

**SCANNED**

HYDRAULIC ANALYSIS

**VYNE ADDITION**

WICHITA, SEDGWICK COUNTY, KANSAS

**SCANNED**

**SCANNED**

*Baughman & Company, P.A.*



HYDRAULIC ANALYSIS

# VYNE ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS

Prepared by

Baughman Company, P.A.

Wichita, Kansas

## INTRODUCTION

This report provides information and documentation to support the proposed floodplain fill along the North Fork Calfskin Creek on the property known as the Vyne Addition in the Northeast Quarter of Section 25, T27S, R2W in the City of Wichita, Sedgwick County, Kansas.

The initial study and application for a Letter of Map Revision was conducted by P.E.C. in 1993 for the Breezy Pointe and Breezy Pointe 2nd Additions. Information from this study, along with another study conducted by M.S. Mitchell in 1993 for the Maple Valley Addition was used in the analysis. The topographic survey used to insert an additional cross-section is dated February 1993.

The following pages provide the HEC-2 computer model results for both the pre- and post-developed conditions, cross-sections affected by the proposed fill, and the topographic work map.

HEC-2 INPUT & OUTPUT  
FLOODWAY ENCROACHMENT  
PRE-PROJECT

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

\*\*\*\*\*  
\* HEC-2 WATER SURFACE PROFILES \*  
\* \*  
\* Version 4.6.0; February 1991 \*  
\* \*  
\* RUN DATE 20JUN93 TIME 08:29:43 \*  
\*\*\*\*\*

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

```

X   X XXXXXX XXXX          XXXX
X   X X      X   X      X   X
X   X X      X           XXXX
XXXXXXXX XXXX X           XXXX
X   X X      X           X
X   X X      X   X      X
X   X XXXXXX XXXX          XXXXXX

```

20JUN93 08:29:43

PAGE 1

THIS RUN EXECUTED 20JUN93 08:29:43

\*\*\*\*\*  
REC-2 WATER SURFACE PROFILES

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

ALL SECTIONS USED IN THIS MODEL ARE COPIED DIRECTLY FROM  
THOSE USED IN THE "EXISTING CONDITIONS" REC-2 MODEL WHICH WAS  
INCLUDED IN THE APPLICATION FOR A CONDITIONAL LETTER OF MAP  
REVISION SUBMITTED IN APRIL, 1988, WITH THE EXCEPTION OF THE  
SECTIONS LISTED BELOW:

- SECTION 1.000
- SECTION 2.000
- SECTION 3.000
- SECTION 4.000
- SECTION 5.000
- SECTION 6.000
- SECTION 7.000
- SECTION 8.000
- SECTION 9.000
- SECTION 10.000
- SECTION 11.000
- SECTION 12.000
- SECTION 13.000
- SECTION 14.000

SECTIONS 1 TO 7 REFLECT THE CROSS SECTIONS FOR EXISTING CONDITIONS  
AS OF FEBRUARY, 1993.

SECTIONS 8 TO 14 REFLECT AS-BUILT CONDITIONS FOR A CHANNEL WHICH WAS  
CONSTRUCTED FOR THE PURPOSE OF ELIMINATING ANY RISE IN COMPUTED  
WATER SURFACE ELEVATIONS ON ADJACENT UPSTREAM PROPERTIES.  
THE CHANNEL CONSTRUCTION WAS COMPLETED IN JUNE, 1993.  
CROSS SECTIONS 8-14 WERE GENERATED FOR THE MODEL FROM FIELD SURVEY.

NEW FLOODWAY ENCROACHMENT LIMITS WERE SET FOR THE SECTIONS THAT WERE  
MODIFIED. FLOODWAY ENCROACHMENT LIMITS FOR ALL OTHER SECTIONS WERE  
MODELED AT THE SAME LOCATIONS USED IN THE APRIL, 1988 C.L.O.M.R.  
REC-2 MODEL

- T1 MIDDLE AND NORTH FORKS OF CALFSKIN CREEK SEDGWICK COUNTY, KANSAS
- T2 REC-2 ANALYSIS FOR L.O.M.R. FOR BREEZY POINTE PROJECT
- T3 AS-BUILT CONDITIONS MODEL FOR CONSTRUCTION OF A CHANNEL
- T4 REC-2 RUN TO DETERMINE FLOODPLAIN LIMITS (100-YEAR EVENT)
- T5 FILENAME: BRZPNT6.DOC

# N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 2

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		2	0	0	-1	0	0	0	1316.0	
J2	NPROF	IPLT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1	0	-1.	0	0	0				
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	110	115	200							
NC	0.051	0.1	0.066	0.1	0.3					
QT	2	3500	3500							
ET			9.1						11070	11570
SECTION ON CALFSKIN CREEK										
X1	0	30.00	11370.0	11425.0	0	0				
GR	1330.0	9550.0	1320.0	10000.0	1318.0	10048.0	1316.0	10145.0	1315.5	10270.0
GR	1316.1	10580.0	1317.2	10740.0	1316.2	10885.0	1316.0	11185.0	1315.0	11270.0
GR	1314.6	11280.0	1315.0	11295.0	1316.0	11315.0	1314.0	11340.0	1312.0	11370.0
GR	1310.0	11390.0	1309.9	11398.0	1310.0	11405.0	1308.3	11413.0	1310.0	11420.0
GR	1312.0	11425.0	1314.0	11445.0	1315.0	11535.0	1315.6	11730.0	1315.4	11905.0
GR	1315.4	12110.0	1316.1	12305.0	1316.0	12510.0	1320.0	12825.0	1330.0	13800.0
ET			9.1						11070	11570
X1	0.002	0	0	0	10.0	10.0	10.0			
ET			9.1						11070	11570
X1	0.004				10	10	10			
NC	0.050	0.050								
ET			9.1						10180	10720
SECTION A										
X1	0.070	22	10200.0	10258.0	1	1600	350			
GR	1330.0	8475	1328.0	8650	1322.0	8895	1320.5	8995	1318.00	9045
GR	1316.0	9205	1318.0	9465	1320.0	9505	1317.8	9745	1316.7	10045.0
GR	1316.7	10049	1315.6	10200	1312.4	10220	1309.7	10226	1309.1	10229
GR	1309.5	10231	1311.4	10234	1316.2	10258	1314.6	10400	1314.8	10600
GR	1320.0	12000	1330.0	12500						
NC	0	0	0.067							
ET			9.1						10200	10840
SECTION B										
X1	0.420	19	10569	10621	700	575	1850			
X3	10	0								
GR	1330.0	9100	1325.0	9600	1320.0	9900	1316.3	10000	1316.0	10200
GR	1316.3	10400	1316.8	10500	1317.8	10569	1315.2	10587	1312.8	10590
GR	1312.8	10594	1312.7	10598	1313.9	10601	1316.7	10621	1316.5	10800
GR	1316.3	11000	1320.0	11400	1325.0	11525	1330.0	11600		

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93

08:29:43

PAGE 3

ET			9.1						10200	10840
X1	0.430	0	0	0	85	350	85			
NC		0		0.3	0.5					
ET			9.1						10080	10720
X1	0.450	19	10469	10532	85	350	85			
X3	10	0						1318.2	1318.2	
GR	1330.0	8900	1325.0	9400	1316.3	9900	1316.0	10100	1316.3	10300
GR	1316.8	10400.0	1317.8	10469	1315.0	10478	1312.4	10484	1311.7	10495
GR	1312.2	10521.0	1312.3	10527	1316.7	10532	1316.5	10700	1316.3	10900
GR	1320.0	11300.0	1321.9	11600	1325.0	11800	1330.0	11900		
SB	1.050	1.6	2.6	0	36	2	249	0.530		
ET			9.1						10080	10720
MAPLE STREET SECTION ON CALFSKIN CREEK										
X1	0.455	0	0	0	25	25	25			
X2		0	1	1318.3	1321.0					
X3	10	0	0	0	0	0	0	1321.0	1321.0	
BT	12	8900	1330.0	0	9400	1325.0	0	10000	1321.3	0
BT	10200	1321.0	0	10300	1321.1	0	10478	1321.2	0	11000
BT	1321.1	0	11200	1321.5	0	11400	1321.6	0	11600	1321.9
BT	0	11800.0	1325.0	0	11900	1330.0	0	0	0	0
NC	0.040	0.040	0.050							
ET			9.1						1770	2200
X1	1	15	1780	2145	150	150	150			
X3	10							1321.00	1320.00	
GR	1330.0	1000	1328.00	1120	1326.00	1220	1324.00	1330	1322.00	1445
GR	1322.0	1760	1321.00	1780	1320.00	1795	1316.00	1820	1313.00	1900
GR	1316.0	2000	1316.00	2120	1320.00	2145	1320.00	2300	1322.00	2350
NC				0.4	0.6					
ET			9.1						1450	1950
X1	2	19	1430	1970	120	80	100			
X3	10							1322.00	1320.00	
GR	1330.0	910	1328.00	990	1326.00	1110	1324.00	1210	1322.00	1320
GR	1322.0	1410	1322.00	1430	1316.00	1490	1313.00	1650	1316.00	1755
GR	1317.0	1810	1318.00	1840	1319.00	1900	1319.00	1965	1320.00	1970
GR	1321.0	1985	1322.00	2035	1323.00	2050	1323.00	2100		
ET			9.1						1330	1950
X1	3	19	1295	1950	200	80	100			
X3	10							1324.00	1320.00	
GR	1332.0	1030	1330.00	1110	1328.00	1160	1326.00	1245	1324.00	1295
GR	1316.0	1355	1310.00	1400	1308.00	1420	1308.00	1680	1310.00	1700
GR	1316.0	1830	1317.00	1860	1318.00	1900	1319.00	1930	1320.00	1950
GR	1321.0	1990	1322.00	2025	1323.00	2050	1323.00	2125		

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93

08:29:43

PAGE 4

NC			0.1	0.3						
ET			9.1						1280	1880
X1	4	19	1250	1920	190	150	170			
X3	10							1325.00	1320.00	
GR	1330.0	830	1328.00	960	1326.00	1100	1325.00	1250	1316.00	1300
GR	1310.0	1340	1308.00	1360	1308.00	1735	1310.00	1755	1316.00	1840
GR	1319.0	1900	1320.00	1920	1321.00	1940	1322.00	1965	1323.00	1990
GR	1324.0	2000	1324.00	2050	1323.00	2090	1322.00	2120		
ET			9.1						1390	1920
X1	5	20	1365	2060	200	210	200			
X3	10							1325.00	1321.00	
GR	1330.0	1000	1328.00	1100	1328.00	1200	1326.00	1340	1325.00	1365
GR	1316.0	1410	1310.00	1515	1308.00	1535	1308.00	1840	1310.00	1860
GR	1316.0	1930	1317.00	1960	1318.00	2000	1319.00	2030	1320.00	2055
GR	1321.0	2060	1322.00	2085	1323.00	2125	1324.00	2155	1324.00	2190
ET			9.1						1280	1750
X1	6	23	1255	1780	320	380	350			
X3	10							1324.00	1320.00	
GR	1330.0	1000	1330.00	1040	1329.00	1080	1328.00	1110	1327.00	1145
GR	1326.0	1175	1325.00	1210	1324.00	1255	1316.00	1300	1310.00	1350
GR	1308.0	1370	1308.00	1655	1310.00	1675	1316.00	1710	1317.00	1730
GR	1318.0	1765	1319.00	1775	1320.00	1780	1321.00	1800	1322.00	1830
GR	1323.0	1860	1324.00	1895	1324.00	1930				
ET			9.1						1300	2040
X1	7	22	1290	2050	370	390	440			
X3	10							1322.00	1322.00	
GR	1322.0	880	1332.00	900	1331.00	955	1330.00	1010	1329.00	1085
GR	1328.0	1115	1327.00	1140	1326.00	1175	1325.00	1220	1324.00	1250
GR	1323.0	1270	1322.00	1290	1314.00	1335	1310.00	1375	1308.00	1395
GR	1308.0	1980	1310.00	2000	1322.00	2050	1323.00	2080	1324.00	2130
GR	1325.0	2195	1325.00	2245						

SECTION 8 WAS GENERATED FROM AS-BUILT SURVEY FOR EXCAVATED CHANNEL  
 THE 1330.00 ELEVATION IN THE X3 CARD IS USED TO CONFINE EFFECTIVE  
 FLOW CONVEYANCE WITHIN THE CHANNEL BANKS AND IS NOT AN ACTUAL ELEVATION

ET			9.1						2125	2290
MIDDLE FORK AND NORTH FORK CONFLUENCE SECTION										
X1	8	19	2100	2500	445	270	360			
X3	10							1330.00	1323.00	
GR	1324.0	1950	1323.94	2010	1323.78	2060	1322.99	2100	1318.59	2125
GR	1318.2	2175	1318.24	2225	1318.62	2290	1322.26	2300	1323.31	2420
GR	1321.1	2435	1322.12	2460	1316.92	2465	1322.16	2475	1323.00	2500
GR	1324.0	2555	1325.00	2600	1326.00	2630	1326.00	2640		

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 5

QT 2 2370 2370

SECTION 9 WAS GENERATED FROM AS-BUILT SURVEY FOR EXCAVATED CHANNEL  
THE 1330.00 ELEVATION IN THE X3 CARD IS USED TO CONFINE EFFECTIVE  
FLOW CONVEYANCE WITHIN THE CHANNEL BANKS AND IS NOT AN ACTUAL ELEVATION

ET			9.1						2220	2350
X1	9	14	2200	2500	215	355	270			
X3	10							1330.00	1326.39	
GR	1324.0	1950	1324.18	2000	1323.96	2015	1326.03	2050	1325.44	2100
GR	1322.6	2145	1323.85	2200	1318.38	2220	1319.07	2300	1319.47	2350
GR	1322.9	2360	1323.08	2405	1324.80	2460	1326.39	2500		

SECTION 10 WAS GENERATED FROM AS-BUILT SURVEY FOR EXCAVATED CHANNEL  
THE 1330.00 ELEVATION IN THE X3 CARD IS USED TO CONFINE EFFECTIVE  
FLOW CONVEYANCE WITHIN THE CHANNEL BANKS AND IS NOT AN ACTUAL ELEVATION

ET			9.1						2245	2360
X1	10	9	2218	2455	105	160	135			
X3	10							1330.00	1326.79	
GR	1324.0	1895	1324.09	2000	1324.45	2100	1322.82	2130	1326.32	2218
GR	1319.6	2245	1319.38	2360	1325.15	2395	1326.79	2455		

SECTION 11 WAS GENERATED FROM AS-BUILT SURVEY FOR EXCAVATED CHANNEL  
THE 1330.00 ELEVATION IN THE X3 CARD IS USED TO CONFINE EFFECTIVE  
FLOW CONVEYANCE WITHIN THE CHANNEL BANKS AND IS NOT AN ACTUAL ELEVATION

ET			9.1						2300	2445
X1	11	10	2281	2500	290	240	260			
X3	10							1330.00	1328.42	
GR	1324.0	1955	1325.00	1985	1325.00	2040	1323.68	2140	1324.82	2200
GR	1324.7	2245	1325.00	2281	1320.33	2300	1319.88	2445	1328.42	2500

NC 0.4 0.6

SECTION 12 WAS GENERATED FROM AS-BUILT SURVEY FOR EXCAVATED CHANNEL  
THE 1330.00 ELEVATION IN THE X3 CARD IS USED TO CONFINE EFFECTIVE  
FLOW CONVEYANCE WITHIN THE CHANNEL BANKS AND IS NOT AN ACTUAL ELEVATION

ET			9.1						2060	2185
X1	12	13	2040	2285	70	70	70			
X3	10							1330.00	1327.52	
GR	1328.0	1010	1327.00	1070	1326.00	1760	1325.29	1840	1324.69	1900
GR	1323.9	1955	1323.22	2000	1325.00	2040	1320.08	2060	1319.79	2185
GR	1322.9	2200	1326.38	2240	1327.52	2285				

SECTION 13 WAS GENERATED FROM AS-BUILT SURVEY FOR EXCAVATED CHANNEL  
THE 1330.00 ELEVATION IN THE X3 CARD IS USED TO CONFINE EFFECTIVE  
FLOW CONVEYANCE WITHIN THE CHANNEL BANKS AND IS NOT AN ACTUAL ELEVATION

# N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93

08:29:43

PAGE 6

ET			9.1						1985	2100
X1	13	11	1965	2280	100	100	100			
X3	10							1330.00	1328.00	
GR	1328.0	980	1327.00	1025	1327.00	1280	1326.05	1835	1325.83	1885
GR	1325.3	1940	1325.50	1965	1320.41	1985	1320.19	2100	1325.20	2125
GR	1328.0	2280								
NC			0.035	0.3	0.5					

SECTION 14 WAS GENERATED FROM AS-BUILT SURVEY FOR EXCAVATED CHANNEL  
 THE 1330.00 ELEVATION IN THE X3 CARD IS USED TO CONFINE EFFECTIVE  
 FLOW CONVEYANCE WITHIN THE CHANNEL BANKS AND IS NOT AN ACTUAL ELEVATION

ET			9.1						1965	2105
JUST DOWNSTREAM OF TRIANGULAR POND ON N. FORK OF CALFSKIN CREEK										
X1	14	10	1945	2300	40	40	40			
X3	10							1330.00	1328.00	
GR	1328.0	990	1327.00	1020	1327.00	1290	1326.34	1850	1325.96	1900
GR	1325.5	1945	1320.77	1965	1320.65	2105	1325.30	2120	1328.00	2300
NH	3	0.040	1900	0.050	2050	0.035	2420			
ET			7.4							
X1	15	9	2050	2420	260	320	310			
X3	10							1324.0	1328.0	
GR	1328.0	1000	1326.0	1140	1324.0	1780	1324.0	1900	1324.0	2050
GR	1322.0	2065	1315.0	2090	1315.0	2350	1328.0	2420		
NH	3	0.035	1135	0.045	1180	0.035	1420			
X1	42	11	1135	1420	140	140	140			
X3	10									
GR	1331.0	1000	1330.0	1025	1328.0	1035	1326.0	1075	1324.9	1100
GR	1326.7	1135	1323.0	1170	1324.0	1180	1315.0	1260	1315.0	1330
GR	1329.0	1420								
NH	3	0.035	1220	0.045	1260	0.035	1500			
X1	43	12	1220	1500	90	90	90			
X3	10									
GR	1332.0	1000	1330.0	1100	1328.0	1130	1319.0	1180	1325.9	1220
GR	1323.8	1240	1324.3	1260	1318.0	1350	1317.7	1360	1318.0	1370
GR	1320.0	1400	1329.0	1500						
NH	3	0.035	1250	0.045	1290	0.035	1550			
X1	44	14	1250	1550	160	160	160			
X3	10									
GR	1336.0	1000	1329.0	1100	1322.0	1140	1318.0	1180	1326.2	1250
GR	1323.9	1278	1326.0	1290	1320.0	1320	1320.0	1370	1319.6	1390
GR	1320.0	1420	1328.0	1480	1329.0	1510	1330.0	1550		

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93

08:29:43

PAGE 7

NE	3	0.035	1355	0.045	1410	0.035	1710			
ET			8.4							
X1	45	13	1355	1650	100	120	110			
X3	10									
GR	1336.0	1000	1326.0	1130	1324.0	1180	1320.8	1230	1322.0	1325
GR	1327.8	1355	1323.9	1385	1326.4	1410	1317.0	1505	1317.0	1555
GR	1320.0	1580	1330.0	1650	1331.1	1710				
NE	3	0.035	1440	0.045	1480	0.035	1720			
X1	46	14	1420	1630	200	260	230			
X3	10									
GR	1333.6	1000	1332.0	1025	1320.1	1080	1321.0	1360	1328.0	1400
GR	1329.0	1420	1326.0	1440	1324.5	1460	1326.0	1480	1327.0	1490
GR	1317.5	1530	1317.5	1570	1330.0	1630	1333.0	1720		
NE	3	0.035	1400	0.045	1460	0.035	1700			
ET			10.4							
X1	47	12	1400	1700	70	110	90			
X3	10									
GR	1333.7	1000	1322.0	1065	1320.2	1100	1320.8	1220	1320.8	1280
GR	1322.0	1340	1328.0	1380	1329.0	1400	1324.8	1460	1326.0	1480
GR	1330.0	1545	1335.0	1700						
NC	0.035	0.035	0.035	0.1	0.3					
X1	48	10	1350	1700	120	40	80			
X3	10									
GR	1339.0	1000	1324.0	1110	1322.0	1140	1322.0	1240	1329.5	1350
GR	1328.0	1370	1326.0	1390	1325.3	1470	1326.0	1540	1335.0	1700
X1	49	12	1190	1700	120	40	80			
GR	1339.0	1000	1332.0	1190	1331.2	1270	1330.0	1350	1328.0	1395
GR	1326.2	1440	1326.0	1490	1325.7	1500	1326.0	1505	1328.0	1550
GR	1330.0	1560	1335.0	1700						
X1	50	21	1560	1720	150	30	100			
X3	10									
GR	1339.0	1000	1338.0	1025	1336.0	1100	1332.0	1210	1331.7	1240
GR	1332.0	1270	1332.5	1360	1330.0	1330	1328.0	1370	1326.0	1410
GR	1325.0	1420	1326.0	1430	1328.0	1490	1330.0	1540	1335.0	1560
GR	1332.0	1575	1331.0	1585	1330.0	1600	1330.0	1670	1331.0	1680
GR	1336.1	1720								
X1	51	11	1550	1780	130	200	170			
GR	1342.0	1000	1340.0	1050	1340.0	1350	1339.3	1430	1340.0	1480
GR	1340.0	1550	1333.0	1590	1332.6	1650	1333.0	1720	1342.0	1780
GR	1344.0	1860								
X1	52	9	1000	1691	110	240	200			
GR	1342.0	1000	1336.0	1080	1327.0	1150	1325.0	1300	1327.0	1630
GR	1334.0	1660	1336.0	1680	1338.0	1690	1340.0	1691		

# N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 8

X1	53	11	1000	1600	180	50	120				
GR	1340.0	1000	1338.0	1040	1336.0	1080	1334.0	1180	1327.0	1220	
GR	1325.0	1330	1327.0	1500	1334.0	1525	1336.0	1540	1338.0	1560	
GR	1340.0	1600									
NC	0.040	0.040	0.050								
	LIMIT OF DETAILED STUDY										
X1	1.950	17	10190	10245	1300	1700	3010				
GR	1345.6	10000	1338.6	10075	1335.0	10165	1334.7	10190	1331.8	10218	
GR	1330.3	10228	1332.3	10240	1334.4	10245	1337.5	10320	1338.0	10433	
GR	1338.2	10520	1342.6	10620	1344.3	10653	1343.0	10675	1346.6	10703	
GR	1346.9	10753	1350.0	10920							
QT	2	3500	3500						2125	2290	
ET			9.1								
X1	-8	19	2100	2500	445	270	360				
X3	10							1330.00	1323.00		
GR	1324.0	1950	1323.94	2010	1323.78	2060	1322.99	2100	1318.59	2125	
GR	1318.2	2175	1318.24	2225	1318.62	2290	1322.26	2300	1323.31	2420	
GR	1321.1	2435	1322.12	2460	1316.92	2465	1322.16	2475	1323.00	2500	
GR	1324.0	2555	1325.00	2600	1326.00	2630	1326.00	2640			
QT	2	1140	1140						2125	2290	
ET			9.1								
X1	8.01	19	2100	2500	10	10	10				
X3	10							1330.00	1323.00		
GR	1324.0	1950	1323.94	2010	1323.78	2060	1322.99	2100	1318.59	2125	
GR	1318.2	2175	1318.24	2225	1318.62	2290	1322.26	2300	1323.31	2420	
GR	1321.1	2435	1322.12	2460	1316.92	2465	1322.16	2475	1323.00	2500	
GR	1324.0	2555	1325.00	2600	1326.00	2630	1326.00	2640			
NC	0	0	0	0.4	0.6						
ET			10.4								
X1	16	12	1150	1180	390	120	290				
X3	10							1322.0	1322.0		
GR	1326.0	1000	1324.0	1070	1322.0	1150	1320.0	1155	1318.0	1160	
GR	1316.9	1165	1318.0	1170	1320.0	1175	1322.0	1180	1324.0	1400	
GR	1326.0	1450	1326.0	1500							
NC	0.040	0.040	0.035	0.3	0.5						
	FIRST RAINBOW LAKES POND										
X1	24	6	1000	1260	100	100	100				
GR	1327.0	1000	1315.0	1065	1315.0	1200	1318.0	1210	1326.0	1260	
GR	1327.0	1300									
NC				0.1	0.3						
X1	25	0	0	0	580	580	580				

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93

08:29:43

PAGE 9

X1	26	7	1000	1400	150	400	275			
GR	1327.5	1000	1326.0	1040	1320.0	1080	1315.0	1110	1315.0	1250
GR	1326.0	1360	1327.0	1400						
X1	27	5	1000	1290	30	120	75			
GR	1327.5	1000	1326.0	1030	1315.0	1100	1315.0	1190	1328.0	1290
X1	28	6	1000	1425	250	250	250			
GR	1328.0	1000	1318.0	1100	1315.0	1115	1315.0	1325	1318.0	1340
GR	1328.2	1425								
X1	29	5	1000	1660	250	230	230			
GR	1328.2	1000	1328.0	1015	1315.0	1140	1315.0	1580	1330.0	1660
X1	30	5	1090	1500	180	180	180			
GR	1331.0	1000	1330.0	1090	1315.0	1220	1315.0	1370	1331.0	1500
X1	31	6	1035	1405	250	180	210			
GR	1338.0	1000	1336.0	1035	1326.0	1110	1315.0	1200	1315.0	1300
GR	1332.0	1405								
NC	0.035	0.035	0.050	0.3	0.5					
X1	32	5	1000	1380	20	20	20			
GR	1334.0	1000	1318.7	1130	1319.3	1270	1319.0	1290	1334.6	1380
X1	33	8	1050	1290	40	40	40			
GR	1337.0	1000	1335.0	1050	1332.1	1070	1331.4	1090	1332.3	1140
GR	1333.1	1200	1335.0	1290	1339.8	1350				
X1	34	8	1030	1270	15	15	15			
GR	1337.0	1000	1335.2	1030	1332.4	1060	1332.8	1100	1332.6	1170
GR	1333.1	1230	1337.5	1270	1339.8	1330				
NC	0.035	0.035	0.035	0.1	0.3					
X1	35	9	1000	1400	600	400	500			
GR	1343.1	1000	1338.0	1030	1336.0	1070	1336.3	1130	1335.9	1170
GR	1336.1	1200	1334.9	1290	1336.0	1360	1340.4	1400		
X1	36	8	1000	1440	260	260	260			
GR	1342.0	1000	1340.0	1025	1338.9	1070	1338.0	1200	1336.0	1285
GR	1335.7	1350	1336.0	1410	1340.8	1440				
X1	37	7	1000	1290	200	150	150			
GR	1340.5	1000	1340.0	1060	1338.0	1120	1336.0	1160	1336.0	1185
GR	1338.0	1265	1340.9	1290						
X1	LIMIT OF DETAILED STUDY									
	38				200	200	200			

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 10

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

\*PROF 1

CCHV= .100 CEHV= .300  
\*SECNO .000

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED

SECTION ON CALFSKIN CREEK

.000	7.52	1315.82	1315.82	1316.00	1316.35	.52	.00	.00	1312.00
3500.0	718.1	2176.2	605.7	206.9	308.8	446.4	.0	.0	1312.00
.00	3.47	7.05	1.36	.051	.066	.100	.000	1308.30	10189.04
.010023	0.	0.	0.	0	7	0	.00	1270.67	12228.07

\*SECNO .002

3265 DIVIDED FLOW

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

.002	7.94	1316.24	.00	.00	1316.44	.20	.07	.03	1312.00
3500.0	961.7	1655.8	882.5	486.4	331.8	845.3	.3	.4	1312.00
.00	1.98	4.99	1.04	.051	.066	.100	.000	1308.30	10133.27
.004567	10.	10.	10.	5	0	0	.00	2117.53	12529.05

\*SECNO .004

3265 DIVIDED FLOW

.004	8.02	1316.32	.00	.00	1316.49	.17	.04	.00	1312.00
3500.0	1018.1	1564.1	917.8	555.2	335.7	923.8	.7	.9	1312.00
.00	1.83	4.66	.99	.051	.066	.100	.000	1308.30	10129.83
.003919	10.	10.	10.	0	0	0	.00	2147.15	12534.64

\*SECNO .070

3265 DIVIDED FLOW

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 11

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

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.39

SECTION A

.070	8.60	1317.70	.00	.00	1317.72	.02	1.22	.01	1315.60
3500.0	523.9	436.6	2539.5	675.4	270.8	2055.2	57.9	42.3	1316.20
.21	.78	1.61	1.24	.050	.066	.050	.000	1309.10	9069.25
.000687	1.	350.	1600.	4	0	0	.00	1963.15	11379.93

\*SECNO .420

SECTION B

.420	5.65	1318.35	.00	.00	1318.38	.04	.66	.00	1317.80
3500.0	1915.8	270.9	1313.3	1186.9	166.9	928.2	101.8	67.3	1316.70
.34	1.61	1.62	1.41	.050	.067	.050	.000	1312.70	9944.69
.001174	700.	1850.	575.	4	0	0	.00	1276.53	11221.22

\*SECNO .430

.430	5.84	1318.54	.00	.00	1318.57	.03	.18	.00	1317.80
3500.0	1905.8	254.8	1339.4	1307.3	176.9	1045.4	112.5	73.6	1316.70
.38	1.46	1.44	1.28	.050	.067	.050	.000	1312.70	9939.50
.000855	85.	85.	350.	2	0	0	.00	1302.47	11241.98

CCHV= .300 CEHV= .500

\*SECNO .450

.450	6.97	1318.67	.00	.00	1318.69	.02	.12	.00	1317.80
3500.0	1750.0	574.3	1175.7	1475.2	357.1	1104.7	124.4	80.0	1316.70
.42	1.19	1.61	1.06	.050	.067	.050	.000	1311.70	9763.86
.000550	85.	85.	350.	2	0	0	.00	1392.25	11156.10

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON SB CARD NOT SPECIFIED  
 5227 DOWNSTREAM ELEV IS 1317.15, NOT 1318.67 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFO	FDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.05	1.60	2.60	.00	36.00	2.00	249.00	.53	1311.70	1311.70

\*SECNO .455

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 12

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

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.16

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1323.58	1320.88	.00	816.	2691.	249.	247.	1318.30	1321.00	1384.
MAPLE STREET SECTION ON CALFSKIN CREEK									
.455	9.87	1321.57	.00	.00	1321.57	.00	2.88	.00	1317.80
3500.0	1752.0	274.9	1473.1	3762.8	539.9	3431.7	127.4	81.0	1316.70
.43	.47	.51	.43	.050	.067	.050	.000	1311.70	9597.12
.000032	25.	25.	25.	0	0	5	.00	1950.81	11547.92

\*SECNO 1.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .35

1.000	8.56	1321.56	.00	.00	1321.60	.04	.01	.02	1321.00
3500.0	.8	3289.9	209.3	3.2	2132.4	272.5	144.9	85.3	1320.00
.46	.25	1.54	.77	.040	.050	.040	.000	1313.00	1768.77
.000257	150.	150.	150.	2	0	0	.00	570.26	2339.03

CCHV= .400 CEHV= .600

\*SECNO 2.000

3495 OVERRBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1322.00 ELREA= 1320.00

2.000	8.60	1321.60	.00	.00	1321.62	.02	.02	.00	1322.00
3500.0	.0	3488.9	11.1	.0	2807.0	25.5	150.9	86.6	1320.00
.48	.00	1.24	.44	.000	.050	.040	.000	1313.00	1434.01
.000193	120.	100.	80.	2	0	0	.00	580.96	2014.97

\*SECNO 3.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.27

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 13

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1324.00 ELREA= 1320.00

3.000	13.63	1321.63	.00	.00	1321.63	.01	.00	.01	1324.00	
3500.0	.0	3491.8	8.2	.0	6132.2	52.0	161.2	88.0	1320.00	
.53	.00	.57	.16	.000	.050	.040	.000	1308.00	1312.79	
.000018	200.	100.	80.	0	0	0	.00	699.18	2011.97	

CCHV= .100 CEEV= .300  
\*SECNO 4.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1325.00 ELREA= 1320.00

4.000	13.63	1321.63	.00	.00	1321.64	.00	.00	.00	1325.00	
3500.0	.0	3496.6	3.4	.0	7080.6	27.9	187.1	90.7	1320.00	
.63	.00	.49	.12	.000	.050	.040	.000	1308.00	1268.66	
.000011	190.	170.	150.	1	0	0	.00	687.36	1956.02	

\*SECNO 5.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1325.00 ELREA= 1321.00

5.000	13.64	1321.64	.00	.00	1321.64	.00	.00	.00	1325.00	
3500.0	.0	3499.7	.3	.0	6728.3	5.1	218.9	93.9	1321.00	
.74	.00	.52	.07	.000	.050	.040	.000	1308.00	1381.82	
.000014	200.	200.	210.	0	0	0	.00	694.10	2075.92	

\*SECNO 6.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1324.00 ELREA= 1320.00

6.000	13.64	1321.64	.00	.00	1321.65	.01	.01	.00	1324.00	
3500.0	.0	3495.5	4.5	.0	5506.9	29.0	268.2	98.9	1320.00	
.89	.00	.63	.16	.000	.050	.040	.000	1308.00	1268.27	
.000019	320.	350.	380.	0	0	0	.00	550.94	1819.22	

\*SECNO 7.000

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 14

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

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.85

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1322.00 ELREA= 1322.00

7.000	13.65	1321.65	.00	.00	1321.65	.00	.00	.00	1322.00
3500.0	.0	3500.0	.0	.0	9322.4	.0	343.2	105.5	1322.00
1.21	.00	.38	.00	.000	.050	.000	.000	1308.00	1291.99
.000006	370.	440.	390.	0	0	0	.00	756.54	2048.53

\*SECNO 8.000

3265 DIVIDED FLOW

3301 EV CHANGED MORE THAN EVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .02

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1323.00

MIDDLE FORK AND NORTH FORK CONFLUENCE SECTION

8.000	4.24	1321.16	.00	.00	1321.87	.71	-.01	.21	1322.99
3500.0	.0	3500.0	.0	.0	516.2	.0	383.9	109.4	1323.00
1.23	.00	6.78	.00	.000	.050	.000	.000	1316.92	2110.40
.015106	445.	360.	270.	3	0	0	.00	200.64	2473.09

\*SECNO 9.000

3301 EV CHANGED MORE THAN EVINS

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1326.39

9.000	5.12	1323.50	.00	.00	1323.69	.18	1.76	.05	1323.85
2370.0	.0	2370.0	.0	.0	690.8	.0	387.6	110.7	1326.39
1.25	.00	3.43	.00	.000	.050	.000	.000	1318.38	2201.27
.002872	215.	270.	355.	2	0	0	.00	217.23	2418.50

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 15

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

\*SECNO 10.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1326.79

10.000	4.48	1323.86	.00	.00	1324.10	.24	.40	.02	1326.32
2370.0	.0	2370.0	.0	.0	599.9	.0	389.6	111.3	1326.79
1.26	.00	3.95	.00	.000	.050	.000	.000	1319.38	2227.88
.003038	105.	135.	160.	3	0	0	.00	159.29	2387.17

\*SECNO 11.000

3280 CROSS SECTION 11.00 EXTENDED .56 FEET

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1328.42

11.000	4.68	1324.56	.00	.00	1324.71	.15	.60	.01	1325.00
2370.0	.0	2370.0	.0	.0	753.0	.0	393.7	112.4	1328.42
1.28	.00	3.15	.00	.000	.050	.000	.000	1319.88	2282.79
.001829	290.	260.	240.	2	0	0	.00	192.35	2475.14

CCHV= .400 CEHV= .600

\*SECNO 12.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1327.52

12.000	4.90	1324.69	.00	.00	1324.86	.18	.14	.01	1325.00
2370.0	.0	2370.0	.0	.0	705.8	.0	394.8	112.7	1327.52
1.29	.00	3.36	.00	.000	.050	.000	.000	1319.79	2041.27
.002068	70.	70.	70.	2	0	0	.00	179.28	2220.55

\*SECNO 13.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1328.00

13.000	4.71	1324.90	.00	.00	1325.12	.22	.23	.03	1325.50
2370.0	.0	2370.0	.0	.0	622.6	.0	396.3	113.0	1328.00
1.30	.00	3.81	.00	.000	.050	.000	.000	1320.19	1967.39
.002615	100.	100.	100.	1	0	0	.00	156.07	2123.46

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 16

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

CHEV= .300 CEHV= .500  
 \*SECNO 14.000

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1328.00

JUST DOWNSTREAM OF TRIANGULAR POND ON N. FORK OF CALFSKIN CREEK

14.000	4.35	1325.01	.00	.00	1325.20	.20	.07	.01	1325.50
2370.0	.0	2370.0	.0	.0	668.8	.0	396.9	113.2	1328.00
1.30	.00	3.54	.00	.000	.035	.000	.000	1320.65	1947.12
.001149	40.	40.	40.	1	0	0	.00	171.91	2119.03

1490 NE CARD USED  
 \*SECNO 15.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 8.47

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1324.00 ELREA= 1328.00

15.000	10.26	1325.26	.00	.00	1325.27	.01	.02	.06	1324.00
2370.0	80.7	2289.3	.0	597.0	3155.4	.0	412.3	117.1	1328.00
1.42	.14	.73	.00	.043	.035	.000	.000	1315.00	1375.47
.000016	260.	310.	320.	2	0	0	.00	1029.80	2405.27

1490 NE CARD USED  
 \*SECNO 42.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1326.70 ELREA= 1329.00

42.000	10.25	1325.25	.00	.00	1325.29	.04	.00	.01	1326.70
2370.0	.0	2370.0	.0	.0	1557.8	.0	420.9	119.1	1329.00
1.45	.00	1.52	.00	.000	.033	.000	.000	1315.00	1148.67
.000100	140.	140.	140.	2	0	0	.00	247.25	1395.92

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 17

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

1490 NH CARD USED  
\*SECNO 43.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .41

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1325.90 ELREA= 1329.00

43.000	7.54	1325.24	.00	.00	1325.35	.11	.02	.04	1325.90
2370.0	.0	2370.0	.0	.0	888.2	.0	423.4	119.6	1329.00
1.46	.00	2.67	.00	.000	.033	.000	.000	1317.70	1226.33
.000596	90.	90.	90.	2	0	0	.00	231.84	1458.17

1490 NH CARD USED  
\*SECNO 44.000

3265 DIVIDED FLOW

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1326.20 ELREA= 1330.00

44.000	5.72	1325.32	.00	.00	1325.48	.16	.11	.02	1326.20
2370.0	.0	2370.0	.0	.0	737.6	.0	426.4	120.4	1330.00
1.47	.00	3.21	.00	.000	.033	.000	.000	1319.60	1260.67
.000852	160.	160.	160.	2	0	0	.00	192.00	1459.93

1490 NH CARD USED  
\*SECNO 45.000

3265 DIVIDED FLOW

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1327.80 ELREA= 1330.00

45.000	8.49	1325.49	.00	.00	1325.56	.07	.05	.03	1327.80
2370.0	.0	2370.0	.0	.0	1090.8	.0	428.7	120.9	1330.00
1.48	.00	2.17	.00	.000	.033	.000	.000	1317.00	1372.79
.000290	100.	110.	120.	2	0	0	.00	227.28	1618.41

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 18

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

1490 NH CARD USED  
\*SECNO 46.000

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .57

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1329.00 ELREA= 1330.00

46.000	8.02	1325.52	.00	.00	1325.74	.22	.11	.08	1329.00
2370.0	.0	2370.0	.0	.0	624.5	.0	433.2	121.9	1330.00
1.50	.00	3.80	.00	.000	.031	.000	.000	1317.50	1446.39
.000885	200.	230.	260.	2	0	0	.00	139.48	1608.50

1490 NH CARD USED

\*SECNO 47.000

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1329.00 ELREA= 1335.00

47.000	4.22	1329.02	1329.02	.00	1329.04	.01	.01	.06	1329.00
2370.0	2276.5	93.5	.0	2559.9	274.3	.0	-436.2	122.5	1335.00
1.53	.89	.34	.00	.035	.039	.000	.000	1324.80	1025.97
.000029	70.	90.	110.	20	14	0	.00	503.18	1529.15

CCHV= .100 CEHV= .300

\*SECNO 48.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .11

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1329.50 ELREA= 1335.00

48.000	3.57	1328.87	.00	.00	1329.12	.24	.01	.07	1329.50
2370.0	.0	2370.0	.0	.0	599.5	.0	440.5	123.3	1335.00
1.53	.00	3.95	.00	.000	.035	.000	.000	1325.30	1358.35
.002458	120.	80.	40.	2	0	0	.00	232.74	1591.09

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 19

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

\*SECNO 49.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .53

49.000	3.23	1328.93	.00	.00	1329.57	.64	.34	.12	1332.00
2370.0	.0	2370.0	.0	.0	369.2	.0	441.4	123.7	1335.00
1.54	.00	6.42	.00	.000	.035	.000	.000	1325.70	1374.03
.008828	120.	80.	40.	2	0	0	.00	180.63	1554.66

\*SECNO 50.000

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLA= 1335.00 ELREA= 1336.10

50.000	2.77	1332.77	1332.77	.00	1333.91	1.13	1.09	.15	1335.00
2370.0	.0	2370.0	.0	.0	277.3	.0	442.2	124.1	1336.10
1.54	.00	8.55	.00	.000	.035	.000	.000	1330.00	1571.14
.013722	150.	100.	30.	20	11	0	.00	122.75	1693.89

\*SECNO 51.000

51.000	2.56	1335.16	.00	.00	1335.93	.78	1.99	.04	1340.00
2370.0	.0	2370.0	.0	.0	334.9	.0	443.4	124.6	1342.00
1.55	.00	7.08	.00	.000	.035	.000	.000	1332.60	1577.68
.010116	130.	170.	200.	2	0	0	.00	156.68	1734.37

\*SECNO 52.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 40.82

52.000	11.01	1336.01	.00	.00	1336.01	.00	.00	.08	1342.00
2370.0	.0	2370.0	.0	.0	5306.9	.0	456.3	126.3	1340.00
1.67	.00	.45	.00	.000	.035	.000	.000	1325.00	1079.85
.000006	110.	200.	240.	2	0	0	.00	600.21	1680.06

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 20

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

\*SECNO 53.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .53

53.000	11.01	1336.01	.00	.00	1336.02	.01	.00	.00	1340.00
2370.0	.0	2370.0	.0	.0	3276.9	.0	468.1	127.8	1340.00
1.72	.00	.72	.00	.000	.035	.000	.000	1325.00	1079.81
.000021	180.	120.	50.	2	0	0	.00	460.29	1540.10

\*SECNO 1.950

3301 HV CHANGED MORE THAN EVINS

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

LIMIT OF DETAILED STUDY

1.950	6.02	1336.32	1336.32	.00	1337.35	1.03	.23	.31	1334.70
2370.0	288.6	1885.8	195.6	58.6	213.8	44.6	590.5	147.4	1334.40
1.82	4.93	8.82	4.38	.040	.050	.040	.000	1330.30	10131.99
.014714	1300.	3010.	1700.	20	11	0	.00	159.47	10291.46

\*SECNO -8.000

START TRIB COMP  
 -8.000 8.000 1321.159

3265 DIVIDED FLOW

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1323.00

-8.000	4.24	1321.16	.00	.00	1321.87	.71	.00	.00	1322.99
3500.0	.0	3500.0	.0	.0	515.9	.0	593.9	148.9	1323.00
1.83	.00	6.78	.00	.000	.050	.000	.000	1316.92	2110.40
.015129	445.	360.	270.	0	0	0	.00	200.58	2473.09

\*SECNO 8.010

3265 DIVIDED FLOW

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 21

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

3301 HV CHANGED MORE THAN HVINS

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1323.00

8.010	5.02	1321.94	.00	.00	1321.98	.04	.04	.07	1322.99
1140.0	.0	1140.0	.0	.0	686.7	.0	594.1	148.9	1323.00
1.83	.00	1.66	.00	.000	.050	.000	.000	1316.92	2105.94
.000761	10.	10.	10.	2	0	0	.00	234.05	2474.59

CCHV= .400 CEHV= .600  
\*SECNO 16.000

3301 HV CHANGED MORE THAN HVINS

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

16.000	6.35	1323.25	1323.25	.00	1323.81	.56	.50	.31	1322.00
1140.0	79.4	842.1	218.4	31.3	123.0	86.1	597.0	150.2	1322.00
1.85	2.54	6.84	2.54	.040	.050	.040	.000	1316.90	1099.96
.008726	390.	290.	120.	20	13	0	.00	217.65	1317.61

CCHV= .300 CEHV= .500  
\*SECNO 24.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 20.49

FIRST RAINBOW LAKES POND									
24.000	8.98	1323.98	.00	.00	1323.99	.01	.01	.17	1327.00
1140.0	.0	1140.0	.0	.0	1617.6	.0	599.2	150.7	1326.00
1.89	.00	.70	.00	.000	.035	.000	.000	1315.00	1016.35
.000021	100.	100.	100.	2	0	0	.00	231.03	1247.38

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 22

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

CCEV= .100 CEHV= .300

\*SECNO 25.000

25.000	8.99	1323.99	.00	.00	1324.00	.01	.01	.00	1327.00
1140.0	.0	1140.0	.0	.0	1620.4	.0	620.7	153.8	1326.00
2.12	.00	.70	.00	.000	.035	.000	.000	1315.00	1016.29
.000021	580.	580.	580.	2	0	0	.00	231.17	1247.46

\*SECNO 26.000

26.000	9.00	1324.00	.00	.00	1324.01	.01	.00	.00	1327.50
1140.0	.0	1140.0	.0	.0	1913.0	.0	631.9	155.4	1327.00
2.24	.00	.60	.00	.000	.035	.000	.000	1315.00	1053.34
.000016	150.	275.	400.	0	0	0	.00	286.65	1339.99

\*SECNO 27.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .70

27.000	9.00	1324.00	.00	.00	1324.01	.01	.00	.00	1327.50
1140.0	.0	1140.0	.0	.0	1379.7	.0	634.7	155.9	1328.00
2.27	.00	.83	.00	.000	.035	.000	.000	1315.00	1042.72
.000032	30.	75.	120.	0	0	0	.00	216.53	1259.24

\*SECNO 28.000

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

28.000	9.01	1324.01	.00	.00	1324.01	.00	.00	.00	1328.00
1140.0	.0	1140.0	.0	.0	2446.6	.0	645.7	157.5	1328.20
2.42	.00	.47	.00	.000	.035	.000	.000	1315.00	1039.95
.000009	250.	250.	250.	0	0	0	.00	350.08	1390.04

\*SECNO 29.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.04

29.000	9.01	1324.01	.00	.00	1324.01	.00	.00	.00	1328.20
1140.0	.0	1140.0	.0	.0	4574.2	.0	664.2	159.9	1330.00
2.67	.00	.25	.00	.000	.035	.000	.000	1315.00	1053.31
.000002	250.	230.	230.	0	0	0	.00	574.77	1628.08

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 23

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

\*SECNO 30.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .40

30.000	9.01	1324.01	.00	.00	1324.02	.00	.00	.00	1330.00
1140.0	.0	1140.0	.0	.0	2034.5	.0	677.9	161.7	1331.00
2.76	.00	.56	.00	.000	.035	.000	.000	1315.00	1141.87
.000014	180.	180.	180.	0	0	0	.00	301.38	1443.25

\*SECNO 31.000

31.000	9.01	1324.01	.00	.00	1324.02	.01	.00	.00	1336.00
1140.0	.0	1140.0	.0	.0	1484.6	.0	686.4	163.0	1332.00
2.84	.00	.77	.00	.000	.035	.000	.000	1315.00	1126.25
.000027	250.	210.	180.	0	0	0	.00	229.42	1355.67

CCEV= .300 CEHV= .500

\*SECNO 32.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .35

32.000	5.31	1324.01	.00	.00	1324.03	.02	.00	.01	1334.00
1140.0	.0	1140.0	.0	.0	991.6	.0	686.9	163.1	1334.60
2.84	.00	1.15	.00	.000	.050	.000	.000	1318.70	1084.85
.000219	20.	20.	20.	0	0	0	.00	234.07	1318.92

\*SECNO 33.000

3301 HV CHANGED MORE THAN HVINS

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

33.000	2.16	1333.56	1333.56	.00	1334.15	.59	.03	.28	1335.00
1140.0	.0	1140.0	.0	.0	185.0	.0	687.5	163.3	1335.00
2.85	.00	6.16	.00	.000	.050	.000	.000	1331.40	1059.96
.035949	40.	40.	40.	20	18	0	.00	161.64	1221.60

\*SECNO 34.000

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 24

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

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.83

34.000	1.88	1334.28	.00	.00	1334.52	.24	.27	.10	1335.20
1140.0	.0	1140.0	.0	.0	289.6	.0	687.5	163.4	1337.50
2.85	.00	3.94	.00	.000	.050	.000	.000	1332.40	1039.82
.010790	15.	15.	15.	2	0	0	.00	200.94	1240.76

CCHV= .100 CEHV= .300  
\*SECNO 35.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.83

35.000	2.20	1337.10	.00	.00	1337.22	.12	2.69	.01	1343.10
1140.0	.0	1140.0	.0	.0	406.0	.0	691.5	166.4	1340.40
2.90	.00	2.81	.00	.000	.035	.000	.000	1334.90	1048.07
.003210	600.	500.	400.	7	0	0	.00	321.90	1369.97

\*SECNO 36.000

36.000	2.21	1337.91	.00	.00	1338.07	.17	.84	.01	1342.00
1140.0	.0	1140.0	.0	.0	346.4	.0	693.8	168.0	1340.80
2.92	.00	3.29	.00	.000	.035	.000	.000	1335.70	1203.82
.003245	260.	260.	260.	3	0	0	.00	218.11	1421.94

\*SECNO 37.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .68

37.000	2.48	1338.48	.00	.00	1338.82	.34	.69	.05	1340.50
1140.0	.0	1140.0	.0	.0	243.9	.0	694.8	168.6	1340.90
2.93	.00	4.67	.00	.000	.035	.000	.000	1336.00	1105.63
.007116	200.	150.	150.	2	0	0	.00	163.50	1269.13

\*SECNO 38.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.01

LIMIT OF DETAILED STUDY									
38.000	3.34	1339.34	.00	.00	1339.47	.13	.63	.02	1340.50
1140.0	.0	1140.0	.0	.0	399.0	.0	696.3	169.5	1340.90
2.95	.00	2.86	.00	.000	.035	.000	.000	1336.00	1079.79
.001766	200.	200.	200.	2	0	0	.00	196.76	1276.55

# N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 25

T1 MIDDLE AND NORTH FORKS OF CALFSKIN CREEK SEDGWICK COUNTY, KANSAS  
 T2 HEC-2 ANALYSIS FOR L.O.M.R. FOR BREZZY POINTE PROJECT  
 T3 AS-BUILT CONDITIONS MODEL FOR CONSTRUCTION OF A CHANNEL  
 T4 HEC-2 RUN TO DETERMINE FLOODWAY ENCROACHMENT LIMITS (100-YEAR EVENT)

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10	3	0	0	-1	0	0	0	1316.0	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2		-1.	0	0	0				

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 26

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

\*PROF 2

CCRV= .100 CEV= .300  
\*SECNO .000

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 11070.0 11570.0 TYPE= 1 TARGET= 500.000  
SECTION ON CALFSKIN CREEK

.000	7.12	1315.42	1315.42	1315.82	1316.41	.99	.00	.00	1312.00
3500.0	602.0	2558.4	339.6	109.7	286.5	143.7	.0	.0	1312.00
.00	5.49	8.93	2.36	.051	.066	.100	.000	1308.30	11234.46
.017787	0.	0.	0.	0	7	0	.00	316.63	11570.00

\*SECNO .002

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.42

3470 ENCROACHMENT STATIONS= 11070.0 11570.0 TYPE= 1 TARGET= 500.000

.002	7.77	1316.07	.00	1316.24	1316.58	.51	.12	.05	1312.00
3500.0	818.2	2188.5	493.3	212.5	322.0	237.5	.2	.1	1312.00
.00	3.85	6.80	2.08	.051	.066	.100	.000	1308.30	11088.31
.008813	10.	10.	10.	4	0	0	.00	481.69	11570.00

\*SECNO .004

3470 ENCROACHMENT STATIONS= 11070.0 11570.0 TYPE= 1 TARGET= 500.000

.004	7.97	1316.27	.00	1316.32	1316.67	.40	.08	.01	1312.00
3500.0	917.9	2057.2	524.9	273.8	333.3	267.1	.3	.2	1312.00
.00	3.35	6.17	1.96	.051	.066	.100	.000	1308.30	11070.00
.006944	10.	10.	10.	2	0	0	.00	500.00	11570.00

\*SECNO .070

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.92

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 27

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

3470 ENCROACHMENT STATIONS= 10180.0 10720.0 TYPE= 1 TARGET= 540.000  
 SECTION A  
 .070 9.18 1318.28 .00 1317.70 1318.34 .05 1.63 .03 1315.60  
 3500.0 77.5 579.0 2843.6 52.2 304.7 1516.7 35.7 11.8 1316.20  
 .14 1.49 1.90 1.87 .050 .066 .050 .000 1309.10 10180.00  
 .000815 1. 350. 1600. 5 0 0 .00 540.00 10720.00

\*SECNO .420

3470 ENCROACHMENT STATIONS= 10200.0 10840.0 TYPE= 1 TARGET= 640.000  
 SECTION B  
 .420 6.39 1319.09 .00 1318.35 1319.15 .06 .81 .00 1317.80  
 3500.0 2001.1 407.7 1091.2 964.6 205.5 549.6 68.3 21.8 1316.70  
 .24 2.07 1.98 1.99 .050 .067 .050 .000 1312.70 10200.00  
 .001329 700. 1850. 575. 4 0 0 .00 640.00 10840.00

\*SECNO .430

3470 ENCROACHMENT STATIONS= 10200.0 10840.0 TYPE= 1 TARGET= 640.000  
 .430 6.59 1319.29 .00 1318.54 1319.35 .06 .20 .00 1317.80  
 3500.0 2005.7 392.9 1101.4 1040.8 216.2 594.8 75.3 24.3 1316.70  
 .27 1.93 1.82 1.85 .050 .067 .050 .000 1312.70 10200.00  
 .001042 85. 85. 350. 2 0 0 .00 640.00 10840.00

CCEV= .300 CEHV= .500

\*SECNO .450

3470 ENCROACHMENT STATIONS= 10080.0 10720.0 TYPE= 1 TARGET= 640.000  
 .450 7.74 1319.44 .00 1318.67 1319.48 .04 .13 .00 1317.80  
 3500.0 1882.0 790.3 827.8 1163.4 405.7 536.2 82.6 26.8 1316.70  
 .29 1.62 1.95 1.54 .050 .067 .050 .000 1311.70 10080.00  
 .000680 85. 85. 350. 2 0 0 .00 640.00 10720.00

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 28

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

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON SB CARD NOT SPECIFIED  
 5227 DOWNSTREAM ELEV IS 1317.15 , NOT 1319.44 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFO	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.05	1.60	2.60	.00	36.00	2.00	249.00	.53	1311.70	1311.70

\*SECNO .455

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.33

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1324.35	1320.88	.00	1151.	2358.	249.	247.	1318.30	1321.00	1506.

3470 ENCROACHMENT STATIONS= 10080.0 10720.0 TYPE= 1 TARGET= 640.000  
 MAPLE STREET SECTION ON CALFSKIN CREEK

.455	9.95	1321.65	.00	1321.57	1321.67	.02	2.18	.00	1317.80
3500.0	2019.9	556.6	923.5	2027.1	545.6	953.6	84.2	27.2	1316.70
.30	1.00	1.02	.97	.050	.067	.050	.000	1311.70	10080.00
.000126	25.	25.	25.	1	0	5	.00	640.00	10720.00

\*SECNO 1.000

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

3470 ENCROACHMENT STATIONS= 1770.0 2200.0 TYPE= 1 TARGET= 430.000

1.000	8.67	1321.67	.00	1321.56	1321.71	.04	.03	.01	1321.00
3500.0	1.4	3422.6	76.0	4.2	2171.5	91.8	94.2	29.0	1320.00
.33	.33	1.58	.83	.040	.050	.040	.000	1313.00	1770.00
.000262	150.	150.	150.	2	0	0	.00	430.00	2200.00

CCEV= .400 CEEV= .600  
 \*SECNO 2.000

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 29

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

3470 ENCROACHMENT STATIONS= 1450.0 1950.0 TYPE= 1 TARGET= 500.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1322.00 ELREA= 1320.00

2.000	8.71	1321.71	.00	1321.60	1321.73	.02	.02	.01	100000.00
3500.0	.0	3500.0	.0	.0	2799.4	.0	100.0	30.1	100000.00
.35	.00	1.25	.00	.000	.050	.000	.000	1313.00	1450.00
.000180	120.	100.	80.	2	0	0	.00	500.00	1950.00

\*SECNO 3.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.25

3470 ENCROACHMENT STATIONS= 1330.0 1950.0 TYPE= 1 TARGET= 620.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1324.00 ELREA= 1320.00

3.000	13.74	1321.74	.00	1321.63	1321.74	.00	.00	.01	100000.00
3500.0	.0	3500.0	.0	.0	6180.2	.0	110.3	31.4	100000.00
.40	.00	.57	.00	.000	.050	.000	.000	1308.00	1330.00
.000017	200.	100.	80.	0	0	0	.00	620.00	1950.00

CCHV= .100 CEHV= .300

\*SECNO 4.000

3470 ENCROACHMENT STATIONS= 1280.0 1880.0 TYPE= 1 TARGET= 600.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1325.00 ELREA= 1320.00

4.000	13.74	1321.74	.00	1321.63	1321.75	.00	.00	.00	100000.00
3500.0	.0	3500.0	.0	.0	7029.0	.0	136.0	33.8	100000.00
.49	.00	.50	.00	.000	.050	.000	.000	1308.00	1280.00
.000011	190.	170.	150.	1	0	0	.00	600.00	1880.00

\*SECNO 5.000

3470 ENCROACHMENT STATIONS= 1390.0 1920.0 TYPE= 1 TARGET= 530.000

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 30

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1325.00 ELREA= 1321.00

5.000	13.75	1321.75	.00	1321.64	1321.75	.00	.00	.00	100000.00
3500.0	.0	3500.0	.0	.0	6246.2	.0	166.5	36.4	100000.00
.59	.00	.56	.00	.000	.050	.000	.000	1308.00	1390.00
.000014	200.	200.	210.	0	0	0	.00	530.00	1920.00

\*SECNO 6.000

3470 ENCROACHMENT STATIONS= 1280.0 1750.0 TYPE= 1 TARGET= 470.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1324.00 ELREA= 1320.00

6.000	13.75	1321.75	.00	1321.64	1321.76	.01	.01	.00	100000.00
3500.0	.0	3500.0	.0	.0	5445.9	.0	213.5	40.4	100000.00
.74	.00	.64	.00	.000	.050	.000	.000	1308.00	1280.00
.000018	320.	350.	380.	0	0	0	.00	470.00	1750.00

\*SECNO 7.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.84

3470 ENCROACHMENT STATIONS= 1300.0 2040.0 TYPE= 1 TARGET= 740.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1322.00 ELREA= 1322.00

7.000	13.76	1321.76	.00	1321.65	1321.76	.00	.00	.00	100000.00
3500.0	.0	3500.0	.0	.0	9388.4	.0	288.4	46.5	100000.00
1.07	.00	.37	.00	.000	.050	.000	.000	1308.00	1300.00
.000005	370.	440.	390.	0	0	0	.00	740.00	2040.00

\*SECNO 8.000

3301 EV CHANGED MORE THAN EVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .02

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 31

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

3470 ENCROACHMENT STATIONS= 2125.0 2290.0 TYPE= 1 TARGET= 165.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1323.00

MIDDLE FORK AND NORTH FORK CONFLUENCE SECTION

8.000	2.94	1321.14	.00	1321.16	1322.04	.90	.01	.27	100000.00
3500.0	.0	3500.0	.0	.0	459.5	.0	329.1	50.2	100000.00
1.09	.00	7.62	.00	.000	.050	.000	.000	1318.20	2125.00
.017454	445.	360.	270.	3	0	0	.00	165.00	2290.00

\*SECNO 9.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.79

3470 ENCROACHMENT STATIONS= 2220.0 2350.0 TYPE= 1 TARGET= 130.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1326.39

9.000	5.18	1323.56	.00	1323.50	1323.80	.24	1.70	.07	100000.00
2370.0	.0	2370.0	.0	.0	602.2	.0	332.4	51.1	100000.00
1.10	.00	3.94	.00	.000	.050	.000	.000	1318.38	2220.00
.002489	215.	270.	355.	1	0	0	.00	130.00	2350.00

\*SECNO 10.000

3470 ENCROACHMENT STATIONS= 2245.0 2360.0 TYPE= 1 TARGET= 115.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1326.79

10.000	4.52	1323.90	.00	1323.86	1324.24	.34	.41	.03	100000.00
2370.0	.0	2370.0	.0	.0	507.0	.0	334.1	51.5	100000.00
1.11	.00	4.67	.00	.000	.050	.000	.000	1319.38	2245.00
.003776	105.	135.	160.	2	0	0	.00	115.00	2360.00

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 32

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

\*SECNO 11.000

3470 ENCROACHMENT STATIONS= 2300.0 2445.0 TYPE= 1 TARGET= 145.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1328.42

11.000	4.87	1324.75	.00	1324.56	1324.95	.19	.69	.01	100000.00
2370.0	.0	2370.0	.0	.0	674.0	.0	337.6	52.3	100000.00
1.13	.00	3.52	.00	.000	.050	.000	.000	1319.88	2300.00
.001960	290.	260.	240.	2	0	0	.00	145.00	2445.00

CCRV= .400 CEEV= .600

\*SECNO 12.000

3470 ENCROACHMENT STATIONS= 2060.0 2185.0 TYPE= 1 TARGET= 125.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1327.52

12.000	5.09	1324.88	.00	1324.69	1325.11	.23	.14	.02	100000.00
2370.0	.0	2370.0	.0	.0	618.6	.0	338.7	52.5	100000.00
1.14	.00	3.83	.00	.000	.050	.000	.000	1319.79	2060.00
.002181	70.	70.	70.	2	0	0	.00	125.00	2185.00

\*SECNO 13.000

3470 ENCROACHMENT STATIONS= 1985.0 2100.0 TYPE= 1 TARGET= 115.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1328.00

13.000	4.92	1325.11	.00	1324.90	1325.40	.29	.25	.03	100000.00
2370.0	.0	2370.0	.0	.0	552.0	.0	340.0	52.8	100000.00
1.14	.00	4.29	.00	.000	.050	.000	.000	1320.19	1985.00
.002868	100.	100.	100.	1	0	0	.00	115.00	2100.00

CCRV= .300 CEEV= .500

\*SECNO 14.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.61

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 33

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

3470 ENCROACHMENT STATIONS= 1965.0 2105.0 TYPE= 1 TARGET= 140.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1328.00

JUST DOWNSTREAM OF TRIANGULAR POND ON N. FORK OF CALFSKIN CREEK

14.000	4.62	1325.27	.00	1325.01	1325.48	.21	.07	.02	100000.00
2370.0	.0	2370.0	.0	.0	638.4	.0	340.6	52.9	100000.00
1.15	.00	3.71	.00	.000	.035	.000	.000	1320.65	1965.00
.001100	40.	40.	40.	2	0	0	.00	140.00	2105.00

1490 NH CARD USED

\*SECNO 15.000

2800 NAT Q1= 5925.86 WSEL= 1325.26 ENC Q1= 6453.56 WSEL= 1325.96 RATIO= -.0890  
 NAT Q1= 6955. RATIOS LOB, CH, ROB= .0721 .9279 .0000 WSEL= 1325.96

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 8.40

3470 ENCROACHMENT STATIONS= 2050.0 2420.0 TYPE= 4 TARGET= .072

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1324.00 ELREA= 1328.00

15.000	10.55	1325.55	.00	1325.26	1325.56	.01	.02	.06	1324.00
2370.0	.0	2370.0	.0	.0	3258.3	.0	354.4	54.7	1328.00
1.27	.00	.73	.00	.000	.035	.000	.000	1315.00	2050.00
.000016	260.	310.	320.	2	0	0	.00	356.82	2406.82

1490 NH CARD USED

\*SECNO 42.000

2800 NAT Q1= 2367.83 WSEL= 1325.25 ENC Q1= 2752.49 WSEL= 1325.95 RATIO= -.1625  
 NAT Q1= 2752. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1325.95

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

3470 ENCROACHMENT STATIONS= 1135.0 1420.0 TYPE= 4 TARGET= .000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1326.70 ELREA= 1329.00

42.000	10.55	1325.55	.00	1325.25	1325.58	.03	.00	.01	1326.70
2370.0	.0	2370.0	.0	.0	1632.1	.0	362.3	55.7	1329.00
1.29	.00	1.45	.00	.000	.033	.000	.000	1315.00	1145.86
.000088	140.	140.	140.	1	0	0	.00	251.98	1397.84

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 34

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

1490 NE CARD USED

\*SECNO 43.000

2800 NAT Q1= 970.88 WSEL= 1325.24 ENC Q1= 1232.99 WSEL= 1325.94 RATIO= -.2700  
 NAT Q1= 1496. RATIOS LOB, CH, ROB= .1760 .8240 .0000 WSEL= 1325.94

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .43

3470 ENCROACHMENT STATIONS= 1220.0 1500.0 TYPE= 4 TARGET= .176

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1325.90 ELREA= 1329.00

43.000	7.83	1325.53	.00	1325.24	1325.62	.10	.02	.03	1325.90
2370.0	.0	2370.0	.0	.0	957.3	.0	365.0	56.2	1329.00
1.30	.00	2.48	.00	.000	.033	.000	.000	1317.70	1223.53
.000484	90.	90.	90.	2	0	0	.00	237.91	1461.44

1490 NE CARD USED

\*SECNO 44.000

2800 NAT Q1= 812.14 WSEL= 1325.32 ENC Q1= 1022.43 WSEL= 1326.02 RATIO= -.2589  
 NAT Q1= 1022. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1326.02

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1250.0 1550.0 TYPE= 4 TARGET= .000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1326.20 ELREA= 1330.00

44.000	6.00	1325.60	.00	1325.32	1325.74	.14	.09	.02	1326.20
2370.0	.0	2370.0	.0	.0	793.0	.0	368.2	57.0	1330.00
1.32	.00	2.99	.00	.000	.033	.000	.000	1319.60	1257.23
.000704	160.	160.	160.	1	0	0	.00	200.58	1462.04

1490 NE CARD USED

\*SECNO 45.000

2800 NAT Q1= 1391.90 WSEL= 1325.49 ENC Q1= 1702.16 WSEL= 1326.29 RATIO= -.2229  
 NAT Q1= 1702. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1326.29

3265 DIVIDED FLOW

# N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 35

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

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.66

3470 ENCROACHMENT STATIONS= 1355.0 1650.0 TYPE= 4 TARGET= .000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1327.80 ELREA= 1330.00

45.000	8.74	1325.74	.00	1325.49	1325.80	.07	.04	.02	1327.80
2370.0	.0	2370.0	.0	.0	1148.9	.0	370.6	57.5	1330.00
1.33	.00	2.06	.00	.000	.033	.000	.000	1317.00	1370.86
.000255	100.	110.	120.	2	0	0	.00	236.01	1620.17

1490 NH CARD USED

\*SECNO 46.000

2800 NAT Q1= 796.47 WSEL= 1325.52 ENC Q1= 962.49 WSEL= 1326.32 RATIO= -.2084  
 NAT Q1= 962. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1326.32

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .57

3470 ENCROACHMENT STATIONS= 1420.0 1630.0 TYPE= 4 TARGET= .000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1329.00 ELREA= 1330.00

46.000	8.27	1325.77	.00	1325.52	1325.97	.20	.09	.07	1329.00
2370.0	.0	2370.0	.0	.0	659.9	.0	375.4	58.5	1330.00
1.35	.00	3.59	.00	.000	.031	.000	.000	1317.50	1443.12
.000779	200.	230.	260.	2	0	0	.00	148.25	1609.68

1490 NH CARD USED

\*SECNO 47.000

2800 NAT Q1= 4366.55 WSEL= 1329.02 ENC Q1= 4366.55 WSEL= 1330.02 RATIO= .0000  
 NAT Q1= 5476. RATIOS LOB, CH, ROB= .9429 .0571 .0000 WSEL= 1330.02

1530 MANNINGS N VALUES FOR CHANNEL COMPOSITED

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 36

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

3470 ENCROACHMENT STATIONS= 1112.3 1700.0 TYPE= 4 TARGET= .203

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1329.00 ELREA= 1335.00

47.000	4.21	1329.01	1329.01	1329.02	1329.02	.02	.01	.05	1329.00
2370.0	2253.9	116.1	.0	2031.8	271.8	.0	378.0	59.0	1335.00
1.37	1.11	.43	.00	.035	.039	.000	.000	1324.80	1112.29
.000047	70.	90.	110.	20	21	0	.00	416.55	1528.84

CCHV= .100 CEHV= .300

\*SECNO 48.000

2800 NAT Q1= 478.05 WSEL= 1328.87 ENC Q1= 791.54 WSEL= 1329.87 RATIO= -.6558

NAT Q1= 3034. RATIOS LOB, CR, ROB= .7391 .2609 .0000 WSEL= 1329.87

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .14

3470 ENCROACHMENT STATIONS= 1350.0 1700.0 TYPE= 4 TARGET= .739

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1329.50 ELREA= 1335.00

48.000	3.56	1328.86	.00	1328.87	1329.11	.24	.01	.07	1329.50
2370.0	.0	2370.0	.0	.0	596.7	.0	381.6	59.8	1335.00
1.38	.00	3.97	.00	.000	.035	.000	.000	1325.30	1358.51
.002491	120.	80.	40.	2	0	0	.00	232.36	1590.87

\*SECNO 49.000

2800 NAT Q1= 252.25 WSEL= 1328.93 ENC Q1= 464.27 WSEL= 1329.93 RATIO= -.8405

NAT Q1= 464. RATIOS LOB, CR, ROB= .0000 1.0000 .0000 WSEL= 1329.93

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .53

3470 ENCROACHMENT STATIONS= 1190.0 1700.0 TYPE= 4 TARGET= .000

49.000	3.22	1328.92	.00	1328.93	1329.57	.64	.34	.12	1332.00
2370.0	.0	2370.0	.0	.0	367.9	.0	382.5	60.2	1335.00
1.38	.00	6.44	.00	.000	.035	.000	.000	1325.70	1374.18
.008914	120.	80.	40.	2	0	0	.00	180.45	1554.63

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 37

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

\*SECNO 50.000  
 2800 NAT Q1= 202.32 WSEL= 1332.77 ENC Q1= 357.91 WSEL= 1333.77 RATIO= -.7691  
 NAT Q1= 358. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1333.77  
 3685 20 TRIALS ATTEMPTED WSEL,CWSEL  
 3693 PROBABLE MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1560.0 1720.0 TYPE= 4 TARGET= .000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1335.00 ELREA= 1336.10

50.000	2.77	1332.77	1332.77	1332.77	1333.91	1.13	1.09	.15	1335.00
2370.0	.0	2370.0	.0	.0	277.3	.0	383.2	60.5	1336.10
1.38	.00	8.55	.00	.000	.035	.000	.000	1330.00	1571.14
.013722	150.	100.	30.	20	11	0	.00	122.75	1693.89

\*SECNO 51.000  
 2800 NAT Q1= 235.64 WSEL= 1335.16 ENC Q1= 433.35 WSEL= 1336.16 RATIO= -.8390  
 NAT Q1= 433. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1336.16

3470 ENCROACHMENT STATIONS= 1550.0 1780.0 TYPE= 4 TARGET= .000

51.000	2.56	1335.16	.00	1335.16	1335.93	.78	1.99	.04	1340.00
2370.0	.0	2370.0	.0	.0	334.9	.0	384.4	61.0	1342.00
1.39	.00	7.08	.00	.000	.035	.000	.000	1332.60	1577.69
.010119	130.	170.	200.	3	0	0	.00	156.68	1734.37

\*SECNO 52.000  
 2800 NAT Q1= 9618.83 WSEL= 1336.01 ENC Q1= 11299.67 WSEL= 1337.01 RATIO= -.1747  
 NAT Q1= 11300. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1337.01

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 40.83

3470 ENCROACHMENT STATIONS= 1000.0 1691.0 TYPE= 4 TARGET= .000

52.000	11.01	1336.01	.00	1336.01	1336.02	.00	.00	.08	1392.00
2370.0	.0	2370.0	.0	.0	5307.3	.0	397.4	62.8	1340.00
1.52	.00	.45	.00	.000	.035	.000	.000	1325.00	1079.84
.000006	110.	200.	240.	2	0	0	.00	600.22	1680.06

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 38

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

\*SECNO 53.000  
 2800 NAT Q1= 5136.16 WSEL= 1336.01 ENC Q1= 6171.46 WSEL= 1337.01 RATIO= -.2016  
 NAT Q1= 6171. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1337.01

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .53

3470 ENCROACHMENT STATIONS= 1000.0 1600.0 TYPE= 4 TARGET= .000  
 53.000 11.01 1336.01 .00 1336.01 1336.02 .01 .00 .00 1390.00  
 2370.0 .0 2370.0 .0 .0 3278.6 .0 409.2 64.2 1340.00  
 1.56 .00 .72 .00 .000 .035 .000 .000 1325.00 1079.73  
 .000021 180. 120. 50. 0 0 0 .00 460.40 1540.13

\*SECNO 1.950  
 2800 NAT Q1= 195.38 WSEL= 1336.32 ENC Q1= 227.70 WSEL= 1337.32 RATIO= -.1654  
 NAT Q1= 347. RATIOS LOB, CH, ROB= .2006 .6571 .1423 WSEL= 1337.32

3301 EV CHANGED MORE TEAN HVINS

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

3470 ENCROACHMENT STATIONS= 10190.0 10245.0 TYPE= 4 TARGET= .343  
 LIMIT OF DETAILED STUDY  
 1.950 5.97 1336.27 1336.27 1336.32 1338.23 1.96 .24 .59 1334.70  
 2370.0 .0 2370.0 .0 .0 211.0 .0 529.8 82.1 1334.40  
 1.64 .00 11.23 .00 .000 .050 .000 .000 1330.30 10190.00  
 .026302 1300. 3010. 1700. 20 11 0 .00 55.00 10245.00

\*SECNO -8.000  
 START TRIB COMP  
 -8.000 8.000 1321.137

3470 ENCROACHMENT STATIONS= 2125.0 2290.0 TYPE= 1 TARGET= 165.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1323.00  
 -8.000 2.94 1321.14 .00 1321.16 1322.04 .90 .00 .00 100000.00  
 3500.0 .0 3500.0 .0 .0 458.8 .0 532.5 83.0 100000.00  
 1.65 .00 7.63 .00 .000 .050 .000 .000 1318.20 2125.00  
 .017537 445. 360. 270. 0 0 0 .00 165.00 2290.00

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 39

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

\*SECNO 8.010

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.64

3470 ENCROACHMENT STATIONS= 2125.0 2290.0 TYPE= 1 TARGET= 165.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.00 ELREA= 1323.00

8.010	3.92	1322.12	.00	1321.94	1322.17	.05	.04	.09	100000.00
1140.0	.0	1140.0	.0	.0	621.1	.0	532.7	83.0	100000.00
1.65	.00	1.84	.00	.000	.050	.000	.000	1318.20	2125.00
.000689	10.	10.	10.	2	0	0	.00	165.00	2290.00

CCHV= .400 CEHV= .600

\*SECNO 16.000

2800 NAT Q1= 122.04 WSEL= 1323.25 ENC Q1= 129.70 WSEL= 1324.25 RATIO= -.0627  
 NAT Q1= 292. RATIOS LOB, CH, ROB= .1483 .4446 .4071 WSEL= 1324.25

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1150.0 1180.0 TYPE= 4 TARGET= .555

16.000	5.77	1322.67	1322.67	1323.25	1324.48	1.81	.60	1.06	1322.00
1140.0	.0	1140.0	.0	.0	105.5	.0	535.1	83.7	1322.00
1.66	.00	10.80	.00	.000	.050	.000	.000	1316.90	1150.00
.028178	390.	290.	120.	20	14	0	.00	30.00	1180.00

CCHV= .300 CEHV= .500

\*SECNO 24.000

2800 NAT Q1= 2501.08 WSEL= 1323.98 ENC Q1= 3038.59 WSEL= 1324.98 RATIO= -.2149  
 NAT Q1= 3039. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1324.98

3301 HV CHANGED MORE THAN HVINS

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 40

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

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 45.08

3470 ENCROACHMENT STATIONS= 1000.0 1260.0 TYPE= 4 TARGET= .000  
 FIRST RAINBOW LAKES POND

24.000	10.02	1325.02	.00	1323.98	1325.03	.01	.01	.54	1377.00
1140.0	.0	1140.0	.0	.0	1864.1	.0	537.3	84.0	1326.00
1.70	.00	.61	.00	.000	.035	.000	.000	1315.00	1010.72
.000014	100.	100.	100.	2	0	0	.00	243.16	1253.88

CCHV= .100 CEHV= .300

\*SECNO 25.000

2800 NAT Q1= 2507.31 WSEL= 1323.99 ENC Q1= 3045.35 WSEL= 1324.99 RATIO= -.2146  
 NAT Q1= 3045. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1324.99

3470 ENCROACHMENT STATIONS= 1000.0 1260.0 TYPE= 4 TARGET= .000

25.000	10.03	1325.03	.00	1323.99	1325.04	.01	.01	.00	1377.00
1140.0	.0	1140.0	.0	.0	1866.1	.0	562.2	87.2	1326.00
1.97	.00	.61	.00	.000	.035	.000	.000	1315.00	1010.68
.000014	580.	580.	580.	0	0	0	.00	243.26	1253.93

\*SECNO 26.000

2800 NAT Q1= 2871.49 WSEL= 1324.00 ENC Q1= 3512.56 WSEL= 1325.00 RATIO= -.2233  
 NAT Q1= 3513. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1325.00

3470 ENCROACHMENT STATIONS= 1000.0 1400.0 TYPE= 4 TARGET= .000

26.000	10.03	1325.03	.00	1324.00	1325.04	.00	.00	.00	1377.50
1140.0	.0	1140.0	.0	.0	2218.2	.0	575.1	88.9	1327.00
2.12	.00	.51	.00	.000	.035	.000	.000	1315.00	1046.45
.000010	150.	275.	400.	0	0	0	.00	303.88	1350.33

\*SECNO 27.000

2800 NAT Q1= 2005.43 WSEL= 1324.00 ENC Q1= 2467.97 WSEL= 1325.00 RATIO= -.2306  
 NAT Q1= 2468. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1325.00

3470 ENCROACHMENT STATIONS= 1000.0 1290.0 TYPE= 4 TARGET= .000

27.000	10.03	1325.03	.00	1324.00	1325.04	.01	.00	.00	1377.50
1140.0	.0	1140.0	.0	.0	1611.0	.0	578.4	89.4	1328.00
2.15	.00	.71	.00	.000	.035	.000	.000	1315.00	1036.14
.000021	30.	75.	120.	0	0	0	.00	231.06	1267.20

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 41

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

\*SECNO 28.000

2800 NAT Q1= 3788.18 WSEL= 1324.01 ENC Q1= 4605.33 WSEL= 1325.01 RATIO= -.2157  
 NAT Q1= 4605. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1325.01

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.86

3470 ENCROACHMENT STATIONS= 1000.0 1425.0 TYPE= 4 TARGET= .000  
 28.000 10.04 1325.04 .00 1324.01 1325.04 .00 .00 .00 1378.00  
 1140.0 .0 1140.0 .0 .0 2817.5 .0 591.1 91.1 1328.20  
 2.32 .00 .40 .00 .000 .035 .000 .000 1315.00 1029.64  
 .000006 250. 250. 250. 0 0 0 .00 369.00 1398.64

\*SECNO 29.000

2800 NAT Q1= 7730.13 WSEL= 1324.01 ENC Q1= 9275.21 WSEL= 1325.01 RATIO= -.1999  
 NAT Q1= 9275. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1325.01

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.01

3470 ENCROACHMENT STATIONS= 1000.0 1660.0 TYPE= 4 TARGET= .000  
 29.000 10.04 1325.04 .00 1324.01 1325.04 .00 .00 .00 1378.20  
 1140.0 .0 1140.0 .0 .0 5172.2 .0 612.2 93.6 1330.00  
 2.61 .00 .22 .00 .000 .035 .000 .000 1315.00 1043.44  
 .000001 250. 230. 230. 0 0 0 .00 590.11 1633.56

\*SECNO 30.000

2800 NAT Q1= 3078.41 WSEL= 1324.01 ENC Q1= 3757.63 WSEL= 1325.01 RATIO= -.2206  
 NAT Q1= 3758. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1325.01

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .41

3470 ENCROACHMENT STATIONS= 1090.0 1500.0 TYPE= 4 TARGET= .000  
 30.000 10.04 1325.04 .00 1324.01 1325.05 .00 .00 .00 1330.00  
 1140.0 .0 1140.0 .0 .0 2353.8 .0 627.7 95.5 1331.00  
 2.71 .00 .48 .00 .000 .035 .000 .000 1315.00 1132.95  
 .000009 180. 180. 180. 0 0 0 .00 318.67 1451.61

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 42

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

\*SECNO 31.000

2800 NAT Q1= 2181.01 WSEL= 1324.01 ENC Q1= 2679.05 WSEL= 1325.01 RATIO= -.2284  
 NAT Q1= 2679. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1325.01

3470 ENCROACHMENT STATIONS= 1035.0 1405.0 TYPE= 4 TARGET= .000  
 31.000 10.04 1325.04 .00 1324.01 1325.05 .01 .00 .00 1336.00  
 1140.0 .0 1140.0 .0 .0 1728.9 .0 637.6 96.9 1332.00  
 2.80 .00 .66 .00 .000 .035 .000 .000 1315.00 1117.81  
 .000018 250. 210. 180. 0 0 0 .00 244.23 1362.04

CEHV= .300 CEHV= .500

\*SECNO 32.000

2800 NAT Q1= 769.94 WSEL= 1324.01 ENC Q1= 1062.14 WSEL= 1325.01 RATIO= -.3795  
 NAT Q1= 1062. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1325.01

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .40

3470 ENCROACHMENT STATIONS= 1000.0 1380.0 TYPE= 4 TARGET= .000  
 32.000 6.34 1325.04 .00 1324.01 1325.05 .01 .00 .00 1384.00  
 1140.0 .0 1140.0 .0 .0 1240.4 .0 638.2 97.0 1334.60  
 2.80 .00 .92 .00 .000 .050 .000 .000 1318.70 1076.10  
 .000113 20. 20. 20. 0 0 0 .00 248.77 1324.87

\*SECNO 33.000

2800 NAT Q1= 60.13 WSEL= 1333.56 ENC Q1= 160.05 WSEL= 1334.56 RATIO= -1.6620  
 NAT Q1= 160. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1334.56

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS= 1050.0 1290.0 TYPE= 4 TARGET= .000  
 33.000 2.16 1333.56 1333.56 1333.56 1334.15 .59 .02 .29 1335.00  
 1140.0 .0 1140.0 .0 .0 184.9 .0 638.9 97.2 1335.00  
 2.81 .00 6.17 .00 .000 .050 .000 .000 1331.40 1059.96  
 .036003 40. 40. 40. 20 22 0 .00 161.60 1221.57



N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 44

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

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

3470 ENCROACHMENT STATIONS=	1000.0	1290.0	TYPE=	4	TARGET=	.000			
37.000	2.48	1338.48	.00	1338.48	1338.82	.34	.70	.05	1390.50
1140.0	.0	1140.0	.0	.0	245.0	.0	646.2	102.5	1340.90
2.89	.00	4.65	.00	.000	.035	.000	.000	1336.00	1105.42
.007022	200.	150.	150.	2	0	0	.00	163.77	1269.19

\*SECNO 38.000  
 2800 NAT Q1= 271.29 WSEL= 1339.34 ENC Q1= 463.20 WSEL= 1340.34 RATIO= -.7074  
 NAT Q1= 463. RATIOS LOB, CH, ROB= .0000 1.0000 .0000 WSEL= 1340.34

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.99

3470 ENCROACHMENT STATIONS=	1000.0	1290.0	TYPE=	4	TARGET=	.000			
LIMIT OF DETAILED STUDY									
38.000	3.34	1339.34	.00	1339.34	1339.47	.13	.63	.02	1390.50
1140.0	.0	1140.0	.0	.0	399.0	.0	647.7	103.3	1340.90
2.91	.00	2.86	.00	.000	.035	.000	.000	1336.00	1079.79
.001766	200.	200.	200.	2	0	0	.00	196.76	1276.55

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 45

THIS RUN EXECUTED 20JUN93 08:29:49

\*\*\*\*\*  
 HEC-2 WATER SURFACE PROFILES  
 Version 4.6.0; February 1991  
 \*\*\*\*\*

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

AS-BUILT CONDITIONS MODE

SUMMARY PRINTOUT TABLE 110

SECNO	CNSL	DIFKNS	EG	TOPWID	QLOB	QCR	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
* .000	1315.82	-.18	1316.35	1270.67	718.09	2176.22	605.69	.00	.00	11370.00	11425.00	.00
* .000	1315.42	-.41	1316.41	316.63	601.99	2558.41	339.60	500.00	11070.00	11370.00	11425.00	11570.00
* .002	1316.24	.00	1316.44	2117.53	961.66	1655.85	882.50	.00	.00	11370.00	11425.00	.00
* .002	1316.07	-.17	1316.58	481.69	818.16	2188.53	493.31	500.00	11070.00	11370.00	11425.00	11570.00
.004	1316.32	.00	1316.49	2147.15	1018.10	1564.08	917.82	.00	.00	11370.00	11425.00	.00
.004	1316.27	-.05	1316.67	500.00	917.94	2057.19	524.87	500.00	11070.00	11370.00	11425.00	11570.00
* .070	1317.70	.00	1317.72	1963.15	523.93	436.60	2539.47	.00	.00	10200.00	10258.00	.00
* .070	1318.28	.59	1318.34	540.00	77.49	578.95	2843.56	540.00	10180.00	10200.00	10258.00	10720.00
.420	1318.35	.00	1318.38	1276.53	1915.76	270.92	1313.31	.00	.00	10569.00	10621.00	.00
.420	1319.09	.74	1319.15	640.00	2001.12	407.70	1091.18	640.00	10200.00	10569.00	10621.00	10840.00
.430	1318.54	.00	1318.57	1302.47	1905.79	254.79	1339.42	.00	.00	10569.00	10621.00	.00
.430	1319.29	.76	1319.35	640.00	2005.71	392.91	1101.38	640.00	10200.00	10569.00	10621.00	10840.00
.450	1318.67	.00	1318.69	1392.25	1750.04	574.26	1175.70	.00	.00	10469.00	10532.00	.00
.450	1319.44	.77	1319.48	640.00	1881.96	790.29	827.75	640.00	10080.00	10469.00	10532.00	10720.00
* .455	1321.57	.00	1321.57	1950.81	1751.97	274.94	1473.10	.00	.00	10469.00	10532.00	.00
* .455	1321.65	.09	1321.67	640.00	2019.87	556.63	923.50	640.00	10080.00	10469.00	10532.00	10720.00
* 1.000	1321.56	.00	1321.60	570.26	.80	3289.92	209.27	.00	.00	1780.00	2145.00	.00
* 1.000	1321.67	.11	1321.71	430.00	1.39	3422.57	76.04	430.00	1770.00	1780.00	2145.00	2200.00
2.000	1321.60	.00	1321.62	580.96	.00	3488.89	11.11	.00	.00	1430.00	1970.00	.00
2.000	1321.71	.11	1321.73	500.00	.00	3500.00	.00	500.00	1450.00	1430.00	1970.00	1950.00
* 3.000	1321.63	.00	1321.63	699.18	.00	3491.80	8.20	.00	.00	1295.00	1950.00	.00
* 3.000	1321.74	.11	1321.74	620.00	.00	3500.00	.00	620.00	1330.00	1295.00	1950.00	1950.00

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 46

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCB	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
4.000	1321.63	.00	1321.64	687.36	.00	3496.56	3.44	.00	.00	1250.00	1920.00	.00
4.000	1321.74	.11	1321.75	600.00	.00	3500.00	.00	600.00	1280.00	1250.00	1920.00	1880.00
5.000	1321.64	.00	1321.64	694.10	.00	3499.67	.33	.00	.00	1365.00	2060.00	.00
5.000	1321.75	.11	1321.75	530.00	.00	3500.00	.00	530.00	1390.00	1365.00	2060.00	1920.00
6.000	1321.64	.00	1321.65	550.94	.00	3495.47	4.53	.00	.00	1255.00	1780.00	.00
6.000	1321.75	.11	1321.76	470.00	.00	3500.00	.00	470.00	1280.00	1255.00	1780.00	1750.00
* 7.000	1321.65	.00	1321.65	756.54	.00	3500.00	.00	.00	.00	1290.00	2050.00	.00
* 7.000	1321.76	.11	1321.76	740.00	.00	3500.00	.00	740.00	1300.00	1290.00	2050.00	2040.00
* 8.000	1321.16	.00	1321.87	200.64	.00	3500.00	.00	.00	.00	2100.00	2500.00	.00
* 8.000	1321.14	-.02	1322.04	165.00	.00	3500.00	.00	165.00	2125.00	2100.00	2500.00	2290.00
* 9.000	1323.50	.00	1323.69	217.23	.00	2370.00	.00	.00	.00	2200.00	2500.00	.00
* 9.000	1323.56	.06	1323.80	130.00	.00	2370.00	.00	130.00	2220.00	2200.00	2500.00	2350.00
10.000	1323.86	.00	1324.10	159.29	.00	2370.00	.00	.00	.00	2218.00	2455.00	.00
10.000	1323.90	.04	1324.24	115.00	.00	2370.00	.00	115.00	2245.00	2218.00	2455.00	2360.00
11.000	1324.56	.00	1324.71	192.35	.00	2370.00	.00	.00	.00	2281.00	2500.00	.00
11.000	1324.75	.19	1324.95	145.00	.00	2370.00	.00	145.00	2300.00	2281.00	2500.00	2445.00
12.000	1324.69	.00	1324.86	179.28	.00	2370.00	.00	.00	.00	2040.00	2285.00	.00
12.000	1324.88	.20	1325.11	125.00	.00	2370.00	.00	125.00	2060.00	2040.00	2285.00	2185.00
13.000	1324.90	.00	1325.12	156.07	.00	2370.00	.00	.00	.00	1965.00	2280.00	.00
13.000	1325.11	.21	1325.40	115.00	.00	2370.00	.00	115.00	1985.00	1965.00	2280.00	2100.00
* 14.000	1325.01	.00	1325.20	171.91	.00	2370.00	.00	.00	.00	1945.00	2300.00	.00
* 14.000	1325.27	.27	1325.48	140.00	.00	2370.00	.00	140.00	1965.00	1945.00	2300.00	2105.00
* 15.000	1325.26	.00	1325.27	1029.80	80.68	2289.32	.00	.00	.00	2050.00	2420.00	.00
* 15.000	1325.55	.29	1325.56	356.82	.00	2370.00	.00	.07	2050.00	2050.00	2420.00	2420.00
* 42.000	1325.25	.00	1325.29	247.25	.00	2370.00	.00	.00	.00	1135.00	1420.00	.00
* 42.000	1325.55	.29	1325.58	251.98	.00	2370.00	.00	.00	.00	1135.00	1420.00	1420.00
* 43.000	1325.24	.00	1325.35	231.84	.00	2370.00	.00	.00	.00	1220.00	1500.00	.00
* 43.000	1325.53	.29	1325.62	237.91	.00	2370.00	.00	.18	1220.00	1220.00	1500.00	1500.00
44.000	1325.32	.00	1325.48	192.00	.00	2370.00	.00	.00	.00	1250.00	1550.00	.00
44.000	1325.60	.28	1325.74	200.58	.00	2370.00	.00	.00	1250.00	1250.00	1550.00	1550.00
* 45.000	1325.49	.00	1325.56	227.28	.00	2370.00	.00	.00	.00	1355.00	1650.00	.00
* 45.000	1325.74	.25	1325.80	236.01	.00	2370.00	.00	.00	1355.00	1355.00	1650.00	1650.00
* 46.000	1325.52	.00	1325.74	139.48	.00	2370.00	.00	.00	.00	1420.00	1630.00	.00
* 46.000	1325.77	.25	1325.97	148.25	.00	2370.00	.00	.00	1420.00	1420.00	1630.00	1630.00

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 47

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR	
*	47.000	1329.02	.00	1329.04	503.18	2276.46	93.54	.00	.00	.00	1400.00	1700.00	.00
*	47.000	1329.01	-.02	1329.02	416.55	2253.94	116.06	.00	.20	1112.29	1400.00	1700.00	1700.00
*	48.000	1328.87	.00	1329.12	232.74	.00	2370.00	.00	.00	.00	1350.00	1700.00	.00
*	48.000	1328.86	-.01	1329.11	232.36	.00	2370.00	.00	.74	1350.00	1350.00	1700.00	1700.00
*	49.000	1328.93	.00	1329.57	180.63	.00	2370.00	.00	.00	.00	1190.00	1700.00	.00
*	49.000	1328.92	-.01	1329.57	180.45	.00	2370.00	.00	.00	1190.00	1190.00	1700.00	1700.00
*	50.000	1332.77	.00	1333.91	122.75	.00	2370.00	.00	.00	.00	1560.00	1720.00	.00
*	50.000	1332.77	.00	1333.91	122.75	.00	2370.00	.00	.00	1560.00	1560.00	1720.00	1720.00
	51.000	1335.16	.00	1335.93	156.68	.00	2370.00	.00	.00	.00	1550.00	1780.00	.00
	51.000	1335.16	.00	1335.93	156.68	.00	2370.00	.00	.00	1550.00	1550.00	1780.00	1780.00
*	52.000	1336.01	.00	1336.01	600.21	.00	2370.00	.00	.00	.00	1000.00	1691.00	.00
*	52.000	1336.01	.00	1336.02	600.22	.00	2370.00	.00	.00	1000.00	1000.00	1691.00	1691.00
*	53.000	1336.01	.00	1336.02	460.29	.00	2370.00	.00	.00	.00	1000.00	1600.00	.00
*	53.000	1336.01	.00	1336.02	460.40	.00	2370.00	.00	.00	1000.00	1000.00	1600.00	1600.00
*	1.950	1336.32	.00	1337.35	159.47	288.63	1885.81	195.56	.00	.00	10190.00	10245.00	.00
*	1.950	1336.27	-.05	1338.23	55.00	.00	2370.00	.00	.34	10190.00	10190.00	10245.00	10245.00
	-8.000	1321.16	.00	1321.87	200.58	.00	3500.00	.00	.00	.00	2100.00	2500.00	.00
	-8.000	1321.14	-.02	1322.04	165.00	.00	3500.00	.00	165.00	2125.00	2100.00	2500.00	2290.00
*	8.010	1321.94	.00	1321.98	234.05	.00	1140.00	.00	.00	.00	2100.00	2500.00	.00
*	8.010	1322.12	.17	1322.17	165.00	.00	1140.00	.00	165.00	2125.00	2100.00	2500.00	2290.00
*	16.000	1323.25	.00	1323.81	217.65	79.42	842.13	218.45	.00	.00	1150.00	1180.00	.00
*	16.000	1322.67	-.58	1324.48	30.00	.00	1140.00	.00	.56	1150.00	1150.00	1180.00	1180.00
*	24.000	1323.98	.00	1323.99	231.03	.00	1140.00	.00	.00	.00	1000.00	1260.00	.00
*	24.000	1325.02	1.04	1325.03	243.16	.00	1140.00	.00	.00	1000.00	1000.00	1260.00	1260.00
	25.000	1323.99	.00	1324.00	231.17	.00	1140.00	.00	.00	.00	1000.00	1260.00	.00
	25.000	1325.03	1.04	1325.04	243.26	.00	1140.00	.00	.00	1000.00	1000.00	1260.00	1260.00
	26.000	1324.00	.00	1324.01	286.65	.00	1140.00	.00	.00	.00	1000.00	1400.00	.00
	26.000	1325.03	1.03	1325.04	303.88	.00	1140.00	.00	.00	1000.00	1000.00	1400.00	1400.00
*	27.000	1324.00	.00	1324.01	216.53	.00	1140.00	.00	.00	.00	1000.00	1290.00	.00
*	27.000	1325.03	1.03	1325.04	231.06	.00	1140.00	.00	.00	1000.00	1000.00	1290.00	1290.00
*	28.000	1324.01	.00	1324.01	350.08	.00	1140.00	.00	.00	.00	1000.00	1425.00	.00
*	28.000	1325.04	1.03	1325.04	369.00	.00	1140.00	.00	.00	1000.00	1000.00	1425.00	1425.00
*	29.000	1324.01	.00	1324.01	574.77	.00	1140.00	.00	.00	.00	1000.00	1660.00	.00
*	29.000	1325.04	1.03	1325.04	590.11	.00	1140.00	.00	.00	1000.00	1000.00	1660.00	1660.00

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93

08:29:43

PAGE 48

	SECNO	CRSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	30.000	1324.01	.00	1324.02	301.38	.00	1140.00	.00	.00	.00	1090.00	1500.00	.00
*	30.000	1325.04	1.03	1325.05	318.67	.00	1140.00	.00	.00	1090.00	1090.00	1500.00	1500.00
	31.000	1324.01	.00	1324.02	229.42	.00	1140.00	.00	.00	.00	1035.00	1405.00	.00
	31.000	1325.04	1.03	1325.05	244.23	.00	1140.00	.00	.00	1035.00	1035.00	1405.00	1405.00
*	32.000	1324.01	.00	1324.03	234.07	.00	1140.00	.00	.00	.00	1000.00	1380.00	.00
*	32.000	1325.04	1.03	1325.05	248.77	.00	1140.00	.00	.00	1000.00	1000.00	1380.00	1380.00
*	33.000	1333.56	.00	1334.15	161.64	.00	1140.00	.00	.00	.00	1050.00	1290.00	.00
*	33.000	1333.56	.00	1334.15	161.60	.00	1140.00	.00	.00	1050.00	1050.00	1290.00	1290.00
*	34.000	1334.28	.00	1334.52	200.94	.00	1140.00	.00	.00	.00	1030.00	1270.00	.00
*	34.000	1334.28	.00	1334.52	200.81	.00	1140.00	.00	.00	1030.00	1030.00	1270.00	1270.00
*	35.000	1337.10	.00	1337.22	321.90	.00	1140.00	.00	.00	.00	1000.00	1400.00	.00
*	35.000	1337.09	.00	1337.21	322.05	.00	1140.00	.00	.00	1000.00	1000.00	1400.00	1400.00
	36.000	1337.91	.00	1338.07	218.11	.00	1140.00	.00	.00	.00	1000.00	1440.00	.00
	36.000	1337.90	.00	1338.07	217.57	.00	1140.00	.00	.00	1000.00	1000.00	1440.00	1440.00
*	37.000	1338.48	.00	1338.82	163.50	.00	1140.00	.00	.00	.00	1000.00	1290.00	.00
*	37.000	1338.48	.01	1338.82	163.77	.00	1140.00	.00	.00	1000.00	1000.00	1290.00	1290.00
*	38.000	1339.34	.00	1339.47	196.76	.00	1140.00	.00	.00	.00	1000.00	1290.00	.00
*	38.000	1339.34	.00	1339.47	196.76	.00	1140.00	.00	.00	1000.00	1000.00	1290.00	1290.00

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 49

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO=	.000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	.000	PROFILE=	2	CRITICAL DEPTH ASSUMED
WARNING SECNO=	.002	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	.002	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	.070	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	.070	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=	.455	PROFILE=	1	HYDRAULIC JUMP D.S.
WARNING SECNO=	.455	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=	.455	PROFILE=	2	HYDRAULIC JUMP D.S.
WARNING SECNO=	.455	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	1.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	1.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	3.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	3.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	7.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	7.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	8.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	8.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	9.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	9.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	14.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	14.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	15.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	15.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	42.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	42.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	43.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	43.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	45.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	45.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	46.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	46.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=	47.000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	47.000	PROFILE=	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	47.000	PROFILE=	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	47.000	PROFILE=	2	CRITICAL DEPTH ASSUMED

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 50

CAUTION SECNO=	47.000	PROFILE=	2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	47.000	PROFILE=	2	20 TRIALS ATTEMPTED TO BALANCE WSEL
WARNING SECNO=	48.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	48.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	49.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	49.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=	50.000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	50.000	PROFILE=	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	50.000	PROFILE=	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	50.000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	50.000	PROFILE=	2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	50.000	PROFILE=	2	20 TRIALS ATTEMPTED TO BALANCE WSEL
WARNING SECNO=	52.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	52.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	53.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	53.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=	1.950	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	1.950	PROFILE=	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	1.950	PROFILE=	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	1.950	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	1.950	PROFILE=	2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	1.950	PROFILE=	2	20 TRIALS ATTEMPTED TO BALANCE WSEL
WARNING SECNO=	8.010	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	8.010	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=	16.000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	16.000	PROFILE=	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	16.000	PROFILE=	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	16.000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	16.000	PROFILE=	2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	16.000	PROFILE=	2	20 TRIALS ATTEMPTED TO BALANCE WSEL
WARNING SECNO=	24.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	24.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	27.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	29.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	29.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	30.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	30.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	32.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 51

WARNING SECNO=	32.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=	33.000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	33.000	PROFILE=	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	33.000	PROFILE=	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	33.000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	33.000	PROFILE=	2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	33.000	PROFILE=	2	20 TRIALS ATTEMPTED TO BALANCE WSEL
WARNING SECNO=	34.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	34.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	35.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	35.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	37.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	37.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	38.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	38.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93

08:29:43

PAGE 52

Floodway width summary: AS-BUILT CONDITIONS MODE  
Profile No. 2

Section Number	Elevation Increase	Top Width	Left Encroach Station	Left Sta Distance From Center	Center Station	Right Sta Distance From Center	Right Encroach Station
.000	-.41	500.00	11070.00	327.50	11397.50	172.50	11570.00
.002	-.17	500.00	11070.00	327.50	11397.50	172.50	11570.00
.004	-.05	500.00	11070.00	327.50	11397.50	172.50	11570.00
.070	.59	540.00	10180.00	49.00	10229.00	491.00	10720.00
.420	.74	640.00	10200.00	395.00	10595.00	245.00	10840.00
.430	.76	640.00	10200.00	395.00	10595.00	245.00	10840.00
.450	.77	640.00	10080.00	420.50	10500.50	219.50	10720.00
.455	.09	640.00	10080.00	420.50	10500.50	219.50	10720.00
1.000	.11	430.00	1770.00	192.50	1962.50	237.50	2200.00
2.000	.11	500.00	1450.00	250.00	1700.00	250.00	1950.00
3.000	.11	620.00	1330.00	292.50	1622.50	327.50	1950.00
4.000	.11	600.00	1280.00	305.00	1585.00	295.00	1880.00
5.000	.11	530.00	1390.00	322.50	1712.50	207.50	1920.00
6.000	.11	470.00	1280.00	237.50	1517.50	232.50	1750.00
7.000	.11	740.00	1300.00	370.00	1670.00	370.00	2040.00
8.000	-.02	165.00	2125.00	175.00	2300.00	-10.00	2290.00
9.000	.06	130.00	2220.00	130.00	2350.00	.00	2350.00
10.000	.04	115.00	2245.00	91.50	2336.50	23.50	2360.00
11.000	.19	145.00	2300.00	90.50	2390.50	54.50	2445.00
12.000	.20	125.00	2060.00	102.50	2162.50	22.50	2185.00
13.000	.21	115.00	1985.00	137.50	2122.50	-22.50	2100.00
14.000	.27	140.00	1965.00	157.50	2122.50	-17.50	2105.00
15.000	.29	370.00	2050.00	185.00	2235.00	185.00	2420.00
42.000	.29	285.00	1135.00	142.50	1277.50	142.50	1420.00
43.000	.29	280.00	1220.00	140.00	1360.00	140.00	1500.00
44.000	.28	300.00	1250.00	150.00	1400.00	150.00	1550.00
45.000	.25	295.00	1355.00	147.50	1502.50	147.50	1650.00
46.000	.25	210.00	1420.00	105.00	1525.00	105.00	1630.00
47.000	-.02	587.72	1112.29	437.71	1550.00	150.00	1700.00
48.000	-.01	350.00	1350.00	175.00	1525.00	175.00	1700.00
49.000	-.01	510.00	1190.00	255.00	1445.00	255.00	1700.00
50.000	.00	160.00	1560.00	80.00	1640.00	80.00	1720.00
51.000	.00	230.00	1550.00	115.00	1665.00	115.00	1780.00
52.000	.00	691.00	1000.00	345.50	1345.50	345.50	1691.00
53.000	.00	600.00	1000.00	300.00	1300.00	300.00	1600.00
1.950	-.05	55.00	10190.00	27.50	10217.50	27.50	10245.00
-8.000	-.02	165.00	2125.00	175.00	2300.00	-10.00	2290.00
8.010	.17	165.00	2125.00	175.00	2300.00	-10.00	2290.00
16.000	-.58	30.00	1150.00	15.00	1165.00	15.00	1180.00
24.000	1.04	260.00	1000.00	130.00	1130.00	130.00	1260.00
25.000	1.04	260.00	1000.00	130.00	1130.00	130.00	1260.00
26.000	1.03	400.00	1000.00	200.00	1200.00	200.00	1400.00
27.000	1.03	290.00	1000.00	145.00	1145.00	145.00	1290.00
28.000	1.03	425.00	1000.00	212.50	1212.50	212.50	1425.00
29.000	1.03	660.00	1000.00	330.00	1330.00	330.00	1660.00
30.000	1.03	410.00	1090.00	205.00	1295.00	205.00	1500.00
31.000	1.03	370.00	1035.00	185.00	1220.00	185.00	1405.00

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 53

32.000	1.03	380.00	1000.00	190.00	1190.00	190.00	1380.00
33.000	.00	240.00	1050.00	120.00	1170.00	120.00	1290.00
34.000	.00	240.00	1030.00	120.00	1150.00	120.00	1270.00
35.000	.00	400.00	1000.00	200.00	1200.00	200.00	1400.00
36.000	.00	440.00	1000.00	220.00	1220.00	220.00	1440.00
37.000	.01	290.00	1000.00	145.00	1145.00	145.00	1290.00
38.000	.00	290.00	1000.00	145.00	1145.00	145.00	1290.00

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93

08:29:43

PAGE 54

FLOODWAY DATA, AS-BUILT CONDITIONS MODE  
 PROFILE NO. 2

STATION	WIDTH	FLOODWAY SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION		DIFFERENCE
				WITH FLOODWAY	WITHOUT FLOODWAY	
.000	336.	540.	6.5	1315.4	1315.8	-.4
.002	482.	772.	4.5	1316.0	1316.2	-.2
.004	500.	874.	4.0	1316.2	1316.3	-.1
.070	540.	1874.	1.9	1318.3	1317.7	.6
.420	640.	1720.	2.0	1319.0	1318.3	.7
.430	640.	1852.	1.9	1319.3	1318.5	.8
.450	640.	2105.	1.7	1319.5	1318.7	.8
.455	640.	3526.	1.0	1321.7	1321.6	.1
1.000	430.	2267.	1.5	1321.7	1321.6	.1
2.000	500.	2799.	1.3	1321.7	1321.6	.1
3.000	620.	6180.	.6	1321.7	1321.6	.1
4.000	600.	7029.	.5	1321.7	1321.6	.1
5.000	530.	6246.	.6	1321.7	1321.6	.1
6.000	470.	5446.	.6	1321.7	1321.6	.1
7.000	740.	9388.	.4	1321.7	1321.6	.1
8.000	165.	460.	7.6	1321.2	1321.2	.0
9.000	130.	602.	3.9	1323.6	1323.5	.1
10.000	115.	507.	4.7	1323.9	1323.9	.0
11.000	145.	674.	3.5	1324.8	1324.6	.2
12.000	125.	619.	3.8	1324.9	1324.7	.2
13.000	115.	552.	4.3	1325.1	1324.9	.2
14.000	140.	638.	3.7	1325.3	1325.0	.3
15.000	357.	3258.	.7	1325.6	1325.3	.3
42.000	252.	1632.	1.5	1325.6	1325.3	.3
43.000	238.	957.	2.5	1325.5	1325.2	.3
44.000	205.	793.	3.0	1325.6	1325.3	.3
45.000	249.	1149.	2.1	1325.8	1325.5	.3
46.000	167.	660.	3.6	1325.7	1325.5	.2
47.000	417.	2304.	1.0	1329.0	1329.0	.0
48.000	232.	597.	4.0	1328.9	1328.9	.0
49.000	180.	368.	6.4	1328.9	1328.9	.0
50.000	123.	277.	8.5	1332.8	1332.8	.0
51.000	157.	335.	7.1	1335.2	1335.2	.0
52.000	600.	5307.	.4	1336.0	1336.0	.0
53.000	460.	3279.	.7	1336.0	1336.0	.0
1.950	55.	211.	11.2	1336.2	1336.3	-.1
-8.000	165.	459.	7.6	1321.2	1321.2	.0
8.010	165.	621.	1.8	1322.1	1321.9	.2
16.000	30.	106.	10.8	1322.7	1323.3	-.6
24.000	243.	1864.	.6	1325.0	1324.0	1.0
25.000	243.	1866.	.6	1325.0	1324.0	1.0
26.000	304.	2218.	.5	1325.0	1324.0	1.0

N. & Middle Forks Calfskin Creek - Post Project Conditions - Floodplain & Floodway

20JUN93 08:29:43

PAGE 55

FLOODWAY DATA, AS-BUILT CONDITIONS MODE  
 PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION		
				WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
27.000	231.	1611.	.7	1325.0	1324.0	1.0
28.000	369.	2818.	.4	1325.0	1324.0	1.0
29.000	590.	5172.	.2	1325.0	1324.0	1.0
30.000	319.	2354.	.5	1325.0	1324.0	1.0
31.000	244.	1729.	.7	1325.0	1324.0	1.0
32.000	249.	1240.	.9	1325.0	1324.0	1.0
33.000	162.	185.	6.2	1333.6	1333.6	.0
34.000	201.	288.	4.0	1334.3	1334.3	.0
35.000	322.	408.	2.8	1337.1	1337.1	.0
36.000	218.	344.	3.3	1337.9	1337.9	.0
37.000	164.	245.	4.7	1338.5	1338.5	.0
38.000	197.	399.	2.9	1339.3	1339.3	.0

HEC-2 INPUT & OUTPUT  
FLOODWAY ENCROACHMENT  
POST-PROJECT

PROJECT TITLE : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD

PROJECT NUMBER : MIDDLE AND NORTH FORKS OF CALFSKIN CREEK

9/29/1994

=====
BOSS HEC-2 for AutoCAD (tm)
=====

Copyright (C) 1994 BOSS International
All Rights Reserved

Version : 2.0
Serial Number : 20502

Licensed to Baughman Company

PROGRAM ORIGIN :
-----

BOSS HEC-2 for AutoCAD is an enhanced version of the U.S. Army Corps of Engineers Hydrologic Engineering Center HEC-2 program for water-surface profile computations. Program based upon the September 1990 version, updated on August 1991.

DISCLAIMER :
-----

BOSS HEC-2 for AutoCAD is a complex program which requires engineering expertise to use correctly. BOSS International assumes absolutely no responsibility for the correct use of this program. All results obtained should be carefully examined by an experienced professional engineer to determine if they are reasonable and accurate.

Although BOSS International has endeavored to make BOSS HEC-2 for AutoCAD error free, the program is not and cannot be certified as infallible. Therefore, BOSS International makes no warranty, either implicit or explicit, as to the correct performance or accuracy of this software.

In no event shall BOSS International be liable to anyone for special, collateral, incidental, or consequential damages in connection with or arising out of purchase or use of this software. The sole and exclusive liability to BOSS International, regardless of the form of action, shall not exceed the purchase price of this software.

PROJECT DESCRIPTION :
-----

PROJECT TITLE : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD
PROJECT NUMBER : MIDDLE AND NORTH FORKS OF CALFSKIN CREEK
DESCRIPTION : PROPOSED CONDITIONS MODEL FOR FLOODPLAIN
ENGINEER :
DATE OF RUN : 9/29/1994
TIME OF RUN : 1:53 pm

PROJECT TITLE : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD

PROJECT NUMBER : MIDDLE AND NORTH FORKS OF CALFSKIN CREEK

9/29/1994

T1 MIDDLE AND NORTH FORKS OF CALFSKIN CREEK SEDGWICK COUNTY, KANSAS  
 T2 HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE ADDITION  
 T3 PROPOSED CONDITIONS MODEL FOR FLOODPLAIN FILL  
 T4 ENCROACHMENT RUN WITH 100-YEAR BASE FLOOD ELEVATION AND FLOODWAY  
 T4 ELEVATION

JOB PARAMETERS :

```

-----
J1 ICHECK   INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
          2                -1                3500      1316

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

USER-DEFINED SUMMARY TABLES (J3) :

```

-----
          110       200           150
REQUESTED CROSS-SECTION PRINTOUTS (J5) :
-----

```

```

          -10       -10

NC  0.051       0.1       0.066       0.1       0.3
ET              7.1       9.1                11070      11570
    
```

SECTION ON CALFSKIN CREEK  
 SECTION ON CALFSKIN CREEK

```

X1      0         30       11370      11425
GR  1330       9550       1320      10000       1318       10048       1316       10145       1315.5      10270
GR  1316.1     10580     1317.2     10740     1316.2     10885       1316       11185       1315       11270
GR  1314.6     11280       1315     11295       1316     11315       1314       11340       1312       11370
GR  1310       11390     1309.9     11398       1310     11405     1308.3     11413       1310       11420
GR  1312       11425       1314     11445       1315     11535     1315.6     11730     1315.4     11905
GR  1315.4     12110     1316.1     12305       1316     12510       1320     12825       1330     13800

ET              7.1       9.1                11070      11570

X1  0.002       30       11370      11425          10          10          10
GR  1330       9550       1320      10000       1318       10048       1316       10145       1315.5     10270
GR  1316.1     10580     1317.2     10740     1316.2     10885       1316       11185       1315     11270
GR  1314.6     11280       1315     11295       1316     11315       1314       11340       1312     11370
GR  1310       11390     1309.9     11398       1310     11405     1308.3     11413       1310     11420
GR  1312       11425       1314     11445       1315     11535     1315.6     11730     1315.4     11905
    
```

PROJECT TITLE : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD

PROJECT NUMBER : MIDDLE AND NORTH FORKS OF CALFSKIN CREEK

9/29/1994

GR	1315.4	12110	1316.1	12305	1316	12510	1320	12825	1330	13800
ET			7.1	9.1			11070	11570		
X1	0.004	30	11370	11425	10	10	10			
GR	1330	9550	1320	10000	1318	10048	1316	10145	1315.5	10270
GR	1316.1	10580	1317.2	10740	1316.2	10885	1316	11185	1315	11270
GR	1314.6	11280	1315	11295	1316	11315	1314	11340	1312	11370
GR	1310	11390	1309.9	11398	1310	11405	1308.3	11413	1310	11420
GR	1312	11425	1314	11445	1315	11535	1315.6	11730	1315.4	11905
GR	1315.4	12110	1316.1	12305	1316	12510	1320	12825	1330	13800
NC	0.05	0.05								
ET			7.1	9.1			10180	10720		
SECTION A										
SECTION A										
X1	0.07	22	10200	10258	1	1600	350			
GR	1330	8475	1328	8650	1322	8895	1320.5	8995	1318.9	9045
GR	1318.9	9205	1318.9	9465	1320	9505	1317.8	9745	1316.7	10045
GR	1316.7	10049	1315.6	10200	1312.4	10220	1309.7	10226	1309.1	10229
GR	1309.5	10231	1311.4	10234	1316.2	10258	1314.6	10400	1314.8	10600
GR	1320	12000	1330	12500						
NC	0.035	0.035	0.06							
ET			7.1	9.1			9200	10020		
NEW CROSS SECTION LOCATED BETWEEN SECTION A AND SECTION B										
NEW CROSS SECTION LOCATED BETWEEN SECTION A AND SECTION B										
X1	0.2	23	9350	9390	600	500	600			
GR	1328.4	8400	1327.4	8430	1325.4	8470	1321.4	8595	1319.4	8670
GR	1319	8730	1319	8810	1319	9125	1319	9180	1316.3	9200
GR	1311.4	9350	1307.4	9370	1309.4	9380	1311.9	9390	1315.8	9500
GR	1317.4	10020	1317.4	10760	1319.4	10880	1322.4	10930	1325.4	10970
GR	1327.4	11060	1329.4	11240	1331.4	11390				
NC			0							
ET			7.1	9.1			10200	10840		
SECTION B										
SECTION B										
X1	0.42	20	10569	10621	1200	1200	1200			
X3	10									
GR	1330	9100	1325	9600	1320	9900	1320	10000	1320	10180
GR	1316	10200	1316.3	10400	1316.8	10500	1317.8	10569	1315.2	10587
GR	1312.8	10590	1312.8	10594	1312.7	10598	1313.9	10601	1316.7	10621
GR	1316.5	10800	1316.3	11000	1320	11400	1325	11525	1330	11600
ET			7.1	9.1			10200	10840		
CROSS-SECTION 2285										
CROSS-SECTION 2285										
X1	0.43	20	10569	10621	85	350	85			

PROJECT TITLE : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD

PROJECT NUMBER : MIDDLE AND NORTH FORKS OF CALFSKIN CREEK

9/29/1994

GR	1330	9100	1325	9600	1320	9900	1320	10000	1320	10180
GR	1316	10200	1316.3	10400	1316.8	10500	1317.8	10569	1315.2	10587
GR	1312.8	10590	1312.8	10594	1312.7	10598	1313.9	10601	1316.7	10621
GR	1316.5	10800	1316.3	11000	1320	11400	1325	11525	1330	11600

NC				0.3	0.5					
ET			7.1	9.1			10080	10720		
X1	0.45	19	10469	10532	85	350	85			
X3	10							1318.2	1318.2	
GR	1330	8900	1325	9400	1316.3	9900	1316	10100	1316.3	10300
GR	1316.8	10400	1317.8	10469	1315	10478	1312.4	10484	1311.7	10495
GR	1312.2	10521	1312.3	10527	1316.7	10532	1316.5	10700	1316.3	10900
GR	1320	11300	1321.9	11600	1325	11800	1330	11900		

ET			7.1	9.1			10080	10720		
SB	1.05	1.6	2.6	0	36	2	249	0.53		

MAPLE STREET SECTION ON CALFSKIN CREEK

MAPLE STREET SECTION ON CALFSKIN CREEK

X1	0.455	19	10469	10532	25	25	25			
X2			1	1318.3	1321					
X3	10							1321	1321	
BT	-12	8900	1330		9400	1325		10000	1321.3	
BT		10200	1321		10300	1321.1		10478	1321.2	
BT		11000	1321.1		11200	1321.5		11400	1321.6	
BT		11600	1321.9		11800	1325		11900	1330	
GR	1330	8900	1325	9400	1316.3	9900	1316	10100	1316.3	10300
GR	1316.8	10400	1317.8	10469	1315	10478	1312.4	10484	1311.7	10495
GR	1312.2	10521	1312.3	10527	1316.7	10532	1316.5	10700	1316.3	10900
GR	1320	11300	1321.9	11600	1325	11800	1330	11900		

NC	0.04	0.04	0.05							
ET			7.1	9.1			1770	2200		
X1	1	15	1780	2145	150	150	150			
X3	10							1321	1320	
GR	1330	1000	1328	1120	1326	1220	1324	1330	1322	1445
GR	1322	1760	1321	1780	1320	1795	1316	1820	1313	1900
GR	1316	2000	1316	2120	1320	2145	1320	2300	1322	2350

NC				0.4	0.6					
ET			7.1	9.1			1450	1950		
X1	2	19	1430	1970	120	80	100			
X3	10							1322	1320	
GR	1330	910	1328	990	1326	1110	1324	1210	1322	1320
GR	1322	1410	1322	1430	1316	1490	1313	1650	1316	1755
GR	1317	1810	1318	1840	1319	1900	1319	1965	1320	1970
GR	1321	1985	1322	2035	1323	2050	1323	2100		

ET			7.1	9.1			1330	1950		
X1	3	19	1295	1950	200	80	100			
X3	10							1324	1320	
GR	1332	1030	1330	1110	1328	1160	1326	1245	1324	1295

PROJECT TITLE : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD

PROJECT NUMBER : MIDDLE AND NORTH FORKS OF CALFSKIN CREEK

9/29/1994

GR	1316	1355	1310	1400	1308	1420	1308	1680	1310	1700
GR	1316	1830	1317	1860	1318	1900	1319	1930	1320	1950
GR	1321	1990	1322	2025	1323	2050	1323	2125		
NC				0.1	0.3					
ET			7.1	9.1			1280	1880		
X1	4	19	1250	1920	190	150	170			
X3	10							1325	1320	
GR	1330	830	1328	960	1326	1100	1325	1250	1316	1300
GR	1310	1340	1308	1360	1308	1735	1310	1755	1316	1840
GR	1319	1900	1320	1920	1321	1940	1322	1965	1323	1990
GR	1324	2000	1324	2050	1323	2090	1322	2120		
ET			7.1	9.1			1390	1920		
X1	5	20	1365	2060	200	210	200			
X3	10							1325	1321	
GR	1330	1000	1328	1100	1328	1200	1326	1340	1325	1365
GR	1316	1410	1310	1515	1308	1535	1308	1840	1310	1860
GR	1316	1930	1317	1960	1318	2000	1319	2030	1320	2055
GR	1321	2060	1322	2085	1323	2125	1324	2155	1324	2190
T1	MIDDLE AND NORTH FORKS OF CALFSKIN CREEK SEDGWICK COUNTY, KANSAS									
T2	HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE ADDITION									
T3	PROPOSED CONDITIONS MODEL FOR FLOODPLAIN FILL									

JOB PARAMETERS :

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		3			-1			3500	1316	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15		-1					-6		

PROJECT TITLE : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD

PROJECT NUMBER : MIDDLE AND NORTH FORKS OF CALFSKIN CREEK

9/29/1994

SPECIAL NOTE :

-----

An asterisk (\*) to the left of the cross-section number indicates a special note is present in the SUMMARY OF WARNING AND STATUS MESSAGES section.

SUMMARY PRINTOUT TABLE 110 : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD

----- PROPOSED CONDITIONS MODEL FOR FLOODPLAIN  
MIDDLE AND NORTH FORKS OF CALFSKIN CREEK

Cross-Section Number	Computed W. S. Elevation (ft MSL)	W.S. Diff (ft)	Elev per Know/Comp (ft)	Energy Gradient (ft MSL)	Water Surface Top (ft)	Left Overbank Flow (cfs)	Channel Flow (cfs)	Right Overbank Flow (cfs)	Encroach. Target Requested	Left Encroach. Station (ft)	Left Bank Station (ft)	Right Bank Station (ft)	Right Encr Stat (ft)
SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STEN	
*	0.000	1315.82	-0.18	1316.35	1270.67	718.09	2176.22	605.69	0.00	0.00	11370.00	11425.00	
*	0.000	1315.42	-0.41	1316.41	316.63	601.99	2558.41	339.60	500.00	11070.00	11370.00	11425.00	115
*	0.002	1316.24	0.00	1316.44	2117.53	961.66	1655.85	882.50	0.00	0.00	11370.00	11425.00	
*	0.002	1316.07	-0.17	1316.58	481.69	818.16	2188.53	493.31	500.00	11070.00	11370.00	11425.00	115
	0.004	1316.32	0.00	1316.49	2147.15	1018.10	1564.08	917.82	0.00	0.00	11370.00	11425.00	
	0.004	1316.27	-0.05	1316.67	500.00	917.94	2057.19	524.87	500.00	11070.00	11370.00	11425.00	115
*	0.070	1317.76	0.00	1317.79	1645.57	348.66	451.57	2699.78	0.00	0.00	10200.00	10258.00	
*	0.070	1318.28	0.52	1318.34	540.00	77.49	578.94	2843.57	540.00	10180.00	10200.00	10258.00	107
*	0.200	1317.99	0.00	1318.02	1607.71	1171.52	595.83	1732.65	0.00	0.00	9350.00	9390.00	
*	0.200	1318.50	0.52	1318.53	820.00	1168.07	547.18	1784.75	820.00	9200.00	9350.00	9390.00	100
*	0.420	1318.51	0.00	1318.56	1051.74	1473.09	264.73	1762.17	0.00	0.00	10569.00	10621.00	
*	0.420	1318.91	0.40	1318.99	640.00	2050.68	338.98	1110.34	640.00	10200.00	10569.00	10621.00	108
	0.430	1318.67	0.00	1318.71	1069.24	1466.81	252.17	1781.02	0.00	0.00	10569.00	10621.00	
	0.430	1319.05	0.39	1319.12	640.00	2052.85	329.19	1117.96	640.00	10200.00	10569.00	10621.00	108
*	0.450	1318.77	0.00	1318.79	1410.07	1819.47	445.51	1235.03	0.00	0.00	10469.00	10532.00	
	0.450	1319.17	0.40	1319.22	640.00	1952.62	697.21	850.17	640.00	10080.00	10469.00	10532.00	107
*	0.455	1321.58	0.00	1321.58	1953.62	1782.12	218.18	1499.70	0.00	0.00	10469.00	10532.00	
*	0.455	1321.62	0.04	1321.63	640.00	2091.54	452.49	955.97	640.00	10080.00	10469.00	10532.00	107
*	1.000	1321.57	0.00	1321.61	570.66	0.84	3288.44	210.72	0.00	0.00	1780.00	2145.00	
*	1.000	1321.63	0.05	1321.66	430.00	1.18	3425.07	73.75	430.00	1770.00	1780.00	2145.00	22
	2.000	1321.61	0.00	1321.63	581.47	0.00	3488.72	11.28	0.00	0.00	1430.00	1970.00	

PROJECT TITLE : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD  
 PROJECT NUMBER : MIDDLE AND NORTH FORKS OF CALFSKIN CREEK

9/29/1994

Cross-Section Number	Computed W. S. Elevation (ft MSL)	W.S. Diff Know/Comp (ft)	Elev per Gradient (ft MSL)	Energy Surface Top (ft)	Water Surface Top Width (ft)	Left Overbank Flow (cfs)	Channel Flow (cfs)	Right Overbank Flow (cfs)	Encroach. Target Requested	Left Encroach. Station (ft)	Left Bank Station (ft)	Right Bank Station (ft)	Righ Encr Stat (ft)
SECNO	CWSEL	DIPKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STEN	
2.000	1321.67	0.06	1321.69	500.00	0.00	3500.00	0.00	500.00	1450.00	1430.00	1970.00	19	
* 3.000	1321.64	0.00	1321.64	699.54	0.00	3491.70	8.30	0.00	0.00	1295.00	1950.00		
* 3.000	1321.70	0.06	1321.70	620.00	0.00	3500.00	0.00	620.00	1330.00	1295.00	1950.00	19	
4.000	1321.64	0.00	1321.65	687.61	0.00	3496.52	3.48	0.00	0.00	1250.00	1920.00		
4.000	1321.70	0.06	1321.71	600.00	0.00	3500.00	0.00	600.00	1280.00	1250.00	1920.00	18	
5.000	1321.64	0.00	1321.65	694.35	0.00	3499.66	0.34	0.00	0.00	1365.00	2060.00		
5.000	1321.70	0.06	1321.71	530.00	0.00	3500.00	0.00	530.00	1390.00	1365.00	2060.00	19	

SUMMARY PRINTOUT TABLE 150 : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD  
 PROPOSED CONDITIONS MODEL FOR FLOODPLAIN  
 MIDDLE AND NORTH FORKS OF CALFSKIN CREEK

Cross-Section Number	Channel Reach Length (ft)	Top of Roadway Elevation (ft MSL)	Max. Chord Elevation (ft MSL)	Low C. S. Minimum Elevation (ft MSL)	Discharge Flow (cfs)	Computed W. S. Elevation (ft MSL)	Critical W. S. Elevation (ft MSL)	Energy Gradient Elevation (ft MSL)	Energy Gradient Slope * 10,000	Channel Mean Flow Velocity (ft/s)	Cross-Section Area (sq ft)	Inde Conv (0.01K)
SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10K*S	VCH	AREA	.01K
* 0.000	0.00	0.00	0.00	1308.30	3500.00	1315.82	1315.82	1316.35	100.23	7.05	962.11	3
* 0.000	0.00	0.00	0.00	1308.30	3500.00	1315.42	1315.42	1316.41	177.87	8.93	539.97	2
* 0.002	10.00	0.00	0.00	1308.30	3500.00	1316.24	0.00	1316.44	45.67	4.99	1663.48	5
* 0.002	10.00	0.00	0.00	1308.30	3500.00	1316.07	0.00	1316.58	88.13	6.80	772.04	3
0.004	10.00	0.00	0.00	1308.30	3500.00	1316.32	0.00	1316.49	39.19	4.66	1814.71	5
0.004	10.00	0.00	0.00	1308.30	3500.00	1316.27	0.00	1316.67	69.44	6.17	874.29	4
* 0.070	350.00	0.00	0.00	1309.10	3500.00	1317.76	0.00	1317.79	6.99	1.64	2815.40	13
* 0.070	350.00	0.00	0.00	1309.10	3500.00	1318.28	0.00	1318.34	8.15	1.90	1873.62	12
* 0.200	600.00	0.00	0.00	1307.40	3500.00	1317.99	0.00	1318.02	2.94	1.75	2592.95	20
* 0.200	600.00	0.00	0.00	1307.40	3500.00	1318.50	0.00	1318.53	2.04	1.51	2560.07	24
* 0.420	1200.00	0.00	0.00	1312.70	3500.00	1318.51	0.00	1318.56	7.60	1.51	1973.11	12
* 0.420	1200.00	0.00	0.00	1312.70	3500.00	1318.91	0.00	1318.99	8.57	1.73	1607.96	11
0.430	85.00	0.00	0.00	1312.70	3500.00	1318.67	0.00	1318.71	5.94	1.37	2137.13	14

PROJECT TITLE : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD  
 PROJECT NUMBER : MIDDLE AND NORTH FORKS OF CALFSKIN CREEK

9/29/1994

Cross-Section Number	Channel Reach Length (ft)	Top of Roadway Elevation (ft MSL)	Max. Low Chord Elevation (ft MSL)	Minimum C. S. Elevation (ft MSL)	Discharge Flow (cfs)	Computed W. S. Elevation (ft MSL)	Critical W. S. Elevation (ft MSL)	Energy Gradient Elevation (ft MSL)	Energy Gradient Slope * 10,000	Channel Mean Flow Velocity (ft/s)	Cross-Section Area (sq ft)	Index (0.0 Conv .01K)	
SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA		
	0.430	85.00	0.00	0.00	1312.70	3500.00	1319.05	0.00	1319.12	7.15	1.62	1698.04	13
*	0.450	85.00	0.00	0.00	1311.70	3500.00	1318.77	0.00	1318.79	2.49	1.22	3087.83	22
	0.450	85.00	0.00	0.00	1311.70	3500.00	1319.17	0.00	1319.22	4.90	1.79	1931.31	15
*	0.455	25.00	1321.00	1318.30	1311.70	3500.00	1321.58	0.00	1321.58	0.16	0.40	7759.95	87
*	0.455	25.00	1321.00	1318.30	1311.70	3500.00	1321.62	0.00	1321.63	0.68	0.83	3504.27	42
*	1.000	150.00	0.00	0.00	1313.00	3500.00	1321.57	0.00	1321.61	2.55	1.54	2413.07	21
*	1.000	150.00	0.00	0.00	1313.00	3500.00	1321.63	0.00	1321.66	2.68	1.59	2248.75	21
	2.000	100.00	0.00	0.00	1313.00	3500.00	1321.61	0.00	1321.63	1.92	1.24	2837.33	25
	2.000	100.00	0.00	0.00	1313.00	3500.00	1321.67	0.00	1321.69	1.85	1.26	2778.37	25
*	3.000	100.00	0.00	0.00	1308.00	3500.00	1321.64	0.00	1321.64	0.18	0.57	6190.22	82
*	3.000	100.00	0.00	0.00	1308.00	3500.00	1321.70	0.00	1321.70	0.17	0.57	6154.42	84
	4.000	170.00	0.00	0.00	1308.00	3500.00	1321.64	0.00	1321.65	0.11	0.49	7114.38	103
	4.000	170.00	0.00	0.00	1308.00	3500.00	1321.70	0.00	1321.71	0.11	0.50	7004.17	106
	5.000	200.00	0.00	0.00	1308.00	3500.00	1321.64	0.00	1321.65	0.14	0.52	6739.21	92
	5.000	200.00	0.00	0.00	1308.00	3500.00	1321.70	0.00	1321.71	0.14	0.56	6224.14	94

SUMMARY PRINTOUT TABLE 150 : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD  
 ----- PROPOSED CONDITIONS MODEL FOR FLOODPLAIN  
 MIDDLE AND NORTH FORKS OF CALFSKIN CREEK

Cross-Section Number	Discharge Flow (cfs)	Computed W. S. Elevation (ft MSL)	W.S. Elev Diff per Profile (ft)	W.S. Elev Diff per Section (ft)	W.S. Elev Diff per Know/Comp (ft)	Water Surface Top Width (ft)	Channel Reach Length (ft)	
SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH	
*	0.000	3500.00	1315.82	0.00	0.00	-0.18	1270.67	0.00
*	0.000	3500.00	1315.42	-0.41	0.00	-0.41	316.63	0.00
*	0.002	3500.00	1316.24	0.00	0.42	0.00	2117.53	10.00
*	0.002	3500.00	1316.07	-0.17	0.65	-0.17	481.69	10.00
	0.004	3500.00	1316.32	0.00	0.08	0.00	2147.15	10.00

PROJECT TITLE : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD

PROJECT NUMBER : MIDDLE AND NORTH FORKS OF CALFSKIN CREEK

9/29/1994

Cross- Section Number	Discharge Flow (cfs)	Computed W. S. Elevation (ft MSL)	W.S. Elev Diff per Profile (ft)	W.S. Elev Diff per Section (ft)	W.S. Elev Diff per Know/Comp (ft)	Water Surface Top Width (ft)	Channel Reach Length (ft)	
SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH	
	0.004	3500.00	1316.27	-0.05	0.20	-0.05	500.00	10.00
*	0.070	3500.00	1317.76	0.00	1.44	0.00	1645.57	350.00
*	0.070	3500.00	1318.28	0.52	2.01	0.52	540.00	350.00
*	0.200	3500.00	1317.99	0.00	0.23	0.00	1607.71	600.00
*	0.200	3500.00	1318.50	0.52	0.22	0.52	820.00	600.00
*	0.420	3500.00	1318.51	0.00	0.53	0.00	1051.74	1200.00
*	0.420	3500.00	1318.91	0.40	0.41	0.40	640.00	1200.00
	0.430	3500.00	1318.67	0.00	0.15	0.00	1069.24	85.00
	0.430	3500.00	1319.05	0.39	0.14	0.39	640.00	85.00
*	0.450	3500.00	1318.77	0.00	0.10	0.00	1410.07	85.00
	0.450	3500.00	1319.17	0.40	0.11	0.40	640.00	85.00
*	0.455	3500.00	1321.58	0.00	2.81	0.00	1953.62	25.00
*	0.455	3500.00	1321.62	0.04	2.45	0.04	640.00	25.00
*	1.000	3500.00	1321.57	0.00	-0.01	0.00	570.66	150.00
*	1.000	3500.00	1321.63	0.05	0.01	0.05	430.00	150.00
	2.000	3500.00	1321.61	0.00	0.04	0.00	581.47	100.00
	2.000	3500.00	1321.67	0.06	0.04	0.06	500.00	100.00
*	3.000	3500.00	1321.64	0.00	0.03	0.00	699.54	100.00
*	3.000	3500.00	1321.70	0.06	0.03	0.06	620.00	100.00
	4.000	3500.00	1321.64	0.00	0.00	0.00	687.61	170.00
	4.000	3500.00	1321.70	0.06	0.00	0.06	600.00	170.00
	5.000	3500.00	1321.64	0.00	0.00	0.00	694.35	200.00
	5.000	3500.00	1321.70	0.06	0.00	0.06	530.00	200.00

PROJECT TITLE : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD

PROJECT NUMBER : MIDDLE AND NORTH FORKS OF CALFSKIN CREEK

9/29/1994

---

SUMMARY OF WARNING AND STATUS MESSAGES :

-----  
Section 0, profile 1, critical depth assumed.

Section 0, profile 2, critical depth assumed.

Section 0.002, profile 1, conveyance change outside acceptable range.

Section 0.002, profile 2, conveyance change outside acceptable range.

Section 0.07, profile 1, conveyance change outside acceptable range.

Section 0.07, profile 2, conveyance change outside acceptable range.

Section 0.2, profile 1, conveyance change outside acceptable range.

Section 0.2, profile 2, conveyance change outside acceptable range.

Section 0.42, profile 1, conveyance change outside acceptable range.

Section 0.42, profile 2, conveyance change outside acceptable range.

Section 0.45, profile 1, conveyance change outside acceptable range.

Section 0.455, profile 1, hydraulic jump downstream.

Section 0.455, profile 1, conveyance change outside acceptable range.

Section 0.455, profile 2, hydraulic jump downstream.

Section 0.455, profile 2, conveyance change outside acceptable range.

Section 1, profile 1, conveyance change outside acceptable range.

Section 1, profile 2, conveyance change outside acceptable range.

Section 3, profile 1, conveyance change outside acceptable range.

Section 3, profile 2, conveyance change outside acceptable range.

19 Warning and status message(s) generated

PROJECT TITLE : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD

PROJECT NUMBER : MIDDLE AND NORTH FORKS OF CALFSKIN CREEK

9/29/1994

SUMMARY PRINTOUT TABLE 200 : HEC-2 ANALYSIS FOR L.O.M.R. FOR VINE AD

----- PROPOSED CONDITIONS MODEL FOR FLOODPLAIN  
MIDDLE AND NORTH FORKS OF CALFSKIN CREEK

Profile Number 2

Cross- Section Number	Floodway Width (ft)	Floodway Section Area (sq ft)	Floodway Mean Velocity (ft/s)	W. S. Elevation with Floodway (ft MSL)	W. S. Elevation without Floodway (ft MSL)	W. S. Elevation Difference (ft)
0.000	336.	540.	6.5	1315.4	1315.8 ✓	-0.4
0.002	482.	772.	4.5	1316.0	1316.2 ✓	-0.2
0.004	500.	874.	4.0	1316.2	1316.3 ✓	-0.1
0.070	540.	1874.	1.9	1318.3	1317.8 +0.1	0.5
0.200	820.	2560.	1.4	1318.5	1318.0 —	0.5
0.420	640.	1608.	2.2	1318.9	1318.5 +0.2	0.4
0.430	640.	1698.	2.1	1319.1	1318.7 +0.2	0.4
0.450	640.	1931.	1.8	1319.2	1318.8 +0.1	0.4
0.455	640.	3504.	1.0	1321.6	1321.6 ✓	0.0
1.000	430.	2249.	1.6	1321.7	1321.6 ✓	0.1
2.000	500.	2778.	1.3	1321.7	1321.6 ✓	0.1
3.000	620.	6154.	0.6	1321.7	1321.6 ✓	0.1
4.000	600.	7004.	0.5	1321.7	1321.6 ✓	0.1
5.000	530.	6224.	0.6	1321.7	1321.6 ✓	0.1

END OF OUTPUT

CROSS-SECTIONS  
TOPOGRAPHIC WORK MAP