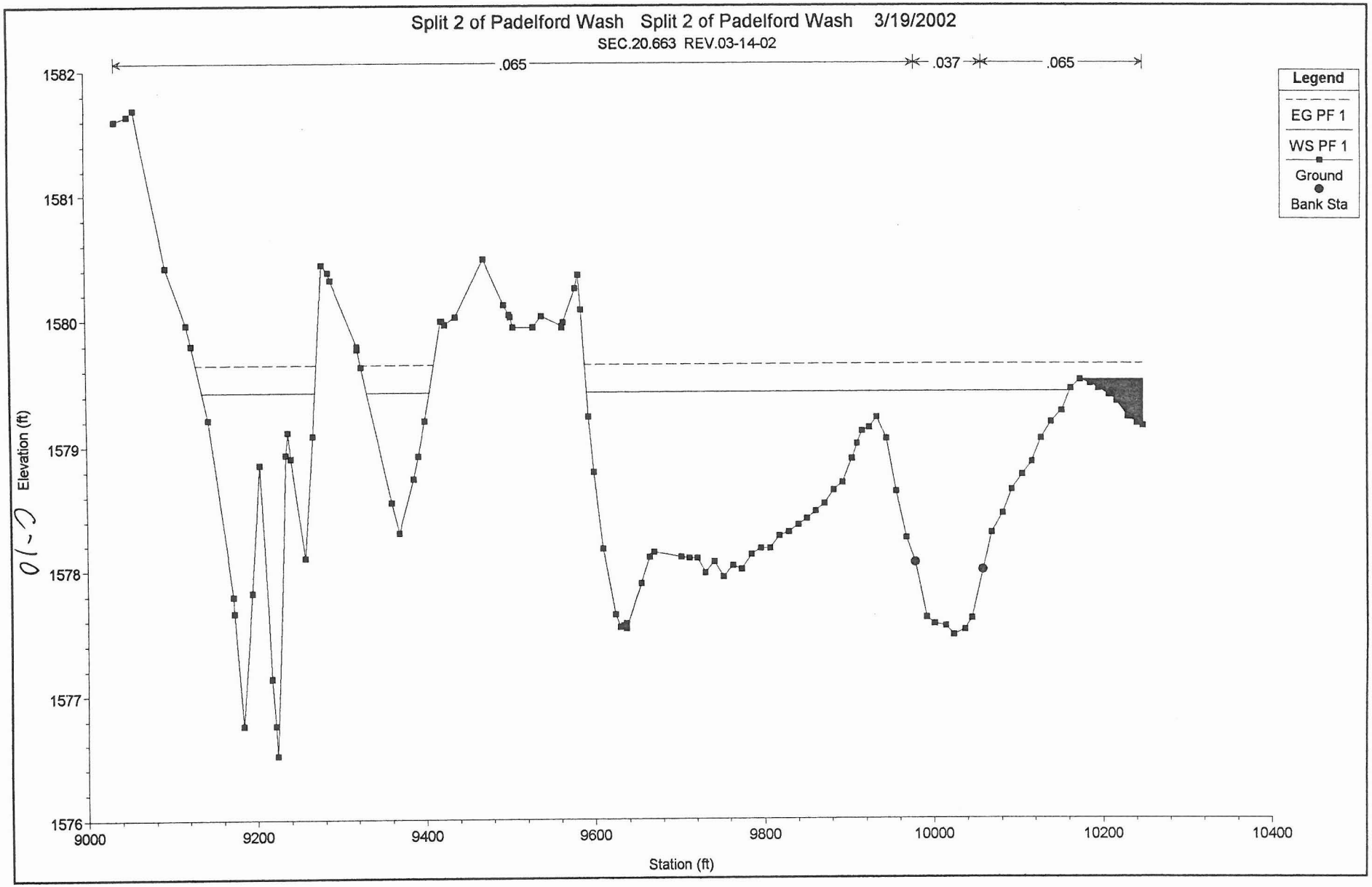
L-2


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.20.477 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1572
1571
1570
1569
1568
1567
1566
1565
1564
9000
9200
9400
9600
9800
10000
10200
10400

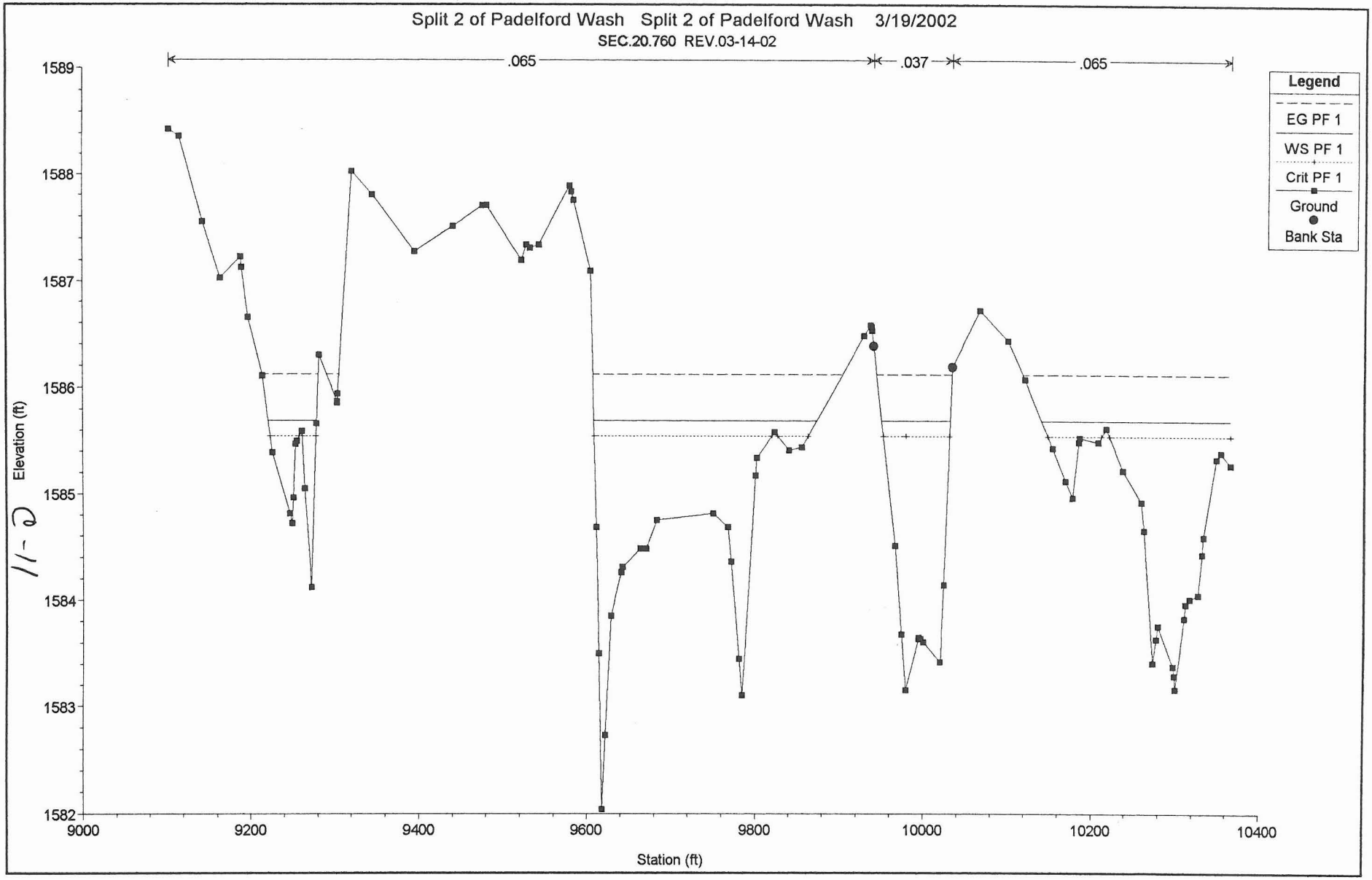
C-8

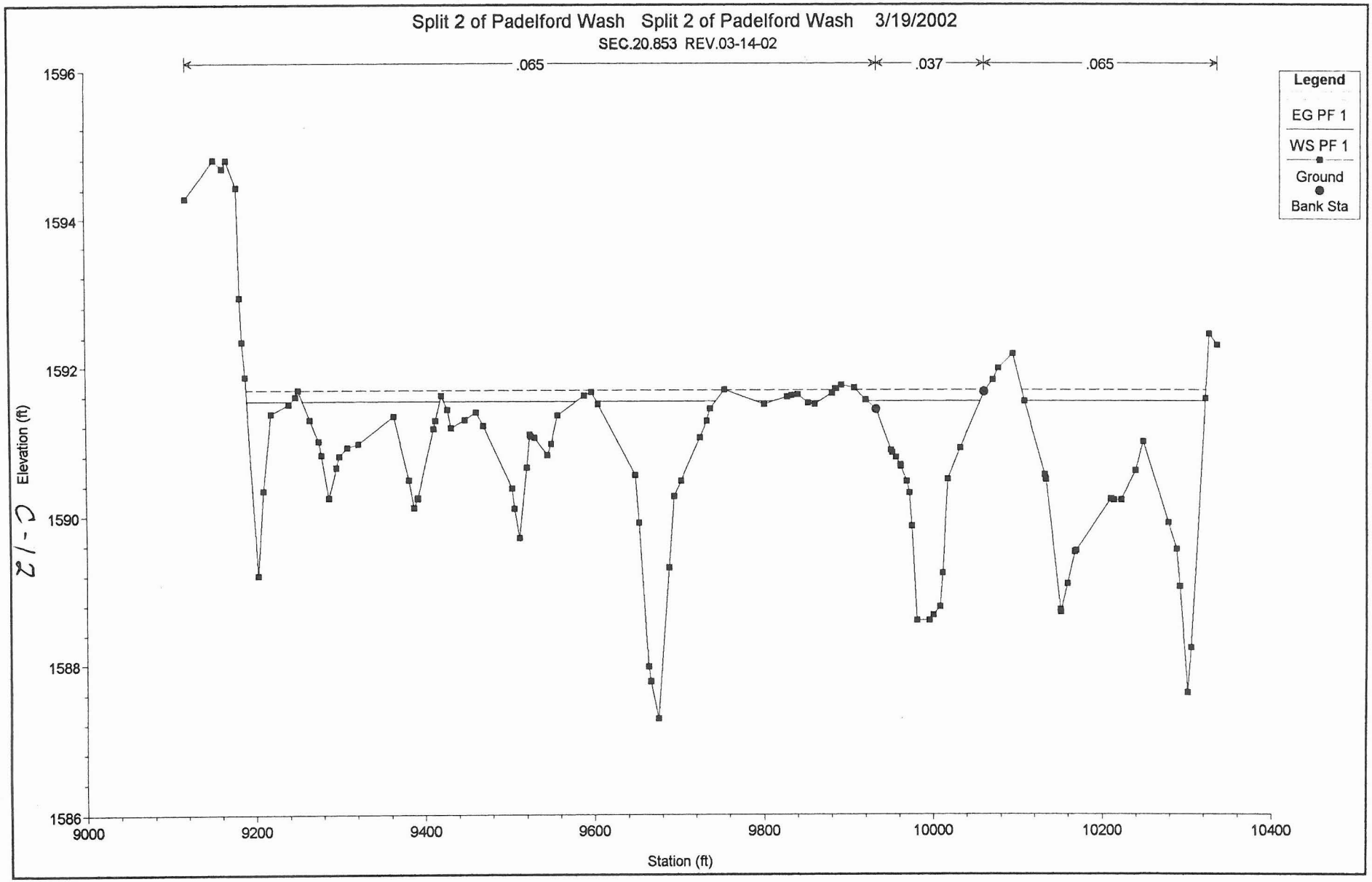

Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.20.569 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1577
1576
1575
1574
1573
1572
1571
1570
9200
9400
9600
9800
10000
10200
10400

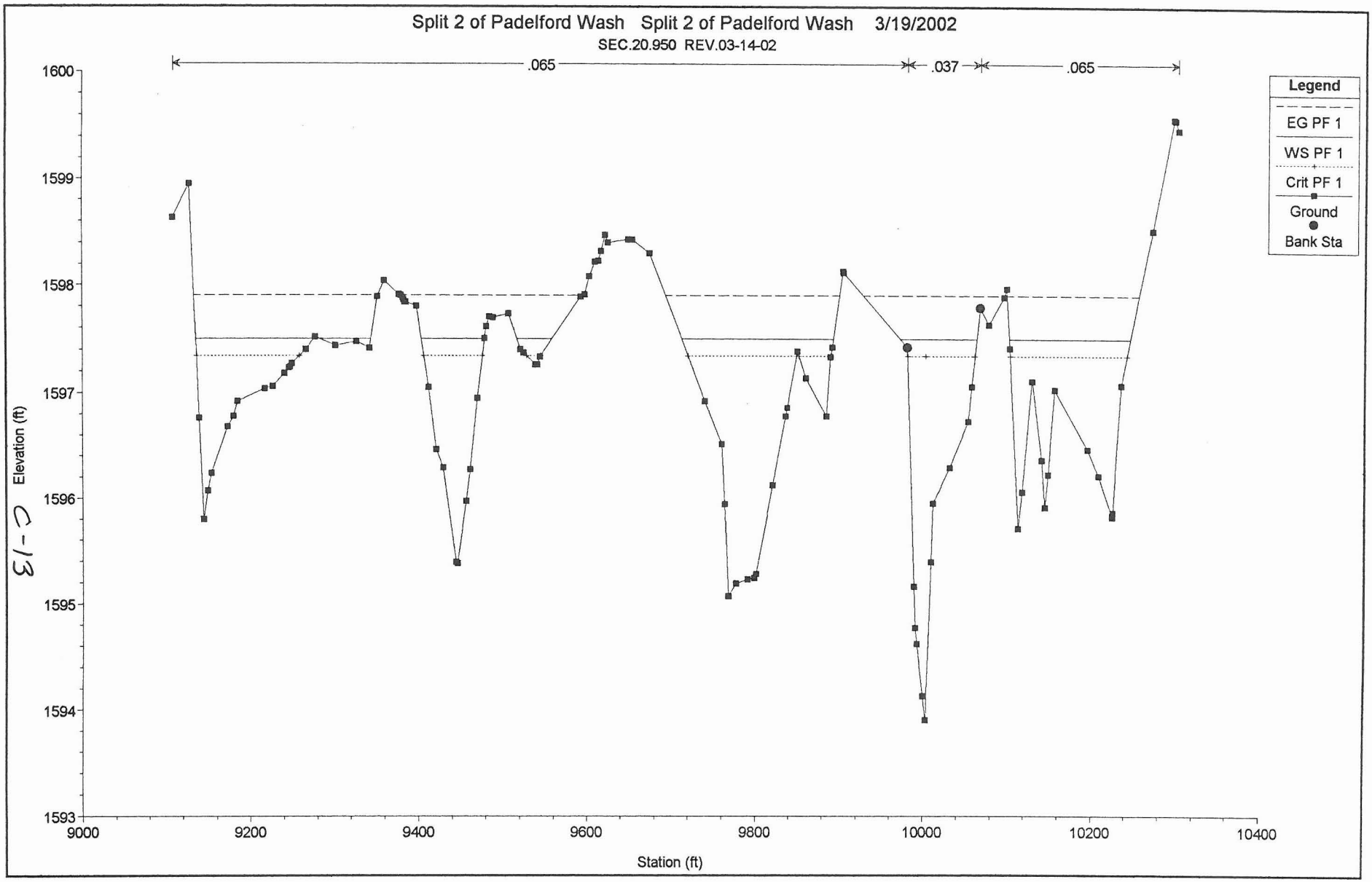
C-9


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.20.663 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1582
1581
1580
1579
1578
1577
1576
9000
9200
9400
9600
9800
10000
10200
10400

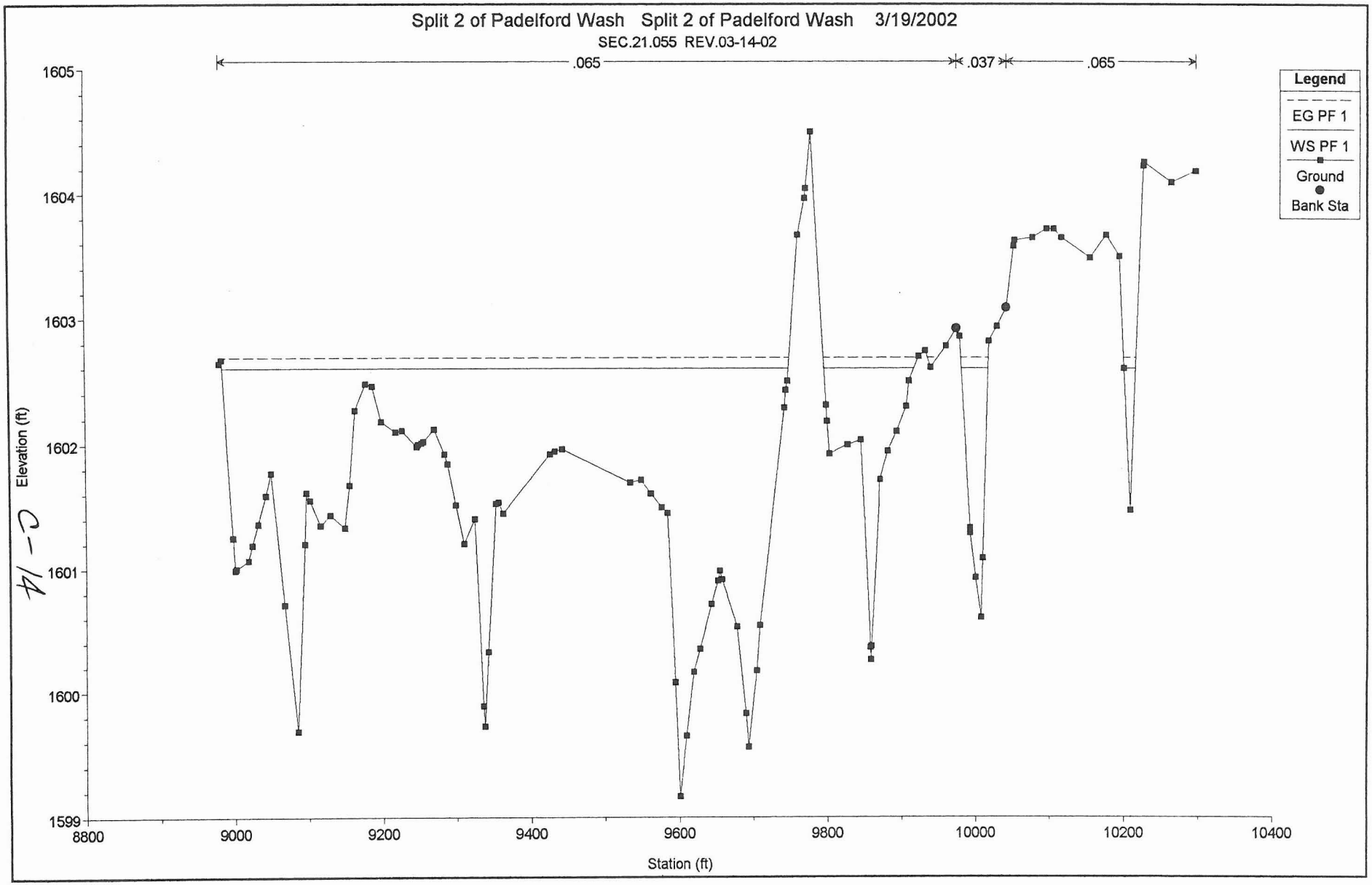
0(-7


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.20.760 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1589
1588
1587
1586
1585
1584
1583
1582
9000
9200
9400
9600
9800
10000
10200
10400
Station (ft)

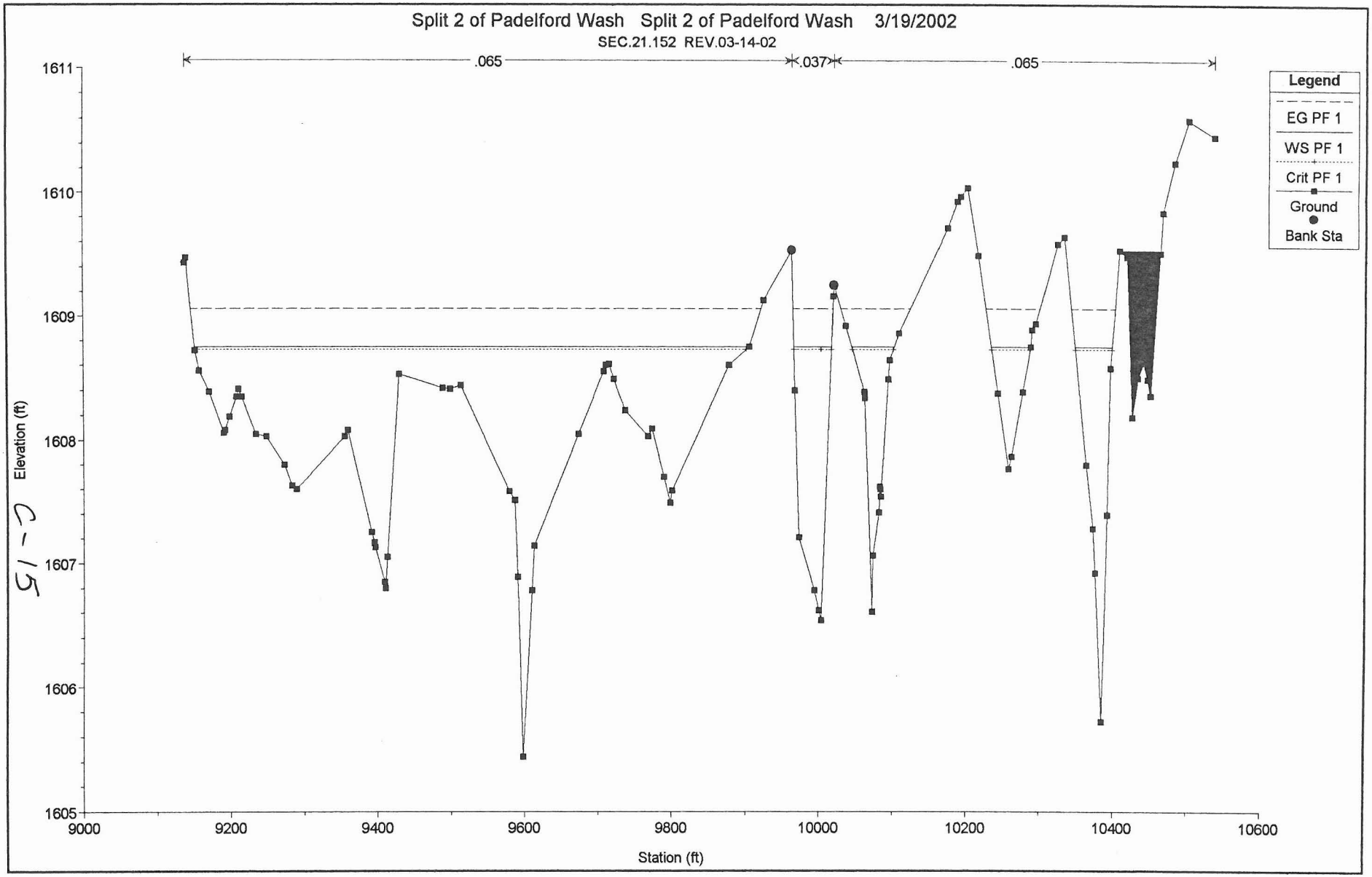

Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.20.853 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1596
1594
1592
1590
1588
1586
9000
9200
9400
9600
9800
10000
10200
10400
Station (ft)


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.20.950 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1600
1599
1598
1597
1596
1595
1594
1593
9000
9200
9400
9600
9800
10000
10200
10400

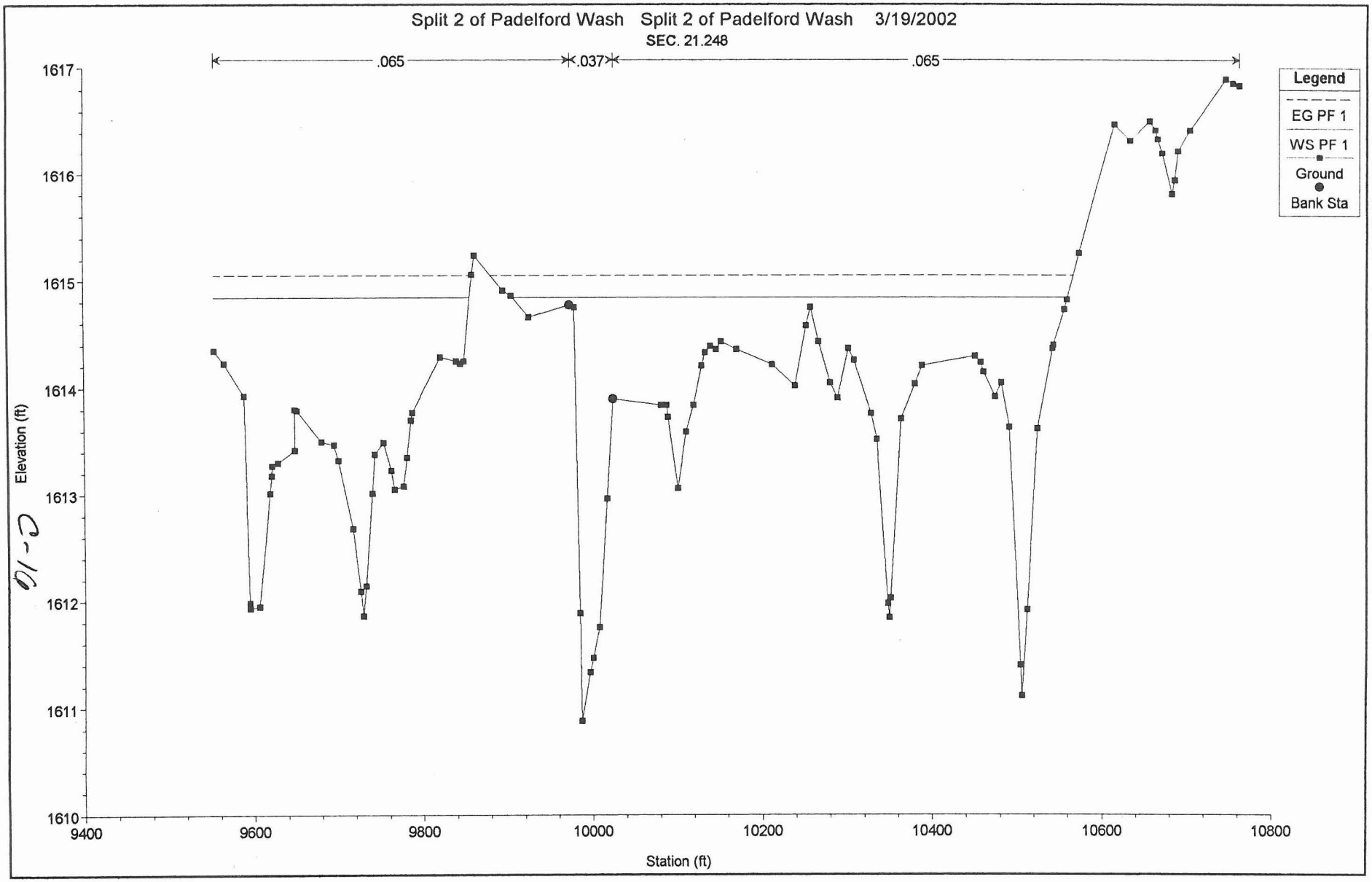
C1-13


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.21.055 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1605
1604
1603
1602
1601
1600
1599
8800
9000
9200
9400
9600
9800
10000
10200
10400

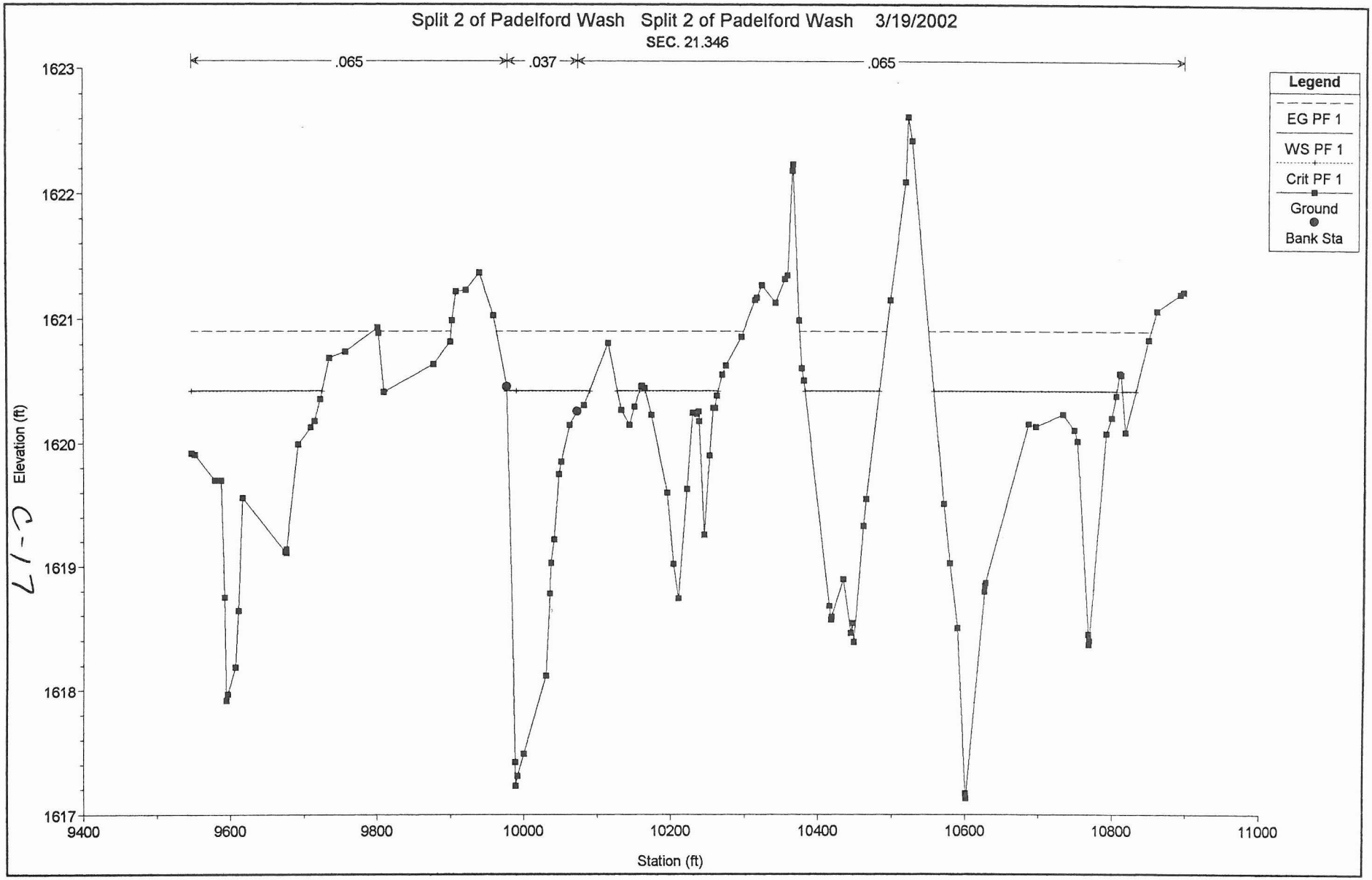
C-14

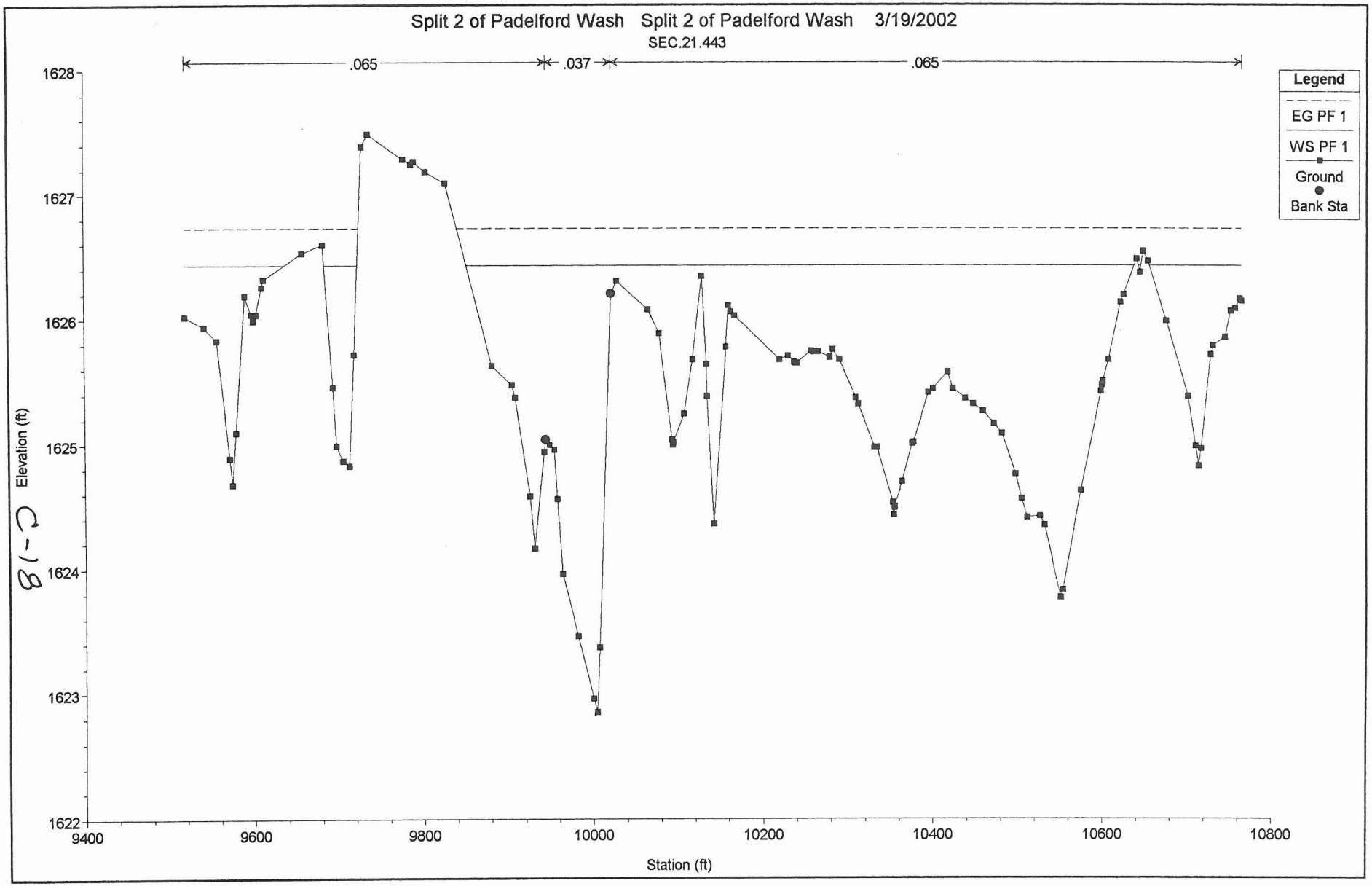

Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.21.152 REV.03-14-02
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1611
1610
1609
1608
1607
1606
1605
9000
9200
9400
9600
9800
10000
10200
10400
10600

C-15

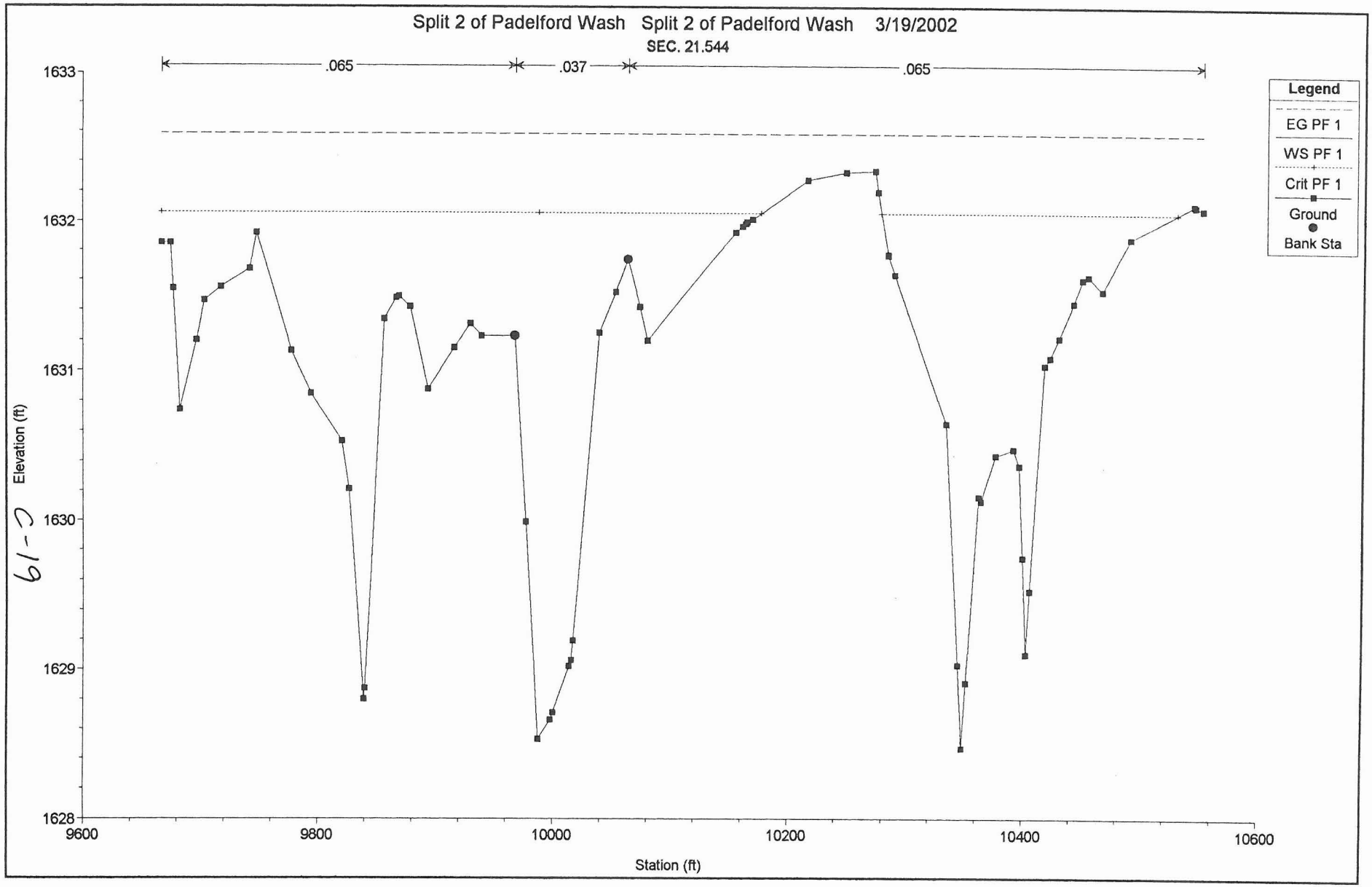

Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC. 21.248
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1617
1616
1615
1614
1613
1612
1611
1610
9400
9600
9800
10000
10200
10400
10600
10800

C-10

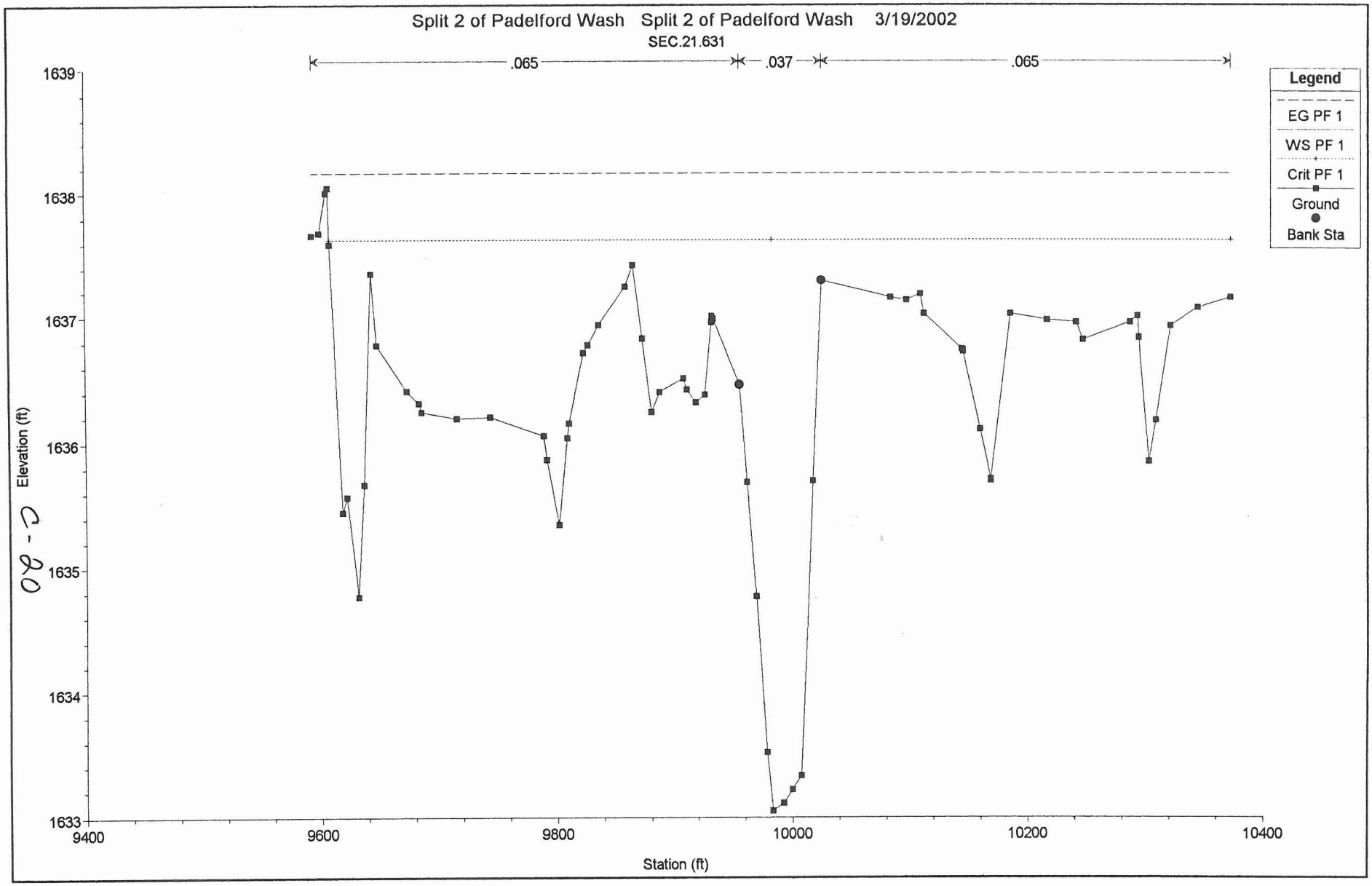

Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC. 21.346
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1623
1622
1621
1620
1619
1618
1617
9400
9600
9800
10000
10200
10400
10600
10800
11000
L1-2


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.21.443
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1628
1627
1626
1625
1624
1623
1622
9400
9600
9800
10000
10200
10400
10600
10800

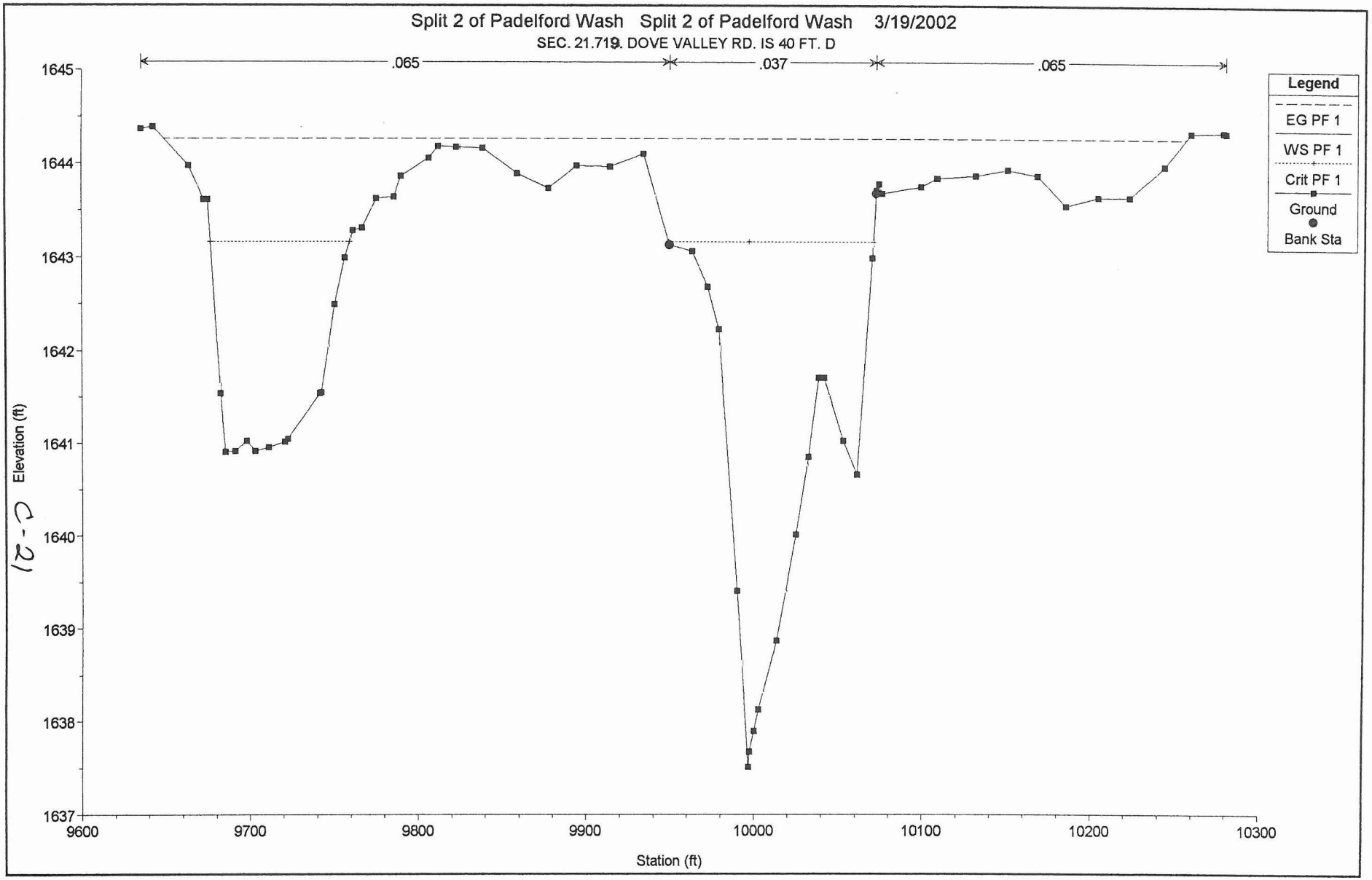
C-18


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC. 21.544
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
1633
1632
1631
1630
1629
1628
Elevation (ft)
9600
9800
10000
10200
10400
10600
Station (ft)

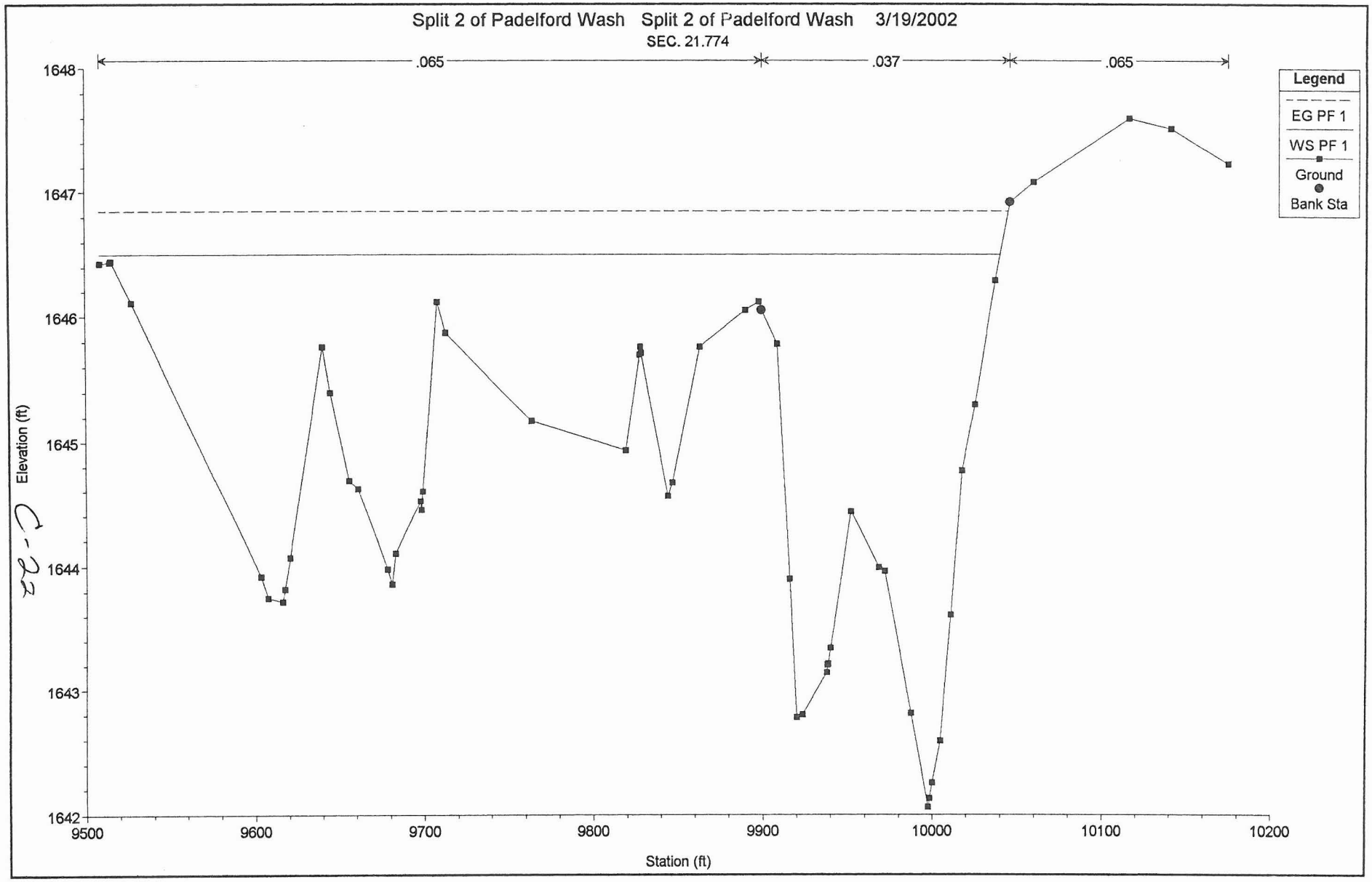
61-7

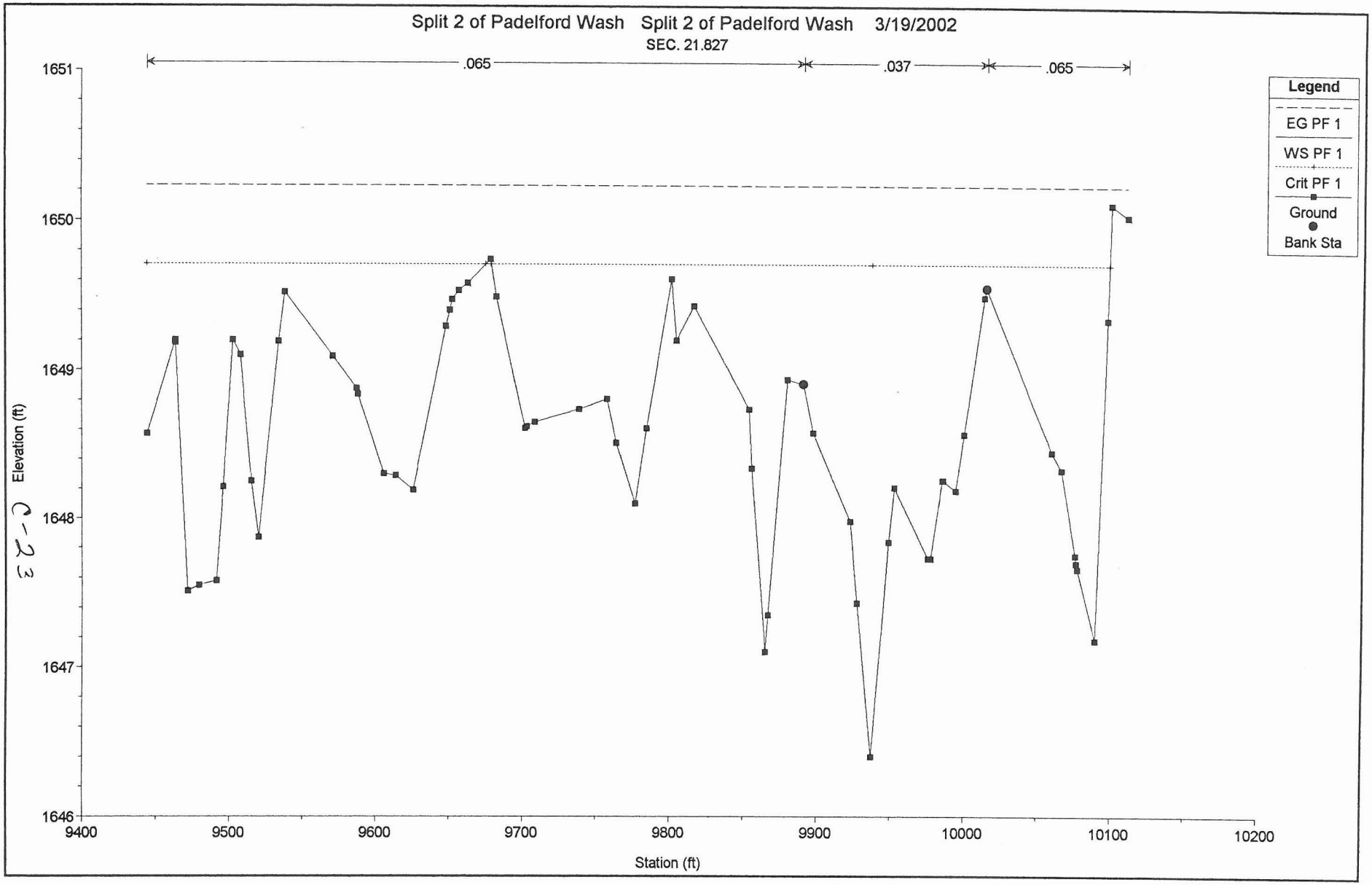

Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.21.631
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1639
1638
1637
1636
1635
1634
1633
9400
9600
9800
10000
10200
10400

C-20

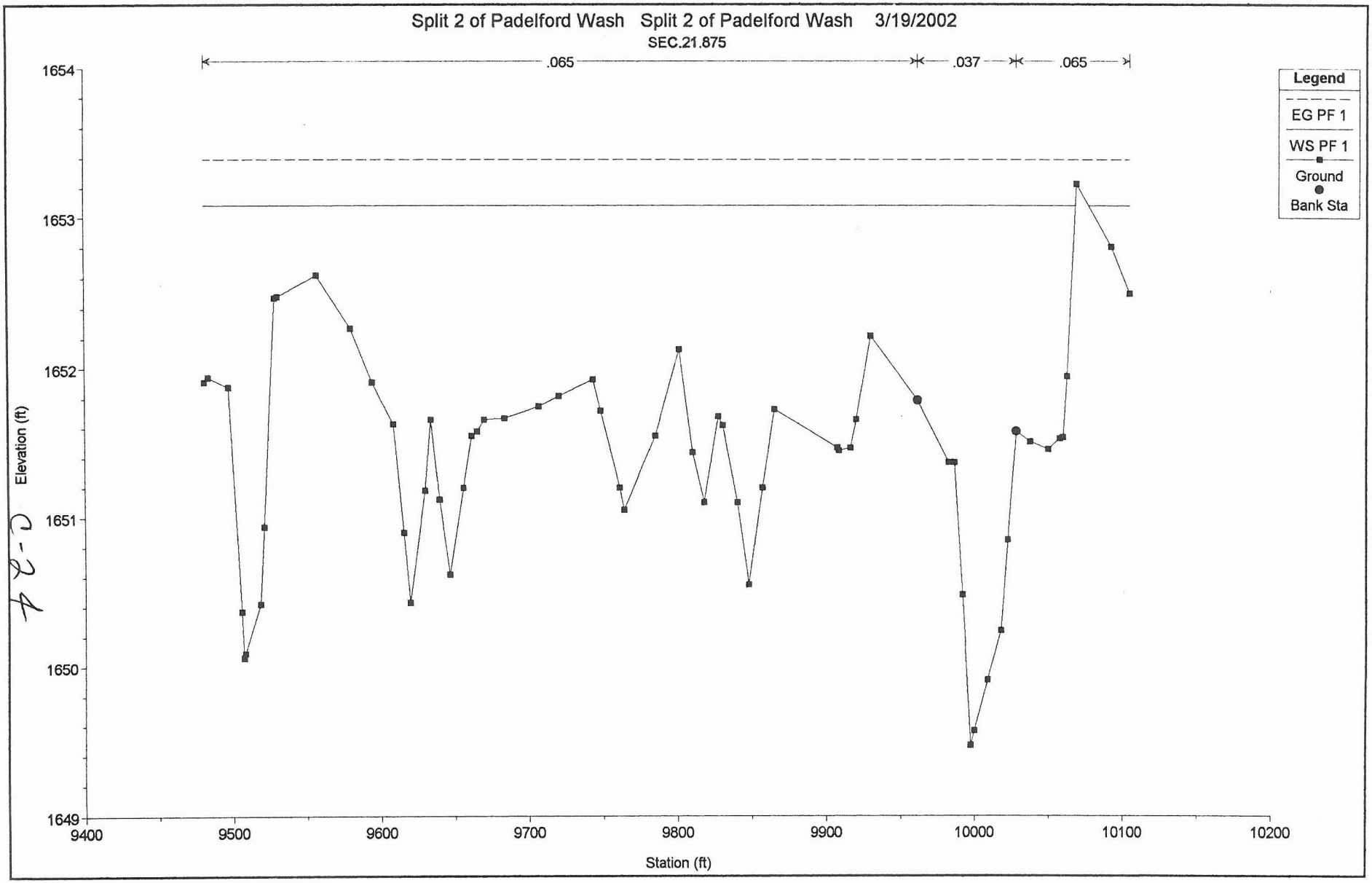

Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC. 21.719. DOVE VALLEY RD. IS 40 FT. D
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1645
1644
1643
1642
1641
1640
1639
1638
1637
9600
9700
9800
9900
10000
10100
10200
10300
Station (ft)

C-21

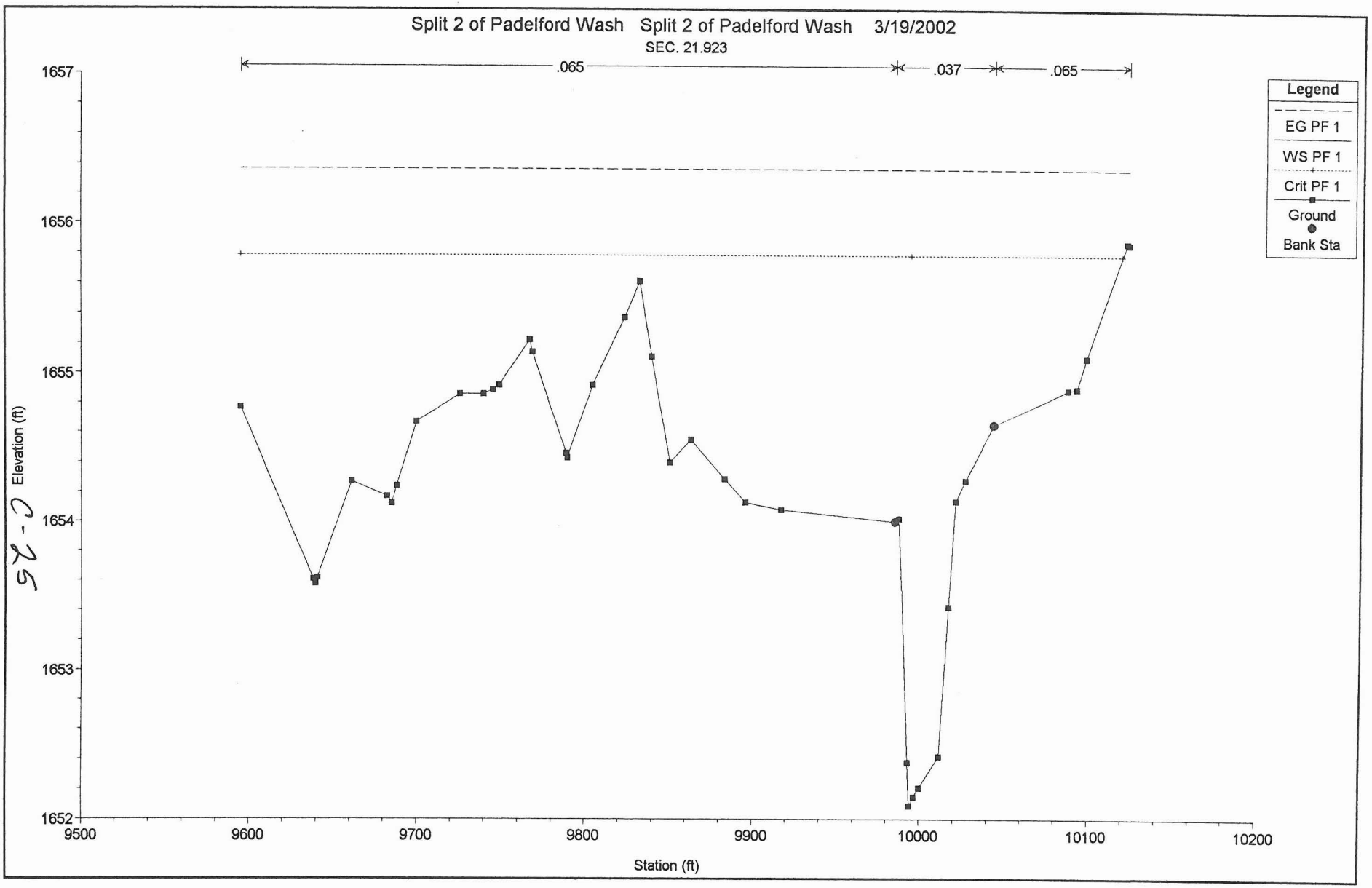

Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC. 21.774
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1648
1647
1646
1645
1644
1643
1642
Elevation (ft)
9500
9600
9700
9800
9900
10000
10100
10200
Station (ft)

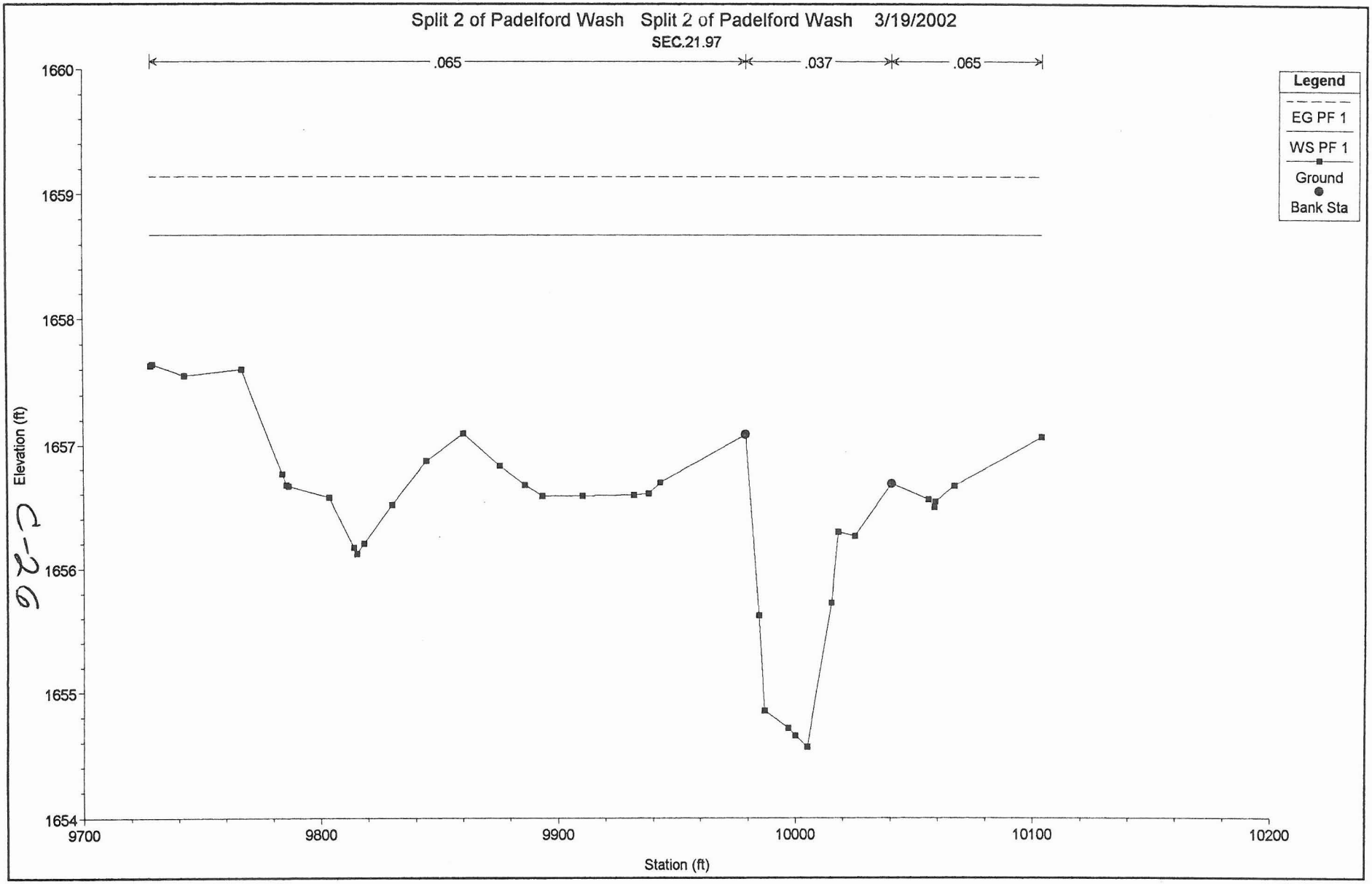

Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC. 21.827
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1651
1650
1649
1648
1647
1646
9400
9500
9600
9700
9800
9900
10000
10100
10200

C-23

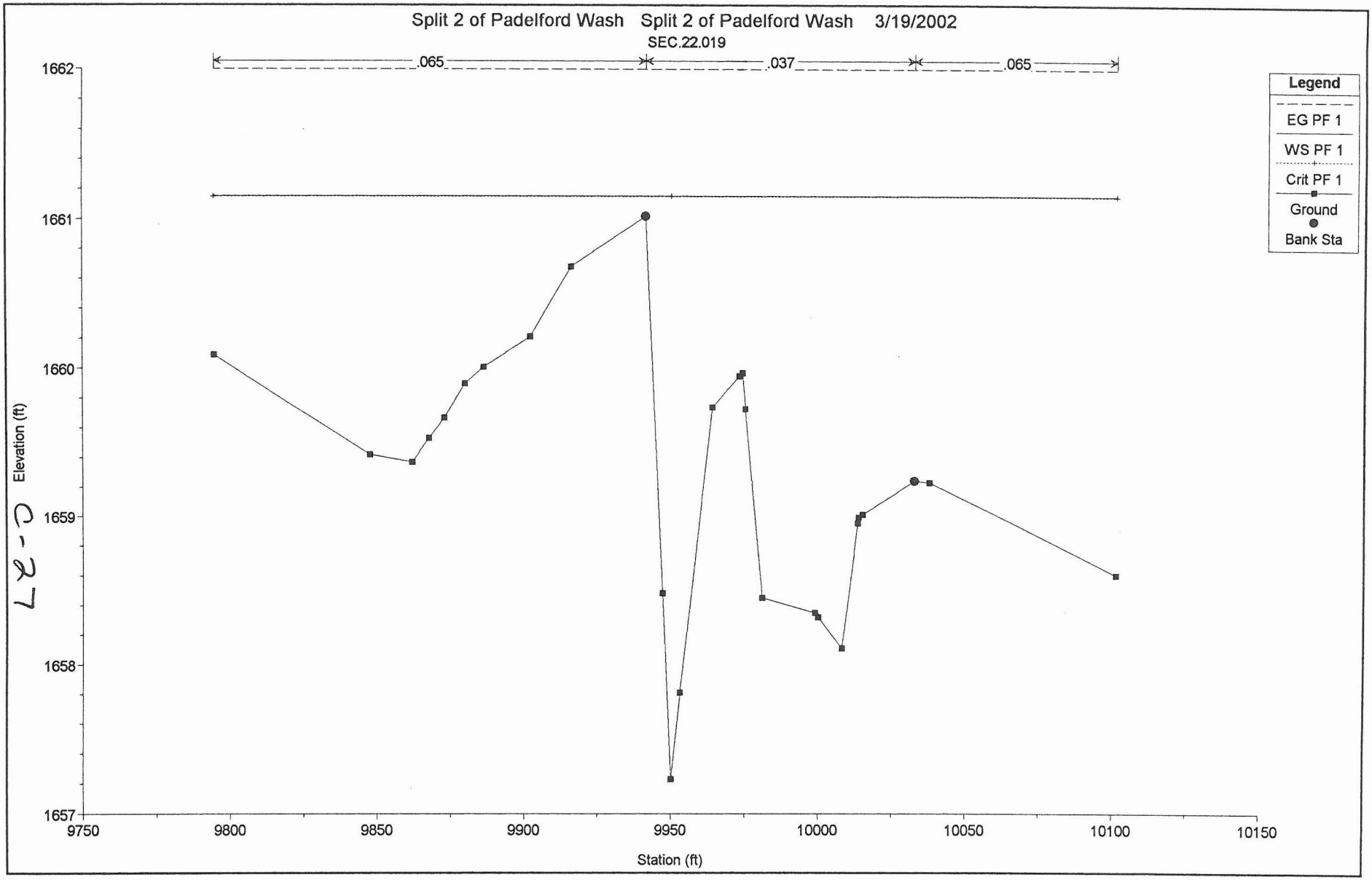

Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.21.875
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1654
1653
1652
1651
1650
1649
9400
9500
9600
9700
9800
9900
10000
10100
10200

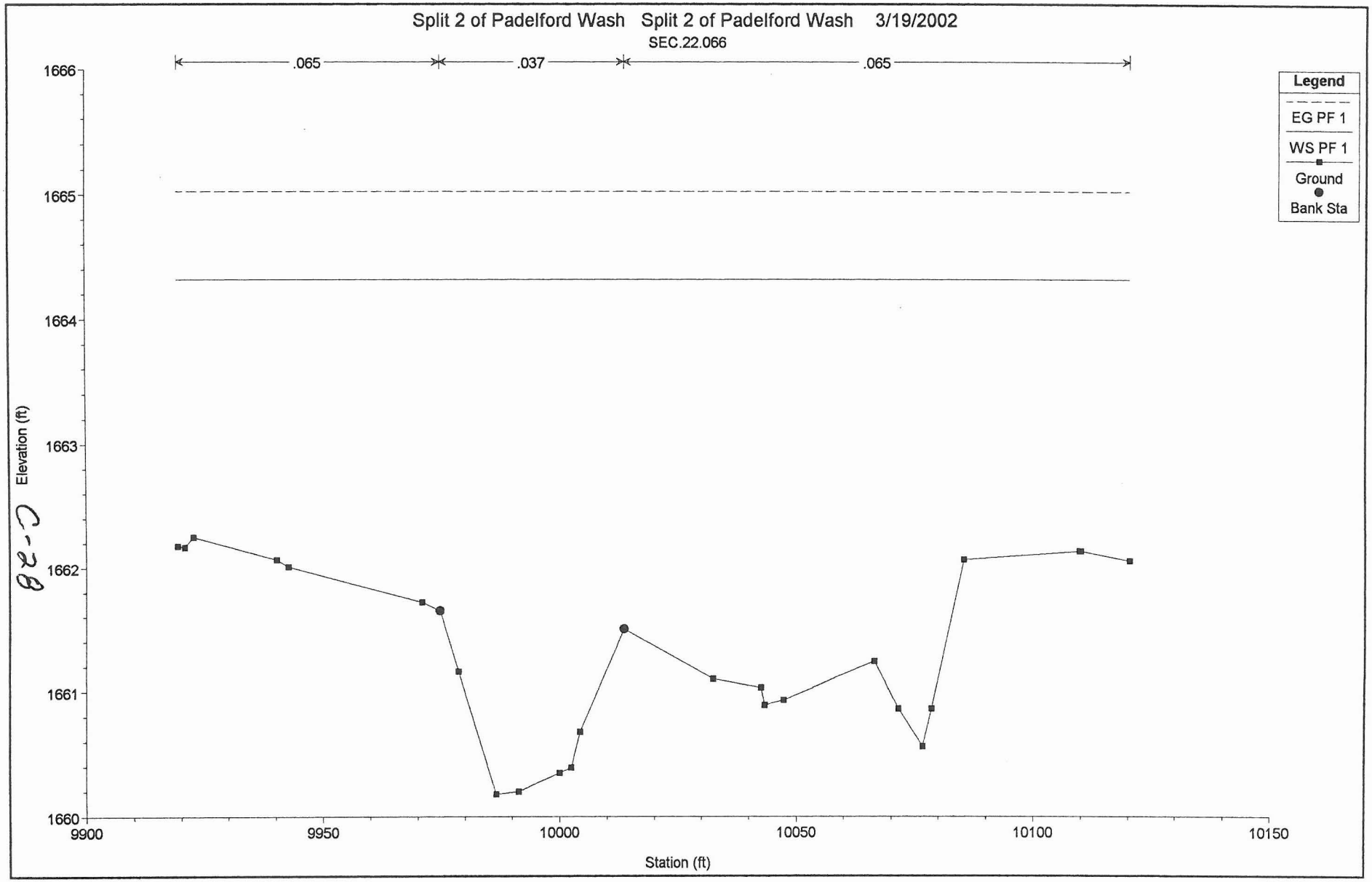
C-24


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC. 21.923
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1657
1656
1655
1654
1653
1652
9500
9600
9700
9800
9900
10000
10100
10200
SZ-C25

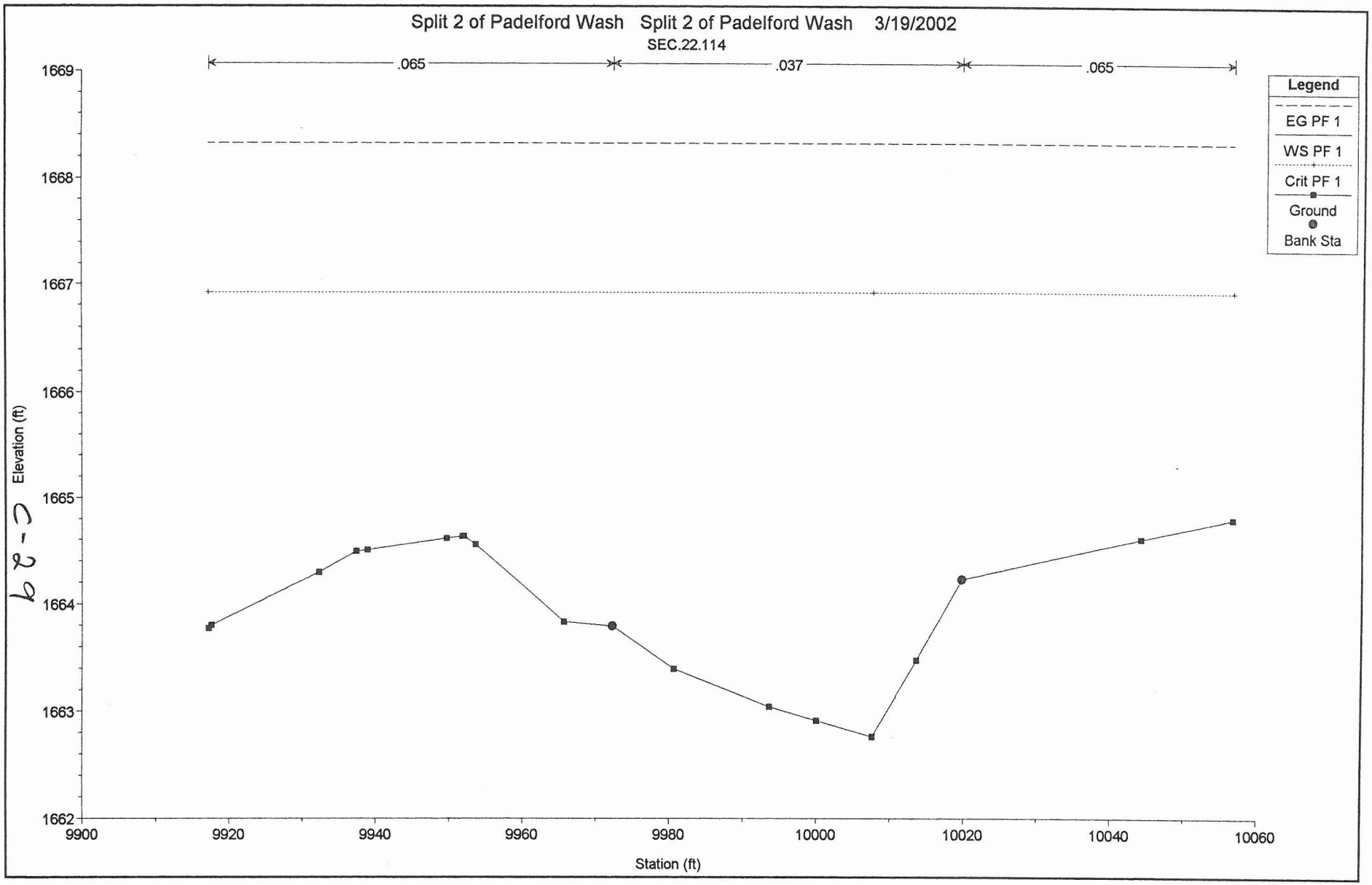

Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.21.97
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1660
1659
1658
1657
1656
1655
1654
9700
9800
9900
10000
10100
10200
Station (ft)

C-26

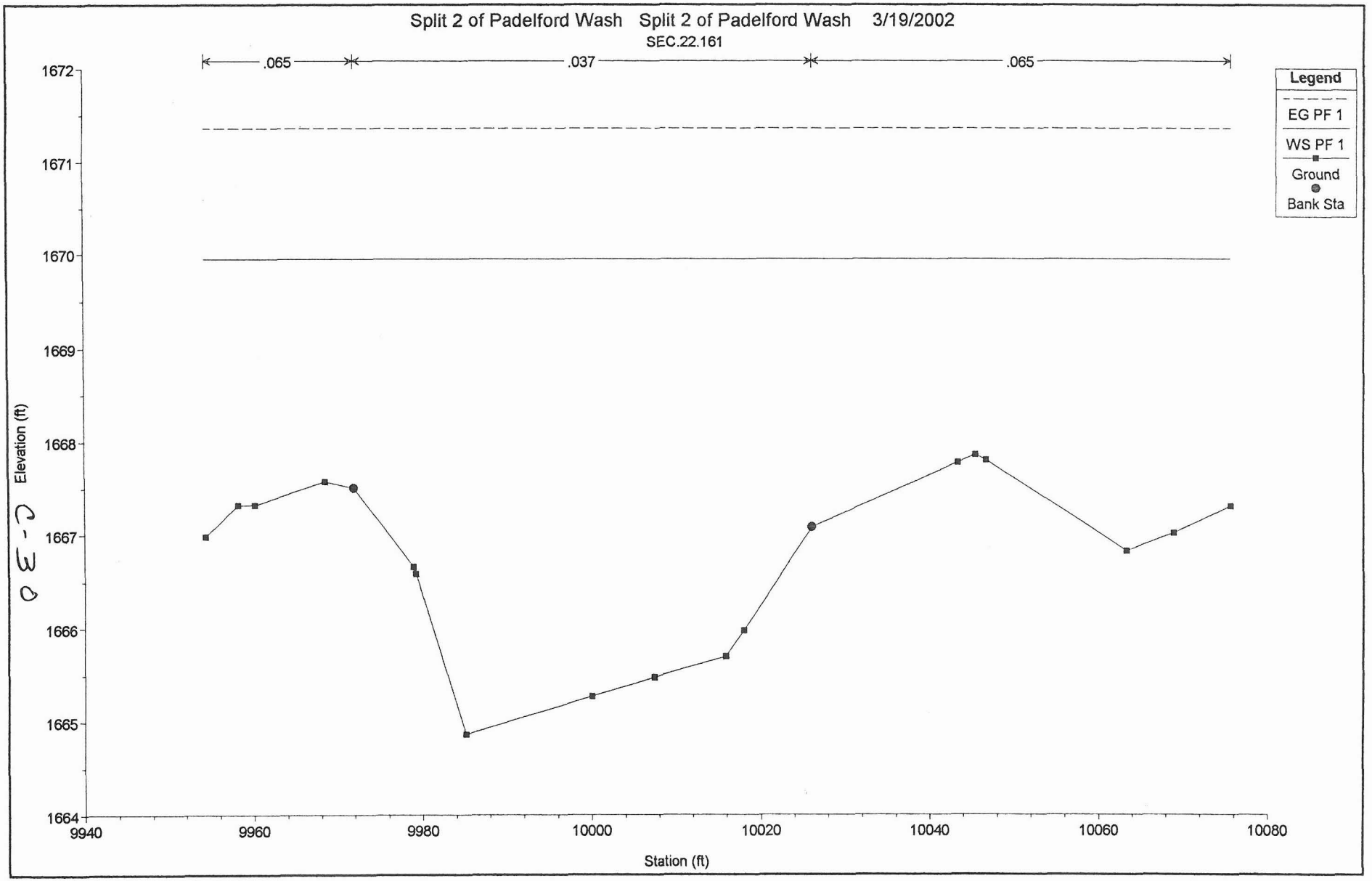

Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.22.019
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1662
1661
1660
1659
1658
1657
9750
9800
9850
9900
9950
10000
10050
10100
10150
C-27


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.22.066
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1666
1665
1664
1663
1662
1661
1660
9900
9950
10000
10050
10100
10150
Station (ft)

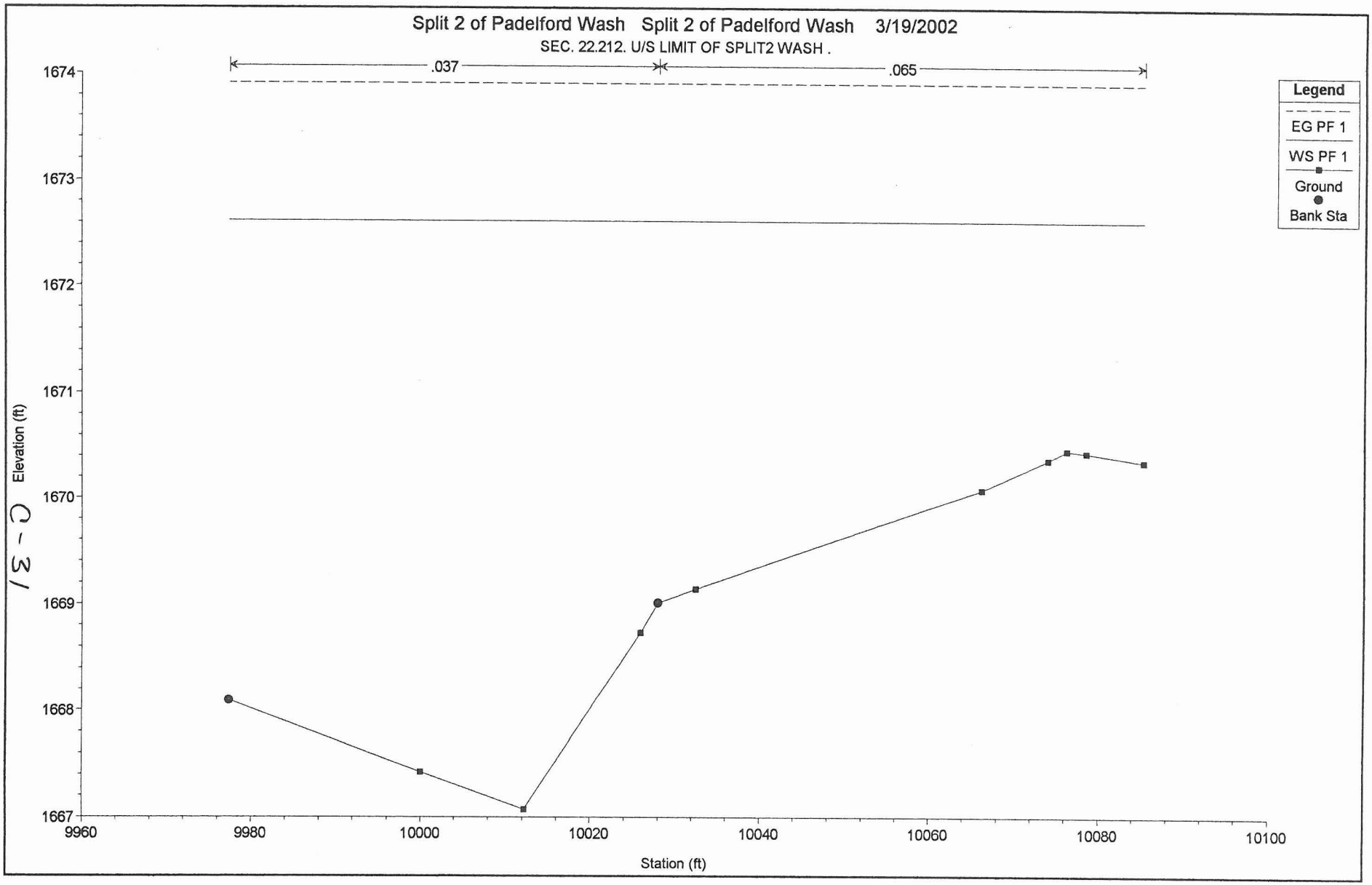
C-28


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.22.114
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1669
1668
1667
1666
1665
1664
1663
1662
9900
9920
9940
9960
9980
10000
10020
10040
10060

C-24

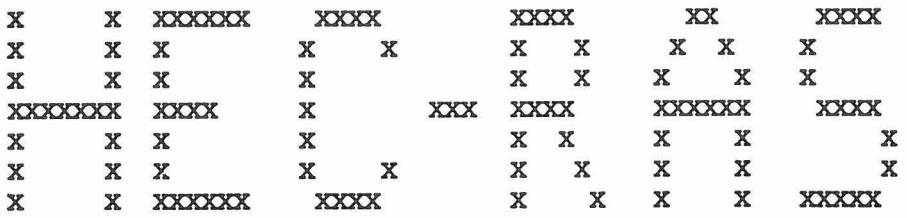

Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC.22.161
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1672
1671
1670
1669
1668
1667
1666
1665
1664
9940
9960
9980
10000
10020
10040
10060
10080

C-30


Split 2 of Padelford Wash Split 2 of Padelford Wash 3/19/2002
SEC. 22.212. U/S LIMIT OF SPLIT2 WASH .
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1674
1673
1672
1671
1670
1669
1668
1667
9960
9980
10000
10020
10040
10060
10080
10100

C - 31

HEC-RAS September 1998 Version 2.2
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104



PROJECT DATA
Project Title: SPLIT3-PADELFORD WASH
Project File : SPLIT3A.prj
Run Date and Time: 6/10/2002 7:57:02 AM

Project in English units

Project Description:
SPLIT3-PADELFORD WASH . THIS SPLIT FROM THE MAIN PADELFORD WASH BEGINS APPROX. 0.65 MILES UPSTREAM OF DOVE VALLEY RD. AND PROCEEDS DOWNSTREAM TO THE CAP CANAL.
SECTIONS ARE CODED FROM LEFT TO RIGHT , LOOKING DOWNSTREAM , WITH STA. 10000 AT THE HYDRAULIC BASELINE.
SECTION I.D. NOS. ARE IN RIVER MILES
INCREASING UPSTREAM , WITH RIVER MILE (RM) 30.0, ASSUMED TO BE AT THE UPSTREAM INLETHEADWALL FACE OF THE CAP OVERCHUTE STRUCTURE STA.240+00, WITH INLET I.E.=1541.07.
ANOTHER SPLIT FLOW (SPLIT4) SPLITS FROM SPLIT3 , APPROX. 320 FT. UPSTREAM OF WHITE WING RD.
THE STARTING WATER SURFACE ELEV. IS CONTROLLED BY THE RESERIVOR ROUTING OR PONDING UPSTREAM OF THE CAP CANAL BERMS.INITIALLY A SLOPE AREA - METHOD WAS USED FOR UPSTREAM AND DOWNSTREAM SARTING WSEL.

PLAN DATA

Plan Title: SPLIT3-PADELFORD WASH
Plan File : n:\Files\7158-07\Hec-Ras\5TH SET\SPLIT3A.p02

Geometry Title: Split 3 of Padelford Wash
Geometry File : n:\Files\7158-07\Hec-Ras\5TH SET\SPLIT3A.g01

Flow Title : Split 3 of Padelford Wash
Flow File : n:\Files\7158-07\Hec-Ras\5TH SET\SPLIT3A.f01

Plan Summary Information:
Number of: Cross Sections = 34 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

FLOW DATA

Flow Title: Split 3 of Padelford Wash
Flow File : n:\Files\7158-07\Hec-Ras\5TH SET\SPLIT3A.f01

Flow Data (cfs)

River	Reach	RS	PF 1
SPLIT 3	SPLIT 3	32.443	4660
SPLIT 3	SPLIT 3	31.552	4485
SPLIT 3	SPLIT 3	30.717	3781
SPLIT 3	SPLIT 3	30.376	3781

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
SPLIT 3	SPLIT 3	PF 1	Normal S = .01	Normal S = .01

GEOMETRY DATA

Geometry Title: Split 3 of Padelford Wash
Geometry File : n:\Files\7158-07\Hec-Ras\5TH SET\SPLIT3A.g01

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 32.443

INPUT
Description: SEC.32.443. U/S END SPLIT3 . NORMAL DEPTH START AT S=0.01 FT/FT.
Station Elevation Data num= 32

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9981.2	1677.95	9997.91	1677.6	10000	1677.51	10006.34	1677.22	10008.62	1677.49
10022.69	1679.31	10026.01	1679.23	10042.3	1678.68	10048.48	1678.67	10052.25	1678.71
10057.68	1678.38	10069.59	1677.73	10082.02	1679.18	10089.86	1679.93	10102.97	1679.56
10116.22	1679.05	10119.36	1678.47	10124.9	1677.54	10139.67	1677.3	10145	1677.22
10149.48	1677.87	10154.27	1678.47	10166.47	1680.28	10187.27	1680.88	10235.47	1682.22
10239.59	1682.18	10250.14	1682.22	10288.07	1681.62	10300.19	1681.29	10324.34	1682.26
10332.29	1682.57	10335.52	1682.56						

Manning's n Values num= 3

```
     Sta   n Val     Sta   n Val     Sta   n Val
  9981.2    .065  9981.2    .037 10042.3    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        9981.2 10042.3             250   279.8     335            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1683.30   Element                 Left OB    Channel   Right OB
  Vel Head (ft)               0.79   Wt. n-Val.                         0.037     0.065
  W.S. Elev (ft)           1682.51   Reach Len. (ft)          250.00    279.80    335.00
  Crit W.S. (ft)                     Flow Area (sq ft)                  260.24    629.70
  E.G. Slope (ft/ft)       0.008572  Area (sq ft)                       260.24    629.70
  Q Total (cfs)            4660.00   Flow (cfs)                        2419.63   2240.37
  Top Width (ft)            349.45   Top Width (ft)                      61.10    288.35
  Vel Total (ft/s)            5.24   Avg. Vel. (ft/s)                    9.30      3.56
  Max Chl Dpth (ft)           5.29   Hydr. Depth (ft)                    4.26      2.18
  Conv. Total (cfs)        50332.5   Conv. (cfs)                       26134.4   24198.2
  Length Wtd. (ft)          292.45   Wetted Per. (ft)                    65.81    288.93
  Min Ch El (ft)           1677.22   Shear (lb/sq ft)                     2.12      1.17
  Alpha                       1.86   Stream Power (lb/ft s)              19.68      4.15
  Frctn Loss (ft)             2.53   Cum Volume (acre-ft)     101.53    81.37     73.38
  C & E Loss (ft)             0.05   Cum SA (acres)            64.16    29.21     58.14


Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
for
        additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
        section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta        Flow       Area       W.P.    % Conv.   Hydr D.   Velocity
  (ft)         (ft)             (cfs)    (sq ft)      (ft)              (ft)      (ft/s)
  LB 9981.20   10011.75       1443.87     148.86     35.16     30.98     4.87       9.70
  10011.75     RB 10042.30     975.76     111.38     30.65     20.94     3.65       8.76
  10042.30     10335.52       2240.37     629.70    288.93     48.08     2.18       3.56


Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
for
        additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
        section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT 3
REACH: SPLIT 3           RS: 32.390

INPUT
Description: SEC.32.390
Station Elevation Data    num=      34
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9868.31 1678.09 9892.09 1678.25 9895.71  1678.2 9899.73 1677.91 9902.15 1677.68
 9908.78 1677.68 9921.96 1677.69 9934.35 1677.67 9941.17 1677.68  9949.5 1677.22
 9951.08 1677.16 9960.75 1676.48 9968.44 1675.84  9982.8 1675.32   10000 1674.56
10006.09 1674.2810015.58 1675.4810022.17 1676.2410027.03  1675.210034.13 1674.82
10047.73 1674.5610052.45 1674.3310058.08 1676.0710069.11  1679.110086.23  1678.7
10108.87 1678.0110122.66 1678.8810134.89 1679.5210176.52 1679.1110192.83 1678.97
10198.05 1679.4710212.07 1680.5410228.67  1680.410229.33 1680.41

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9868.31    .065 9960.75    .03710058.08    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9960.7510058.08             243   248.2     235            .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 10212.110229.33 1680.54
```

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1680.72	Element			
Vel Head (ft)	1.31	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1679.40	Reach Len. (ft)	243.00	248.20	235.00
Crit W.S. (ft)	1679.40	Flow Area (sq ft)	154.81	413.44	79.44
E.G. Slope (ft/ft)	0.008728	Area (sq ft)	154.81	413.44	79.44
Q Total (cfs)	4660.00	Flow (cfs)	461.71	4052.82	145.47
Top Width (ft)	314.89	Top Width (ft)	92.44	97.33	125.12
Vel Total (ft/s)	7.19	Avg. Vel. (ft/s)	2.98	9.80	1.83
Max Chl Dpth (ft)	5.12	Hydr. Depth (ft)	1.67	4.25	0.63
Conv. Total (cfs)	49880.1	Conv. (cfs)	4942.1	43380.9	1557.1
Length Wtd. (ft)		Wetted Per. (ft)	93.81	97.90	125.60
Min Ch El (ft)	1674.28	Shear (lb/sq ft)	0.90	2.30	0.34
Alpha	1.63	Stream Power (lb/ft s)	2.68	22.56	0.63
Frctn Loss (ft)		Cum Volume (acre-ft)	101.08	79.21	70.65
C & E Loss (ft)		Cum SA (acres)	63.90	28.70	56.55

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9868.31	9960.75	461.71	154.81	93.81	9.91	1.67	2.98
LB 9960.75	10009.42	1975.50	203.27	48.75	42.39	4.18	9.72
10009.42	RB 10058.08	2077.33	210.17	49.15	44.58	4.32	9.88
10058.08	10229.33	145.47	79.44	125.60	3.12	0.63	1.83

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 32.343

INPUT
Description: SEC.32.343
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9805.49	1675.51	9822.97	1674.88	9829.96	1674.61	9836.34	1675.01	9846.06	1675.58
9852.77	1675.9	9862.63	1675.87	9875.76	1675.78	9909.11	1674.61	9913.49	1674.46
9915.09	1674.4	9927.19	1673.88	9946.19	1673.11	9952.7	1672.94	9962.58	1672.73
9998.52	1672.08	10000	1672.06	10003.31	167210	10004.06	1672.11	10025.12	1675.13
10050.56	1675.03	10054.03	1675.02	10056.49	1675.31	10077.23	1677.23	10095.29	1677.04
10131.41	1676.28	10133.73	1676.32	10184.01	1678.19	10198.89	1677.89	10212.09	1677.99
10214.8	167810	10217.95	1677.99	10235.13	1677.62	10240.39	1677.59	10241.12	1677.58

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9805.49	.065	9909.11	.037	10025.12	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9909.11	10025.12	230 221.73	210	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10184	10241.12	1678.19

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1678.02	Element			
Vel Head (ft)	1.22	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1676.80	Reach Len. (ft)	230.00	221.73	210.00
Crit W.S. (ft)		Flow Area (sq ft)	152.06	423.55	76.60
E.G. Slope (ft/ft)	0.009959	Area (sq ft)	152.06	423.55	76.60

Q Total (cfs)	4660.00	Flow (cfs)	444.08	4018.68	197.24
Top Width (ft)	306.94	Top Width (ft)	103.62	116.01	87.31
Vel Total (ft/s)	7.14	Avg. Vel. (ft/s)	2.92	9.49	2.57
Max Chl Dpth (ft)	4.80	Hydr. Depth (ft)	1.47	3.65	0.88
Conv. Total (cfs)	46696.8	Conv. (cfs)	4450.0	40270.3	1976.4
Length Wtd. (ft)	221.97	Wetted Per. (ft)	104.98	116.27	87.41
Min Ch El (ft)	1672.00	Shear (lb/sq ft)	0.90	2.26	0.54
Alpha	1.54	Stream Power (lb/ft s)	2.63	21.49	1.40
Frctn Loss (ft)	2.01	Cum Volume (acre-ft)	100.23	76.83	70.23
C & E Loss (ft)	0.06	Cum SA (acres)	63.35	28.10	55.98

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9805.49	9909.11	444.08	152.06	104.98	9.53	1.47	2.92
LB 9909.11	9967.12	1684.90	191.00	58.04	36.16	3.29	8.82
9967.12	RB 10025.12	2333.78	232.55	58.23	50.08	4.01	10.04
10025.12	10241.12	197.24	76.60	87.41	4.23	0.88	2.57

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 32.301

INPUT
Description: SEC.32.301
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9830.61	1672.81	9833.84	1672.84	9836.68	1672.89	9842.71	1672.68	9860.61	1672.06
9861.96	1672.22	9876.7	1673.59	9882.01	1673.4	9907.83	1672.69	9913.55	1672.72
9947.08	1672.18	9947.69	1672.17	9947.88	1672.15	9963.05	1670.44	9988.13	1670.11
9994.92	1670.06	10000	1669.98	10000.95	1669.97	10004.54	1669.92	10006.07	1670.1
10026.26	1672.43	10044.04	1672.95	10047.81	1673.09	10051.41	1672.56	10059.94	1671.3
10075.44	1673.77	10077.47	1674.06	10088.58	1673.99	10112.6	1673.88	10118.48	1673.76
10147.64	1674.07	10172.67	1674.32	10182.06	1674.54	10196.64	1674.71	10207.36	1673.76
10209.42	1673.63	10222.89	1674.5	10238.72	1675.46	10244.26	1675.51	10269.58	1675.61
10299.76	1675.92	10301.2	1675.9						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9830.61	.065	9947.08	.037	10026.26	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9947.08	10026.26	242.57	232.76	222	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1675.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.02	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1674.93	Reach Len. (ft)	242.57	232.76	222.00
Crit W.S. (ft)	1674.93	Flow Area (sq ft)	257.06	335.96	240.03
E.G. Slope (ft/ft)	0.008271	Area (sq ft)	257.06	335.96	240.03
Q Total (cfs)	4660.00	Flow (cfs)	894.62	3209.45	555.93
Top Width (ft)	399.35	Top Width (ft)	116.47	79.18	203.70
Vel Total (ft/s)	5.59	Avg. Vel. (ft/s)	3.48	9.55	2.32
Max Chl Dpth (ft)	5.01	Hydr. Depth (ft)	2.21	4.24	1.18
Conv. Total (cfs)	51238.5	Conv. (cfs)	9836.7	35289.2	6112.7
Length Wtd. (ft)		Wetted Per. (ft)	118.69	79.42	204.15
Min Ch El (ft)	1669.92	Shear (lb/sq ft)	1.12	2.18	0.61
Alpha	2.10	Stream Power (lb/ft s)	3.89	20.87	1.41
Frctn Loss (ft)		Cum Volume (acre-ft)	99.15	74.89	69.47
C & E Loss (ft)		Cum SA (acres)	62.77	27.60	55.28

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9830.61	9947.08	894.62	257.06	118.69	19.20	2.21	3.48
LB 9947.08	9986.67	1590.11	167.02	39.69	34.12	4.22	9.52
9986.67	RB 10026.26	1619.34	168.94	39.74	34.75	4.27	9.59
10026.26	10301.20	555.93	240.03	204.15	11.93	1.18	2.32

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 32.257

INPUT
Description: SEC.32.257
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9829.71	1670.35	9841.3	1670.2	9846.35	1670.02	9849.8	1669.83	9860.27	1670.02
9869.08	1670.11	9894.82	1670.07	9912.64	1670.06	9925.39	1670.23	9929.14	1670.28
9941.18	1669.67	9943.33	1669.56	9943.82	1669.5	9954.79	1667.9	9958.74	1667.63
9966.66	1667.31	9972.05	1667.34	9978.89	1667.45	10000	1667.42	10008.87	1667.4
10013	1667.41	10014.85	1667.76	10016.22	1668	10032.3	1671.16	10056.71	1671
10108.62	1671.18	10129.65	1671.2	10136.45	1671.19	10147.52	1670.71	10151.12	1670.54
10151.78	1670.58	10162.59	1671.18	10169.73	1671.58	10170.21	1671.6	10196.62	1671.94
10208.08	1672.12	10221.15	1671.93	10226.66	1671.84	10254.28	1673.67	10256.12	1673.8
10260.2	1673.78	10304.18	1673.42	10335.63	1673.41				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9829.71	.065	9929.14	.037	10032.3	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9929.14	10032.3	269	269.3	270	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10256.1	10335.63	1673.8

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1673.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.10	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1672.09	Reach Len. (ft)	269.00	269.30	270.00
Crit W.S. (ft)	1672.09	Flow Area (sq ft)	198.57	394.61	151.13
E.G. Slope (ft/ft)	0.009112	Area (sq ft)	198.57	394.61	151.13
Q Total (cfs)	4660.00	Flow (cfs)	679.19	3687.73	293.08
Top Width (ft)	397.21	Top Width (ft)	99.43	103.16	194.63
Vel Total (ft/s)	6.26	Avg. Vel. (ft/s)	3.42	9.35	1.94
Max Chl Dpth (ft)	4.78	Hydr. Depth (ft)	2.00	3.83	0.78
Conv. Total (cfs)	48818.6	Conv. (cfs)	7115.3	38633.0	3070.4
Length Wtd. (ft)		Wetted Per. (ft)	101.19	103.68	194.68
Min Ch El (ft)	1667.31	Shear (lb/sq ft)	1.12	2.17	0.44
Alpha	1.81	Stream Power (lb/ft s)	3.82	20.23	0.86
Frctn Loss (ft)		Cum Volume (acre-ft)	97.88	72.94	68.47
C & E Loss (ft)		Cum SA (acres)	62.17	27.11	54.26

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9829.71	9929.14	679.19	198.57	101.19	14.57	2.00	3.42
LB 9929.14	9980.72	1722.56	189.35	51.73	36.96	3.67	9.10
9980.72	RB 10032.30	1965.16	205.26	51.94	42.17	3.98	9.57
10032.30	10335.63	293.08	151.13	194.68	6.29	0.78	1.94

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 32.206

INPUT
Description: SEC.32.206
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9818.34	1667.29	9821.51	1667.42	9836.91	1666.79	9839.29	1666.68	9844.98	1664.04
9845.35	1663.9	9860.59	1665.97	9860.62	1665.98	9868.6	1666.8	9882.21	1667.45
9899.95	1668.05	9910.17	1667.41	9913.99	1667.13	9915.31	1667.16	9932.34	1667.33
9959.67	1665.94	9960.39	1665.92	9961.71	1665.84	9971.13	1664.27	9971.35	1664.23
9972.05	1664.23	10000	166410002.57	1663.98	10006.5	1664.8710024.92		1668.68	
10041.48	1668.2210044.41	1668.1310049.84		1667.410052.14		1667.1310054.15		1667.2	
10076.71	1667.8210091.04	1669.7210092.03		1669.8410126.75		1668.7910130.09		1668.72	
10131.47	1668.72 10142.8	1668.810160.36		1669.710184.58		1670.810229.33		1670.85	
10250.25	1670.8610281.99	1670.7410327.81		1670.5510333.15		1670.6210338.62		1670.59	
10349.79	1671.24 10364.8	1671.8910368.23		1671.77					

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9818.34	.065	9932.34	.03710024.92		.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9932.3410024.92 255 264 265 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
10250.310368.23		1670.86

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1670.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.01	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1669.35	Reach Len. (ft)	255.00	264.00	265.00
Crit W.S. (ft)		Flow Area (sq ft)	285.05	353.54	104.45
E.G. Slope (ft/ft)	0.009052	Area (sq ft)	285.05	353.54	104.45
Q Total (cfs)	4660.00	Flow (cfs)	1122.96	3284.56	252.48
Top Width (ft)	315.37	Top Width (ft)	114.00	92.58	108.79
Vel Total (ft/s)	6.27	Avg. Vel. (ft/s)	3.94	9.29	2.42
Max Chl Dpth (ft)	5.45	Hydr. Depth (ft)	2.50	3.82	0.96
Conv. Total (cfs)	48980.0	Conv. (cfs)	11803.1	34523.2	2653.8
Length Wtd. (ft)	261.58	Wetted Per. (ft)	116.93	93.24	109.00
Min Ch El (ft)	1663.98	Shear (lb/sq ft)	1.38	2.14	0.54
Alpha	1.65	Stream Power (lb/ft s)	5.43	19.91	1.31
Frctn Loss (ft)	2.56	Cum Volume (acre-ft)	96.39	70.63	67.68
C & E Loss (ft)	0.01	Cum SA (acres)	61.51	26.51	53.32

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9818.34	9932.34	1122.95	285.05	116.93	24.10	2.50	3.94
LB 9932.34	9978.63	1393.78	160.40	46.46	29.91	3.47	8.69

9978.63	RB 10024.92	1890.79	193.14	46.78	40.57	4.17	9.79
10024.92	10368.23	252.48	104.45	109.00	5.42	0.96	2.42

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 32.156

INPUT
Description: SEC.32.156
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9803.53	1664.79	9805.37	1664.83	9811.89	1664.79	9814.13	1664.8	9819.2	1664.76
9830.97	1664.74	9833.49	1664.81	9843.45	1665.02	9856.02	1664.19	9860.69	1663.99
9863.18	1663.71	9873.85	1662.42	9877.25	1662.67	9886.62	1663.65	9894.74	1663.7
9926.76	1664.4	9928.95	1664.48	9941.11	1664.43	9943.56	1664.44	9953.75	1664.2
9955.75	1664.1	9964.81	1662.79	9969.36	1662.15	9973.03	1662.1	10000	1661.87
10003.63	1661.84	10011.91	1663.26	10023.15	1665.27	10033.12	1666.07	10050.95	1667.48
10058.56	1667.61	10081.86	1667.81	10110.9	1667.59	10147.35	1667.41	10166.87	1667.48
10232.61	1667.36	10265.09	1667.37	10270.16	1667.03	10278.29	1666.45	10307.39	1668.66
10313.54	1669.11	10318.38	1669.41	10342.35	1669.14				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9803.53	.065	9928.95	.037	10023.15	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9928.95	10023.15	245 253.4	255	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10081.91	10342.35	1667.81

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1667.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.08	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1666.71	Reach Len. (ft)	245.00	253.40	255.00
Crit W.S. (ft)		Flow Area (sq ft)	322.99	335.37	13.00
E.G. Slope (ft/ft)	0.010601	Area (sq ft)	322.99	335.37	13.00
Q Total (cfs)	4660.00	Flow (cfs)	1412.44	3223.06	24.50
Top Width (ft)	237.71	Top Width (ft)	125.42	94.20	18.09
Vel Total (ft/s)	6.94	Avg. Vel. (ft/s)	4.37	9.61	1.88
Max Chl Dpth (ft)	4.87	Hydr. Depth (ft)	2.58	3.56	0.72
Conv. Total (cfs)	45260.0	Conv. (cfs)	13718.3	31303.8	237.9
Length Wtd. (ft)	250.70	Wetted Per. (ft)	127.54	94.65	18.15
Min Ch El (ft)	1661.84	Shear (lb/sq ft)	1.68	2.35	0.47
Alpha	1.45	Stream Power (lb/ft s)	7.33	22.54	0.89
Frctn Loss (ft)	2.55	Cum Volume (acre-ft)	94.61	68.54	67.32
C & E Loss (ft)	0.00	Cum SA (acres)	60.81	25.94	52.94

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9803.53	9928.95	1412.44	322.99	127.54	30.31	2.58	4.37
LB 9928.95	9976.05	1211.13	142.24	47.25	25.99	3.02	8.51
9976.05	RB 10023.15	2011.93	193.13	47.40	43.17	4.10	10.42
10023.15	10342.35	24.50	13.00	18.15	0.53	0.72	1.88

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 32.108

INPUT
Description: SEC.32.108
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9802.5	1662.05	9822.14	1661.9	9835.15	1661.97	9846.06	1662.01	9873.36	1662.35
9880.73	1662.46	9884.86	1662.16	9890.84	1661.54	9895.59	1661.47	9898.24	1661.32
9902.86	1661.59	9903.89	1661.62	9905	1661.45	9913.31	1660.16	9913.97	1660.06
9929.12	1660.76	9935.5	1661.29	9946.12	1661.44	9958.16	1661.75	9971.99	1661.21
9976.1	1661.1	9977.99	1660.78	9987.31	1659.51	10000	1659.23	10006.53	1659.09
10016.81	1658.88	10026.68	1661.02	10028.65	1661.41	10050.62	1663.36	10053.64	1663.62
10055.33	1663.62	10115.76	1663.86	10125.62	1663.49	10130.24	1663.27	10137.05	1663.82
10147.96	1664.74	10169.5	1664.89	10204.36	1665.25	10222.39	1665.14	10250.46	1664.42
10256.59	1664.19	10274.13	1663.83	10274.41	1663.83	10274.65	1663.83	10293.53	1664.06
10306.1	1664.07	10314.19	1664.66	10339.22	1665.06	10353.71	1665		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9802.5	.065	9958.16	.037	10028.65	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9958.16 10028.65 245 253.4 255 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
10204.41	10353.71	1665.25

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1665.24	Element			
Vel Head (ft)	1.08	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1664.16	Reach Len. (ft)	245.00	253.40	255.00
Crit W.S. (ft)		Flow Area (sq ft)	390.07	287.00	80.81
E.G. Slope (ft/ft)	0.009810	Area (sq ft)	390.07	287.00	80.81
Q Total (cfs)	4660.00	Flow (cfs)	1613.37	2899.96	146.68
Top Width (ft)	338.60	Top Width (ft)	155.66	70.49	112.45
Vel Total (ft/s)	6.15	Avg. Vel. (ft/s)	4.14	10.10	1.82
Max Chl Dpth (ft)	5.28	Hydr. Depth (ft)	2.51	4.07	0.72
Conv. Total (cfs)	47048.1	Conv. (cfs)	16288.8	29278.4	1480.9
Length Wtd. (ft)	250.90	Wetted Per. (ft)	157.99	70.89	112.59
Min Ch El (ft)	1658.88	Shear (lb/sq ft)	1.51	2.48	0.44
Alpha	1.84	Stream Power (lb/ft s)	6.25	25.06	0.80
Frctn Loss (ft)	2.55	Cum Volume (acre-ft)	92.60	66.73	67.05
C & E Loss (ft)	0.01	Cum SA (acres)	60.02	25.46	52.55

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9802.50	9958.16	1613.36	390.07	157.99	34.62	2.51	4.14
LB 9958.16	9993.41	1089.88	121.71	35.37	23.39	3.45	8.95
9993.41	RB 10028.65	1810.08	165.29	35.52	38.84	4.69	10.95
10028.65	10353.71	146.68	80.81	112.59	3.15	0.72	1.82

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 32.060

INPUT
Description: SEC.32.060
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9757.21	1658.6	9765.42	1658.51	9765.93	1658.5	9766.67	1658.47	9781.47	1657.93
9783.24	1658.1	9795.73	1659.5	9808.72	1659.5	9852.32	1659.88	9918.72	1660.66
9949.72	1660.81	9956.9	1660.85	9961.67	1660.84	9971	1658.34	9973.28	1657.8
9974.99	1657.95	9984.22	1658.56	9987.18	1658.21	9987.87	1658	9991.58	1656.8
9992.09	1656.52	9996.06	1656.59	10000	1656.66	10021.3	1657.03	10035.6	1658.56

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10045.08 1659.6110054.04 1659.7710065.72 1659.7410069.93  1659.8 10073.8 1659.65
10079.53 1659.9110082.81  1659.510098.48 1662.0510103.22 1662.9910140.17 1662.15
10147.98 1661.9610150.64 1661.8310156.09 1661.7310180.72 1661.8210250.45 1662.14
10261.25 1661.5110266.85 1661.2110283.23 1661.8910290.44 1662.1910330.46 1662.91

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9757.21    .065 9961.67    .03710054.04    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9961.6710054.04              255   253.4     250             .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 10103.210330.46 1662.99
```

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1662.68	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.05	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1661.63	Reach Len. (ft)	255.00	253.40	250.00
Crit W.S. (ft)	1661.63	Flow Area (sq ft)	360.74	332.80	67.81
E.G. Slope (ft/ft)	0.010599	Area (sq ft)	360.74	332.80	67.81
Q Total (cfs)	4660.00	Flow (cfs)	1227.15	3213.38	219.48
Top Width (ft)	338.67	Top Width (ft)	204.46	92.37	41.84
Vel Total (ft/s)	6.12	Avg. Vel. (ft/s)	3.40	9.66	3.24
Max Chl Dpth (ft)	5.11	Hydr. Depth (ft)	1.76	3.60	1.62
Conv. Total (cfs)	45264.6	Conv. (cfs)	11919.8	31212.9	2131.9
Length Wtd. (ft)		Wetted Per. (ft)	207.59	93.25	42.04
Min Ch El (ft)	1656.52	Shear (lb/sq ft)	1.15	2.36	1.07
Alpha	1.81	Stream Power (lb/ft s)	3.91	22.80	3.45
Frctn Loss (ft)		Cum Volume (acre-ft)	90.49	64.93	66.61
C & E Loss (ft)		Cum SA (acres)	59.01	24.99	52.10

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9757.21	9961.67	1227.15	360.74	207.59	26.33	1.76	3.40
LB 9961.67	10007.86	1709.23	173.20	46.92	36.68	3.75	9.87
10007.86	RB 10054.04	1504.15	159.60	46.33	32.28	3.46	9.42
10054.04	10330.46	219.48	67.81	42.04	4.71	1.62	3.24

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

```
CROSS SECTION          RIVER: SPLIT 3
REACH: SPLIT 3            RS: 32.012

INPUT
Description: SEC.32.012
Station Elevation Data    num=      46
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
 9765.46 1657.06 9772.49 1657.15 9778.81 1657.62 9800.08 1658.05 9820.29 1657.63
  9823.8 1657.56    9824 1656.91 9854.44 1656.07 9855.64 1656.02 9855.94 1655.99
 9865.03 1655.16 9874.92 1656.22 9877.83 1656.56 9887.43  1656.9  9937.5 1657.23
  9943.2 1656.87 9951.97 1656.12 9954.54 1655.97 9961.08 1656.32 9968.74 1656.89
 9976.84 1657.21 9991.35 1657.69 9996.03 1654.92 9997.99 1653.95   10000 1653.98
 10001.3    165410018.71 1654.5610027.97 1656.1710038.32  1657.210063.18 1657.45
10087.27 1657.5110089.24 1657.2410100.99 1654.6810114.13 1655.31 10125.3 1655.84
10137.82 1656.4410150.72 1657.0210164.49 1658.8910171.58 1659.8810192.33  1660.2
10201.36 1660.3110204.71 1659.68   10214 1657.3610221.42  1658.410234.37 1659.83
10293.43 1659.65

Manning's n Values        num=       5
```

```
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9765.46    .065 9991.35    .03710038.32    .06510089.24    .03710150.72    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9991.3510038.32              245   253.4     255            .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 10201.410293.43 1660.31

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1659.55   Element                Left OB    Channel   Right OB
  Vel Head (ft)                0.66   Wt. n-Val.               0.065      0.037      0.041
  W.S. Elev (ft)            1658.89   Reach Len. (ft)         245.00     253.40     255.00
  Crit W.S. (ft)                      Flow Area (sq ft)       439.44     172.88     273.82
  E.G. Slope (ft/ft)       0.008759   Area (sq ft)            439.44     172.88     273.82
  Q Total (cfs)             4660.00   Flow (cfs)             1454.15    1523.49    1682.36
  Top Width (ft)             399.04   Top Width (ft)          225.89      46.97     126.18
  Vel Total (ft/s)             5.26   Avg. Vel. (ft/s)          3.31       8.81       6.14
  Max Chl Dpth (ft)            4.94   Hydr. Depth (ft)          1.95       3.68       2.17
  Conv. Total (cfs)         49791.2   Conv. (cfs)            15537.3    16278.2    17975.7
  Length Wtd. (ft)           251.96   Wetted Per. (ft)        228.46      48.16     126.66
  Min Ch El (ft)            1653.95   Shear (lb/sq ft)          1.05       1.96       1.18
  Alpha                        1.53   Stream Power (lb/ft s)    3.48      17.30       7.26
  Frctn Loss (ft)              2.63   Cum Volume (acre-ft)     88.15      63.46      65.63
  C & E Loss (ft)              0.01   Cum SA (acres)           57.75      24.58      51.62


Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)      (sq ft)    (ft)                (ft)      (ft/s)
  9765.46       9991.35        1454.15     439.44     228.46      31.20       1.95       3.31
  LB 9991.35    10014.83        955.32     100.37      24.48      20.50       4.27       9.52
  10014.83      RB 10038.32     568.16      72.51      23.68      12.19       3.09       7.84
  10038.32      10293.43       1682.36     273.82     126.66      36.10       2.17       6.14


Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT 3
REACH: SPLIT 3            RS: 31.964

INPUT
Description: SEC.31.964
Station Elevation Data    num=      51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9757.26 1655.86 9774.62 1655.76 9811.74 1655.62 9855.92 1654.05 9856.36 1654.04
 9857.55 1654.08 9870.24 1654.58 9889.95 1655.26 9893.16 1655.38 9894.14 1655.23
 9913.45 1652.87 9917.16 1653.05 9922.79 1653.83 9936.08 1654.38 9953.28  1654.9
 9986.98 1655.36 9990.79 1655.43 9993.12 1654.22 9997.95 1651.85 9999.72 1651.84
   10000 1651.8510003.51 1651.9810021.54 1652.5110032.44 1653.2610035.64 1653.55
10041.86 1654.0310106.54 1655.5610107.72 1655.5810108.06 1655.5910108.21 1655.59
10108.26  1655.6 10108.3  1655.610108.49 1655.59 10108.6 1655.5910109.15 1655.58
 10155.2 1654.4510162.91 1652.6610163.28 1652.58 10164.1 1652.59 10186.8 1653.24
10190.14 1653.5810202.36 1654.6510218.41 1654.77 10220.6 1654.6610223.72 1654.79
10242.67 1652.6910246.46 1652.2310263.25 1655.4210272.29 1657.1410292.69 1657.12
10306.32 1657.09

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9757.26    .065 9990.79    .03710041.86    .065 10155.2    .03710202.36    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9990.7910041.86              262     264     264            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1656.91   Element                Left OB    Channel   Right OB
```

Vel Head (ft)	0.77	Wt. n-Val.	0.065	0.037	0.050
W.S. Elev (ft)	1656.14	Reach Len. (ft)	262.00	264.00	264.00
Crit W.S. (ft)	1656.14	Flow Area (sq ft)	291.17	170.80	401.77
E.G. Slope (ft/ft)	0.012510	Area (sq ft)	291.17	170.80	401.77
Q Total (cfs)	4660.00	Flow (cfs)	861.07	1695.68	2103.26
Top Width (ft)	509.78	Top Width (ft)	233.53	51.07	225.18
Vel Total (ft/s)	5.40	Avg. Vel. (ft/s)	2.96	9.93	5.24
Max Chl Dpth (ft)	4.30	Hydr. Depth (ft)	1.25	3.34	1.78
Conv. Total (cfs)	41663.1	Conv. (cfs)	7698.4	15160.3	18804.3
Length Wtd. (ft)	263.48	Wetted Per. (ft)	234.10	51.98	226.02
Min Ch El (ft)	1651.84	Shear (lb/sq ft)	0.97	2.57	1.39
Alpha	1.71	Stream Power (lb/ft s)	2.87	25.48	7.27
Frctn Loss (ft)	3.14	Cum Volume (acre-ft)	86.09	62.46	63.65
C & E Loss (ft)	0.02	Cum SA (acres)	56.45	24.30	50.59

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9757.26	9990.79	861.07	291.17	234.10	18.48	1.25	2.96
LB 9990.79	10016.33	958.11	92.61	26.39	20.56	3.63	10.35
10016.33	RB 10041.86	737.57	78.19	25.59	15.83	3.06	9.43
10041.86	10306.32	2103.26	401.77	226.02	45.13	1.78	5.24

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 31.914

INPUT
Description: SEC.31.914
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9606.42	1652.5	9651.14	1651.71	9656.89	1651.68	9669.53	1652.24	9672.93	1652.16
9678.55	1652.2	9688.58	1651.91	9692.36	1651.53	9700.75	1650.39	9707.17	1650.81
9715.77	1651.4	9720.14	1650.96	9730.29	1650.97	9743.26	1651.58	9748.97	1651.9
9769.62	1651.9	9771.32	1651.66	9774.86	1651.07	9776.72	1650.85	9779	1651.08
9782.87	1650.93	9792.12	1651.64	9796.58	1652.03	9797.78	1651.97	9801.37	1652.05
9813.72	1651.98	9820.77	1652.4	9823.75	1652.37	9828.86	1651.79	9832.66	1651.48
9840.15	1651.03	9846.03	1651.65	9854.75	1652.59	9859.68	1652.55	9869.14	1652.21
9877.24	1651.51	9882.33	1651.63	9884.86	1651.68	9914.17	1652.12	9921.17	1652.11
9927.53	1652.07	9939.6	1650.21	9940.01	1650.1	9953.37	1650.24	9954.26	1650.25
9963.94	1651.43	9968.1	1651.9	9975.19	1651.85	9977.34	1651.43	9993.86	1648.62
9999.37	1648.56	10000	1648.55	10008.23	1648.38	10015.52	1649.61	10023.85	1651.25
10072.23	1652.01	10086.92	1652.3	10092.73	1652.24	10120.91	1652.05	10144.51	1651.9
10163.85	1650.51	10164.46	1650.48	10188.65	1649.66	10188.78	1649.66	10189.09	1649.7
10217.04	1653.69	10262.85	1653.7	10279.59	1653.62				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9606.42	.065	9975.19	.037	10023.85	.065	10144.51	.037	10217.04	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9975.19	10023.85	248	248.2	248	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10262.91	10279.59	1653.7

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1653.75	Element			
Vel Head (ft)	0.70	Wt. n-Val.	0.065	0.037	0.044
W.S. Elev (ft)	1653.05	Reach Len. (ft)	248.00	248.20	248.00
Crit W.S. (ft)		Flow Area (sq ft)	511.49	169.61	287.70
E.G. Slope (ft/ft)	0.011383	Area (sq ft)	511.49	169.61	287.70
Q Total (cfs)	4660.00	Flow (cfs)	1547.78	1658.43	1453.80
Top Width (ft)	606.15	Top Width (ft)	368.77	48.66	188.72

Vel Total (ft/s)	4.81	Avg. Vel. (ft/s)	3.03	9.78	5.05
Max Chl Dpth (ft)	4.67	Hydr. Depth (ft)	1.39	3.49	1.52
Conv. Total (cfs)	43677.8	Conv. (cfs)	14507.2	15544.3	13626.3
Length Wtd. (ft)	248.07	Wetted Per. (ft)	370.11	49.20	189.04
Min Ch El (ft)	1648.38	Shear (lb/sq ft)	0.98	2.45	1.08
Alpha	1.95	Stream Power (lb/ft s)	2.97	23.95	5.47
Frctn Loss (ft)	2.84	Cum Volume (acre-ft)	83.68	61.43	61.56
C & E Loss (ft)	0.02	Cum SA (acres)	54.64	24.00	49.34

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9606.42	9975.19	1547.78	511.49	370.11	33.21	1.39	3.03
LB 9975.19	9999.52	723.28	78.29	24.61	15.52	3.22	9.24
9999.52	RB 10023.85	935.15	91.32	24.59	20.07	3.75	10.24
10023.85	10279.59	1453.80	287.70	189.04	31.20	1.52	5.05

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 31.867

INPUT
Description: SEC.31.867
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9504.49	1650.03	9521.18	1650.02	9557.57	1650.02	9568.26	1650.03	9572.88	1649.85
9581.89	1649.73	9591.64	1649.77	9593.12	1649.76	9594.99	1649.77	9606.86	1649.65
9610.52	1649.72	9617.48	1648.3	9624.44	1647.11	9645.48	1646.71	9650.79	1646.59
9655.23	1647.28	9665.75	1649.06	9679.53	1648.38	9692.01	1647.76	9702.96	1648.25
9703.84	1648.28	9706.15	1648.17	9717.77	1647.6	9721.99	1648.18	9728.3	1648.94
9746.65	1649.44	9750.16	1649.53	9765.69	1649.31	9767.59	1649.3	9768.9	1649.3
9782.8	1649.3	9789.92	1649.55	9800.49	1649.91	9845.5	1650.35	9866.14	1650.41
9902.62	1649.22	9906.11	1649.12	9911.54	1649.08	9913.72	1649.11	9920.35	1649.24
9952.39	1649.88	9955.95	1649.17	9963.77	1647.78	9969.79	1647.7	9977.44	1647.77
9988.8	1646.88	10000	1646.35	10002.5	1646.23	10015.81	1648.06	10019.14	1648.56
10023.28	1648.99	10040.74	1648.49	10068.78	1647.51	10089.5	1648.57	10097.4	1648.99
10100.94	1648.42	10111.69	1646.68	10119.29	1646.72	10136.69	1646.63	10148.53	1649.2
10149.29	1649.36	10150.4	1649.42	10154.96	1649.64	10169.87	1650.37	10173.36	1650.44
10234.3	1651.08	10243.54	1651.19	10247.99	1651.18	10255.63	1651.12	10269.6	1650.93

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9504.49	.065	9952.39	.037	10023.28	.065	10100.94	.037	10150.4	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9952.39 10023.28 270 306.2 310 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
10243.5	10269.6	1651.19

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1650.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.63	Wt. n-Val.	0.065	0.037	0.046
W.S. Elev (ft)	1650.27	Reach Len. (ft)	270.00	306.20	310.00
Crit W.S. (ft)		Flow Area (sq ft)	450.48	190.10	310.13
E.G. Slope (ft/ft)	0.011366	Area (sq ft)	450.48	190.10	310.13
Q Total (cfs)	4660.00	Flow (cfs)	1175.30	1564.75	1919.95
Top Width (ft)	630.53	Top Width (ft)	415.05	70.89	144.59
Vel Total (ft/s)	4.90	Avg. Vel. (ft/s)	2.61	8.23	6.19
Max Chl Dpth (ft)	4.04	Hydr. Depth (ft)	1.09	2.68	2.14
Conv. Total (cfs)	43709.7	Conv. (cfs)	11024.0	14677.0	18008.7
Length Wtd. (ft)	296.30	Wetted Per. (ft)	415.94	71.32	145.15
Min Ch El (ft)	1646.23	Shear (lb/sq ft)	0.77	1.89	1.52
Alpha	1.68	Stream Power (lb/ft s)	2.01	15.57	9.39

Frctn Loss (ft)	2.79	Cum Volume (acre-ft)	80.94	60.40	59.86
C & E Loss (ft)	0.00	Cum SA (acres)	52.41	23.66	48.39

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9504.49	9952.39	1175.30	450.48	415.94	25.22	1.09	2.61
LB 9952.39	9987.83	599.89	81.60	35.67	12.87	2.30	7.35
9987.83	RB 10023.28	964.86	108.50	35.65	20.71	3.06	8.89
10023.28	10269.60	1919.95	310.13	145.15	41.20	2.14	6.19

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 31.809

INPUT
Description: SEC.31.809
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9412.07	1647.23	9425.6	1647.14	9489.25	1646.64	9492.47	1646.59	9495.02	1646.09
9502.38	1644.61	9516.39	1646.8	9517.17	1646.91	9517.78	1646.91	9518.26	1646.89
9538.64	1646.43	9566.11	1646.76	9574.44	1647.09	9583.55	1645.4	9596.29	1643.31
9610.58	1644.4	9614.86	1644.71	9622.97	1645.01	9648.66	1646.07	9651.02	1645.99
9684.39	1645.68	9693.4	1645.6	9696.71	1645.39	9705.06	1644.86	9711.07	1645.2
9715.63	1645.53	9729.96	1644.8	9733.82	1644.67	9746.54	1645.73	9749.92	1646.04
9755.53	1644.33	9756.35	1644.41	9774.19	1647.02	9783.53	1647.03	9811.18	1646.92
9836.19	1646.91	9845.11	1646.85	9848.57	1646.83	9866.76	1646.81	9878.16	1647.1
9893.06	1647.51	9908.5	1646.77	9920	1646.29	9935.5	1645.56	9947.94	1645.08
9960.57	1644.36	9961.45	1644.3	9961.48	1644.3	9962.28	1644.28	9963.04	1644.26
9992.43	1643.52	10000	1643.28	10026.69	1642.44	10030.65	1643.57	10037.68	1645.78
10044.06	1646.58	10055.02	1647.84	10073.5	1647.74	10103.11	1648.02	10111.19	1647.97

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9412.07	.065	9908.5	.037	10044.06	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9908.5	10044.06	265	311.5	300	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10103.11	10111.19	1648.02

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1648.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.61	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1647.49	Reach Len. (ft)	265.00	311.50	300.00
Crit W.S. (ft)		Flow Area (sq ft)	641.16	411.09	3.58
E.G. Slope (ft/ft)	0.008007	Area (sq ft)	641.16	411.09	3.58
Q Total (cfs)	4660.00	Flow (cfs)	1570.18	3085.51	4.31
Top Width (ft)	638.61	Top Width (ft)	495.15	135.56	7.90
Vel Total (ft/s)	4.41	Avg. Vel. (ft/s)	2.45	7.51	1.20
Max Chl Dpth (ft)	5.05	Hydr. Depth (ft)	1.29	3.03	0.45
Conv. Total (cfs)	52077.3	Conv. (cfs)	17547.4	34481.7	48.2
Length Wtd. (ft)	295.14	Wetted Per. (ft)	496.81	136.19	7.95
Min Ch El (ft)	1642.44	Shear (lb/sq ft)	0.65	1.51	0.23
Alpha	2.02	Stream Power (lb/ft s)	1.58	11.33	0.27
Frctn Loss (ft)	3.23	Cum Volume (acre-ft)	77.56	58.29	58.75
C & E Loss (ft)	0.04	Cum SA (acres)	49.59	22.93	47.85

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9412.07	9908.50	1570.18	641.16	496.81	33.69	1.29	2.45
LB 9908.50	9976.28	879.70	149.97	67.84	18.88	2.21	5.87
9976.28	RB 10044.06	2205.81	261.12	68.35	47.33	3.85	8.45
10044.06	10111.19	4.31	3.58	7.95	0.09	0.45	1.20

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 31.750

INPUT
Description: SEC.31.750. APPROX. 40 FT.U/S OF DOVE VALLEY RD.
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9452.01	1644.33	9473.18	1644.22	9481.62	1644	9491.71	1643.95	9496.35	1643.61
9502.88	1643.91	9523.12	1644.64	9526.83	1644.72	9530.54	1644.68	9558	1644.35
9573.14	1644.22	9577.68	1644.06	9590.87	1643.39	9599.24	1643	9603.23	1642.82
9606.71	1642.65	9607.61	1642.65	9623.46	1642.65	9646.02	1642.82	9650.68	1642.78
9666.8	1642.8	9675.54	1642.58	9689.05	1642.08	9695.95	1641.92	9699.89	1641.58
9705	1641.77	9712.29	1640.54	9716.04	1640.07	9718.77	1639.21	9723.29	1640.18
9727.02	1641.26	9736.04	1641.36	9750.27	1641.79	9754.77	1641.16	9757.75	1640.77
9771.15	1642.67	9777.34	1643.63	9788.11	1644.14	9795.46	1644.12	9804.03	1644.26
9830.86	1644.07	9837.71	1643.84	9851.07	1643.53	9864.57	1643.38	9874.3	1643
9892.4	1641.95	9895.26	1642.03	9917.34	1642.81	9918.54	1642.29	9919.75	1642.21
9937.57	1642.07	9952.37	1641.71	9976.01	1640.63	9993.53	1640.06	10000	1639.88
10005.64	1639.73	10011.63	1640.56	10018.97	1641.83	10023.92	1641.84	10031.78	1642.31
10041.3	1642.03	10070.38	1641.46	10071.64	1641.48	10072.37	1641.48	10080.52	1642.13
10102.06	1643.76	10113.01	1643.66	10149.24	1643.41	10157.17	1643.42	10161.96	1643.49
10193.39	1643.58	10196.86	1643.64	10199.48	1643.65	10199.57	1643.65	10215.74	1643.8
10239.15	1644.22	10246.03	1644.35	10258.44	1644.36	10261.1	1644.34	10264.94	1644.28
10271.38	1644.09	10288.7	1644.23	10295.2	1644.14	10297.84	1644.11	10303.34	1644
10325.35	1643.8	10330.35	1643.72						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9452.01	.065	9937.57	.037	10031.78	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9937.57 10031.78 505 533.3 500 .1 .3
Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
9452.01	9526.83	1644.72	10258.41	10330.35	1644.36

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1644.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.99	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1643.83	Reach Len. (ft)	505.00	533.30	500.00
Crit W.S. (ft)	1643.66	Flow Area (sq ft)	432.21	265.53	146.50
E.G. Slope (ft/ft)	0.015925	Area (sq ft)	432.21	265.53	146.50
Q Total (cfs)	4660.00	Flow (cfs)	1618.41	2680.90	360.69
Top Width (ft)	578.81	Top Width (ft)	298.89	94.21	185.70
Vel Total (ft/s)	5.52	Avg. Vel. (ft/s)	3.74	10.10	2.46
Max Chl Dpth (ft)	4.62	Hydr. Depth (ft)	1.45	2.82	0.79
Conv. Total (cfs)	36927.2	Conv. (cfs)	12824.7	21244.2	2858.2
Length Wtd. (ft)	523.58	Wetted Per. (ft)	299.93	94.43	185.80
Min Ch El (ft)	1639.73	Shear (lb/sq ft)	1.43	2.80	0.78
Alpha	2.10	Stream Power (lb/ft s)	5.36	28.22	1.93
Frctn Loss (ft)	7.09	Cum Volume (acre-ft)	74.29	55.87	58.23
C & E Loss (ft)	0.05	Cum SA (acres)	47.17	22.11	47.18

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9452.01	9937.57	1618.41	432.21	299.93	34.73	1.45	3.74
LB 9937.57	9984.68	1138.30	120.61	47.14	24.43	2.56	9.44
9984.68	RB 10031.78	1542.59	144.92	47.29	33.10	3.08	10.64
10031.78	10330.35	360.69	146.50	185.80	7.74	0.79	2.46

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 31.649

INPUT
Description: SEC.31.649
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9622.58	1637.16	9653.29	1637.24	9664.54	1637.23	9673.36	1636.24	9685.99	1634.39
9700.22	1636.07	9713.09	1637.25	9736.02	1637.21	9750.07	1637.47	9774.72	1637.49
9796.29	1636.73	9807.46	1636.36	9818.73	1635.67	9823	1635.48	9827.74	1635.63
9838.66	1635.78	9849.65	1636.01	9883.32	1636.53	9884.71	1636.55	9911.99	1635.71
9915.4	1635.6	9915.75	1635.51	9925.52	1633.06	9933.44	1633	9944.5	1632.94
9951.09	1634	9958.2	1635.19	9967.58	1635.79	9970.08	1636.04	9972.2	1635.82
9982.83	1635.27	9987.23	1634.72	9993.52	1634.01	10000	1634.15	10003.05	1634.22
10017.59	1634.37	10020.8	1634.49	10027.52	1634.41	10038.3	1634.51	10052.83	1634.14
10076.78	1633.26	10084.7	1634.98	10093.94	1637.02	10108.71	1636.78	10115.61	1636.62
10150.62	1635.98	10155.72	1636.21	10189.61	1635.84	10194.96	1635.96	10196.86	1635.72
10207.67	1634.68	10216.99	1633.71	10219.47	1633.66	10228.19	1633.44	10244.43	1634.74
10255.38	1635.75	10263.98	1635.71	10278.61	1635.67	10284.12	1636.45	10286.18	1636.72
10290.94	1636.57	10293.92	1636.54	10296.44	1636.16	10307.91	1635.84	10309.79	1635.83
10312.86	1635.99	10327.93	1636.98	10336.53	1637.21	10349.75	1637.48	10399.02	1637.17
10415.32	163710	443.33	1636.61	10454.55	1636.43	10457.16	1636.42		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9622.58	.065	9911.99	.03710093.94		.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9911.9910093.94 505 502.98 505 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
10349.81	0457.16	1637.48

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1637.67	Element			
Vel Head (ft)	0.80	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1636.87	Reach Len. (ft)	505.00	502.98	505.00
Crit W.S. (ft)	1636.87	Flow Area (sq ft)	137.22	453.40	259.44
E.G. Slope (ft/ft)	0.011816	Area (sq ft)	137.22	453.40	259.44
Q Total (cfs)	4660.00	Flow (cfs)	313.99	3633.21	712.79
Top Width (ft)	564.74	Top Width (ft)	160.69	181.25	222.79
Vel Total (ft/s)	5.48	Avg. Vel. (ft/s)	2.29	8.01	2.75
Max Chl Dpth (ft)	3.93	Hydr. Depth (ft)	0.85	2.50	1.16
Conv. Total (cfs)	42870.5	Conv. (cfs)	2888.6	33424.4	6557.5
Length Wtd. (ft)	503.59	Wetted Per. (ft)	161.05	182.30	223.17
Min Ch El (ft)	1632.94	Shear (lb/sq ft)	0.63	1.83	0.86
Alpha	1.72	Stream Power (lb/ft s)	1.44	14.70	2.36
Frctn Loss (ft)	5.02	Cum Volume (acre-ft)	70.99	51.47	55.90
C & E Loss (ft)	0.08	Cum SA (acres)	44.51	20.42	44.84

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9622.58	9911.99	313.99	137.22	161.05	6.74	0.85	2.29
LB 9911.99	10002.96	1762.50	223.10	91.61	37.82	2.45	7.90
10002.96	RB 10093.94	1870.71	230.30	90.69	40.14	2.55	8.12
10093.94	10457.16	712.79	259.44	223.17	15.30	1.16	2.75

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 31.552

INPUT
Description: SEC.31.552
Station Elevation Data num= 101

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9633.64	1631.96	9635.39	1631.98	9654.92	1631.58	9675.48	1631.24	9687.28	1631.54
9688.26	1631.57	9689.44	1631.55	9692.22	1631.52	9715.41	1631.07	9726.04	1631.03
9740.89	1631.07	9752.86	1630.84	9785.01	1630.3	9787.72	1630.15	9800.38	1629.11
9809.34	1629.65	9819.88	1630.21	9827.69	1630.37	9850.36	1630.87	9854.6	1630.85
9870.12	1630.94	9886.91	1629.5	9892.71	1628.78	9896.75	1629.12	9906.38	1629.73
9932.07	1629.89	9943.62	1629.97	9947.95	1629.79	9970.06	1629.2	9971.01	1629.07
9981.89	1627.27	9999.65	1627.23	10000	1627.23	10014.33	1627.21	10030.02	1628.53
10040.22	1629.26	10054.52	1629.25	10055.82	1629.24	10056.88	1629.15	10068.89	1628.22
10079.14	1629.45	10086.76	1630.49	10101.92	1629.44	10104.71	1629.41	10112.46	1630.17
10114.17	1630.32	10114.39	1630.36	10122.04	1630.61	10130.38	1630.87	10130.95	1630.87
10146.28	1630.74	10153.96	1630.31	10163.97	1629.59	10174.71	1630.51	10181.84	1631.16
10192.05	1630.87	10199.9	1630.71	10203.83	1629.67	10219.41	1625.59	10232.31	1627.1
10258.68	1630.03	10286.98	1630.35	10287.36	1630.35	10287.45	1630.34	10297.84	1628.94
10304.12	1629.64	10320.67	1631.29	10334.46	1631.89	10342.14	1632.26	10344.32	1632.37
10349.48	1632.03	10368.27	1630.76	10373.09	1630.71	10419.63	1630.54	10429.45	1630.51
10439.43	1629.29	10449.04	1628.15	10458.25	1628.99	10468.59	1630.07	10481.56	1630.65
10496.25	1631.07	10512.31	1630.63	10513.4	1630.62	10514.53	1630.66	10534.28	1630.88
10549.84	1631.13	10558.81	1631.39	10564.34	1631.32	10577.99	1630.93	10588.05	1630.77
10603.77	1630.62	10610.89	1630.21	10618.49	1629.77	10625.78	1630.08	10638.21	1630.64
10651.79	1631.01	10679.52	1631.66	10687.53	1631.85	10690.88	1631.91	10697.55	1631.9
10698.86	1631.88								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9633.64	.065	9943.62	.037	10086.76	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9943.62	10086.76	528	528	500	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10558.81	10698.86	1631.39

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1631.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1631.24	Reach Len. (ft)	528.00	528.00	500.00
Crit W.S. (ft)		Flow Area (sq ft)	220.34	384.76	517.68
E.G. Slope (ft/ft)	0.008478	Area (sq ft)	220.34	384.76	517.68
Q Total (cfs)	4485.00	Flow (cfs)	441.60	2745.06	1298.34
Top Width (ft)	805.92	Top Width (ft)	236.94	143.14	425.84

Vel Total (ft/s)	3.99	Avg. Vel. (ft/s)	2.00	7.13	2.51
Max Chl Dpth (ft)	5.65	Hydr. Depth (ft)	0.93	2.69	1.22
Conv. Total (cfs)	48708.5	Conv. (cfs)	4795.9	29812.3	14100.4
Length Wtd. (ft)	514.84	Wetted Per. (ft)	237.17	143.57	427.45
Min Ch El (ft)	1627.20	Shear (lb/sq ft)	0.49	1.42	0.64
Alpha	2.09	Stream Power (lb/ft s)	0.99	10.12	1.61
Frctn Loss (ft)	6.35	Cum Volume (acre-ft)	68.92	46.63	51.39
C & E Loss (ft)	0.01	Cum SA (acres)	42.21	18.55	41.08

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9633.64	9943.62	441.60	220.34	237.17	9.85	0.93	2.00
LB 9943.62	10015.19	1619.12	213.21	71.74	36.10	2.98	7.59
10015.19	RB 10086.76	1125.95	171.55	71.83	25.10	2.40	6.56
10086.76	10698.86	1298.34	517.68	427.45	28.95	1.22	2.51

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 31.452

INPUT
Description: SEC.31.452
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9822.87	1625.74	9830.55	1625.67	9848.61	1625.42	9853.65	1625.32	9863.39	1625.15
9872.14	1624.17	9888.08	1622.12	9895.51	1622.98	9905.75	1624.09	9906.51	1624.26
9914.78	1624.27	9938.03	1624.6	9959	1624.76	9978.69	1624.76	9991.85	1621.66
9991.91	1621.65	9992.25	1621.65	10000	1621.74	10019.99	1621.96	10027.15	1622.15
10042.25	1624.43	10042.31	1624.44	10042.43	1624.44	10056.63	1625.21	10074.76	1624.52
10077.72	1624.44	10078.96	1624.19	10086.13	1623.19	10090.66	1623.74	10097.63	1624.05
10097.93	1623.91	10116.47	1623.35	10119.15	1623.26	10122.84	1622.65	10124.47	1622.34
10128.99	1622.23	10143.21	1621.91	10150.52	1623.58	10155.05	1624.75	10168.22	1624.92
10195.96	1625.36	10218.62	1625.04	10224.74	1624.93	10230.75	1624.81	10248.47	1622.81
10249.63	1622.59	10251.48	1622.58	10264.79	1622.01	10266.97	1621.88	10275.49	1622.91
10277.28	1623.11	10280.34	1623.18	10306.98	1623.86	10311.79	1623.88	10332.79	1623.9
10340.22	1623.94	10343.17	1623.91	10347.21	1624.08	10365.19	1624.83	10378.52	1624.61
10406.73	1624.29	10413.31	1624.14	10423.48	1621.51	10429.97	1620.05	10440.66	1622.05
10453.06	1621.51	10459.66	1619.41	10470.8	1622.38	10478.03	1624.38	10490.74	1624.03
10491.97	1624.01	10494.03	1624.18	10505.06	1624.91	10533.12	1624.34	10539.72	1624.19
10554.92	1623.95	10576.02	1623.62	10580.99	1622.97	10587.93	1622.09	10593.3	1622.93
10597.68	1623.52	10601.2	1623.51	10608.61	1623.19	10617.16	1623.17	10622.4	1623.27
10626.41	1623.42	10642.15	1624.31	10675.94	1625.91	10685.03	1626.31	10687.29	1626.31
10690.55	1626.24								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9822.87	.065	9978.69	.037	10042.25	.065	10097.63	.037	10155.05	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9978.69	10042.25	520	533.3	505	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1625.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.66	Wt. n-Val.	0.065	0.037	0.057
W.S. Elev (ft)	1624.74	Reach Len. (ft)	520.00	533.30	505.00
Crit W.S. (ft)	1624.67	Flow Area (sq ft)	67.81	143.57	643.37
E.G. Slope (ft/ft)	0.019683	Area (sq ft)	67.81	143.57	643.37
Q Total (cfs)	4485.00	Flow (cfs)	181.44	1386.31	2917.24
Top Width (ft)	644.50	Top Width (ft)	88.68	63.46	492.37

Vel Total (ft/s)	5.25	Avg. Vel. (ft/s)	2.68	9.66	4.53
Max Chl Dpth (ft)	5.33	Hydr. Depth (ft)	0.76	2.26	1.31
Conv. Total (cfs)	31967.7	Conv. (cfs)	1293.3	9881.2	20793.2
Length Wtd. (ft)	514.23	Wetted Per. (ft)	88.97	63.99	495.19
Min Ch El (ft)	1621.65	Shear (lb/sq ft)	0.94	2.76	1.60
Alpha	1.54	Stream Power (lb/ft s)	2.51	26.62	7.24
Frctn Loss (ft)	5.66	Cum Volume (acre-ft)	67.17	43.43	44.73
C & E Loss (ft)	0.09	Cum SA (acres)	40.23	17.30	35.81

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9822.87	9978.69	181.44	67.81	88.97	4.05	0.76	2.68
LB 9978.69	10010.47	754.41	75.63	32.04	16.82	2.39	9.97
10010.47	RB 10042.25	631.91	67.93	31.95	14.09	2.14	9.30
10042.25	10690.55	2917.24	643.37	495.19	65.04	1.31	4.53

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 31.351

INPUT
Description: SEC.31.351
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9638.12	1620.38	9645.14	1620.05	9652.98	1620.07	9655.82	1620.06	9678.39	1620.04
9708.77	1620.08	9714.39	1620.09	9757.08	1620.09	9757.46	1620.09	9759.4	1620.07
9782.83	1619.96	9792.02	1619.67	9805.64	1619.35	9819.98	1619.68	9832.62	1619.93
9853.63	1621.23	9855.87	1621.4	9859.05	1621.44	9860.01	1621.43	9862.14	1621.41
9868.93	1621.34	9955.85	1620.71	9963.68	1620.63	9965.09	1620.36	9970.72	1618.92
9982.19	1616.14	9984.73	1615.45	9998.71	1615.13	10000	1615.111	10007.51	1614.98
10024.63	1616.92	10030.97	1617.54	10041.3	1617.64	10044	1617.581	10058.89	1616.64
10061.11	1616.26	10075.52	1617.82	10076.62	1617.94	10077.34	1617.951	10093.19	1618.24
10100.96	1616.75	10102.18	1616.47	10104.8	1616.45	10135.61	1615.91	10136.96	1615.91
10138.99	1615.85	10147.89	1617.56	10150.14	1618.03	10150.66	1617.951	10155.84	1618.03
10164.91	1617.97	10168.5	1617.69	10175	1617.01	10188.2	1616.961	10189.52	1616.95
10203.27	1616.52	10219.46	1616.03	10225.76	1616.33	10228.21	1616.51	10232.88	1616.7
10252.65	1617.63	10253.81	1617.62	10257.16	1617.67	10265.85	1617.81	10275.83	1617.73
10283.66	1617.82	10298.77	1617.47	10318.31	1617.84	10322.35	1617.831	10326.14	1617.86
10337.24	1617.91	10356.26	1618.06	10366.16	1617.85	10387.49	1617.521	10395.87	1617.36
10407.27	1615.96	10417.47	1614.93	10436.44	1617.98	10441.29	1618.751	10442.96	1618.79
10453.03	1619.41	10465.44	1619.66	10478.65	1620.22	10494.9	1621.171	10504.42	1621.92
10506.72	1621.99	10518.56	1622.44	10519.41	1622.45	10520.4	1622.461	10561.97	1622.85

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9638.12	.065	9970.72	.037	10041.3	.065	10093.19	.037	10147.89	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9970.72	10041.3	520	559.7	515	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
9638.12	9859.05	1621.44

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1619.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.38	Wt. n-Val.	0.065	0.037	0.056
W.S. Elev (ft)	1619.28	Reach Len. (ft)	520.00	559.70	515.00
Crit W.S. (ft)		Flow Area (sq ft)	0.25	209.19	836.31
E.G. Slope (ft/ft)	0.006992	Area (sq ft)	0.25	209.19	836.31

Q Total (cfs)	4485.00	Flow (cfs)	0.15	1441.81	3043.04
Top Width (ft)	481.69	Top Width (ft)	1.40	70.58	409.71
Vel Total (ft/s)	4.29	Avg. Vel. (ft/s)	0.59	6.89	3.64
Max Chl Dpth (ft)	4.35	Hydr. Depth (ft)	0.18	2.96	2.04
Conv. Total (cfs)	53634.9	Conv. (cfs)	1.8	17242.3	36390.9
Length Wtd. (ft)	538.17	Wetted Per. (ft)	1.44	71.15	410.84
Min Ch El (ft)	1614.98	Shear (lb/sq ft)	0.08	1.28	0.89
Alpha	1.32	Stream Power (lb/ft s)	0.04	8.85	3.23
Frctn Loss (ft)	4.29	Cum Volume (acre-ft)	66.77	41.27	36.15
C & E Loss (ft)	0.06	Cum SA (acres)	39.69	16.48	30.58

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9638.12	9970.72	0.15	0.25	1.44	0.00	0.18	0.59
LB 9970.72	10006.01	842.01	115.37	35.72	18.77	3.27	7.30
10006.01	RB 10041.30	599.80	93.82	35.43	13.37	2.66	6.39
10041.30	10561.97	3043.04	836.31	410.84	67.85	2.04	3.64

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 31.245

INPUT
Description: SEC31.245
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9336.59	1616	9352.22	1615.93	9364.14	1615.92	9421.02	1614.73	9436.67	1614.44
9438.29	1614.33	9448.62	1613.85	9451.68	1614.02	9458.96	1614.52	9466.06	1615.06
9499.59	1615.18	9515.65	1615.23	9521.64	1614.88	9532.41	1614.82	9540.1	1614.95
9551.79	1615.09	9565.6	1615.34	9631.68	1614.82	9647.2	1614.74	9652.64	1614.28
9660.29	1612.97	9665.17	1612.41	9668.43	1612.04	9686.88	1613.27	9696.2	1613.83
9707.74	1613.85	9715.98	1613.89	9735.68	1613.95	9753.67	1614.57	9756.86	1614.64
9767.89	1614.78	9773.12	1614.71	9782.16	1614.67	9786.42	1614.6	9804.89	1614.33
9820.98	1614.26	9830.28	1614.2	9857.35	1614.14	9858.74	1614.12	9859.68	1614.11
9862.9	1613.99	9907.55	1612.18	9911.15	1612.21	9918.99	1611.63	9926.98	1610.69
9933.02	1611.21	9941.07	1611.91	9954.5	1612.01	9960.9	1612.03	9968.37	1612.06
9979.63	1609.77	9981.36	1609.48	9987.74	1609.38	10000	1609.19	10010.75	1609.02
10022.88	1610.76	10027.13	1611.24	10053.44	1612.32	10056.68	1612.45	10072.04	1612.51
10099.33	1612.13	10114.96	1611.68	10126.73	1611.51	10136.53	1611.98	10163.54	1613.27
10163.75	1613.33	10167.61	1613.36	10215.53	1614.67	10231.6	1615.29	10245.49	1615.72
10253.32	1615.6	10266.09	1615.84	10267.38	1615.8				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9336.59	.065	9968.37	.037	10056.68	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9968.37	10056.68	460	512.2	515	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
9336.59	9767.89	1614.78

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1615.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.99	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1614.32	Reach Len. (ft)	460.00	512.20	515.00
Crit W.S. (ft)	1614.06	Flow Area (sq ft)	219.43	336.37	244.58
E.G. Slope (ft/ft)	0.009153	Area (sq ft)	219.43	336.37	244.58
Q Total (cfs)	4485.00	Flow (cfs)	589.20	3141.70	754.10

Top Width (ft)	395.47	Top Width (ft)	161.12	88.31	146.04
Vel Total (ft/s)	5.60	Avg. Vel. (ft/s)	2.69	9.34	3.08
Max Chl Dpth (ft)	5.30	Hydr. Depth (ft)	1.36	3.81	1.67
Conv. Total (cfs)	46880.3	Conv. (cfs)	6158.8	32839.1	7882.4
Length Wtd. (ft)	497.13	Wetted Per. (ft)	161.29	88.74	146.11
Min Ch El (ft)	1609.02	Shear (lb/sq ft)	0.78	2.17	0.96
Alpha	2.03	Stream Power (lb/ft s)	2.09	20.23	2.95
Frctn Loss (ft)	5.77	Cum Volume (acre-ft)	65.46	37.76	29.76
C & E Loss (ft)	0.04	Cum SA (acres)	38.72	15.46	27.29

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9336.59	9968.37	589.20	219.43	161.29	13.14	1.36	2.69
LB 9968.37	10012.53	2121.42	204.62	44.43	47.30	4.63	10.37
10012.53	RB 10056.68	1020.28	131.75	44.31	22.75	2.98	7.74
10056.68	10267.38	754.10	244.58	146.11	16.81	1.67	3.08

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 31.148

INPUT
Description: SEC.31.148
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9255.39	1610.4	9270.32	1610.34	9295.78	1610.23	9313.21	1609.02	9314.7	1608.96
9332.81	1610.09	9334.07	1610.19	9337.79	1610.32	9367.95	1611.17	9382.61	1611.22
9386.18	1611.25	9400.31	1610.64	9403.73	1610.58	9416.36	1611.17	9420.9	1611.22
9429.92	1611.22	9465.88	1611.4	9484.19	1610.93	9535.17	1609.79	9536.66	1609.62
9539.54	1609.27	9556.23	1607.03	9563.95	1608.17	9576.81	1609.9	9614.09	1609.92
9625.34	1609.89	9661.64	1608.51	9684.11	1607.66	9686.49	1607.44	9704.42	1606.04
9720.46	1607.87	9722.68	1608.12	9725.57	1608.07	9736.98	1607.93	9744.62	1607.44
9753.7	1605.49	9758.61	1604.71	9768.1	1606.59	9769.75	1606.89	9786.41	1607.58
9794.16	1607.89	9795.53	1607.98	9796.83	1607.8	9814.62	1605.65	9827.06	1606.25
9857.17	1605.93	9870.29	1605.97	9883.99	1605.89	9900.59	1607.21	9903.26	1607.41
9928.69	1606.94	9964.05	1606.59	9966.54	1606.55	9968.57	1606.52	9979.42	1605.5
9980.07	1605.42	9982.59	1605.35	10000	1604.88	10008.93	1604.63	10017.19	1606.39
10021.01	1607.31	10038.07	1607.08	10048.99	1607.78	10061.54	1609.12	10105.51	1609.25

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9255.39	.065	9928.69	.037	10021.01	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9928.69 10021.01 465 501.6 504 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
9255.39	9614.09	1609.92

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1609.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.84	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1608.65	Reach Len. (ft)	465.00	501.60	504.00
Crit W.S. (ft)	1608.56	Flow Area (sq ft)	490.10	244.27	41.71
E.G. Slope (ft/ft)	0.015209	Area (sq ft)	490.10	244.27	41.71
Q Total (cfs)	4485.00	Flow (cfs)	2047.44	2308.32	129.24
Top Width (ft)	399.20	Top Width (ft)	270.75	92.32	36.13
Vel Total (ft/s)	5.78	Avg. Vel. (ft/s)	4.18	9.45	3.10
Max Chl Dpth (ft)	4.02	Hydr. Depth (ft)	1.81	2.65	1.15
Conv. Total (cfs)	36367.9	Conv. (cfs)	16602.2	18717.7	1048.0
Length Wtd. (ft)	483.96	Wetted Per. (ft)	271.69	92.68	36.21
Min Ch El (ft)	1604.63	Shear (lb/sq ft)	1.71	2.50	1.09
Alpha	1.62	Stream Power (lb/ft s)	7.16	23.65	3.39
Frctn Loss (ft)	5.01	Cum Volume (acre-ft)	61.71	34.35	28.07
C & E Loss (ft)	0.12	Cum SA (acres)	36.44	14.39	26.22

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9255.39	9928.69	2047.44	490.10	271.69	45.65	1.81	4.18
LB 9928.69	9974.85	689.58	91.39	46.19	15.38	1.98	7.55
9974.85	RB 10021.01	1618.74	152.88	46.49	36.09	3.31	10.59
10021.01	10105.51	129.24	41.71	36.21	2.88	1.15	3.10

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 31.053

INPUT
Description: SEC.31.053
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9381.98	1605.94	9382.8	1605.94	9396.39	1606.03	9404.55	1605.63	9441.05	1603.55
9450.72	1603.04	9457.09	1602.74	9467.3	1603.98	9472.32	1604.67	9479.3	1604.85
9543.83	1604.67	9565.46	1604.29	9576.87	1603.76	9604.65	1602.19	9615.53	1601.55
9617.71	1601.38	9618.9	1601.33	9630.66	1601.78	9634.24	1601.87	9655.65	1602.3
9660.48	1602.42	9664.93	1602.23	9680.55	1601.7	9698.01	1601.18	9700.67	1601.08
9705.33	1601.57	9718.34	1603.23	9725.57	1603.24	9742.46	1603.13	9758.99	1602.43
9761.1	1602.35	9762.19	1602.1	9779.33	1598.34	9786.8	1599.5	9793.85	1600.55
9796.68	1600.61	9845.59	1601.84	9882.7	1602.7	9883.74	1602.6	9893.24	1601.34
9894.42	1601.32	9906.7	1601.17	9912.46	1601.82	9919.31	1602.49	9950.47	1602.01
9968.26	1601.76	9980.86	1600.39	9987.04	1599.63	10000	1599.58	10006.95	1599.55
10016.24	1599.62	10024.32	1601.38	10033.44	1603.11	10037.61	1602.92	10041.92	1602.89
10057.26	1604.66	10057.45	1604.68	10078.97	1604.64	10093.25	1604.57	10095.29	1604.58
10097.26	1604.57	10120.82	1604.51	10125.34	1604.48				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9381.98	.065	9919.31	.037	10033.44	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9919.31 10033.44 470 501.62 510 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
9381.98	9479.3	1604.85

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1604.36	Element	0.065	0.037	0.065
Vel Head (ft)	0.44	Wt. n-Val.	470.00	501.62	510.00
W.S. Elev (ft)	1603.92	Reach Len. (ft)	713.05	317.50	12.73
Crit W.S. (ft)		Flow Area (sq ft)	713.05	317.50	12.73
E.G. Slope (ft/ft)	0.007514	Area (sq ft)	2284.31	2180.26	20.43
Q Total (cfs)	4485.00	Flow (cfs)	345.86	114.13	17.40
Top Width (ft)	477.39	Top Width (ft)	3.20	6.87	1.60
Vel Total (ft/s)	4.30	Avg. Vel. (ft/s)	2.06	2.78	0.73
Max Chl Dpth (ft)	5.58	Hydr. Depth (ft)	26351.6	25151.3	235.6
Conv. Total (cfs)	51738.5	Conv. (cfs)	346.91	114.61	17.46
Length Wtd. (ft)	486.28	Wetted Per. (ft)	0.96	1.30	0.34
Min Ch El (ft)	1599.55	Shear (lb/sq ft)	3.09	8.92	0.55
Alpha	1.52	Stream Power (lb/ft s)	55.29	31.11	27.76
Frctn Loss (ft)	4.40	Cum Volume (acre-ft)	33.15	13.21	25.91
C & E Loss (ft)	0.06	Cum SA (acres)			

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9381.98	9919.31	2284.31	713.05	346.91	50.93	2.06	3.20
LB 9919.31	9976.38	556.86	109.29	57.12	12.42	1.92	5.10
9976.38	RB 10033.44	1623.40	208.21	57.49	36.20	3.65	7.80
10033.44	10125.34	20.43	12.73	17.46	0.46	0.73	1.60

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 30.958

INPUT
Description: SEC. 30.958
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9434.46	1600.91	9437.85	1600.96	9463.25	1600.96	9472.04	1601.01	9481.51	1600.99
9491.97	1601	9495.27	1601.06	9513.79	1600.75	9516.95	1600.67	9534.64	1600.7
9536.44	1600.66	9549.56	1600.43	9596.79	1599.49	9600.37	1599.44	9606.84	1599.37
9609.98	1599.33	9621.56	1599.19	9629.8	1597.97	9636.73	1596.99	9639.98	1597.27
9643.14	1597.57	9661.46	1599.14	9667.96	1599.26	9732.06	1599.75	9738.31	1599.52
9754.1	1599.1	9778.96	1598.32	9794.62	1597.8	9837.36	1596.7	9846.58	1594.97
9848.97	1594.59	9860.93	1595.14	9862.44	1595.26	9870.26	1595.4	9900.87	1595.85
9913.41	1595.61	9917.18	1595.5	9930.47	1595.67	9954.9	1596.59	9955.55	1596.61
9955.62	1596.61	9956.53	1596.5	9968.82	1595.05	9970.05	1594.9	9979.43	1594.59
10000	1593.91	10003.32	1593.79	10006.65	1594.75	10019.79	1599.19	10019.91	1599.19
10020.36	1599.21	10060.53	1599.11	10125.71	1600.25				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9434.46	.065	9955.62	.03	710020.36	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9955.62 10020.36 510 517.4 495 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
9434.46	9732.06	1599.75

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1599.90	Element			
Vel Head (ft)	1.00	Wt. n-Val.	0.065	0.037	
W.S. Elev (ft)	1598.90	Reach Len. (ft)	510.00	517.40	495.00
Crit W.S. (ft)	1598.58	Flow Area (sq ft)	475.31	237.91	
E.G. Slope (ft/ft)	0.011129	Area (sq ft)	475.31	237.91	
Q Total (cfs)	4485.00	Flow (cfs)	2072.66	2412.34	
Top Width (ft)	258.53	Top Width (ft)	195.21	63.32	
Vel Total (ft/s)	6.29	Avg. Vel. (ft/s)	4.36	10.14	
Max Chl Dpth (ft)	5.11	Hydr. Depth (ft)	2.43	3.76	
Conv. Total (cfs)	42514.8	Conv. (cfs)	19647.4	22867.4	
Length Wtd. (ft)	512.75	Wetted Per. (ft)	195.48	64.26	
Min Ch El (ft)	1593.79	Shear (lb/sq ft)	1.69	2.57	
Alpha	1.62	Stream Power (lb/ft s)	7.37	26.08	
Frctn Loss (ft)	6.56	Cum Volume (acre-ft)	48.88	27.92	27.68
C & E Loss (ft)	0.13	Cum SA (acres)	30.23	12.18	25.80

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9434.46	9955.62	2072.66	475.31	195.48	46.21	2.43	4.36
LB 9955.62	9987.99	1257.75	122.53	32.48	28.04	3.79	10.26
9987.99	RB 10020.36	1154.59	115.38	31.77	25.74	3.73	10.01

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 30.860

INPUT
Description: SEC.30.860
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9548.88	1594.21	9558.61	1594.4	9579.57	1594.74	9582	1594.6	9589.62	1594.4
9601.73	1593.97	9622.34	1593.26	9630.45	1592.9	9632.84	1592.85	9638.61	1592.74
9658.71	1592.23	9670.57	1591.77	9679.4	1591.43	9679.51	1591.41	9690.82	1589.29
9692.9	1589.63	9697.67	1590.01	9699.88	1590.04	9708.04	1590.4	9726.53	1590.96
9747.64	1591.56	9762.32	1591.49	9775.32	1591.07	9788.55	1589.93	9797.42	1589.32
9798.59	1589.25	9803.79	1590.08	9817	1590.29	9833.49	1590.8	9846.54	1590.7
9864.42	1590.49	9882.34	1590.31	9886.52	1590.3	9899.37	1592.15	9906.61	1592.07
9913.54	1592.59	9919.75	1592.98	9926.19	1593.06	9950.36	1592.21	9985.03	1590.89
9991.4	1589.74	9993.86	1589.3	9997.83	1589.39	10000	1589.38	10005.81	1589.34
10016.2	1590.45	10018.27	1590.34	10025	1589.81	10026.31	1589.77	10032.5	1589.41
10036.21	1589.95	10039.36	1590.33	10049.19	1590.75	10081.14	1591.46	10083.51	1591.43
10093.36	1591.44	10093.72	1591.45	10095.43	1591.38	10112.54	1590.71	10121.15	1591.26
10123.78	1591.41	10125.88	1591.47	10131.66	1591.44	10137.33	1591.79	10170.34	1591.82
10177.38	1591.85	10181.7	1591.85	10187.86	1591.37	10215.58	1591.19	10220.9	1591.13
10231.99	1592.06	10250.61	1593.47	10256.47	1593.58	10277.21	1593.53	10301.2	1593.68
10355.14	1593.99								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9548.88	.065	9950.36	.037	10081.14	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9950.36	10081.14	540	501.6	480	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1593.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.55	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1592.65	Reach Len. (ft)	540.00	501.60	480.00
Crit W.S. (ft)	1592.41	Flow Area (sq ft)	473.25	262.37	181.31
E.G. Slope (ft/ft)	0.014897	Area (sq ft)	473.25	262.37	181.31
Q Total (cfs)	4485.00	Flow (cfs)	1890.24	2042.07	552.69
Top Width (ft)	574.24	Top Width (ft)	284.82	130.78	158.64
Vel Total (ft/s)	4.89	Avg. Vel. (ft/s)	3.99	7.78	3.05
Max Chl Dpth (ft)	3.40	Hydr. Depth (ft)	1.66	2.01	1.14
Conv. Total (cfs)	36746.8	Conv. (cfs)	15487.2	16731.2	4528.4
Length Wtd. (ft)	520.73	Wetted Per. (ft)	285.43	131.12	158.77
Min Ch El (ft)	1589.30	Shear (lb/sq ft)	1.54	1.86	1.06
Alpha	1.48	Stream Power (lb/ft s)	6.16	14.48	3.24
Frctn Loss (ft)	6.03	Cum Volume (acre-ft)	43.32	24.95	26.65
C & E Loss (ft)	0.09	Cum SA (acres)	27.42	11.03	24.90

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9548.88	9950.36	1890.24	473.25	285.43	42.15	1.66	3.99
LB 9950.36	10015.75	974.43	127.63	65.61	21.73	1.95	7.63
10015.75	RB 10081.14	1067.64	134.73	65.51	23.80	2.06	7.92
10081.14	10355.14	552.69	181.31	158.77	12.32	1.14	3.05

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 30.765

INPUT

Description: SEC.30.765
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9382.6	1587.8	9384.33	1588.05	9386.23	1587.98	9391.38	1587.84	9428.77	1586.64
9435.94	1586.53	9440.58	1586.44	9481.87	1585.56	9505.8	1584.93	9513.98	1584.64
9523.94	1583.82	9527.66	1583.61	9530.13	1583.93	9536.84	1584.69	9542.38	1584.84
9573.23	1584.98	9631.54	1585.52	9665.23	1584.52	9715.53	1582.8	9720.51	1581.24
9723.65	1580.18	9730.16	1581.92	9733.44	1582.7	9741.32	1583.03	9778.39	1584.85
9785.3	1585	9789.5	1584.86	9804.46	1584.71	9805.99	1584.69	9812.77	1584.89
9821.43	1585.23	9829.28	1585.34	9837.18	1585.56	9863.86	1586.2	9876.78	1586.5
9886.26	1586.74	9922.13	1585.93	9931.02	1585.77	9946.03	1585.57	9958.5	1585.41
9969.33	1584.63	9973.86	1584.32	9980.57	1584.23	10000	1583.95	10003.17	1583.9
10015.87	1585.53	10019.66	1586.04	10071.33	1585.69	10077.68	1585.69	10080.54	1585.45
10094.28	1584.44	10105.65	1585.23	10114.42	1585.79	10129.82	1585.97	10140.56	1586.16
10156.5	1587.99	10166.63	1589.02	10206.87	1588.58	10219.13	1588.47	10221.71	1588.43
10222.65	1588.46								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9382.6	.065	9931.02	.037	10019.66	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9931.02	10019.66	225	253.4 240	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1587.08	Element			
Vel Head (ft)	0.26	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1586.82	Reach Len. (ft)	225.00	253.40	240.00
Crit W.S. (ft)		Flow Area (sq ft)	935.23	174.11	144.67
E.G. Slope (ft/ft)	0.009248	Area (sq ft)	935.23	174.11	144.67
Q Total (cfs)	4485.00	Flow (cfs)	3084.56	1053.18	347.26
Top Width (ft)	723.23	Top Width (ft)	507.92	88.64	126.67
Vel Total (ft/s)	3.58	Avg. Vel. (ft/s)	3.30	6.05	2.40
Max Chl Dpth (ft)	6.64	Hydr. Depth (ft)	1.84	1.96	1.14
Conv. Total (cfs)	46638.0	Conv. (cfs)	32075.3	10951.6	3611.1
Length Wtd. (ft)	232.76	Wetted Per. (ft)	508.93	88.82	126.80
Min Ch El (ft)	1583.90	Shear (lb/sq ft)	1.06	1.13	0.66
Alpha	1.29	Stream Power (lb/ft s)	3.50	6.85	1.58
Frctn Loss (ft)	2.52	Cum Volume (acre-ft)	34.59	22.43	24.86
C & E Loss (ft)	0.01	Cum SA (acres)	22.51	9.77	23.33

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9382.60	9931.02	3084.56	935.23	508.93	68.78	1.84	3.30
LB 9931.02	9975.34	338.06	67.77	44.36	7.54	1.53	4.99
9975.34	RB 10019.66	715.11	106.34	44.46	15.94	2.40	6.73
10019.66	10222.65	347.26	144.67	126.80	7.74	1.14	2.40

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 30.717

INPUT
Description: SEC.30.717
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9305.49	1584.33	9340.59	1583.3	9356.74	1582.87	9361.87	1582.8	9371.1	1582.36
9375.97	1582.17	9377.8	1582.07	9385.02	1581.74	9395.12	1582.02	9403.05	1582.26
9411.1	1581.8	9420.25	1581.24	9436.28	1584.32	9441.73	1585.4	9489.89	1585.28
9509.29	1585.21	9513.22	1585.21	9513.66	1585.22	9551.71	1584.31	9552.9	1584.29
9556.86	1584.18	9591.27	1583.5	9612.84	1583.14	9620.86	1582.84	9625.69	1581.9

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 9634.84 1580.31 9635.32  1580.2 9647.68 1582.21 9649.81  1582.5 9664.96 1582.27
  9669.9 1582.31 9678.15 1581.78 9694.15  1580.7 9708.66 1578.74 9709.11 1578.69
 9710.78 1578.89 9742.45 1582.03 9742.83 1582.03 9749.76 1582.02 9752.94 1581.66
 9761.98 1580.56 9768.05 1581.36 9777.57 1582.61 9796.87 1583.05 9838.18 1583.55
 9847.56 1583.31 9863.67 1583.43 9865.14 1583.44 9874.17 1583.29 9894.06 1582.92
 9895.56 1582.77 9906.73 1581.42 9907.85 1581.52 9908.42 1581.58 9926.22 1583.65
 9928.19  1583.7 9951.35 1583.67 9977.32 1583.35 9983.16 1582.51 9994.32 1581.29
   10000 1581.3610001.58 1581.38 10015.9 1581.5410022.55  1582.510029.89 1583.16
10031.98  1583.310052.87 1583.4110071.64 1583.52

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9305.49    .065 9951.35    .03710071.64    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9951.3510071.64             225   253.4     255            .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 9305.49 9441.73  1585.4

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1584.56   Element                 Left OB    Channel   Right OB
  Vel Head (ft)               0.31    Wt. n-Val.                0.065     0.037
  W.S. Elev (ft)            1584.24   Reach Len. (ft)          225.00    253.40    255.00
  Crit W.S. (ft)                      Flow Area (sq ft)        712.60    174.07
  E.G. Slope (ft/ft)       0.013193   Area (sq ft)             712.60    174.07
  Q Total (cfs)             3781.00   Flow (cfs)              2759.14   1021.86
  Top Width (ft)             516.99   Top Width (ft)           396.70    120.29
  Vel Total (ft/s)             4.26   Avg. Vel. (ft/s)           3.87      5.87
  Max Chl Dpth (ft)            5.55   Hydr. Depth (ft)           1.80      1.45
  Conv. Total (cfs)         32917.8   Conv. (cfs)             24021.4    8896.5
  Length Wtd. (ft)           230.47   Wetted Per. (ft)         397.95    121.25
  Min Ch El (ft)            1581.29   Shear (lb/sq ft)           1.47      1.18
  Alpha                        1.11   Stream Power (lb/ft s)     5.71      6.94
  Frctn Loss (ft)              2.74   Cum Volume (acre-ft)      30.34     21.42     24.46
  C & E Loss (ft)              0.03   Cum SA (acres)            20.17      9.16     22.98

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9305.49       9951.35        2759.14     712.60     397.95      72.97      1.80       3.87
  LB 9951.35    10011.49        653.98     101.71      60.27      17.30      1.69       6.43
  10011.49      RB 10071.64     367.88      72.35      60.97       9.73      1.20       5.08

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT 3
REACH: SPLIT 3            RS: 30.669

INPUT
Description: SEC.30.669.THIS SEC. APPROX. 160 FT. D/S OF WHITE WING RD. AND
             APPROX. 450 FT. D/S OF SPLIT4 JUNCTION.
Station Elevation Data    num=      73
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9351.99 1581.24 9368.15 1580.98 9378.77 1580.78 9393.88 1580.48  9400.4 1580.36
 9416.08 1580.01 9426.24 1579.85 9430.78 1579.75 9442.79 1579.65 9443.09 1579.65
 9443.62 1579.66 9450.92 1579.88 9460.56 1579.62 9466.11 1579.33 9476.37 1579.15
  9485.8 1579.07  9488.3 1579.07 9506.43 1579.28 9515.08 1579.28 9527.64 1579.53
 9542.78 1579.87 9548.87 1579.98 9567.93 1580.41 9569.26 1580.44 9570.06 1580.45
 9591.95 1581.11 9604.21 1581.05  9606.4 1581.09 9617.08 1580.91 9623.54  1580.9
 9669.62 1580.07 9682.47 1579.86 9699.06 1579.38 9700.97 1579.19 9714.87 1577.51
 9719.82 1578.06 9722.38 1578.27 9724.46 1577.91 9736.46  1576.2 9748.41 1577.61
 9755.75 1578.52 9764.44 1578.78 9806.65 1580.36 9808.46    1580 9813.51 1578.85
    9822 1576.76 9835.35 1579.16 9843.07 1580.61 9844.91 1580.67 9847.99 1580.69
 9861.81 1580.88 9872.29 1581.43 9872.67 1581.45 9874.97 1581.48 9895.27 1581.65
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 9904.17 1581.58 9920.76  1581.6  9932.4 1581.25 9935.47 1580.94 9942.59 1579.65
 9948.48 1580.13 9957.33 1580.69 9978.33 1581.25 9982.47 1581.33 9984.91 1581.09
 9999.85 1579.42   10000 1579.4310016.38 1580.6110023.46 1581.0910033.18 1581.14
10056.36 1581.2910059.97 1581.7810063.24 1581.87

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9351.99    .065  9932.4    .03710023.46    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9932.410023.46              430   506.9     470            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1581.78   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.20   Wt. n-Val.               0.065      0.037      0.065
  W.S. Elev (ft)           1581.58   Reach Len. (ft)         430.00     506.90     470.00
  Crit W.S. (ft)                     Flow Area (sq ft)       960.46      96.60      13.25
  E.G. Slope (ft/ft)       0.010749  Area (sq ft)            960.46      96.60      13.25
  Q Total (cfs)            3781.00   Flow (cfs)             3347.27     417.31      16.42
  Top Width (ft)            671.81   Top Width (ft)          545.72      91.06      35.03
  Vel Total (ft/s)            3.53   Avg. Vel. (ft/s)          3.49       4.32       1.24
  Max Chl Dpth (ft)           5.38   Hydr. Depth (ft)          1.76       1.06       0.38
  Conv. Total (cfs)        36468.4   Conv. (cfs)            32285.0     4025.0      158.4
  Length Wtd. (ft)          463.31   Wetted Per. (ft)        547.40      91.40      35.05
  Min Ch El (ft)           1579.42   Shear (lb/sq ft)          1.18       0.71       0.25
  Alpha                       1.03   Stream Power (lb/ft s)    4.10       3.06       0.31
  Frctn Loss (ft)             4.82   Cum Volume (acre-ft)     26.02      20.63      24.42
  C & E Loss (ft)             0.04   Cum SA (acres)           17.74       8.55      22.88

Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9351.99       9932.40        3347.27     960.46     547.40      88.53      1.76       3.49
  LB 9932.40    9977.93         174.79      43.57      45.71       4.62      0.96       4.01
  9977.93       RB 10023.46     242.51      53.03      45.70       6.41      1.16       4.57
  10023.46      10063.24         16.42      13.25      35.05       0.43      0.38       1.24


Warning: Divided flow computed for this cross-section.
Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT 3
REACH: SPLIT 3            RS: 30.573

INPUT
Description: SEC.30.573
Station Elevation Data    num=     111
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  9302.6 1577.68 9310.75 1577.59 9386.88 1577.29  9411.9 1576.24  9413.3  1576.2
 9416.07 1576.54 9426.25 1576.57 9430.14 1576.52 9444.82 1575.89 9445.13 1575.89
 9454.66    1576 9463.66 1575.24 9464.04 1575.21 9465.34 1575.15 9471.54 1574.87
 9472.44 1574.94 9474.42 1574.99 9488.87 1575.34 9496.65 1575.91 9496.95 1575.92
 9497.22 1575.93 9540.72 1576.62 9540.75 1576.62 9577.27 1575.85 9582.36 1575.78
 9587.33 1575.29 9592.77 1574.83 9595.39 1574.92 9599.59 1575.13 9606.94 1575.38
 9609.69 1575.58 9633.85 1575.81 9653.98 1576.02 9662.06 1575.91 9689.62 1575.58
 9702.19 1574.16 9708.12 1573.49 9711.87 1574.04  9721.5 1575.56 9723.33 1575.52
 9735.52 1575.57 9736.93 1575.59 9738.49 1575.57 9754.51 1575.45 9765.18  1574.7
 9769.23 1574.44 9772.75 1574.74 9778.92 1575.36 9823.44 1577.07 9841.45 1577.82
 9845.49 1578.01  9898.3 1574.64 9907.76 1574.04 9911.53 1572.73 9917.88 1570.81
 9929.62 1573.01 9937.45  1574.4  9960.7 1574.14 9983.85 1574.22 9994.25 1573.66
   10000 1573.2710000.09 1573.2710005.82 1573.4710012.17 1573.7910039.24 1575.12
10050.33 1575.09 10065.2 1575.2910075.11 1575.0710079.34 1574.9110093.18 1575.44
10099.02 1575.6210137.87 1575.7310143.43 1575.7210145.56  1575.8 10158.4 1576.35
10162.94 1576.3810164.28 1576.3910176.73  1576.510196.17 1575.9910211.11 1575.53
10219.93 1574.5510224.22 1574.08 10234.7 1575.1310239.24 1575.6810253.32 1575.85
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 10259.7 1575.91 10263.9 1575.8710290.35 1575.4910294.29  1575.310300.19 1575.14
10309.52 1574.7510323.23 1574.4910325.76  1574.510325.91  1574.510351.42  1574.6
10353.77 1574.5410363.33 1575.37   10365  1575.510365.83 1575.5210397.35 1576.06
10403.15 1576.0310407.84 1576.0210424.79 1575.9210438.26  1576.210459.75 1576.23
10475.69 1576.4210488.76  1576.510499.98 1576.8710505.13 1576.9510512.58 1577.13
10516.18  1577.2

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  9302.6    .065 9907.76    .03710039.24    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.    Expan.
       9907.7610039.24              490   517.4     480            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1576.92   Element                Left OB    Channel   Right OB
  Vel Head (ft)              0.60    Wt. n-Val.               0.065      0.037     0.065
  W.S. Elev (ft)           1576.32   Reach Len. (ft)         490.00     517.40    480.00
  Crit W.S. (ft)           1576.32   Flow Area (sq ft)       302.73     334.93    328.33
  E.G. Slope (ft/ft)      0.010079   Area (sq ft)            302.73     334.93    328.33
  Q Total (cfs)            3781.00   Flow (cfs)              615.22    2507.22    658.56
  Top Width (ft)            908.61   Top Width (ft)          375.39     131.48    401.74
  Vel Total (ft/s)            3.91   Avg. Vel. (ft/s)          2.03       7.49      2.01
  Max Chl Dpth (ft)           5.51   Hydr. Depth (ft)          0.81       2.55      0.82
  Conv. Total (cfs)        37662.0   Conv. (cfs)             6128.1    24974.0    6559.8
  Length Wtd. (ft)                   Wetted Per. (ft)        376.00     132.39    402.02
  Min Ch El (ft)           1570.81   Shear (lb/sq ft)          0.51       1.59      0.51
  Alpha                       2.52   Stream Power (lb/ft s)    1.03      11.92      1.03
  Frctn Loss (ft)                    Cum Volume (acre-ft)     19.78      18.12     22.58
  C & E Loss (ft)                    Cum SA (acres)           13.19       7.25     20.52

Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)      (sq ft)    (ft)                (ft)      (ft/s)
  9302.60       9907.76         615.22      302.73     376.00     16.27      0.81      2.03
  LB 9907.76    9973.50        1494.33      187.29      66.57     39.52      2.85      7.98
  9973.50       RB 10039.24    1012.90      147.64      65.81     26.79      2.25      6.86
  10039.24      10516.18        658.56      328.33     402.02     17.42      0.82      2.01

Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT 3
REACH: SPLIT 3            RS: 30.475

INPUT
Description: SEC.30.475
Station Elevation Data    num=      91
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
  9653.6 1570.88 9659.85 1570.92 9659.86 1570.92 9659.94 1570.92 9718.74 1571.43
 9723.64 1571.16 9731.28 1570.93  9738.5 1570.68 9742.57 1570.53 9745.01 1570.73
 9782.24 1570.96 9806.93 1571.19 9816.65 1571.26 9820.81 1571.37 9836.22 1570.59
 9851.52 1569.95 9859.38 1569.85 9864.54 1569.77 9892.44 1569.36 9914.56 1568.87
 9939.09  1568.4 9942.01 1567.89 9955.22 1565.89 9956.37 1565.69  9966.3 1567.77
 9967.31 1567.95  9968.4 1567.95 9978.96 1566.91 9984.55 1566.01 9987.87 1566.41
 9993.27 1565.68 9999.98 1565.43   10000 1565.4310000.79 1565.4710021.61 1567.58
10029.95 1568.2110036.54 1568.3610039.95  1568.310050.93 1568.1610061.09 1567.57
10064.16 1567.4610068.45  1567.210084.28 1567.8910099.71 1569.3210119.85 1569.92
10128.43 1570.1510152.31 1570.1410166.31 1570.1710200.78 1570.2110203.27 1570.06
10212.15 1570.48 10215.6 1570.5910236.51 1569.8610242.45 1569.61 10262.4 1570.01
10265.59 1570.0810282.02    157010282.52 1569.9810285.63 1570.0210338.51 1570.68
10356.98 1570.4910377.89 1570.0110408.43 1570.0610411.43 1570.0310412.03 1570.07
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10425.76 1569.4710425.78 1569.4710425.85 1569.4710439.69  1569.410449.67 1569.61
10497.69 1570.1110519.05 1570.3410528.82 1570.6510535.71 1569.1810539.53 1568.28
10542.58    156910549.87 1570.85 10565.1 1570.4110577.86 1570.2310588.59 1569.52
 10596.4  1568.810598.64 1569.8910602.52 1569.6610606.46 1569.28 10606.9 1569.32
10607.89  1569.410620.66 1570.2710630.92 1570.2810673.47 1570.9710709.14 1571.25
 10747.4 1570.67

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  9653.6    .065  9968.4    .03710036.54    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        9968.410036.54              550   522.7     450            .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
  9653.6 9820.81 1571.37
```

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1571.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.79	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1570.54	Reach Len. (ft)	550.00	522.70	450.00
Crit W.S. (ft)		Flow Area (sq ft)	222.61	252.47	430.68
E.G. Slope (ft/ft)	0.008753	Area (sq ft)	222.61	252.47	430.68
Q Total (cfs)	3781.00	Flow (cfs)	676.33	2263.94	840.73
Top Width (ft)	766.27	Top Width (ft)	131.02	68.14	567.12
Vel Total (ft/s)	4.17	Avg. Vel. (ft/s)	3.04	8.97	1.95
Max Chl Dpth (ft)	5.11	Hydr. Depth (ft)	1.70	3.71	0.76
Conv. Total (cfs)	40413.9	Conv. (cfs)	7229.1	24198.5	8986.3
Length Wtd. (ft)	500.75	Wetted Per. (ft)	131.49	68.47	568.21
Min Ch El (ft)	1565.43	Shear (lb/sq ft)	0.93	2.01	0.41
Alpha	2.91	Stream Power (lb/ft s)	2.81	18.07	0.81
Frctn Loss (ft)	5.83	Cum Volume (acre-ft)	16.83	14.63	18.39
C & E Loss (ft)	0.01	Cum SA (acres)	10.35	6.07	15.18

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9653.60	9968.40	676.33	222.61	131.49	17.89	1.70	3.04
LB 9968.40	10002.47	1339.56	140.29	34.28	35.43	4.12	9.55
10002.47	RB 10036.54	924.38	112.18	34.19	24.45	3.29	8.24
10036.54	10747.40	840.73	430.68	568.21	22.24	0.76	1.95

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 30.376

INPUT
Description: SEC.30.376

```
Station Elevation Data    num=      89
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
 9714.46 1567.47  9736.2 1567.41 9737.51 1567.22 9742.66 1566.62 9748.94 1567.35
 9750.98 1567.55 9759.11 1566.94 9762.49 1566.64 9764.79 1566.67 9778.28 1566.82
 9803.19 1566.22 9813.59 1566.31 9831.46 1565.12 9834.67 1565.14 9836.88 1564.77
 9842.74 1565.07 9863.34 1566.09 9878.83 1565.17 9881.74 1564.96  9893.3 1564.92
 9925.04 1564.81 9935.13 1564.75 9953.02 1564.41 9980.05    1564 9990.41 1561.82
   10000  1559.810003.38 1560.3310015.91 1562.2510028.28 1562.5310081.24  1563.7
10082.44 1563.7410086.35 1563.4210099.63 1562.3210103.68 1562.4610118.01 1562.97
 10134.6 1563.5710157.43 1564.2110158.63 1564.2610164.84 1564.1610172.73 1564.03
10176.19 1564.0510179.56 1563.6110186.97 1562.6410196.85 1563.8110201.82 1564.39
10206.41 1564.4810227.43 1564.8310236.91  1563.810242.46 1563.2510252.37 1564.03
 10256.8 1564.3610257.95 1564.42 10275.6  1563.910283.44 1563.6610302.81 1563.31
10347.04 1562.67   10356 1562.7510358.42 1562.76 10366.4 1563.11 10371.6 1563.37
10379.99 1563.2310399.21 1562.8410406.39 1562.2210415.58 1561.6210424.99 1563.07
10437.12  1564.910457.26 1565.8410460.71 1565.9710462.04 1565.9210481.43  1565.2
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10494.77 1565.4510503.84 1565.5310534.58 1565.3810577.88 1564.8610583.43 1564.99
10588.24 1564.1410591.31 1563.7410596.05 1564.21 10604.9 1565.1510610.97  1564.7
10620.05 1564.0610630.52 1564.56 10638.6  1564.910651.43 1564.8910663.23 1564.99
10667.92 1565.0810670.11 1565.1910679.25  1565.310758.92 1565.87

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9714.46    .065 9980.05    .03710082.44    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9980.0510082.44              505   501.6     475            .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 9714.46 9863.34 1566.09
```

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1565.48	Element			
Vel Head (ft)	0.74	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1564.74	Reach Len. (ft)	505.00	501.60	475.00
Crit W.S. (ft)	1564.74	Flow Area (sq ft)	17.51	232.46	485.53
E.G. Slope (ft/ft)	0.016251	Area (sq ft)	17.51	232.46	485.53
Q Total (cfs)	3781.00	Flow (cfs)	27.35	2047.17	1706.48
Top Width (ft)	535.48	Top Width (ft)	44.61	102.39	388.48
Vel Total (ft/s)	5.14	Avg. Vel. (ft/s)	1.56	8.81	3.51
Max Chl Dpth (ft)	4.94	Hydr. Depth (ft)	0.39	2.27	1.25
Conv. Total (cfs)	29659.8	Conv. (cfs)	214.6	16058.9	13386.4
Length Wtd. (ft)	491.37	Wetted Per. (ft)	44.62	103.03	389.39
Min Ch El (ft)	1559.80	Shear (lb/sq ft)	0.40	2.29	1.27
Alpha	1.80	Stream Power (lb/ft s)	0.62	20.16	4.45
Frctn Loss (ft)	5.27	Cum Volume (acre-ft)	15.31	11.72	13.66
C & E Loss (ft)	0.11	Cum SA (acres)	9.24	5.04	10.25

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9714.46	9980.05	27.35	17.51	44.62	0.72	0.39	1.56
LB 9980.05	10031.25	1510.10	151.42	51.82	39.94	2.96	9.97
10031.25	RB 10082.44	537.06	81.04	51.21	14.20	1.58	6.63
10082.44	10758.92	1706.49	485.53	389.39	45.13	1.25	3.51

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

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CROSS SECTION          RIVER: SPLIT 3
REACH: SPLIT 3            RS: 30.281

INPUT
Description: SEC.30.281
Station Elevation Data    num=      83
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9674.43 1562.84 9676.16 1562.92 9682.52 1562.54 9696.18 1561.69 9713.56 1560.57
 9723.85 1559.98  9729.9 1559.46  9731.8 1559.27 9735.59 1559.03 9744.46 1558.45
 9751.07 1558.08 9758.33 1557.71  9758.9 1557.68 9761.55 1557.64 9766.56 1557.73
 9767.69 1557.69 9788.37 1557.74  9788.6 1557.73 9793.05 1557.93 9794.78 1557.92
 9798.88 1557.84 9804.75 1558.12 9810.69 1558.01 9818.79 1557.87 9825.44 1558.19
 9871.87 1559.17 9935.37 1558.75 9953.87 1558.24 9958.31 1557.88 9977.32 1557.04
   10000 1556.1510017.11 1557.0510019.83 1557.2110021.55 1557.2410038.44 1557.41
10040.59 1557.1210046.53 1556.5510058.31 1558.4310058.35 1558.4310106.61 1558.06
10114.07 1558.0410125.59 1558.4110143.53 1559.0110190.65 1557.8110219.83 1557.19
10229.56 1555.8510230.79 1555.6710231.52 1555.7810233.77 1555.9510253.59 1557.93
10297.08 1559.07   10333 1559.95 10338.6  1559.910377.39 1560.4110422.08  1560.5
10429.45 1559.84 10451.2 1558.78 10451.5 1558.7910452.02  1558.810458.78 1558.83
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 10463.2 1558.1510468.84 1557.4710479.05 1558.9710480.95 1559.2210481.55 1559.11
10486.91 1557.3810493.47  1558.410497.72 1559.0110509.31 1559.04 10514.7    1559
10532.54  1560.310542.54 1561.12 10546.4 1561.2610557.91  1561.510571.62 1561.81
10583.77 1562.2410586.69 1562.3410610.32 1562.4710611.79  1562.510620.82 1562.48
 10621.6 1562.4710625.25 1562.4910638.56 1562.69

Manning's n Values        num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
 9674.43    .065 9935.37    .03710058.31    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9935.3710058.31              565   517.4     465            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1560.09   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.36   Wt. n-Val.                0.065      0.037     0.065
  W.S. Elev (ft)            1559.73   Reach Len. (ft)          565.00     517.40    465.00
  Crit W.S. (ft)                      Flow Area (sq ft)        260.02     299.44    503.53
  E.G. Slope (ft/ft)        0.007624  Area (sq ft)             260.02     299.44    503.53
  Q Total (cfs)             3781.00   Flow (cfs)               600.83    1897.99   1282.18
  Top Width (ft)             690.62   Top Width (ft)           208.66     122.94    359.02
  Vel Total (ft/s)             3.56   Avg. Vel. (ft/s)           2.31       6.34      2.55
  Max Chl Dpth (ft)            4.06   Hydr. Depth (ft)           1.25       2.44      1.40
  Conv. Total (cfs)        43302.1    Conv. (cfs)              6881.0    21736.8   14684.3
  Length Wtd. (ft)           509.67   Wetted Per. (ft)         208.76     123.22    359.98
  Min Ch El (ft)            1556.15   Shear (lb/sq ft)           0.59       1.16      0.67
  Alpha                        1.83   Stream Power (lb/ft s)     1.37       7.33      1.70
  Frctn Loss (ft)              5.42   Cum Volume (acre-ft)      13.70       8.66      8.27
  C & E Loss (ft)              0.03   Cum SA (acres)             7.77       3.74      6.17


Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9674.43      9935.37        600.83     260.02     208.76      15.89      1.25       2.31
  LB 9935.37   9996.84        781.16     133.64      61.52      20.66      2.17       5.85
  9996.84      RB 10058.31   1116.83     165.80      61.70      29.54      2.70       6.74
  10058.31     10638.56      1282.18     503.53     359.98      33.91      1.40       2.55


Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT 3
REACH: SPLIT 3            RS: 30.183

INPUT
Description: SEC.30.183
Station Elevation Data    num=      73
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  9619.9 1554.59 9622.53 1554.68 9630.75 1554.59 9635.85 1554.46 9647.92 1554.19
 9657.87 1553.84 9668.14 1553.34 9673.54 1553.56  9677.5 1553.66 9698.88 1554.21
 9720.92 1554.57 9727.44 1554.68  9744.3 1554.97 9757.32 1554.82 9758.67 1554.77
  9765.6  1554.6 9791.61 1553.99  9799.9 1552.54  9806.6 1551.39 9811.59 1551.59
 9828.07 1552.28 9847.16 1551.73 9849.39 1551.67 9850.54 1551.76 9859.49 1553.05
 9861.75 1552.91  9868.9 1552.76 9871.33 1552.74  9925.9 1552.86 9929.67 1552.79
  9937.8  1552.8 9969.41 1552.04 9978.65 1551.92 9986.23  1551.6 9999.93  1550.9
   10000  1550.910012.64 1551.0810018.82 1551.3310020.14 1551.16 10036.9 1553.66
10037.59 1553.7610043.11 1553.6810077.62 1553.21   10107  1552.710114.85 1552.58
10117.06 1552.5310119.26 1552.49 10135.5 1551.7610135.84 1551.7410136.74 1551.78
10150.13 1552.5910157.79 1552.6610174.44 1552.85 10186.3 1552.5210201.57 1552.08
10206.54 1551.3410213.56 1550.8410221.01  1551.810226.89 1552.3510251.54 1552.86
10275.37 1553.5210292.64 1553.94 10299.9 1554.1210325.12 1553.5810339.56 1553.33
10352.94 1554.0710363.41  1554.610370.25  1554.8 10390.5 1555.2110421.73 1555.77
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 10432.7 1555.9910436.96 1556.0810437.91 1556.07

Manning's n Values        num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
  9619.9    .065  9925.9    .037 10036.9    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        9925.9 10036.9              440   517.4     510            .1       .3
Blocked Obstructions     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
  9619.9  9744.3 1554.97 10299.910437.91 1554.12

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1554.64   Element                Left OB    Channel   Right OB
  Vel Head (ft)                0.61   Wt. n-Val.               0.065      0.037      0.065
  W.S. Elev (ft)            1554.03   Reach Len. (ft)         440.00     517.40     510.00
  Crit W.S. (ft)            1553.96   Flow Area (sq ft)       209.79     226.78     328.71
  E.G. Slope (ft/ft)       0.016070   Area (sq ft)            209.79     226.78     328.71
  Q Total (cfs)             3781.00   Flow (cfs)              810.06    1856.24    1114.70
  Top Width (ft)             506.47   Top Width (ft)          136.05     111.00     259.42
  Vel Total (ft/s)             4.94   Avg. Vel. (ft/s)          3.86       8.19       3.39
  Max Chl Dpth (ft)            3.19   Hydr. Depth (ft)          1.54       2.04       1.27
  Conv. Total (cfs)         29825.9   Conv. (cfs)             6390.0    14642.7    8793.2
  Length Wtd. (ft)           480.92   Wetted Per. (ft)        136.40     111.24     259.67
  Min Ch El (ft)            1550.90   Shear (lb/sq ft)          1.54       2.05       1.27
  Alpha                        1.62   Stream Power (lb/ft s)    5.96      16.74       4.31
  Frctn Loss (ft)              3.92   Cum Volume (acre-ft)     10.66       5.54       3.83
  C & E Loss (ft)              0.13   Cum SA (acres)            5.53       2.36       2.87


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)             (cfs)    (sq ft)      (ft)                  (ft)     (ft/s)
  9619.90      9925.90         810.06     209.79     136.40      21.42      1.54       3.86
  LB 9925.90   9981.40         623.64      90.45      55.51      16.49      1.63       6.90
  9981.40      RB 10036.90    1232.60     136.33      55.72      32.60      2.46       9.04
  10036.90     10437.91       1114.70     328.71     259.67      29.48      1.27       3.39


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT 3
REACH: SPLIT 3            RS: 30.085

INPUT
Description: SEC.30.085
Station Elevation Data    num=      67
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
 9444.38 1550.59 9455.25 1550.65 9472.81 1550.29 9489.57  1550.1 9500.26 1549.85
 9507.69 1549.63 9564.35 1548.53 9564.48 1548.53 9572.33 1548.55 9582.72 1548.58
 9582.82 1548.58 9582.94 1548.58 9630.61 1548.99  9636.7 1548.95 9648.74 1548.74
 9653.97 1548.74 9655.55 1548.71 9672.49 1549.12 9673.72 1549.16 9675.33 1549.16
 9710.91  1548.9 9782.95 1547.87 9785.44 1547.86  9788.5 1547.69 9798.52 1546.99
 9802.68 1547.27 9809.31  1547.8  9811.7 1547.82 9869.06 1547.27 9878.34 1547.19
 9887.53 1547.12 9906.94 1547.47 9913.78 1547.64 9921.53  1547.7 9950.55  1547.9
 9985.15 1548.11 9986.62 1547.96 9995.13 1547.29   10000 1546.89 10000.3 1546.94
10005.69 1547.8610012.88 1548.0610018.99 1548.1610021.58 1547.6310026.43  1546.7
10042.18 1548.4710043.27 1548.6210046.32 1548.5710054.24 1548.4110055.43 1548.17
10061.47 1547.02 10068.9 1548.0910075.83 1548.6710090.84 1549.0410102.85 1549.35
10127.16 1549.9310139.19 1550.2710145.54 1550.4510147.15 1550.5610150.04 1550.63
10158.53 1550.8210166.16 1550.8610175.39 1551.0510183.31 1550.9710199.88  1552.7
10201.71 1552.8710205.57 1552.73

Manning's n Values        num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
```

9444.38 .065 9985.15 .03710043.27 .065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9985.15	10043.27	360	432.9	410	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1550.60	Element			
Vel Head (ft)	0.19	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1550.41	Reach Len. (ft)	360.00	432.90	410.00
Crit W.S. (ft)		Flow Area (sq ft)	1033.73	161.29	136.65
E.G. Slope (ft/ft)	0.004905	Area (sq ft)	1033.73	161.29	136.65
Q Total (cfs)	3781.00	Flow (cfs)	2621.84	891.96	267.19
Top Width (ft)	677.48	Top Width (ft)	518.37	58.12	100.99
Vel Total (ft/s)	2.84	Avg. Vel. (ft/s)	2.54	5.53	1.96
Max Chl Dpth (ft)	3.71	Hydr. Depth (ft)	1.99	2.78	1.35
Conv. Total (cfs)	53985.0	Conv. (cfs)	37434.6	12735.4	3815.0
Length Wtd. (ft)	405.26	Wetted Per. (ft)	518.48	58.51	101.25
Min Ch El (ft)	1546.70	Shear (lb/sq ft)	0.61	0.84	0.41
Alpha	1.48	Stream Power (lb/ft s)	1.55	4.67	0.81
Frctn Loss (ft)	2.73	Cum Volume (acre-ft)	4.37	3.23	1.10
C & E Loss (ft)	0.05	Cum SA (acres)	2.23	1.35	0.76

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9444.38	9985.15	2621.84	1033.73	518.48	69.34	1.99	2.54
LB 9985.15	10014.21	454.12	81.47	29.19	12.01	2.80	5.57
10014.21	RB 10043.27	437.84	79.83	29.31	11.58	2.75	5.48
10043.27	10205.57	267.19	136.65	101.25	7.07	1.35	1.96

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 3
REACH: SPLIT 3 RS: 30.003

INPUT
Description: SEC.30.003. SPLIT3 WASH STARTS AT CAP STA. 240+00 OVERCHUTE STUCTURE, WHICH INVOLVES (1) 72 INCH I.D. X 217 FT LONG STEEL PIPE WITH INLET I.E.=1541.07 AT CONC. HEADWALL WITH SQ. EDGE AND OUTLET I.E.=1539.77.
SECTIONS ARE CODED FROM LT. TO RT. LOOKING D/S WITH STA. 10000 AT HYD. BASELINE.
SEC. ID'S ARE IN RIVER MILES INCR. U/S W/30.00 AT INLET HEADWALL.STARTING WSEL BASED ON NORMAL DEPTH S=0.01 FT/FT.
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9814.4	1555.14	9818.79	1556.36	9820.02	1556.4	9822.03	1556.44	9833.14	1556.74
9842.74	1556.8	9850.29	1554.83	9854.68	1553.68	9868.4	1550.77	9880.98	1547.89
9884.56	1547.09	9892	1545.63	9905.2	1545.68	9925.17	1545.66	9947.62	1545.23
9960.51	1544.99	9970.95	1544.75	9980.26	1544.19	9981.57	1544.05	9986.77	1544.2
9987.45	1544.27	10000	1544.11	10004.99	1544.03	10009.83	1543.99	10027.34	1544.28
10044.98	1544.46	10060.11	1544.64	10073.51	1544.76	10090.02	1545.21	10099.43	1545.27
10118.98	1545.42	10141.17	1545.16	10142.53	1545.19	10144.43	1545.17	10162.78	1545.28
10163.67	1545.37	10163.88	1545.38	10183.95	1547.55	10188.48	1547.92	10204.02	1549.48
10213.35	1550.15	10224.83	1551.49	10241.9	1552.71	10249.09	1553.47	10254.23	1553.93
10273.59	1555.23	10281.34	1555.75	10294.44	1555.94	10298.68	1555.99	10317.11	1556.43

10326.42 1556.4410335.08 1556.76

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9814.4	.065	9905.2	.03710118.98		.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9905.210118.98		0	0	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1547.82	Element			
Vel Head (ft)	0.70	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1547.12	Reach Len. (ft)			
Crit W.S. (ft)	1546.82	Flow Area (sq ft)	24.99	489.06	97.67
E.G. Slope (ft/ft)	0.010011	Area (sq ft)	24.99	489.06	97.67
Q Total (cfs)	3781.00	Flow (cfs)	64.36	3411.22	305.42
Top Width (ft)	295.55	Top Width (ft)	20.77	213.78	60.99
Vel Total (ft/s)	6.18	Avg. Vel. (ft/s)	2.58	6.98	3.13
Max Chl Dpth (ft)	3.13	Hydr. Depth (ft)	1.20	2.29	1.60
Conv. Total (cfs)	37790.1	Conv. (cfs)	643.3	34094.2	3052.6
Length Wtd. (ft)		Wetted Per. (ft)	20.92	213.83	61.09
Min Ch El (ft)	1543.99	Shear (lb/sq ft)	0.75	1.43	1.00
Alpha	1.17	Stream Power (lb/ft s)	1.92	9.97	3.12
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9814.40	9905.20	64.36	24.99	20.92	1.70	1.20	2.58
LB 9905.20	10012.09	1609.20	236.24	106.93	42.56	2.21	6.81
10012.09	RB 10118.98	1802.02	252.82	106.90	47.66	2.37	7.13
10118.98	10335.08	305.42	97.67	61.09	8.08	1.60	3.13

SUMMARY OF MANNING'S N VALUES

River:SPLIT 3

Reach	River Sta.	n1	n2	n3	n4	n5
SPLIT 3	32.443	.065	.037	.065		
SPLIT 3	32.390	.065	.037	.065		
SPLIT 3	32.343	.065	.037	.065		
SPLIT 3	32.301	.065	.037	.065		
SPLIT 3	32.257	.065	.037	.065		
SPLIT 3	32.206	.065	.037	.065		
SPLIT 3	32.156	.065	.037	.065		
SPLIT 3	32.108	.065	.037	.065		
SPLIT 3	32.060	.065	.037	.065		
SPLIT 3	32.012	.065	.037	.065	.037	.065
SPLIT 3	31.964	.065	.037	.065	.037	.065
SPLIT 3	31.914	.065	.037	.065	.037	.065
SPLIT 3	31.867	.065	.037	.065	.037	.065
SPLIT 3	31.809	.065	.037	.065		
SPLIT 3	31.750	.065	.037	.065		
SPLIT 3	31.649	.065	.037	.065		
SPLIT 3	31.552	.065	.037	.065		
SPLIT 3	31.452	.065	.037	.065	.037	.065
SPLIT 3	31.351	.065	.037	.065	.037	.065
SPLIT 3	31.245	.065	.037	.065		
SPLIT 3	31.148	.065	.037	.065		
SPLIT 3	31.053	.065	.037	.065		
SPLIT 3	30.958	.065	.037	.065		
SPLIT 3	30.860	.065	.037	.065		
SPLIT 3	30.765	.065	.037	.065		
SPLIT 3	30.717	.065	.037	.065		
SPLIT 3	30.669	.065	.037	.065		
SPLIT 3	30.573	.065	.037	.065		
SPLIT 3	30.475	.065	.037	.065		

SPLIT 3	30.376	.065	.037	.065
SPLIT 3	30.281	.065	.037	.065
SPLIT 3	30.183	.065	.037	.065
SPLIT 3	30.085	.065	.037	.065
SPLIT 3	30.003	.065	.037	.065

SUMMARY OF REACH LENGTHS

River: SPLIT 3

Reach	River Sta.	Left	Channel	Right
SPLIT 3	32.443	250	279.8	335
SPLIT 3	32.390	243	248.2	235
SPLIT 3	32.343	230	221.73	210
SPLIT 3	32.301	242.57	232.76	222
SPLIT 3	32.257	269	269.3	270
SPLIT 3	32.206	255	264	265
SPLIT 3	32.156	245	253.4	255
SPLIT 3	32.108	245	253.4	255
SPLIT 3	32.060	255	253.4	250
SPLIT 3	32.012	245	253.4	255
SPLIT 3	31.964	262	264	264
SPLIT 3	31.914	248	248.2	248
SPLIT 3	31.867	270	306.2	310
SPLIT 3	31.809	265	311.5	300
SPLIT 3	31.750	505	533.3	500
SPLIT 3	31.649	505	502.98	505
SPLIT 3	31.552	528	528	500
SPLIT 3	31.452	520	533.3	505
SPLIT 3	31.351	520	559.7	515
SPLIT 3	31.245	460	512.2	515
SPLIT 3	31.148	465	501.6	504
SPLIT 3	31.053	470	501.62	510
SPLIT 3	30.958	510	517.4	495
SPLIT 3	30.860	540	501.6	480
SPLIT 3	30.765	225	253.4	240
SPLIT 3	30.717	225	253.4	255
SPLIT 3	30.669	430	506.9	470
SPLIT 3	30.573	490	517.4	480
SPLIT 3	30.475	550	522.7	450
SPLIT 3	30.376	505	501.6	475
SPLIT 3	30.281	565	517.4	465
SPLIT 3	30.183	440	517.4	510
SPLIT 3	30.085	360	432.9	410
SPLIT 3	30.003	0	0	0

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: SPLIT 3

Reach	River Sta.	Contr.	Expan.
SPLIT 3	32.443	.1	.3
SPLIT 3	32.390	.1	.3
SPLIT 3	32.343	.1	.3
SPLIT 3	32.301	.1	.3
SPLIT 3	32.257	.1	.3
SPLIT 3	32.206	.1	.3
SPLIT 3	32.156	.1	.3
SPLIT 3	32.108	.1	.3
SPLIT 3	32.060	.1	.3
SPLIT 3	32.012	.1	.3
SPLIT 3	31.964	.1	.3
SPLIT 3	31.914	.1	.3
SPLIT 3	31.867	.1	.3
SPLIT 3	31.809	.1	.3
SPLIT 3	31.750	.1	.3
SPLIT 3	31.649	.1	.3

SPLIT 3	31.750	.1	.3
SPLIT 3	31.649	.1	.3
SPLIT 3	31.552	.1	.3
SPLIT 3	31.452	.1	.3
SPLIT 3	31.351	.1	.3
SPLIT 3	31.245	.1	.3
SPLIT 3	31.148	.1	.3
SPLIT 3	31.053	.1	.3
SPLIT 3	30.958	.1	.3
SPLIT 3	30.860	.1	.3
SPLIT 3	30.765	.1	.3
SPLIT 3	30.717	.1	.3
SPLIT 3	30.669	.1	.3
SPLIT 3	30.573	.1	.3
SPLIT 3	30.475	.1	.3
SPLIT 3	30.376	.1	.3
SPLIT 3	30.281	.1	.3
SPLIT 3	30.183	.1	.3
SPLIT 3	30.085	.1	.3
SPLIT 3	30.003	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft/ft)		(ft/s)	(sq ft)	(ft)	
SPLIT 3	32.443	4660.00	1677.22	1682.51		1683.30	0.008572	9.30	889.94	349.45	0.79
SPLIT 3	32.390	4660.00	1674.28	1679.40	1679.40	1680.72	0.008728	9.80	647.69	314.89	0.84
SPLIT 3	32.343	4660.00	1672.00	1676.80		1678.02	0.009959	9.49	652.21	306.94	0.88
SPLIT 3	32.301	4660.00	1669.92	1674.93	1674.93	1675.95	0.008271	9.55	833.05	399.35	0.82
SPLIT 3	32.257	4660.00	1667.31	1672.09	1672.09	1673.20	0.009112	9.35	744.31	397.21	0.84
SPLIT 3	32.206	4660.00	1663.98	1669.35		1670.36	0.009052	9.29	743.03	315.37	0.84
SPLIT 3	32.156	4660.00	1661.84	1666.71		1667.79	0.010601	9.61	671.36	237.71	0.90
SPLIT 3	32.108	4660.00	1658.88	1664.16		1665.24	0.009810	10.10	757.88	338.60	0.88
SPLIT 3	32.060	4660.00	1656.52	1661.63	1661.63	1662.68	0.010599	9.66	761.35	338.67	0.90
SPLIT 3	32.012	4660.00	1653.95	1658.89		1659.55	0.008759	8.81	886.14	399.04	0.81
SPLIT 3	31.964	4660.00	1651.84	1656.14	1656.14	1656.91	0.012510	9.93	863.74	509.78	0.96
SPLIT 3	31.914	4660.00	1648.38	1653.05		1653.75	0.011383	9.78	968.80	606.15	0.92
SPLIT 3	31.867	4660.00	1646.23	1650.27		1650.90	0.011366	8.23	950.72	630.53	0.89
SPLIT 3	31.809	4660.00	1642.44	1647.49		1648.10	0.008007	7.51	1055.83	638.61	0.76
SPLIT 3	31.750	4660.00	1639.73	1643.83	1643.66	1644.82	0.015925	10.10	844.24	578.81	1.06
SPLIT 3	31.649	4660.00	1632.94	1636.87	1636.87	1637.67	0.011816	8.01	850.06	564.74	0.89
SPLIT 3	31.552	4485.00	1627.20	1631.24		1631.76	0.008478	7.13	1122.78	805.92	0.77
SPLIT 3	31.452	4485.00	1621.65	1624.74	1624.67	1625.40	0.019683	9.66	854.74	644.50	1.13
SPLIT 3	31.351	4485.00	1614.98	1619.28		1619.65	0.006992	6.89	1045.75	481.69	0.71
SPLIT 3	31.245	4485.00	1609.02	1614.32	1614.06	1615.31	0.009153	9.34	800.37	395.47	0.84
SPLIT 3	31.148	4485.00	1604.63	1608.65	1608.56	1609.49	0.015209	9.45	776.08	399.20	1.02
SPLIT 3	31.053	4485.00	1599.55	1603.92		1604.36	0.007514	6.87	1043.28	477.39	0.73
SPLIT 3	30.958	4485.00	1593.79	1598.90	1598.58	1599.90	0.011129	10.14	713.22	258.53	0.92
SPLIT 3	30.860	4485.00	1589.30	1592.65	1592.41	1593.20	0.014897	7.78	916.93	574.24	0.97
SPLIT 3	30.765	4485.00	1583.90	1586.82		1587.08	0.009248	6.05	1254.01	723.23	0.76
SPLIT 3	30.717	3781.00	1581.29	1584.24		1584.56	0.013193	5.87	886.66	516.99	0.86
SPLIT 3	30.669	3781.00	1579.42	1581.58		1581.78	0.010749	4.32	1070.31	671.81	0.74
SPLIT 3	30.573	3781.00	1570.81	1576.32	1576.32	1576.92	0.010079	7.49	966.00	908.61	0.83
SPLIT 3	30.475	3781.00	1565.43	1570.54		1571.33	0.008753	8.97	905.76	786.27	0.82
SPLIT 3	30.376	3781.00	1559.80	1564.74	1564.74	1565.48	0.016251	8.81	735.49	535.48	1.03
SPLIT 3	30.281	3781.00	1556.15	1559.73		1560.09	0.007624	6.34	1063.00	690.62	0.72
SPLIT 3	30.183	3781.00	1550.90	1554.03	1553.96	1554.64	0.016070	8.19	765.27	506.47	1.01
SPLIT 3	30.085	3781.00	1546.70	1550.41		1550.60	0.004905	5.53	1331.67	677.48	0.59
SPLIT 3	30.003	3781.00	1543.99	1547.12	1546.82	1547.82	0.010011	6.98	611.72	295.55	0.81

Profile Output Table - Standard Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
SPLIT 3	32.443	1683.30	1682.51	0.79	2.53	0.05	2419.63	2240.37	349.45	
SPLIT 3	32.390	1680.72	1679.40	1.31		461.71	4052.82	145.47	314.89	
SPLIT 3	32.343	1678.02	1676.80	1.22	2.01	0.06	444.08	4018.68	197.24	306.94
SPLIT 3	32.301	1675.95	1674.93	1.02			894.62	3209.45	555.93	399.35
SPLIT 3	32.257	1673.20	1672.09	1.10			679.19	3687.73	293.08	397.21

SPLIT 3	32.206	1670.36	1669.35	1.01	2.56	0.01	1122.96	3284.56	252.48	315.37
SPLIT 3	32.156	1667.79	1666.71	1.08	2.55	0.00	1412.44	3223.06	24.50	237.71
SPLIT 3	32.108	1665.24	1664.16	1.08	2.55	0.01	1613.37	2899.96	146.68	338.60
SPLIT 3	32.060	1662.68	1661.63	1.05			1227.15	3213.38	219.48	338.67
SPLIT 3	32.012	1659.55	1658.89	0.66	2.63	0.01	1454.15	1523.49	1682.36	399.04
SPLIT 3	31.964	1656.91	1656.14	0.77	3.14	0.02	861.07	1695.68	2103.26	509.78
SPLIT 3	31.914	1653.75	1653.05	0.70	2.84	0.02	1547.78	1658.43	1453.80	606.15
SPLIT 3	31.867	1650.90	1650.27	0.63	2.79	0.00	1175.30	1564.75	1919.95	630.53
SPLIT 3	31.809	1648.10	1647.49	0.61	3.23	0.04	1570.18	3085.51	4.31	638.61
SPLIT 3	31.750	1644.82	1643.83	0.99	7.09	0.05	1618.41	2680.90	360.69	578.81
SPLIT 3	31.649	1637.67	1636.87	0.80	5.02	0.08	313.99	3633.21	712.79	564.74
SPLIT 3	31.552	1631.76	1631.24	0.52	6.35	0.01	441.60	2745.06	1298.34	805.92
SPLIT 3	31.452	1625.40	1624.74	0.66	5.66	0.09	181.44	1386.31	2917.24	644.50
SPLIT 3	31.351	1619.65	1619.28	0.38	4.29	0.06	0.15	1441.81	3043.04	481.69
SPLIT 3	31.245	1615.31	1614.32	0.99	5.77	0.04	589.20	3141.70	754.10	395.47
SPLIT 3	31.148	1609.49	1608.65	0.84	5.01	0.12	2047.44	2308.32	129.24	399.20
SPLIT 3	31.053	1604.36	1603.92	0.44	4.40	0.06	2284.31	2180.26	20.43	477.39
SPLIT 3	30.958	1599.90	1598.90	1.00	6.56	0.13	2072.66	2412.34		258.53
SPLIT 3	30.860	1593.20	1592.65	0.55	6.03	0.09	1890.24	2042.07	552.69	574.24
SPLIT 3	30.765	1587.08	1586.82	0.26	2.52	0.01	3084.56	1053.18	347.26	723.23
SPLIT 3	30.717	1584.56	1584.24	0.31	2.74	0.03	2759.14	1021.86		516.99
SPLIT 3	30.669	1581.78	1581.58	0.20	4.82	0.04	3347.27	417.31	16.42	671.81
SPLIT 3	30.573	1576.92	1576.32	0.60			615.22	2507.22	658.56	908.61
SPLIT 3	30.475	1571.33	1570.54	0.79	5.83	0.01	676.33	2263.94	840.73	766.27
SPLIT 3	30.376	1565.48	1564.74	0.74	5.27	0.11	27.35	2047.17	1706.48	535.48
SPLIT 3	30.281	1560.09	1559.73	0.36	5.42	0.03	600.83	1897.99	1282.18	690.62
SPLIT 3	30.183	1554.64	1554.03	0.61	3.92	0.13	810.06	1856.24	1114.70	506.47
SPLIT 3	30.085	1550.60	1550.41	0.19	2.73	0.05	2621.84	891.96	267.19	677.48
SPLIT 3	30.003	1547.82	1547.12	0.70			64.36	3411.22	305.42	295.55

Profile Output Table - TABLE 3

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Sta W.S. Lft (ft)	Sta W.S. Rgt (ft)	Length Chnl (ft)	Froude # Chl	Froude # XS (ft)	Max Chl Dpth
SPLIT 3	32.443	4660.00	1677.22	1682.51	9981.20	10330.65	279.80	0.79	0.58	5.29
SPLIT 3	32.390	4660.00	1674.28	1679.40	9868.31	10197.35	248.20	0.84	0.88	5.12
SPLIT 3	32.343	4660.00	1672.00	1676.80	9805.49	10146.60	221.73	0.88	0.86	4.80
SPLIT 3	32.301	4660.00	1669.92	1674.93	9830.61	10229.96	232.76	0.82	0.68	5.01
SPLIT 3	32.257	4660.00	1667.31	1672.09	9829.71	10230.48	269.30	0.84	0.81	4.78
SPLIT 3	32.206	4660.00	1663.98	1669.35	9818.34	10153.58	264.00	0.84	0.72	5.45
SPLIT 3	32.156	4660.00	1661.84	1666.71	9803.53	10041.24	253.40	0.90	0.73	4.87
SPLIT 3	32.108	4660.00	1658.88	1664.16	9802.50	10141.10	253.40	0.88	0.72	5.28
SPLIT 3	32.060	4660.00	1656.52	1661.63	9757.21	10095.88	253.40	0.90	0.72	5.11
SPLIT 3	32.012	4660.00	1653.95	1658.89	9765.46	10164.50	253.40	0.81	0.62	4.94
SPLIT 3	31.964	4660.00	1651.84	1656.14	9757.26	10267.04	264.00	0.96	0.73	4.30
SPLIT 3	31.914	4660.00	1648.38	1653.05	9606.42	10212.57	248.20	0.92	0.67	4.67
SPLIT 3	31.867	4660.00	1646.23	1650.27	9504.49	10167.87	306.20	0.89	0.70	4.04
SPLIT 3	31.809	4660.00	1642.44	1647.49	9412.07	10051.96	311.50	0.76	0.60	5.05
SPLIT 3	31.750	4660.00	1639.73	1643.83	9582.18	10217.48	533.30	1.06	0.81	4.62
SPLIT 3	31.649	4660.00	1632.94	1636.87	9667.78	10326.20	502.98	0.89	0.79	3.93
SPLIT 3	31.552	4485.00	1627.20	1631.24	9706.68	10553.61	528.00	0.77	0.60	5.65
SPLIT 3	31.452	4485.00	1621.65	1624.74	9867.09	10651.34	533.30	1.13	0.80	5.33
SPLIT 3	31.351	4485.00	1614.98	1619.28	9969.32	10451.01	559.70	0.71	0.51	4.35
SPLIT 3	31.245	4485.00	1609.02	1614.32	9807.25	10202.71	512.20	0.84	0.69	5.30
SPLIT 3	31.148	4485.00	1604.63	1608.65	9657.94	10057.14	501.60	1.02	0.73	4.02
SPLIT 3	31.053	4485.00	1599.55	1603.92	9573.45	10050.84	501.62	0.73	0.51	5.58
SPLIT 3	30.958	4485.00	1593.79	1598.90	9760.41	10018.94	517.40	0.92	0.67	5.11
SPLIT 3	30.860	4485.00	1589.30	1592.65	9642.17	10239.78	501.60	0.97	0.68	3.40
SPLIT 3	30.765	4485.00	1583.90	1586.82	9423.09	10146.33	253.40	0.76	0.48	6.64
SPLIT 3	30.717	3781.00	1581.29	1584.24	9554.65	10071.64	253.40	0.86	0.57	5.55
SPLIT 3	30.669	3781.00	1579.42	1581.58	9351.99	10058.49	506.90	0.74	0.49	5.38
SPLIT 3	30.573	3781.00	1570.81	1576.32	9410.07	10467.05	517.40	0.83	0.67	5.51
SPLIT 3	30.475	3781.00	1565.43	1570.54	9837.38	10647.03	522.70	0.82	0.68	5.11
SPLIT 3	30.376	3781.00	1559.80	1564.74	9935.44	10634.89	501.60	1.03	0.77	4.94
SPLIT 3	30.281	3781.00	1556.15	1559.73	9726.71	10524.77	517.40	0.72	0.51	4.06
SPLIT 3	30.183	3781.00	1550.90	1554.03	9789.85	10296.32	517.40	1.01	0.71	3.19
SPLIT 3	30.085	3781.00	1546.70	1550.41	9466.78	10144.26	432.90	0.59	0.36	3.71
SPLIT 3	30.003	3781.00	1543.99	1547.12	9884.43	10179.97		0.81	0.76	3.13

STd Table 1

HEC-RAS Plan: SPLIT3A River: SPLIT 3 Reach: SPLIT 3

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
SPLIT 3	32.443	4660.00	1677.22	1682.51		1683.30	0.008572	9.30	889.94	349.45	0.79
SPLIT 3	32.390	4660.00	1674.28	1679.40	1679.40	1680.72	0.008728	9.80	647.69	314.89	0.84
SPLIT 3	32.343	4660.00	1672.00	1676.80		1678.02	0.009959	9.49	652.21	306.94	0.88
SPLIT 3	32.301	4660.00	1669.92	1674.93	1674.93	1675.95	0.008271	9.55	833.05	399.35	0.82
SPLIT 3	32.257	4660.00	1667.31	1672.09	1672.09	1673.20	0.009112	9.35	744.31	397.21	0.84
SPLIT 3	32.206	4660.00	1663.98	1669.35		1670.36	0.009052	9.29	743.03	315.37	0.84
SPLIT 3	32.156	4660.00	1661.84	1666.71		1667.79	0.010601	9.61	671.36	237.71	0.90
SPLIT 3	32.108	4660.00	1658.88	1664.16		1665.24	0.009810	10.10	757.88	338.60	0.88
SPLIT 3	32.060	4660.00	1656.52	1661.63	1661.63	1662.68	0.010599	9.66	761.35	338.67	0.90
SPLIT 3	32.012	4660.00	1653.95	1658.89		1659.55	0.008759	8.81	886.14	399.04	0.81
SPLIT 3	31.964	4660.00	1651.84	1656.14	1656.14	1656.91	0.012510	9.93	863.74	509.78	0.96
SPLIT 3	31.914	4660.00	1648.38	1653.05		1653.75	0.011383	9.78	968.80	606.15	0.92
SPLIT 3	31.867	4660.00	1646.23	1650.27		1650.90	0.011366	8.23	950.72	630.53	0.89
SPLIT 3	31.809	4660.00	1642.44	1647.49		1648.10	0.008007	7.51	1055.83	638.61	0.76
SPLIT 3	31.750	4660.00	1639.73	1643.83	1643.66	1644.82	0.015925	10.10	844.24	578.81	1.06
SPLIT 3	31.649	4660.00	1632.94	1636.87	1636.87	1637.67	0.011816	8.01	850.06	564.74	0.89
SPLIT 3	31.562	4485.00	1627.20	1631.24		1631.76	0.008478	7.13	1122.78	805.92	0.77
SPLIT 3	31.452	4485.00	1621.65	1624.74	1624.67	1625.40	0.019683	9.66	854.74	644.50	1.13
SPLIT 3	31.351	4485.00	1614.98	1619.28		1619.65	0.006992	6.89	1045.75	481.69	0.71
SPLIT 3	31.245	4485.00	1609.02	1614.32	1614.06	1615.31	0.009153	9.34	800.37	395.47	0.84
SPLIT 3	31.148	4485.00	1604.63	1608.65	1608.56	1609.49	0.015209	9.45	776.08	399.20	1.02
SPLIT 3	31.063	4485.00	1599.55	1603.92		1604.36	0.007514	6.87	1043.28	477.39	0.73
SPLIT 3	30.958	4485.00	1593.79	1598.90	1598.58	1599.90	0.011129	10.14	713.22	258.53	0.92
SPLIT 3	30.860	4485.00	1589.30	1592.65	1592.41	1593.20	0.014897	7.78	916.93	574.24	0.97
SPLIT 3	30.765	4485.00	1583.90	1586.82		1587.08	0.009248	6.05	1254.01	723.23	0.76
SPLIT 3	30.717	3781.00	1581.29	1584.24		1584.56	0.013193	5.87	886.66	516.99	0.86
SPLIT 3	30.669	3781.00	1579.42	1581.58		1581.78	0.010749	4.32	1070.31	671.81	0.74
SPLIT 3	30.573	3781.00	1570.81	1576.32	1576.32	1576.92	0.010079	7.49	966.00	908.61	0.83
SPLIT 3	30.475	3781.00	1565.43	1570.54		1571.33	0.008753	8.97	905.76	766.27	0.82
SPLIT 3	30.376	3781.00	1559.80	1564.74	1564.74	1565.48	0.016251	8.81	735.49	535.48	1.03
SPLIT 3	30.281	3781.00	1556.15	1559.73		1560.09	0.007624	6.34	1063.00	690.62	0.72

STd Table 1

HEC-RAS Plan: SPLIT3A River: SPLIT 3 Reach: SPLIT 3 (Continued)

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
SPLIT 3	30.183	3781.00	1550.90	1554.03	1553.96	1554.64	0.016070	8.19	765.27	506.47	1.01
SPLIT 3	30.085	3781.00	1546.70	1550.41		1550.60	0.004905	5.53	1331.67	677.48	0.59

std. Table 2

HEC-RAS Plan: SPLIT3A River: SPLIT 3 Reach: SPLIT 3

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
SPLIT 3	32.443	1683.30	1682.51	0.79	2.53	0.05		2419.63	2240.37	349.45
SPLIT 3	32.390	1680.72	1679.40	1.31			461.71	4052.82	145.47	314.89
SPLIT 3	32.343	1678.02	1676.80	1.22	2.01	0.06	444.08	4018.68	197.24	306.94
SPLIT 3	32.301	1675.95	1674.93	1.02			894.62	3209.45	555.93	399.35
SPLIT 3	32.257	1673.20	1672.09	1.10			679.19	3687.73	293.08	397.21
SPLIT 3	32.206	1670.36	1669.35	1.01	2.56	0.01	1122.96	3284.56	252.48	315.37
SPLIT 3	32.156	1667.79	1666.71	1.08	2.55	0.00	1412.44	3223.06	24.50	237.71
SPLIT 3	32.106	1665.24	1664.16	1.08	2.55	0.01	1613.37	2899.96	146.68	338.60
SPLIT 3	32.060	1662.68	1661.63	1.05			1227.15	3213.38	219.48	338.67
SPLIT 3	32.012	1659.55	1658.89	0.66	2.63	0.01	1454.15	1523.49	1682.36	399.04
SPLIT 3	31.964	1656.91	1656.14	0.77	3.14	0.02	861.07	1695.68	2103.26	509.78
SPLIT 3	31.914	1653.75	1653.05	0.70	2.84	0.02	1547.78	1658.43	1453.80	606.15
SPLIT 3	31.867	1650.90	1650.27	0.63	2.79	0.00	1175.30	1564.75	1919.95	630.53
SPLIT 3	31.809	1648.10	1647.49	0.61	3.23	0.04	1570.18	3085.51	4.31	638.61
SPLIT 3	31.750	1644.82	1643.83	0.99	7.09	0.05	1618.41	2680.90	360.69	578.81
SPLIT 3	31.649	1637.67	1636.87	0.80	5.02	0.08	313.99	3633.21	712.79	564.74
SPLIT 3	31.552	1631.76	1631.24	0.52	6.35	0.01	441.60	2745.06	1298.34	805.92
SPLIT 3	31.452	1625.40	1624.74	0.66	5.66	0.09	181.44	1386.31	2917.24	644.50
SPLIT 3	31.351	1619.65	1619.28	0.38	4.29	0.06	0.15	1441.81	3043.04	481.69
SPLIT 3	31.245	1615.31	1614.32	0.99	5.77	0.04	589.20	3141.70	754.10	395.47
SPLIT 3	31.148	1609.49	1608.65	0.84	5.01	0.12	2047.44	2308.32	129.24	399.20
SPLIT 3	31.053	1604.36	1603.92	0.44	4.40	0.06	2284.31	2180.26	20.43	477.39
SPLIT 3	30.958	1599.90	1598.90	1.00	6.56	0.13	2072.66	2412.34		258.53
SPLIT 3	30.860	1593.20	1592.65	0.55	6.03	0.09	1890.24	2042.07	552.69	574.24
SPLIT 3	30.765	1587.08	1586.82	0.26	2.52	0.01	3084.56	1053.18	347.26	723.23
SPLIT 3	30.717	1584.56	1584.24	0.31	2.74	0.03	2759.14	1021.86		516.99
SPLIT 3	30.669	1581.78	1581.58	0.20	4.82	0.04	3347.27	417.31	16.42	671.81
SPLIT 3	30.573	1576.92	1576.32	0.60			615.22	2507.22	658.56	908.61

Std. Table 2

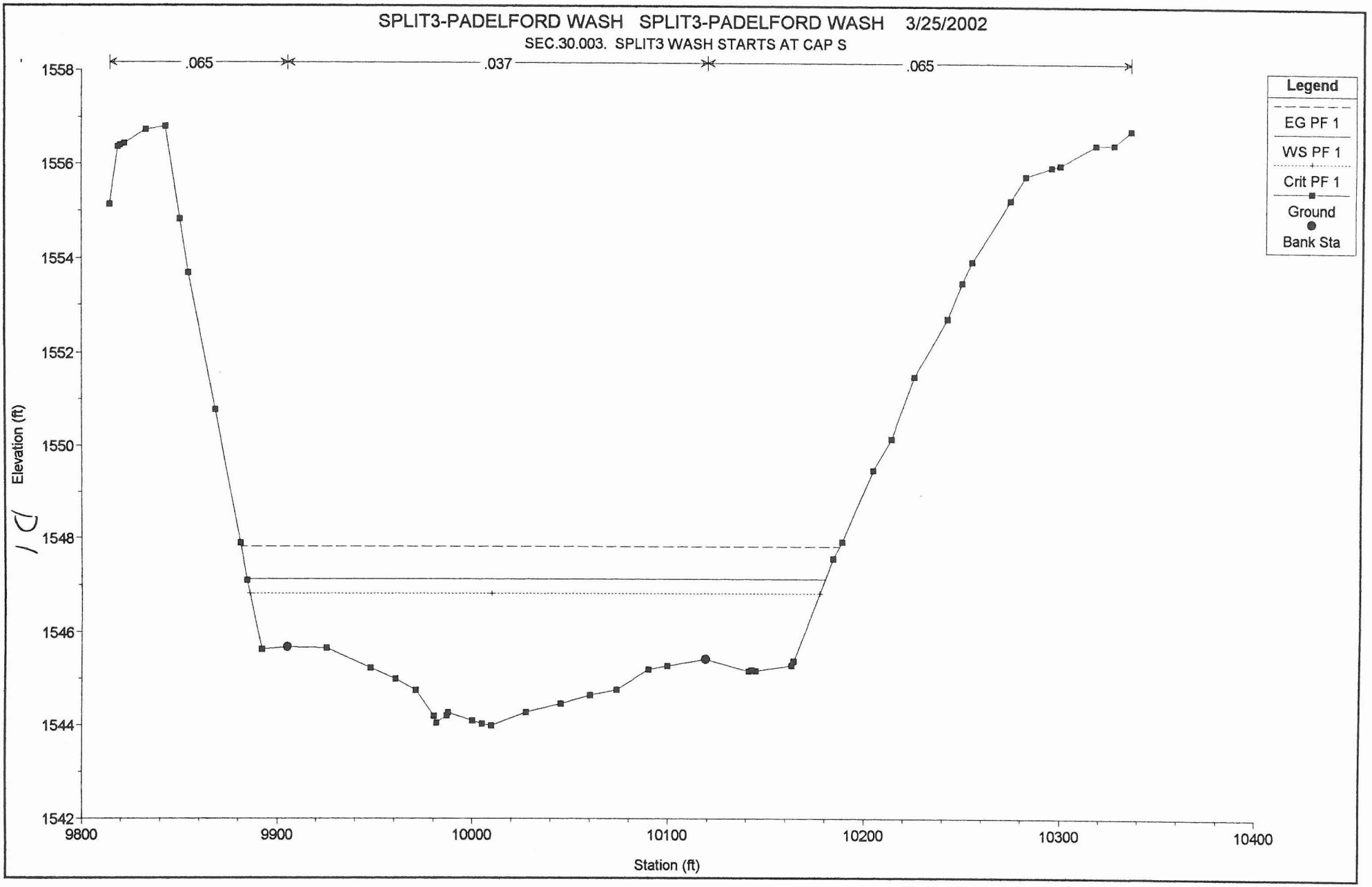
HEC-RAS Plan: SPLIT3A River: SPLIT 3 Reach: SPLIT 3 (Continued)

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
SPLIT 3	30.475	1571.33	1570.54	0.79	5.83	0.01	676.33	2263.94	840.73	766.27
SPLIT 3	30.376	1565.48	1564.74	0.74	5.27	0.11	27.35	2047.17	1706.48	535.48
SPLIT 3	30.281	1560.09	1559.73	0.36	5.42	0.03	600.83	1897.99	1282.18	690.62
SPLIT 3	30.183	1554.64	1554.03	0.61	3.92	0.13	810.06	1856.24	1114.70	506.47
SPLIT 3	30.085	1550.60	1550.41	0.19	2.73	0.05	2621.84	891.96	267.19	677.48

Table 3

HEC-RAS Plan: SPLIT3A River: SPLIT 3 Reach: SPLIT 3

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Sta W.S. Lft (ft)	Sta W.S. Rgt (ft)	Length Chnl (ft)	Froude # Chl	Froude # XS	Max Chl Dpth (ft)
SPLIT 3	32.443	4660.00	1677.22	1682.51	9981.20	10330.65	279.80	0.79	0.58	5.29
SPLIT 3	32.390	4660.00	1674.28	1679.40	9868.31	10197.35	248.20	0.84	0.88	5.12
SPLIT 3	32.343	4660.00	1672.00	1676.80	9805.49	10146.60	221.73	0.88	0.86	4.80
SPLIT 3	32.301	4660.00	1669.92	1674.93	9830.61	10229.96	232.76	0.82	0.68	5.01
SPLIT 3	32.257	4660.00	1667.31	1672.09	9829.71	10230.48	269.30	0.84	0.81	4.78
SPLIT 3	32.206	4660.00	1663.98	1669.35	9818.34	10153.58	264.00	0.84	0.72	5.45
SPLIT 3	32.156	4660.00	1661.84	1666.71	9803.53	10041.24	253.40	0.90	0.73	4.87
SPLIT 3	32.108	4660.00	1658.88	1664.16	9802.50	10141.10	253.40	0.88	0.72	5.28
SPLIT 3	32.060	4660.00	1656.52	1661.63	9757.21	10095.88	253.40	0.90	0.72	5.11
SPLIT 3	32.012	4660.00	1653.95	1658.89	9765.46	10164.50	253.40	0.81	0.62	4.94
SPLIT 3	31.964	4660.00	1651.84	1656.14	9757.26	10267.04	264.00	0.96	0.73	4.30
SPLIT 3	31.914	4660.00	1648.38	1653.05	9606.42	10212.57	248.20	0.92	0.67	4.67
SPLIT 3	31.867	4660.00	1646.23	1650.27	9504.49	10167.87	306.20	0.89	0.70	4.04
SPLIT 3	31.809	4660.00	1642.44	1647.49	9412.07	10051.96	311.50	0.76	0.60	5.05
SPLIT 3	31.750	4660.00	1639.73	1643.83	9582.18	10217.48	533.30	1.06	0.81	4.62
SPLIT 3	31.648	4660.00	1632.94	1636.87	9667.78	10326.20	502.98	0.89	0.79	3.93
SPLIT 3	31.552	4485.00	1627.20	1631.24	9706.68	10553.61	528.00	0.77	0.60	5.65
SPLIT 3	31.452	4485.00	1621.65	1624.74	9867.09	10651.34	533.30	1.13	0.80	5.33
SPLIT 3	31.351	4485.00	1614.98	1619.28	9969.32	10451.01	559.70	0.71	0.51	4.35
SPLIT 3	31.245	4485.00	1609.02	1614.32	9807.25	10202.71	512.20	0.84	0.69	5.30
SPLIT 3	31.149	4485.00	1604.63	1608.65	9657.94	10057.14	501.60	1.02	0.73	4.02
SPLIT 3	31.053	4485.00	1599.55	1603.92	9573.45	10050.84	501.62	0.73	0.51	5.58
SPLIT 3	30.956	4485.00	1593.79	1598.90	9760.41	10018.94	517.40	0.92	0.67	5.11
SPLIT 3	30.860	4485.00	1589.30	1592.65	9642.17	10239.78	501.60	0.97	0.68	3.40
SPLIT 3	30.765	4485.00	1583.90	1586.82	9423.09	10146.33	253.40	0.76	0.48	6.64
SPLIT 3	30.717	3781.00	1581.29	1584.24	9554.65	10071.64	253.40	0.86	0.57	5.55
SPLIT 3	30.669	3781.00	1579.42	1581.58	9351.99	10058.49	506.90	0.74	0.49	5.38
SPLIT 3	30.573	3781.00	1570.81	1576.32	9410.07	10467.05	517.40	0.83	0.67	5.51
SPLIT 3	30.475	3781.00	1565.43	1570.54	9837.38	10647.03	522.70	0.82	0.68	5.11
SPLIT 3	30.376	3781.00	1559.80	1564.74	9935.44	10634.89	501.60	1.03	0.77	4.94
SPLIT 3	30.281	3781.00	1556.15	1559.73	9726.71	10524.77	517.40	0.72	0.51	4.06
SPLIT 3	30.183	3781.00	1550.90	1554.03	9789.85	10296.32	517.40	1.01	0.71	3.19
SPLIT 3	30.065	3781.00	1546.70	1550.41	9466.78	10144.26	432.90	0.59	0.36	3.71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SEC.30.003. SPLIT3 WASH STARTS AT CAP S
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1558
1556
1554
1552
1550
1548
1546
1544
1542
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9900
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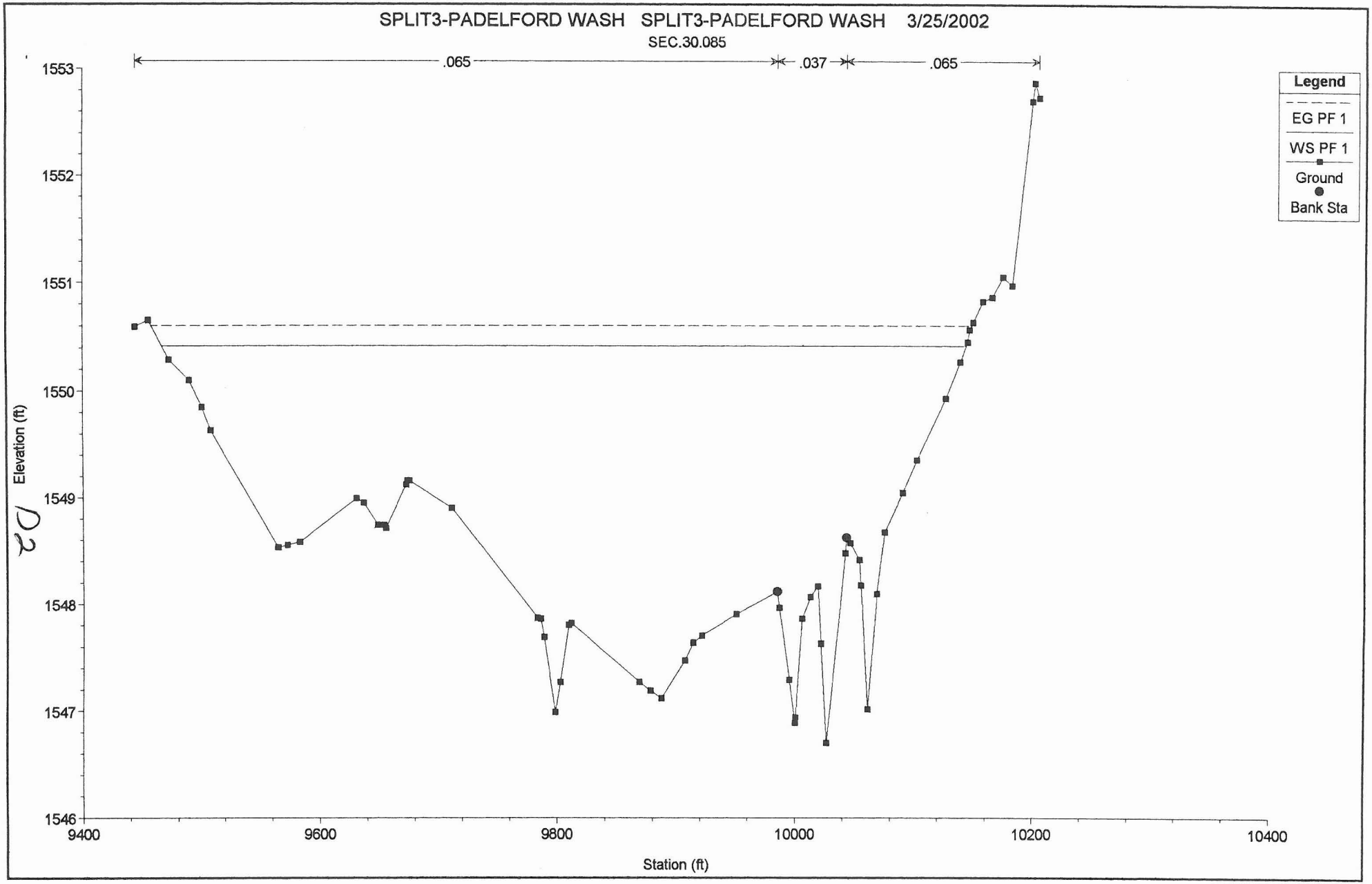
10100
10200
10300
10400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SEC.30.085
.065
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Legend
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WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
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1551
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1548
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9400
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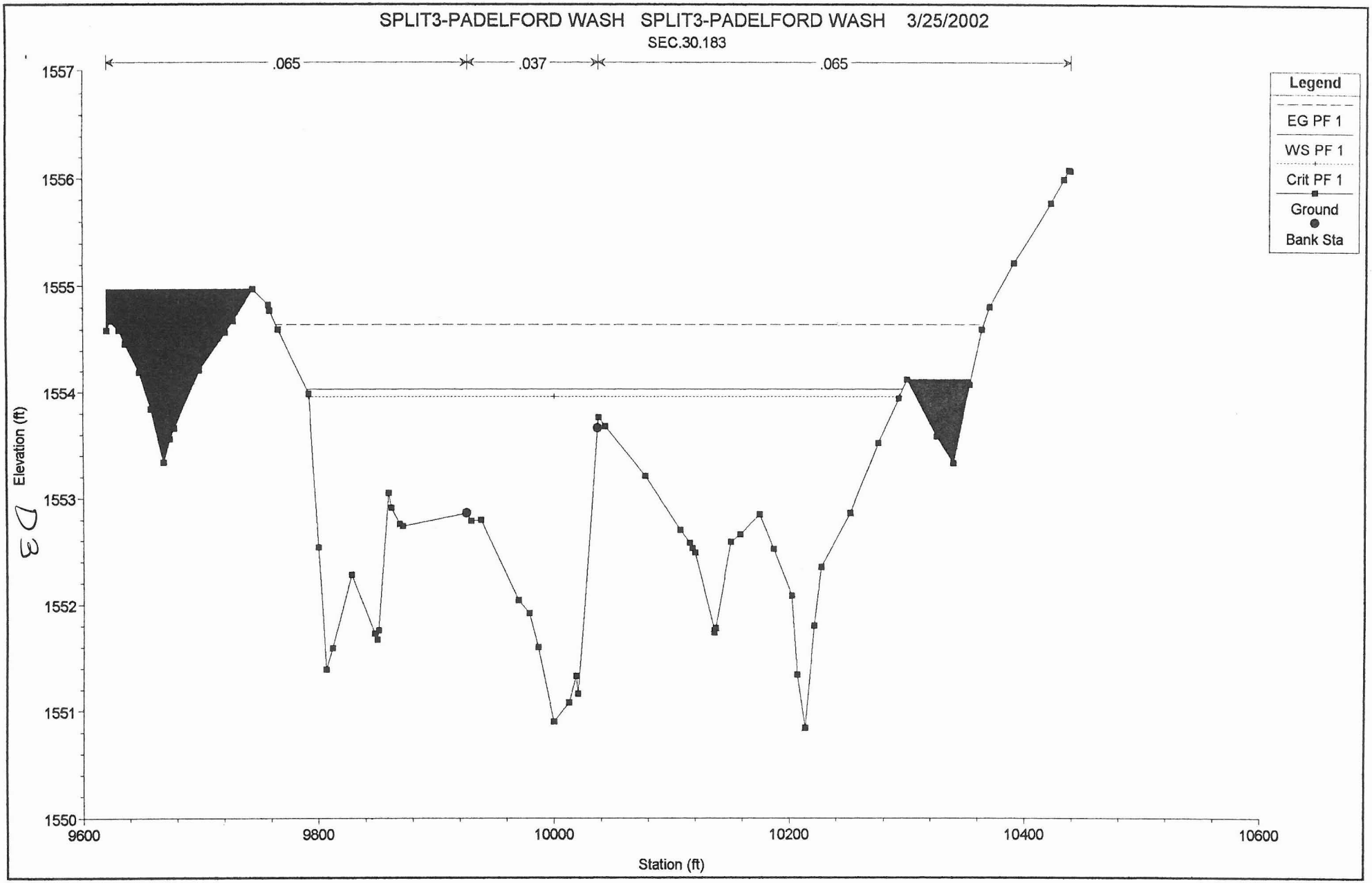
10000
10200
10400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Legend
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WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
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1556
1555
1554
1553
1552
1551
1550
9600
9800
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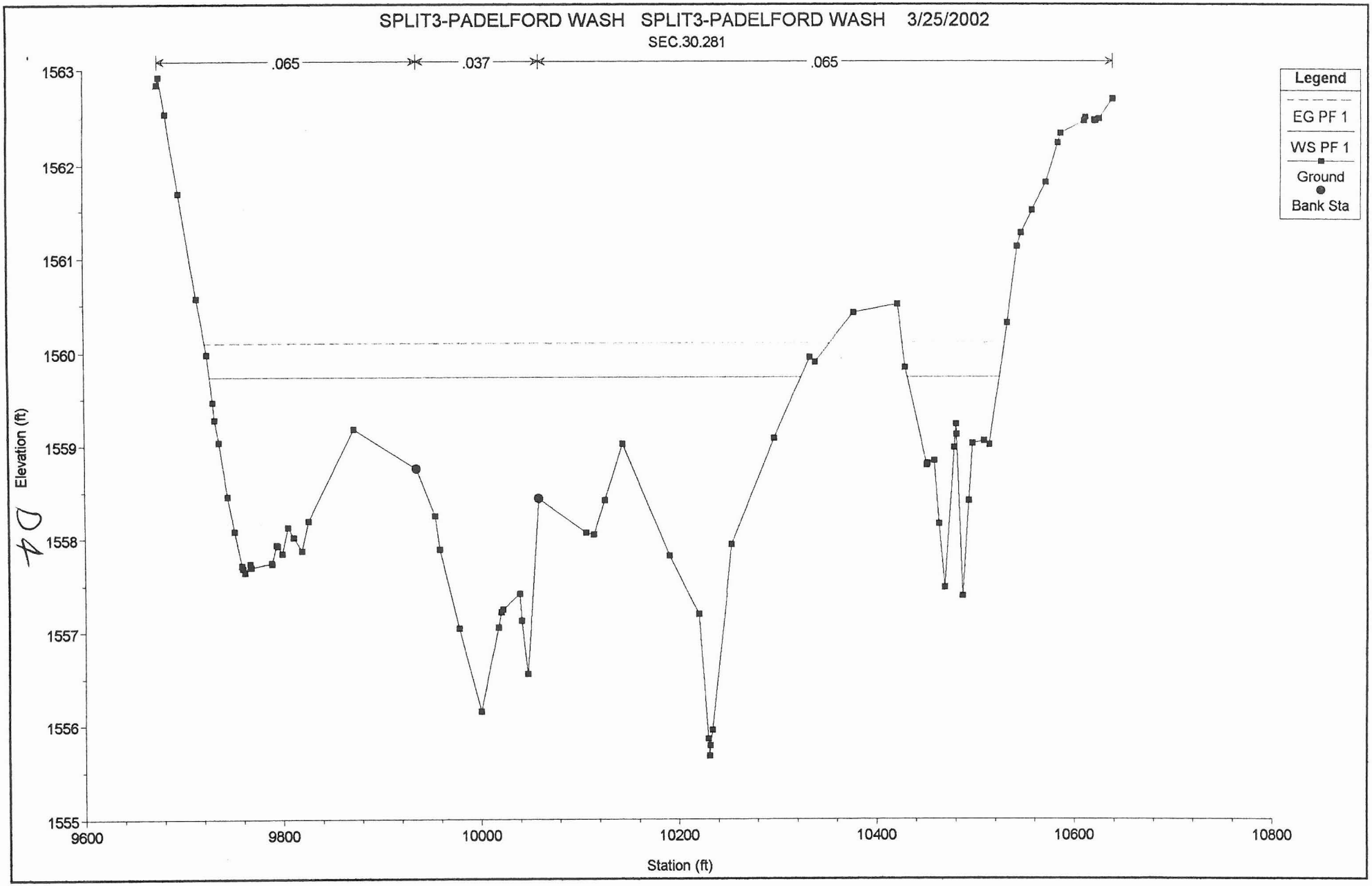
10200
10400
10600
ED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.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1563
1562
1561
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1559
1558
1557
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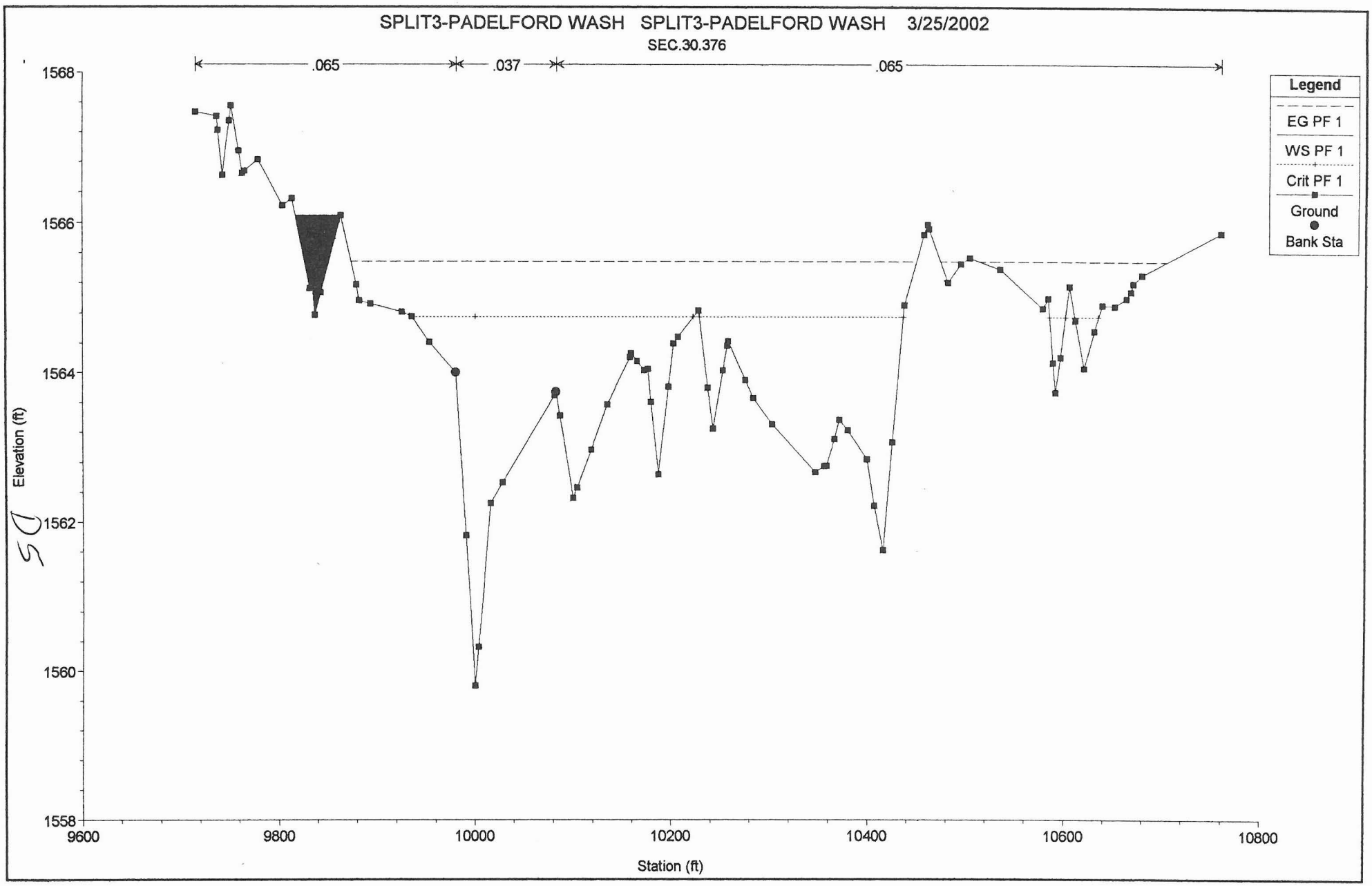
1555
9600
9800
10000
10200
10400
10600
10800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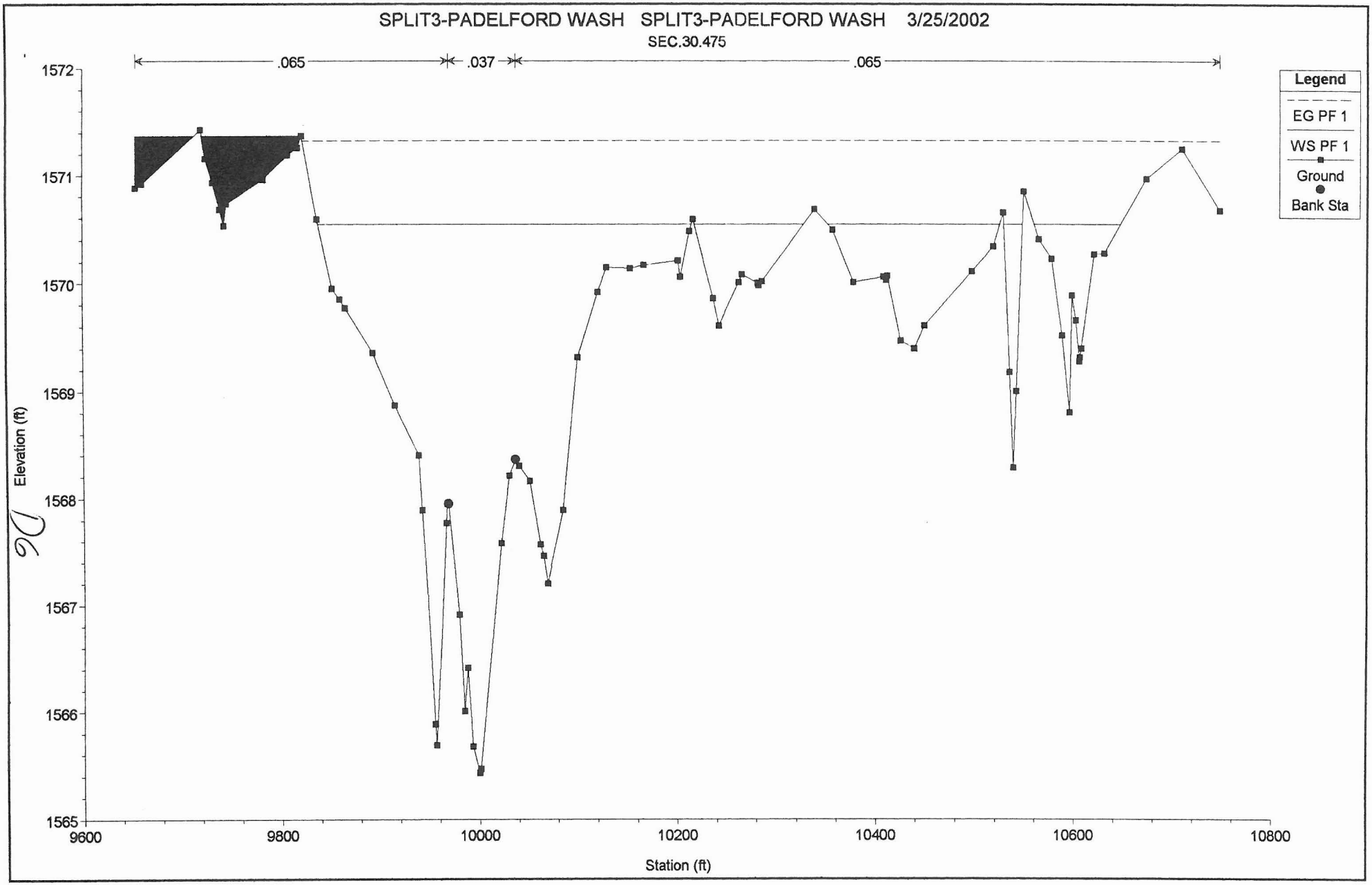
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1568
1566
1564
1562
1560
1558
9600
9800
10000
10200
10400
10600
10800
Station (ft)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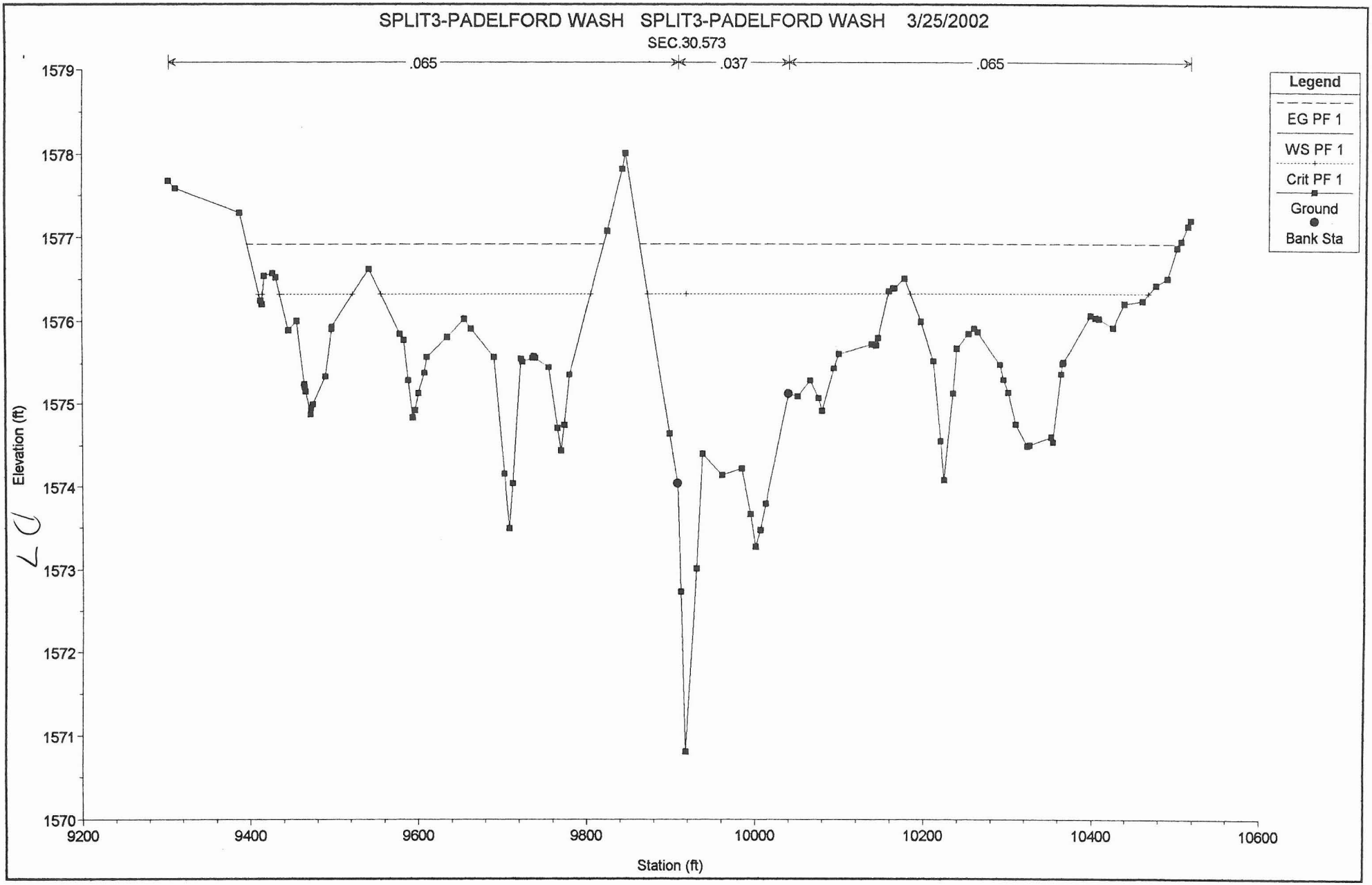
SEC.30.475
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1572
1571
1570
1569
1568
1567
1566
1565
9600
9800
10000
10200
10400
10600
10800
Station (ft)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SEC.30.573
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1579
1578
1577
1576
1575
1574
1573
1572
1571
1570
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9600
9800
10000
10200
10400
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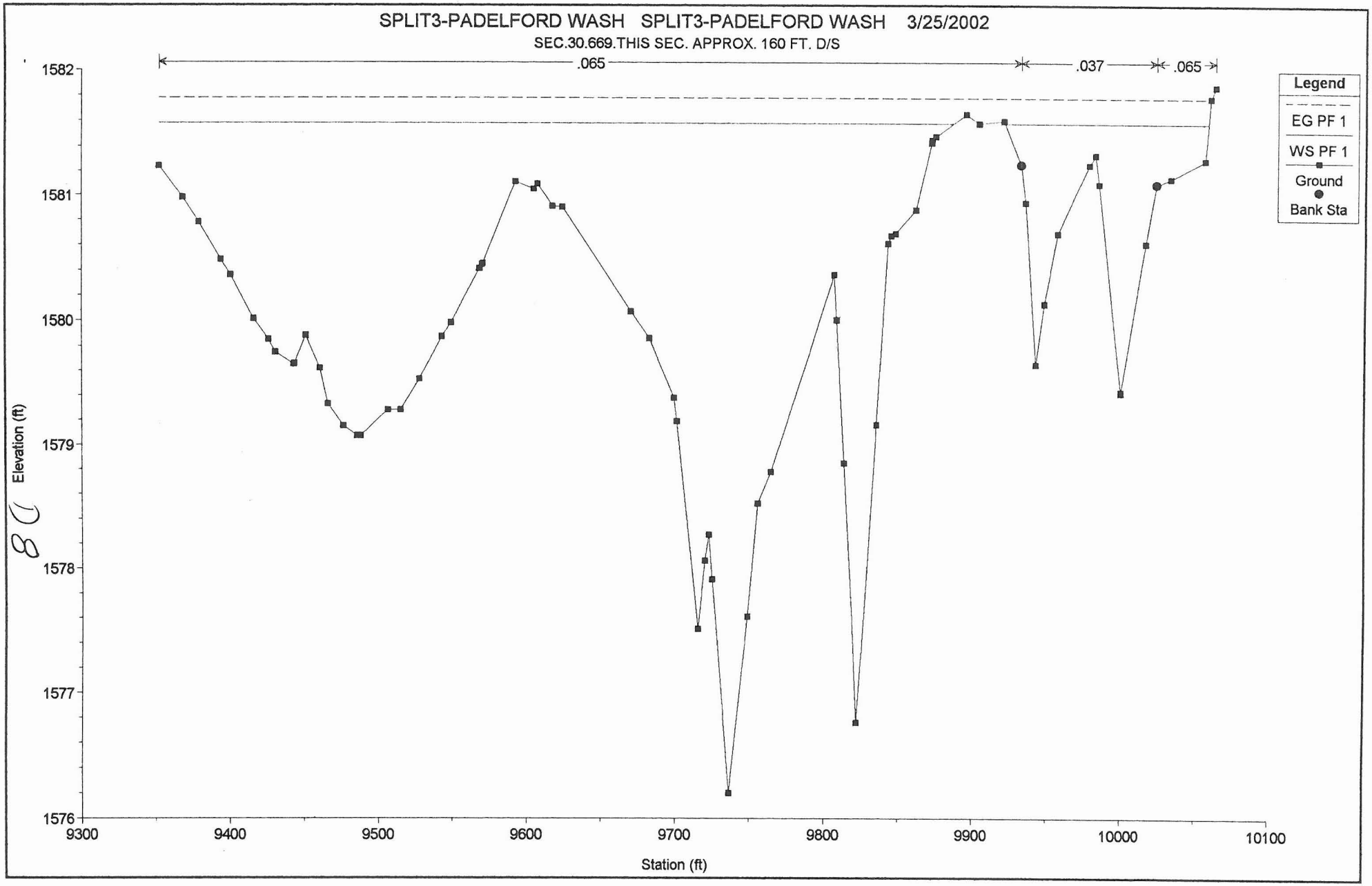
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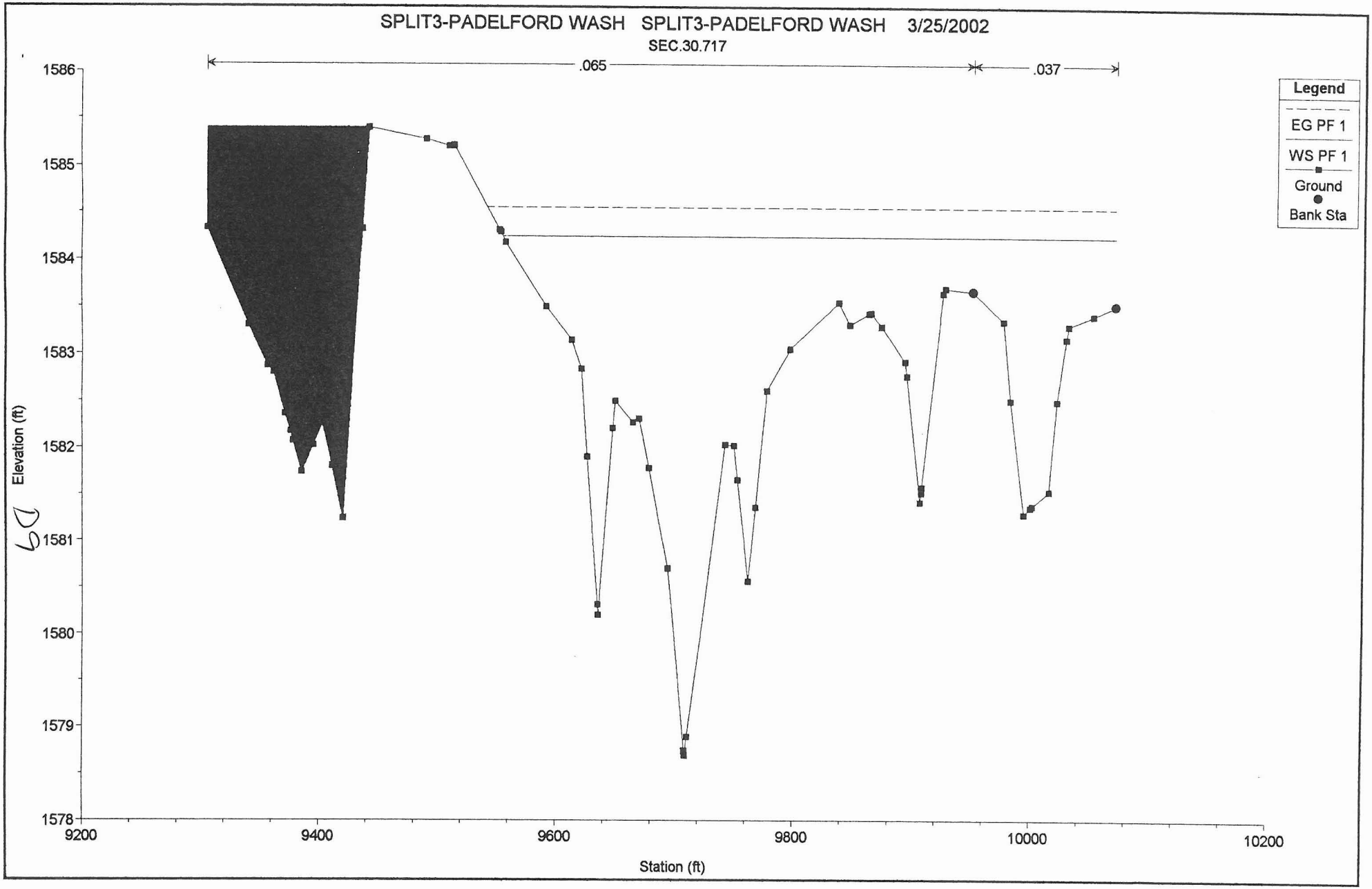
SEC.30.669.THIS SEC. APPROX. 160 FT. D/S
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1582
1581
1580
1579
1578
1577
1576
9300
9400
9500
9600
9700
9800
9900
10000
10100

8 C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SEC.30.717
.065
.037
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
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1584
1583
1582
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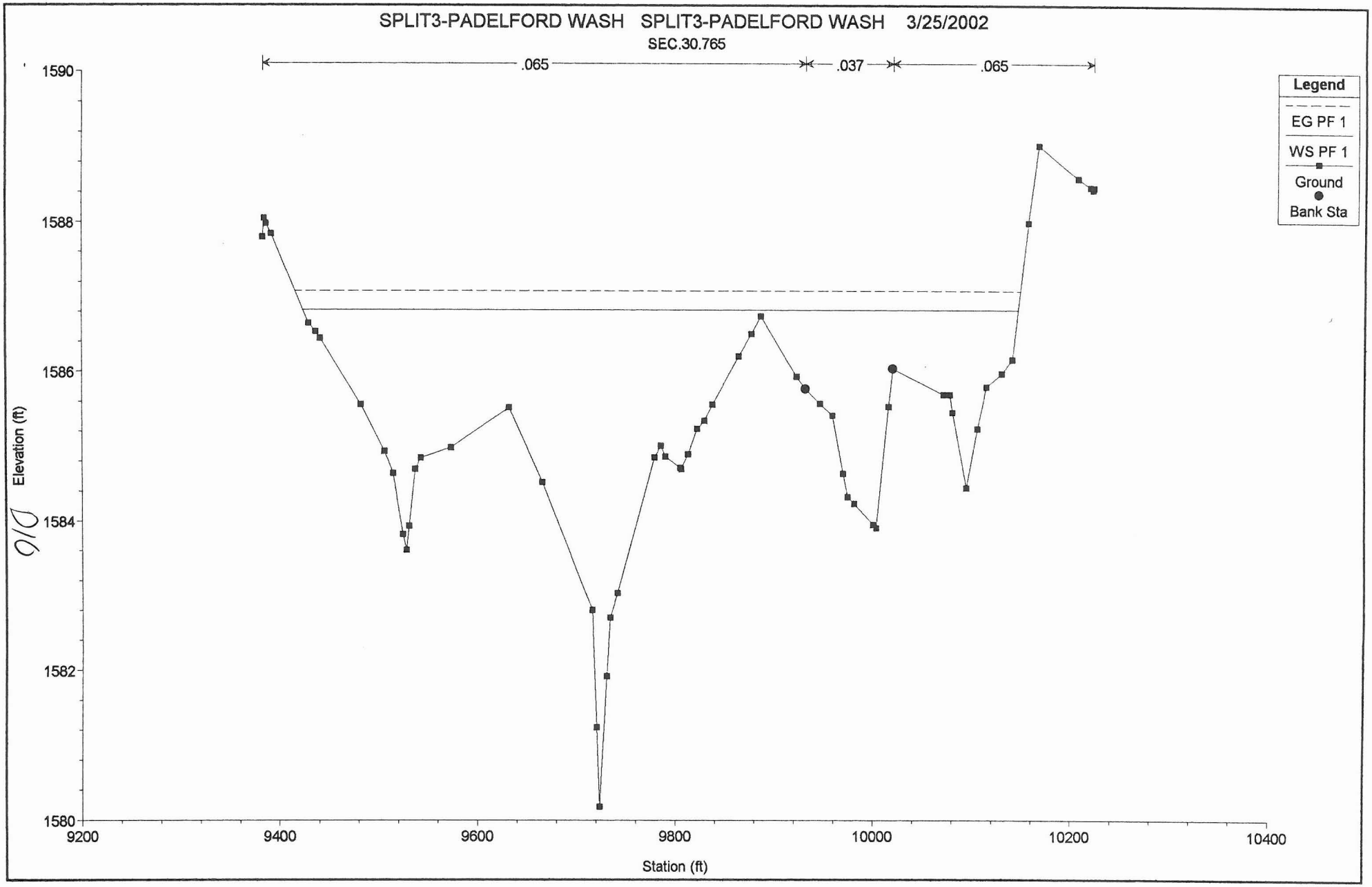
1580
1579
1578
9200
9400
9600
9800
10000
10200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SEC.30.765
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
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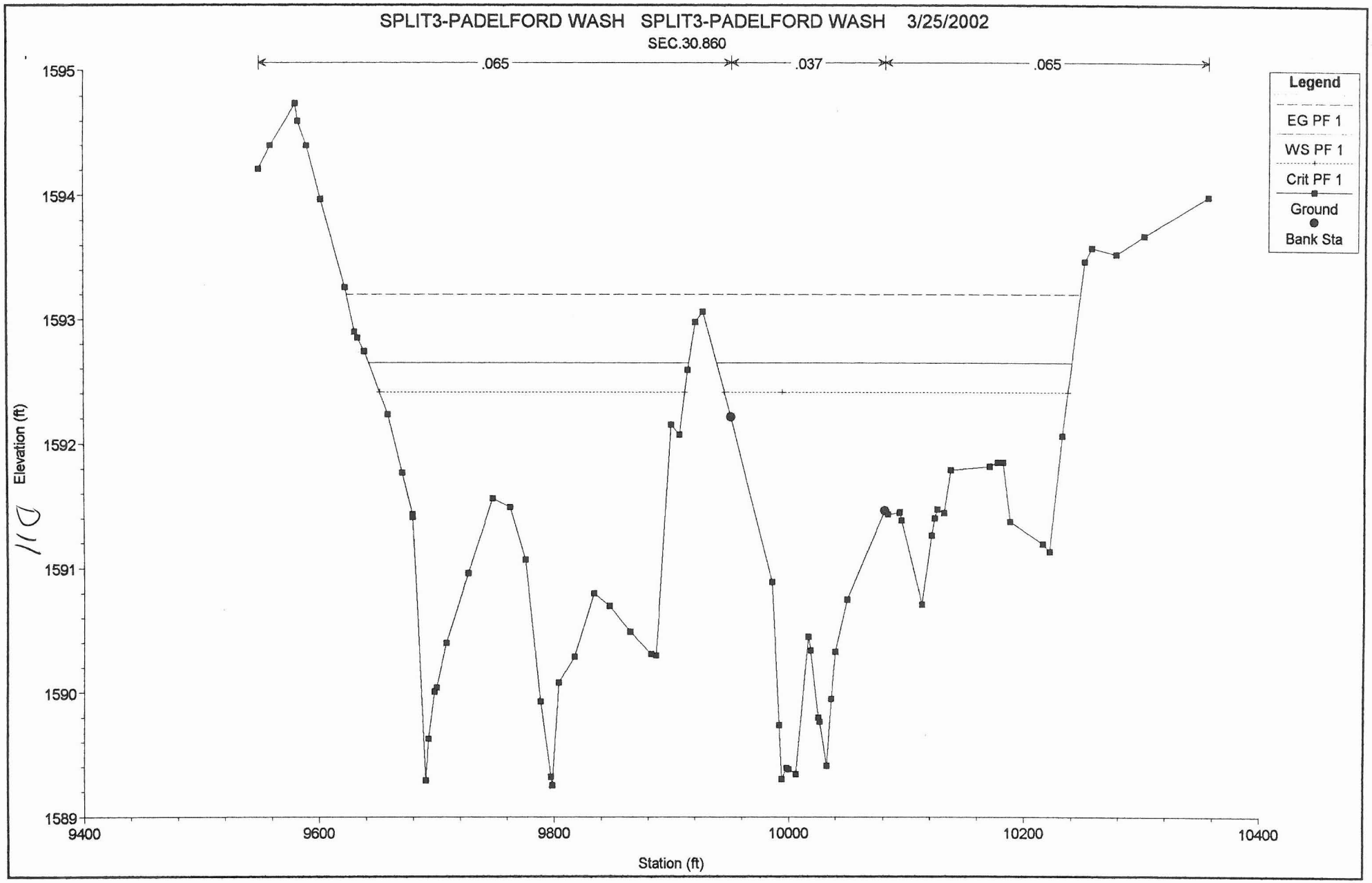
1588
1586
1584
1582
1580
9200
9400
9600
9800
10000
10200
10400
Station (ft)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SEC.30.860
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
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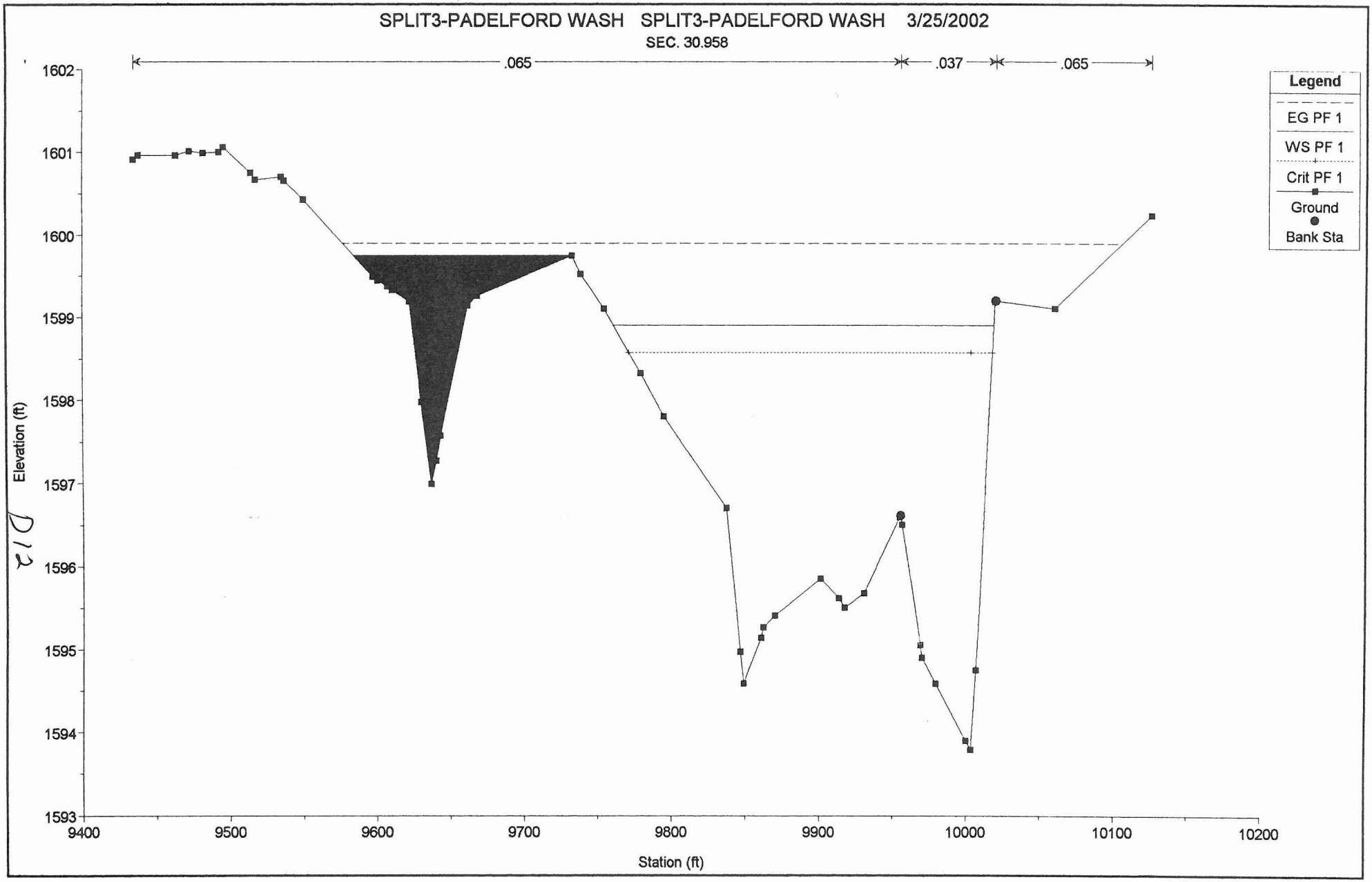
1594
1593
1592
1591
1590
1589
9400
9600
9800
10000
10200
10400
Station (ft)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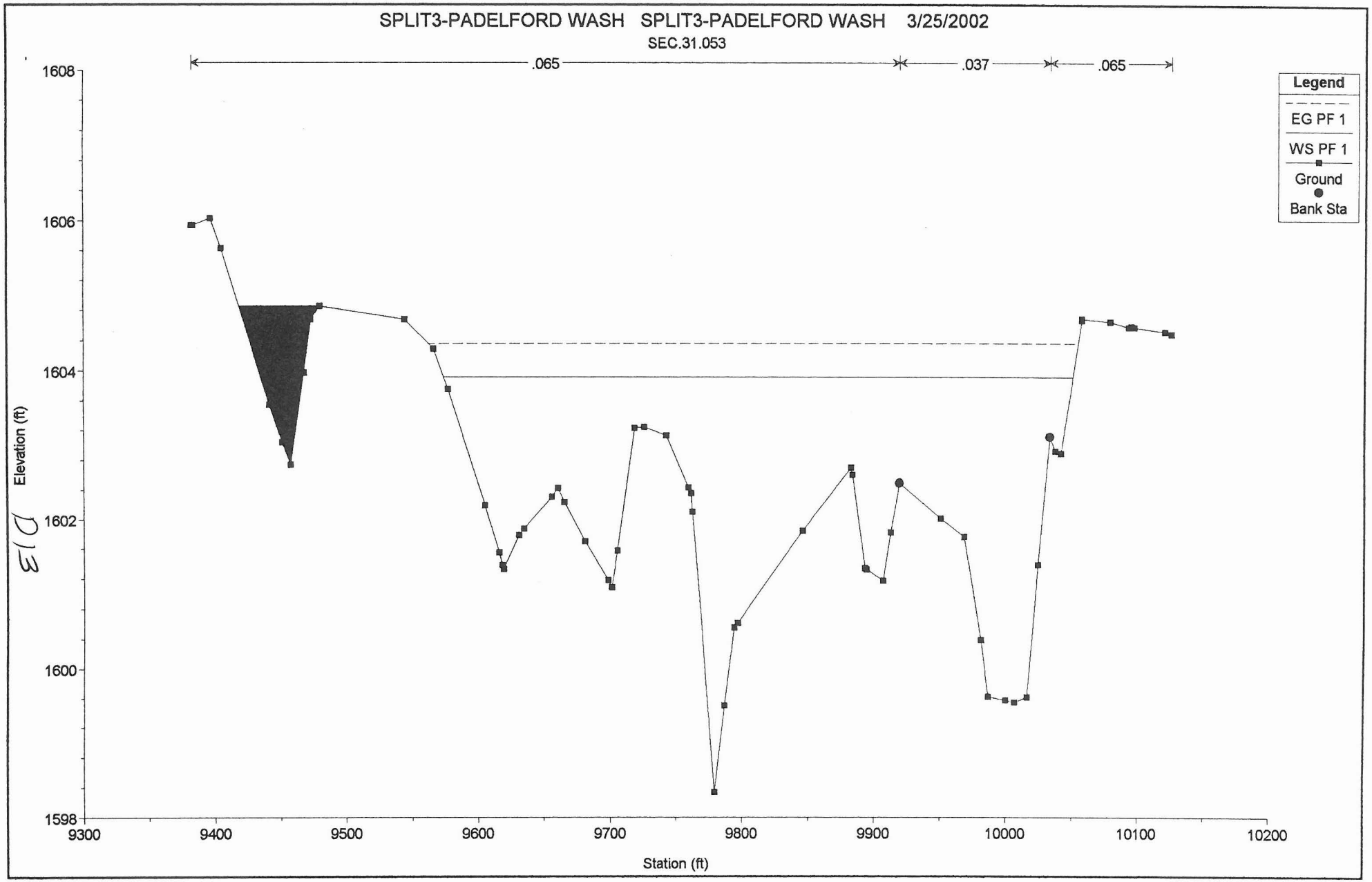
SEC. 30.958
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1602
1601
1600
1599
1598
1597
1596
1595
1594
1593
9400
9500
9600
9700
9800
9900
10000
10100
10200

D12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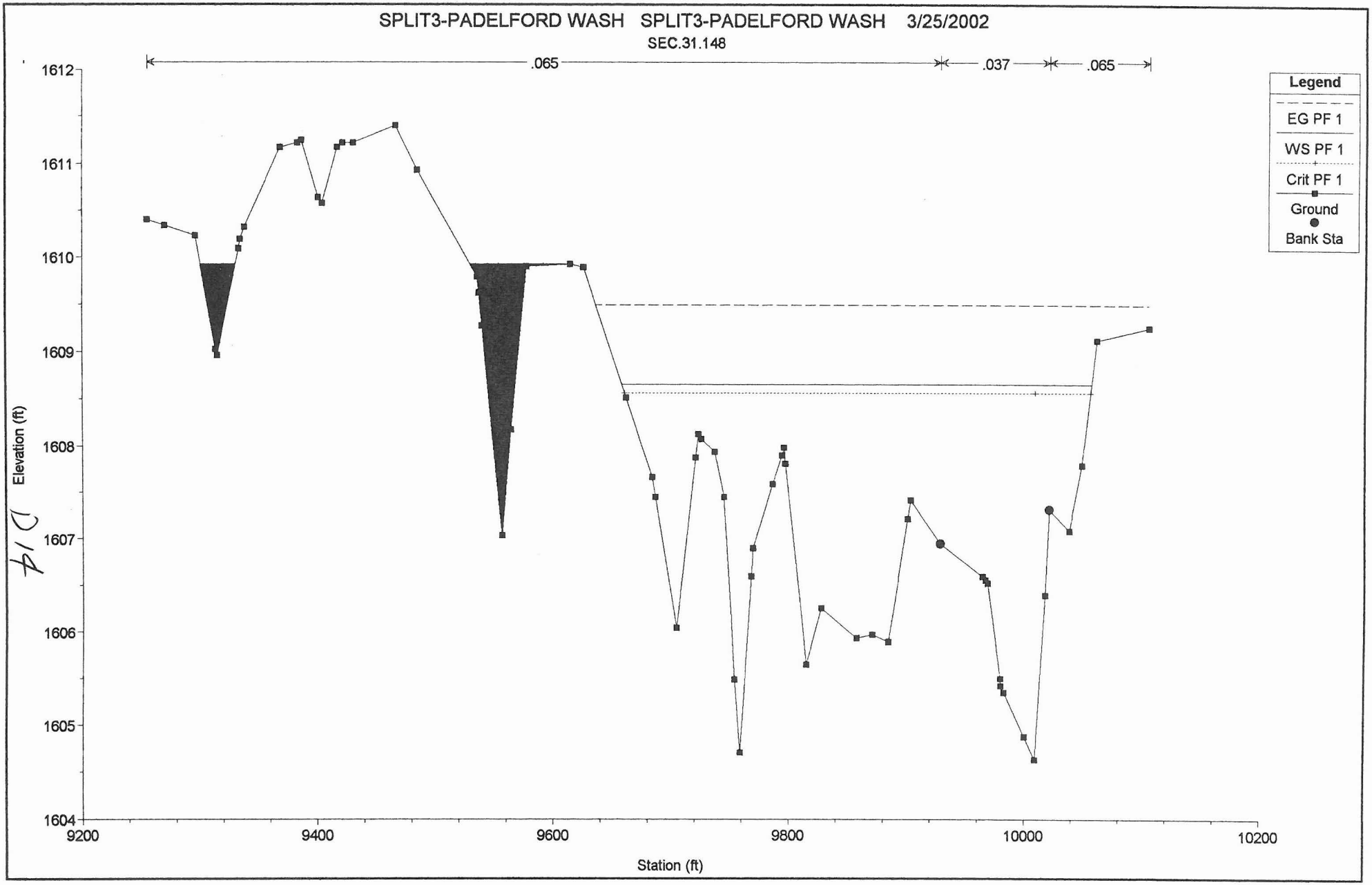
SEC.31.053
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1608
1606
1604
1602
1600
1598
9300
9400
9500
9600
9700
9800
9900
10000
10100
10200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SEC.31.148
.065
.037
.065
Legend
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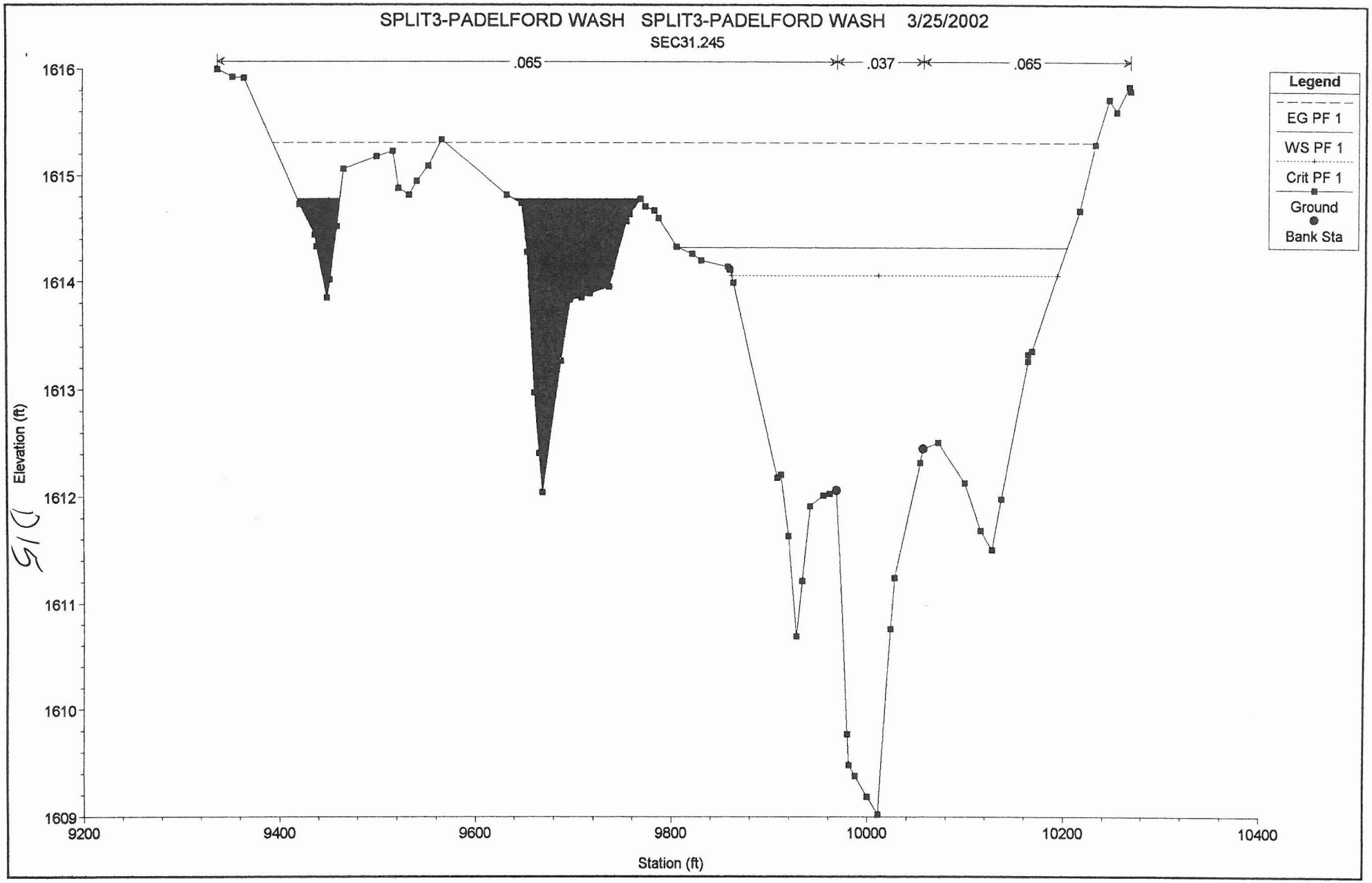
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1612
1611
1610
1609
1608
1607
1606
1605
1604
9200
9400
9600
9800
10000
10200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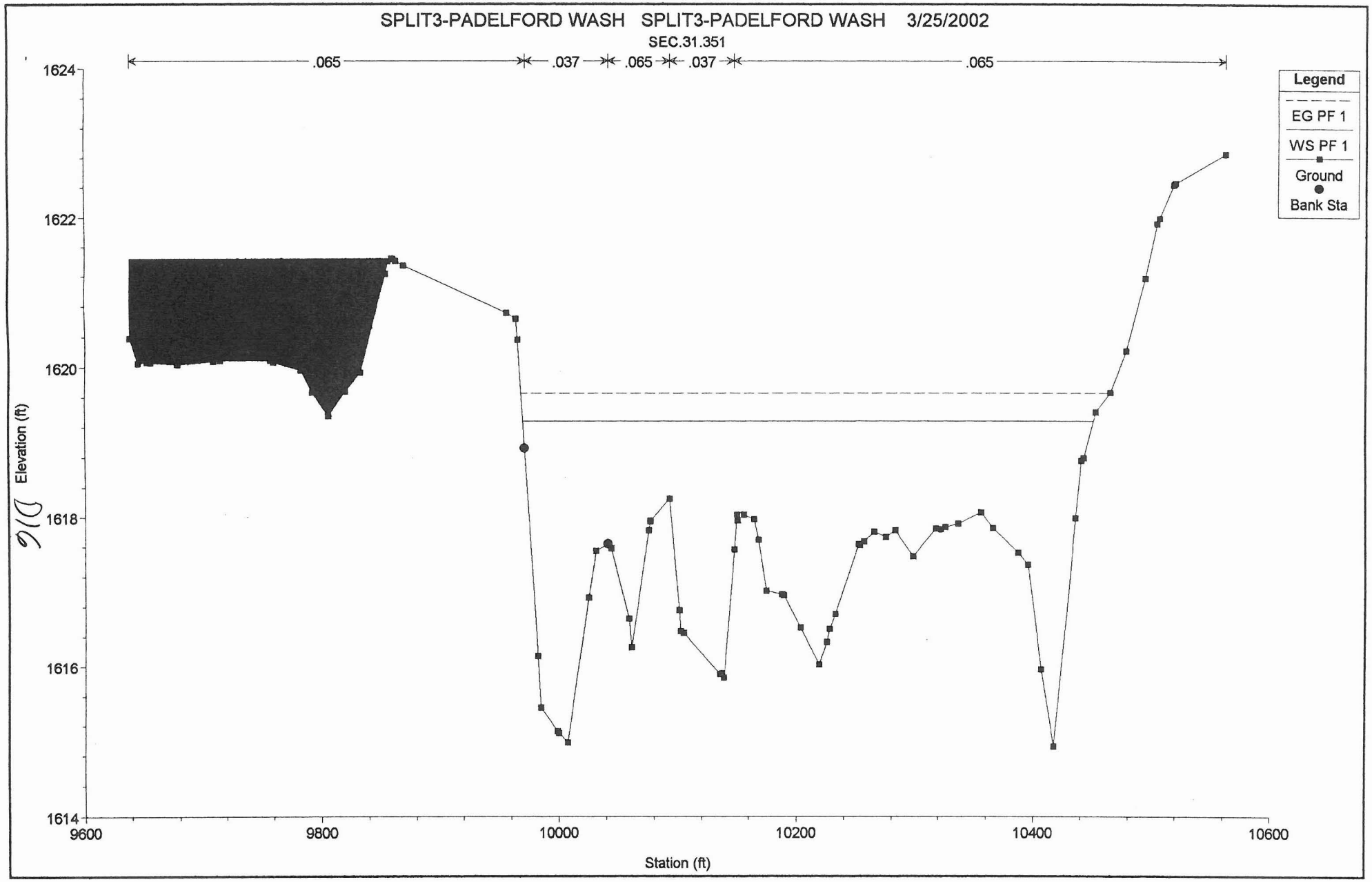
SEC31.245
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1616
1615
1614
1613
1612
1611
1610
1609
9200
9400
9600
9800
10000
10200
10400
Station (ft)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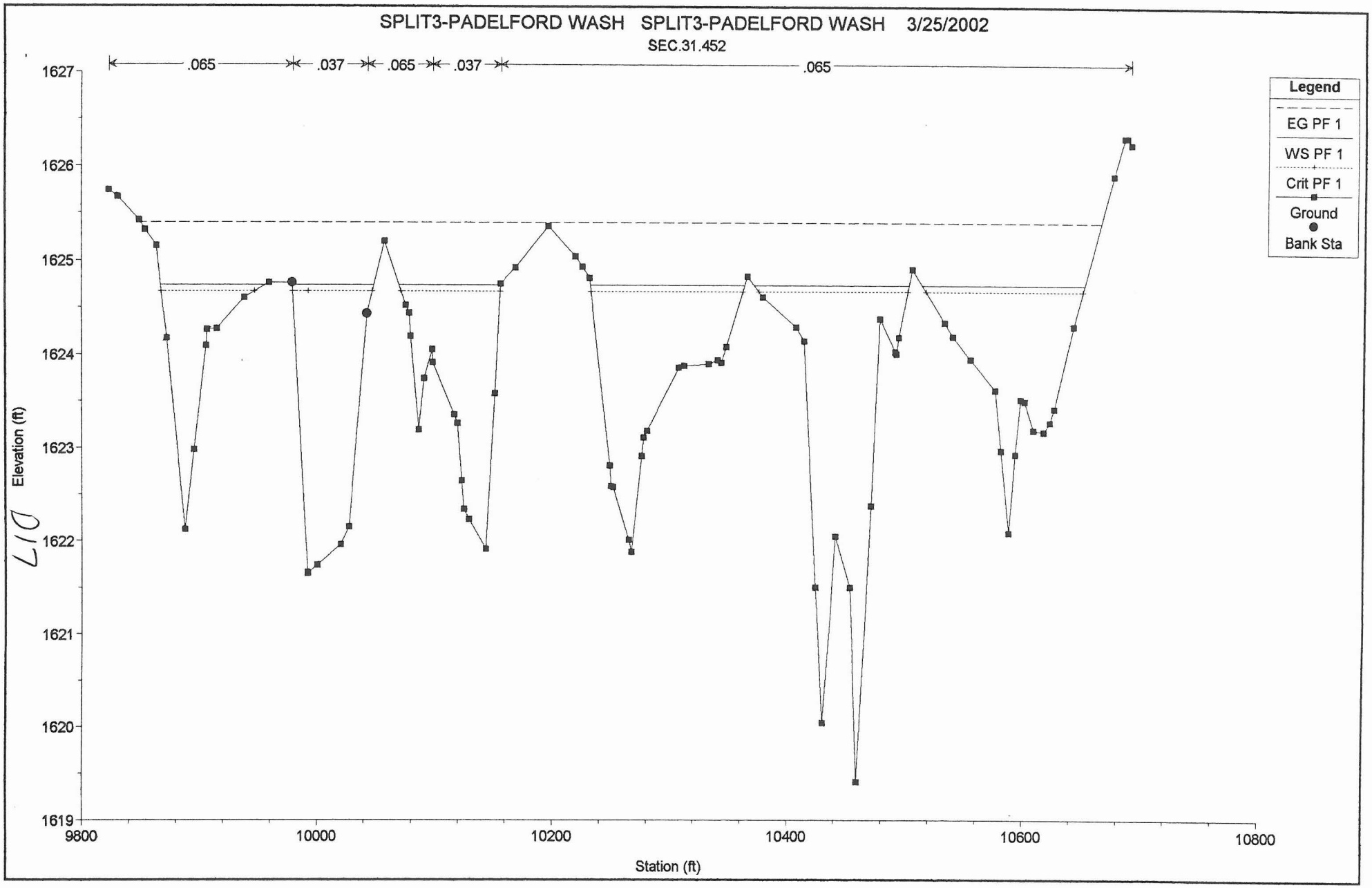
SEC.31.351
.065
.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1624
1622
1620
1618
1616
1614
Elevation (ft)
9600
9800
10000
10200
10400
10600
Station (ft)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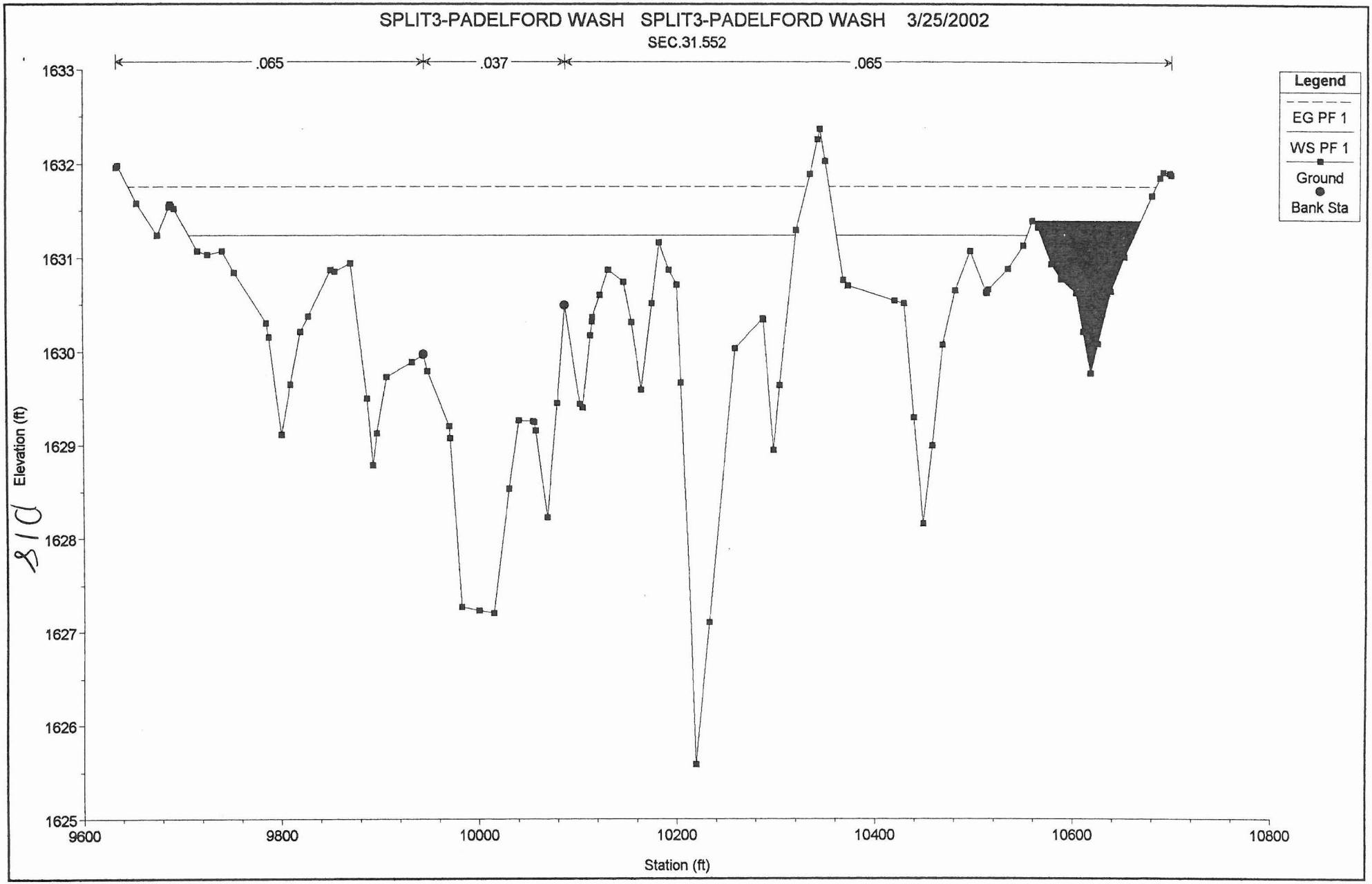
SEC.31.452
.065
.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1627
1626
1625
1624
1623
1622
1621
1620
1619
9800
10000
10200
10400
10600
10800
L10 017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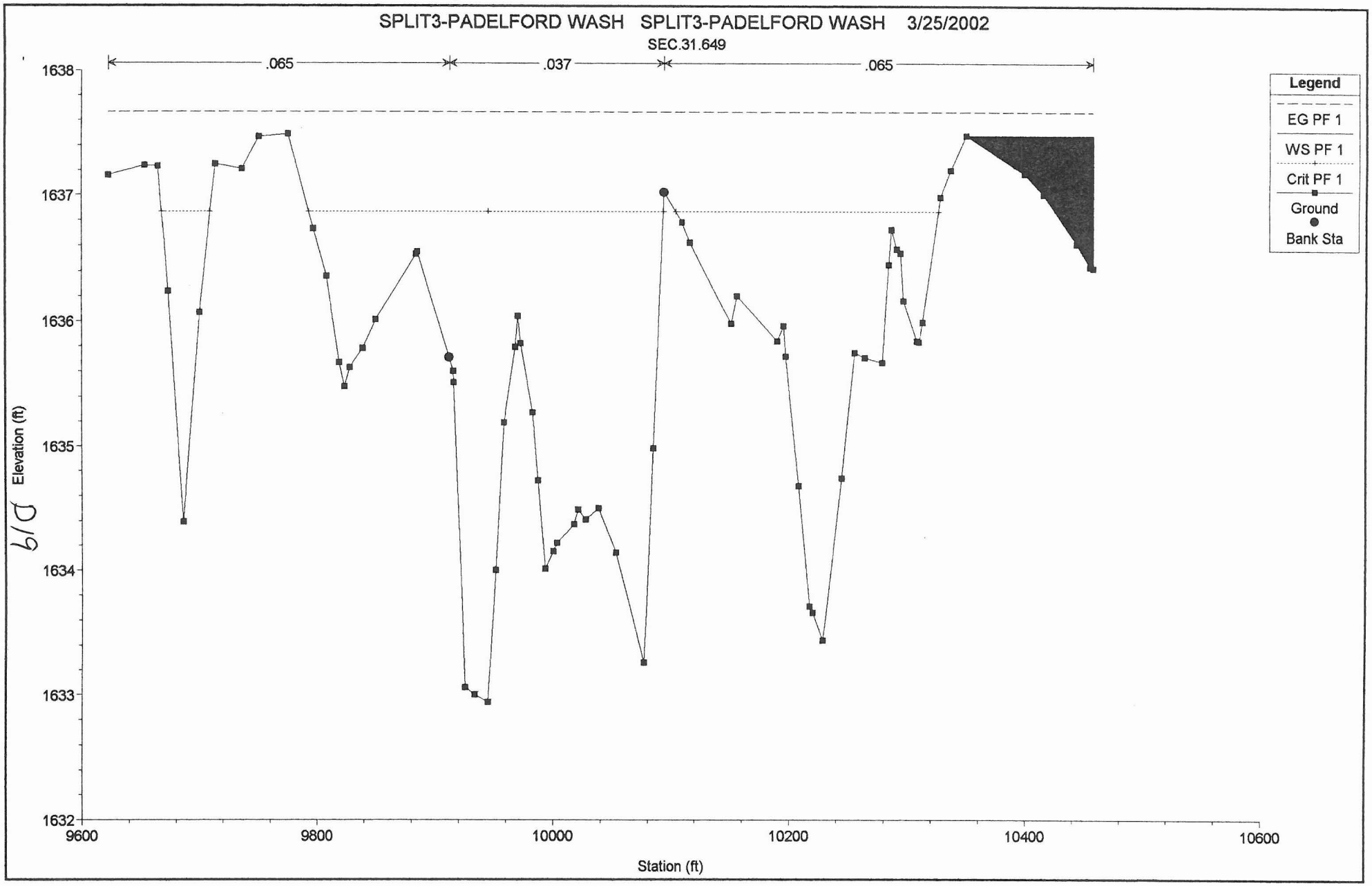
SEC.31.552
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1633
1632
1631
1630
1629
1628
1627
1626
1625
9600
9800
10000
10200
10400
10600
10800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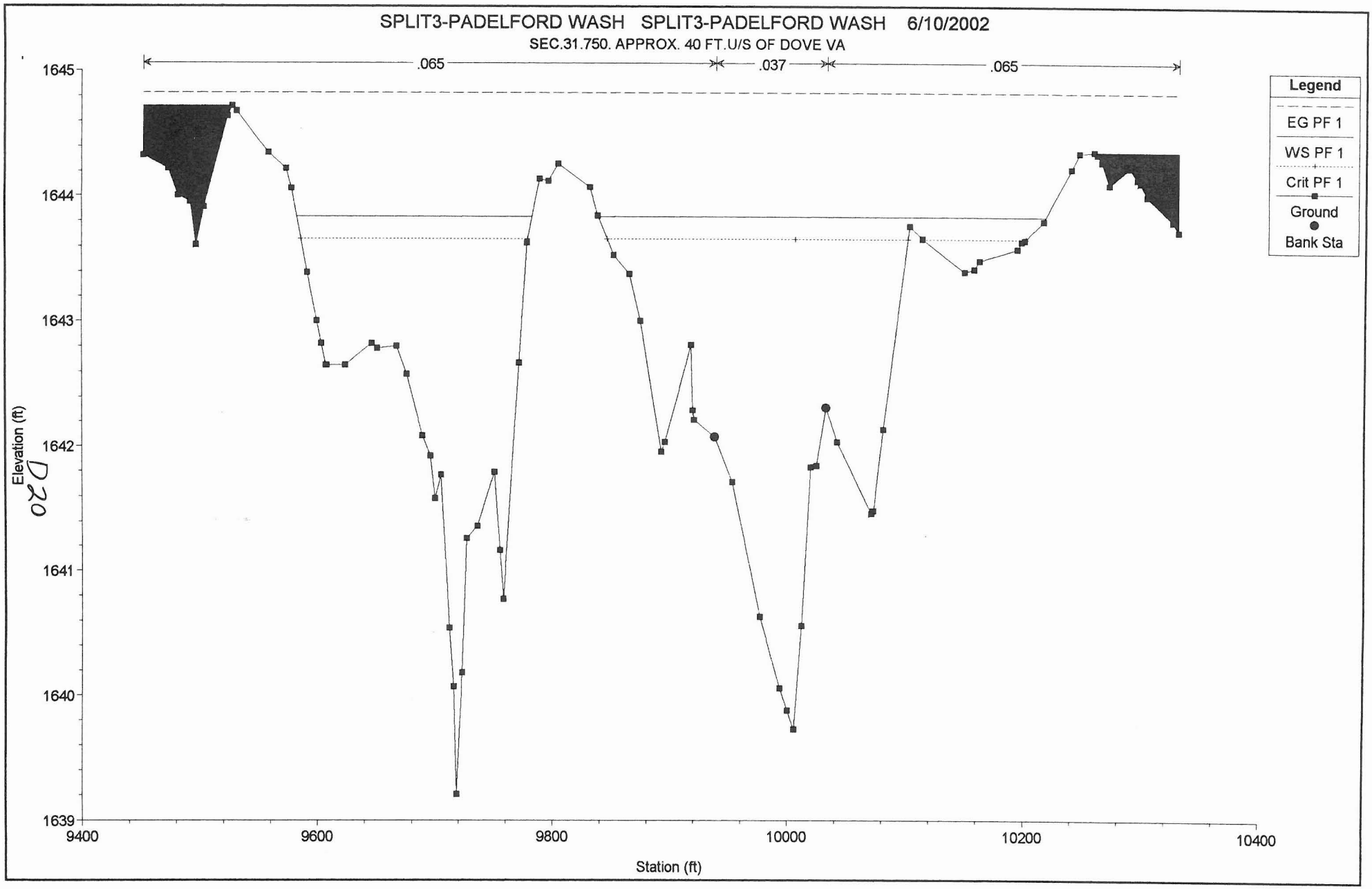
SEC.31.649
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
1638
1637
1636
1635
1634
1633
1632
9600
9800
10000
10200
10400
10600
Station (ft)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SEC.31.750. APPROX. 40 FT.U/S OF DOVE VA
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
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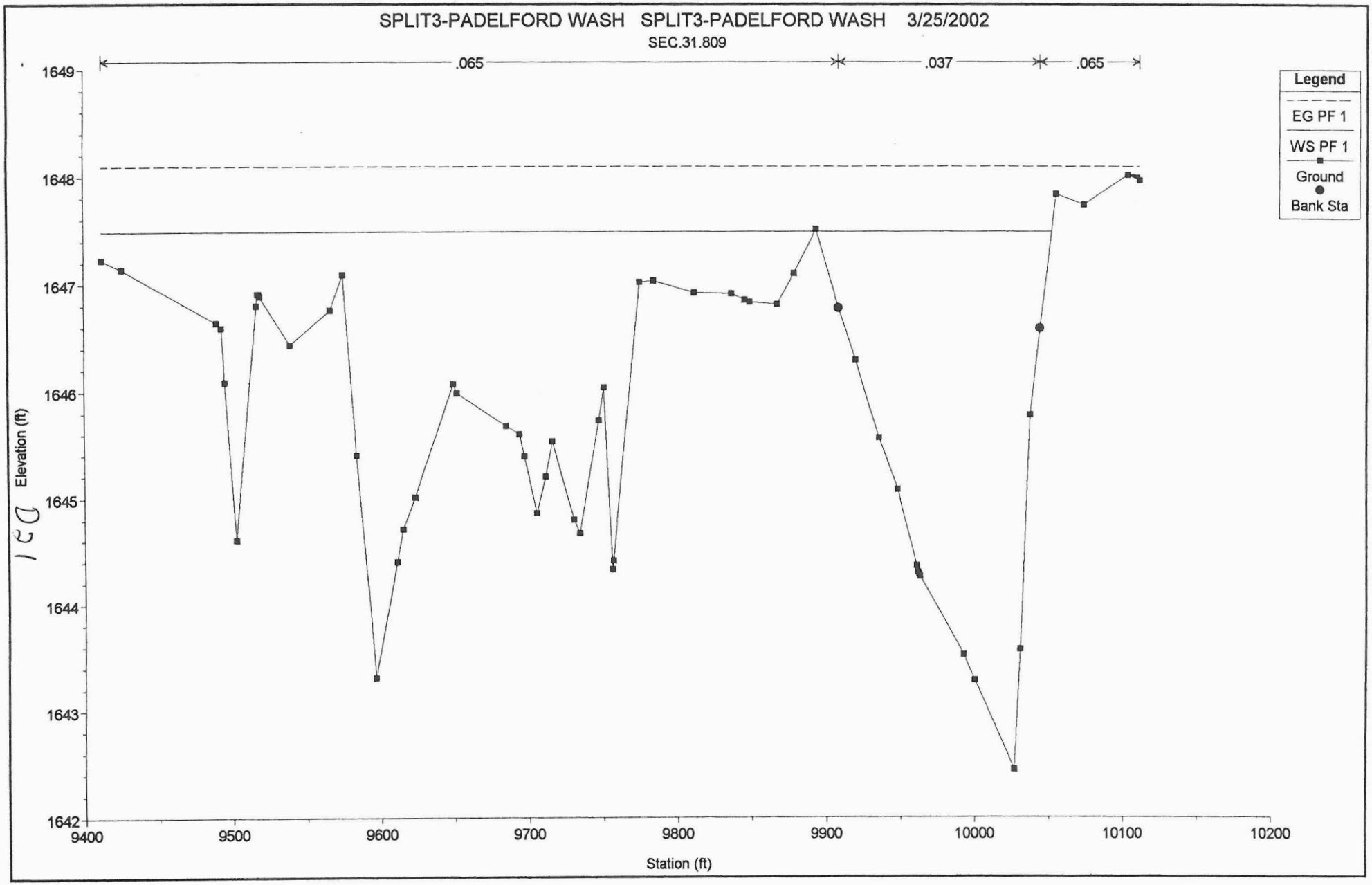
1644
1643
1642
1641
1640
1639
9400
9600
9800
10000
10200
10400
Station (ft)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SEC.31.809
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1649
1648
1647
1646
1645
1644
1643
1642
9400
9500
9600
9700
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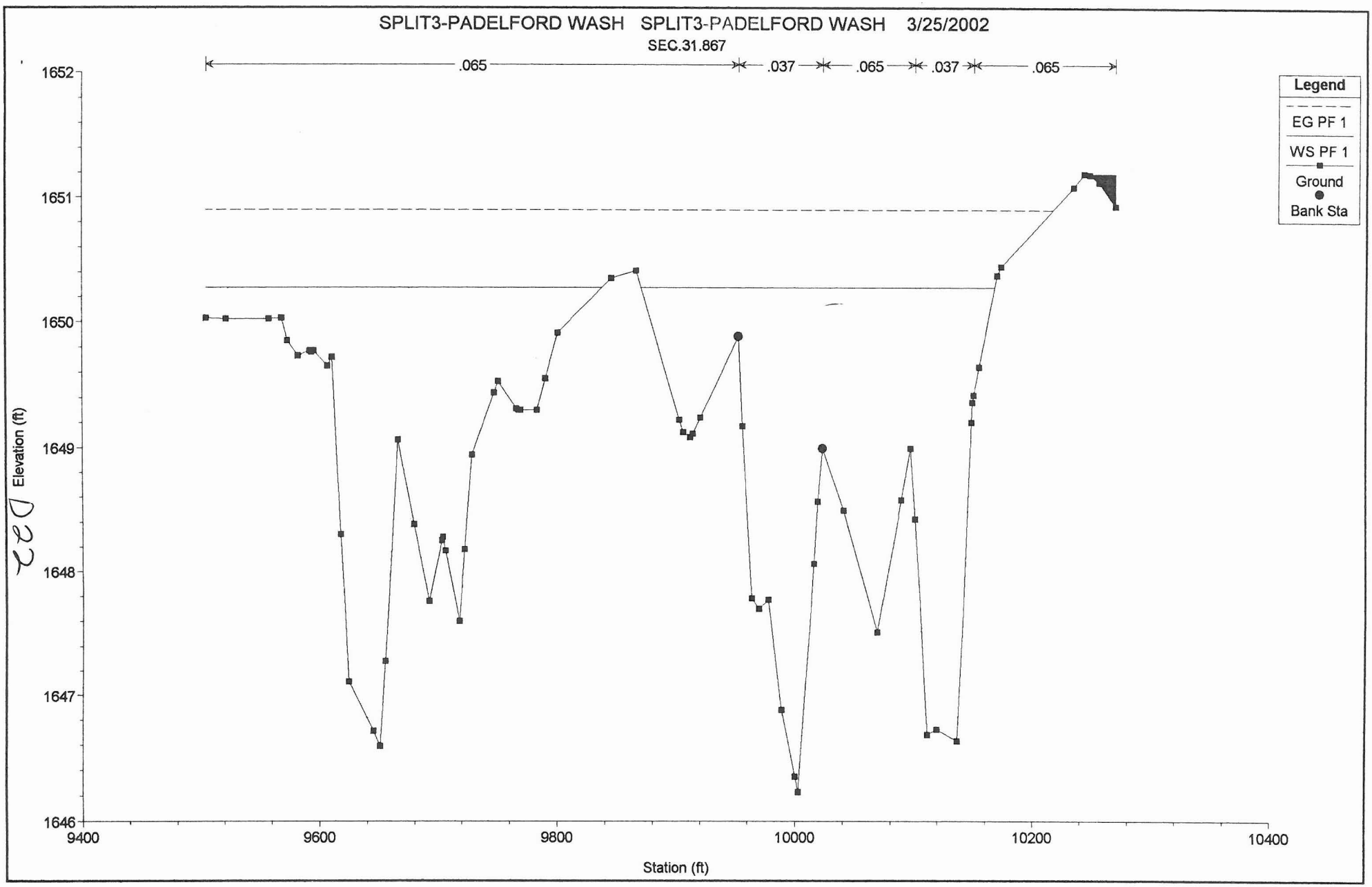
9900
10000
10100
10200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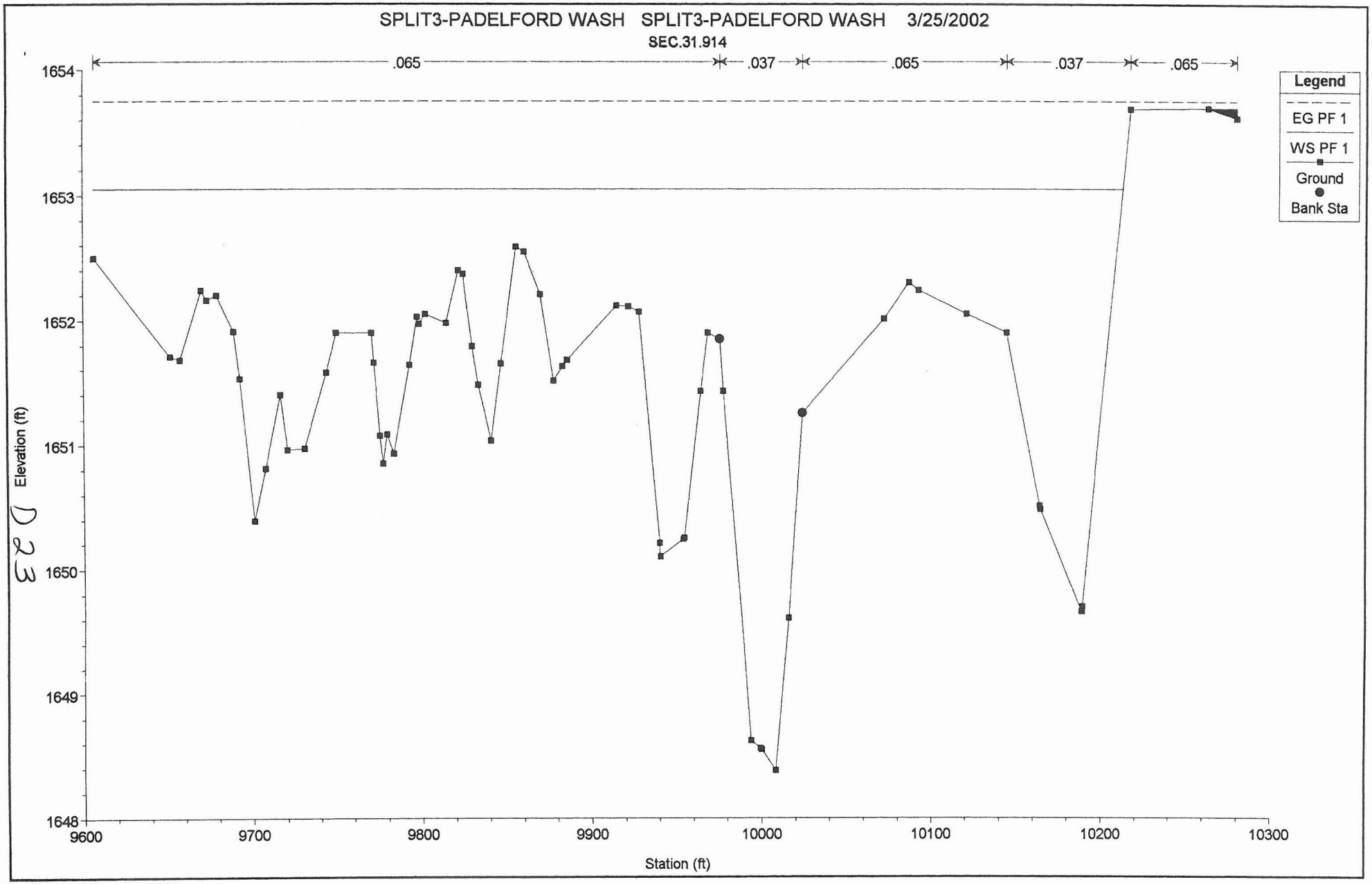
SEC.31.867
.065
.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1652
1651
1650
1649
1648
1647
1646
Elevation (ft)
9400
9600
9800
10000
10200
10400
Station (ft)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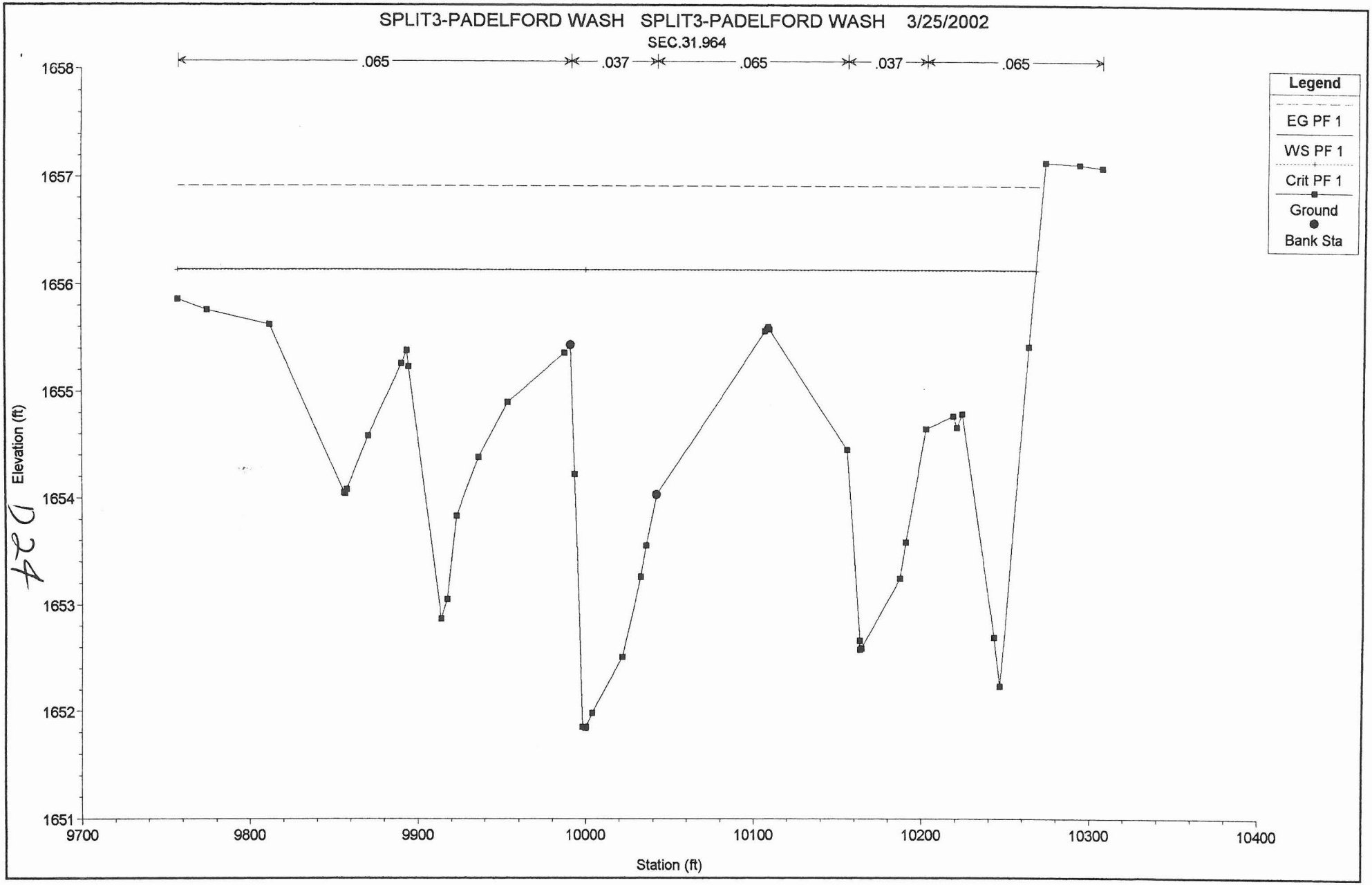
SEC.31.914
.065
.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1654
1653
1652
1651
1650
1649
1648
9600
9700
9800
9900
10000
10100
10200
10300
Station (ft)

023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SEC.31.964
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.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1658
1657
1656
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1654
1653
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1651
9700
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9900
10000
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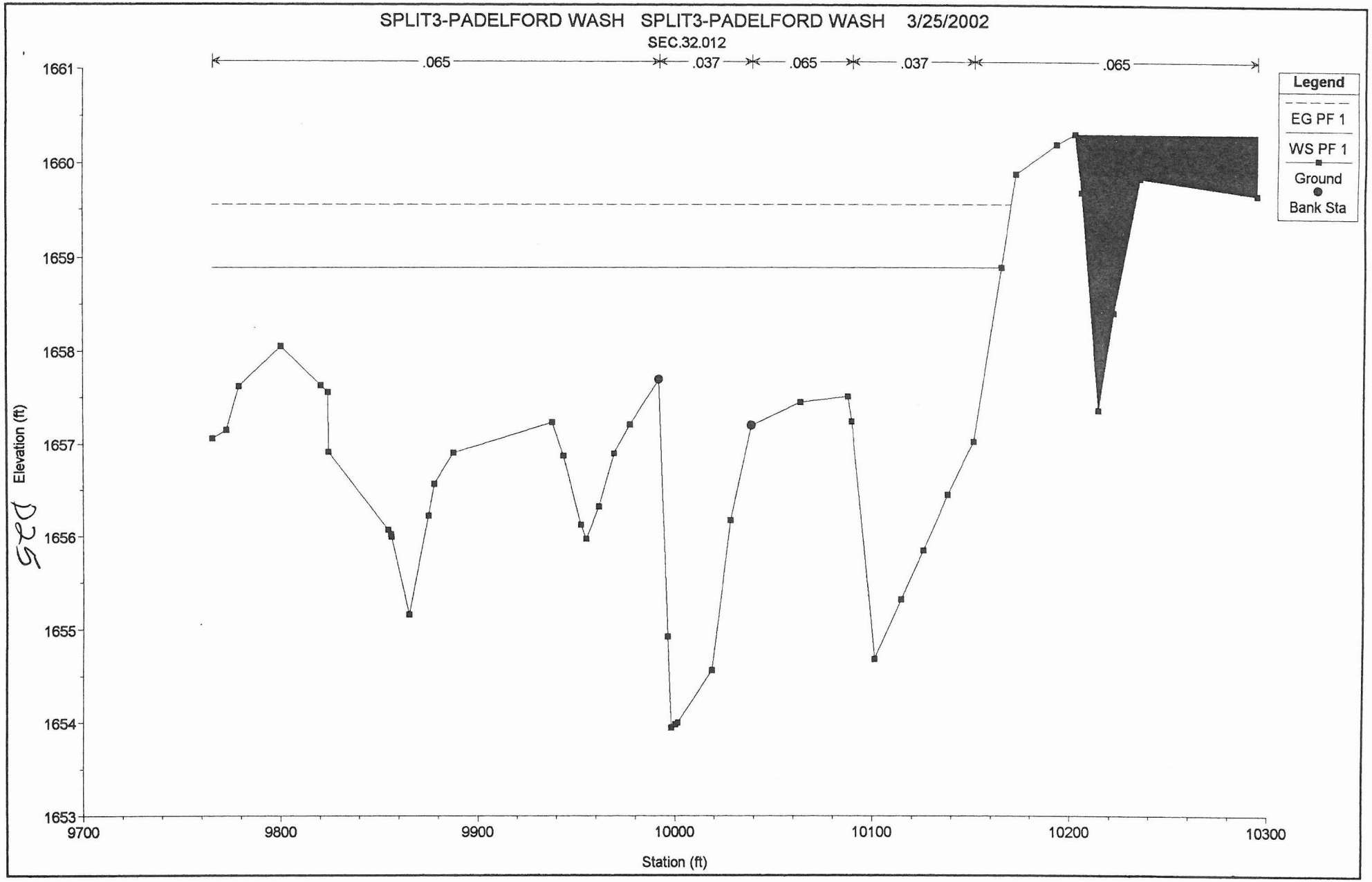
10200
10300
10400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SEC.32.012
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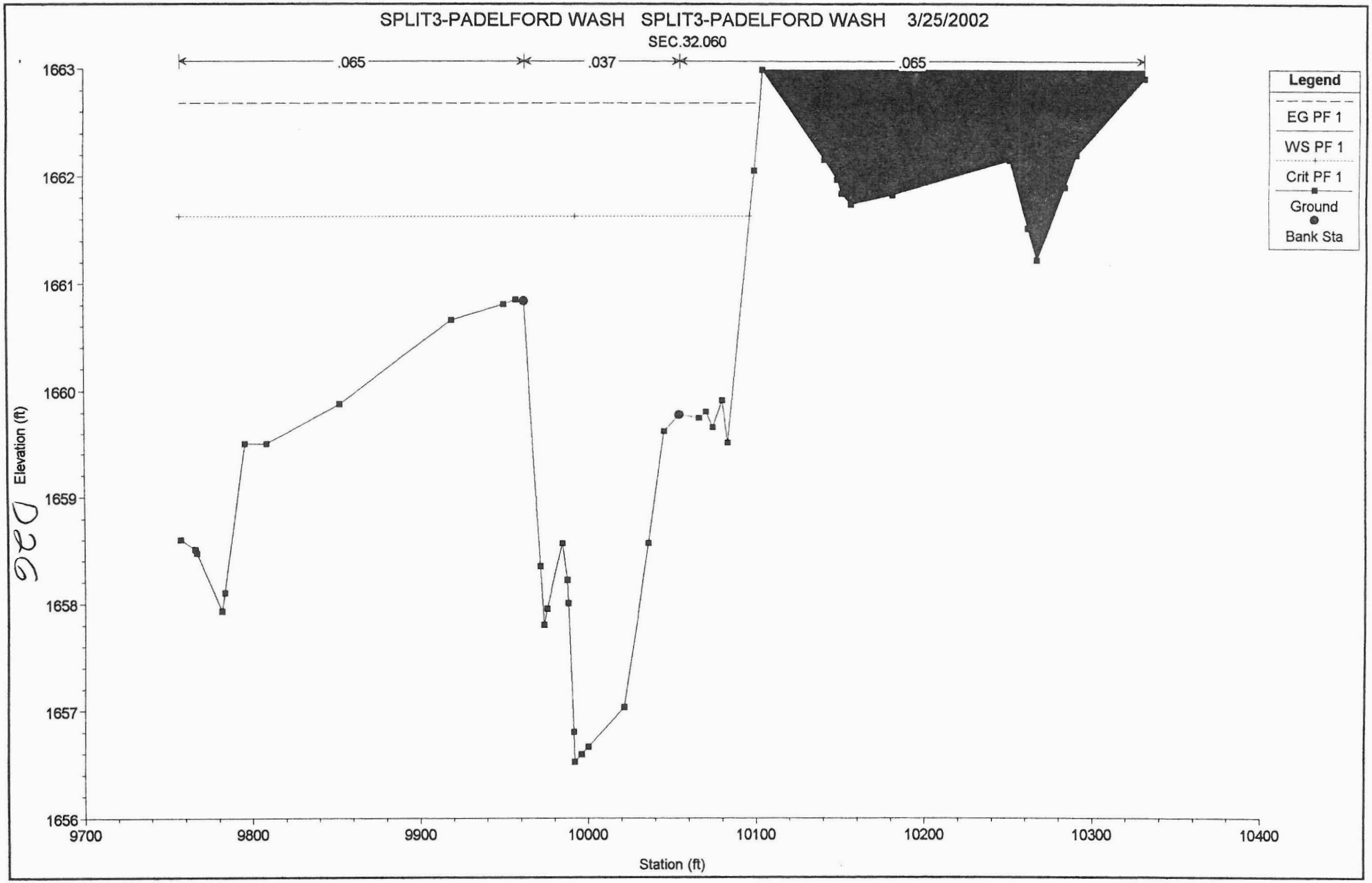
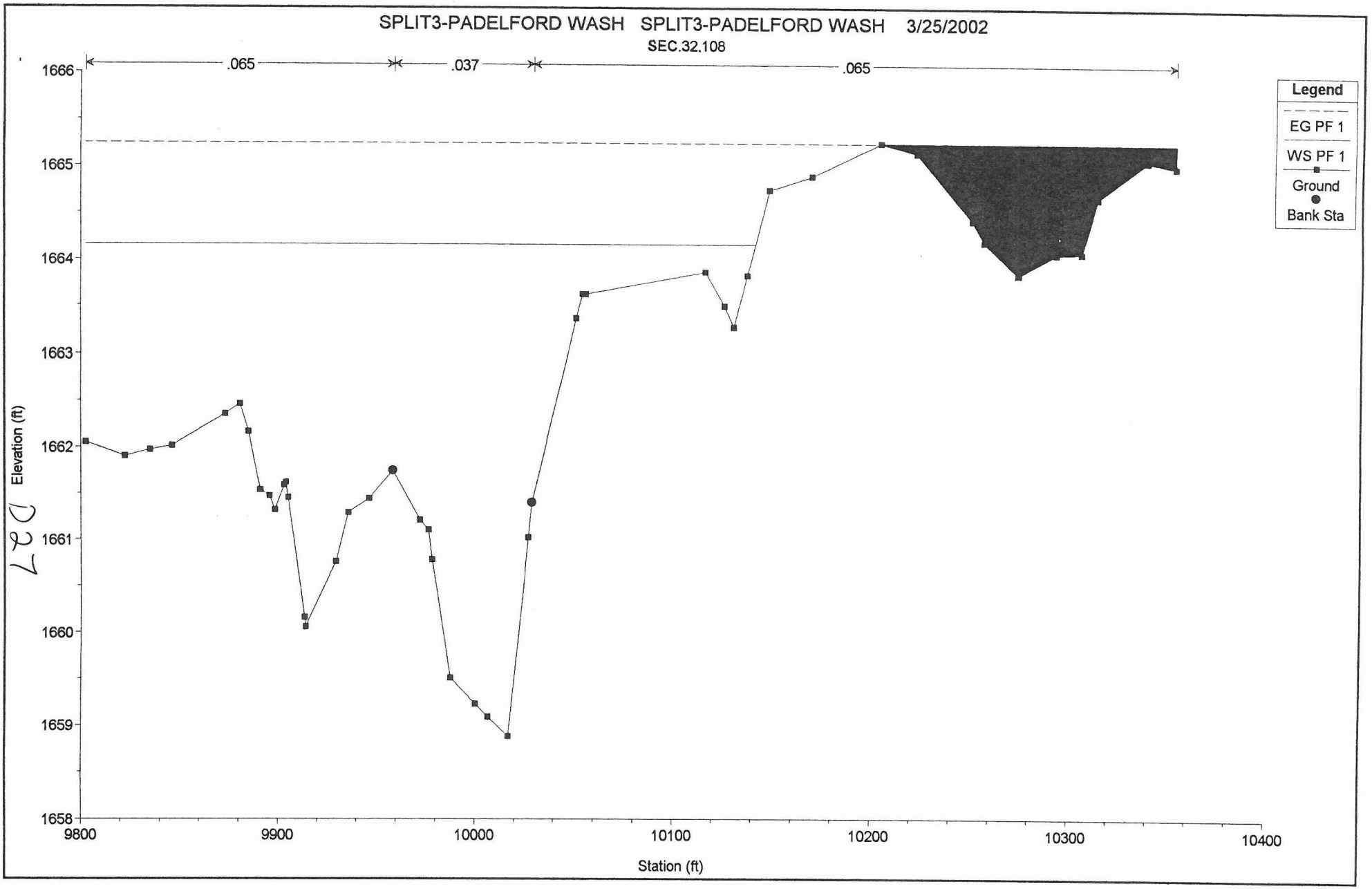
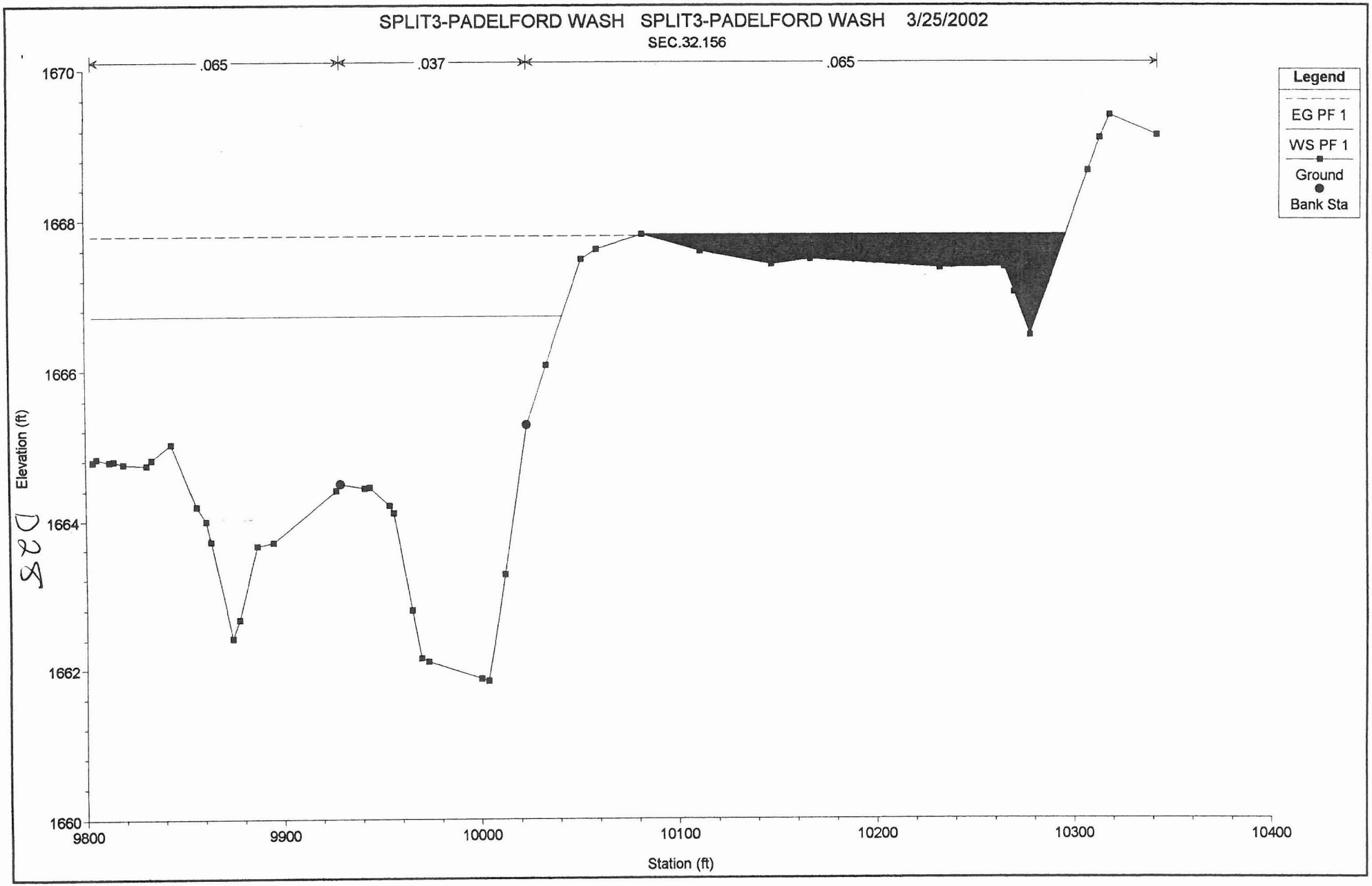
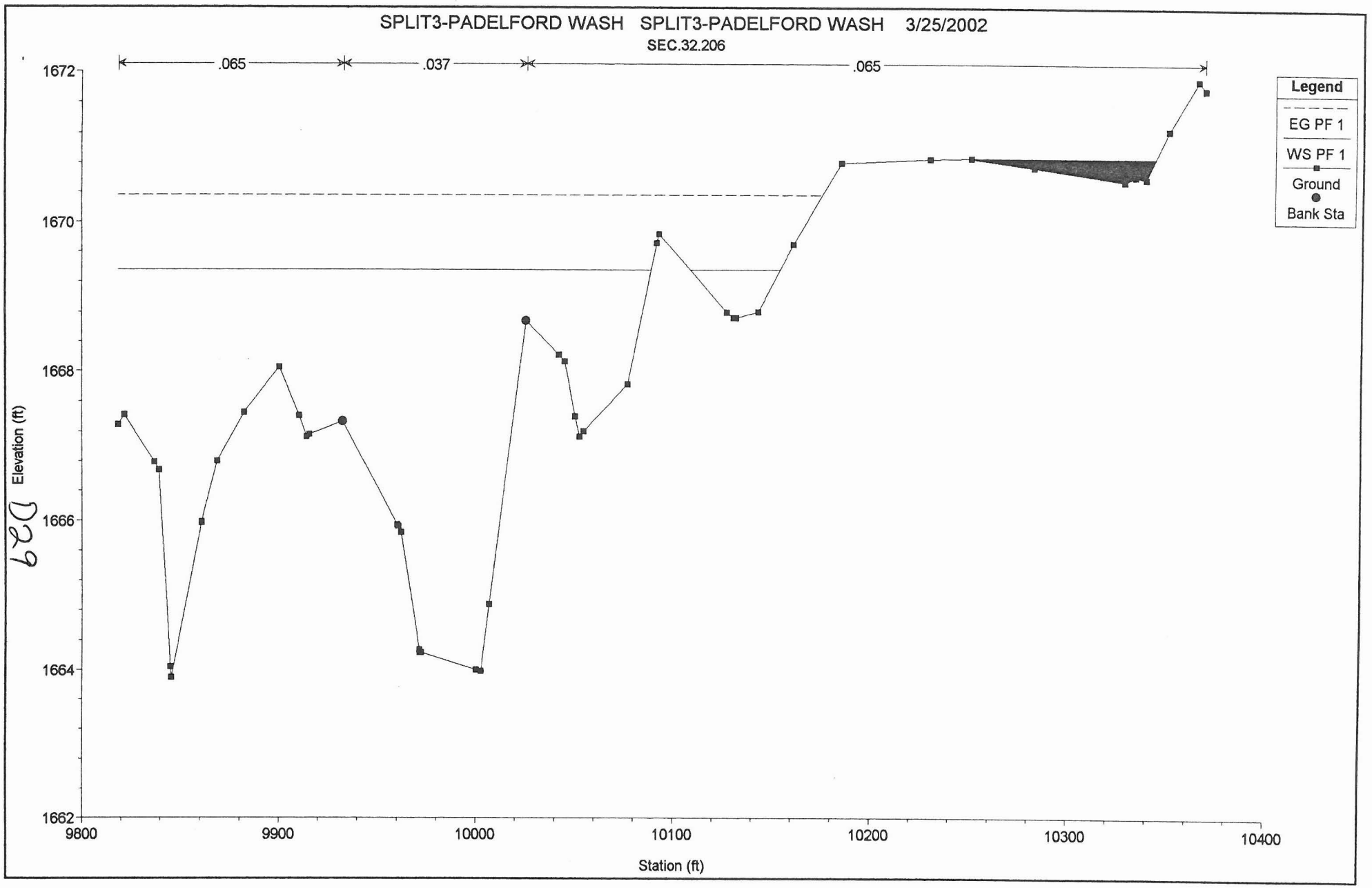
.037
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1661
1660
1659
1658
1657
1656
1655
1654
1653
9700
9800
9900
10000
10100
10200
10300
Station (ft)


SPLIT3-PADELFORD WASH SPLIT3-PADELFORD WASH 3/25/2002
SEC.32.060
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1663
1662
1661
1660
1659
1658
1657
1656
9700
9800
9900
10000
10100
10200
10300
10400
DED

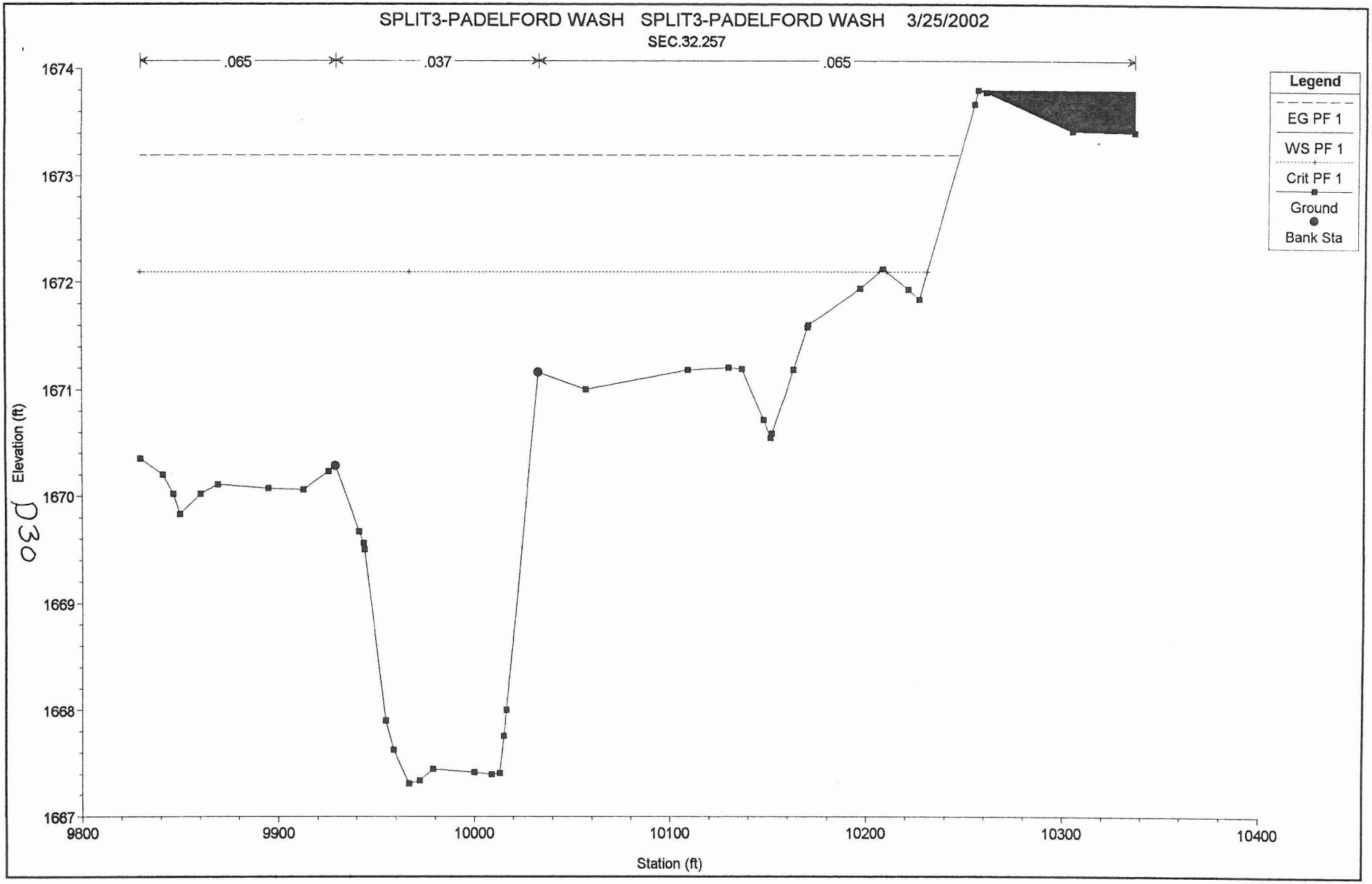

SPLIT3-PADELFORD WASH SPLIT3-PADELFORD WASH 3/25/2002
SEC.32.108
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1666
1665
1664
1663
1662
1661
1660
1659
1658
9800
9900
10000
10100
10200
10300
10400

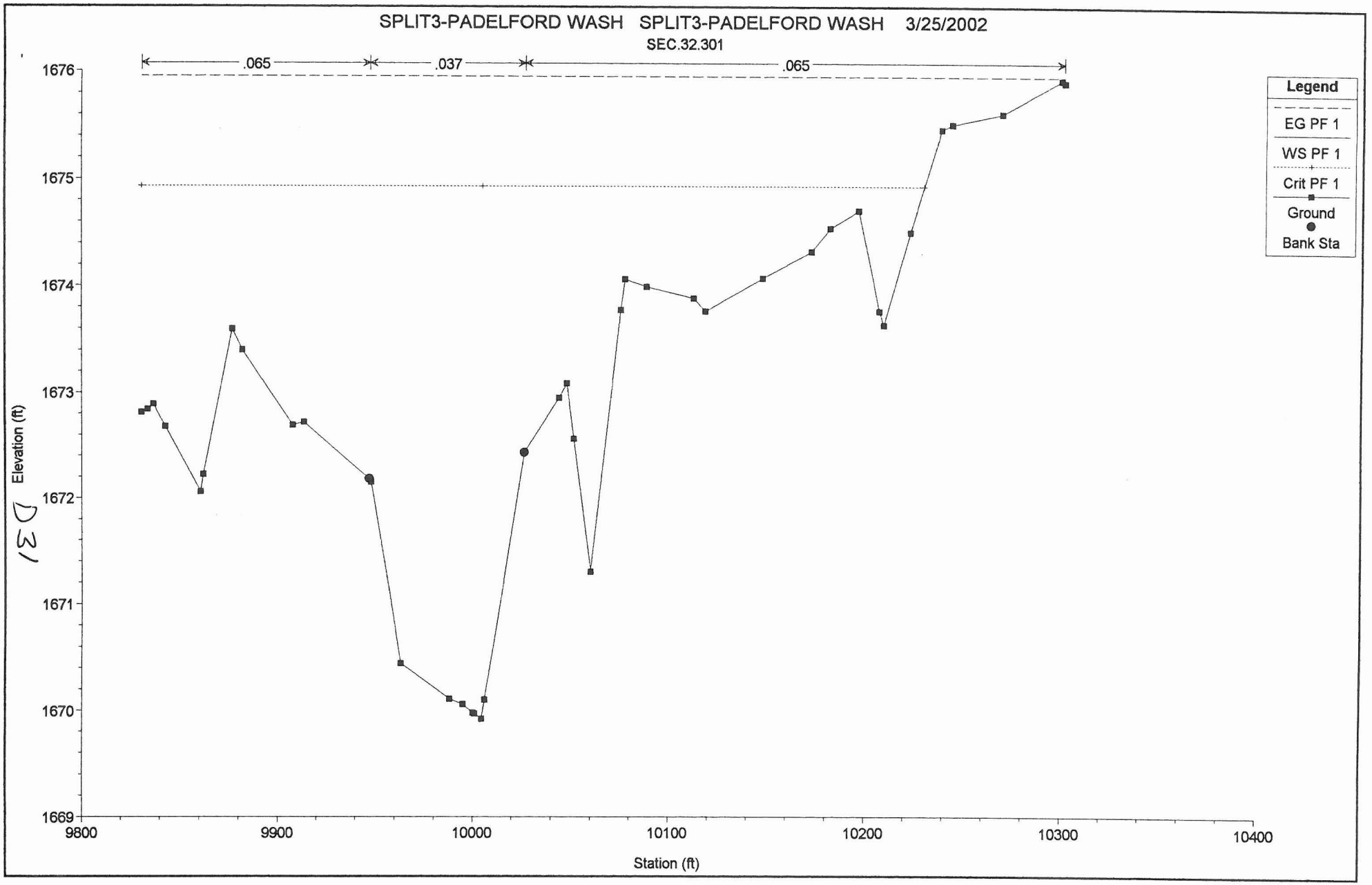
127


SPLIT3-PADELFORD WASH SPLIT3-PADELFORD WASH 3/25/2002
SEC.32.156
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
1670
1668
1666
1664
1662
1660
Elevation (ft)
9800
9900
10000
10100
10200
10300
10400
Station (ft)

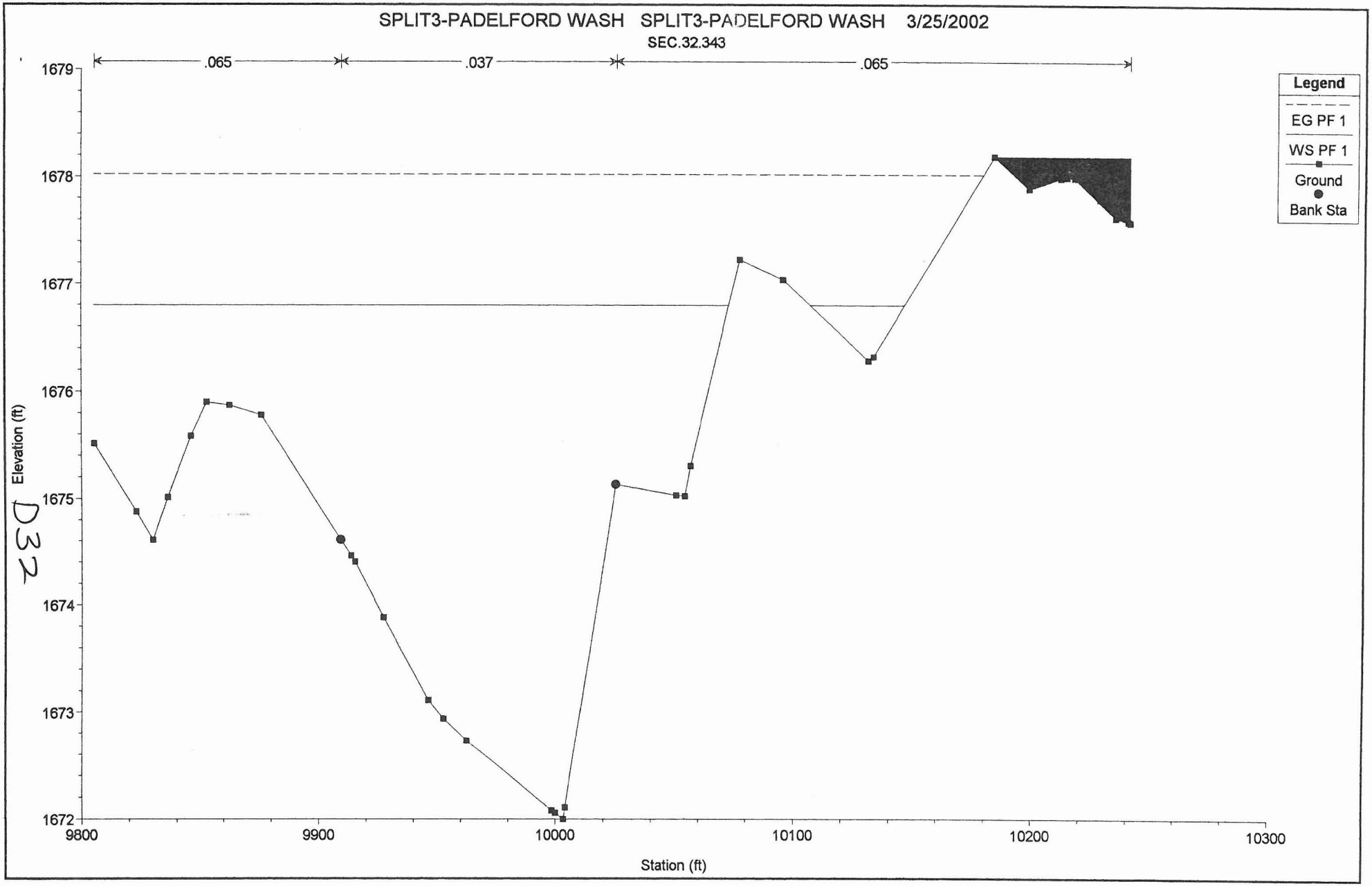

SPLIT3-PADELFORD WASH SPLIT3-PADELFORD WASH 3/25/2002
SEC.32.206
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
1672
1670
1668
1666
1664
1662
9800
9900
10000
10100
10200
10300
10400
Station (ft)

D29


SPLIT3-PADELFORD WASH SPLIT3-PADELFORD WASH 3/25/2002
SEC.32.257
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1674
1673
1672
1671
1670
1669
1668
1667
9800
9900
10000
10100
10200
10300
10400
D30


SPLIT3-PADELFORD WASH SPLIT3-PADELFORD WASH 3/25/2002
SEC.32.301
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1676
1675
1674
1673
1672
1671
1670
1669
9800
9900
10000
10100
10200
10300
10400

D31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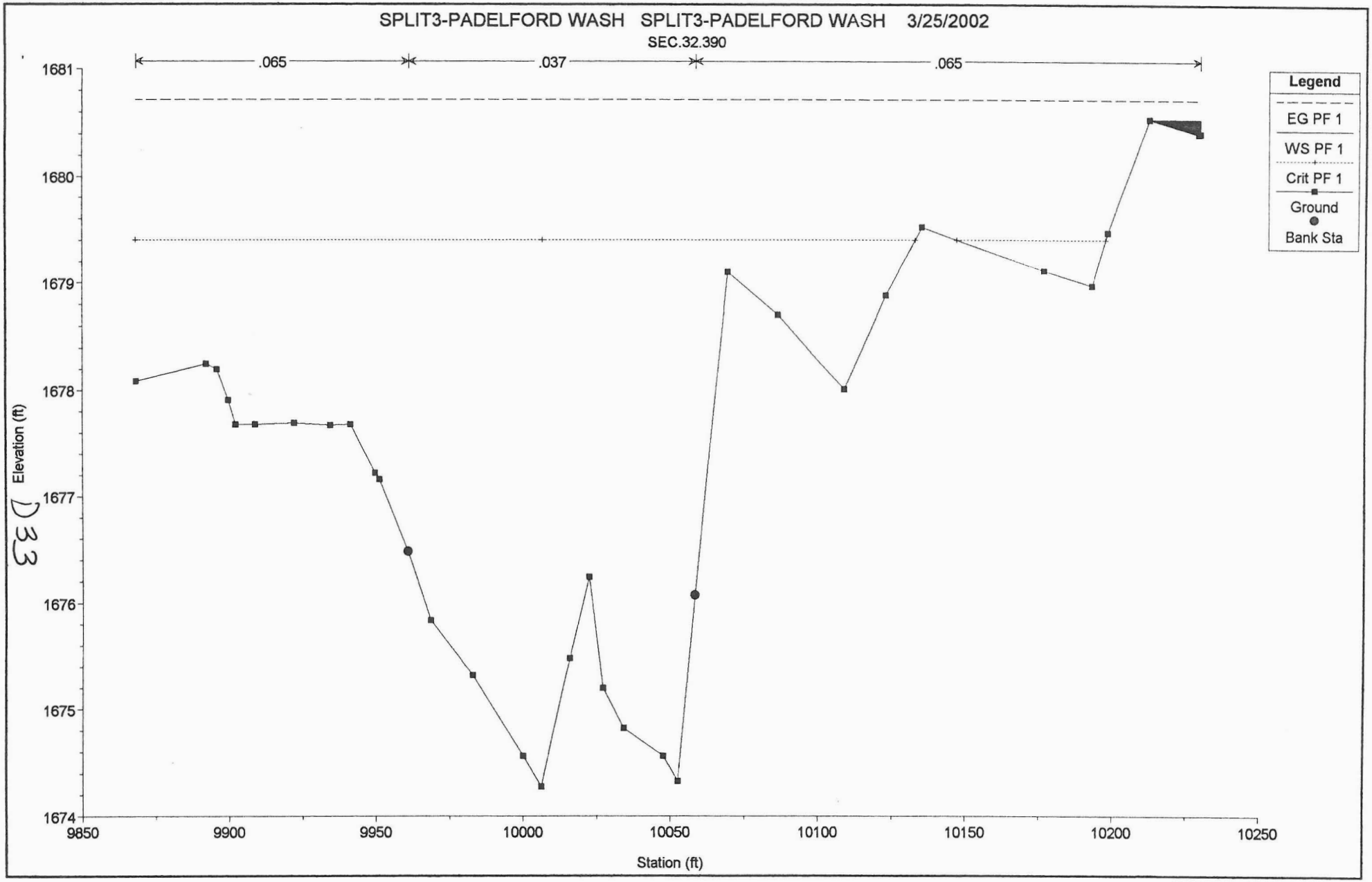
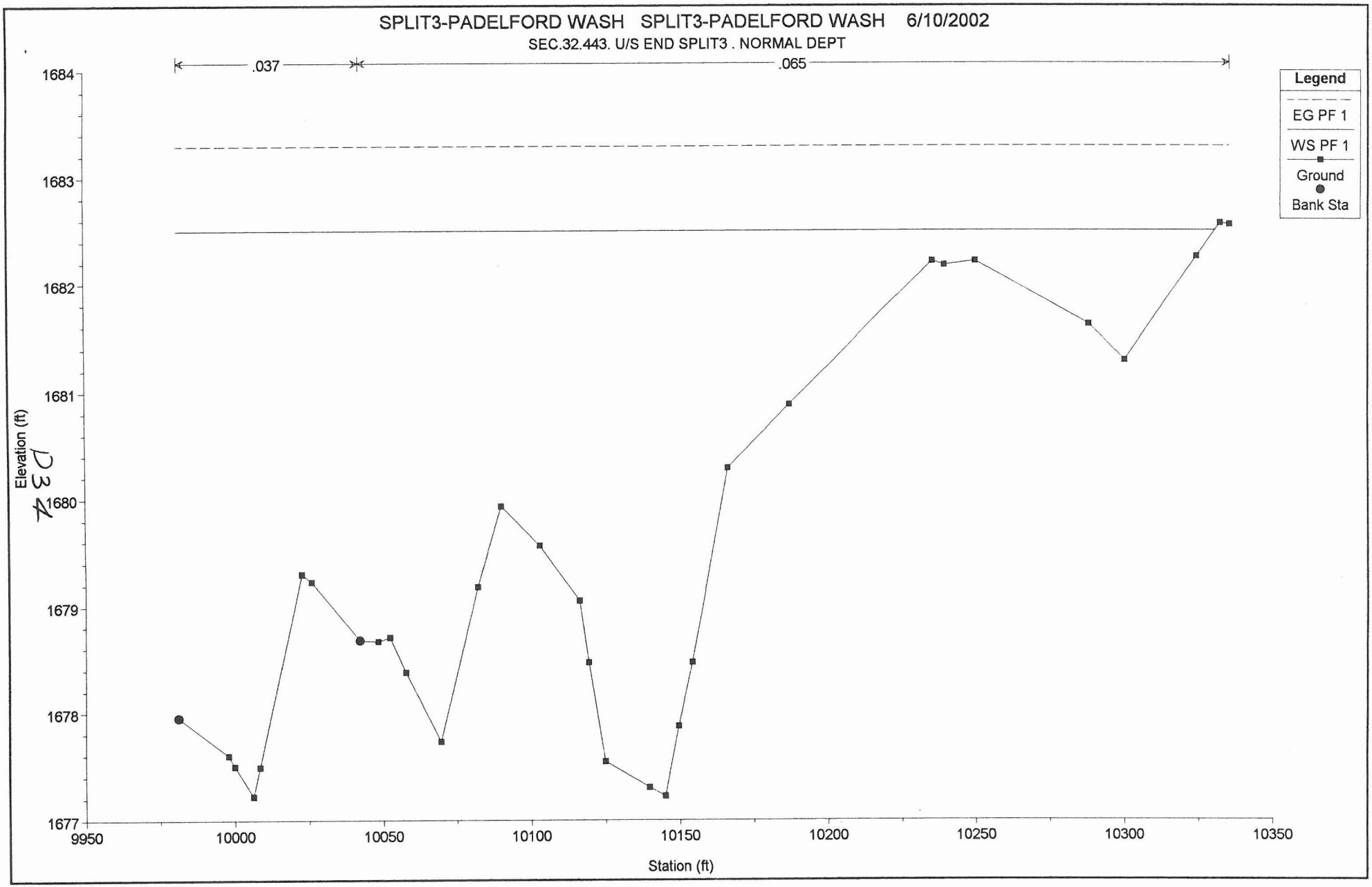
SEC.32.343
.065
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1679
1678
1677
1676
1675
1674
1673
1672
9800
9900
10000
10100
10200
10300

D32


SPLIT3-PADELFORD WASH SPLIT3-PADELFORD WASH 3/25/2002
SEC.32.390
.065
.037
.065
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1681
1680
1679
1678
1677
1676
1675
1674
9850
9900
9950
10000
10050
10100
10150
10200
10250

D 33


SPLIT3-PADELFORD WASH SPLIT3-PADELFORD WASH 6/10/2002
SEC.32.443. U/S END SPLIT3 . NORMAL DEPT
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1684
1683
1682
1681
1680
1679
1678
1677
9950
10000
10050
10100
10150
10200
10250
10300
10350

HEC-RAS September 1998 Version 2.2
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X    X
X     X  X        X           X   X    X    X   X
XXXXXXX  XXXX     X       XXX XXXX     XXXXXX    XXXX
X     X  X        X           X  X     X    X       X
X     X  X        X    X      X   X    X    X       X
X     X  XXXXXX    XXXX       X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Split 4 of Padelford Wash
Project File : split4.prj
Run Date and Time: 3/25/2002 12:07:10 PM

Project in English units

Project Description:
SPLIT 4 WASH'S UPSTREAM LIMIT IS APPROX. 100 FT. U/S OR NORTH OF WHITE WING RD.
AND 3450 FT. U/S OF THE CAP CANAL.
SPLIT4 WASH SPLITS FROM SPLIT3 WASH AT THIS
LOCATION.
THE FLOW SPLIT RELATIONSHIP WAS ESTIMATED BY RUNNING A RATING CURVE
ANALYSIS BY HEC-RAS MODEL OF ENERGY GRADE VS. DISCHARGE AT SEC. 30.841 OF
SPLIT4 WASH AND SEC. 30.717 OF SPLIT3 WASH.
STARTING WSEL'S WERE BASED ON
NORMAL DEPTH S=0.01 FT/FT. AT BOTH U/S AND D/S ENDS.
SECTIONS ARE CODED FROM
LT. TO RT. LOOKING D/S WITH STA. 10000 AT THE HYD. BASELINE.
SECTION I.D'S ARE
IN RIVER MILES INCREASING U/S WITH R.M. 30.0 AT THE INLET FACE
OF THE CONC.
HEADWALL OF CAP STA. 240+00 OVERCHUTE STRUCTURE , INVOLVING (1) 72 IN. I.D.
STEEL PIPE X 217 FT. LONG WITH INLET I.E.=1541.07 AND OUTLET I.E.=1539.77.

PLAN DATA

Plan Title: Split 4 of Padelford Wash
Plan File : n:\Files\7158-07\Hec-Ras\5TH SET\split4.p01

Geometry Title: Split 4 of Padelford Wash
Geometry File : n:\Files\7158-07\Hec-Ras\5TH SET\split4.g01

Flow Title : Split 4 of Padelford Wash
Flow File : n:\Files\7158-07\Hec-Ras\5TH SET\split4.f01

Plan Summary Information:
Number of: Cross Sections = 8 Multiple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculation tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

FLOW DATA

Flow Title: Split 4 of Padelford Wash
Flow File : n:\Files\7158-07\Hec-Ras\5TH SET\split4.f01

Flow Data (cfs)

River	Reach	RS	PF 1
SPLIT4	SPLIT 4	30.841	704
SPLIT4	SPLIT 4	30.603	806
SPLIT4	SPLIT 4	30.412	806

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
SPLIT4	SPLIT 4	PF 1	Normal S = .01	Normal S = .01

GEOMETRY DATA

Geometry Title: Split 4 of Padelford Wash
Geometry File : n:\Files\7158-07\Hec-Ras\5TH SET\split4.g01

CROSS SECTION RIVER: SPLIT4
REACH: SPLIT 4 RS: 30.841

INPUT
Description: SECTION 30.841. U/S END OF SPLIT4. 100+/-FT. U/S OF WHITE WING RD.
AT SPLIT FROM SPLIT3 WASH.
Station Elevation Data num= 40
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev

```
 9975.23 1583.52 9977.19 1583.37 9984.91 1582.58 9997.91 1582.71   10000 1582.72
10013.78 1582.7710019.19 1583.3310022.17 1583.7410028.13 1583.6510037.53 1583.29
10050.14 1582.6710063.35 1582.2510066.05 1582.1810073.74 1582.4310080.42 1582.58
10091.04 1584.9710095.92 1586.0510098.93 1586.1910117.73 1587.0910130.16 1587.43
10131.14 1587.4610133.02 1587.5410144.13 1587.2610153.08 1586.66 10190.4 1584.47
10213.49 1583.9810215.34 1583.9410215.89 1583.9510234.47 1584.4710280.47  1586.2
10286.27 1586.4810293.82 1586.1910337.99 1584.6310343.58 1583.8610349.28  1583.3
10356.13 1583.9910373.06  1585.210385.85 1585.3710415.96 1585.7710458.83 1586.11

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9975.23    .065 9975.23    .03710091.04    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9975.2310091.04              240  239.85     240            .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
   1013310458.83 1587.54

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1584.57   Element                 Left OB    Channel   Right OB
  Vel Head (ft)               0.34   Wt. n-Val.                         0.037
  W.S. Elev (ft)           1584.23   Reach Len. (ft)          240.00    239.85    240.00
  Crit W.S. (ft)                     Flow Area (sq ft)                  151.00
  E.G. Slope (ft/ft)       0.009216  Area (sq ft)                       151.00
  Q Total (cfs)             704.00   Flow (cfs)                         704.00
  Top Width (ft)            112.51   Top Width (ft)                     112.51
  Vel Total (ft/s)            4.66   Avg. Vel. (ft/s)                     4.66
  Max Chl Dpth (ft)           2.05   Hydr. Depth (ft)                     1.34
  Conv. Total (cfs)         7333.5   Conv. (cfs)                        7333.5
  Length Wtd. (ft)          239.87   Wetted Per. (ft)                   113.54
  Min Ch El (ft)           1582.18   Shear (lb/sq ft)                     0.77
  Alpha                       1.00   Stream Power (lb/ft s)               3.57
  Frctn Loss (ft)             3.06   Cum Volume (acre-ft)        1.95     9.93      2.28
  C & E Loss (ft)             0.02   Cum SA (acres)              2.45     7.78      3.24

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta        Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)         (ft)             (cfs)    (sq ft)      (ft)                 (ft)     (ft/s)
  LB 9975.23   RB 10091.04    704.00     151.00     113.54     100.00      1.34      4.66


Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT4
REACH: SPLIT 4            RS: 30.793

INPUT
Description: SECTION 30.793
Station Elevation Data    num=      80
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9815.53 1581.87 9819.02 1581.86 9823.62 1581.52 9847.41 1581.53 9882.03 1581.54
  9892.6 1580.86 9897.87 1580.66 9917.01 1580.08 9943.75 1579.27 9959.44 1580.15
    9960 1580.18 9960.88 1580.16  9985.7 1579.43 9996.69  1578.6   10000 1578.35
10000.01 1578.3510004.53  1579.210017.27 1581.3610052.21 1581.5110082.13 1582.03
10092.68 1581.8710105.52    158110117.26 1580.0910124.76 1580.3910135.38 1581.23
```

```
10137.46 1581.4310159.35 1581.1510184.44 1580.8810185.84 1580.7310194.53 1580.13
10201.45 1579.6510202.55 1579.5910203.55 1579.7210214.13 1580.8810229.09 1580.68
10231.06 1580.6410231.55  1580.610238.62 1579.7910257.76 1581.9610275.13  1583.4
10309.65 1581.9410330.42 1581.2610372.25    158010372.85 1579.9410373.74 1579.88
10397.77 1577.94 10404.4 1579.3110414.47 1581.3610454.96 1581.8910476.77 1581.85
10486.14 1581.2110500.11 1580.2910514.49 1579.0410524.05 1578.2810531.65 1579.25
 10546.6 1581.27 10550.5 1581.3410570.31 1582.3310573.06 1582.6910575.16 1582.96
10579.97 1583.4110598.83 1585.0610624.53 1585.1910670.36 1585.3310672.45 1585.52
10679.23 1585.4310686.78 1585.1410722.09  1584.310723.44 1584.2410725.46 1584.16
10744.61 1583.2810760.83 1582.7610762.37  1582.710762.66 1582.73 10776.8 1583.66
10783.69 1584.03 10792.9 1584.1810799.11 1584.1710814.91 1584.33 10834.7 1584.47

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9815.53    .065    9960    .03710017.27    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          996010017.27              550     544     520             .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
10082.13 10834.7 1582.03

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1581.47   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.57   Wt. n-Val.               0.065      0.037
  W.S. Elev (ft)           1580.90   Reach Len. (ft)         550.00     544.00     520.00
  Crit W.S. (ft)           1580.90   Flow Area (sq ft)        62.74      74.96
  E.G. Slope (ft/ft)      0.019306   Area (sq ft)             62.74      74.96
  Q Total (cfs)             704.00   Flow (cfs)              188.71     515.29
  Top Width (ft)            122.58   Top Width (ft)           68.02      54.56
  Vel Total (ft/s)            5.11   Avg. Vel. (ft/s)         3.01       6.87
  Max Chl Dpth (ft)           2.55   Hydr. Depth (ft)         0.92       1.37
  Conv. Total (cfs)         5066.7   Conv. (cfs)            1358.2     3708.6
  Length Wtd. (ft)                   Wetted Per. (ft)         68.07      54.83
  Min Ch El (ft)           1578.35   Shear (lb/sq ft)         1.11       1.65
  Alpha                       1.42   Stream Power (lb/ft s)   3.34      11.33
  Frctn Loss (ft)                    Cum Volume (acre-ft)     1.78       9.30       2.28
  C & E Loss (ft)                    Cum SA (acres)           2.27       7.32       3.24

Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9887.77       9960.00         188.71      62.74     68.07       26.81      0.92       3.01
  LB 9960.00    RB 10017.27     515.29      74.96     54.83       73.19      1.37       6.87

Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT4
REACH: SPLIT 4           RS: 30.690

INPUT
Description: SECTION 30.690
Station Elevation Data    num=      83
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9794.66	1577.2	9798.23	1577.26	9825.61	1578.12	9854.79	1579.05	9861.42	1579.14
9864.61	1579.16	9867.05	1579.09	9887.76	1578.38	9890.32	1578.28	9895.56	1577.52
9910.23	1575.2	9916.01	1574.35	9919.12	1573.74	9934.32	1574.92	9934.6	1574.94
9972.31	1574.96	9972.89	1574.97	9973.52	1574.9	9999.73	1572.27	10000	1572.28
10001.18	1572.29	10011.57	1572.22	10016.22	1572.64	10019.55	1572.11	10029.34	1572.61
10037.71	1574.25	10046.37	1574.32	10054.34	1574.29	10083.52	1574.73	10089.39	1574.78
10098.87	1572.97	10105.14	1571.72	10120.93	1574.61	10129.88	1576.04	10186.98	1575.84
10200.19	1575.88	10205.18	1575.82	10212.84	1575.77	10233.28	1575.65	10247.57	1576.15
10252.79	1576.3	10287.27	1576.51	10301.37	1576.67	10316.14	1576.77	10332.63	1576.84
10336.81	1576.9	10350.29	1577.03	10367.15	1577.17	10391.41	1577.24	10406.74	1577.3
10453.1	1577.06	10473.22	1577.06	10490.36	1576.67	10492.8	1576.55	10498.18	1576.47
10508.94	1576.11	10522.54	1575.12	10526.12	1574.85	10526.15	1574.86	10526.26	1574.86
10528.19	1574.96	10540.79	1575.75	10567.94	1575.75	10577.74	1575.74	10595.42	1576.7
10610.94	1577.41	10623.1	1577.03	10624.91	1576.95	10626.42	1576.79	10635.57	1575.71
10636.82	1575.55	10637.56	1575.62	10651.44	1577.02	10673.04	1576.87	10682.68	1576.79
10693.72	1576.95	10747.7	1577.39	10766.44	1577.52	10847.73	1577.64	10849.3	1577.64
10849.46	1577.66	10875.79	1579.03	10880.04	1579.11				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9794.66	.065	9973.52	.03	10054.34	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9973.52	10054.34	490	460	460	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10406.74	10880.04	1577.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1575.16	Element			
Vel Head (ft)	0.24	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1574.91	Reach Len. (ft)	490.00	460.00	460.00
Crit W.S. (ft)		Flow Area (sq ft)	12.66	133.99	66.57
E.G. Slope (ft/ft)	0.005857	Area (sq ft)	12.66	133.99	66.57
Q Total (cfs)	704.00	Flow (cfs)	15.22	575.14	113.64
Top Width (ft)	171.50	Top Width (ft)	22.19	80.82	68.49
Vel Total (ft/s)	3.30	Avg. Vel. (ft/s)	1.20	4.29	1.71
Max Chl Dpth (ft)	3.19	Hydr. Depth (ft)	0.57	1.66	0.97
Conv. Total (cfs)	9198.8	Conv. (cfs)	198.9	7515.1	1484.9
Length Wtd. (ft)	460.30	Wetted Per. (ft)	22.34	81.19	69.08
Min Ch El (ft)	1572.11	Shear (lb/sq ft)	0.21	0.60	0.35
Alpha	1.43	Stream Power (lb/ft s)	0.25	2.59	0.60
Frctn Loss (ft)	4.54	Cum Volume (acre-ft)	1.30	8.00	1.88
C & E Loss (ft)	0.04	Cum SA (acres)	1.70	6.47	2.84

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9884.09	9973.52	15.22	12.66	22.34	2.16	0.57	1.20
LB 9973.52	RB 10054.34	575.14	133.99	81.19	81.70	1.66	4.29
10054.34	10467.19	113.64	66.57	69.08	16.14	0.97	1.71

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT4
REACH: SPLIT 4 RS: 30.603

INPUT
Description: SECTION 30.603
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9605.93	1570.67	9613.88	1570.58	9616.01	1570.56	9635.49	1570.89	9666.08	1571.64
9711.14	1571.3	9715.98	1571.29	9723.04	1571.19	9768.95	1570.8	9774.47	1570.95
9791.82	1570.64	9792.16	1570.63	9820.83	1569.67	9830.18	1569.19	9842.97	1568.4
9866.15	1569.79	9869.98	1570.01	9874.57	1570.2	9915.36	1571.57	9924.41	1571.47
9939.59	1571.03	9951.59	1568.66	9955.78	1567.97	9964.87	1568.3	9974.76	1569.17
9978.44	1569.01	9995.45	1567.82	10000	1567.52	10004.69	1567.89	10023.96	1569.46
10038.85	1569.21	10039.44	1569.21	10039.86	1569.26	10054.68	1571.24	10062.4	1571.23
10065.52	1571.25	10073.3	1571.41	10078.2	1571.46	10082.72	1571.43	10097.32	1571.51
10131.67	1571.62	10158.98	1571.84	10163.72	1572.02	10174.8	1571.41	10188.31	1570.1
10200.37	1570.04	10204.14	1569.99	10212.35	1570.36	10228.63	1570.94	10241.77	1571.7
10257.97	1572.31	10262.95	1572.31	10267.08	1572.27	10268.12	1572.32	10294.66	1572.81
10315.4	1573.56	10315.58	1573.56	10325.1	1573.52	10377.04	1573.58	10383.99	1573.5
10395.11	1572.79	10405.03	1572.34	10417.24	1570.26	10421.02	1569.65	10440.94	1570.76
10446.51	1571.06	10448.94	1571.15	10456.77	1571.42	10502.17	1572.98	10506.73	1573.11
10514.62	1573.34	10529.73	1573	10568.83	1572.49	10603.55	1572.46	10622.69	1572.26
10634.01	1572.2	10650.35	1572.19	10660.82	1571.43	10668.26	1570.85	10678.96	1571.13
10696.15	1571.87	10696.77	1571.86	10707.59	1571.92	10743.49	1572.08	10745.5	1572.16
10747.23	1572.2	10771.8	1572.81	10795.42	1573.14	10800.71	1573.13	10802.31	1573.12

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9605.93	.065	9915.36	.037	10073.3	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9915.36	10073.3	450	470	510	.1	.3

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
9605.93	9915.36	1571.57	10163.71	10802.31	1572.02

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1570.59	Element			
Vel Head (ft)	0.61	Wt. n-Val.		0.037	
W.S. Elev (ft)	1569.98	Reach Len. (ft)	450.00	470.00	510.00
Crit W.S. (ft)	1569.95	Flow Area (sq ft)		128.77	
E.G. Slope (ft/ft)	0.017507	Area (sq ft)		128.77	
Q Total (cfs)	806.00	Flow (cfs)		806.00	
Top Width (ft)	100.31	Top Width (ft)		100.31	
Vel Total (ft/s)	6.26	Avg. Vel. (ft/s)		6.26	
Max Chl Dpth (ft)	2.46	Hydr. Depth (ft)		1.28	
Conv. Total (cfs)	6091.6	Conv. (cfs)		6091.6	
Length Wtd. (ft)	467.95	Wetted Per. (ft)		100.73	
Min Ch El (ft)	1567.52	Shear (lb/sq ft)		1.40	
Alpha	1.00	Stream Power (lb/ft s)		8.75	
Frctn Loss (ft)	4.99	Cum Volume (acre-ft)	1.23	6.61	1.53
C & E Loss (ft)	0.13	Cum SA (acres)	1.57	5.51	2.47

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9915.36	RB 10073.30	806.00	128.77	100.73	100.00	1.28	6.26

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT4
REACH: SPLIT 4 RS: 30.512

INPUT
Description: SECTION 30.512
Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9534.26	1565.87	9545.53	1565.97	9551.16	1565.8	9594.31	1565.83	9637.24	1566.07
9651.72	1566.28	9677.89	1566.31	9685.27	1566.23	9729.34	1566.22	9739.32	1566.17
9750.72	1565.98	9767.57	1565.48	9775.96	1565.23	9804.3	1564.52	9826.53	1563.95
9830.2	1563.56	9834.74	1562.91	9845.55	1563.94	9851.49	1564.44	9874.78	1564.87
9882.51	1565.01	9884.86	1564.97	9886.66	1564.94	9913.75	1564.37	9942.7	1564.1
9946.15	1564.05	9950.51	1563.99	9967.51	1564.29	9970.71	1564.32	9988.47	1563.38
10000	1562.87	10000.69	1562.84	10013.27	1563.69	10032.42	1565.87	10039.03	1566.14
10050.18	1566.17	10103.98	1565.48	10120.53	1565.25	10128.09	1565.01	10139.78	1564.55
10148.8	1565.03	10153.09	1565.28	10154.13	1565.33	10187.39	1565.67	10235.46	1566.11
10245.85	1566.28	10254.6	1566.31	10254.74	1566.31	10255.09	1566.31	10309.12	1567.27
10313.94	1567.33	10323.26	1567.47	10335.1	1567.65	10338.65	1567.71	10354.21	1567.45
10367.68	1567	10368.77	1567.01	10378.61	1566.83	10385.58	1566.7	10461.9	1565.63
10469.95	1565.43	10473.12	1565.34	10486.03	1564.76	10490.48	1564.56	10493.93	1564.78
10510.59	1566.03	10516.83	1566.02	10556.76	1566.56	10636.13	1565	10646.53	1564.79
10654.26	1564.09	10665.3	1563.18	10682.62	1563.73	10686.75	1563.97	10693.03	1563.89
10700.02	1563.93	10749.23	1564.02	10766.98	1564.05	10767.63	1564	10776	1563.24
10790.95	1564.53	10792.37	1564.65	10792.95	1564.69	10832.39	1565.41	10842.3	1565.61

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9534.26	.065	9882.51	.03	710032.42	.065

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9882.5 10032.42 400 528 460 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
10050.2	10842.3	1566.17

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1565.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.	0.065	0.037	
W.S. Elev (ft)	1565.28	Reach Len. (ft)	400.00	528.00	460.00
Crit W.S. (ft)		Flow Area (sq ft)	93.86	169.67	
E.G. Slope (ft/ft)	0.007174	Area (sq ft)	93.86	169.67	
Q Total (cfs)	806.00	Flow (cfs)	164.96	641.04	
Top Width (ft)	253.16	Top Width (ft)	108.39	144.77	
Vel Total (ft/s)	3.06	Avg. Vel. (ft/s)	1.76	3.78	
Max Chl Dpth (ft)	2.44	Hydr. Depth (ft)	0.87	1.17	
Conv. Total (cfs)	9515.9	Conv. (cfs)	1947.6	7568.4	
Length Wtd. (ft)	504.68	Wetted Per. (ft)	108.55	144.94	
Min Ch El (ft)	1562.84	Shear (lb/sq ft)	0.39	0.52	
Alpha	1.28	Stream Power (lb/ft s)	0.68	1.98	
Frctn Loss (ft)	5.02	Cum Volume (acre-ft)	0.75	5.00	1.53
C & E Loss (ft)	0.02	Cum SA (acres)	1.01	4.19	2.47

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9708.38	9882.51	164.96	93.86	108.55	20.47	0.87	1.76
LB 9882.51	RB 10032.42	641.04	169.67	144.94	79.53	1.17	3.78

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Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT4
REACH: SPLIT 4           RS: 30.412

INPUT
Description: SECTION 30.412
Station Elevation Data    num=      86
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9761.58 1562.69 9770.98 1562.81 9801.72 1562.26 9859.79 1561.16 9874.47    1561
 9914.46 1560.43 9943.74 1560.59 9957.36 1560.56 9961.74 1560.58 9968.03 1559.71
 9969.49 1559.59  9976.9 1559.25 9982.35  1558.5 9992.02 1557.92 9996.66 1557.57
 9999.74 1557.49   10000 1557.5110009.63 1558.4610013.34 1558.8710025.06 1558.84
10025.69 1558.84   10027 1558.9710043.61 1560.3410051.31 1560.3210073.69  1560.4
 10092.7 1560.27 10101.3 1559.4110103.79 1559.1710104.32 1559.1110108.95 1558.83
10117.87 1558.2410121.69 1558.7610131.56 1560.1710151.45 1559.9910175.64 1559.78
10181.18 1559.75 10190.2 1559.7410199.04 1559.65 10205.2  1559.610224.37 1559.57
10275.71 1559.3910280.39 1559.1710289.86 1558.5810299.13 1559.1410313.23 1560.09
10337.41 1560.6810390.57 1561.9410423.36 1562.3610446.65 1562.89 10465.3 1562.46
10512.09 1561.6410528.18 1561.1410530.72 1561.1210548.23 1561.0610560.56 1561.25
10619.14 1561.3810636.09 1560.8410657.54 1560.4210673.21 1559.81 10678.9 1559.59
   10694  1560.710697.88 1561.0410768.62  1561.410774.63 1561.4410776.53 1561.33
10787.35 1560.7310797.86 1560.7210800.38 1560.7310811.81 1561.01 10841.3 1561.29
10886.01 1561.2710892.14 1561.2410910.84    155910922.74 1557.3910925.55 1557.71
10939.31 1559.5310956.22  1559.910978.32  1560.210988.38 1559.6910992.04 1559.56
11013.91 1561.6411014.11 1561.6611014.27 1561.6611034.71 1561.7211047.23 1561.49
11069.23 1561.25

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9761.58    .065 9961.74    .03710043.61    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9961.7410043.61              420   406.5     400             .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 10446.711069.23 1562.89

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1560.44   Element                 Left OB    Channel   Right OB
  Vel Head (ft)               0.38   Wt. n-Val.                         0.037      0.065
  W.S. Elev (ft)           1560.06   Reach Len. (ft)          420.00    406.50     400.00
  Crit W.S. (ft)                     Flow Area (sq ft)                   97.86     120.45
  E.G. Slope (ft/ft)       0.014383  Area (sq ft)                        97.86     120.45
  Q Total (cfs)             806.00   Flow (cfs)                         563.35     242.65
  Top Width (ft)            279.27   Top Width (ft)                      74.66     204.62
  Vel Total (ft/s)            3.69   Avg. Vel. (ft/s)                     5.76       2.01
  Max Chl Dpth (ft)           2.57   Hydr. Depth (ft)                     1.31       0.59
  Conv. Total (cfs)         6720.7   Conv. (cfs)                        4697.4     2023.3
  Length Wtd. (ft)          405.52   Wetted Per. (ft)                    74.90     204.89
  Min Ch El (ft)           1557.49   Shear (lb/sq ft)                     1.17       0.53
  Alpha                       1.79   Stream Power (lb/ft s)               6.75       1.06
  Frctn Loss (ft)             4.42   Cum Volume (acre-ft)     0.32        3.38       0.89
  C & E Loss (ft)             0.04   Cum SA (acres)           0.52        2.86       1.39

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                  (ft)     (ft/s)
```

LB 9961.74	RB 10043.61	563.35	97.86	74.90	69.89	1.31	5.76
10043.61	10556.42	242.65	120.45	204.89	30.11	0.59	2.01

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT4
REACH: SPLIT 4 RS: 30.335

INPUT
Description: SECTION 30.335
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9654.79	1556.07	9660	1556.04	9682.75	1555.77	9685.66	1555.72	9706.96	1555.46
9712.89	1555.57	9722.85	1555.72	9733.79	1555.89	9740.15	1555.87	9755.32	1555.84
9772.29	1554.9	9773.89	1554.82	9774.7	1554.84	9793.18	1555.63	9798.01	1555.64
9853.28	1555.92	9856.03	1555.82	9871.18	1555.34	9892.55	1556.04	9894.3	1556.1
9894.63	1556.1	9896.28	1556.09	9932.48	1555.55	9941.88	1554.15	9946.21	1553.41
9950.5	1553.71	9966.18	1554.53	9989.38	1554.63	9989.78	1554.63	9990.07	1554.59
9999.64	1553.3	10000	1553.35	10003.77	1553.89	10011.04	1555.07	10032.6	1555.12
10046.04	1555.11	10050.75	1554.27	10057.39	1553.11	10058.47	1553.18	10071.98	1554.27
10076.36	1554.62	10076.67	1554.66	10089.95	1555.51	10094	1555.79	10172.17	1556.27
10179.26	1556.31	10192.42	1556.51	10239.05	1556.09	10265	1555.79	10275.79	1555.62
10287.98	1555.52	10292.72	1555.47	10306.94	1555.39	10313.67	1555.37	10316.76	1555.43
10340.06	1556.16	10342.6	1556.31	10343.38	1556.29	10356.26	1556.52	10382.19	1557.11
10391.77	1557.27	10393.61	1557.15	10458.3	1557.77	10487.71	1558.18	10493.61	1558.16
10514.72	1557.17	10545.36	1555.79	10549.31	1555.63	10550.27	1555.56	10565.81	1554.73
10569.4	1555.13	10586.31	1557.04	10588.07	1556.99	10640.33	1556.47	10683.01	1556.66
10687.71	1556.56	10721.03	1556.77	10746.63	1556.24	10747.16	1556.17	10747.53	1556.13
10748.29	1556.01	10777.96	1551.81	10781.69	1552.26	10785.65	1552.69	10799.67	1554.25
10818.42	1556.66	10819.27	1556.76	10821	1556.79	10821.83	1556.81	10824.97	1556.87
10866.44	1558.03	10895.59	1558.27						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9654.79	.065	9894.63	.037	10094	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9894.63	10094	515	525	490	.1	.3

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
9654.79	9894.63	1556.1	10192.41	10895.59	1556.51

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1555.97	Element	Left OB	Channel	Right OB	
Vel Head (ft)	0.26	Wt. n-Val.		0.037		
W.S. Elev (ft)	1555.72	Reach Len. (ft)	515.00	525.00	490.00	
Crit W.S. (ft)		Flow Area (sq ft)		197.74		
E.G. Slope (ft/ft)	0.008573	Area (sq ft)		197.74		
Q Total (cfs)	806.00	Flow (cfs)		806.00		
Top Width (ft)	171.61	Top Width (ft)		171.61		
Vel Total (ft/s)	4.08	Avg. Vel. (ft/s)		4.08		
Max Chl Dpth (ft)	2.62	Hydr. Depth (ft)		1.15		
Conv. Total (cfs)	8704.8	Conv. (cfs)		8704.8		
Length Wtd. (ft)	521.98	Wetted Per. (ft)		172.31		
Min Ch El (ft)	1553.10	Shear (lb/sq ft)		0.61		
Alpha	1.00	Stream Power (lb/ft s)		2.50		
Frctn Loss (ft)	4.83	Cum Volume (acre-ft)	0.32	2.00	0.34	
C & E Loss (ft)	0.00	Cum SA (acres)	0.52	1.71	0.45	

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9894.63	RB 10094.00	806.00	197.74	172.31	100.00	1.15	4.08

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT4
REACH: SPLIT 4 RS: 30.233

INPUT
Description: SECTION 30.233. D/S END OF SPLIT4 WASH NEAR CAP CANAL. DISCHARGES ARE FROM 100 YR-24 HR STORM
FROM PADELFORD WASH FLOODPLAIN
DELINEATION STUDY FOR FCDMC. FCD No.99-12.

Station Elevation Data num= 109

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9517.07	1552.73	9524.11	1552.5	9550.83	1551.61	9554.43	1551.53	9564.42	1550.99
9583.82	1551.72	9586.6	1551.83	9588.3	1551.81	9641.83	1551.28	9656.91	1551.05
9662.16	1550.94	9686.17	1550.72	9686.53	1550.7	9687.13	1550.67	9698.15	1550.21
9699.77	1550.25	9705.92	1550.32	9716.96	1550.6	9721.27	1550.53	9732.31	1550.5
9737.97	1550.46	9738.37	1550.47	9741.59	1550.16	9748.45	1549.51	9761.64	1550.49
9762.58	1550.53	9767.52	1550.6	9815.95	1551.29	9843.99	1550.74	9850.56	1550.51
9863.26	1550.29	9887.26	1549.73	9888.18	1549.7	9889.08	1549.73	9903.94	1550.21
9923.11	1550.81	9933.53	1550.54	9942.13	1550.3	9949.4	1549.25	9952.29	1548.8
9960.18	1549.12	9976.73	1549.87	9987.63	1549.21	10000	1548.51	10000.45	1548.49
10010.38	1549.93	10012.14	1550.18	10013.19	1550.14	10016.15	1550.21	10035.84	1550.22
10040.2	1549.25	10044.75	1548.37	10052.6	1549.43	10056.38	1550.03	10088.3	1550.49
10107.7	1550.79	10119.22	1550.93	10121.49	1550.93	10123.72	1550.95	10126.03	1550.99
10126.96	1550.98	10220.36	1551.6	10221.84	1551.62	10224.03	1551.66	10238.09	1551.84
10270.04	1552.38	10282.97	1551.64	10302.43	1550.6	10323.43	1551.84	10324.2	1551.89
10324.56	1551.91	10338.12	1552.63	10340.22	1552.7	10342.64	1552.75	10346.08	1552.81
10360.37	1552.87	10399.29	1553.11	10402.29	1553.01	10408.42	1552.61	10424.04	1551.65
10428.27	1551.4	10436.54	1550.94	10443.04	1550.76	10448.66	1550.44	10455.93	1550.74
10462.11	1551.05	10484.63	1550.35	10494.65	1550.03	10504.11	1549.82	10518.38	1549.13
10523.1	1548.39	10533.01	1547.82	10533.89	1547.91	10538.47	1547.7	10553.47	1546.76
10572.89	1548.98	10584.19	1550.19	10608.11	1550.06	10610.93	1550.09	10613.06	1550.02
10621.75	1549.83	10647.37	1551.51	10650.5	1551.72	10652.34	1551.81	10655.03	1551.96
10661.79	1552.28	10666.63	1552.44	10682.22	1553.1	10734.05	1554.19		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9517.07	.065	9923.11	.037	10035.84	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9923.11	10035.84	0	0	0 .1	.3

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
9517.07	9815.95	1551.29	10270	10734.05	1552.38

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1551.15	Element			
Vel Head (ft)	0.25	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1550.90	Reach Len. (ft)			
Crit W.S. (ft)	1550.67	Flow Area (sq ft)	53.41	134.17	60.49
E.G. Slope (ft/ft)	0.010001	Area (sq ft)	53.41	134.17	60.49
Q Total (cfs)	806.00	Flow (cfs)	88.08	604.13	113.79
Top Width (ft)	280.59	Top Width (ft)	87.15	112.73	80.71
Vel Total (ft/s)	3.25	Avg. Vel. (ft/s)	1.65	4.50	1.88
Max Chl Dpth (ft)	2.53	Hydr. Depth (ft)	0.61	1.19	0.75
Conv. Total (cfs)	8059.5	Conv. (cfs)	880.7	6040.9	1137.9
Length Wtd. (ft)		Wetted Per. (ft)	87.19	113.03	81.02
Min Ch El (ft)	1548.49	Shear (lb/sq ft)	0.38	0.74	0.47
Alpha	1.51	Stream Power (lb/ft s)	0.63	3.34	0.88
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9720.09	9923.11	88.08	53.41	87.19	10.93	0.61	1.65
LB 9923.11	RB 10035.84	604.13	134.17	113.03	74.95	1.19	4.50
10035.84	10384.95	113.79	60.49	81.02	14.12	0.75	1.88

SUMMARY OF MANNING'S N VALUES

River:SPLIT4

Reach	River Sta.	n1	n2	n3
SPLIT 4	30.841	.065	.037	.065
SPLIT 4	30.793	.065	.037	.065
SPLIT 4	30.690	.065	.037	.065
SPLIT 4	30.603	.065	.037	.065
SPLIT 4	30.512	.065	.037	.065
SPLIT 4	30.412	.065	.037	.065
SPLIT 4	30.335	.065	.037	.065
SPLIT 4	30.233	.065	.037	.065

SUMMARY OF REACH LENGTHS

River: SPLIT4

Reach	River Sta.	Left	Channel	Right
SPLIT 4	30.841	240	239.85	240
SPLIT 4	30.793	550	544	520
SPLIT 4	30.690	490	460	460
SPLIT 4	30.603	450	470	510
SPLIT 4	30.512	400	528	460
SPLIT 4	30.412	420	406.5	400
SPLIT 4	30.335	515	525	490
SPLIT 4	30.233	0	0	0

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: SPLIT4

Reach	River Sta.	Contr.	Expan.
SPLIT 4	30.841	.1	.3
SPLIT 4	30.793	.1	.3
SPLIT 4	30.690	.1	.3
SPLIT 4	30.603	.1	.3
SPLIT 4	30.512	.1	.3
SPLIT 4	30.412	.1	.3
SPLIT 4	30.335	.1	.3
SPLIT 4	30.233	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
SPLIT 4	30.841	704.00	1582.18	1584.23		1584.57	0.009216	4.66	151.00	112.51	0.71
SPLIT 4	30.793	704.00	1578.35	1580.90	1580.90	1581.47	0.019306	6.87	137.70	122.58	1.03
SPLIT 4	30.690	704.00	1572.11	1574.91		1575.16	0.005857	4.29	213.22	171.50	0.59
SPLIT 4	30.603	806.00	1567.52	1569.98	1569.95	1570.59	0.017507	6.26	128.77	100.31	0.97
SPLIT 4	30.512	806.00	1562.84	1565.28		1565.47	0.007174	3.78	263.53	253.16	0.62
SPLIT 4	30.412	806.00	1557.49	1560.06		1560.44	0.014383	5.76	218.31	279.27	0.89
SPLIT 4	30.335	806.00	1553.10	1555.72		1555.97	0.008573	4.08	197.74	171.61	0.67
SPLIT 4	30.233	806.00	1548.49	1550.90	1550.67	1551.15	0.010001	4.50	248.07	280.59	0.73

Profile Output Table - Standard Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (ft)	Top Width
SPLIT 4	30.841	1584.57	1584.23	0.34	3.06	0.02		704.00		112.51
SPLIT 4	30.793	1581.47	1580.90	0.57			188.71	515.29		122.58
SPLIT 4	30.690	1575.16	1574.91	0.24	4.54	0.04	15.22	575.14	113.64	171.50
SPLIT 4	30.603	1570.59	1569.98	0.61	4.99	0.13		806.00		100.31
SPLIT 4	30.512	1565.47	1565.28	0.19	5.02	0.02	164.96	641.04		253.16
SPLIT 4	30.412	1560.44	1560.06	0.38	4.42	0.04		563.35	242.65	279.27
SPLIT 4	30.335	1555.97	1555.72	0.26	4.83	0.00		806.00		171.61
SPLIT 4	30.233	1551.15	1550.90	0.25			88.08	604.13	113.79	280.59

Profile Output Table - TABLE 3

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Sta W.S. Lft	Sta W.S. Rgt	Length Chnl	Froude # Chl	Froude # XS	Max Chl Dpth
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)			(ft)
SPLIT 4	30.841	704.00	1582.18	1584.23	9975.23	10087.74	239.85	0.71	0.71	2.05
SPLIT 4	30.793	704.00	1578.35	1580.90	9891.98	10014.56	544.00	1.03	0.85	2.55
SPLIT 4	30.690	704.00	1572.11	1574.91	9912.18	10122.83	460.00	0.59	0.52	3.19
SPLIT 4	30.603	806.00	1567.52	1569.98	9944.92	10045.23	470.00	0.97	0.97	2.46
SPLIT 4	30.512	806.00	1562.84	1565.28	9774.12	10027.28	528.00	0.62	0.53	2.44
SPLIT 4	30.412	806.00	1557.49	1560.06	9965.52	10312.74	406.50	0.89	0.74	2.57
SPLIT 4	30.335	806.00	1553.10	1555.72	9921.33	10092.94	525.00	0.67	0.67	2.62
SPLIT 4	30.233	806.00	1548.49	1550.90	9835.96	10116.55		0.73	0.61	2.53

HEC-RAS Plan: Split 4 of P River: SPLIT4 Reach: SPLIT 4

Std. Table 1

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
SPLIT 4	30.841	704.00	1582.18	1584.23		1584.57	0.009216	4.66	151.00	112.51	0.71
SPLIT 4	30.793	704.00	1578.35	1580.90	1580.90	1581.47	0.019306	6.87	137.70	122.58	1.03
SPLIT 4	30.690	704.00	1572.11	1574.91		1575.16	0.005857	4.29	213.22	171.50	0.59
SPLIT 4	30.603	806.00	1567.52	1569.98	1569.95	1570.59	0.017507	6.26	128.77	100.31	0.97
SPLIT 4	30.512	806.00	1562.84	1565.28		1565.47	0.007174	3.78	263.53	253.16	0.62
SPLIT 4	30.412	806.00	1557.49	1560.06		1560.44	0.014383	5.76	218.31	279.27	0.89
SPLIT 4	30.335	806.00	1553.10	1555.72		1555.97	0.008573	4.08	197.74	171.61	0.67
SPLIT 4	30.233	806.00	1548.49	1550.90	1550.67	1551.15	0.010001	4.50	248.07	280.59	0.73

HEC-RAS Plan: Split 4 of P River: SPLIT4 Reach: SPLIT 4

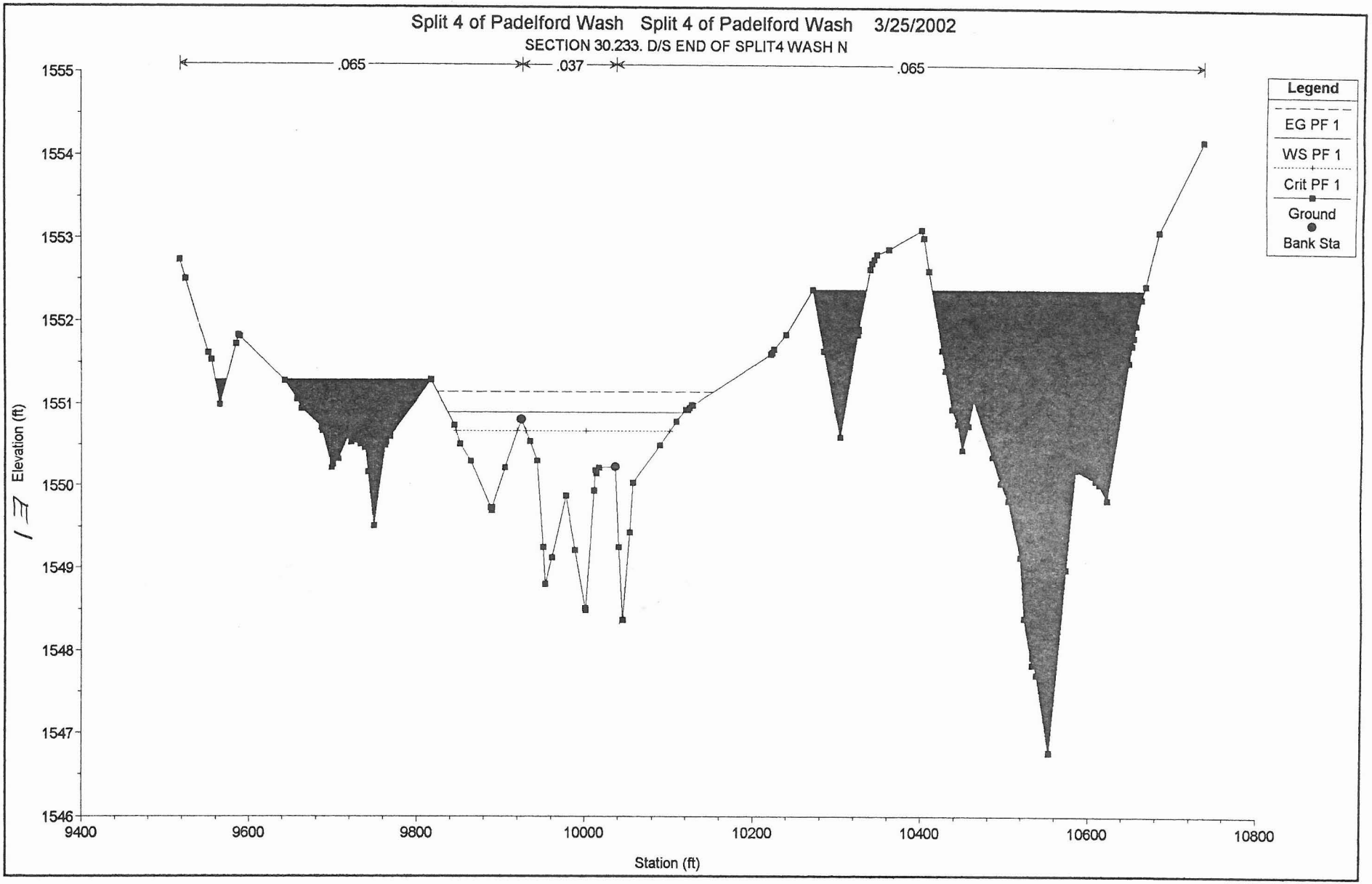
std. Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
SPLIT 4	30.841	1584.57	1584.23	0.34	3.06	0.02		704.00		112.51
SPLIT 4	30.793	1581.47	1580.90	0.57			188.71	515.29		122.58
SPLIT 4	30.690	1575.16	1574.91	0.24	4.54	0.04	15.22	575.14	113.64	171.50
SPLIT 4	30.603	1570.59	1569.98	0.61	4.99	0.13		806.00		100.31
SPLIT 4	30.512	1565.47	1565.28	0.19	5.02	0.02	164.96	641.04		253.16
SPLIT 4	30.412	1560.44	1560.06	0.38	4.42	0.04		563.35	242.65	279.27
SPLIT 4	30.335	1555.97	1555.72	0.26	4.83	0.00		806.00		171.61
SPLIT 4	30.233	1551.15	1550.90	0.25			88.08	604.13	113.79	280.59

Table 3

HEC-RAS Plan: Split 4 of P River: SPLIT4 Reach: SPLIT 4

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Sta W.S. Lft (ft)	Sta W.S. Rgt (ft)	Length Chnl (ft)	Froude # Chl	Froude # XS	Max Chl Dpth (ft)
SPLIT 4	30.841	704.00	1582.18	1584.23	9975.23	10087.74	239.85	0.71	0.71	2.05
SPLIT 4	30.793	704.00	1578.35	1580.90	9891.98	10014.56	544.00	1.03	0.85	2.55
SPLIT 4	30.690	704.00	1572.11	1574.91	9912.18	10122.83	460.00	0.59	0.52	3.19
SPLIT 4	30.603	806.00	1567.52	1569.98	9944.92	10045.23	470.00	0.97	0.97	2.46
SPLIT 4	30.512	806.00	1562.84	1565.28	9774.12	10027.28	528.00	0.62	0.53	2.44
SPLIT 4	30.412	806.00	1557.49	1560.06	9965.52	10312.74	406.50	0.89	0.74	2.57
SPLIT 4	30.335	806.00	1553.10	1555.72	9921.33	10092.94	525.00	0.67	0.67	2.62
SPLIT 4	30.233	806.00	1548.49	1550.90	9835.96	10116.55		0.73	0.61	2.53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.037
.065
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WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1555
1554
1553
1552
1551
1550
1549
1548
1547
1546
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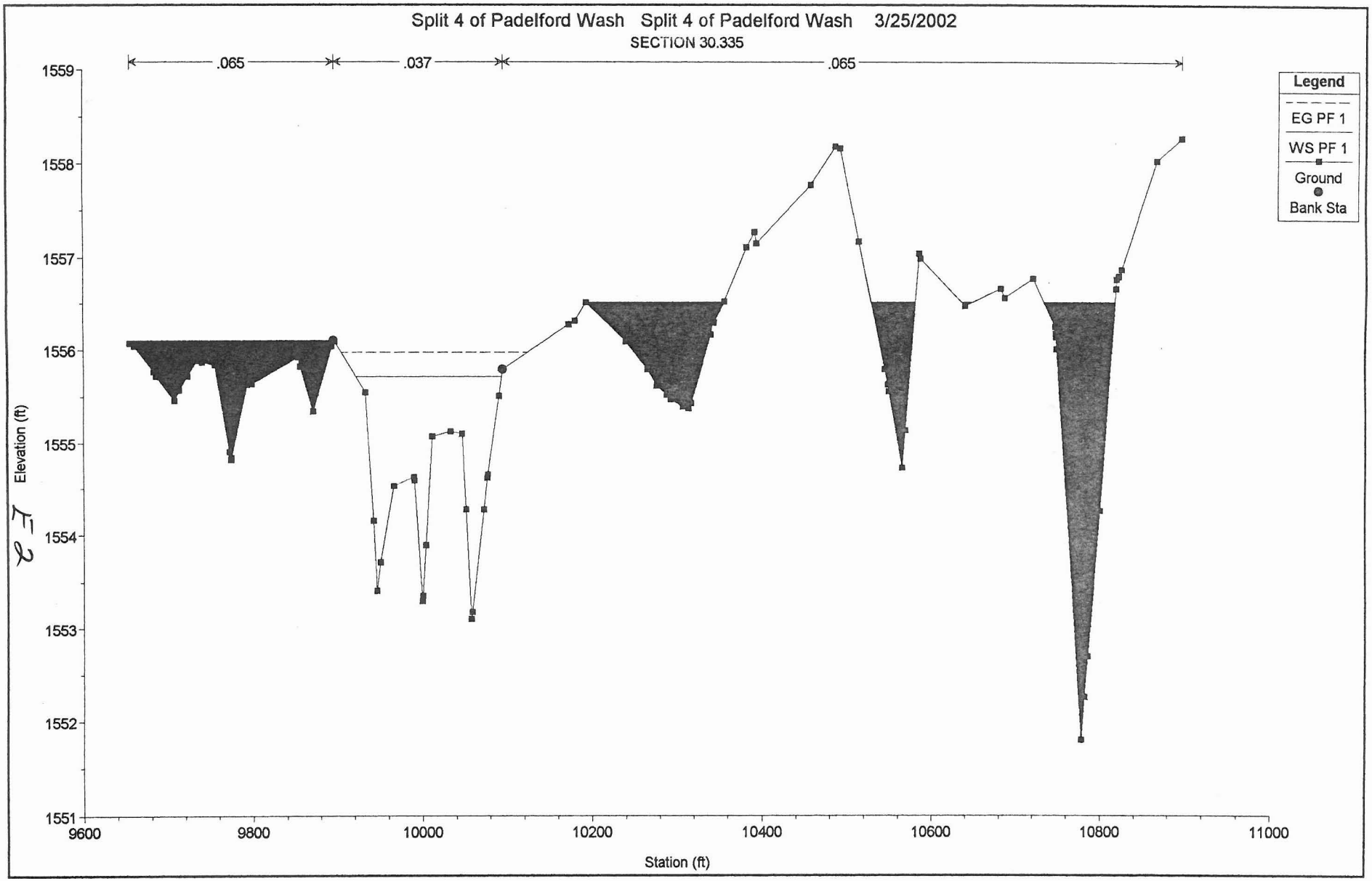
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SECTION 30.335
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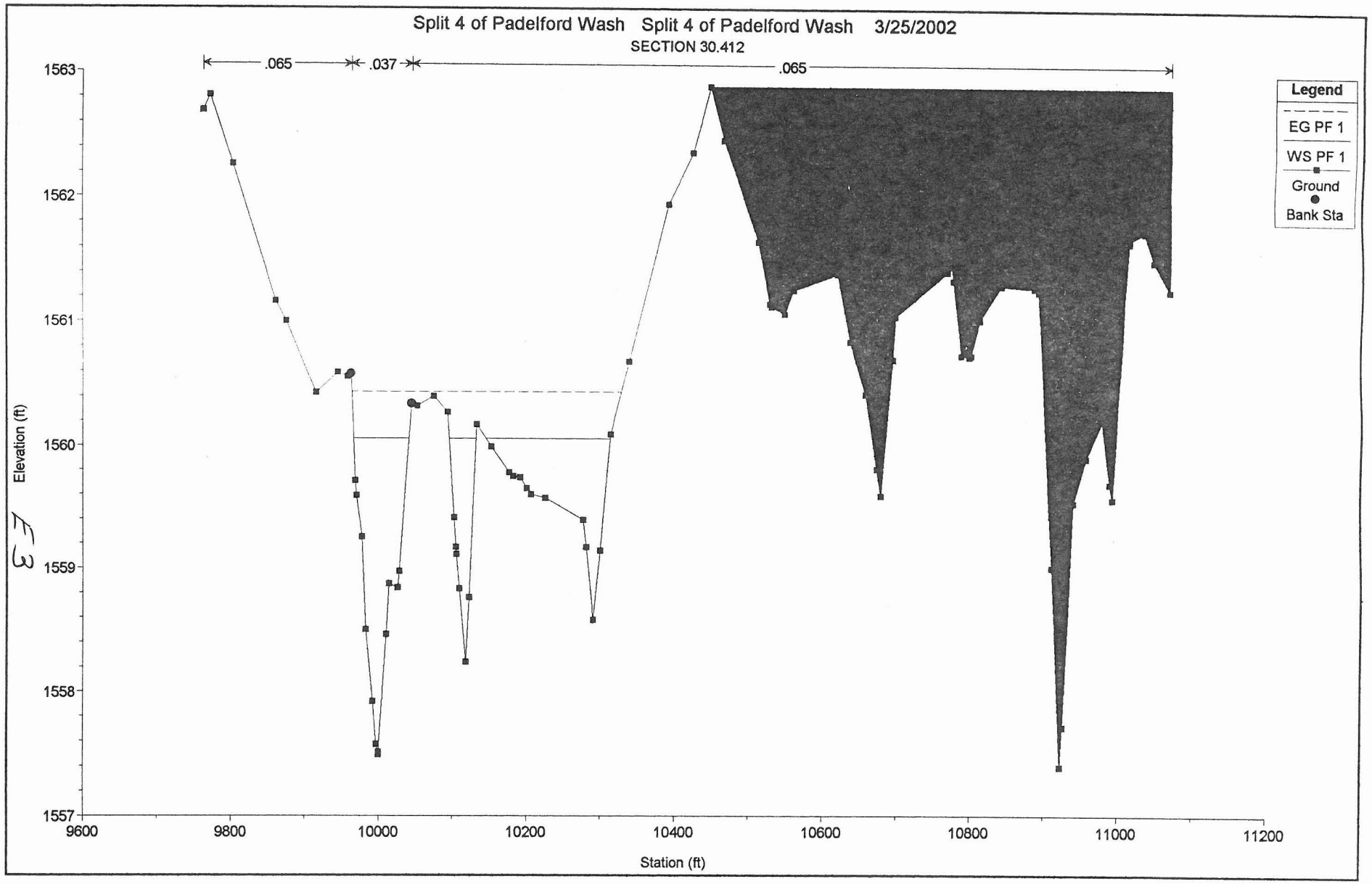
.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1559
1558
1557
1556
1555
1554
1553
1552
1551
9600
9800
10000
10200
10400
10600
10800
11000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.037
.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1563
1562
1561
1560
1559
1558
1557
9600
9800
10000
10200
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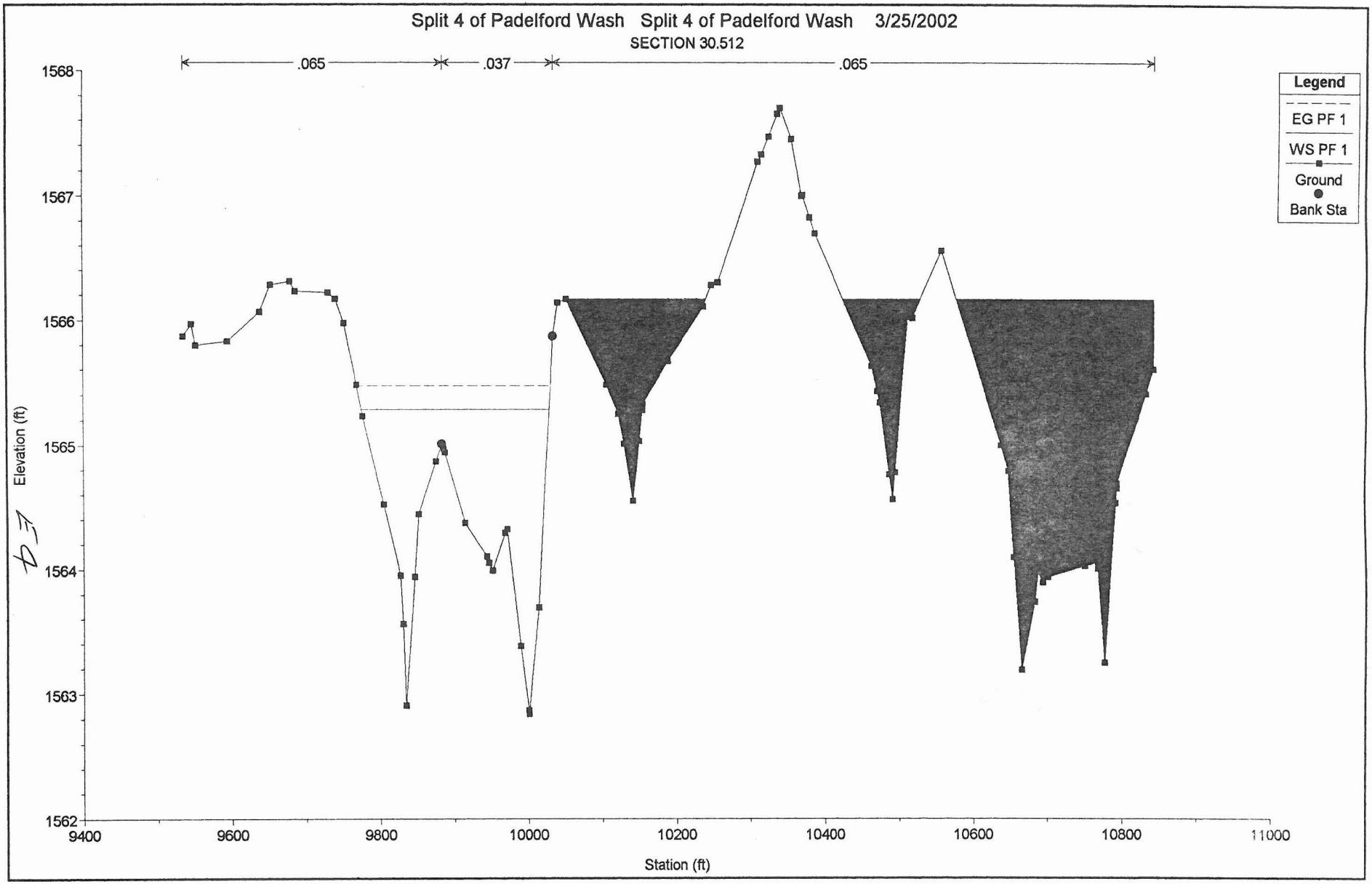
10800
11000
11200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.037
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Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
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1563
1564
1565
1566
1567
1568
9400
9600
9800
10000
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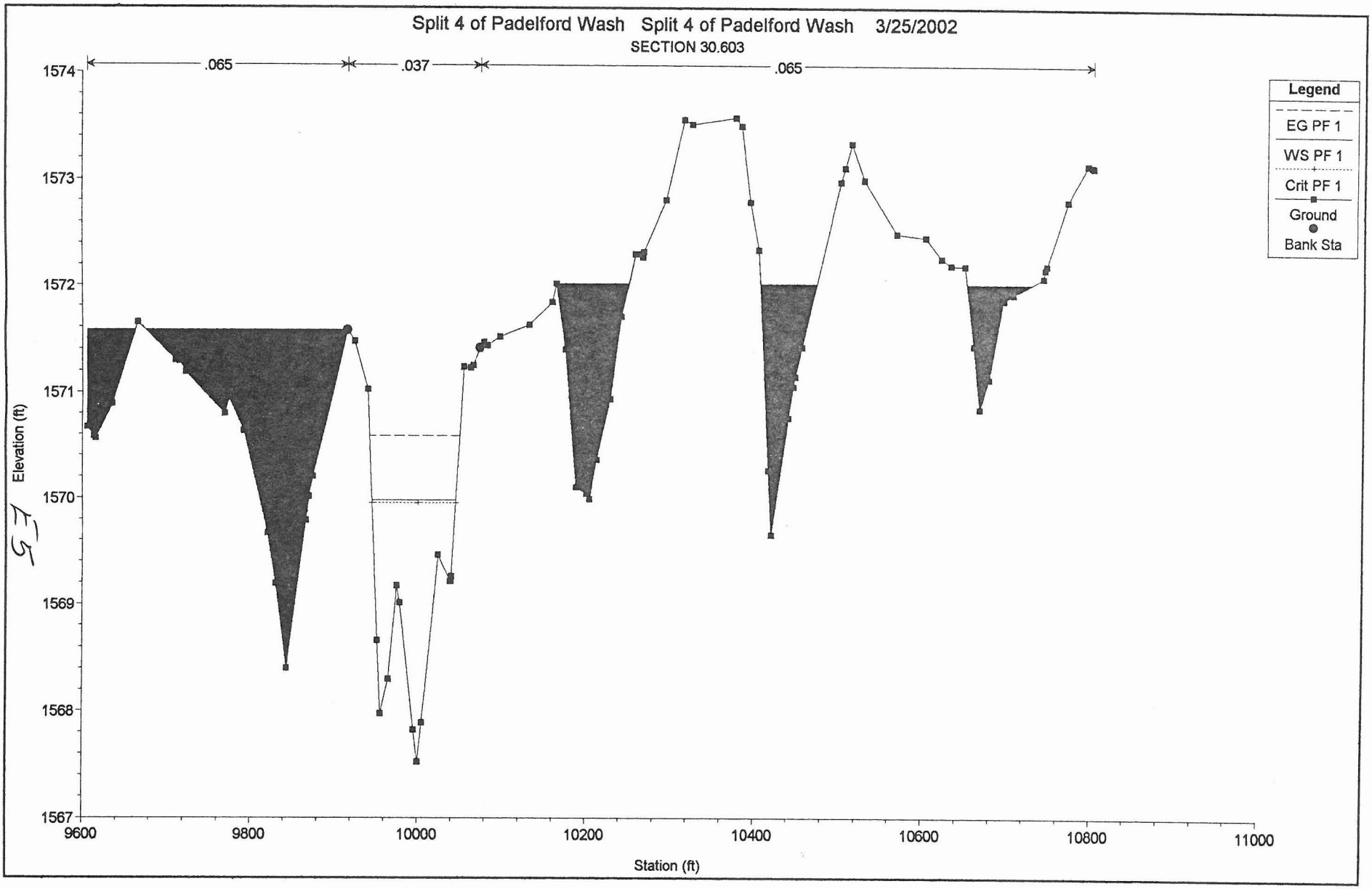
10800
11000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Legend
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WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
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1572
1571
1570
1569
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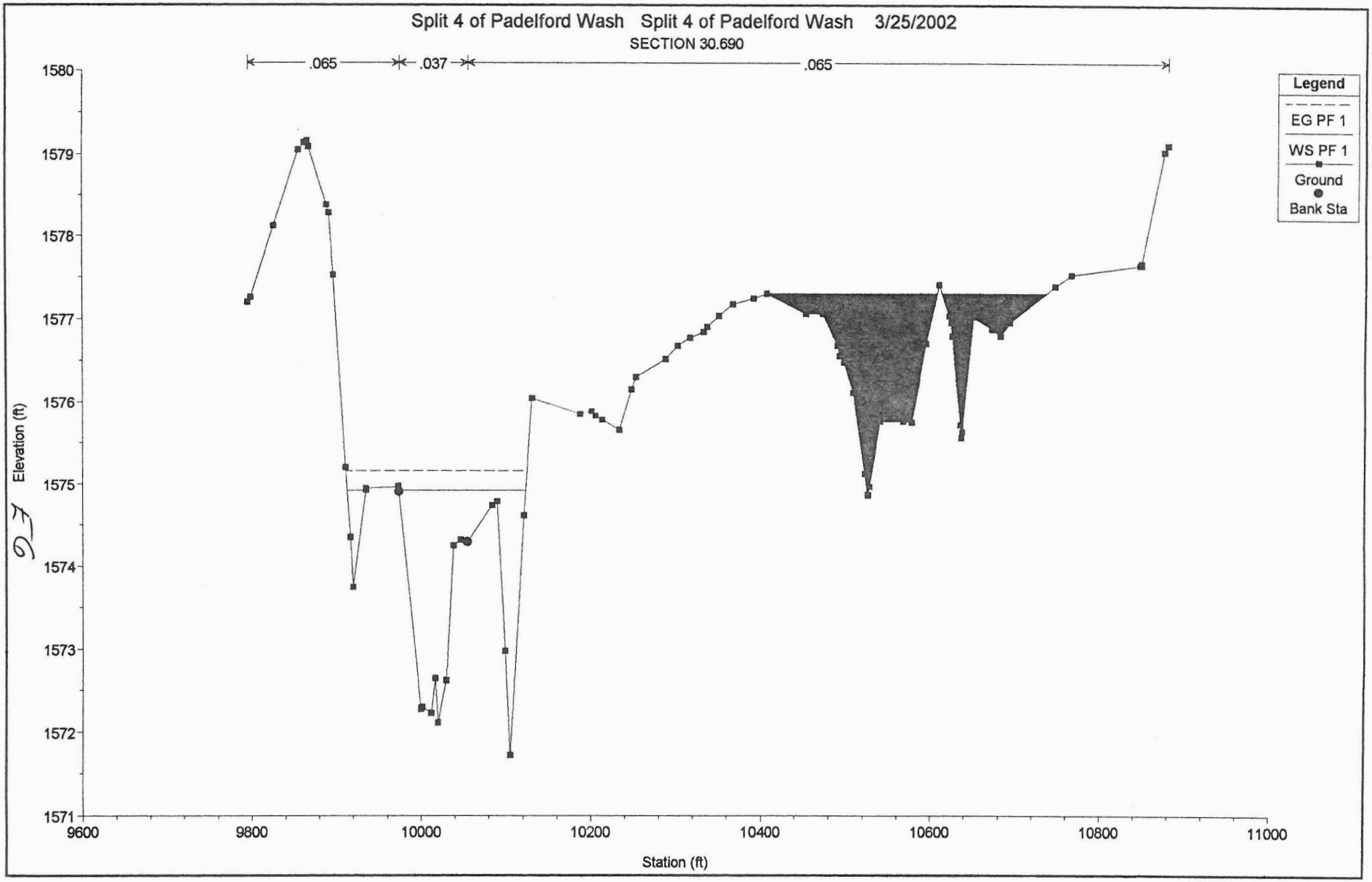
1567
9600
9800
10000
10200
10400
10600
10800
11000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Legend
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WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
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1579
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1574
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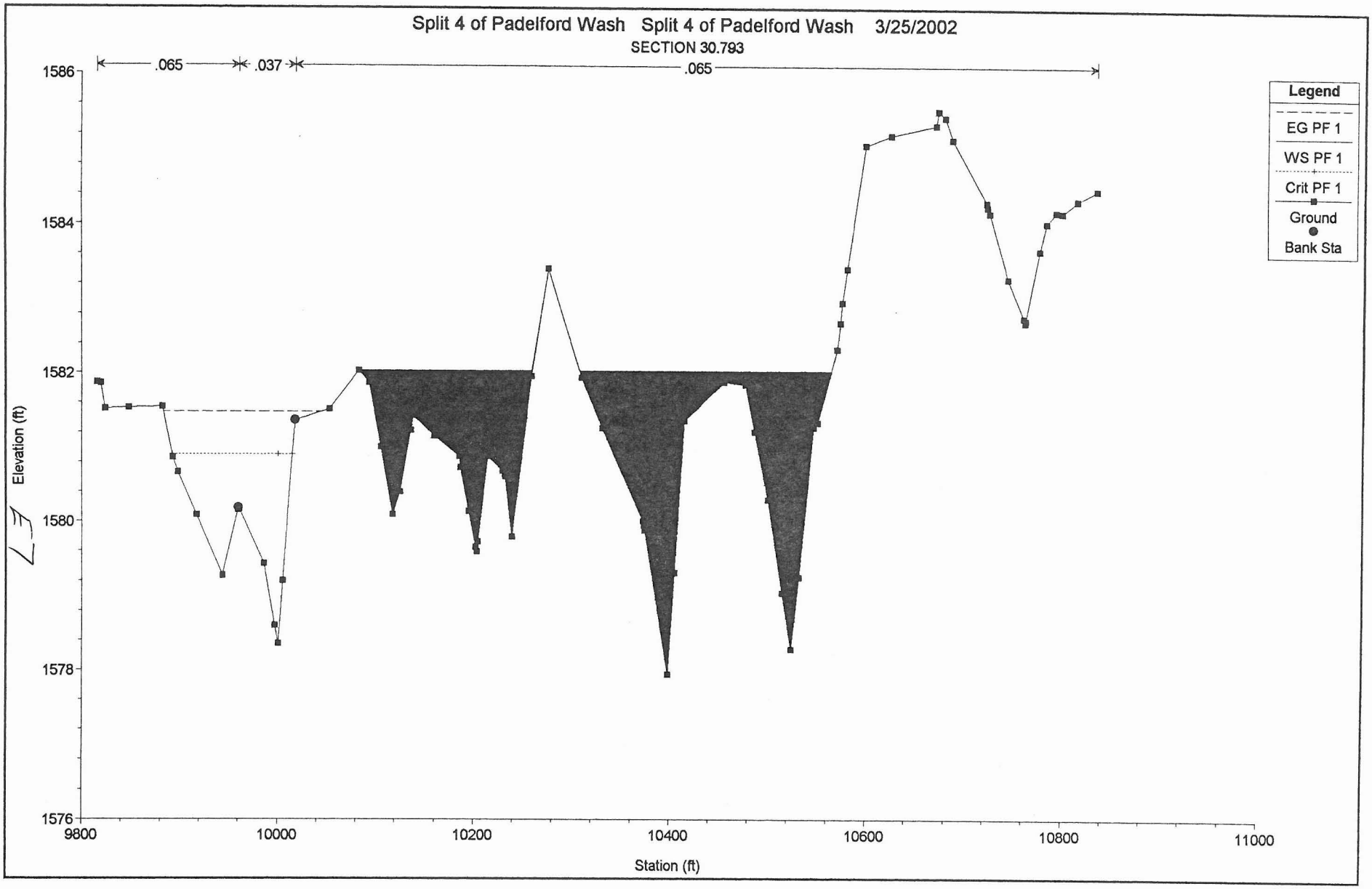
10600
10800
11000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Legend
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WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
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10000
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10400
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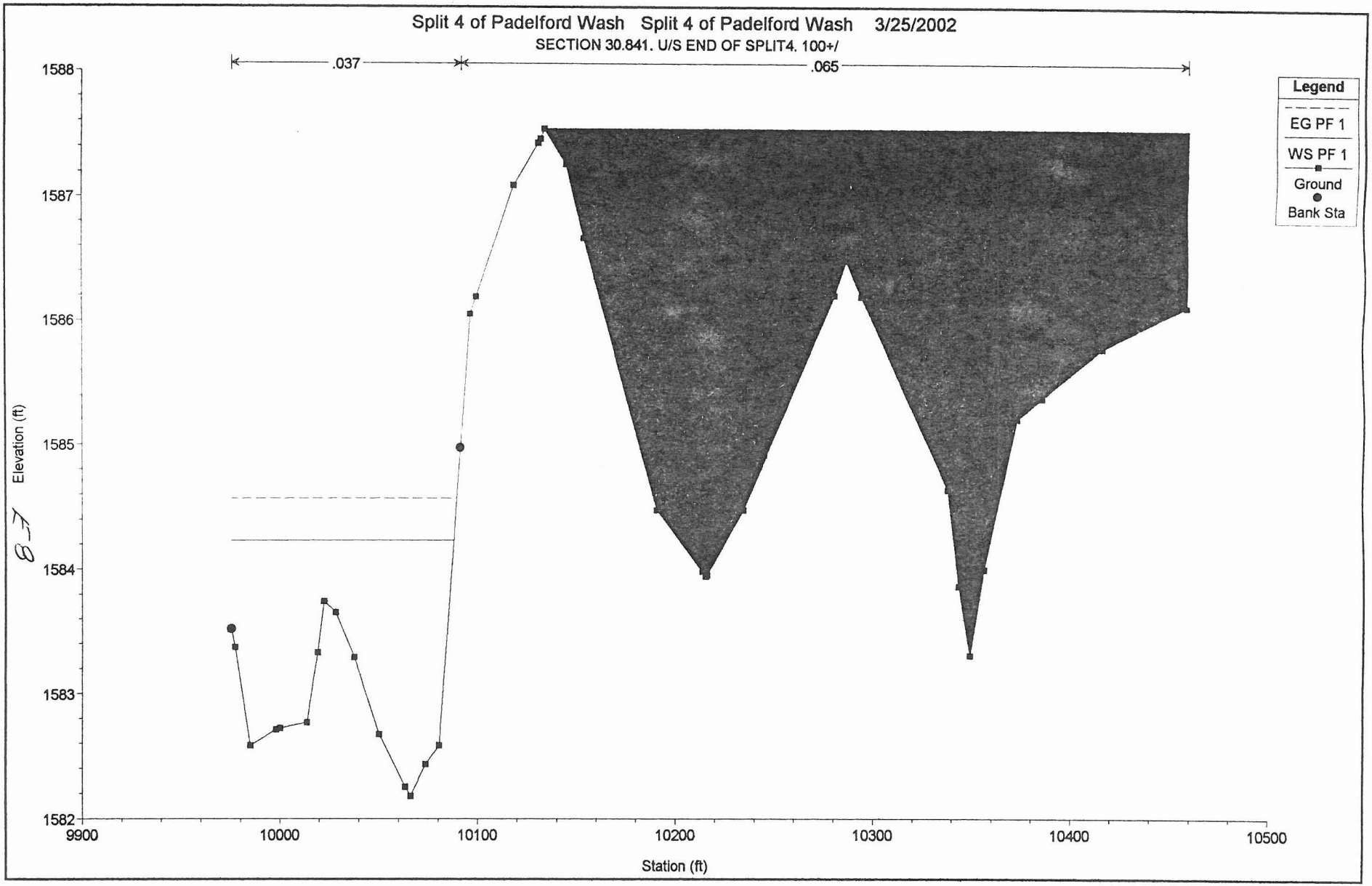
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.065
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
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1587
1586
1585
1584
1583
1582
9900
10000
10100
10200
10300
10400
10500
Station (ft)

HEC-RAS September 1998 Version 2.2
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X     X
X     X  X        X           X   X    X    X    X
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PROJECT DATA
Project Title: Split 5 of Padelford Wash
Project File : split5.prj
Run Date and Time: 3/25/2002 10:50:04 AM

Project in English units

Project Description:
Split 5 of Padelford Wash

PLAN DATA

Plan Title: Plan 01
Plan File : n:\Files\7158-07\Hec-Ras\5TH SET\split5.p01

Geometry Title: Split 5 of Padelford Wash
Geometry File : n:\Files\7158-07\Hec-Ras\5TH SET\split5.g01

Flow Title : Flow 01
Flow File : n:\Files\7158-07\Hec-Ras\5TH SET\split5.f01

Plan Summary Information:
Number of: Cross Sections = 13 Multiple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculation tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

FLOW DATA

Flow Title: Flow 01
Flow File : n:\Files\7158-07\Hec-Ras\5TH SET\split5.f01

Flow Data (cfs)

River	Reach	RS	PF 1
SPLIT 5	SPLIT 5	51.088	1048
SPLIT 5	SPLIT 5	50.547	1161

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
SPLIT 5	SPLIT 5	PF 1	Normal S = .01	Normal S = .0015

GEOMETRY DATA

Geometry Title: Split 5 of Padelford Wash
Geometry File : n:\Files\7158-07\Hec-Ras\5TH SET\split5.g01

CROSS SECTION RIVER: SPLIT 5
REACH: SPLIT 5 RS: 51.088

INPUT
Description: SEC.51.088. THIS SECTION IS LOCATION OF FLOW SPLIT FROM SPLIT1
WASH (SEC.11.093) TO THIS SPLIT 5 WASH. THE SPLIT FLOW WAS
ESTIMATED BY PREPARING RATING CURVES OF ENERGY GRADE VS. Q'S BY
HEC-RAS AT SEC. 11.093 (SPLIT1) AND 51.088(SPLIT5) AND INPUTING

THIS DATA TO THE HEC-1 HYDROLOGY MODEL.

Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9692.12	1601.12	9709.68	1601.09	9712.1	1601.03	9731.61	1600.61	9735.06	1600.53
9755.49	1600.41	9775.87	1600.26	9778.67	1600.15	9787.04	1600.23	9793.87	1600.36
9805.27	1600.5	9820.36	1600.45	9822.27	1600.47	9823.7	1600.47	9826.88	1600.45
9840.76	1600.39	9849.9	1600.39	9855.75	1600.23	9869.32	1600.08	9888.76	1600.11
9895.72	1600.03	9897.83	1600.08	9901.22	1600.16	9913.55	1599.71	9927.02	1599.45
9934.58	1599.32	9952.05	1599.24	9958.01	1599.07	9975.91	1598.86	9978.56	1598.78
9984.59	1598.66	9995.96	1597.37	9996.38	1597.37	9997.82	1597.57	10000	1597.43
10017.72	1598.18	10034.65	1598.69	10037.36	1598.57	10038.03	1598.58	10052.04	1598.09
10056.75	1597.91	10056.88	1597.9	10061.7	1597.89	10075.14	1598	10080.08	1597.98
10082.14	1597.91	10092.61	1598.25	10102.45	1598.62	10105.23	1598.62	10111.46	1598.8
10130.66	1598.99	10137.1	1599.03	10139.18	1599.09	10157.81	1599.16	10160.19	1599.18
10162.26	1599.17	10180.5	1599.33	10194.16	1599.46	10201.77	1599.29	10210.16	1599.12
10223.18	1599.07	10237.87	1598.64	10241.03	1598.59	10247.24	1598.48	10250.17	1598.45

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9692.12	.065	9978.56	.037	10034.65	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9978.56	10034.65	280	216.5	130	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1600.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.26	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1599.79	Reach Len. (ft)	280.00	216.50	130.00
Crit W.S. (ft)		Flow Area (sq ft)	36.06	94.14	221.40
E.G. Slope (ft/ft)	0.009065	Area (sq ft)	36.06	94.14	221.40
Q Total (cfs)	1048.00	Flow (cfs)	51.82	507.67	488.51
Top Width (ft)	338.83	Top Width (ft)	67.22	56.09	215.52
Vel Total (ft/s)	2.98	Avg. Vel. (ft/s)	1.44	5.39	2.21
Max Chl Dpth (ft)	2.42	Hydr. Depth (ft)	0.54	1.68	1.03
Conv. Total (cfs)	11007.2	Conv. (cfs)	544.3	5332.1	5130.8
Length Wtd. (ft)	208.20	Wetted Per. (ft)	67.23	56.21	216.91
Min Ch El (ft)	1597.37	Shear (lb/sq ft)	0.30	0.95	0.58
Alpha	1.85	Stream Power (lb/ft s)	0.44	5.11	1.27
Frctn Loss (ft)	2.38	Cum Volume (acre-ft)	6.01	21.66	2.89
C & E Loss (ft)	0.01	Cum SA (acres)	5.15	8.93	4.43

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9692.12	9978.56	51.82	36.06	67.23	4.94	0.54	1.44
LB 9978.56	10006.61	285.84	50.67	28.14	27.27	1.81	5.64
10006.61	RB 10034.65	221.83	43.47	28.06	21.17	1.55	5.10
10034.65	10250.17	488.51	221.40	216.91	46.61	1.03	2.21

Warning: The cross-section end points had to be extended vertically for the computed water surface.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 5
REACH: SPLIT 5 RS: 51.047

INPUT
Description: SEC.51.047
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9694.34	1598.28	9706.54	1597.83	9713.81	1597.91	9716.95	1598.16	9729.33	1598.21

```
 9743.57 1597.86 9750.12 1597.51 9754.91 1597.38 9806.19  1596.4 9808.55 1596.35
 9811.31 1596.14 9813.03 1595.94 9829.27 1594.53 9831.88 1594.75 9853.89  1596.5
 9870.41  1596.6 9878.72 1596.66 9879.82 1596.63 9882.48 1596.65 9890.14 1596.73
 9892.23 1596.96 9897.97  1597.1 9908.06 1597.26 9920.62 1597.05 9937.25 1596.37
 9938.37 1596.32 9938.66 1596.31 9938.81 1596.31 9939.31 1596.31 9983.32 1596.01
 9983.87 1595.99 9985.67  1595.9 9999.96 1595.15   10000 1595.1610015.18 1595.94
10015.35 1595.9510016.67 1596.01 10031.4 1596.6610038.21 1596.9410039.53 1596.98
 10060.2 1598.0110075.01  1598.110092.59 1598.3110103.86 1598.41 10106.3 1598.45

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9694.34    .065 9939.31    .037 10031.4    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9939.31 10031.4               510   506.9     460            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1597.66   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.38   Wt. n-Val.                0.065      0.037      0.065
  W.S. Elev (ft)            1597.28   Reach Len. (ft)          510.00     506.90     460.00
  Crit W.S. (ft)                      Flow Area (sq ft)        144.68     119.70       4.60
  E.G. Slope (ft/ft)       0.014719   Area (sq ft)             144.68     119.70       4.60
  Q Total (cfs)             1048.00   Flow (cfs)               347.69     694.29       6.02
  Top Width (ft)             285.42   Top Width (ft)           179.17      92.09      14.15
  Vel Total (ft/s)             3.90   Avg. Vel. (ft/s)           2.40       5.80       1.31
  Max Chl Dpth (ft)            2.75   Hydr. Depth (ft)           0.81       1.30       0.32
  Conv. Total (cfs)          8638.3   Conv. (cfs)              2865.9     5722.8       49.6
  Length Wtd. (ft)           504.35   Wetted Per. (ft)         179.38      92.15      14.17
  Min Ch El (ft)            1595.15   Shear (lb/sq ft)           0.74       1.19       0.30
  Alpha                        1.60   Stream Power (lb/ft s)     1.78       6.92       0.39
  Frctn Loss (ft)              5.32   Cum Volume (acre-ft)       5.43      21.13       2.55
  C & E Loss (ft)              0.02   Cum SA (acres)             4.36       8.56       4.08

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9694.34       9939.31         347.69     144.68     179.38       33.18      0.81       2.40
  LB 9939.31    9985.36         271.90      51.97      46.05       25.94      1.13       5.23
  9985.36       RB 10031.40     422.39      67.73      46.10       40.30      1.47       6.24
  10031.40      10106.30          6.02       4.60      14.17        0.57      0.32       1.31

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT 5
REACH: SPLIT 5            RS: 50.951

INPUT
Description: SEC.50.951
Station Elevation Data    num=      63
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
 9422.48 1595.65  9424.5 1595.62 9429.53 1595.56 9447.28  1595.3 9499.13 1594.73
 9506.52 1594.62 9517.77 1593.82 9521.85 1593.57 9543.13 1594.72 9551.21 1594.91
 9576.31 1594.42 9597.98 1594.18 9630.79 1593.84  9639.9 1593.49 9642.14 1593.44
 9643.07 1593.42 9694.75  1593.4  9709.4 1593.21 9756.77 1593.09  9801.1 1592.67
  9815.2 1592.63 9848.98 1591.96 9849.94 1591.91 9851.11 1591.91 9851.42 1591.86
 9874.42 1591.48 9874.77 1591.64 9880.78 1589.35 9881.79 1589.07 9883.75 1589.37
  9893.8 1590.51 9904.91 1590.21  9908.3 1590.06 9924.29 1591.01 9927.19 1591.15
 9955.73 1591.09 9970.92 1590.97 9986.37 1590.11 9991.05 1589.82 9993.18 1589.49
  9999.9  1588.3   10000 1588.3210006.46 1589.6810016.47 1590.7510027.12 1590.89
10030.65 1590.8210044.08 1590.7510051.07 1590.6510067.71 1590.7810072.95 1590.81
10073.73 1590.8210074.12 1590.8310088.02 1591.66 10092.8 1592.0610098.16 1592.28
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10112.06 1593.1610112.53 1593.16   10128 1593.2710132.28 1593.2610159.74 1593.16
10168.97 1593.2710193.88 1593.1410194.22 1593.13

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9422.48    .065 9970.92    .03710027.12    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9970.9210027.12              535   554.4     505            .1       .3

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1592.31   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.30   Wt. n-Val.                0.065      0.037      0.065
  W.S. Elev (ft)            1592.01   Reach Len. (ft)          535.00     554.40     505.00
  Crit W.S. (ft)            1591.61   Flow Area (sq ft)        137.87     108.75      70.43
  E.G. Slope (ft/ft)       0.007874   Area (sq ft)             137.87     108.75      70.43
  Q Total (cfs)             1048.00   Flow (cfs)               298.30     599.18     150.51
  Top Width (ft)             245.81   Top Width (ft)           124.52      56.20      65.09
  Vel Total (ft/s)             3.31   Avg. Vel. (ft/s)           2.16       5.51       2.14
  Max Chl Dpth (ft)            3.71   Hydr. Depth (ft)           1.11       1.94       1.08
  Conv. Total (cfs)        11810.7    Conv. (cfs)              3361.8     6752.7     1696.2
  Length Wtd. (ft)           546.74   Wetted Per. (ft)         125.15      56.56      65.14
  Min Ch El (ft)            1588.30   Shear (lb/sq ft)           0.54       0.95       0.53
  Alpha                        1.77   Stream Power (lb/ft s)     1.17       5.21       1.14
  Frctn Loss (ft)              5.48   Cum Volume (acre-ft)       3.77      19.80       2.16
  C & E Loss (ft)              0.03   Cum SA (acres)             2.58       7.69       3.67

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  9422.48      9970.92        298.31     137.87     125.15      28.46      1.11       2.16
  LB 9970.92   9999.02        306.17      55.06      28.25      29.21      1.96       5.56
  9999.02      RB 10027.12    293.02      53.68      28.32      27.96      1.91       5.46
  10027.12     10194.22       150.51      70.43      65.14      14.36      1.08       2.14

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT 5
REACH: SPLIT 5            RS: 50.846

INPUT
Description: SEC.50.846
Station Elevation Data    num=      58
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9372.22 1588.43 9393.57 1588.82 9414.61 1589.21 9419.63 1589.28 9431.41 1589.19
 9443.68 1589.49 9446.84 1589.46 9455.43 1589.31  9463.9 1589.15 9467.66 1589.15
 9482.22 1589.11 9524.43 1587.84 9547.53  1587.6 9554.93 1587.52 9570.64 1587.39
 9579.19 1586.34 9584.18 1585.65 9585.63 1585.48 9587.86 1585.47 9605.52  1585.3
 9617.97 1586.55 9621.79 1586.95 9624.49 1586.91 9643.78 1586.69  9667.8 1586.38
 9673.26 1586.35 9727.55 1586.81 9743.93 1586.93 9747.69 1586.98 9766.73 1587.21
 9786.16 1586.95 9801.72 1586.92 9841.89 1586.88 9879.33 1586.66 9880.46 1586.65
  9885.3 1586.87 9886.15  1586.9 9896.09  1586.9 9898.77  1586.9 9902.24 1586.87
 9910.16  1586.6 9921.43 1586.26  9930.1    1586 9950.44  1585.5 9987.97 1584.37
 9994.19 1582.38 9999.89  1580.6   10000 1580.6310006.35 1582.5810019.49 1586.15
10052.11 1585.7710060.07  1585.810068.93 1585.7510092.46 1585.6510100.97 1585.65
10105.24 1585.6410132.46 1586.21 10185.3 1587.94

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9372.22    .065 9921.43    .03710019.49    .065
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Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      9921.4310019.49              450   485.8     490            .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 9372.22 9766.73 1587.21

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1586.80   Element                 Left OB    Channel   Right OB
  Vel Head (ft)              0.59    Wt. n-Val.                         0.037     0.065
  W.S. Elev (ft)           1586.20   Reach Len. (ft)          450.00    485.80    490.00
  Crit W.S. (ft)           1586.20   Flow Area (sq ft)                  156.02     41.67
  E.G. Slope (ft/ft)      0.013385   Area (sq ft)                       156.02     41.67
  Q Total (cfs)            1048.00   Flow (cfs)                         991.22     56.78
  Top Width (ft)            208.90   Top Width (ft)                      96.20    112.70
  Vel Total (ft/s)            5.30   Avg. Vel. (ft/s)                    6.35      1.36
  Max Chl Dpth (ft)           5.60   Hydr. Depth (ft)                    1.62      0.37
  Conv. Total (cfs)         9058.6   Conv. (cfs)                        8567.7     490.8
  Length Wtd. (ft)                   Wetted Per. (ft)                    97.58    112.70
  Min Ch El (ft)           1580.60   Shear (lb/sq ft)                    1.34      0.31
  Alpha                       1.36   Stream Power (lb/ft s)              8.49      0.42
  Frctn Loss (ft)                    Cum Volume (acre-ft)      2.92      18.11      1.51
  C & E Loss (ft)                    Cum SA (acres)            1.82       6.72      2.64

Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)      (sq ft)    (ft)                (ft)      (ft/s)
  LB 9921.43    9970.46          86.80      30.07      47.19      8.28      0.64       2.89
  9970.46       RB 10019.49     904.42     125.96      50.39     86.30      2.57       7.18
  10019.49      10185.30         56.78      41.67     112.70      5.42      0.37       1.36

Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT 5
REACH: SPLIT 5            RS: 50.754

INPUT
Description: SEC.50.754
Station Elevation Data    num=      59
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9258.18 1584.61  9263.9 1584.61 9273.88 1584.66  9277.8 1584.71 9310.35  1585.1
 9311.33 1585.08 9361.24 1583.98 9400.88 1583.81 9407.84  1583.7 9410.88  1583.8
 9415.31 1583.69 9420.62 1583.51 9433.46 1583.37 9439.93 1583.25    9462 1583.22
  9478.4 1583.35 9486.59 1583.39 9492.53 1583.38 9507.77 1583.34  9561.8 1582.86
 9621.13 1582.09 9624.99 1582.04 9635.55 1581.91 9638.22 1581.92  9647.2 1581.95
 9683.31 1582.28 9686.77 1582.31 9743.33 1582.15 9760.69 1581.47 9770.47 1581.28
 9771.92 1580.99 9792.34 1577.32 9796.06 1577.84  9805.7 1579.71 9826.56 1580.85
 9837.92 1581.55 9855.47 1582.68 9856.64 1582.42  9875.6  1582.4 9891.91  1582.5
 9917.82  1580.4 9930.29 1579.46 9937.37 1578.94  9942.2 1579.27 9949.14 1579.62
 9957.37 1579.96 9975.56 1580.89 9996.79 1576.13   10000 1575.5210000.32 1575.46
10012.75 1579.2110018.23 1580.8110018.56 1580.8110060.19 1580.9610092.79 1580.87
10105.05 1581.1410149.66 1582.5910149.88  1582.610152.03 1582.53

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9258.18    .065 9975.56    .03710018.23    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
```

```
      9975.5610018.23              500   607.2     470            .1       .3
Blocked Obstructions      num=        1
   Sta L    Sta R     Elev
 9258.18 9855.47 1582.68

CROSS SECTION OUTPUT     Profile #PF 1
```

			Left OB	Channel	Right OB
E.G. Elev (ft)	1581.72	Element			
Vel Head (ft)	0.70	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1581.02	Reach Len. (ft)	500.00	607.20	470.00
Crit W.S. (ft)		Flow Area (sq ft)	70.10	123.16	9.78
E.G. Slope (ft/ft)	0.008236	Area (sq ft)	70.10	123.16	9.78
Q Total (cfs)	1048.00	Flow (cfs)	152.11	890.94	4.94
Top Width (ft)	189.54	Top Width (ft)	65.41	42.67	81.46
Vel Total (ft/s)	5.16	Avg. Vel. (ft/s)	2.17	7.23	0.51
Max Chl Dpth (ft)	5.56	Hydr. Depth (ft)	1.07	2.89	0.12
Conv. Total (cfs)	11547.6	Conv. (cfs)	1676.1	9817.1	54.4
Length Wtd. (ft)	599.12	Wetted Per. (ft)	65.54	44.04	81.46
Min Ch El (ft)	1575.46	Shear (lb/sq ft)	0.55	1.44	0.06
Alpha	1.70	Stream Power (lb/ft s)	1.19	10.40	0.03
Frctn Loss (ft)	6.04	Cum Volume (acre-ft)	2.56	16.55	1.22
C & E Loss (ft)	0.02	Cum SA (acres)	1.48	5.95	1.54

```
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT     Profile #PF 1
```

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9258.18	9975.56	152.11	70.10	65.54	14.51	1.07	2.17
LB 9975.56	9996.89	355.09	53.84	21.86	33.88	2.52	6.60
9996.89	RB 10018.23	535.85	69.32	22.18	51.13	3.25	7.73
10018.23	10152.03	4.94	9.78	81.46	0.47	0.12	0.51

```
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT 5
REACH: SPLIT 5            RS: 50.639

INPUT
Description: SEC.50.639
Station Elevation Data    num=      72
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9396.11 1578.33 9433.25 1578.18 9442.29 1578.51 9444.18 1578.53 9449.25 1578.64
 9463.18 1578.91 9467.28 1578.97 9487.22 1578.67 9500.59 1578.39 9541.52 1577.81
  9577.8 1577.89 9590.53 1578.11 9597.51 1578.15 9650.53 1577.92 9652.28 1577.91
 9654.67 1577.86 9656.31 1577.79 9666.17 1577.64 9668.57 1577.62 9686.61 1577.32
  9746.4 1576.27 9751.12 1576.39 9791.02 1576.95    9800 1576.65 9803.57 1576.22
 9815.86 1575.06 9823.02 1574.59 9823.03 1574.59 9823.04 1574.59 9831.87 1575.13
 9839.79 1575.34 9847.36 1575.81 9877.07 1575.82 9880.07 1575.85 9881.03 1575.83
 9896.98 1575.32 9905.76 1575.41 9907.19 1575.42 9939.65 1575.66 9943.54 1575.73
  9946.4 1575.69 9949.78 1575.42 9957.91 1574.84 9982.68 1573.42 9983.98  1573.1
   10000 1568.14 10000.3 1568.0510011.42 1573.2210012.22 1573.6810013.84 1573.89
10042.35 1577.5510051.01 1577.4710055.75 1577.5410062.49 1577.6410080.31 1576.29
10084.39    157610088.86 1575.6410106.63 1574.7710113.39 1575.2710121.59 1574.98
10125.74 1574.8210134.35  1575.2 10160.2 1577.0710163.34  1577.310169.84 1577.52
10178.89 1577.6410187.49 1577.5910190.11 1577.6310211.72 1577.9310227.47 1577.93
10265.23 1578.5610311.12 1578.74

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9396.11    .065 9943.54    .03710042.35    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9943.5410042.35              460   485.8     465            .1       .3
```

```
Blocked Obstructions      num=        1
   Sta L    Sta R     Elev
 9396.11 9880.07 1575.85

CROSS SECTION OUTPUT     Profile #PF 1
```

E.G. Elev (ft)	1575.67	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.88	Wt. n-Val.		0.037	0.000
W.S. Elev (ft)	1574.79	Reach Len. (ft)	460.00	485.80	465.00
Crit W.S. (ft)		Flow Area (sq ft)		139.04	0.00
E.G. Slope (ft/ft)	0.012564	Area (sq ft)		139.04	0.00
Q Total (cfs)	1048.00	Flow (cfs)		1048.00	0.00
Top Width (ft)	62.57	Top Width (ft)		61.99	0.58
Vel Total (ft/s)	7.54	Avg. Vel. (ft/s)		7.54	0.11
Max Chl Dpth (ft)	6.74	Hydr. Depth (ft)		2.24	0.01
Conv. Total (cfs)	9349.8	Conv. (cfs)		9349.8	0.0
Length Wtd. (ft)	485.80	Wetted Per. (ft)		64.17	0.58
Min Ch El (ft)	1568.05	Shear (lb/sq ft)		1.70	
Alpha	1.00	Stream Power (lb/ft s)		12.81	
Frctn Loss (ft)	6.69	Cum Volume (acre-ft)	2.16	14.73	1.16
C & E Loss (ft)	0.05	Cum SA (acres)	1.11	5.22	1.10

```
Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT     Profile #PF 1
```

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9943.54	9992.95	226.71	45.85	34.61	21.63	1.34	4.94
9992.95	RB 10042.35	821.29	93.19	29.56	78.37	3.34	8.81
10042.35	10311.12	0.00	0.00	0.58	0.00	0.01	0.11

```
Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT 5
REACH: SPLIT 5            RS: 50.547

INPUT
Description: SEC.50.547
Station Elevation Data    num=      64
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9326.14 1573.39  9329.5 1573.44 9338.68 1573.97 9350.93 1573.06 9363.56 1572.77
 9393.58 1572.58 9406.56 1573.14 9413.28 1573.49 9420.72 1573.52 9448.36 1573.66
 9461.39 1573.72 9465.13 1573.71 9466.87 1573.59 9475.98 1573.21 9487.76 1572.61
 9500.28 1573.21 9511.21 1573.48 9524.57 1573.15  9547.2 1572.99 9562.65 1573.52
 9593.78 1573.74 9669.04 1572.65 9683.42 1572.47 9689.75 1572.21 9745.41 1570.67
 9747.84 1570.59 9751.55 1570.13 9759.01 1568.77  9760.2 1568.97 9771.34 1569.68
 9774.75 1569.89 9806.54 1570.37 9833.45 1570.86 9893.82 1571.64 9898.21 1571.69
 9898.31 1571.67 9899.43 1571.54 9906.17 1570.74 9908.26 1570.73 9921.37 1570.82
 9948.97    1571 9953.73 1570.69 9967.01 1569.65 9986.32 1565.19 9999.99 1562.07
10000.29    156210012.24 1565.3310022.51 1568.0210040.41 1568.6810055.97 1569.23
10061.17 1569.0510066.05 1569.04 10080.4 1568.7510086.27 1568.6610087.39 1568.36
10104.17 1565.4610108.52 1566.7210115.41 1569.5310116.87 1569.1610178.71 1570.18
10193.05 1570.6310196.07 1570.6810201.85 1570.7410207.13 1570.78

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9326.14    .065 9967.01    .03710055.97    .065
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      9967.0110055.97              335   380.1     390           .1       .3
Blocked Obstructions      num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 9326.14 9898.21 1571.69   1005610207.13 1569.23
```

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1568.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.39	Wt. n-Val.		0.037	
W.S. Elev (ft)	1567.54	Reach Len. (ft)	335.00	380.10	390.00
Crit W.S. (ft)	1567.54	Flow Area (sq ft)		122.56	
E.G. Slope (ft/ft)	0.015008	Area (sq ft)		122.56	
Q Total (cfs)	1161.00	Flow (cfs)		1161.00	
Top Width (ft)	44.51	Top Width (ft)		44.51	
Vel Total (ft/s)	9.47	Avg. Vel. (ft/s)		9.47	
Max Chl Dpth (ft)	5.54	Hydr. Depth (ft)		2.75	
Conv. Total (cfs)	9477.0	Conv. (cfs)		9477.0	
Length Wtd. (ft)	380.10	Wetted Per. (ft)		45.88	
Min Ch El (ft)	1562.00	Shear (lb/sq ft)		2.50	
Alpha	1.00	Stream Power (lb/ft s)		23.71	
Frctn Loss (ft)	3.79	Cum Volume (acre-ft)	2.16	13.27	1.16
C & E Loss (ft)	0.18	Cum SA (acres)	1.11	4.63	1.10

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9967.01	10011.49	1103.78	111.53	36.39	95.07	3.16	9.90
10011.49	RB 10055.97	57.22	11.03	9.49	4.93	1.20	5.19

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

```
CROSS SECTION          RIVER: SPLIT 5
REACH: SPLIT 5            RS: 50.475

INPUT
Description: SEC.50.475
Station Elevation Data    num=      69
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9208.71 1569.74 9212.82 1569.71 9238.14 1569.85 9241.34 1569.85 9263.33 1569.14
 9278.32 1568.57 9307.43 1566.73 9309.77 1566.57 9310.44 1566.61 9312.62 1566.73
 9328.78 1567.64 9332.76 1567.83 9333.32 1567.91  9354.7 1567.69 9365.81 1567.54
```

```
 9375.42 1566.86 9383.97 1566.09 9391.92 1566.57 9394.32 1566.64  9403.1 1566.45
 9418.91 1565.54 9427.43 1566.29 9430.84 1566.66 9439.72 1567.62 9465.29 1569.55
 9475.77 1570.33  9522.5 1569.15 9547.67 1568.54 9558.53 1567.93 9592.67 1566.26
 9624.26 1566.46 9628.89 1566.78 9639.22 1566.73  9665.7 1566.74 9688.11 1566.55
 9698.36 1566.58 9712.85 1566.58 9732.72 1567.14 9757.95 1567.88 9763.58 1568.06
 9767.97 1567.84 9795.11 1566.15 9802.02 1565.86 9806.34 1565.78 9830.12 1565.98
 9833.37 1566.02 9837.03    1566 9838.72 1565.98 9845.11 1565.87 9882.05 1565.36
 9898.11 1565.09 9901.13 1565.08 9908.71 1562.49  9924.5 1559.77 9924.86 1559.78
 9925.39 1559.88 9951.73 1565.93 9957.71 1565.63 9965.57 1564.78 9991.99  1559.5
   10000 1557.8110000.51  1557.710003.57 1558.5810025.17  1565.310028.29 1565.37
10031.43 1565.4110065.79 1566.16 10081.8 1566.2210093.47  1566.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9208.71    .065 9957.71    .03710031.43    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9957.7110031.43              620     660     625             .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 9208.71 9951.73 1565.93

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1564.81   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                0.79   Wt. n-Val.                         0.037
  W.S. Elev (ft)            1564.02   Reach Len. (ft)          620.00    660.00    625.00
  Crit W.S. (ft)                      Flow Area (sq ft)                  162.92
  E.G. Slope (ft/ft)        0.007095  Area (sq ft)                       162.92
  Q Total (cfs)             1161.00   Flow (cfs)                        1161.00
  Top Width (ft)              51.70   Top Width (ft)                      51.70
  Vel Total (ft/s)             7.13   Avg. Vel. (ft/s)                     7.13
  Max Chl Dpth (ft)            6.32   Hydr. Depth (ft)                     3.15
  Conv. Total (cfs)         13783.7   Conv. (cfs)                       13783.7
  Length Wtd. (ft)           660.00   Wetted Per. (ft)                    53.28
  Min Ch El (ft)            1557.70   Shear (lb/sq ft)                     1.35
  Alpha                        1.00   Stream Power (lb/ft s)               9.65
  Frctn Loss (ft)              5.86   Cum Volume (acre-ft)        2.16    12.02      1.16
  C & E Loss (ft)              0.02   Cum SA (acres)              1.11     4.21      1.10


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)     (ft/s)
  LB 9957.71    9994.57         385.30      63.52     25.71      33.19      2.52      6.07
  9994.57       RB 10031.43     775.70      99.40     27.57      66.81      3.75      7.80


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT 5
REACH: SPLIT 5            RS: 50.350

INPUT
Description: SEC.50.350
Station Elevation Data    num=      82
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
 9100.54   1561.4 9102.43   1561.4 9119.52 1561.33 9137.33 1560.63 9149.81 1559.93
 9156.28 1560.07 9161.39 1560.21 9180.78 1560.44 9197.06 1560.68 9213.08  1561.2
 9234.92 1562.03 9236.34 1562.06 9266.13 1562.96 9276.34 1562.89 9291.04 1563.05
 9297.81 1563.04 9305.33 1562.92 9318.15 1562.78 9319.32 1562.79 9336.66 1562.81
 9360.61 1562.63 9365.93 1562.63 9402.52 1562.59 9425.98 1562.34 9436.16 1561.81
 9483.83 1559.94  9491.2 1559.67  9512.2 1560.02    9533 1559.78 9546.15 1559.36
 9551.25 1558.29 9559.61 1556.62 9564.89 1555.41 9568.37 1554.62 9596.83 1557.97
```

```
 9600.12 1558.57 9610.18 1558.67 9629.05 1558.92  9659.9 1559.27 9668.64 1559.39
 9680.32 1559.06 9717.25 1558.65 9718.88 1558.54 9723.54 1557.65 9735.01 1554.65
 9738.53 1555.46 9750.08 1557.09 9752.11 1557.37 9752.64 1557.32 9755.45 1557.01
 9766.08 1555.34 9777.17 1557.52 9786.64 1559.34 9816.55 1559.76 9819.92 1559.81
 9835.73 1558.79 9836.24 1558.77 9837.07 1558.78  9842.4 1558.93  9882.9 1560.05
 9885.69 1560.08 9889.17 1560.05 9895.98 1559.98 9899.88 1559.54 9916.01 1558.06
 9964.68 1558.24 9969.56 1558.19 9985.34 1555.37   10000 1551.9610000.44 1551.86
10000.57 1551.8210000.75 1551.8710010.69 1555.56   10027 1558.1810031.13 1558.75
10035.87 1558.9210038.29 1559.5910043.04 1560.6710051.47 1560.4810070.96 1559.77
10073.35 1559.4610111.54 1558.82

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9100.54    .065 9964.68    .037   10027    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9964.68   10027             400   512.1     480            .1       .3
Blocked Obstructions     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 9100.54 9885.69 1560.08   1004310111.54 1560.67
```

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	1558.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.01	Wt. n-Val.		0.037	
W.S. Elev (ft)	1557.91	Reach Len. (ft)	400.00	512.10	480.00
Crit W.S. (ft)	1557.61	Flow Area (sq ft)		143.69	
E.G. Slope (ft/ft)	0.011435	Area (sq ft)		143.69	
Q Total (cfs)	1161.00	Flow (cfs)		1161.00	
Top Width (ft)	54.19	Top Width (ft)		54.19	
Vel Total (ft/s)	8.08	Avg. Vel. (ft/s)		8.08	
Max Chl Dpth (ft)	6.09	Hydr. Depth (ft)		2.65	
Conv. Total (cfs)	10856.9	Conv. (cfs)		10856.9	
Length Wtd. (ft)	512.10	Wetted Per. (ft)		55.68	
Min Ch El (ft)	1551.82	Shear (lb/sq ft)		1.84	
Alpha	1.00	Stream Power (lb/ft s)		14.88	
Frctn Loss (ft)	6.95	Cum Volume (acre-ft)	2.16	9.70	1.16
C & E Loss (ft)	0.00	Cum SA (acres)	1.11	3.40	1.10

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
LB 9964.68	9995.84	425.69	57.54	25.22	36.67	2.33	7.40
9995.84	RB 10027.00	735.31	86.15	30.46	63.33	2.92	8.54

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

```
CROSS SECTION          RIVER: SPLIT 5
REACH: SPLIT 5            RS: 50.253

INPUT
Description: SEC.50.253
Station Elevation Data    num=      80
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
 9348.78 1557.32 9361.85 1557.49  9378.6 1557.33 9388.51 1557.07 9397.53 1556.24
 9409.95 1555.27 9419.58 1555.83 9422.03 1556.03  9425.3 1556.05 9435.73 1556.06
 9437.15 1556.13 9440.27 1556.34 9454.86 1557.16 9459.34 1557.29 9477.13 1557.21
 9494.92 1557.16  9517.8 1557.98 9557.34 1558.35 9563.14 1558.39 9571.22 1558.38
 9604.56 1558.23 9613.35 1558.06 9617.03 1558.04 9635.35 1557.67  9638.2 1557.59
 9648.61 1557.47 9669.73 1557.19 9674.55 1557.17 9678.28 1556.94 9681.23 1556.68
 9695.08 1555.91 9695.28 1555.88 9696.24 1555.83 9733.51 1553.77  9737.6 1553.64
  9737.7 1553.65 9739.37 1553.47 9760.67 1553.12 9763.35 1552.73 9784.03 1551.38
```

```
 9787.87 1550.43 9795.86 1548.06 9802.08 1548.59 9810.86 1550.39 9820.14 1550.63
 9821.26 1550.64 9828.23 1549.07 9833.11 1548.22 9841.36  1547.6 9844.89 1548.39
 9858.53 1551.17  9876.7 1553.17 9876.73 1553.17 9876.76 1553.17 9876.87 1553.17
 9885.49 1553.17 9903.07 1553.07 9928.78 1552.94 9940.15  1550.7 9960.39 1546.85
 9960.67 1546.97 9967.91 1550.72 9980.97 1551.49 9981.42 1551.52 9981.76 1551.43
   10000 1546.3510000.09 1546.3310011.13  1549.210039.12 1553.8510040.24 1554.06
10040.51 1554.0610052.92 1553.9510069.24 1554.09 10079.5 1554.1310089.35 1554.16
10101.35 1554.3510106.63 1554.4110125.42 1554.4910149.84 1554.4410210.54 1554.59

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9348.78    .065 9928.78    .03710040.24    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9928.7810040.24              660   675.8     500             .1      .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
 9348.78 9876.76 1553.17

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)            1551.96   Element                 Left OB    Channel   Right OB
  Vel Head (ft)                1.01   Wt. n-Val.                          0.037
  W.S. Elev (ft)            1550.95   Reach Len. (ft)          660.00     675.80     500.00
  Crit W.S. (ft)            1550.95   Flow Area (sq ft)                   143.72
  E.G. Slope (ft/ft)       0.016564   Area (sq ft)                        143.72
  Q Total (cfs)             1161.00   Flow (cfs)                         1161.00
  Top Width (ft)              71.08   Top Width (ft)                       71.08
  Vel Total (ft/s)             8.08   Avg. Vel. (ft/s)                     8.08
  Max Chl Dpth (ft)            4.62   Hydr. Depth (ft)                     2.02
  Conv. Total (cfs)          9020.9   Conv. (cfs)                        9020.9
  Length Wtd. (ft)                    Wetted Per. (ft)                    73.56
  Min Ch El (ft)            1546.33   Shear (lb/sq ft)                     2.02
  Alpha                        1.00   Stream Power (lb/ft s)              16.32
  Frctn Loss (ft)                     Cum Volume (acre-ft)       2.16       8.01       1.16
  C & E Loss (ft)                     Cum SA (acres)             1.11       2.67       1.10

Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  LB 9928.78   9984.51        452.43      61.12      35.30      38.97      1.80       7.40
  9984.51      RB 10040.24    708.57      82.60      38.25      61.03      2.22       8.58

Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT 5
REACH: SPLIT 5            RS: 50.125
```

```
INPUT
Description: SEC.50.125
Station Elevation Data    num=      91
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9458.19    1548 9465.98 1548.26 9473.45 1548.18 9478.36 1548.13 9479.88 1548.11
 9484.02 1548.09 9510.95 1547.58 9514.44 1546.69 9527.69 1542.82 9536.31 1543.89
  9558.7  1547.8 9559.03 1547.81 9560.54 1547.88 9609.62 1550.03  9616.7 1549.73
 9648.66 1549.07 9652.53 1549.05 9655.63 1548.94 9669.78 1548.75  9682.7 1548.48
 9685.85 1548.46 9709.36 1547.56 9719.24  1547.2 9724.47 1546.86 9726.62 1546.67
 9743.77 1545.55 9750.67 1545.09 9752.49 1544.99 9765.55 1545.92 9781.05 1546.96
  9783.1 1546.98 9812.36 1546.79 9815.75 1546.71 9827.72 1546.46 9834.72  1546.3
 9837.95 1546.09 9852.78 1544.91 9868.96 1546.11 9893.48 1547.66 9901.69 1547.71
 9922.03 1547.61 9929.22 1547.63 9929.62 1547.55 9935.44 1546.95 9947.79 1545.98
  9949.1 1545.96 9950.87 1545.69 9954.47 1545.78 9969.77  1545.3 9973.85 1545.19
 9977.39 1545.03 9998.81 1539.66  9999.6 1539.41 9999.79 1539.44 9999.88 1539.45
   10000 1539.4710000.09 1539.4810024.67    154310033.36 1543.7410034.23 1543.84
10035.91 1543.9810039.49 1544.2810041.47 1543.74 10054.7  1541.210059.44 1541.83
 10065.6 1542.9110078.85  1544.910082.12 1545.4510090.48  1545.8 10098.7 1546.26
10108.16 1546.3310114.19  1546.610138.14 1548.5710143.34 1549.0210145.75 1549.05
10151.93 1549.13   10159  1549.210162.15 1549.1410169.53 1548.6810179.98  1547.8
10189.01  1548.210199.57 1548.4810210.18 1548.5210239.43 1548.8410253.37 1548.55
 10262.9 1548.28 10263.5 1548.37 10284.4  1547.910288.03 1547.7910295.05 1548.05
10326.91 1549.21

Manning's n Values        num=      3
     Sta   n Val     Sta   n Val     Sta   n Val
 9458.19    .065 9954.47    .03710082.12    .065

Bank Sta: Left  Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      9954.4710082.12              320   390.7     325            .1       .3
Blocked Obstructions     num=      1
   Sta L   Sta R    Elev
 9458.19 9893.48 1547.66

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1545.04   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.43   Wt. n-Val.                        0.037
  W.S. Elev (ft)           1544.61   Reach Len. (ft)         320.00    390.70    325.00
  Crit W.S. (ft)                     Flow Area (sq ft)                 220.36
  E.G. Slope (ft/ft)       0.005955  Area (sq ft)                      220.36
  Q Total (cfs)            1161.00   Flow (cfs)                       1161.00
  Top Width (ft)             97.87   Top Width (ft)                     97.87
  Vel Total (ft/s)            5.27   Avg. Vel. (ft/s)                    5.27
  Max Chl Dpth (ft)           5.20   Hydr. Depth (ft)                    2.25
  Conv. Total (cfs)        15045.5   Conv. (cfs)                      15045.5
  Length Wtd. (ft)          382.96   Wetted Per. (ft)                   99.41
  Min Ch El (ft)           1539.41   Shear (lb/sq ft)                    0.82
  Alpha                       1.00   Stream Power (lb/ft s)              4.34
  Frctn Loss (ft)             0.27   Cum Volume (acre-ft)      2.16      5.19      1.16
  C & E Loss (ft)             0.12   Cum SA (acres)            1.11      1.36      1.10

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)      (sq ft)    (ft)                (ft)      (ft/s)
  LB 9954.47   10018.29       780.02     125.13     40.08      67.18      3.19      6.23
  10018.29     RB 10082.12    380.98      95.23     59.33      32.82      1.62      4.00

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: SPLIT 5
REACH: SPLIT 5            RS: 50.051
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INPUT
Description: SEC.50.051
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9686.96	1544.92	9691.12	1544.96	9698.41	1545.02	9728.03	1545.54	9749.64	1545.54
9758.86	1545.55	9779.41	1544.8	9797.18	1543.99	9813.64	1542.98	9823.12	1542.58
9833.98	1538.79	9834.45	1538.62	9835.15	1538.75	9840.25	1539.67	9858.9	1543
9861.29	1543.33	9879.71	1544.02	9888.69	1544.16	9908.96	1542.76	9915.45	1542.25
9921.39	1542.26	9927.52	1542.21	9930.15	1542	9930.71	1542.02	9933.05	1542.23
9947.11	1542.23	9958.56	1542.24	9962.73	1542.05	9974.72	1541.46	9991.93	1537.74
10000	1536.171	10000.23	1536.13	10003.2	1536.51	10057.92	1542.86	10060.56	1543.18
10061.28	1543.21	10084.12	1543.81	10102.56	1544.11	10109.79	1543.81	10124.35	1543.85
10143.54	1543.66	10157.54	1543.53	10165.32	1543.46	10165.54	1543.46	10165.82	1543.42
10167.98	1543.29	10175.62	1542.76	10176.07	1542.72	10176.64	1542.55	10178.17	1542.25
10186.17	1542.8	10202.7	1543.62	10226.18	1545.45	10229.26	1545.55	10254.25	1545.94
10282.07	1544.75	10297.37	1544.24	10311.85	1543.95	10321.52	1543.52	10361.96	1544.98
10370.79	1545.31	10375.84	1545.48						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9686.96	.065	9958.56	.037	10057.92	.065

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9958.56	10057.92	220	216.5	270	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
10254.31	10375.84	1545.94

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	1544.66	Element			
Vel Head (ft)	0.04	Wt. n-Val.	0.065	0.037	0.065
W.S. Elev (ft)	1544.61	Reach Len. (ft)	220.00	216.50	270.00
Crit W.S. (ft)		Flow Area (sq ft)	344.16	488.88	165.13
E.G. Slope (ft/ft)	0.000256	Area (sq ft)	344.16	488.88	165.13
Q Total (cfs)	1161.00	Flow (cfs)	196.50	902.27	62.23
Top Width (ft)	431.93	Top Width (ft)	175.05	99.36	157.52
Vel Total (ft/s)	1.16	Avg. Vel. (ft/s)	0.57	1.85	0.38
Max Chl Dpth (ft)	8.48	Hydr. Depth (ft)	1.97	4.92	1.05
Conv. Total (cfs)	72613.8	Conv. (cfs)	12289.7	56432.0	3892.2
Length Wtd. (ft)	218.53	Wetted Per. (ft)	176.29	100.32	157.72
Min Ch El (ft)	1536.13	Shear (lb/sq ft)	0.03	0.08	0.02
Alpha	2.00	Stream Power (lb/ft s)	0.02	0.14	0.01
Frctn Loss (ft)	0.11	Cum Volume (acre-ft)	0.90	2.01	0.55
C & E Loss (ft)	0.02	Cum SA (acres)	0.46	0.47	0.51

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF 1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
9686.96	9958.56	196.50	344.16	176.29	16.92	1.97	0.57
LB 9958.56	10008.24	493.67	258.58	50.31	42.52	5.20	1.91
10008.24	RB 10057.92	408.60	230.30	50.01	35.19	4.64	1.77
10057.92	10375.84	62.23	165.13	157.72	5.36	1.05	0.38

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: SPLIT 5
REACH: SPLIT 5 RS: 50.010

INPUT
Description: SEC.50.010. THIS SEC. ON SPLIT WASH IS APPROX. 53 FT. U/S OF CAP

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            OVERCHUTE STRUCTURE STA. 298+70 INVOLING 1- 72 IN. I.D STEEL PIPE
            X 223.3 FT. LONG WITH SQ. EDGE CONC. HEADWALL AT INLET
            I.E.=1539.51 AND OUTLET I.E.=1538.21.
STARTING WSEL IS BY NORMAL
            DEPTH AT S=0.0015 FT/FT. , HOWEVER PONDING AT CAP MAY
            OVERRIDE.
SECS. ARE CODED FROM LT. TO RT. LOOKING D/S WITH STA.
            10000 AT HYD. B.L.    SEC. I.D'S ARE IN RIVER MILES INCR. U/S WITH
            R.M.50.0 AT INLET FACE HEADWALL.
Station Elevation Data    num=      30
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9848.84 1541.52 9850.86 1541.53  9864.1 1546.67 9883.09 1554.98  9885.4 1555.96
 9886.42 1556.39 9899.97 1556.08 9902.09 1556.06 9927.52 1548.86 9950.42 1542.24
 9951.86 1542.23 9952.88 1542.25 9953.88 1542.25 9969.46  1541.9 9973.35 1541.57
 9994.46 1540.07   10000 1539.9510003.04 1539.89 10009.5 1540.2210015.54 1540.18
10022.08 1540.1910040.03 1540.9410040.42 1540.9410041.17 1541.0210043.01 1541.16
10045.19 1542.1510079.26 1556.84 10086.3 1556.7710092.58 1556.8410112.57 1548.46

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9848.84    .065 9951.86    .03710043.01    .065

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9951.8610043.01                0       0       0             .1       .3
Blocked Obstructions     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 9848.84 9886.42 1556.39 10092.610112.57 1556.84

CROSS SECTION OUTPUT    Profile #PF 1

  E.G. Elev (ft)           1544.53   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.19   Wt. n-Val.               0.065      0.037      0.065
  W.S. Elev (ft)           1544.33   Reach Len. (ft)
  Crit W.S. (ft)           1542.55   Flow Area (sq ft)        10.59     318.15      11.36
  E.G. Slope (ft/ft)      0.001500   Area (sq ft)             10.59     318.15      11.36
  Q Total (cfs)            1161.00   Flow (cfs)               10.48    1137.71      12.81
  Top Width (ft)            107.07   Top Width (ft)            8.68      91.15       7.24
  Vel Total (ft/s)            3.41   Avg. Vel. (ft/s)          0.99       3.58       1.13
  Max Chl Dpth (ft)           4.44   Hydr. Depth (ft)          1.22       3.49       1.57
  Conv. Total (cfs)        29978.6   Conv. (cfs)              270.5    29377.3      330.8
  Length Wtd. (ft)                   Wetted Per. (ft)          8.98      91.26       7.91
  Min Ch El (ft)           1539.89   Shear (lb/sq ft)          0.11       0.33       0.13
  Alpha                       1.08   Stream Power (lb/ft s)    0.11       1.17       0.15
  Frctn Loss (ft)                    Cum Volume (acre-ft)
  C & E Loss (ft)                    Cum SA (acres)

FLOW DISTRIBUTION OUTPUT    Profile #PF 1

  Left Sta     Right Sta       Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                  (ft)     (ft/s)
  9848.84      9951.86         10.48      10.59       8.98       0.90       1.22       0.99
  LB 9951.86   9997.44        435.30     136.42      45.65      37.49       2.99       3.19
  9997.44      RB 10043.01    702.42     181.73      45.61      60.50       3.99       3.87
  10043.01     10112.57        12.81      11.36       7.91       1.10       1.57       1.13


SUMMARY OF MANNING'S N VALUES

River:SPLIT 5

     Reach          River Sta.       n1        n2        n3

 SPLIT 5              51.088          .065      .037      .065
 SPLIT 5              51.047          .065      .037      .065
 SPLIT 5              50.951          .065      .037      .065
 SPLIT 5              50.846          .065      .037      .065
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SPLIT 5	50.754	.065	.037	.065
SPLIT 5	50.639	.065	.037	.065
SPLIT 5	50.547	.065	.037	.065
SPLIT 5	50.475	.065	.037	.065
SPLIT 5	50.350	.065	.037	.065
SPLIT 5	50.253	.065	.037	.065
SPLIT 5	50.125	.065	.037	.065
SPLIT 5	50.051	.065	.037	.065
SPLIT 5	50.010	.065	.037	.065

SUMMARY OF REACH LENGTHS

River: SPLIT 5

Reach	River Sta.	Left	Channel	Right
SPLIT 5	51.088	280	216.5	130
SPLIT 5	51.047	510	506.9	460
SPLIT 5	50.951	535	554.4	505
SPLIT 5	50.846	450	485.8	490
SPLIT 5	50.754	500	607.2	470
SPLIT 5	50.639	460	485.8	465
SPLIT 5	50.547	335	380.1	390
SPLIT 5	50.475	620	660	625
SPLIT 5	50.350	400	512.1	480
SPLIT 5	50.253	660	675.8	500
SPLIT 5	50.125	320	390.7	325
SPLIT 5	50.051	220	216.5	270
SPLIT 5	50.010	0	0	0

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: SPLIT 5

Reach	River Sta.	Contr.	Expan.
SPLIT 5	51.088	.1	.3
SPLIT 5	51.047	.1	.3
SPLIT 5	50.951	.1	.3
SPLIT 5	50.846	.1	.3
SPLIT 5	50.754	.1	.3
SPLIT 5	50.639	.1	.3
SPLIT 5	50.547	.1	.3
SPLIT 5	50.475	.1	.3
SPLIT 5	50.350	.1	.3
SPLIT 5	50.253	.1	.3
SPLIT 5	50.125	.1	.3
SPLIT 5	50.051	.1	.3
SPLIT 5	50.010	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
SPLIT 5	51.088	1048.00	1597.37	1599.79		1600.05	0.009065	5.39	351.60	338.83	0.73
SPLIT 5	51.047	1048.00	1595.15	1597.28		1597.66	0.014719	5.80	268.98	285.42	0.90
SPLIT 5	50.951	1048.00	1588.30	1592.01	1591.61	1592.31	0.007874	5.51	317.05	245.81	0.70
SPLIT 5	50.846	1048.00	1580.60	1586.20	1586.20	1586.80	0.013385	6.35	197.70	208.90	0.88

SPLIT 5	50.754	1048.00	1575.46	1581.02		1581.72	0.008236	7.23	203.05	189.54	0.75
SPLIT 5	50.639	1048.00	1568.05	1574.79		1575.67	0.012564	7.54	139.05	62.57	0.89
SPLIT 5	50.547	1161.00	1562.00	1567.54	1567.54	1568.93	0.015008	9.47	122.56	44.51	1.01
SPLIT 5	50.475	1161.00	1557.70	1564.02		1564.81	0.007095	7.13	162.92	51.70	0.71
SPLIT 5	50.350	1161.00	1551.82	1557.91	1557.61	1558.92	0.011435	8.08	143.69	54.19	0.87
SPLIT 5	50.253	1161.00	1546.33	1550.95	1550.95	1551.96	0.016564	8.08	143.72	71.08	1.00
SPLIT 5	50.125	1161.00	1539.41	1544.61		1545.04	0.005955	5.27	220.36	97.87	0.62
SPLIT 5	50.051	1161.00	1536.13	1544.61		1544.66	0.000256	1.85	998.16	431.93	0.15
SPLIT 5	50.010	1161.00	1539.89	1544.33	1542.55	1544.53	0.001500	3.58	340.11	107.07	0.34

Profile Output Table - Standard Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (ft)	Top Width
SPLIT 5	51.088	1600.05	1599.79	0.26	2.38	0.01	51.82	507.67	488.51	338.83
SPLIT 5	51.047	1597.66	1597.28	0.38	5.32	0.02	347.69	694.29	6.02	285.42
SPLIT 5	50.951	1592.31	1592.01	0.30	5.48	0.03	298.30	599.18	150.51	245.81
SPLIT 5	50.846	1586.80	1586.20	0.59				991.22	56.78	208.90
SPLIT 5	50.754	1581.72	1581.02	0.70	6.04	0.02	152.11	890.94	4.94	189.54
SPLIT 5	50.639	1575.67	1574.79	0.88	6.69	0.05		1048.00	0.00	62.57
SPLIT 5	50.547	1568.93	1567.54	1.39	3.79	0.18		1161.00		44.51
SPLIT 5	50.475	1564.81	1564.02	0.79	5.86	0.02		1161.00		51.70
SPLIT 5	50.350	1558.92	1557.91	1.01	6.95	0.00		1161.00		54.19
SPLIT 5	50.253	1551.96	1550.95	1.01				1161.00		71.08
SPLIT 5	50.125	1545.04	1544.61	0.43	0.27	0.12		1161.00		97.87
SPLIT 5	50.051	1544.66	1544.61	0.04	0.11	0.02	196.50	902.27	62.23	431.93
SPLIT 5	50.010	1544.53	1544.33	0.19			10.48	1137.71	12.81	107.07

Profile Output Table - TABLE 3

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Sta W.S. Lft (ft)	Sta W.S. Rgt (ft)	Length Chnl (ft)	Froude # Chl	Froude # XS (ft)	Max Chl Dpth
SPLIT 5	51.088	1048.00	1597.37	1599.79	9911.34	10250.17	216.50	0.73	0.52	2.42
SPLIT 5	51.047	1048.00	1595.15	1597.28	9760.14	10045.55	506.90	0.90	0.71	2.75
SPLIT 5	50.951	1048.00	1588.30	1592.01	9846.40	10092.21	554.40	0.70	0.51	3.71
SPLIT 5	50.846	1048.00	1580.60	1586.20	9923.29	10132.19	485.80	0.88	0.96	5.60
SPLIT 5	50.754	1048.00	1575.46	1581.02	9910.15	10099.69	607.20	0.75	0.88	5.56
SPLIT 5	50.639	1048.00	1568.05	1574.79	9958.83	10106.86	485.80	0.89	0.89	6.74
SPLIT 5	50.547	1161.00	1562.00	1567.54	9976.16	10020.67	380.10	1.01	1.01	5.54
SPLIT 5	50.475	1161.00	1557.70	1564.02	9969.37	10021.06	660.00	0.71	0.71	6.32
SPLIT 5	50.350	1161.00	1551.82	1557.91	9971.13	10025.32	512.10	0.87	0.87	6.09
SPLIT 5	50.253	1161.00	1546.33	1550.95	9938.89	10021.66	675.80	1.00	1.00	4.62
SPLIT 5	50.125	1161.00	1539.41	1544.61	9979.06	10076.93	390.70	0.62	0.62	5.20
SPLIT 5	50.051	1161.00	1536.13	1544.61	9783.51	10215.44	216.50	0.15	0.13	8.48
SPLIT 5	50.010	1161.00	1539.89	1544.33	9943.18	10050.25		0.34	0.34	4.44

HEC-RAS Plan: Plan 01 River: SPLIT 5 Reach: SPLIT 5

Std. Table 1

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
SPLIT 5	51.088	1048.00	1597.37	1599.79		1600.05	0.009065	5.39	351.60	338.83	0.73
SPLIT 5	51.047	1048.00	1595.15	1597.28		1597.66	0.014719	5.80	268.98	285.42	0.90
SPLIT 5	50.961	1048.00	1588.30	1592.01	1591.61	1592.31	0.007874	5.51	317.05	245.81	0.70
SPLIT 5	50.846	1048.00	1580.60	1586.20	1586.20	1586.80	0.013385	6.35	197.70	208.90	0.88
SPLIT 5	50.754	1048.00	1575.46	1581.02		1581.72	0.008236	7.23	203.05	189.54	0.75
SPLIT 5	50.639	1048.00	1568.05	1574.79		1575.67	0.012564	7.54	139.05	62.57	0.89
SPLIT 5	50.547	1161.00	1562.00	1567.54	1567.54	1568.93	0.015008	9.47	122.56	44.51	1.01
SPLIT 5	50.475	1161.00	1557.70	1564.02		1564.81	0.007095	7.13	162.92	51.70	0.71
SPLIT 5	50.350	1161.00	1551.82	1557.91	1557.61	1558.92	0.011435	8.08	143.69	54.19	0.87
SPLIT 5	50.253	1161.00	1546.33	1550.95	1550.95	1551.96	0.016564	8.08	143.72	71.08	1.00
SPLIT 5	50.125	1161.00	1539.41	1544.61		1545.04	0.005955	5.27	220.36	97.87	0.62
SPLIT 5	50.051	1161.00	1536.13	1544.61		1544.66	0.000256	1.85	998.16	431.93	0.15
SPLIT 5	50.010	1161.00	1539.89	1544.33	1542.55	1544.53	0.001500	3.58	340.11	107.07	0.34

HEC-RAS Plan: Plan 01 River: SPLIT 5 Reach: SPLIT 5

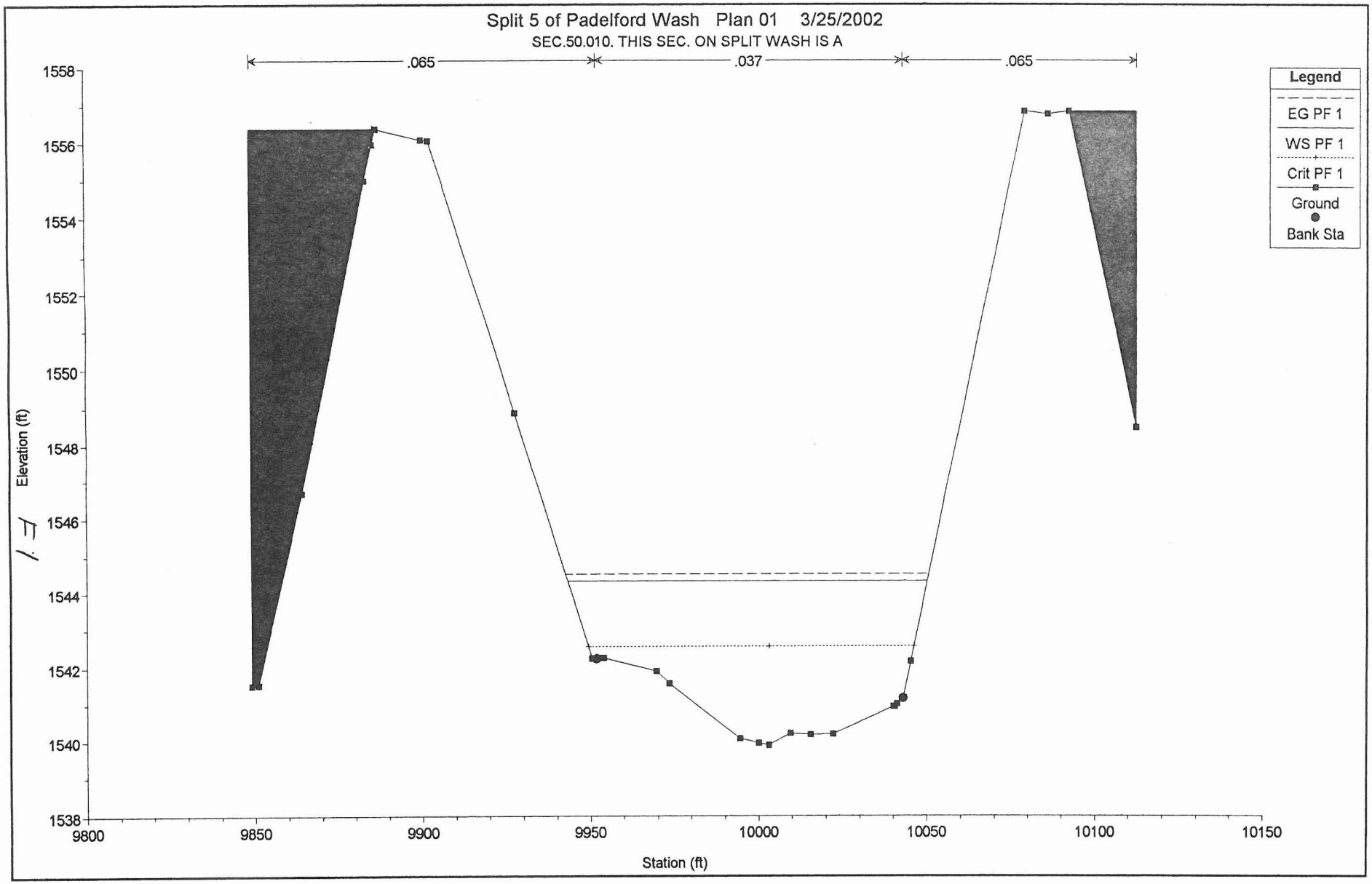
Std. Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
SPLIT 5	51.088	1600.05	1599.79	0.26	2.38	0.01	51.82	507.67	488.51	338.83
SPLIT 5	51.047	1597.66	1597.28	0.38	5.32	0.02	347.69	694.29	6.02	285.42
SPLIT 5	50.951	1592.31	1592.01	0.30	5.48	0.03	298.30	599.18	150.51	245.81
SPLIT 5	50.846	1586.80	1586.20	0.59				991.22	56.78	208.90
SPLIT 5	50.754	1581.72	1581.02	0.70	6.04	0.02	152.11	890.94	4.94	189.54
SPLIT 5	50.639	1575.67	1574.79	0.88	6.69	0.05		1048.00	0.00	62.57
SPLIT 5	50.547	1568.93	1567.54	1.39	3.79	0.18		1161.00		44.51
SPLIT 5	50.475	1564.81	1564.02	0.79	5.86	0.02		1161.00		51.70
SPLIT 5	50.350	1558.92	1557.91	1.01	6.95	0.00		1161.00		54.19
SPLIT 5	50.253	1551.96	1550.95	1.01				1161.00		71.08
SPLIT 5	50.125	1545.04	1544.61	0.43	0.27	0.12		1161.00		97.87
SPLIT 5	50.051	1544.66	1544.61	0.04	0.11	0.02	196.50	902.27	62.23	431.93
SPLIT 5	50.010	1544.53	1544.33	0.19			10.48	1137.71	12.81	107.07

HEC-RAS Plan: Plan 01 River: SPLIT 5 Reach: SPLIT 5

Table 3

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Sta W.S. Lft (ft)	Sta W.S. Rgt (ft)	Length Chnl (ft)	Froude # Chl	Froude # XS	Max Chl Dpth (ft)
SPLIT 5	51.088	1048.00	1597.37	1599.79	9911.34	10250.17	216.50	0.73	0.52	2.42
SPLIT 5	51.047	1048.00	1595.15	1597.28	9760.14	10045.55	506.90	0.90	0.71	2.75
SPLIT 5	50.951	1048.00	1588.30	1592.01	9846.40	10092.21	554.40	0.70	0.51	3.71
SPLIT 5	50.846	1048.00	1580.60	1586.20	9923.29	10132.19	485.80	0.88	0.96	5.60
SPLIT 5	50.754	1048.00	1575.46	1581.02	9910.15	10099.69	607.20	0.75	0.88	5.56
SPLIT 5	50.639	1048.00	1568.05	1574.79	9958.83	10106.86	485.80	0.89	0.89	6.74
SPLIT 5	50.547	1161.00	1562.00	1567.54	9976.16	10020.67	380.10	1.01	1.01	5.54
SPLIT 5	50.475	1161.00	1557.70	1564.02	9969.37	10021.06	660.00	0.71	0.71	6.32
SPLIT 5	50.350	1161.00	1551.82	1557.91	9971.13	10025.32	512.10	0.87	0.87	6.09
SPLIT 5	50.253	1161.00	1546.33	1550.95	9938.89	10021.66	675.80	1.00	1.00	4.62
SPLIT 5	50.125	1161.00	1539.41	1544.61	9979.06	10076.93	390.70	0.62	0.62	5.20
SPLIT 5	50.051	1161.00	1536.13	1544.61	9783.51	10215.44	216.50	0.15	0.13	8.48
SPLIT 5	50.010	1161.00	1539.89	1544.33	9943.18	10050.25		0.34	0.34	4.44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Crit PF 1
Ground
Bank Sta
Elevation (ft)
1558
1556
1554
1552
1550
1548
1546
1544
1542
1540
1538
9800
9850
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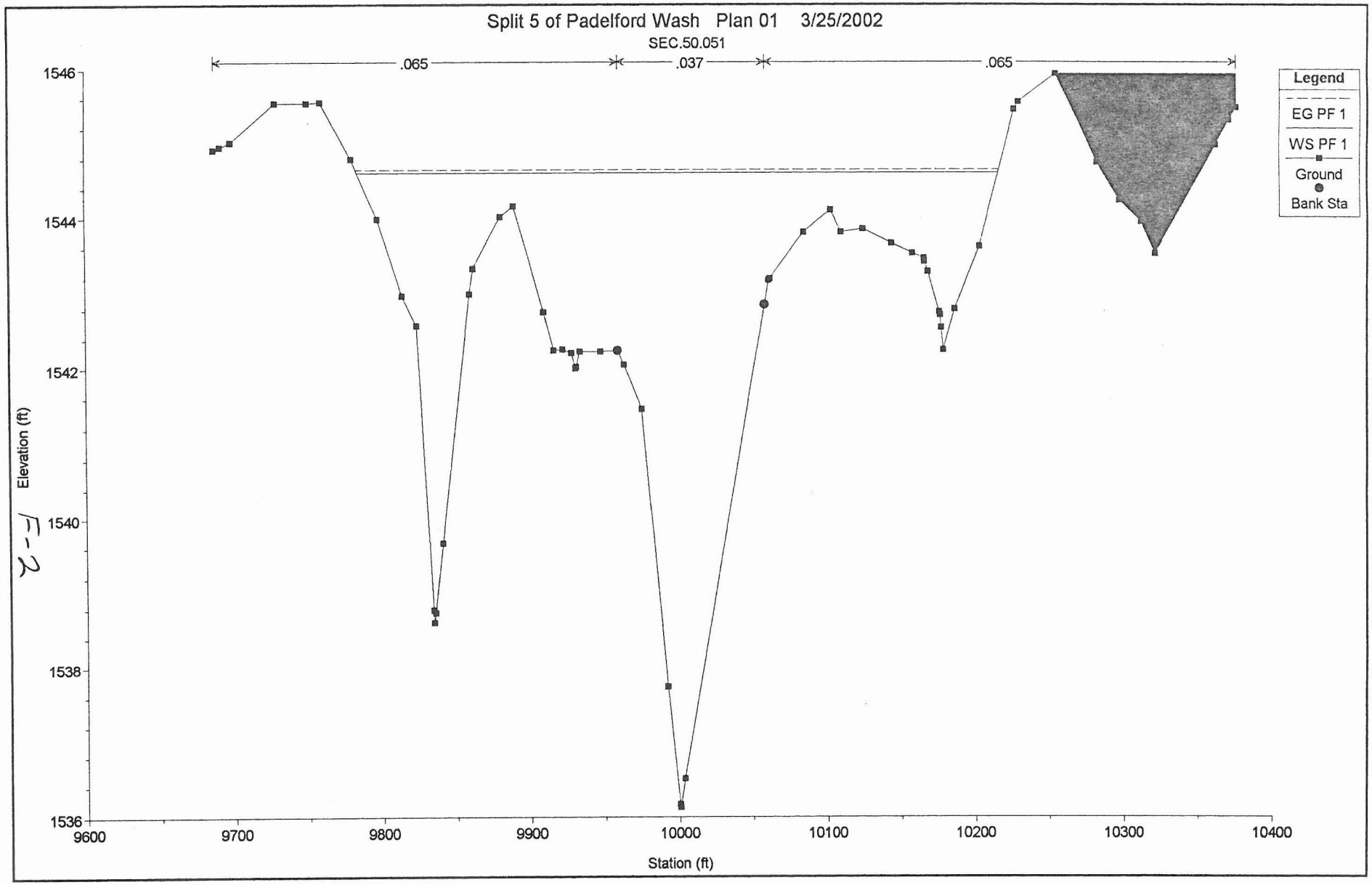
9950
10000
10050
10100
10150
Station (ft)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Legend
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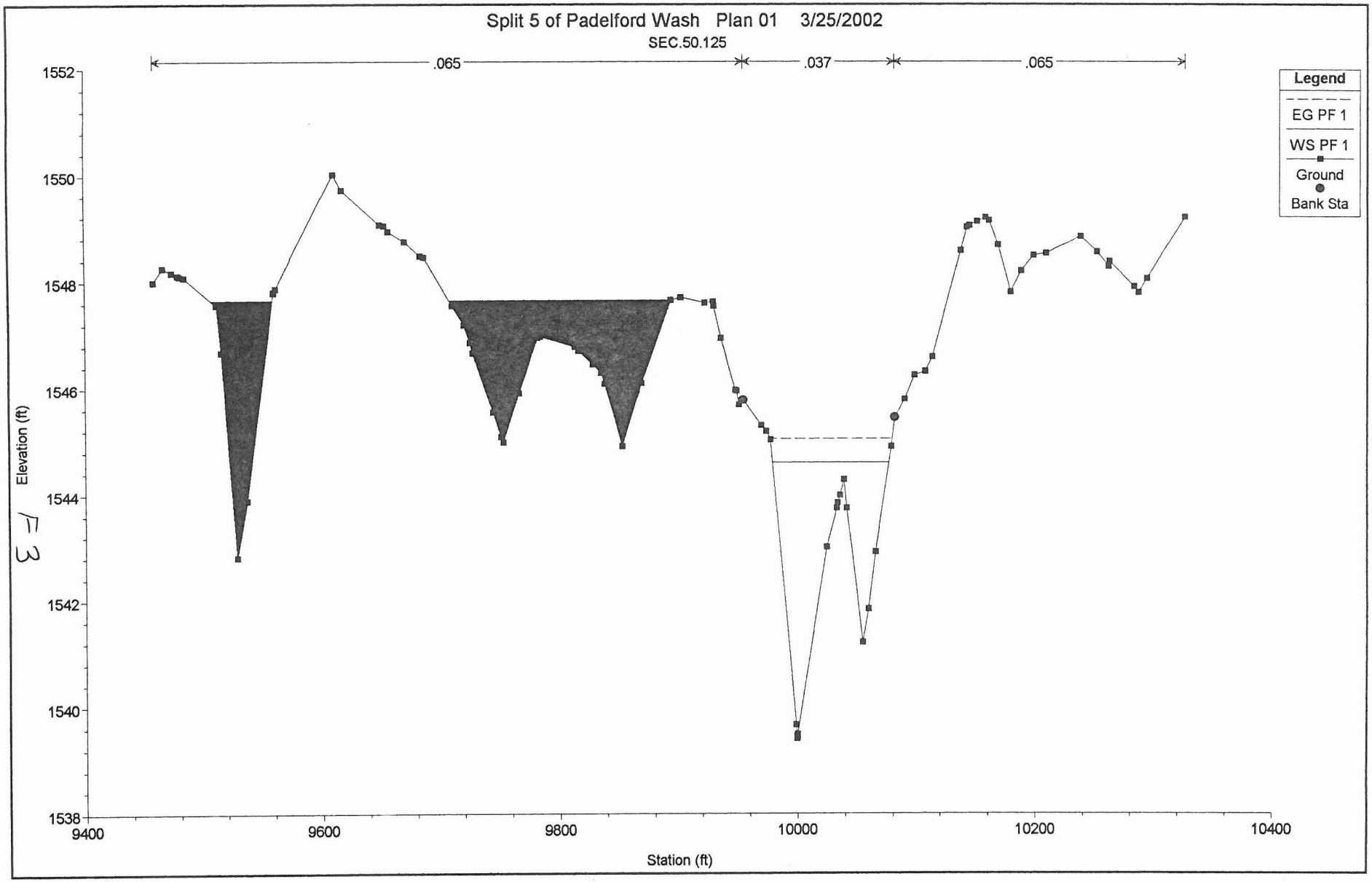
WS PF 1
Ground
Bank Sta
Elevation (ft)
1546
1544
1542
1540
1538
1536
9600
9700
9800
9900
10000
10100
10200
10300
10400
Station (ft)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WS PF 1
Ground
Bank Sta
Elevation (ft)
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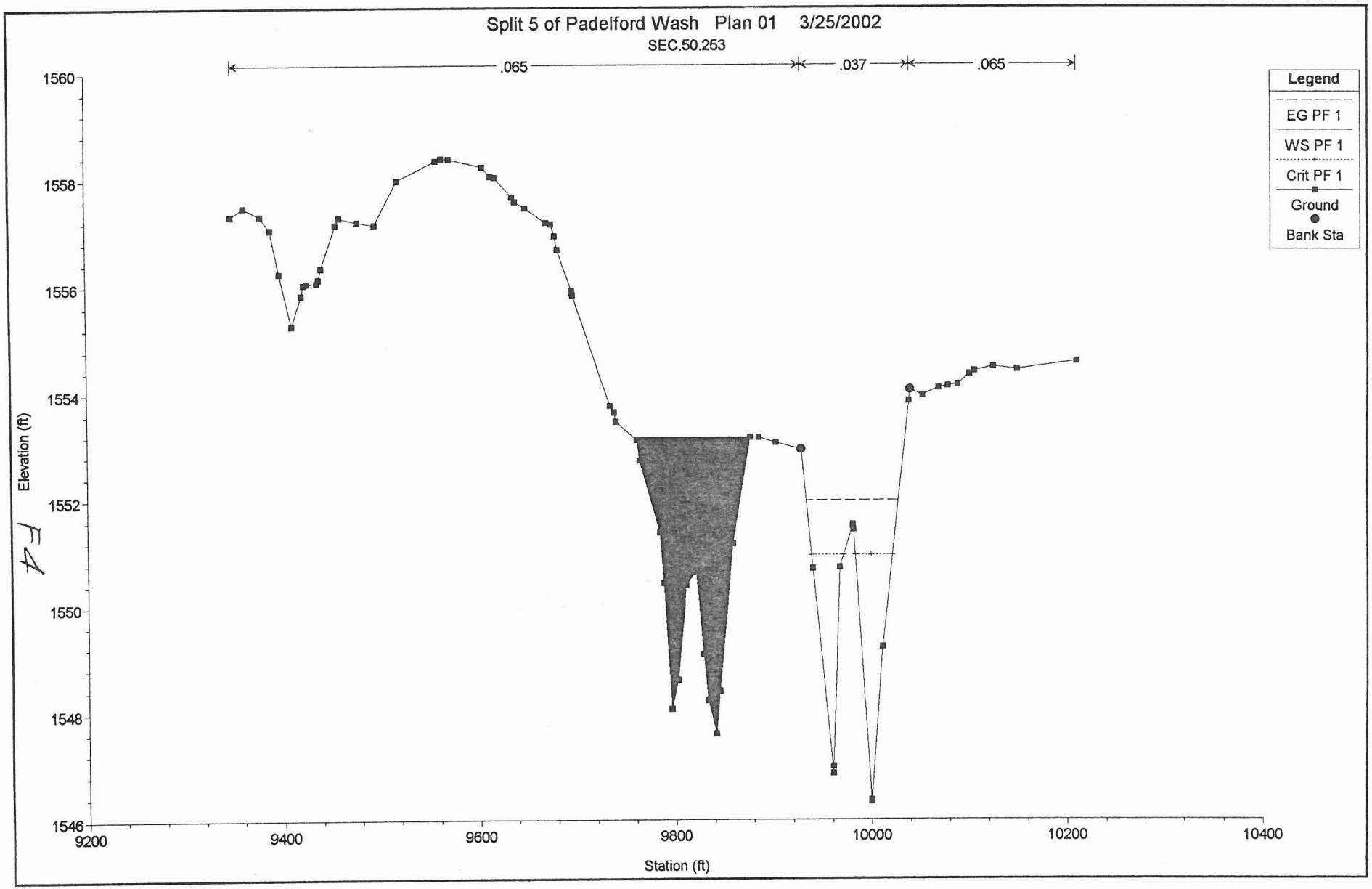
1548
1546
1544
1542
1540
1538
9400
9600
9800
10000
10200
10400
Station (ft)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WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
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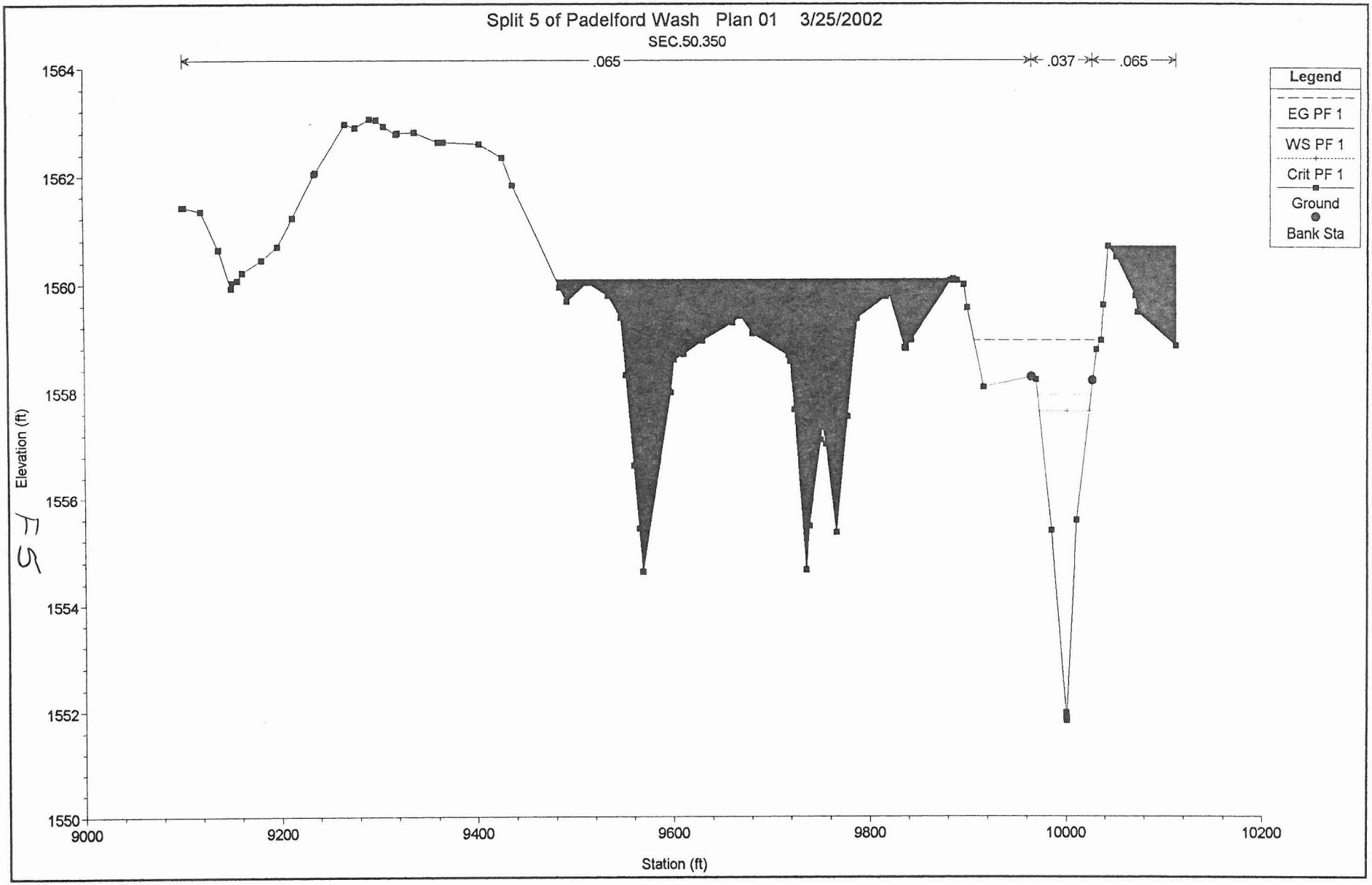
1558
1556
1554
1552
1550
1548
1546
9200
9400
9600
9800
10000
10200
10400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Legend
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WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
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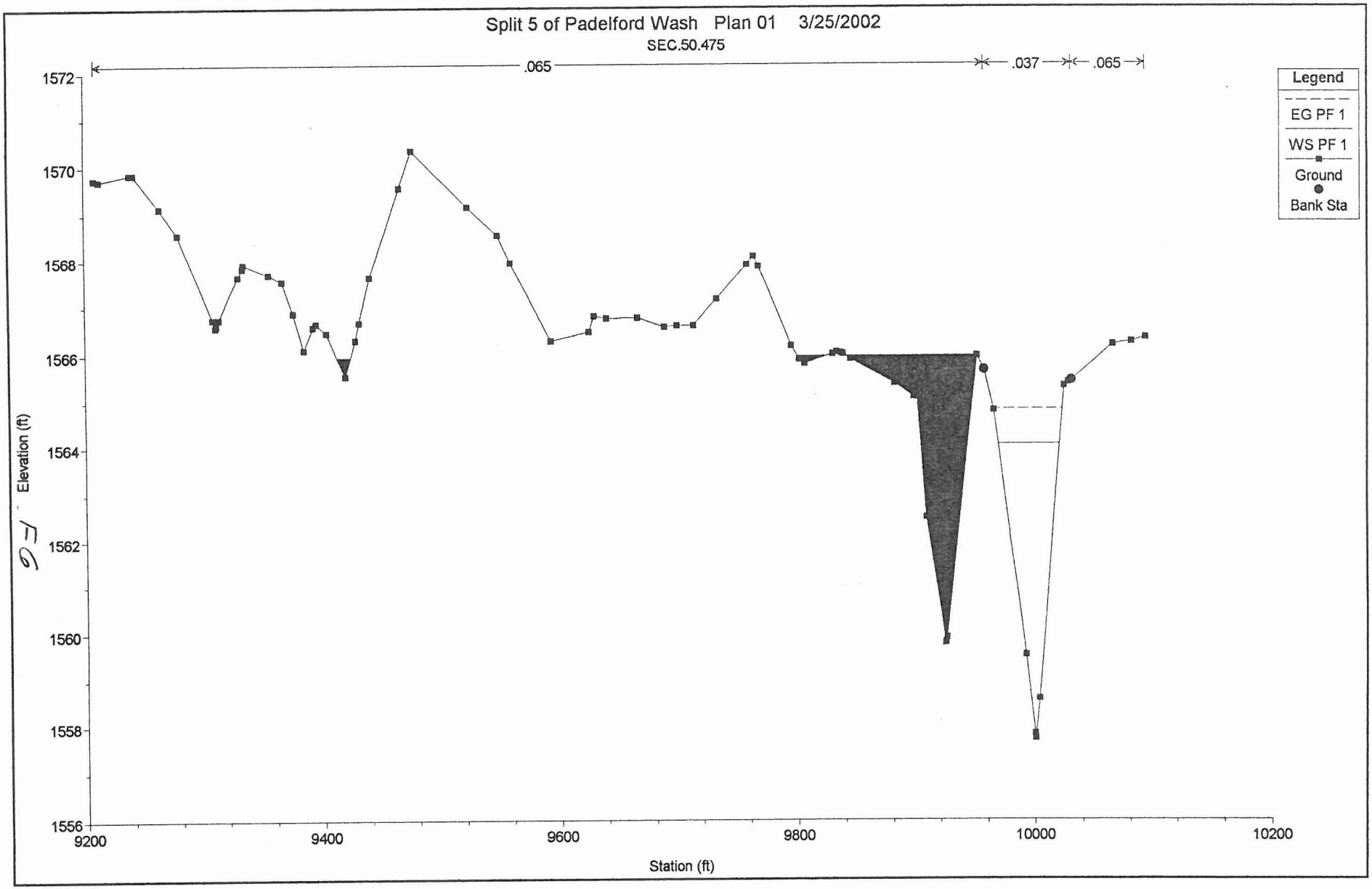
1562
1560
1558
1556
1554
1552
1550
9000
9200
9400
9600
9800
10000
10200
Station (ft)
S 4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Legend
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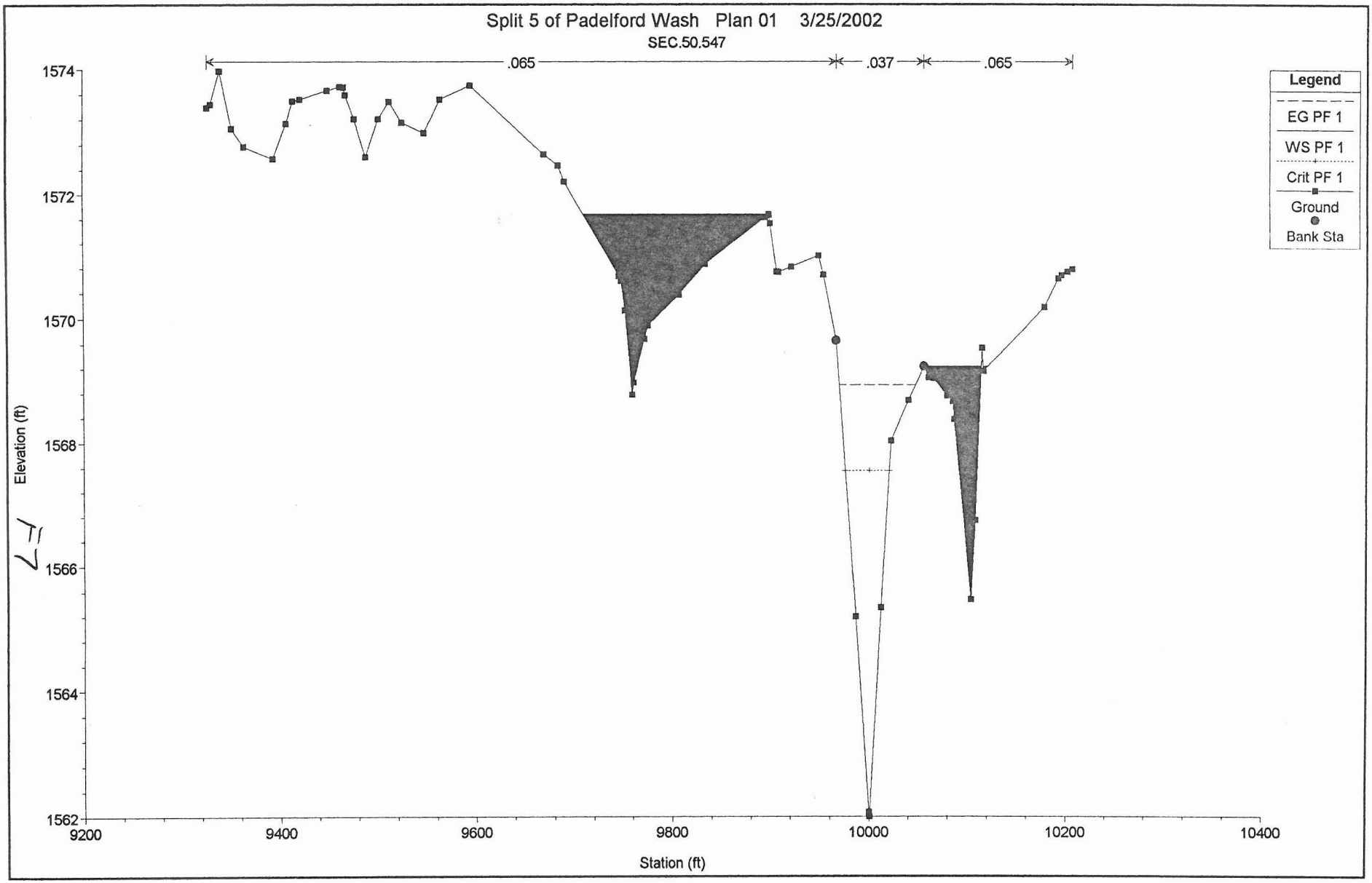
WS PF 1
Ground
Bank Sta
Elevation (ft)
1572
1570
1568
1566
1564
1562
1560
1558
1556
9200
9400
9600
9800
10000
10200
Station (ft)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WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
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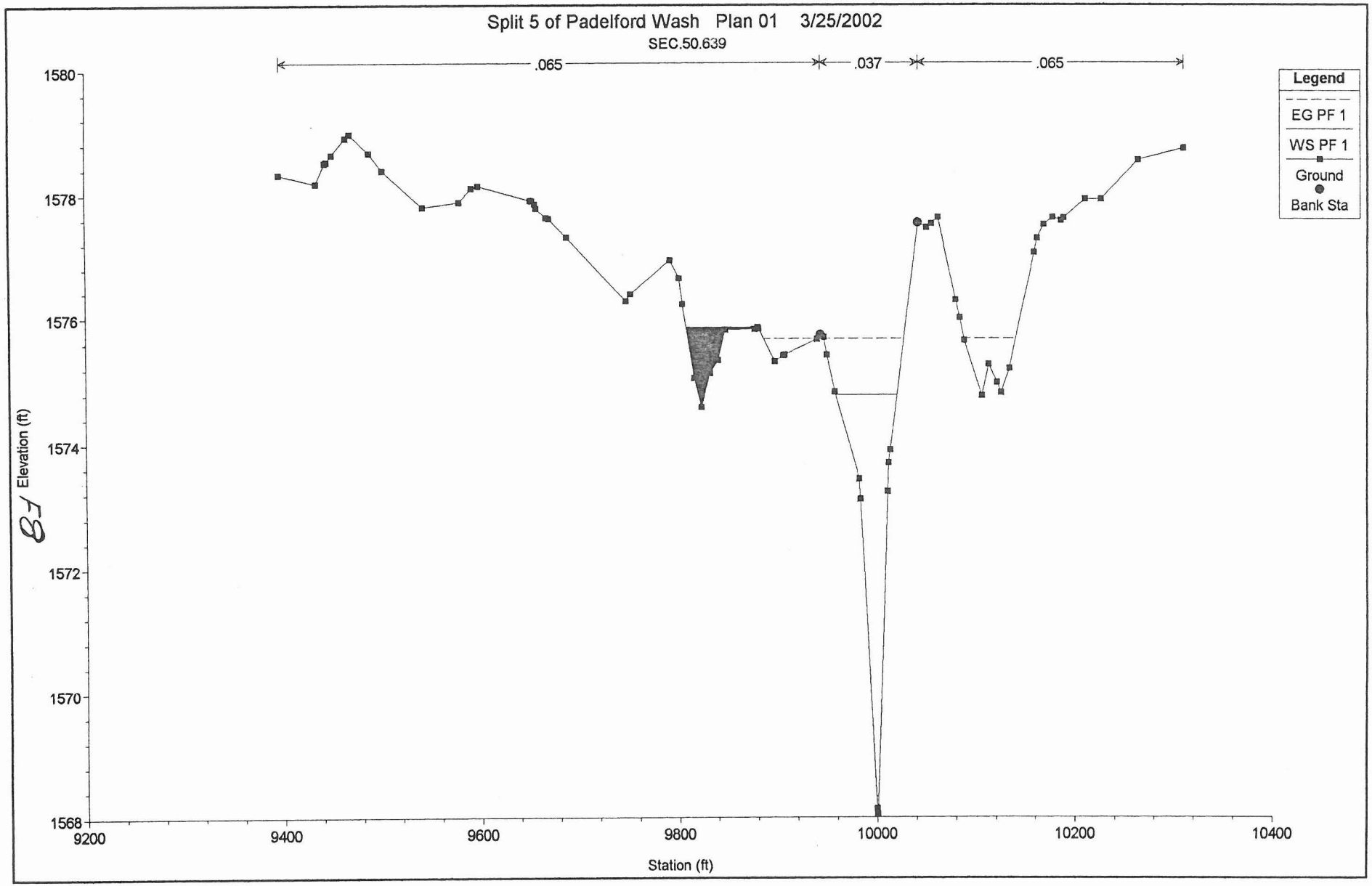
1570
1568
1566
1564
1562
9200
9400
9600
9800
10000
10200
10400
Station (ft)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WS PF 1
Ground
Bank Sta
Elevation (ft)
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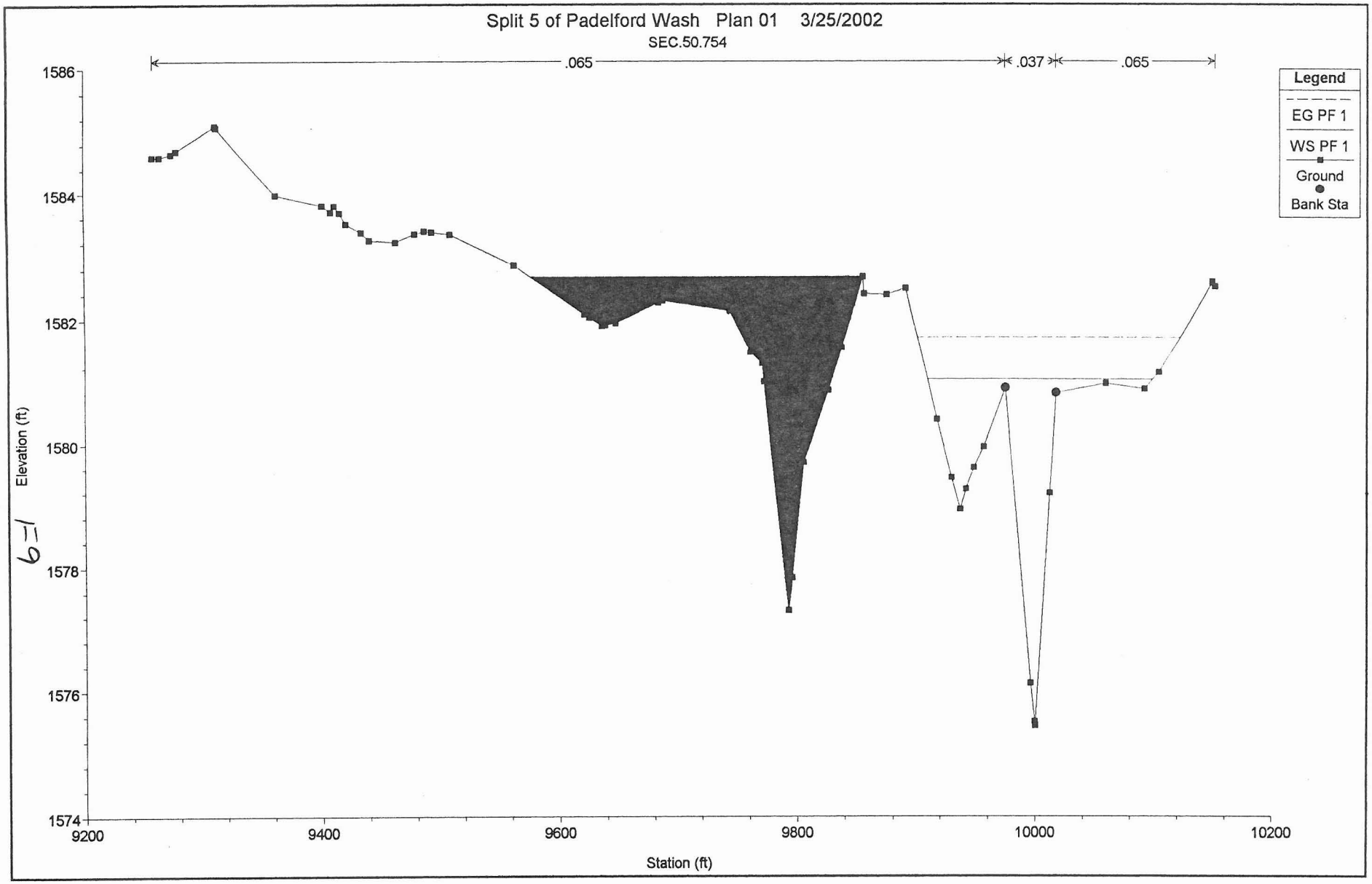
1576
1574
1572
1570
1568
9200
9400
9600
9800
10000
10200
10400
Station (ft)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Legend
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WS PF 1
Ground
Bank Sta
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1582
1580
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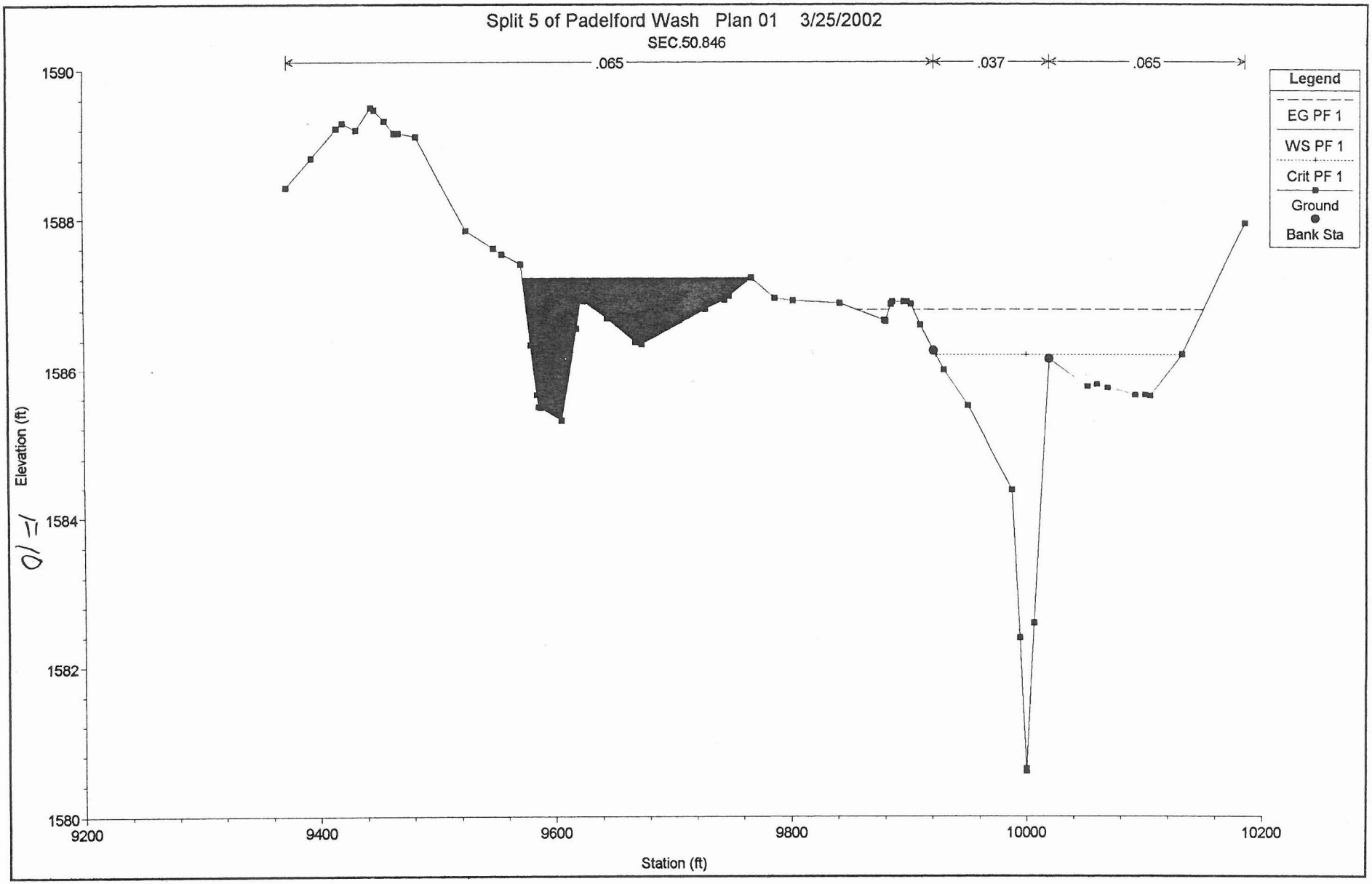
1576
1574
9200
9400
9600
9800
10000
10200
Station (ft)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WS PF 1
Crit PF 1
Ground
Bank Sta
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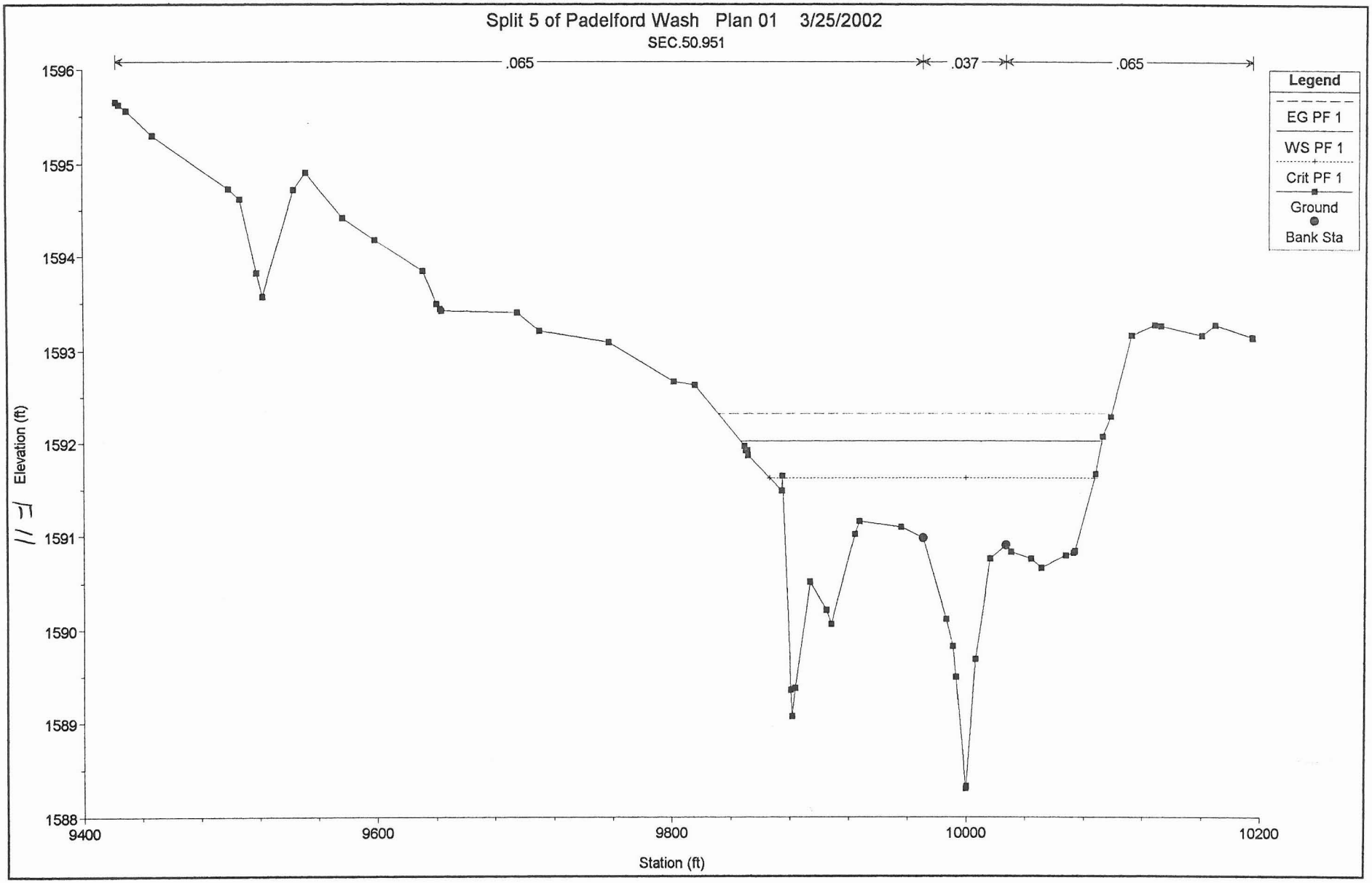
1586
1584
1582
1580
Elevation (ft)
9200
9400
9600
9800
10000
10200
Station (ft)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Legend
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WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
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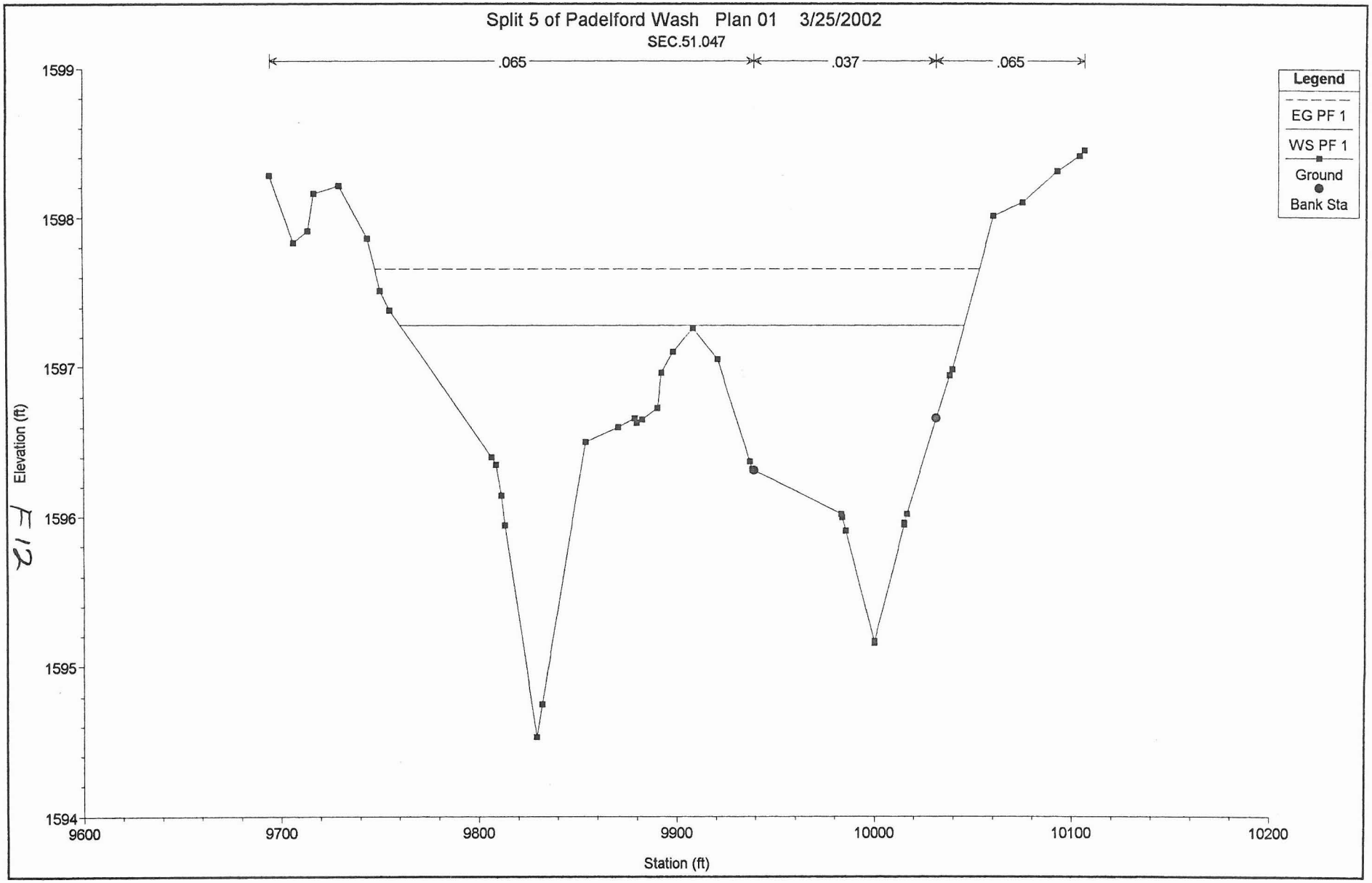
1595
1594
1593
1592
1591
1590
1589
1588
9400
9600
9800
10000
10200
Station (ft)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WS PF 1
Ground
Bank Sta
Elevation (ft)
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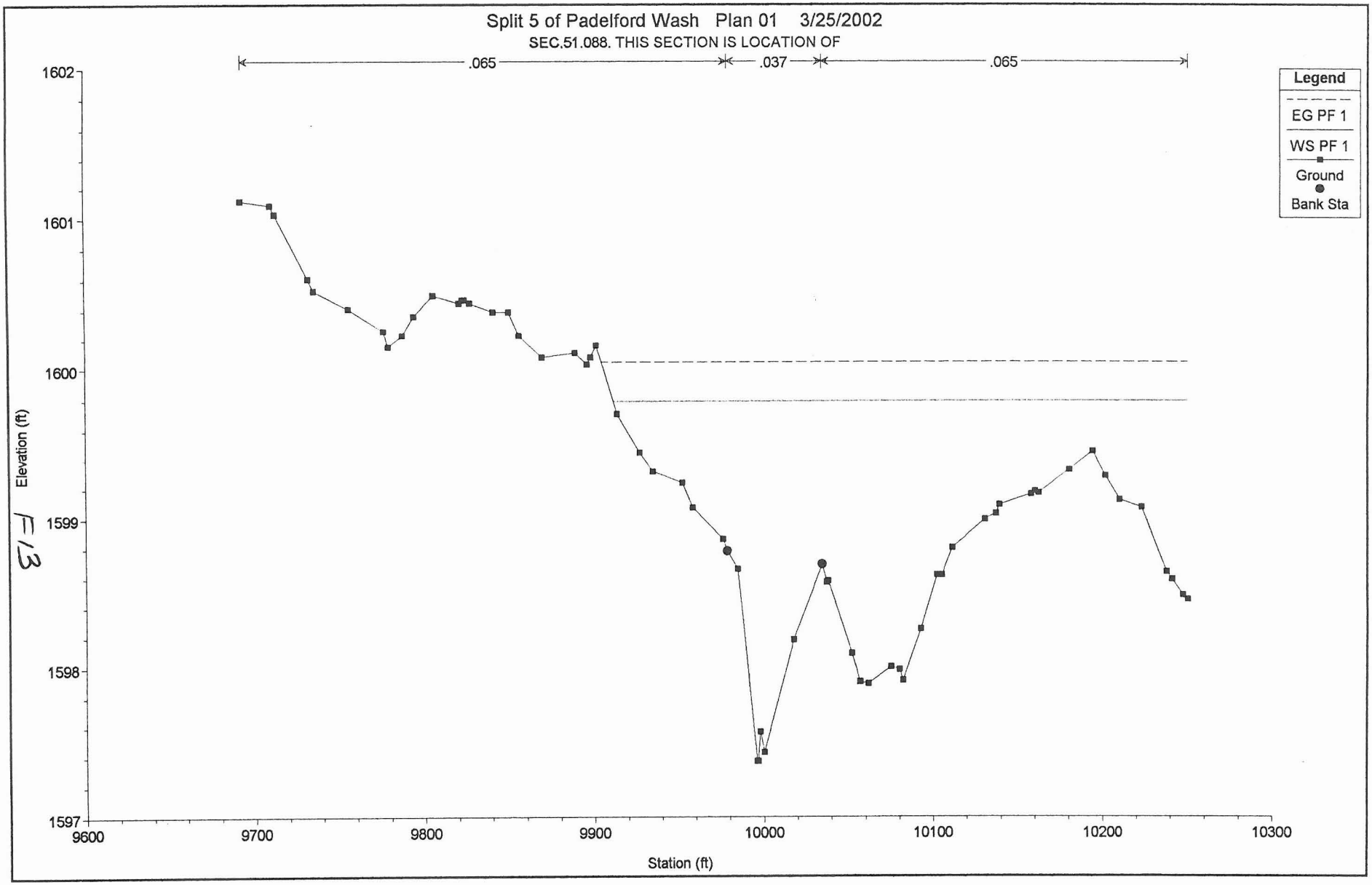
1597
1596
1595
1594
9600
9700
9800
9900
10000
10100
10200
Station (ft)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Legend
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WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
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1601
1600
1599
1598
1597
9600
9700
9800
9900
10000
10100
10200
10300