

THIS RUN EXECUTED 08/06/80 17:22:53.

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*****
HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
ERROR CORR - 01,02,03
MODIFICATION - 50,51,52,53,54
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T1	HOT SPRINGS, N.C.										10
T2	10-YEAR FLOOD										20
T3	SPRING CREEK										30
FLOOD PROFILES											
J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	0.	2.	0.	0.	0.0	0.	0.0	0.	1316.50	0.0	40
J2	NPROF	IPLT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	0.	0.	-1.	0.	0.	0.0	0.0	0.	0.	0.	50
J3	VARIABLE CODES FOR SUMMARY PRINTOUT										
	150.00	0.0	160.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60
NC	0.110	0.100	0.045	0.1	0.5						70
QT	5.	5600.	9000.	10700.	15000.	10700.	0.	0.	0.	0.	80
X1	0.10	16.	616.	709.	0.	0.	0.	0.0	0.0	0.	90
GR	1325.0	0.	1319.5	26.	1316.6	74.	1316.5	148.	1316.8	259.	100
GR	1314.9	360.	1315.8	463.	1315.8	565.	1314.1	616.	1304.0	642.	110
GR	1304.0	692.	1309.3	709.	1313.5	730.	1316.9	764.	1319.8	792.	120
GR	1320.0	859.	0.0	0.	0.0	0.	0.0	0.	0.0	0.	130
X1	0.18	15.	380.	443.	380.	360.	370.	0.0	0.0	0.	140
GR	1328.0	0.	1322.6	23.	1318.2	104.	1317.5	169.	1317.2	251.	150
GR	1314.3	312.	1314.0	357.	1308.0	380.	1306.5	386.	1306.5	438.	160
GR	1308.0	443.	1312.0	457.	1318.0	472.	1324.3	486.	1326.3	520.	170
X1	0.24	20.	112.	197.	150.	400.	320.	0.0	0.0	0.	180
GR	1350.0	5.	1336.8	60.	1333.9	80.	1331.6	80.	1328.7	112.	190
GR	1316.0	112.	1314.8	118.	1312.8	125.	1311.5	130.	1311.2	135.	200
GR	1311.8	150.	1312.0	160.	1310.8	170.	1311.8	180.	1311.8	185.	210
GR	1311.5	195.	1312.9	197.	1317.4	230.	1320.9	322.	1350.0	382.	220
X1	0.24	0.	0.	0.	100.	100.	100.	0.0	0.0	0.	230
X3	10.	0.0	0.0	0.	0.0	0.	0.0	1330.7	1330.8		240
SB	0.01	1.60	3.00	0.	85.01	0.01	1080.00	0.0	1312.9	1312.9	250
X1	0.24	0.	0.	0.	20.	20.	20.	0.0	0.0	0.	260
X2	0.	0.0	1.	1325.6	1331.7	0.0	0.	0.0	0.0	0.	270
X3	10.	0.0	0.0	0.	0.0	0.	0.	1331.7	1331.8		280
BT	11.0	5.0	1350.0	0.0	60.0	1336.8	0.0	80.0	1333.9	0.0	290

801

BT	80.0	1332.0	0.0	112.0	1331.8	0.0	112.0	1334.0	0.0	200.0	300
BT	1334.0	0.0	200.0	1331.8	0.0	250.0	1332.2	0.0	299.0	1332.4	310
BT	0.0	337.0	1350.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	320
X1	0.24	20.	112.	197.	25.	25.	25.	0.0	0.0	0.	330
GR	1350.0	5.	1336.8	60.	1333.9	80.	1331.6	80.	1328.7	112.	340
GR	1316.0	112.	1314.8	118.	1312.8	125.	1311.5	130.	1311.2	135.	350
GR	1311.8	150.	1312.0	160.	1310.8	170.	1311.8	180.	1311.8	185.	360
GR	1311.5	195.	1312.9	197.	1317.4	230.	1319.0	270.	1350.0	337.	370
X1	0.27	12.	36.	96.	150.	40.	90.	0.0	0.0	0.	380
GR	1332.0	0.	1327.3	13.	1320.5	22.	1312.0	36.	1311.0	37.	390
GR	1311.0	93.	1312.0	96.	1316.9	105.	1317.1	151.	1321.5	168.	400
GR	1320.4	182.	1329.7	212.	0.0	0.	0.0	0.	0.0	0.	410
NC	0.100	0.100	0.045	0.0	0.0						420
X1	0.31	17.	135.	173.	150.	200.	180.	0.0	0.0	0.	430
GR	1333.9	0.	1331.0	26.	1328.1	61.	1328.1	98.	1322.4	113.	440
GR	1314.9	135.	1314.0	137.	1312.5	141.	1312.5	167.	1314.0	169.	450
GR	1318.2	173.	1319.4	229.	1321.7	284.	1323.4	348.	1324.2	425.	460
GR	1323.9	498.	1333.5	537.	0.0	0.	0.0	0.	0.0	0.	470
NC	0.100	0.100	0.045	0.0	0.0						480
X1	0.39	31.	305.	361.	440.	360.	400.	0.0	0.0	0.	490
GR	1331.2	0.	1330.3	75.	1335.0	75.	1335.0	125.	1329.8	125.	500
GR	1329.3	163.	1328.3	225.	1326.2	251.	1326.2	275.	1335.0	275.	510
GR	1335.0	293.	1326.1	293.	1326.0	305.	1317.8	307.	1316.8	308.	520
GR	1315.7	314.	1315.4	318.	1315.3	329.	1314.9	339.	1315.1	344.	530
GR	1315.0	349.	1317.8	356.	1324.5	361.	1325.5	386.	1325.9	460.	540
GR	1335.0	460.	1335.0	590.	1327.2	590.	1327.6	626.	1328.9	662.	550
GR	1332.8	683.	0.0	0.	0.0	0.	0.0	0.	0.0	0.	560
X1	0.39	0.	0.	0.	40.	40.	40.	0.0	0.0	0.	570
X1	0.39	40.	295.	360.	1.	1.	1.	0.0	0.0	0.	580
BT	12.0	215.0	1328.5	0.0	275.0	1328.3	0.0	275.0	1335.0	0.0	590
BT	293.0	1335.0	0.0	293.0	1330.0	0.0	295.0	1330.0	0.0	295.0	600
BT	1330.0	1326.3	368.0	1330.0	1326.3	368.0	1330.0	0.0	370.0	1330.0	610
BT	0.0	370.0	1328.1	0.0	390.0	1328.1	0.0	0.0	0.0	0.0	620
GR	1331.2	0.	1330.3	75.	1335.0	75.	1335.0	125.	1329.8	125.	630
GR	1329.3	163.	1328.5	215.	1328.5	240.	1328.3	275.	1335.0	275.	640
GR	1335.0	293.	1326.1	293.	1326.1	295.	1320.1	295.	1318.2	302.	650
GR	1326.3	302.	1326.3	304.	1317.8	304.	1316.8	308.	1315.7	314.	660
GR	1315.4	318.	1315.3	329.	1314.9	338.	1325.3	338.	1326.3	340.	670
GP	1314.9	340.	1315.1	344.	1315.0	349.	1317.8	356.	1319.2	360.	680
GP	1317.9	368.	1328.1	368.	1328.1	370.	1328.1	390.	1335.0	390.	690
GR	1335.0	590.	1329.2	390.	1329.6	626.	1330.0	668.	1332.8	683.	700
X1	0.39	0.	0.	0.	40.	40.	40.	0.0	0.0	0.	710
X2	0.	0.0	0.	0.0	0.0	0.0	1.	0.0	0.0	0.	720
X1	0.39	31.	305.	361.	1.	1.	1.	0.0	0.0	0.	730

C01

GR	1331.2	0.	1330.3	75.	1335.0	75.	1335.0	125.	1329.8	125.	740
GR	1329.3	163.	1328.3	225.	1326.2	251.	1326.2	275.	1335.0	275.	750
GR	1335.0	293.	1326.1	293.	1326.0	305.	1317.8	307.	1316.8	308.	760
GR	1315.7	314.	1315.4	318.	1315.3	329.	1314.9	339.	1315.1	344.	770
GR	1315.0	349.	1317.8	356.	1324.5	361.	1325.5	386.	1325.5	390.	780
GR	1335.0	390.	1335.0	590.	1327.2	590.	1327.6	626.	1328.9	662.	790
GR	1332.8	683.	0.0	0.	0.0	0.	0.0	0.	0.0	0.	800

X1	0.39	0.	0.	0.	10.	10.	10.	0.0	0.0	0.	810
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X1	0.42	20.	305.	361.	120.	120.	120.	0.0	0.0	0.	820
GR	1331.2	0.	1329.3	163.	1328.3	225.	1326.2	251.	1326.0	305.	830
GR	1317.8	307.	1316.8	308.	1315.7	314.	1315.4	318.	1315.3	329.	840
GR	1314.9	339.	1315.1	344.	1315.0	349.	1317.8	356.	1324.5	361.	850
GR	1325.5	386.	1326.0	488.	1327.6	626.	1328.9	662.	1332.8	683.	860
NC	0.110	0.110	0.050	0.0	0.0						870

X1	0.51	14.	50.	100.	450.	460.	440.	0.0	0.0	0.	880
GR	1352.6	0.	1352.4	14.	1352.7	24.	1322.6	50.	1321.0	51.	890
GR	1321.0	88.	1322.6	97.	1323.3	100.	1327.2	121.	1330.5	141.	900
GR	1330.3	190.	1330.5	259.	1333.8	295.	1336.9	353.	0.0	0.	910

X1	0.54	0.	0.	0.	160.	160.	160.	0.0	1.40	0.	920
NC	0.130	0.100	0.050	0.0	0.0						930

X1	0.62	17.	377.	448.	160.	360.	280.	0.0	0.0	0.	940
GR	1357.2	0.	1355.2	56.	1353.9	163.	1351.7	227.	1349.3	251.	950
GR	1341.1	274.	1334.0	307.	1331.9	341.	1330.7	377.	1327.2	389.	960
GR	1326.1	397.	1326.1	432.	1327.2	439.	1333.9	448.	1339.0	503.	970
GR	1358.3	511.	1365.0	512.	0.0	0.	0.0	0.	0.0	0.	980

X1	0.70	14.	277.	330.	300.	560.	430.	0.0	0.0	0.	990
GR	1360.1	30.	1348.9	110.	1345.4	144.	1343.3	200.	1341.2	214.	1000
GR	1339.8	228.	1335.8	260.	1330.0	277.	1326.9	279.	1327.2	300.	1010
GR	1327.3	325.	1329.8	330.	1351.4	350.	1360.7	359.	0.0	0.	1020
NC	0.120	0.130	0.050	0.0	0.0						1030

X1	0.98	19.	406.	478.	1640.	920.	1640.	0.0	0.0	0.	1040
GR	1382.0	0.	1382.0	9.	1377.2	28.	1378.2	115.	1378.0	225.	1050
GR	1377.6	290.	1371.5	310.	1365.1	330.	1343.9	354.	1342.4	406.	1060
GR	1338.2	418.	1337.0	421.	1337.0	462.	1338.2	466.	1342.7	478.	1070
GR	1348.3	496.	1363.1	502.	1379.7	525.	1385.0	530.	0.0	0.	1080
NC	0.110	0.130	0.050	0.0	0.0						1090
QT	5.	5550.	8900.	10600.	14900.	10600.	0.	0.	0.	0.	1100

X1	1.20	20.	209.	276.	800.	1520.	1120.	0.0	0.0	0.	1110
GR	1384.1	0.	1380.6	54.	1381.1	96.	1375.8	128.	1374.2	192.	1120
GR	1354.1	209.	1352.3	210.	1351.6	225.	1351.2	239.	1351.4	249.	1130
GR	1352.0	255.	1352.2	265.	1352.7	270.	1353.5	275.	1354.1	276.	1140
GR	1363.9	280.	1373.0	285.	1376.3	335.	1380.8	364.	1384.0	475.	1150

## D01

X1	1.20	0.	0.	0.	40.	40.	40.	0.0	0.0	0.	1160
X1	1.20	27.	167.	302.	1.	1.	1.	0.0	0.0	0.	1170
BT	10.0	0.0	1384.1	0.0	11.0	1383.4	0.0	160.0	1380.9	0.0	1180
BT	167.0	1380.9	0.0	167.0	1382.0	1376.8	302.0	1382.0	1377.0	302.0	1190
BT	1380.8	0.0	330.0	1380.8	0.0	364.0	1381.0	0.0	475.0	1384.0	1200
BT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1210
GR	1384.1	0.	1383.4	11.	1380.9	160.	1380.9	167.	1376.8	167.	1220
GR	1364.3	192.	1355.0	207.	1376.8	207.	1376.9	210.	1352.3	210.	1230
GR	1351.6	225.	1351.2	239.	1351.4	249.	1351.7	252.	1376.9	252.	1240
GR	1377.0	255.	1352.0	255.	1352.2	265.	1352.7	270.	1353.5	275.	1250
GR	1354.1	276.	1373.1	285.	1374.2	302.	1380.8	302.	1380.8	330.	1260
GR	1381.0	364.	1384.0	475.	0.0	0.	0.0	0.	0.0	0.	1270

X1	1.20	0.	0.	0.	30.	30.	30.	0.0	0.0	0.	1280
X2	0.	0.0	0.	0.0	0.0	0.0	1.	0.0	0.0	0.	1290

X1	1.20	20.	209.	276.	1.	1.	1.	0.0	0.0	0.	1300
GR	1384.1	0.	1380.6	54.	1381.1	96.	1375.8	128.	1364.2	192.	1310
GR	1354.1	209.	1352.3	210.	1351.6	225.	1351.2	239.	1351.4	249.	1320
GR	1352.0	255.	1352.2	265.	1352.7	270.	1353.5	275.	1354.1	276.	1330
GR	1363.9	280.	1373.0	285.	1376.3	335.	1380.8	364.	1384.0	475.	1340

X1	1.20	0.	0.	0.	10.	10.	10.	0.0	0.0	0.	1350
NC	0.120	0.130	0.060	0.0	0.0						1360

X1	1.35	12.	74.	130.	780.	660.	570.	0.0	0.0	0.	1370
GR	1386.0	0.	1378.7	8.	1378.7	27.	1376.7	45.	1365.5	57.	1380
GR	1356.0	74.	1355.0	76.	1355.0	127.	1356.0	130.	1367.3	142.	1390
GR	1374.6	150.	1386.0	169.	0.0	0.	0.0	0.	0.0	0.	1400

X1	1.50	14.	37.	100.	1060.	780.	860.	0.0	-10.00	0.	1410
GR	1408.0	0.	1400.9	5.	1388.5	22.	1378.0	37.	1377.0	38.	1420
GR	1377.0	92.	1378.0	100.	1382.2	115.	1393.0	122.	1396.3	133.	1430
GR	1395.3	155.	1400.1	164.	1404.0	180.	1408.0	188.	0.0	0.	1440

X1	1.50	0.	0.	0.	10.	10.	10.	0.0	6.00	0.	1450
NC	0.120	0.130	0.060	0.0	0.0						1460

X1	1.54	0.	0.	0.	180.	180.	180.	0.0	4.00	0.	1470
NC	0.130	0.130	0.060	0.0	0.0						1480

X1	1.66	15.	108.	149.	620.	650.	640.	0.0	0.0	0.	1490
GR	1422.2	0.	1417.6	13.	1410.7	37.	1403.4	53.	1396.4	70.	1500
GR	1392.0	108.	1391.0	116.	1391.0	147.	1392.0	149.	1398.0	159.	1510
GR	1409.9	178.	1409.9	195.	1405.9	209.	1411.9	224.	1422.0	238.	1520

X1	1.68	0.	0.	0.	100.	120.	110.	0.0	2.70	0.	1530
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F01

\*PROF 1

CCHV= 0.100 CEHV= 0.500

\*SECNO .100

SPRING CREEK		10-YEAR FLOOD			08/06/80		TOPWID	
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV	
ELEV	CRWS	ALOB	ACH	AROB	DHV	IDC	LEFT/RIGHT	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	SSTA	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	ENDST	VOL
	ELMIN	XLOBL	XLCH	XLOBR	WSDI.	WSDR		
0.10	5600.	161.	5250.	188.	0.41	0	485.	
1316.50	0.0	337.	986.	152.	0.50	0	1314.10	
12.50	1316.50	0.48	5.32	1.24	0.0	1316.91	1309.30	
0.001159	0.0	0.110	0.045	0.100	0.0	-0.00	274.95	
	1304.00	0.	0.	0.	388.	98.	760.00	0.

\*SECNO .180

0.18	5600.	498.	4821.	281.	0.75	0	213.	
1316.92	0.0	334.	649.	127.	0.33	0	1308.00	
10.42	0.0	1.49	7.43	2.21	0.58	1317.66	1308.00	
0.002280	0.045	0.110	0.045	0.100	0.17	-0.00	256.71	
	1306.50	380.	370.	360.	155.	58.	469.32	11.

\*SECNO .240

3301 HV CHANGED MORE THAN HVINS

0.24	5600.	0.	5340.	260.	1.79	2	128.	
1317.77	0.0	0.	486.	89.	1.05	0	1328.70	
6.97	0.0	0.0	10.98	2.94	1.37	1319.56	1312.90	
0.011320	0.045	0.110	0.045	0.100	0.52	-0.00	112.00	
	1310.80	150.	320.	400.	43.	85.	239.90	17.

\*SECNO .240

\*\*\* GR CARDS REPEATED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.70 ELREA= 1330.80

0.24	5600.	0.	5600.	0.	1.37	3	85.	
1319.07	0.0	0.	596.	0.	-0.42	0	1328.70	
8.27	0.0	0.0	9.40	0.0	0.84	1320.44	1312.90	
0.006436	0.045	0.110	0.045	0.100	0.04	-0.00	112.00	
	1310.80	100.	100.	100.	43.	43.	197.00	18.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	0.01	1.60	3.00	0.0	85.01	0.01	1080.00	0.0
	ELCHU	ELCHD						
	1312.90	1312.90						

\*SECNO .240

GR CARDS REPEATED  
 SPRING CREEK

10-YEAR FLOOD 08/06/80

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID		
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL	

CLASS A LOW FLOW

3420 BRIDGE W.S.= 1319.07 BRIDGE VELOCITY=, 10.68  
 CALCULATED CHANNEL AREA= 524.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC		
0.0	1320.44	0.00	0.	5600.	1080.	1080.	1325.60		
ELTRD									
1331.70									

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1331.70 ELREA= 1331.80

0.24	5600.	0.	5600.	0.	1.37	0	85.		
1319.07	0.0	0.	596.	0.	-0.00	0	1328.70		
8.27	0.0	0.0	9.40	0.0	-0.00	1320.44	1312.90		
0.006433	0.045	0.110	0.045	0.100	0.0	0.0	112.00		
	1310.80	20.	20.	20.	43.	43.	197.00	18.	

\*SECNO .240

0.24	5600.	0.	5132.	468.	0.89	3	160.		
1319.73	0.0	0.	652.	213.	-0.48	0	1328.70		
8.93	0.0	0.0	7.87	2.20	0.13	1320.61	1312.90		
0.004051	0.045	0.110	0.045	0.100	0.05	-0.00	112.00		
	1310.80	25.	25.	25.	43.	117.	271.57	19.	

\*SECNO .270

0.27	5600.	106.	5062.	432.	1.28	2	139.		
1319.90	0.0	51.	532.	198.	0.39	0	1312.00		
8.90	0.0	2.06	9.51	2.18	0.37	1321.18	1312.00		
0.00572	0.045	0.110	0.045	0.100	0.19	-0.00	22.98		
	1311.00	150.	90.	40.	43.	96.	161.84	20.	

\*SECNO .310

3301 HV CHANGED MORE THAN HVINS

SPRING CREEK		10-YEAR FLOOD			08/06/80				
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID		
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL	

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

H01

0.31	5600.	250.	4602.	748.	2.37	20	183.	
1322.04	1322.04	75.	340.	266.	1.09	8	1314.90	
9.54	0.0	3.34	13.55	2.82	1.18	1324.41	1318.20	
0.009961	0.045	0.100	0.045	0.100	0.55	-0.00	114.06	
	1312.50	150.	180.	200.	40.	143.	296.78	23.

\*SECNO .390

3301 HV CHANGED MORE THAN HVINS

0.39	5600.	0.	5572.	28.	1.66	2	150.	
1325.87	0.0	0.	538.	35.	-0.71	0	1326.00	
10.97	0.0	0.0	10.37	0.81	3.06	1327.53	1324.50	
0.006104	0.045	0.100	0.045	0.100	0.07	-0.00	305.03	
	1314.90	440.	400.	360.	28.	122.	455.29	29.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

SPRING CREEK		10-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV		
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC			
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST		VOL
0.39	5600.	2.	5525.	74.	1.49	2	192.		
1326.29	0.0	5.	561.	76.	-0.17	0	1326.00		
11.39	0.0	0.32	9.85	0.97	0.23	1327.78	1324.50		
0.005225	0.045	0.100	0.045	0.100	0.02	-0.00	249.90		
	1314.90	40.	40.	40.	83.	127.	460.00		30.

\*SECNO .390

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1328.10 MAX ELLC= 1326.30

0.39	5600.	0.	5402.	198.	1.17	2	75.	
1326.63	0.0	0.	613.	62.	-0.32	0	1326.10	
11.75	0.0	0.0	8.82	3.19	0.01	1327.82	1319.20	
0.013406	0.045	0.100	0.045	0.100	0.03	-26.79	293.00	
	1314.90	1.	1.	1.	35.	41.	368.00	30.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1328.10 MAX ELLC= 1326.30

0.39	5600.	0.	5402.	198.	1.17	2	75.	
1327.18	0.0	0.	613.	62.	0.00	0	1326.10	
12.28	0.0	0.0	8.82	3.19	0.54	1328.35	1319.20	
0.013406	0.045	0.100	0.045	0.100	0.00	-66.54	293.00	
	1314.90	40.	40.	40.	35.	41.	368.00	30.



\*SECNO .390

3265 DIVIDED FLOW

0.39	5600.	36.	5474.	90.	1.22	2	133.	
1327.16	0.0	42.	610.	61.	0.05	0	1326.00	
12.26	0.0	0.86	8.98	1.49	0.01	1328.39	1324.50	
0.003882	0.045	0.100	0.045	0.100	0.03	-0.00	239.09	
	1314.90	1.	1.	1.	94.	57.	390.00	30.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

0.39	5600.	39.	5467.	94.	1.21	2	135.	
1327.22	0.0	45.	613.	62.	-0.02	0	1326.00	
12.32	0.0	0.87	8.92	1.50	0.04	1328.43	1324.50	
0.003807	0.045	0.100	0.045	0.100	0.00	-0.00	238.39	
	1314.90	10.	10.	10.	95.	259.	591.63	30.

\*SECNO .420

SPRING CREEK

MILE	Q	QLOB	10-YEAR FLOOD	QROB	08/06/80	ITRIAL	TOPWID	
ELEV	CRISWS	ALOB	QCH	AROB	HV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.42	5600.	138.	4886.	576.	0.74	2	412.	
1328.08	0.0	130.	662.	498.	-0.47	0	1326.00	
13.19	0.0	1.07	7.38	1.16	0.35	1328.83	1324.50	
0.002353	0.045	0.100	0.045	0.100	0.05	-0.00	227.57	
	1314.90	120.	120.	120.	105.	307.	639.65	33.

\*SECNO .510

3301 HV CHANGED MORE THAN HVINS

0.51	5600.	48.	5217.	335.	2.50	2	89.	
1329.23	0.0	19.	398.	96.	1.76	0	1322.60	
8.23	0.0	2.54	13.11	3.48	2.03	1331.73	1323.30	
0.012607	0.046	0.110	0.050	0.110	0.88	-0.00	44.27	
	1321.00	450.	440.	460.	31.	58.	133.34	42.

\*SECNO .540

\*\*\* GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

0.54	5600.	56.	5140.	404.	1.94	3	95.	
1331.50	0.0	24.	441.	128.	-0.55	0	1324.00	
9.10	0.0	2.29	11.64	3.17	1.66	1333.44	1324.70	

J01

0.008659	0.046	0.110	0.050	0.110	0.06	-0.00	43.52	
	1322.40	160.	160.	160.	31.	64.	138.61	44.

\*SECNO .620

0.62	5600.	334.	5265.	1.	1.57	2	148.	
1334.41	0.0	162.	508.	1.	-0.37	0	1330.70	
8.31	0.0	2.06	10.37	0.58	2.50	1335.99	1333.90	
0.009326	0.047	0.130	0.050	0.100	0.04	-0.00	305.09	
	1326.10	160.	280.	360.	107.	41.	453.51	48.

\*SECNO .700

0.70	5600.	183.	5361.	57.	1.48	2	91.	
1337.48	0.0	89.	537.	27.	-0.09	0	1330.00	
10.58	0.0	2.05	9.98	2.07	2.97	1338.96	1329.80	
0.005430	0.047	0.130	0.050	0.100	0.01	-0.00	246.58	
	1326.90	300.	430.	560.	57.	34.	337.11	55.

\*SECNO .980  
 SPRING CREEK 10-YEAR FLOOD 08/06/80

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.98	5600.	360.	5210.	30.	1.08	3	139.	
1346.56	0.0	181.	603.	24.	-0.40	0	1342.40	
9.56	0.0	1.99	8.64	1.23	8.64	1347.64	1342.70	
0.005146	0.048	0.120	0.050	0.130	0.04	-0.00	350.99	
	1337.00	1640.	1640.	920.	91.	48.	490.40	82.

\*SECNO 1.200  
 3301 HV CHANGED MORE THAN HVINS

SPRING CREEK 10-YEAR FLOOD 08/06/80

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.20	5550.	32.	5514.	4.	2.95	12	75.	
1357.86	1357.86	12.	399.	3.	1.87	19	1354.10	
6.66	0.0	2.67	13.83	1.31	10.13	1360.81	1354.10	
0.020611	0.049	0.110	0.050	0.130	0.93	-0.00	202.67	
	1351.20	800.	1120.	1520.	40.	35.	277.53	97.

\*SECNO 1.200  
 \*\*\* GR CARDS REPEATED  
 3301 HV CHANGED MORE THAN HVINS

K01

1.20	5550.	59.	5484.	7.	1.67	4	79.	
1359.76	0.0	27.	526.	7.	-1.28	0	1354.10	
8.56	0.0	2.20	10.42	1.08	0.49	1361.43	1354.10	
0.008095	0.049	0.110	0.050	0.130	0.13	-0.00	199.47	
	1351.20	40.	40.	40.	43.	36.	278.31	97.

\*SECNO 1.200

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 1380.80 MAX ELLC= 1377.00

1.20	5550.	0.	5550.	0.	1.78	2	73.	
1359.71	0.0	0.	518.	0.	0.11	0	1380.90	
8.51	0.0	0.0	10.71	0.0	0.01	1361.49	1380.80	
0.015693	0.049	0.110	0.050	0.130	0.06	-0.00	199.40	
	1351.20	1.	1.	1.	35.	44.	278.66	97.

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 1380.80 MAX ELLC= 1377.00

1.20	5550.	0.	5550.	0.	1.44	2	75.	
1360.50	0.0	0.	577.	0.	-0.34	0	1380.90	
9.30	0.0	0.0	9.62	0.0	0.41	1361.93	1380.80	
0.011744	0.049	0.110	0.050	0.130	0.03	-0.00	198.12	
	1351.20	30.	30.	30.	36.	45.	279.04	98.

\*SECNO 1.200

SPRING CREEK

10-YEAR FLOOD

08/06/80

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
1.20	5550.	72.	5469.	9.	1.35	2	81.	
1360.60	0.0	36.	582.	9.	-0.09	0	1354.10	
9.40	0.0	2.03	9.39	0.99	0.01	1361.95	1354.10	
0.005735	0.049	0.110	0.050	0.130	0.01	-0.00	198.06	
	1351.20	1.	1.	1.	44.	36.	278.65	98.

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

1.20	5550.	74.	5468.	9.	1.32	0	81.	
1360.69	0.0	37.	588.	9.	-0.03	0	1354.10	
9.49	0.0	2.01	9.29	0.99	0.06	1362.01	1354.10	
0.005547	0.049	0.110	0.050	0.130	0.00	-0.00	197.91	

L01

1351.20 10. 10. 10. 45. 36. 278.69 98.

\*SECNO 1.350

1.35	5550.	137.	5346.	67.	1.69	2	79.	
1364.04	0.0	58.	504.	34.	0.36	0	1356.00	
9.04	0.0	2.37	10.61	1.94	3.54	1365.73	1356.00	
0.006876	0.049	0.120	0.050	0.130	0.18	-0.00	59.61	
	1355.00	780.	570.	660.	42.	37.	138.54	106.

\*SECNO 1.500

3301 HV CHANGED MORE THAN HVINS

SPRING CREEK		10-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

1.50	5550.	56.	5340.	155.	2.85	5	86.	
1373.22	1373.22	19.	387.	47.	1.16	14	1368.00	
6.22	0.0	2.86	13.79	3.29	9.30	1376.06	1368.00	
0.019317	0.049	0.120	0.050	0.130	0.58	-0.00	29.55	
	1367.00	1060.	860.	780.	39.	77.	115.66	117.

\*SECNO 1.500

\*\*\* GR CARDS REPEATED

SPRING CREEK		10-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

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

1.50	5550.	55.	5340.	155.	2.85	20	86.	
1379.21	1379.21	19.	387.	47.	0.00	5	1374.00	
6.21	0.0	2.86	13.80	3.29	0.19	1382.06	1374.00	
0.019360	0.049	0.120	0.050	0.130	0.00	-0.00	29.55	
	1373.00	10.	10.	10.	39.	47.	115.66	117.

\*SECNO 1.540

\*\*\* GR CARDS REPEATED

SPRING CREEK		10-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

1.54	5550.	56.	5340.	155.	2.85	2	86.	
1383.22	1383.22	19.	387.	47.	-0.00	5	1378.00	
6.22	0.0	2.86	13.79	3.29	3.48	1386.06	1378.00	
0.019323	0.049	0.120	0.050	0.130	0.00	-0.00	29.55	
	1377.00	180.	180.	180.	39.	47.	115.66	119.

\*SECNO 1.660

SPRING CREEK

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

1.66	5550.	827.	4583.	140.	2.89	3	95.	
1398.64	1398.64	175.	308.	37.	0.04	11	1392.00	
7.64	0.0	4.73	14.86	3.81	13.89	1401.53	1392.00	
0.024651	0.050	0.130	0.060	0.130	0.02	-0.00	64.55	
	1391.00	620.	640.	650.	64.	32.	160.03	126.

\*SECNO 1.680

\*\*\* GR CARDS REPEATED

SPRING CREEK

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

1.68	5550.	828.	4581.	140.	2.88	3	96.	
1401.36	1401.36	176.	309.	37.	-0.01	5	1394.70	
7.66	0.0	4.72	14.83	3.80	2.67	1404.23	1394.70	
0.024505	0.050	0.130	0.060	0.130	0.00	-0.00	64.52	
	1393.70	100.	110.	120.	64.	32.	160.05	127.

\*SECNO 1.700

\*\*\* GR CARDS REPEATED

SPRING CREEK

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

1.70	5550.	828.	4582.	140.	2.88	2	96.	
1404.05	1404.05	175.	309.	37.	0.00	5	1397.40	

AD2

7.65	0.0	4.72	14.84	3.81	2.57	1406.93	1397.40	
0.024548	0.050	0.130	0.060	0.130	0.00	-0.00	64.53	
	1396.40	70.	110.	140.	64.	32.	160.04	128.

\*SECNO 1.740

\*\*\* GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

1.74	5550.	986.	4378.	185.	1.69	2	102.	
1408.74	0.0	252.	378.	58.	-1.19	0	1400.40	
9.34	0.0	3.91	11.58	3.21	3.38	1410.43	1400.40	
0.011423	0.050	0.130	0.060	0.130	0.12	-0.00	60.43	
	1399.40	200.	210.	250.	68.	34.	162.74	131.

\*SECNO 1.910

SPRING CREEK		10-YEAR FLOOD		08/06/80				
MILE	Q	QLOB	GCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

1.91	5500.	939.	4434.	127.	1.25	4	120.	
1421.45	0.0	221.	453.	42.	-0.44	0	1416.00	
9.65	0.0	4.25	9.79	2.99	12.22	1422.70	1415.40	
0.017463	0.053	0.130	0.080	0.130	0.04	-0.00	134.29	
	1411.80	1080.	840.	640.	78.	42.	254.03	146.

\*SECNO 1.910

\*\*\* GR CARDS REPEATED

1.91	5500.	1022.	4327.	151.	0.95	2	124.	
1422.35	0.0	267.	503.	56.	-0.30	0	1416.00	
10.55	0.0	3.83	8.60	2.69	0.57	1423.30	1415.40	
0.011690	0.053	0.130	0.080	0.130	0.03	-0.00	131.79	
	1411.80	40.	40.	40.	80.	44.	256.07	146.

\*SECNO 1.910

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1430.10 MAX ELLC= 1432.00

1.91	5500.	11.	5474.	15.	2.24	3	71.	
1421.73	0.0	4.	455.	5.	1.29	0	1420.40	
9.93	0.0	2.69	12.03	2.94	0.02	1423.97	1419.40	
0.063817	0.053	0.130	0.080	0.130	0.64	-0.00	178.94	
	1411.80	1.	1.	1.	41.	40.	259.31	146.

\*SECNO 1.910

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1430.10 MAX ELLC= 1432.00

1.91	5500.	74.	5363.	63.	1.21	3	80.	
1424.09	0.0	21.	601.	20.	-1.03	0	1420.40	
12.29	0.0	3.55	8.92	3.12	1.23	1425.30	1419.40	
0.0028427	0.053	0.130	0.080	0.130	0.10	-0.00	174.97	
	1411.80	30.	30.	30.	45.	44.	263.68	147.

\*SECNO 1.910

3301 HV CHANGED MORE THAN HVINS

1.91	5500.	1193.	4071.	236.	0.49	2	134.	
1424.89	0.0	409.	646.	101.	-0.72	0	1416.00	
13.09	0.0	2.92	6.31	2.34	0.01	1425.38	1415.40	
0.004510	0.053	0.130	0.080	0.130	0.07	-0.00	124.75	
	1411.80	1.	1.	1.	87.	47.	259.20	147.

\*SECNO 1.910

\*\*\* GR CARDS REPEATED  
SPRING CREEK

10-YEAR FLOOD

08/06/80

MILE	Q	GLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	LOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
1.91	5500.	1196.	4067.	237.	0.48	2	135.	
1424.94	0.0	411.	648.	102.	-0.00	0	1416.00	
13.14	0.0	2.91	6.28	2.33	0.04	1425.42	1415.40	
0.004448	0.053	0.130	0.080	0.130	0.00	-0.00	124.64	
	1411.80	10.	10.	10.	87.	47.	259.25	147.

THIS RUN EXECUTED 08/06/80 17:23:02

\*\*\*\*\*  
HEC2 RELEASE DATED NOV 76 UPDATED JULY1979  
ERROR CORR - 01,02,03  
MODIFICATION - 50,51,52,53,54  
\*\*\*\*\*

T1 HOT SPRINGS, N.C. 1820  
T2 50-YEAR FLOOD 1830  
T3 SPRING CR. 1840

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	0.	3.	0.	0.	0.0	0.	0.0	0.	1317.50	0.0	1850
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	2.	0.	-1.	0.	0.	0.0	0.0	0.	0.	0.	1860



\*PROF 2

CCHV= 0.100 CEHV= 0.500

\*SECNO .100

SPRING CR.		50-YEAR FLOOD				08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL	
0.10	9000.	742.	7892.	366.	0.73	0	711.		
1317.50	0.0	863.	1079.	208.	0.50	0	1314.10		
13.50	1317.50	0.86	7.31	1.76	0.0	1318.23	1309.30		
0.001939	0.0	0.110	0.045	0.100	0.0	-0.00	59.10		
	1304.00	0.	0.	0.	603.	107.	769.79	0.	

\*SECNO .180

3301 HV CHANGED MORE THAN HVINS

0.18	9000.	1134.	7373.	493.	1.33	2	365.		
1318.16	0.0	580.	727.	162.	0.59	0	1308.00		
11.66	0.0	1.95	10.15	3.05	0.95	1319.49	1308.00		
0.003654	0.045	0.110	0.045	0.100	0.30	-0.00	107.27		
	1306.50	380.	370.	360.	304.	61.	472.37	15.	

\*SECNO .240

3301 HV CHANGED MORE THAN HVINS

0.24	9000.	0.	8297.	703.	2.49	5	173.		
1319.48	1319.02	0.	632.	200.	1.16	19	1328.70		
8.68	0.0	0.0	13.14	3.51	1.89	1321.96	1312.90		
0.011717	0.045	0.110	0.045	0.100	0.58	-0.00	112.00		
	1310.80	150.	320.	400.	43.	130.	284.87	23.	

\*SECNO .240

\*\*\* GR CARDS REPEATED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.70 ELREA= 1330.80

0.24	9000.	0.	9000.	0.	2.39	3	85.		
1320.59	0.0	0.	725.	0.	-0.09	0	1328.70		
9.79	0.0	0.0	12.41	0.0	1.01	1322.99	1312.90		
0.008845	0.045	0.110	0.045	0.100	0.01	-0.00	112.00		
	1310.80	100.	100.	100.	43.	43.	197.00	25.	

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS		
	0.01	1.60	3.00	0.0	85.01	0.01	1080.00	0.0		
	ELCHU	ELCHD								

EO2

1312.90 1312.90

\*SECNO .240

\*\*\* GR CARDS REPEATED  
SPRING CR.

		50-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	QLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

CLASS A LOW FLOW

3420 BRIDGE W.S.= 1320.59 BRIDGE VELOCITY= 13.76  
CALCULATED CHANNEL AREA= 654.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
0.0	1322.98	0.00	0.	9000.	1080.	1080.	1325.60

ELTRD  
1331.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1331.70 ELREA= 1331.80

0.24	9000.	0.	9000.	0.	2.39	0	85.	
1320.59	0.0	0.	725.	0.	-0.00	0	1328.70	
9.79	0.0	0.0	12.41	0.0	-0.00	1322.98	1312.90	
0.008828	0.045	0.110	0.045	0.100	0.0	0.0	112.00	
	1310.80	20.	20.	20.	43.	43.	197.00	25.

\*SECNO .240

3301 HV CHANGED MORE THAN HVINS

0.24	9000.	0.	7851.	1149.	1.17	3	165.	
1322.08	0.0	0.	851.	393.	-1.22	0	1328.70	
11.28	0.0	0.0	9.23	2.92	0.14	1323.25	1312.90	
0.004032	0.045	0.110	0.045	0.100	0.12	-0.00	112.00	
	1310.80	25.	25.	25.	43.	122.	276.63	26.

\*SECNO .270

3301 HV CHANGED MORE THAN HVINS

0.27	9000.	232.	7646.	1122.	1.75	2	168.	
1322.16	0.0	85.	668.	378.	0.58	0	1312.00	
11.16	0.0	2.74	11.45	2.97	0.37	1323.91	1312.00	
0.004893	0.045	0.110	0.045	0.100	0.29	-0.00	19.79	
	1311.00	150.	90.	70.	46.	122.	187.70	28.

\*SECNO .310

		50-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	

F02

SLOPE	WIN ELMIN	XNL XLOBL	XNCH XLCH	XNR XLOBR	OLOSS WSDL	CORAR WSDR	SSTA ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL, CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
0.31	9000.	532.	6140.	2328.	2.22	20	392.	
1324.41	1324.41	132.	430.	719.	0.47	8	1314.90	
11.91	0.0	4.03	14.29	3.24	1.13	1326.63	1318.20	
0.008097	0.045	0.100	0.045	0.100	0.24	-0.00	107.71	
	1312.50	150.	180.	200.	46.	346.	500.07	33.

\*SECNO .390

3265 DIVIDED FLOW

0.39	9000.	84.	8505.	412.	2.71	4	230.	
1327.46	1326.71	57.	626.	194.	0.49	5	1326.00	
12.56	0.0	1.47	13.58	2.12	3.29	1330.17	1324.50	
0.008573	0.045	0.100	0.045	0.100	0.25	-0.00	235.44	
	1314.90	440.	400.	360.	98.	280.	613.10	43.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		50-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN ELMIN	XNL XLOBL	XNCH XLCH	XNR XLOBR	OLOSS WSDL	CORAR WSDR	SSTA ENDST	VOL
0.39	9000.	225.	7974.	801.	1.81	4	309.	
1328.71	0.0	135.	696.	380.	-0.90	0	1326.00	
13.81	0.0	1.66	11.45	2.11	0.27	1330.52	1324.50	
0.005291	0.045	0.100	0.045	0.100	0.09	-0.00	199.66	
	1314.90	40.	40.	40.	133.	324.	656.71	44.

\*SECNO .390

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1328.10 MAX ELLC= 1326.30

0.39	9000.	0.	8682.	318.	3.02	3	97.	
1328.12	0.0	0.	613.	62.	1.21	0	1326.10	
13.22	0.0	0.0	14.17	5.11	0.01	1331.14	1319.20	
0.034626	0.045	0.100	0.045	0.100	0.61	-136.63	293.00	
	1314.90	1.	1.	1.	35.	63.	390.00	44.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		50-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1328.10 MAX ELLC= 1326.30

3685 20 TRIALS ATTEMPTED WSEL, CWSEL  
3710 WSEL ASSUMED BASED ON MIN DIFF

0.39	9000.	456.	8084.	459.	2.45	20	318.	
1329.93	1324.83	158.	613.	124.	-0.58	9	1326.10	
15.03	0.0	2.89	13.20	3.71	1.29	1332.38	1319.20	
0.030026	0.045	0.100	0.045	0.100	0.58	-276.52	125.00	
	1314.90	40.	40.	40.	203.	333.	660.92	44.

\*SECNO .390

3265 DIVIDED FLOW

3280 CROSS SECTION 0.39 EXTENDED 0.48 FEET

3301 HV CHANGED MORE THAN HVINS

0.39	9000.	945.	7159.	896.	0.86	4	409.	
1331.68	0.0	645.	863.	491.	-1.59	0	1326.00	
16.78	0.0	1.47	8.30	1.83	0.01	1332.54	1324.50	
0.002086	0.045	0.100	0.045	0.100	0.16	-0.00	0.0	
	1314.90	1.	1.	1.	333.	344.	676.99	44.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3280 CROSS SECTION 0.39 EXTENDED 0.52 FEET

0.39	9000.	954.	7145.	901.	0.85	2	409.	
1331.71	0.0	652.	865.	494.	-0.01	0	1326.00	
16.81	0.0	1.46	8.26	1.82	0.02	1332.56	1324.50	
0.002064	0.045	0.100	0.045	0.100	0.00	-0.00	0.0	
	1314.90	10.	10.	10.	333.	344.	677.16	45.

H02

\*SECNO .420  
3280 CROSS SECTION      0.42 EXTENDED      1.30 FEET

3301 HV CHANGED MORE THAN HVINS

SPRING CR. MILE	Q	QLOB	50-YEAR FLOOD QCH	FLOOD QROB	08/06/80 HV	ITRIAL	TOPWID BANK ELEV	
ELEV	CRWS	ALOB	ACH	AROB	DHV	IDC	LEFT/RIGHT	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	SSTA	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	ENDST	VOL
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR		
0.42	9000.	1224.	5070.	2706.	0.29	2	681.	
1332.49	0.0	1077.	908.	1849.	-0.57	0	1326.00	
17.59	0.0	1.14	5.58	1.46	0.15	1332.78	1324.50	
0.000882	0.045	0.100	0.045	0.100	0.06	-0.00	0.0	
	1314.90	120.	120.	120.	333.	348.	681.36	53.

\*SECNO .510

3301 HV CHANGED MORE THAN HVINS

0.51	9000.	112.	7536.	1352.	2.44	6	237.	
1332.32	1331.78	41.	552.	462.	2.16	11	1322.60	
11.32	0.0	2.74	13.65	2.92	0.91	1334.76	1323.30	
0.008829	0.046	0.110	0.050	0.110	1.08	-0.00	41.60	
	1321.00	450.	440.	460.	33.	204.	278.85	78.

\*SECNO .540

\*\*\* GR CARDS REPEATED

0.54	9000.	112.	7526.	1362.	2.42	4	238.	
1333.75	1333.20	41.	553.	467.	-0.02	8	1324.00	
11.35	0.0	2.73	13.60	2.92	1.41	1336.17	1324.70	
0.008742	0.046	0.110	0.050	0.110	0.00	-0.00	41.58	
	1322.40	160.	160.	160.	33.	204.	279.12	82.

\*SECNO .620

0.62	9000.	966.	7965.	70.	1.97	3	183.	
1336.66	0.0	335.	667.	41.	-0.45	0	1330.70	
10.56	0.0	2.88	11.94	1.70	2.42	1338.63	1333.90	
0.008579	0.047	0.130	0.050	0.100	0.05	-0.00	294.64	
	1326.10	160.	280.	360.	118.	65.	477.75	89.

\*SECNO .700

0.70	9000.	468.	8407.	125.	2.40	2	110.	
1339.68	0.0	175.	654.	45.	0.43	0	1330.00	
12.78	0.0	2.66	12.85	2.77	3.34	1342.09	1329.80	
0.006935	0.047	0.130	0.050	0.100	0.22	-0.00	228.96	
	1326.90	300.	430.	560.	75.	36.	339.15	98.

\*SECNO .980

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		50-YEAR FLOOD			08/06/80				
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOER	WSDL	WSDR	ENDST	VOL	
0.98	9000.	960.	7904.	136.	1.27	2	149.		
1349.60	0.0	354.	822.	74.	-1.13	0	1342.40		
12.60	0.0	2.71	9.61	1.84	8.67	1350.87	1342.70		
0.004211	0.048	0.120	0.050	0.130	0.11	-0.00	347.54		
	1337.00	1640.	1640.	920.	94.	55.	496.53	137.	

\*SECNO 1.200

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		50-YEAR FLOOD			08/06/80				
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOER	WSDL	WSDR	ENDST	VOL	
1.20	8900.	102.	8786.	12.	3.98	2	79.		
1360.05	1360.05	30.	545.	7.	2.71	19	1354.10		
8.85	0.0	3.43	16.11	1.68	8.48	1364.03	1354.10		
0.018435	0.049	0.110	0.050	0.130	1.35	-0.00	198.99		
	1351.20	800.	1120.	1520.	44.	36.	278.43	159.	

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

1.20	8900.	157.	8724.	19.	2.43	4	84.	
1362.23	0.0	56.	691.	13.	-1.56	0	1354.10	
11.03	0.0	2.82	12.62	1.38	0.47	1364.66	1354.10	
0.008241	0.049	0.110	0.050	0.130	0.16	-0.00	195.32	
	1351.20	40.	40.	40.	47.	37.	279.32	160.

\*SECNO 1.200

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 1380.80 MAX ELLC= 1377.00

1.20	8900.	0.	8900.	0.	2.44	0	79.	
1362.24	0.0	0.	710.	0.	0.01	0	1380.90	
11.04	0.0	0.0	12.53	0.0	0.01	1364.67	1380.80	

J02

0.017343	0.049	0.110	0.050	0.130	0.01	-0.00	195.32	
	1351.20	1.	1.	1.	39.	45.	279.86	160.

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NPD= 10 MIN ELTRD= 1380.80 MAX ELLC= 1377.00

1.20	8900.	0.	8900.	0.	2.00	3	80.	
1363.17	0.0	0.	784.	0.	-0.44	0	1380.90	
11.97	0.0	0.0	11.35	0.0	0.45	1365.17	1380.80	
0.013361	0.049	0.110	0.050	0.130	0.04	-0.00	193.82	
	1351.20	30.	30.	30.	41.	46.	280.30	160.

\*SECNO 1.200

SPRING CR.

50-YEAR FLOOD

08/06/80

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
1.20	8900.	181.	8697.	22.	2.01	1	86.	
1363.17	0.0	69.	755.	17.	0.01	0	1354.10	
11.97	0.0	2.62	11.52	1.28	0.01	1365.19	1354.10	
0.006101	0.049	0.110	0.050	0.130	0.01	-0.00	193.72	
	1351.20	1.	1.	1.	49.	37.	279.71	160.

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

1.20	8900.	184.	8694.	22.	1.98	0	86.	
1363.27	0.0	71.	761.	17.	-0.03	0	1354.10	
12.07	0.0	2.60	11.42	1.27	0.05	1365.25	1354.10	
0.005938	0.049	0.110	0.050	0.130	0.00	-0.00	193.57	
	1351.20	10.	10.	10.	49.	37.	279.74	161.

\*SECNO 1.350

1.35	8900.	323.	8430.	147.	2.43	2	86.	
1366.77	0.0	103.	657.	62.	0.45	0	1356.00	
11.77	0.0	3.13	12.83	2.39	3.73	1369.20	1356.00	
0.007064	0.049	0.120	0.050	0.130	0.22	-0.00	55.64	
	1355.00	780.	570.	660.	46.	39.	141.44	172.

\*SECNO 1.500

3301 HV CHANGED MORE THAN HVINS

SPRING CR.

50-YEAR FLOOD

08/06/80

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	

K02

K02

DEPTH SLOPE	WSELK WTN ELMIN	VLOB XNL XLOBL	VCH XNCH XLCH	VROB XNR XLOBR	HL OLOSS WSDL	EG CORAR WSDR	LEFT/RIGHT SSTA ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.50	8900.	132.	8410.	357.	3.84	3	91.	
1375.34	1375.34	38.	521.	82.	1.41	19	1368.00	
8.34	0.0	3.45	16.15	4.37	9.19	1379.18	1368.00	
0.017861	0.049	0.120	0.050	0.130	0.71	-0.00	26.52	
	1367.00	1060.	860.	780.	42.	49.	117.03	187.

\*SECNO 1.500

\*\*\* GR CARDS REPEATED

SPRING CR.		50-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

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

1.50	8900.	133.	8410.	357.	3.84	20	91.	
1381.34	1381.34	39.	521.	82.	-0.01	5	1374.00	
8.34	0.0	3.44	16.14	4.37	0.18	1385.18	1374.00	
0.017793	0.049	0.120	0.050	0.130	0.00	-0.00	26.51	
	1373.00	10.	10.	10.	42.	49.	117.04	187.

\*SECNO 1.540

\*\*\* GR CARDS REPEATED

SPRING CR.		50-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

1.54	8900.	133.	8410.	358.	3.83	2	91.	
1385.34	1385.34	39.	521.	82.	-0.00	5	1378.00	
8.34	0.0	3.44	16.13	4.37	3.20	1389.18	1378.00	
0.017788	0.049	0.120	0.050	0.130	0.00	-0.00	26.51	
	1377.00	180.	180.	180.	42.	49.	117.04	189.

\*SECNO 1.660

SPRING CR.		50-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL



L02

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

1.66	8900.	1644.	6940.	316.	3.78	3	104.		
1400.85	1400.85	277.	399.	65.	-0.05	11	1392.00		
9.85	0.0	5.94	17.40	4.87	13.12	1404.63	1392.00		
0.024013	0.050	0.130	0.060	0.130	0.01	-0.00	59.20		
	1391.00	620.	640.	650.	69.	35.	163.55		200.

\*SECNO 1.680

\*\*\* GR CARDS REPEATED  
SPRING CR.

		50-YEAR FLOOD				08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL	

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

1.68	8900.	1645.	6938.	317.	3.77	2	104.		
1403.56	1403.56	277.	399.	65.	-0.01	5	1394.70		
9.86	0.0	5.94	17.38	4.87	2.60	1407.33	1394.70		
0.023915	0.050	0.130	0.060	0.130	0.00	-0.00	59.17		
	1393.70	100.	110.	120.	69.	35.	163.56		201.

\*SECNO 1.700

\*\*\* GR CARDS REPEATED  
SPRING CR.

		50-YEAR FLOOD				08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL	

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

1.70	8900.	1645.	6939.	317.	3.77	2	104.		
1406.25	1406.25	277.	399.	65.	0.00	5	1397.40		
9.85	0.0	5.94	17.39	4.87	2.48	1410.03	1397.40		
0.023947	0.050	0.130	0.060	0.130	0.00	-0.00	59.18		
	1396.40	70.	110.	140.	69.	35.	163.56		203.

\*SECNO 1.740

\*\*\* GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

1.74	8900.	1850.	6662.	387.	2.31	2	113.		
1411.28	0.0	381.	482.	98.	-1.47	0	1400.40		
11.88	0.0	4.86	13.82	3.96	3.71	1413.58	1400.40		
0.011765	0.050	0.130	0.060	0.130	0.15	-0.00	54.27		
	1399.40	200.	210.	250.	74.	38.	166.79		207.

\*SECNO 1.910

3301 HV CHANGED MORE THAN HVINS

SPRING CR.	Q	QLOB	50-YEAR FLOOD	QROB	08/06/80	ITRIAL	TOPWID	
MILE	CRWS	ALOB	QCH	AROB	HV	IDC	BANK FLEV	
ELEV	WSELK	VLOB	ACH	VROB	DHV	EG	LEFT/RIGHT	
DEPTH	WTN	XNL	VCH	XNR	HL	CORAR	SSTA	
SLOPE	ELMIN	XLOBL	XNCH	XLOBR	OLOSS	WSDR	ENDST	VOL
1.91	8800.	1825.	6640.	335.	1.55	3	131.	
1424.01	0.0	357.	596.	84.	-0.76	0	1416.00	
12.21	0.0	5.11	11.14	3.97	11.90	1425.56	1415.40	
0.015655	0.053	0.130	0.080	0.130	0.08	-0.00	127.20	
	1411.80	1080.	840.	640.	85.	46.	258.11	228.

\*SECNO 1.910

\*\*\* GR CARDS REPEATED

1.91	8800.	1907.	6517.	376.	1.26	2	134.	
1424.86	0.0	407.	644.	100.	-0.29	0	1416.00	
13.06	0.0	4.69	10.12	3.75	0.54	1426.12	1415.40	
0.011668	0.053	0.130	0.080	0.130	0.03	-0.00	124.84	
	1411.80	40.	40.	40.	87.	47.	259.16	229.

\*SECNO 1.910

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1430.10 MAX ELLC= 1432.00

1.91	8800.	109.	8598.	94.	3.24	3	79.	
1423.90	0.0	19.	590.	19.	1.97	0	1420.40	
12.10	0.0	5.66	14.58	3.00	0.02	1427.13	1419.40	
0.077020	0.053	0.130	0.080	0.130	0.99	-0.00	175.28	
	1411.80	1.	1.	1.	44.	44.	263.33	229.

\*SECNO 1.910

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1430.10 MAX ELLC= 1432.00

1.91	8800.	297.	8247.	256.	1.62	3	90.	
1427.12	0.0	56.	789.	55.	-1.62	0	1420.40	
15.32	0.0	5.31	10.46	4.66	1.44	1428.73	1419.40	

AO3

0.032572	0.053	0.130	0.080	0.130	0.16	-0.00	169.87	
	1411.80	30.	30.	30.	50.	50.	269.28	230.

\*SECNO 1.910

3301 HV CHANGED MORE THAN HVINS

1.91	8800.	2158.	6137.	505.	0.65	3	148.	
1428.19	0.0	619.	830.	171.	-0.97	0	1416.00	
16.39	0.0	3.49	7.39	2.96	0.01	1428.84	1415.40	
0.004433	0.053	0.130	0.080	0.130	0.10	-0.00	115.62	
	1411.80	1.	1.	1.	96.	51.	263.26	230.

\*SECNO 1.910

\*\*\* GR CARDS REPEATED  
SPRING CR.

50-YEAR FLOOD

08/06/80

Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID		
CRIS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
WTN	XLN	XNCH	XNR	OLOSS	CORAR	SSTA		
ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST		VOL
1.91	8800.	2161.	6132.	517.	0.64	2	148.	
1428.24	0.0	623.	833.	172.	-0.01	0	1416.00	
16.44	0.0	3.47	7.36	2.94	0.04	1428.88	1415.40	
0.004376	0.053	0.130	0.080	0.130	0.00	-0.00	115.49	
	1411.80	10.	10.	10.	97.	51.	263.32	230.

B03

THIS RUN EXECUTED 08/06/80 17:23:25

\*\*\*\*\*  
HEC2 RELEASE DATED NOV 76 UPDATED JULY1979  
ERROR CORR - 01,02,03  
MODIFICATION - 50,51,52,53,54  
\*\*\*\*\*

T1 HOT SPRINGS, N.C. 1870  
T2 100-YEAR FLOOD 1880  
T3 SPRING CR. 1890

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	0.	4.	0.	0.	0.0	0.	0.0	0.	1317.50	0.0	1900
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	3.	0.	-1.	0.	0.	0.0	0.0	0.	0.	0.	1910

\*PROF 3

CCHV= 0.100 CEHV= 0.500

\*SECNO .100

SPRING CR.		100-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	LEFT/RIGHT		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	SSTA		
SLOPE	WTN	XN	XNCH	XNR	OLOSS	CORAR	ENDST		VOL
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR			
0.10	10700.	883.	9383.	435.	1.03	0	711.		
1317.50	0.0	863.	1079.	208.	0.50	0	1314.10		
13.50	1317.50	1.02	8.69	2.09	0.0	1318.53	1309.30		
0.002741	0.0	0.110	0.045	0.100	0.0	-0.00	59.10		
	1304.00	0.	0.	0.	603.	107.	769.79		0.

\*SECNO .180

3301 HV CHANGED MORE THAN HVINS

0.18	10700.	1469.	8634.	597.	1.70	2	374.		
1318.46	0.0	662.	745.	171.	0.67	0	1308.00		
11.96	0.0	2.22	11.59	3.50	1.29	1320.16	1308.00		
0.004606	0.045	0.110	0.045	0.100	0.33	-0.00	99.22		
	1306.50	380.	370.	360.	312.	62.	473.02		16.

\*SECNO .240

3301 HV CHANGED MORE THAN HVINS

0.24	10700.	0.	9719.	981.	2.86	5	189.		
1320.11	1319.85	0.	685.	261.	1.16	15	1328.70		
9.31	0.0	0.0	14.19	3.76	2.23	1322.97	1312.90		
0.012373	0.045	0.110	0.045	0.100	0.58	-0.00	112.00		
	1310.80	150.	320.	400.	43.	147.	301.44		24.

\*SECNO .240

\*\*\* GR CARDS REPEATED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.70 ELREA= 1330.80

0.24	10700.	0.	10700.	0.	2.96	2	85.		
1321.18	0.0	0.	775.	0.	0.10	0	1328.70		
10.38	0.0	0.0	13.80	0.0	1.11	1324.14	1312.90		
0.010078	0.045	0.110	0.045	0.100	0.05	-0.00	112.00		
	1310.80	100.	100.	100.	43.	43.	197.00		26.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	0.01	1.60	3.00	0.0	85.01	0.01	1080.00	0.0
	ELCHU	ELCHD						

1312.90 1312.90

\*SECNO .240

\*\*\* GR CARDS REPEATED  
SPRING CR.

		100-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	GLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

CLASS A LOW FLOW

3420 BRIDGE W.S.= 1321.18 BRIDGE VELOCITY=, 15.20

CALCULATED CHANNEL AREA= 704.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
0.0	1324.14	0.00	0.	10700.	1080.	1080.	1325.60

ELTRD  
1331.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEAF= 1331.70 ELREA= 1331.80

0.24	10700.	0.	10700.	0.	2.96	0	85.	
1321.18	0.0	0.	775.	0.	0.00	0	1328.70	
10.38	0.0	0.0	13.80	0.0	0.00	1324.14	1312.90	
0.010082	0.045	0.110	0.045	0.100	0.0	0.0	112.00	
	1310.80	20.	20.	20.	43.	43.	197.00	27.

\*SECNO .240

3301 HV CHANGED MORE THAN HVINS

0.24	10700.	0.	9149.	1551.	1.26	4	167.	
1323.19	0.0	0.	946.	484.	-1.69	0	1328.70	
12.39	0.0	0.0	9.67	3.21	0.15	1324.45	1312.90	
0.003908	0.045	0.110	0.045	0.100	0.17	-0.00	112.00	
	1310.80	25.	25.	25.	43.	125.	279.05	27.

\*SECNO .270

3301 HV CHANGED MORE THAN HVINS

0.27	10700.	307.	8830.	1563.	1.89	2	173.	
1323.24	0.0	103.	733.	479.	0.63	0	1312.00	
12.24	0.0	2.98	12.05	3.27	0.36	1325.13	1312.00	
0.004798	0.045	0.110	0.045	0.100	0.31	-0.00	18.37	
	1311.00	150.	90.	40.	48.	125.	191.17	30.

\*SECNO .310

SPRING CR.

		100-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	

EO3

SLOPE	WTN ELMIN	XNL XLOBL	XNCH XLCH	XNR XLOBR	OLOSS WSDL	CORAR WSDR	SSTA ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
0.31	10700.	653.	6830.	3217.	2.30	20	397.	
1325.09	1325.09	151.	456.	942.	0.41	8	1314.90	
12.59	0.0	4.32	14.99	3.41	1.13	1327.39	1318.20	
0.008247	0.045	0.100	0.045	0.100	0.21	-0.00	105.92	
	1312.50	150.	180.	200.	48.	349.	502.83	36.

\*SECNO .390

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

0.39	10700.	185.	9778.	737.	3.08	4	266.	
1328.15	1328.08	95.	665.	291.	0.78	8	1326.00	
13.25	0.0	1.94	14.71	2.53	3.45	1331.22	1324.50	
0.009283	0.045	0.100	0.045	0.100	0.39	-0.00	226.90	
	1314.90	440.	400.	360.	106.	308.	641.13	47.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		100-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.39	10700.	519.	8760.	1421.	1.68	6	395.	
1329.94	0.0	292.	765.	592.	-1.40	0	1326.00	
15.04	0.0	1.78	11.45	2.40	0.26	1331.62	1324.50	
0.004663	0.045	0.100	0.045	0.100	0.14	-0.00	125.00	
	1314.90	40.	40.	40.	208.	335.	667.59	49.

\*SECNO .390

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1328.10 MAX ELLC= 1326.30

FO3

0.39	10700.	19.	10278.	403.	4.22	8	169.	
1328.68	1325.96	16.	613.	74.	2.54	9	1326.10	
13.78	0.0	1.25	16.78	5.46	0.01	1332.90	1319.20	
0.048531	0.045	0.100	0.045	0.100	1.27	-180.31	203.09	
	1314.90	1.	1.	1.	124.	63.	390.00	49.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3280 CROSS SECTION 0.39 EXTENDED 2.25 FEET

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1328.10 MAX ELLC= 1326.30

0.39	10700.	3069.	5945.	1685.	0.51	6	415.	
1333.45	0.0	894.	837.	533.	-3.70	0	1326.10	
18.55	0.0	3.43	7.11	3.16	0.69	1333.96	1319.20	
0.008755	0.045	0.100	0.045	0.100	0.37	-281.71	0.0	
	1314.90	40.	40.	40.	328.	356.	683.00	50.

\*SECNO .390

3265 DIVIDED FLOW

3280 CROSS SECTION 0.39 EXTENDED 2.14 FEET

0.39	10700.	1689.	7671.	1340.	0.73	2	415.	
1333.34	0.0	1057.	956.	689.	0.22	0	1326.00	
18.44	0.0	1.63	8.03	1.94	0.00	1334.07	1324.50	
0.001704	0.045	0.100	0.045	0.100	0.11	-0.00	0.0	
	1314.90	1.	1.	1.	333.	350.	683.00	50.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3280 CROSS SECTION 0.39 EXTENDED 2.16 FEET

0.39	10700.	1696.	7661.	1343.	0.73	2	415.	
1333.36	0.0	1042.	957.	692.	-0.00	0	1326.00	
18.46	0.0	1.63	8.01	1.94	0.02	1334.09	1324.50	
0.001693	0.045	0.100	0.045	0.100	0.00	-0.00	0.0	
	1314.90	10.	10.	10.	333.	350.	683.00	51.

\*SECNO .420



3280 CROSS SECTION 0.42 EXTENDED 2.83 FEET

SPRING CR.		100-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	LEFT/RIGHT		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG			
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST		VOL
0.42	10700.	1890.	5269.	3541.	0.23	2	683.		
1334.03	0.0	1546.	994.	2344.	-0.50	0	1326.00		
19.13	0.0	1.22	5.30	1.51	0.12	1334.26	1324.50		
0.000704	0.045	0.100	0.045	0.100	0.05	-0.00	0.0		
	1314.90	120.	120.	120.	333.	350.	683.00		61.

\*SECNO .510

3301 HV CHANGED MORE THAN HVINS

0.51	10700.	146.	8270.	2284.	2.12	3	255.		
1333.81	0.0	54.	627.	741.	1.89	0	1322.60		
12.81	0.0	2.68	13.20	3.08	0.72	1335.93	1323.30		
0.006973	0.046	0.110	0.050	0.110	0.95	-0.00	40.32		
	1321.00	450.	440.	460.	35.	220.	295.19		94.

\*SECNO .540

\*\*\* GR CARDS REPEATED

0.54	10700.	143.	8412.	2145.	2.35	2	251.		
1334.88	0.0	51.	611.	679.	0.23	0	1324.00		
12.48	0.0	2.79	13.78	3.16	1.18	1337.23	1324.70		
0.007868	0.046	0.110	0.050	0.110	0.11	-0.00	40.59		
	1322.40	160.	160.	160.	34.	217.	291.60		99.

\*SECNO .620

0.62	10700.	1268.	9303.	129.	2.31	3	193.		
1337.32	0.0	391.	714.	63.	-0.04	0	1330.70		
11.22	0.0	3.25	13.03	2.05	2.40	1339.63	1333.90		
0.009337	0.047	0.130	0.050	0.100	0.00	-0.00	291.58		
	1326.10	160.	280.	360.	121.	72.	484.86		107.

\*SECNO .700

3301 HV CHANGED MORE THAN HVINS

0.70	10700.	662.	9873.	165.	2.85	2	120.		
1340.58	0.0	222.	702.	54.	0.54	0	1330.00		
13.68	0.0	2.98	14.07	3.07	3.52	1343.42	1329.80		
0.007572	0.047	0.130	0.050	0.100	0.27	-0.00	220.24		
	1326.90	300.	430.	560.	83.	36.	339.98		117.

\*SECNO .980

3301 HV CHANGED MORE THAN HVINS

H03

SPRING CR.		100-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC			
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST		VOL
0.98	10700.	1279.	9210.	211.	1.37	2	151.		
1350.91	0.0	432.	917.	99.	-1.48	0	1342.40		
13.91	0.0	2.96	10.05	2.13	8.71	1352.28	1342.70		
0.003980	0.048	0.120	0.050	0.130	0.15	-0.00	346.06		
	1337.00	1640.	1640.	920.	96.	55.	497.06		161.

\*SECNO 1.200

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		100-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC			
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST		VOL

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

1.20	10600.	151.	10431.	18.	4.44	20	82.		
1361.05	1361.05	41.	612.	10.	3.07	19	1354.10		
9.85	0.0	3.72	17.04	1.82	8.05	1365.48	1354.10		
0.017663	0.049	0.110	0.050	0.130	1.54	-0.00	197.31		
	1351.20	800.	1120.	1520.	45.	36.	278.84		187.

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

1.20	10600.	221.	10353.	26.	2.78	4	86.		
1363.34	0.0	72.	765.	17.	-1.66	0	1354.10		
12.14	0.0	3.08	13.53	1.51	0.47	1366.12	1354.10		
0.008269	0.049	0.110	0.050	0.130	0.17	-0.00	193.46		
	1351.20	40.	40.	40.	49.	37.	279.77		188.

\*SECNO 1.200

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 1380.80 MAX ELLC= 1377.00

1.20	10600.	0.	10600.	0.	2.67	2	81.		
1363.46	0.0	0.	808.	0.	-0.10	0	1380.90		
12.26	0.0	0.0	13.12	0.0	0.01	1366.14	1380.80		
0.017514	0.049	0.110	0.050	0.130	0.01	-0.00	193.35		

1351.20 1. 1. 1. 41. 46. 280.44 188.

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 1380.80 MAX ELLC= 1377.00

1.20	10600.	0.	10600.	0.	2.22	3	83.
1364.43	0.0	0.	887.	0.	-0.46	0	1380.90
13.23	0.0	0.0	11.95	0.0	0.46	1366.65	1380.80
0.013716	0.049	0.110	0.050	0.130	0.05	-0.00	191.75
	1351.20	30.	30.	30.	43.	46.	280.89 188.

\*SECNO 1.200

SPRING CR.

100-YEAR FLOOD 08/06/80

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VRJB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
1.20	10600.	257.	10312.	31.	2.30	2	89.	
1364.40	0.0	89.	837.	22.	0.08	0	1354.10	
13.20	0.0	2.88	12.32	1.43	0.01	1366.69	1354.10	
0.006094	0.049	0.110	0.050	0.130	0.04	-0.00	190.91	
	1351.20	1.	1.	1.	52.	38.	280.27	188.

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

1.20	10600.	261.	10307.	32.	2.26	0	90.
1364.50	0.0	91.	843.	22.	-0.04	0	1354.10
13.30	0.0	2.87	12.22	1.43	0.06	1366.76	1354.10
0.005930	0.049	0.110	0.050	0.130	0.00	-0.00	190.37
	1351.20	10.	10.	10.	52.	38.	280.33 189.

\*SECNO 1.350

3301 HV CHANGED MORE THAN HVINS

1.35	10600.	442.	9955.	203.	2.76	2	88.
1367.99	0.0	126.	725.	76.	0.50	0	1356.00
12.99	0.0	3.50	13.73	2.66	3.74	1370.75	1356.00
0.007090	0.049	0.120	0.050	0.130	0.25	-0.00	54.33
	1355.00	780.	570.	660.	48.	41.	142.76 202.

\*SECNO 1.500

3301 HV CHANGED MORE THAN HVINS

1.50 10600. 182. 9949. 470. 4.27 4 93.

J03

1376.32	1376.30	49.	582.	99.	1.51	19	1368.00	
9.32	0.0	3.68	17.09	4.76	9.08	1380.59	1368.00	
0.017207	0.049	0.120	0.050	0.130	0.76	-0.00	25.12	
	1367.00	1060.	860.	780.	43.	49.	117.67	218.

\*SECNO 1.500

\*\*\* GR CARDS REPEATED

SPRING CR.		100-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

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

1.50	10600.	181.	9949.	469.	4.28	20	93.	
1382.30	1382.30	49.	582.	99.	0.01	5	1374.00	
9.30	0.0	3.68	17.10	4.76	0.17	1386.59	1374.00	
0.017269	0.049	0.120	0.050	0.130	0.00	-0.00	25.14	
	1373.00	10.	10.	10.	43.	49.	117.66	218.

\*SECNO 1.540

\*\*\* GR CARDS REPEATED

SPRING CR.		100-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

1.54	10600.	181.	9949.	469.	4.28	2	93.	
1386.30	1386.30	49.	582.	99.	0.00	5	1378.00	
9.30	0.0	3.68	17.10	4.76	3.11	1390.59	1378.00	
0.017271	0.049	0.120	0.050	0.130	0.00	-0.00	25.14	
	1377.00	180.	180.	180.	43.	49.	117.66	221.

\*SECNO 1.660

SPRING CR.		100-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

1.66	10600.	2091.	8088.	421.	4.13	3	108.	
1401.88	1401.88	328.	441.	81.	-0.16	8	1392.00	
10.88	0.0	6.37	18.34	5.21	12.74	1406.00	1392.00	
0.023330	0.050	0.130	0.050	0.130	0.02	-0.00	56.70	
	1391.00	620.	640.	650.	72.	37.	165.19	233.

K03

K03

## \*SECNO 1.680

\*\*\* GR CARDS REPEATED

SPRING CR.		100-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	LEFT/RIGHT		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	SSTA		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	ENDST		VOL
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR			

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

1.68	10600.	2086.	8095.	419.	4.17	2	108.		
1404.53	1404.53	326.	439.	80.	0.05	5	1394.70		
10.83	0.0	6.40	18.44	5.24	2.55	1408.70	1394.70		
0.023713	0.050	0.130	0.060	0.130	0.02	-0.00	56.81		
	1393.70	100.	110.	120.	72.	37.	165.11		235.

## \*SECNO 1.700

\*\*\* GR CARDS REPEATED

SPRING CR.		100-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	LEFT/RIGHT		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	SSTA		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	ENDST		VOL
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR			

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

1.70	10600.	2087.	8093.	420.	4.16	2	108.		
1407.24	1407.24	326.	440.	80.	-0.01	5	1397.40		
10.84	0.0	6.39	18.41	5.23	2.44	1411.40	1397.40		
0.023607	0.050	0.130	0.060	0.130	0.00	-0.00	56.78		
	1396.40	70.	110.	140.	72.	37.	165.13		237.

## \*SECNO 1.740

\*\*\* GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

1.74	10600.	2320.	7777.	503.	2.58	2	117.		
1412.39	0.0	442.	527.	118.	-1.58	0	1400.40		
12.99	0.0	5.25	14.75	4.25	3.41	1414.97	1400.40		
0.011873	0.050	0.130	0.060	0.130	0.16	-0.00	51.72		
	1399.40	200.	210.	250.	77.	40.	168.56		242.

## \*SECNO 1.910

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		100-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	LEFT/RIGHT		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG			

LOB

SLOPE	WTN ELMIN	XNL XLOBL	XNCH XLCH	XNR XLOBR	OLSS WSDL	CORAR WSDR	SSTA ENDST	VOL
1.91	10500.	2306.	7730.	464.	1.68	3	135.	
1425.16	0.0	424.	660.	106.	-0.90	0	1416.00	
13.36	0.0	5.43	11.71	4.38	11.78	1426.84	1415.40	
0.015092	0.053	0.130	0.050	0.130	0.09	-0.00	124.03	
	1411.80	1080.	840.	640.	88.	48.	259.52	265.

\*SECNO 1.910

\*\*\* GR CARDS REPEATED

1.91	10500.	2388.	7605.	507.	1.40	2	139.	
1425.99	0.0	475.	707.	123.	-0.28	0	1416.00	
14.19	0.0	5.02	10.76	4.13	0.53	1427.39	1415.40	
0.011630	0.053	0.130	0.080	0.130	0.03	-0.00	121.72	
	1411.80	40.	40.	40.	90.	49.	260.55	267.

\*SECNO 1.910

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1430.10 MAX ELLC= 1432.00

1.91	10500.	193.	10143.	164.	3.67	3	83.	
1424.88	0.0	29.	651.	28.	2.26	0	1420.40	
13.08	0.0	6.74	15.59	5.89	0.02	1428.55	1419.40	
0.082131	0.053	0.130	0.080	0.130	1.13	-0.00	173.62	
	1411.80	1.	1.	1.	46.	46.	265.15	267.

\*SECNO 1.910

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1430.10 MAX ELLC= 1432.00

1.91	10500.	461.	9627.	413.	1.77	4	93.	
1428.48	0.0	77.	873.	75.	-1.89	0	1420.40	
16.68	0.0	6.00	11.02	5.47	1.51	1430.25	1419.40	
0.034040	0.053	0.130	0.080	0.130	0.19	-0.00	167.57	
	1411.80	30.	30.	30.	52.	51.	270.00	267.

\*SECNO 1.910

3301 HV CHANGED MORE THAN HVINS

M03

1.91	10500.	2683.	7160.	656.	0.72	3	153.	
1429.65	0.0	722.	912.	206.	-1.05	0	1416.00	
17.85	0.0	3.72	7.85	3.19	0.01	1430.36	1415.40	
0.004417	0.053	0.130	0.080	0.130	0.11	-0.00	111.80	
	1411.80	1.	1.	1.	100.	53.	265.05	267.

\*SECNO 1.910

\*GR CARDS REPEATED

SPRING CR.		100-YEAR FLOOD		08/06/80		TOPWID		
MILE	Q	QLOS	QCH	QROB	HV	ITRIAL	BANK ELEV	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
1.91	10500.	2688.	7154.	658.	0.71	2	153.	
1429.70	0.0	725.	914.	207.	-0.01	0	1416.00	
17.90	0.0	3.71	7.82	3.18	0.04	1430.41	1415.40	
0.004364	0.053	0.130	0.080	0.130	0.00	-0.00	111.73	
	1411.80	10.	10.	10.	100.	53.	265.11	268.

AD4

THIS RUN EXECUTED 08/06/80 17:23:34

\*\*\*\*\*  
HEC2 RELEASE DATED NOV 76 UPDATED JULY1979  
ERROR CORR - 01,02,03  
MODIFICATION - 50,51,52,53,54  
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T1 HOT SPRINGS, N.C. 1920  
T2 500-YEAR FLOOD 1930  
T3 SPRING CR. 1940

J1 ICHECK INQ NINV IDIR STRT METRIC HVINS Q WSEL FQ  
0. 5. 0. 0. 0.00400 0. 0.0 0. 1320.00 0.0 1950

J2 NPROF IPLOT PRFVS XSECV XSECH FN ALLDC IBW CHNIM ITRACE  
15. 0. -1. 0. 0. 0.0 0.0 0. 0. 0. 1960



\*PROF 4

CCHV= 0.100 CEHV= 0.500

\*SECNO .100

SPRING CR.		500-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV		
ELEV	CRWS	ALOB	ACH	AROB	DHV	IDC	LEFT/RIGHT		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	SSTA		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	ENDST		VOL
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR			
0.10	15000.	1850.	12478.	672.	1.56	0	728.		
1318.15	0.0	1229.	1140.	250.	0.50	0	1314.10		
14.15	1320.00	1.51	10.95	2.69	0.0	1319.71	1309.30		
0.004042	0.0	0.110	0.045	0.100	0.0	-0.00	48.33		
	1304.00	0.	0.	0.	614.	114.	776.08		0.

\*SECNO .180

3301 HV CHANGED MORE THAN HVINS

0.18	15000.	2716.	11401.	882.	2.35	2	397.		
1319.56	0.0	982.	815.	205.	0.79	0	1308.00		
13.06	0.0	2.77	14.00	4.31	1.81	1321.91	1308.00		
0.005971	0.045	0.110	0.045	0.100	0.40	-0.00	78.97		
	1306.50	380.	370.	360.	333.	64.	475.47		20.

\*SECNO .240

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		500-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV		
ELEV	CRWS	ALOB	ACH	AROB	DHV	IDC	LEFT/RIGHT		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	SSTA		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	ENDST		VOL
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR			
0.24	15000.	0.	13022.	1978.	3.44	3	212.		
1321.70	1321.70	0.	820.	452.	1.09	15	1328.70		
10.90	0.0	0.0	15.89	4.38	2.61	1325.14	1312.90		
0.012502	0.045	0.110	0.045	0.100	0.55	0.0	112.00		
	1310.80	150.	320.	400.	43.	169.	323.65		31.

\*SECNO .240

\*\*\* GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.70 ELREA= 1330.80

0.24	15000.	0.	15000.	0.	4.46	2	85.		
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CO4

1322.47	0.0	0.	885.	0.	1.02	0	1328.70
11.67	0.0	0.0	16.95	0.0	1.27	1326.92	1312.90
0.012983	0.045	0.110	0.045	0.100	0.51	-0.00	112.00
	1310.80	100.	100.	100.	43.	43.	197.00

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	0.01	1.60	3.00	0.0	85.01	0.01	1080.00	0.0
	ELCHU	ELCHD						
	1312.90	1312.90						

\*SECNO .240

\*\*\* GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

SPRING CR.			500-YEAR FLOOD		08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
1327.26	1326.93	0.00	0.	15000.	1080.	1080.	1325.60

ELTRD  
1331.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1331.70 ELREA= 1331.80

0.24	15000.	0.	15000.	0.	3.57	4	85.
1323.68	0.0	0.	989.	0.	-0.88	0	1328.70
12.88	0.0	0.0	15.17	0.0	0.33	1327.26	1312.90
0.009139	0.045	0.110	0.045	0.100	0.0	-0.00	112.00
	1310.80	20.	20.	20.	43.	43.	197.00

\*SECNO .240

3301 HV CHANGED MORE THAN HVINS

0.24	15000.	0.	12258.	2742.	1.35	4	174.
1326.26	0.0	0.	1207.	746.	-2.23	0	1328.70
15.46	0.0	0.0	10.15	3.68	0.13	1327.61	1312.90
0.003250	0.045	0.110	0.045	0.100	0.22	-0.00	112.00
	1310.80	25.	25.	25.	43.	131.	285.69

\*SECNO .270

3301 HV CHANGED MORE THAN HVINS

D04

0.27	15000.	529.	11547.	2925.	1.96	2	186.	
1326.25	0.0	162.	913.	779.	0.61	0	1312.00	
15.25	0.0	3.26	12.65	3.75	0.29	1328.21	1312.00	
0.003939	0.045	0.110	0.045	0.100	0.31	-0.00	14.39	
	1311.00	150.	90.	40.	52.	135.	200.87	37.

\*SECNO .310

0.31	15000.	965.	7791.	6244.	1.78	4	412.	
1327.34	0.0	223.	541.	1694.	-0.18	0	1314.90	
14.84	0.0	4.32	14.40	3.69	0.89	1329.12	1318.20	
0.006052	0.045	0.100	0.045	0.100	0.02	-0.00	100.01	
	1312.50	150.	180.	200.	54.	358.	511.96	47.

\*SECNO .390

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		500-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

0.39	15000.	839.	12020.	2141.	2.97	2	396.	
1330.24	1330.24	341.	782.	646.	1.19	8	1326.00	
15.34	0.0	2.46	15.37	3.31	2.73	1333.21	1324.50	
0.008158	0.045	0.100	0.045	0.100	0.59	-0.00	125.00	
	1314.90	440.	400.	360.	208.	336.	669.23	65.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3280 CROSS SECTION 0.39 EXTENDED 0.70 FEET

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		500-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

0.39	15000.	1525.	10666.	2810.	1.67	6	480.	
1331.90	0.0	695.	875.	949.	-1.29	0	1326.00	

E04

E04

17.00	0.0	2.19	12.19	2.96	0.23	1333.58	1324.50	
0.004421	0.045	0.100	0.045	0.100	0.13	-0.00	0.0	
	1314.90	40.	40.	40.	333.	345.	678.15	67.

\*SECNO .390

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1326.300 EGLC= 1334.698  
EGC= 1334.760 WSEL= 1326.238

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		500-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1328.10 MAX ELLC= 1326.30

3685 20 TRIALS ATTEMPTED WSEL, CWSEL  
3710 WSEL ASSUMED BASED ON MIN DIFF

0.39	15000.	2179.	11400.	1421.	3.40	37	398.	
1331.10	1326.30	362.	684.	252.	1.73	21	1326.10	
16.20	0.0	6.02	16.66	5.63	0.01	1334.51	1319.20	
0.062935	0.045	0.100	0.045	0.100	1.62	-281.71	8.14	
	1314.90	1.	1.	1.	319.	346.	673.91	67.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3280 CROSS SECTION 0.39 EXTENDED 3.77 FEET

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1328.10 MAX ELLC= 1326.30

0.39	15000.	5121.	7147.	2732.	0.56	3	415.	
1334.97	0.0	1239.	935.	720.	-2.84	0	1326.10	
20.07	0.0	4.13	7.64	3.79	0.74	1335.53	1319.20	
0.008720	0.045	0.100	0.045	0.100	0.28	-281.71	0.0	
	1314.90	40.	40.	40.	328.	356.	683.00	69.

\*SECNO .390

3265 DIVIDED FLOW

FO4

3280 CROSS SECTION 0.39 EXTENDED 3.57 FEET

0.39	15000.	2941.	9920.	2139.	0.97	2	415.	
1334.77	0.0	1376.	1036.	864.	0.41	0	1326.00	
19.87	0.0	2.14	9.58	2.48	0.00	1335.74	1324.50	
0.002179	0.045	0.100	0.045	0.100	0.20	-0.00	0.0	
	1314.90	1.	1.	1.	333.	350.	683.00	69.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3280 CROSS SECTION 0.39 EXTENDED 3.60 FEET

0.39	15000.	2952.	9904.	2144.	0.96	2	415.	
1334.80	0.0	1383.	1037.	867.	-0.01	0	1326.00	
19.90	0.0	2.13	9.55	2.47	0.02	1335.76	1324.50	
0.002161	0.045	0.100	0.045	0.100	0.00	-0.00	0.0	
	1314.90	10.	10.	10.	333.	350.	683.00	70.

\*SECNO .420

3280 CROSS SECTION 0.42 EXTENDED 4.51 FEET

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		500-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.42	15000.	3167.	6538.	5296.	0.27	2	683.	
1335.71	0.0	2058.	1088.	2885.	-0.69	0	1326.00	
20.81	0.0	1.54	6.01	1.84	0.15	1335.98	1324.50	
0.000802	0.045	0.100	0.045	0.100	0.07	-0.00	0.0	
	1314.90	120.	120.	120.	333.	350.	683.00	83.

\*SECNO .510

3301 HV CHANGED MORE THAN HVINS

0.51	15000.	219.	10692.	4089.	2.62	3	285.	
1335.36	0.0	70.	704.	1067.	2.34	0	1322.60	
14.36	0.0	3.11	15.18	3.83	0.83	1337.98	1323.30	
0.007896	0.046	0.110	0.050	0.110	1.17	-0.00	38.98	
	1321.00	450.	440.	460.	36.	249.	324.24	124.

\*SECNO .540

GD

\*\*\* GR CARDS REPEATED

0.54	15000.	217.	10782.	4001.	2.74	3	282.	
1336.60	0.0	69.	696.	1030.	0.13	0	1324.00	
14.20	0.0	3.17	15.49	3.89	1.30	1339.34	1324.70	
0.008355	0.046	0.110	0.050	0.110	0.06	-0.00	39.12	
	1322.40	160.	160.	160.	36.	246.	321.12	131.

\*SECNO .620

0.62	15000.	2152.	12445.	403.	2.87	2	220.	
1339.08	0.0	548.	839.	144.	0.13	0	1330.70	
12.98	0.0	3.93	14.84	2.79	2.55	1341.95	1333.90	
0.00762	0.047	0.130	0.050	0.100	0.06	-0.00	283.40	
	1326.10	160.	280.	360.	129.	91.	503.03	141.

\*SECNO .700

3301 HV CHANGED MORE THAN HVINS

0.70	15000.	1267.	13456.	277.	3.95	2	136.	
1342.46	0.0	345.	802.	74.	1.07	0	1330.00	
15.56	0.0	3.68	16.79	3.73	3.92	1346.41	1329.80	
0.009021	0.047	0.130	0.050	0.100	0.54	-0.00	205.58	
	1326.90	300.	430.	560.	98.	38.	341.72	154.

\*SECNO .980

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		500-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.98	15000.	2124.	12457.	419.	1.60	3	156.	
1353.87	0.0	614.	1130.	157.	-2.35	0	1342.40	
16.87	0.0	3.46	11.03	2.67	8.83	1355.47	1342.70	
0.003631	0.048	0.120	0.050	0.130	0.23	-0.00	342.71	
	1337.00	1640.	1640.	920.	99.	56.	498.26	211.

\*SECNO 1.200

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		500-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685	20 TRIALS ATTEMPTED WSEL CWSEL							
3693	PROBABLE MINIMUM SPECIFIC ENERGY							
3720	CRITICAL DEPTH ASSUMED							
1.20	14900.	311.	14552.	37.	5.47	20	86.	

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HD4

1363.35	1363.35	72.	767.	17.	3.87	15	1354.10	
12.15	0.0	4.32	18.98	2.11	7.35	1368.82	1354.10	
0.016233	0.049	0.110	0.050	0.130	1.93	-0.00	193.43	
	1351.20	800.	1120.	1520.	49.	37.	279.78	245.

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

1.20	14900.	463.	14382.	55.	3.51	5	99.	
1365.95	0.0	124.	941.	29.	-1.96	0	1354.10	
14.75	0.0	3.73	15.29	1.90	0.44	1369.46	1354.10	
0.008020	0.049	0.110	0.050	0.130	0.20	-0.00	182.34	
	1351.20	40.	40.	40.	60.	39.	281.13	246.

\*SECNO 1.200

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 1380.80 MAX ELLC= 1377.00

1.20	14900.	0.	14900.	0.	3.07	3	88.	
1366.44	0.0	0.	1059.	0.	-0.43	0	1380.90	
15.24	0.0	0.0	14.07	0.0	0.01	1369.51	1380.80	
0.017158	0.049	0.110	0.050	0.130	0.04	-0.00	187.73	
	1351.20	1.	1.	1.	47.	47.	281.84	246.

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 1380.80 MAX ELLC= 1377.00

1.20	14900.	0.	14900.	0.	2.64	3	90.	
1367.39	0.0	0.	1144.	0.	-0.44	0	1380.90	
16.19	0.0	0.0	13.03	0.0	0.47	1370.02	1380.80	
0.014086	0.049	0.110	0.050	0.130	0.04	-0.00	185.83	
	1351.20	30.	30.	30.	49.	48.	282.29	246.

\*SECNO 1.200

SPRING CR.

MILE	Q	QLOB	500-YEAR FLOOD	QCH	GROB	08/06/80	ITRIAL	TOPWID*
ELEV	CRISW	ALOB	ACH	AROB	DFV	HL	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	LOSS	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	WSDR	SSTA
	ELMIN	XCOBL	XCCH	XLOBR	WSDL	WSDR	ENDST	VOL
1.20	14900.	557.	14278.	64.	2.87	2	107.	
1367.28	0.0	164.	1030.	36.	0.23	0	1354.10	
16.08	0.0	3.39	13.86	1.77	0.01	1370.15	1354.10	

0.005849	0.049	0.110	0.050	0.130	0.12	-0.00	175.02	
	1351.20	1.	1.	1.	67.	39.	281.86	246.

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

1.20	14900.	565.	14270.	65.	2.83	0	107.	
1367.38	0.0	168.	1037.	37.	-0.04	0	1354.10	
16.18	0.0	3.37	13.77	1.76	0.06	1370.21	1354.10	
0.005718	0.049	0.110	0.050	0.130	0.00	-0.00	174.47	
	1351.20	10.	10.	10.	68.	39.	281.91	247.

\*SECNO 1.350

3301 HV CHANGED MORE THAN HVINS

1.35	14900.	775.	13748.	378.	3.53	2	94.	
1370.73	0.0	184.	878.	115.	0.70	0	1356.00	
15.73	0.0	4.20	15.65	3.27	3.70	1374.26	1356.00	
0.007133	0.049	0.120	0.050	0.130	0.35	-0.00	51.40	
	1355.00	780.	570.	660.	51.	44.	145.76	263.

\*SECNO 1.500

3301 HV CHANGED MORE THAN HVINS

1.50	14900.	339.	13786.	775.	5.14	5	97.	
1378.67	1378.61	81.	731.	142.	1.61	15	1368.00	
11.67	0.0	4.16	18.86	5.45	9.75	1383.81	1368.00	
0.015487	0.049	0.120	0.050	0.130	0.81	-0.00	21.76	
	1367.00	1060.	860.	780.	47.	51.	119.20	285.

\*SECNO 1.500

\*\*\* GR CARDS REPEATED  
SPRING CR.

		500-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	GLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

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

1.50	14900.	333.	13795.	771.	5.24	20	97.	
1384.57	1384.57	80.	724.	140.	0.10	5	1374.00	
11.57	0.0	4.18	19.04	5.50	0.16	1389.81	1374.00	
0.015971	0.049	0.120	0.050	0.130	0.05	-0.00	21.90	
	1373.00	10.	10.	10.	47.	51.	119.13	285.

\*SECNO 1.540

\*\*\* GR CARDS REPEATED  
SPRING CR.

500-YEAR FLOOD 08/06/80



J04

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID		
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL	

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

1.54	14900.	335.	13793.	772.	5.22	2	97.		
1388.60	1388.60	80.	726.	141.	-0.03	5	1378.00		
11.60	0.0	4.17	19.00	5.49	2.86	1393.81	1378.00		
0.015851	0.049	0.120	0.050	0.130	0.00	-0.00	21.87		
	1377.00	180.	180.	180.	47.	51.	119.15	289.	

\*SECNO 1.660

SPRING CR.

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID		
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL	

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

1.66	14900.	3282.	10904.	714.	4.96	3	117.		
1404.13	1404.13	450.	533.	121.	-0.26	8	1392.00		
13.13	0.0	7.29	20.44	5.89	11.95	1409.09	1392.00		
0.022473	0.050	0.130	0.060	0.130	0.03	-0.00	51.39		
	1391.00	620.	640.	650.	77.	40.	168.79	304.	

\*SECNO 1.680

\*\*\* GR CARDS REPEATED

SPRING CR.

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID		
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL	

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

1.68	14900.	3279.	10907.	713.	4.97	2	117.		
1406.81	1406.81	449.	533.	121.	0.02	5	1394.70		
13.11	0.0	7.31	20.48	5.90	2.44	1411.79	1394.70		
0.022593	0.050	0.130	0.060	0.130	0.01	-0.00	51.43		
	1393.70	100.	110.	120.	77.	40.	168.76	307.	

\*SECNO 1.700

\*\*\* GR CARDS REPEATED

SPRING CR.

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID		
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL	

K04

K04

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

1.70	14900.	3280.	10906.	714.	4.97	2	117.	
1409.52	1409.52	449.	533.	121.	-0.00	5	1397.40	
13.12	0.0	7.30	20.47	5.90	2.32	1414.49	1397.40	
0.022569	0.050	0.130	0.060	0.130	0.00	-0.00	51.43	
	1396.40	70.	110.	140.	77.	40.	168.77	309.

\*SECNO 1.740

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

1.74	14900.	3571.	10503.	826.	3.22	2	129.	
1414.83	0.0	586.	628.	172.	-1.75	0	1400.40	
15.43	0.0	6.10	16.73	4.81	3.39	1418.05	1400.40	
0.012127	0.050	0.130	0.050	0.130	0.17	-0.00	46.36	
	1399.40	200.	210.	250.	82.	82.	210.32	315.

\*SECNO 1.910

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		500-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	IDC	BANK ELEV	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	EG	LEFT/RIGHT	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	CORAR	SSTA	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	WSDR	ENDST	VOL
	ELMIN	XLOBL	XLCH	XLGBR	WSDL	WSDR			
1.91	14800.	3581.	10395.	824.	1.98	2	146.		
1427.75	0.0	589.	806.	161.	-1.25	0	1416.00		
15.95	0.0	6.08	12.90	5.13	11.56	1429.73	1415.40		
0.014054	0.053	0.130	0.080	0.130	0.12	-0.00	116.84		
	1411.80	1080.	840.	640.	95.	51.	262.72		346.

\*SECNO 1.910

\*\*\* GR CARDS REPEATED

1.91	14800.	3667.	10264.	869.	1.72	2	149.	
1428.55	0.0	644.	850.	179.	-0.26	0	1416.00	
16.75	0.0	5.70	12.07	4.85	0.51	1430.26	1415.40	
0.011448	0.053	0.130	0.080	0.130	0.03	-0.00	114.63	
	1411.80	40.	40.	40.	97.	52.	263.70	347.

\*SECNO 1.910

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

LO4

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1430.10 MAX ELLC= 1432.00

1.91	14800.	507.	13855.	438.	4.51	3	91.	
1427.18	0.0	57.	793.	56.	2.79	0	1420.40	
15.38	0.0	8.90	17.47	7.82	0.02	1431.68	1419.40	
0.090579	0.053	0.130	0.080	0.130	1.39	-0.00	169.75	
	1411.80	1.	1.	1.	50.	50.	269.41	348.

\*SECNO 1.910

\*\*\* GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1430.10 MAX ELLC= 1432.00

1.91	14800.	1038.	13172.	590.	2.59	5	128.	
1431.87	0.0	135.	978.	109.	-1.92	0	1420.40	
20.07	0.0	7.66	13.46	5.41	2.58	1434.45	1419.40	
0.081620	0.053	0.130	0.080	0.130	0.19	-174.25	165.00	
	1411.80	30.	30.	30.	55.	73.	292.84	348.

\*SECNO 1.910

3301 HV CHANGED MORE THAN HVINS

1.91	14800.	4218.	9481.	1101.	0.76	3	164.	
1433.88	0.0	1040.	1149.	323.	-1.82	0	1416.00	
22.08	0.0	4.06	8.25	3.41	0.01	1434.64	1415.40	
0.003583	0.053	0.130	0.080	0.130	0.18	-0.00	105.93	
	1411.80	1.	1.	1.	106.	58.	270.27	348.

\*SECNO 1.910

\*\*\* GR CARDS REPEATED

SPRING CR.		500-YEAR FLOOD			08/06/80		TOPWII/		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK	ELEV	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	LEFT/RIGHT		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	SSTA		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	ENDST		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR			VOL
1.91	14800.	4222.	9476.	1102.	0.76	2	164.		
1433.92	0.0	1043.	1151.	324.	-0.00	0	1416.00		
22.12	0.0	4.05	8.23	3.40	0.04	1434.68	1415.40		
0.003555	0.053	0.130	0.080	0.130	0.00	-0.00	105.88		
	1411.80	10.	10.	10.	106.	58.	270.32		349.

HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979  
 ERROR CORR - 01,02,03  
 MODIFICATION - 50,51,52,53,54

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

SPRING CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRISW	EG	10K*S	VCH	AREA	.01K
0.100	0.	0.0	0.0	1304.0	5600.0	1316.50	0.0	1316.91	11.59	5.32	1475.21	1644.86
0.100	0.	0.0	0.0	1304.0	9000.0	1317.50	0.0	1318.23	19.39	7.31	2150.13	2043.73
0.100	0.	0.0	0.0	1304.0	10700.0	1317.50	0.0	1318.53	27.41	8.69	2150.13	2043.73
0.100	0.	0.0	0.0	1304.0	15000.0	1318.15	0.0	1319.71	40.42	10.95	2618.31	2359.48
0.180	370.	0.0	0.0	1306.5	5600.0	1316.92	0.0	1317.66	22.80	7.43	1110.21	1172.86
0.180	370.	0.0	0.0	1306.5	9000.0	1318.16	0.0	1319.49	36.54	10.15	1468.53	1488.94
0.180	370.	0.0	0.0	1306.5	10700.0	1318.46	0.0	1320.16	46.06	11.59	1577.92	1576.63
0.180	370.	0.0	0.0	1306.5	15000.0	1319.56	0.0	1321.91	59.71	14.00	2001.59	1941.24
0.240	320.	0.0	0.0	1310.8	5600.0	1317.77	0.0	1319.56	113.20	10.98	574.63	526.35
0.240	320.	0.0	0.0	1310.8	9000.0	1319.48	1319.02	1321.96	117.17	13.14	831.97	831.46
0.240	320.	0.0	0.0	1310.8	10700.0	1320.11	1319.85	1322.97	123.73	14.19	946.11	961.93
* 0.240	320.	0.0	0.0	1310.8	15000.0	1321.70	1321.70	1325.14	125.02	15.89	1271.22	1341.52
0.240	100.	0.0	0.0	1310.8	5600.0	1319.07	0.0	1320.44	64.36	9.40	595.97	698.06
0.240	100.	0.0	0.0	1310.8	9000.0	1320.59	0.0	1322.99	88.45	12.41	725.03	956.95
0.240	100.	0.0	0.0	1310.8	10700.0	1321.18	0.0	1324.14	100.78	13.80	775.48	1065.83
0.240	100.	0.0	0.0	1310.8	15000.0	1322.47	0.0	1326.92	129.83	16.95	885.18	1316.43
0.240	20.	1331.7	1325.6	1310.8	5600.0	1319.07	0.0	1320.44	64.33	9.40	596.04	698.18
0.240	20.	1331.7	1325.6	1310.8	9000.0	1320.59	0.0	1322.98	88.28	12.41	725.47	957.88
0.240	20.	1331.7	1325.6	1310.8	10700.0	1321.18	0.0	1324.14	100.82	13.80	775.38	1065.61
0.240	20.	1331.7	1325.6	1310.8	15000.0	1323.68	0.0	1327.26	91.39	15.17	988.67	1569.10
0.240	25.	0.0	0.0	1310.8	5600.0	1319.73	0.0	1320.61	40.51	7.87	864.31	879.85
0.240	25.	0.0	0.0	1310.8	9000.0	1322.08	0.0	1323.25	40.32	9.23	1244.33	1417.45
0.240	25.	0.0	0.0	1310.8	10700.0	1323.19	0.0	1324.45	39.08	9.67	1430.02	1711.67
0.240	25.	0.0	0.0	1310.8	15000.0	1326.26	0.0	1327.61	32.50	10.15	1953.51	2631.16
0.270	90.	0.0	0.0	1311.0	5600.0	1319.90	0.0	1321.18	45.72	9.51	781.74	828.22
0.270	90.	0.0	0.0	1311.0	9000.0	1322.16	0.0	1323.91	48.93	11.45	1130.67	1286.59
0.270	90.	0.0	0.0	1311.0	10700.0	1323.24	0.0	1325.13	47.98	12.05	1314.06	1544.73
0.270	90.	0.0	0.0	1311.0	15000.0	1326.25	0.0	1328.21	39.39	12.65	1854.22	2390.07
* 0.310	180.	0.0	0.0	1312.5	5600.0	1322.04	1322.04	1324.41	99.61	13.55	679.96	561.09
* 0.310	180.	0.0	0.0	1312.5	9000.0	1324.41	1324.41	1326.63	80.97	14.29	1281.03	1000.21
* 0.310	180.	0.0	0.0	1312.5	10700.0	1325.09	1325.09	1327.39	82.47	14.99	1549.16	1178.22
0.310	180.	0.0	0.0	1312.5	15000.0	1327.34	0.0	1329.12	60.52	14.40	2458.29	1928.14



## B05

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10**S	VCH	AREA	.01K
0.390	400.	0.0	0.0	1314.9	5600.0	1325.87	0.0	1327.53	61.04	10.37	572.38	716.79
0.390	400.	0.0	0.0	1314.9	9000.0	1327.46	1326.71	1330.17	85.73	13.58	877.33	972.01
0.390	400.	0.0	0.0	1314.9	10700.0	1328.15	1328.08	1331.22	92.83	14.71	1050.81	1110.55
*	0.390	400.	0.0	1314.9	15000.0	1330.24	1330.24	1333.21	81.58	15.37	1769.21	1660.75
0.390	40.	0.0	0.0	1314.9	5600.0	1326.29	0.0	1327.78	52.25	9.85	641.61	774.70
0.390	40.	0.0	0.0	1314.9	9000.0	1328.71	0.0	1330.52	52.91	11.45	1210.98	1237.33
0.390	40.	0.0	0.0	1314.9	10700.0	1329.94	0.0	1331.62	46.63	11.45	1648.65	1566.87
0.390	40.	0.0	0.0	1314.9	15000.0	1331.90	0.0	1333.58	44.21	12.19	2519.10	2256.08
0.390	1.	1328.1	1326.3	1314.9	5600.0	1326.65	0.0	1327.82	134.06	8.82	674.55	483.66
0.390	1.	1328.1	1326.3	1314.9	9000.0	1328.12	0.0	1331.14	346.26	14.17	674.87	483.66
0.390	1.	1328.1	1326.3	1314.9	10700.0	1328.68	1325.96	1332.90	485.31	16.78	701.80	485.71
*	0.390	1.	1328.1	1326.3	1314.9	15000.0	1331.10	1326.30	629.35	16.66	1298.68	597.92
0.390	40.	1328.1	1326.3	1314.9	5600.0	1327.18	0.0	1328.35	134.06	8.82	674.55	483.66
*	0.390	40.	1328.1	1326.3	1314.9	9000.0	1329.93	1324.83	300.26	13.20	893.88	519.39
0.390	40.	1328.1	1326.3	1314.9	10700.0	1333.45	0.0	1333.96	87.55	7.11	2263.68	1143.53
0.390	40.	1328.1	1326.3	1314.9	15000.0	1334.97	0.0	1335.53	87.20	7.64	2894.95	1606.35
0.390	1.	0.0	0.0	1314.9	5600.0	1327.16	0.0	1328.39	38.82	8.98	712.43	898.77
0.390	1.	0.0	0.0	1314.9	9000.0	1331.68	0.0	1332.54	20.86	8.30	1998.00	1970.65
0.390	1.	0.0	0.0	1314.9	10700.0	1333.34	0.0	1334.07	17.04	8.03	2681.80	2591.98
0.390	1.	0.0	0.0	1314.9	15000.0	1334.77	0.0	1335.74	21.79	9.58	3274.99	3213.14
0.390	10.	0.0	0.0	1314.9	5600.0	1327.22	0.0	1328.43	38.07	8.92	719.98	907.60
0.390	10.	0.0	0.0	1314.9	9000.0	1331.71	0.0	1332.56	20.64	8.26	2010.56	1981.10
0.390	10.	0.0	0.0	1314.9	10700.0	1333.36	0.0	1334.09	16.93	8.01	2690.69	2600.76
0.390	10.	0.0	0.0	1314.9	15000.0	1334.80	0.0	1335.76	21.61	9.55	3287.14	3226.59
0.420	120.	0.0	0.0	1314.9	5600.0	1328.08	0.0	1328.83	23.53	7.38	1289.61	1154.43
0.420	120.	0.0	0.0	1314.9	9000.0	1332.49	0.0	1332.78	8.82	5.58	3834.33	3030.88
0.420	120.	0.0	0.0	1314.9	10700.0	1334.03	0.0	1334.26	7.04	5.30	4885.22	4033.43
0.420	120.	0.0	0.0	1314.9	15000.0	1335.71	0.0	1335.98	8.02	6.01	6030.85	5296.57
0.510	440.	0.0	0.0	1321.0	5600.0	1329.23	0.0	1331.73	126.07	13.11	513.22	498.75
0.510	440.	0.0	0.0	1321.0	9000.0	1332.32	1331.78	1334.76	88.29	13.65	1055.42	957.81
0.510	440.	0.0	0.0	1321.0	10700.0	1333.81	0.0	1335.93	69.73	13.20	1422.05	1281.36
0.510	440.	0.0	0.0	1321.0	15000.0	1335.36	0.0	1337.98	78.96	15.18	1841.36	1688.02
0.540	160.	0.0	0.0	1322.4	5600.0	1331.50	0.0	1333.44	86.59	11.64	593.36	601.80
0.540	160.	0.0	0.0	1322.4	9000.0	1333.75	1333.20	1336.17	87.42	13.60	1061.15	962.56
0.540	160.	0.0	0.0	1322.4	10700.0	1334.88	0.0	1337.23	78.68	13.78	1340.66	1206.27
0.540	160.	0.0	0.0	1322.4	15000.0	1336.60	0.0	1339.34	83.55	15.49	1794.10	1641.05
0.620	280.	0.0	0.0	1326.1	5600.0	1334.41	0.0	1335.99	93.26	10.37	671.05	579.88
0.620	280.	0.0	0.0	1326.1	9000.0	1336.66	0.0	1338.63	85.79	11.94	1043.68	971.71
0.620	280.	0.0	0.0	1326.1	10700.0	1337.32	0.0	1339.63	93.37	13.03	1167.70	1107.35
0.620	280.	0.0	0.0	1326.1	15000.0	1339.08	0.0	1341.95	97.62	14.84	1531.59	1518.14
0.700	430.	0.0	0.0	1326.9	5600.0	1337.48	0.0	1338.96	54.30	9.98	653.75	759.94
0.700	430.	0.0	0.0	1326.9	9000.0	1339.68	0.0	1342.09	69.35	12.85	874.81	1080.74
0.700	430.	0.0	0.0	1326.9	10700.0	1340.58	0.0	1343.42	75.72	14.07	977.68	1229.64
0.700	430.	0.0	0.0	1326.9	15000.0	1342.46	0.0	1346.41	90.21	16.79	1220.37	1579.28

C05

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10K+S	VCH	AREA	.01K
0.980	1640.	0.0	0.0	1337.0	5600.0	1346.56	0.0	1347.64	51.46	8.64	808.28	780.61
0.980	1640.	0.0	0.0	1337.0	9000.0	1349.60	0.0	1350.87	42.11	9.61	1250.76	1386.90
0.980	1640.	0.0	0.0	1337.0	10700.0	1350.91	0.0	1352.28	39.80	10.05	1447.47	1696.01
0.980	1640.	0.0	0.0	1337.0	15000.0	1353.87	0.0	1355.47	36.31	11.03	1900.42	2489.25
*	1.200	1120.	0.0	1351.2	5550.0	1357.86	1357.86	1360.81	206.11	13.83	413.60	386.58
*	1.200	1120.	0.0	1351.2	8900.0	1360.05	1360.05	1364.03	184.35	16.11	582.33	655.49
*	1.200	1120.	0.0	1351.2	10600.0	1361.05	1361.05	1365.48	176.63	17.04	662.77	797.59
*	1.200	1120.	0.0	1351.2	14900.0	1363.35	1363.35	1368.82	162.33	18.98	856.41	1109.47
1.200	40.	0.0	0.0	1351.2	5550.0	1359.76	0.0	1361.43	80.95	10.42	559.61	616.85
1.200	40.	0.0	0.0	1351.2	8900.0	1362.23	0.0	1364.66	82.41	12.62	760.51	980.42
1.200	40.	0.0	0.0	1351.2	10600.0	1363.34	0.0	1366.12	82.69	13.53	854.53	1165.67
1.200	40.	0.0	0.0	1351.2	14900.0	1365.95	0.0	1369.46	80.20	15.29	1093.89	1663.79
1.200	1.	1380.8	1377.0	1351.2	5550.0	1359.71	0.0	1361.49	156.93	10.71	518.40	443.04
1.200	1.	1380.8	1377.0	1351.2	8900.0	1362.24	0.0	1364.67	173.43	12.53	710.33	675.81
1.200	1.	1380.8	1377.0	1351.2	10600.0	1363.46	0.0	1366.14	175.14	13.12	807.84	800.97
1.200	1.	1380.8	1377.0	1351.2	14900.0	1366.44	0.0	1369.51	171.58	14.07	1068.94	1137.49
1.200	30.	1380.8	1377.0	1351.2	5550.0	1360.50	0.0	1361.93	117.44	9.62	577.13	512.14
1.200	30.	1380.8	1377.0	1351.2	8900.0	1363.17	0.0	1365.17	133.61	11.35	783.98	769.97
1.200	30.	1380.8	1377.0	1351.2	10600.0	1364.43	0.0	1366.65	137.16	11.95	886.82	905.10
1.200	30.	1380.8	1377.0	1351.2	14900.0	1367.39	0.0	1370.02	140.86	13.03	1143.53	1257.13
1.200	1.	0.0	0.0	1351.2	5550.0	1360.60	0.0	1361.95	57.35	9.39	626.69	732.85
1.200	1.	0.0	0.0	1351.2	8900.0	1363.17	0.0	1365.19	61.01	11.52	841.46	1139.41
1.200	1.	0.0	0.0	1351.2	10600.0	1364.40	0.0	1366.69	60.94	12.32	947.80	1357.88
1.200	1.	0.0	0.0	1351.2	14900.0	1367.28	0.0	1370.15	58.49	13.86	1230.44	1948.28
1.200	10.	0.0	0.0	1351.2	5550.0	1360.69	0.0	1362.01	55.47	9.29	633.65	745.22
1.200	10.	0.0	0.0	1351.2	8900.0	1363.27	0.0	1365.25	59.38	11.42	849.21	1154.96
1.200	10.	0.0	0.0	1351.2	10600.0	1364.50	0.0	1366.76	59.30	12.22	956.65	1376.49
1.200	10.	0.0	0.0	1351.2	14900.0	1367.38	0.0	1370.21	57.18	13.77	1241.10	1970.48
1.350	570.	0.0	0.0	1355.0	5550.0	1364.04	0.0	1365.73	68.76	10.61	596.04	669.32
1.350	570.	0.0	0.0	1355.0	8900.0	1366.77	0.0	1369.20	70.64	12.83	821.69	1058.90
1.350	570.	0.0	0.0	1355.0	10600.0	1367.99	0.0	1370.75	70.90	13.73	927.62	1258.83
1.350	570.	0.0	0.0	1355.0	14900.0	1370.73	0.0	1374.26	71.33	15.65	1177.88	1764.25
*	1.500	860.	0.0	1367.0	5550.0	1373.22	1373.22	1376.06	193.17	13.79	453.73	399.32
*	1.500	860.	0.0	1367.0	8900.0	1375.34	1375.34	1379.18	178.61	16.15	640.77	665.95
1.500	860.	0.0	0.0	1367.0	10600.0	1376.32	1376.30	1380.59	172.07	17.09	730.39	808.09
1.500	860.	0.0	0.0	1367.0	14900.0	1378.67	1378.61	1383.81	154.87	18.86	954.45	1197.30
*	1.500	10.	0.0	1373.0	5550.0	1379.21	1379.21	1382.06	193.60	13.80	453.39	398.88
*	1.500	10.	0.0	1373.0	8900.0	1381.34	1381.34	1385.18	177.93	16.14	641.58	667.21
*	1.500	10.	0.0	1373.0	10600.0	1382.30	1382.30	1386.59	172.69	17.10	729.49	806.62
*	1.500	10.	0.0	1373.0	14900.0	1384.57	1384.57	1389.81	159.71	19.04	944.54	1179.01
*	1.540	180.	0.0	1377.0	5550.0	1383.22	1383.22	1386.06	193.23	13.79	453.69	399.26
*	1.540	180.	0.0	1377.0	8900.0	1385.34	1385.34	1389.18	177.88	16.13	641.65	667.31
*	1.540	180.	0.0	1377.0	10600.0	1386.30	1386.30	1390.59	172.71	17.10	729.47	806.59
*	1.540	180.	0.0	1377.0	14900.0	1388.60	1388.60	1393.81	158.51	19.00	946.96	1183.47

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10+S	VCH	AREA	ONK
*	1.660	640.	0.0	0.0	1391.0	5550.0	1398.64	1398.64	1401.53	246.51	14.86	520.24	353.49
*	1.660	640.	0.0	0.0	1391.0	8900.0	1400.85	1400.85	1404.63	240.13	17.40	740.34	574.34
*	1.660	640.	0.0	0.0	1391.0	10600.0	1401.88	1401.88	1406.00	233.30	18.34	849.77	693.98
*	1.660	640.	0.0	0.0	1391.0	14900.0	1404.13	1404.13	1409.09	224.73	20.44	1104.74	993.94
*	1.680	110.	0.0	0.0	1393.7	5550.0	1401.36	1401.36	1404.23	245.05	14.83	521.36	354.54
*	1.680	110.	0.0	0.0	1393.7	8900.0	1403.56	1403.56	1407.33	239.15	17.38	741.44	575.51
*	1.680	110.	0.0	0.0	1393.7	10600.0	1404.53	1404.53	1408.70	237.13	18.44	844.74	688.36
*	1.680	110.	0.0	0.0	1393.7	14900.0	1406.81	1406.81	1411.79	225.93	20.48	1102.59	991.28
*	1.700	110.	0.0	0.0	1396.4	5550.0	1404.05	1404.05	1406.93	245.48	14.84	521.03	354.23
*	1.700	110.	0.0	0.0	1396.4	8900.0	1406.25	1406.25	1410.03	239.47	17.39	741.08	575.13
*	1.700	110.	0.0	0.0	1396.4	10600.0	1407.24	1407.24	1411.40	236.07	18.41	846.12	689.89
*	1.700	110.	0.0	0.0	1396.4	14900.0	1409.52	1409.52	1414.49	225.69	20.47	1103.02	991.81
	1.740	210.	0.0	0.0	1399.4	5550.0	1408.74	0.0	1410.43	114.23	11.58	688.03	519.29
	1.740	210.	0.0	0.0	1399.4	8900.0	1411.28	0.0	1413.58	117.65	13.82	960.47	820.52
	1.740	210.	0.0	0.0	1399.4	10600.0	1412.39	0.0	1414.97	118.73	14.75	1087.58	972.81
	1.740	210.	0.0	0.0	1399.4	14900.0	1414.83	0.0	1418.05	121.27	16.73	1385.27	1353.04
	1.910	840.	0.0	0.0	1411.8	5500.0	1421.45	0.0	1422.70	174.63	9.79	716.37	416.20
	1.910	840.	0.0	0.0	1411.8	8800.0	1424.01	0.0	1425.16	156.55	11.14	1037.88	703.32
	1.910	840.	0.0	0.0	1411.8	10500.0	1425.16	0.0	1425.64	150.92	11.71	1190.45	854.71
	1.910	840.	0.0	0.0	1411.8	14800.0	1427.75	0.0	1429.73	140.54	12.90	1555.83	1248.44
	1.910	40.	0.0	0.0	1411.8	5500.0	1422.35	0.0	1423.30	116.90	8.60	826.43	508.70
	1.910	40.	0.0	0.0	1411.8	8800.0	1424.86	0.0	1426.12	116.68	10.12	1150.92	814.68
	1.910	40.	0.0	0.0	1411.8	10500.0	1425.99	0.0	1427.39	116.30	10.76	1304.94	973.64
	1.910	40.	0.0	0.0	1411.8	14800.0	1428.55	0.0	1430.26	114.48	12.07	1673.39	1383.26
	1.910	1.	1430.1	1432.0	1411.8	5500.0	1421.73	0.0	1423.97	638.17	12.03	464.40	217.72
	1.910	1.	1430.1	1432.0	1411.8	8800.0	1423.90	0.0	1427.13	770.20	14.58	627.52	317.09
	1.910	1.	1430.1	1432.0	1411.8	10500.0	1424.88	0.0	1428.55	821.31	15.59	707.09	366.38
	1.910	1.	1430.1	1432.0	1411.8	14800.0	1427.18	0.0	1431.68	905.79	17.47	906.21	491.75
	1.910	30.	1430.1	1432.0	1411.8	5500.0	1424.09	0.0	1425.30	284.27	8.92	642.30	326.21
	1.910	30.	1430.1	1432.0	1411.8	8800.0	1427.12	0.0	1428.73	325.72	10.46	899.68	487.60
	1.910	30.	1430.1	1432.0	1411.8	10500.0	1428.48	0.0	1430.25	340.40	11.02	1025.37	569.11
	1.910	30.	1430.1	1432.0	1411.8	14800.0	1431.87	0.0	1434.45	816.20	13.46	1223.12	518.04
	1.910	1.	0.0	0.0	1411.8	5500.0	1424.89	0.0	1425.38	45.10	6.31	1155.22	819.01
	1.910	1.	0.0	0.0	1411.8	8800.0	1428.19	0.0	1428.84	44.33	7.39	1620.11	1321.71
	1.910	1.	0.0	0.0	1411.8	10500.0	1429.65	0.0	1430.36	44.17	7.85	1839.10	1579.92
	1.910	1.	0.0	0.0	1411.8	14800.0	1433.88	0.0	1434.64	35.83	8.25	2511.55	2472.67
	1.910	10.	0.0	0.0	1411.8	5500.0	1424.94	0.0	1425.42	44.48	6.28	1160.88	824.71
	1.910	10.	0.0	0.0	1411.8	8800.0	1428.24	0.0	1428.88	43.76	7.36	1627.58	1330.29
	1.910	10.	0.0	0.0	1411.8	10500.0	1429.70	0.0	1430.41	43.64	7.82	1846.88	1589.52
	1.910	10.	0.0	0.0	1411.8	14800.0	1433.92	0.0	1434.68	35.55	8.23	2518.35	2482.28



## SPRING CREEK

## SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.100	5600.	1316.5	0.0	0.0	0.0	485.05	0.0
0.100	9000.	1317.5	1.0	0.0	0.0	710.69	0.0
0.100	10700.	1317.5	0.0	0.0	0.0	710.69	0.0
0.100	15000.	1318.2	0.7	0.0	-1.8	727.75	0.0
0.180	5600.	1316.9	0.0	0.4	0.0	212.62	370.00
0.180	9000.	1318.2	1.2	0.7	0.0	365.10	370.00
0.180	10700.	1318.5	0.3	1.0	0.0	373.81	370.00
0.180	15000.	1319.6	1.1	1.4	0.0	396.50	370.00
0.240	5600.	1317.8	0.0	0.9	0.0	127.90	320.00
0.240	9000.	1319.5	1.7	1.3	0.0	172.87	320.00
0.240	10700.	1320.1	0.6	1.7	0.0	189.44	320.00
* 0.240	15000.	1321.7	1.6	2.1	0.0	211.65	320.00
0.240	5600.	1319.1	0.0	1.3	0.0	85.00	100.00
0.240	9000.	1320.6	1.5	1.1	0.0	85.00	100.00
0.240	10700.	1321.2	0.6	1.1	0.0	85.00	100.00
0.240	15000.	1322.5	1.3	0.8	0.0	85.00	100.00
0.240	5600.	1319.1	0.0	0.0	0.0	85.00	20.00
0.240	9000.	1320.6	1.5	0.0	0.0	85.00	20.00
0.240	10700.	1321.2	0.6	0.0	0.0	85.00	20.00
0.240	15000.	1323.7	2.5	1.2	0.0	85.00	20.00
0.240	5600.	1319.7	0.0	0.7	0.0	159.57	25.00
0.240	9000.	1322.1	2.4	1.5	0.0	164.63	25.00
0.240	10700.	1323.2	1.1	2.0	0.0	167.05	25.00
0.240	15000.	1326.3	3.1	2.6	0.0	173.69	25.00
0.270	5600.	1319.9	0.0	0.2	0.0	138.86	90.00
0.270	9000.	1322.2	2.3	0.1	0.0	167.91	90.00
0.270	10700.	1323.2	1.1	0.0	0.0	172.80	90.00
0.270	15000.	1326.2	3.0	-0.0	0.0	186.48	90.00
* 0.310	5600.	1322.0	0.0	2.1	0.0	182.72	180.00
* 0.310	9000.	1324.4	2.4	2.2	0.0	392.36	180.00
* 0.310	10700.	1325.1	0.7	1.9	0.0	396.91	180.00
0.310	15000.	1327.3	2.2	1.1	0.0	411.96	180.00
0.390	5600.	1325.9	0.0	3.8	0.0	150.26	400.00
0.390	9000.	1327.5	1.6	3.0	0.0	229.66	400.00
0.390	10700.	1328.1	0.7	3.1	0.0	266.23	400.00
* 0.390	15000.	1330.2	2.1	2.9	0.0	396.23	400.00
0.390	5600.	1326.3	0.0	0.4	0.0	192.10	40.00
0.390	9000.	1328.7	2.4	1.3	0.0	309.04	40.00
0.390	10700.	1329.9	1.2	1.8	0.0	394.59	40.00
0.390	15000.	1331.9	2.0	1.7	0.0	480.15	40.00
0.390	5600.	1326.6	0.0	0.4	0.0	75.00	1.00
0.390	9000.	1328.1	1.5	-0.6	0.0	97.00	1.00

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*	0.390	10700.	1328.7	0.6	-1.3	0.0	168.91	1.00
	0.390	15000.	1331.1	2.4	-0.8	0.0	397.77	1.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.390	5600.	1327.2	0.0	0.5	0.0	75.00	40.00
* 0.390	9000.	1329.9	2.8	1.8	0.0	317.92	40.00
0.390	10700.	1333.4	3.5	4.8	0.0	415.00	40.00
0.390	15000.	1335.0	1.5	3.9	0.0	415.00	40.00
0.390	5600.	1327.2	0.0	-0.0	0.0	132.90	1.00
0.390	9000.	1331.7	4.5	1.8	0.0	408.99	1.00
0.390	10700.	1333.3	1.7	-0.1	0.0	415.00	1.00
0.390	15000.	1334.8	1.4	-0.2	0.0	415.00	1.00
0.390	5600.	1327.2	0.0	0.1	0.0	135.24	10.00
0.390	9000.	1331.7	4.5	0.0	0.0	409.16	10.00
0.390	10700.	1333.4	1.6	0.0	0.0	415.00	10.00
0.390	15000.	1334.8	1.4	0.0	0.0	415.00	10.00
0.420	5600.	1328.1	0.0	0.9	0.0	412.08	120.00
0.420	9000.	1332.5	4.4	0.8	0.0	681.36	120.00
0.420	10700.	1334.0	1.5	0.7	0.0	683.00	120.00
0.420	15000.	1335.7	1.7	0.9	0.0	683.00	120.00
0.510	5600.	1329.2	0.0	1.1	0.0	89.07	440.00
0.510	9000.	1332.3	3.1	-0.2	0.0	237.25	440.00
0.510	10700.	1333.8	1.5	-0.2	0.0	254.87	440.00
0.510	15000.	1335.4	1.6	-0.3	0.0	285.26	440.00
0.540	5600.	1331.5	0.0	2.3	0.0	95.10	160.00
0.540	9000.	1333.7	2.2	1.4	0.0	237.53	160.00
0.540	10700.	1334.9	1.1	1.1	0.0	251.00	160.00
0.540	15000.	1336.6	1.7	1.2	0.0	282.00	160.00
0.620	5600.	1334.4	0.0	2.9	0.0	148.42	280.00
0.620	9000.	1336.7	2.2	2.9	0.0	183.11	280.00
0.620	10700.	1337.3	0.7	2.4	0.0	193.28	280.00
0.620	15000.	1339.1	1.8	2.5	0.0	219.63	280.00
0.700	5600.	1337.5	0.0	3.1	0.0	90.53	430.00
0.700	9000.	1339.7	2.2	3.0	0.0	110.19	430.00
0.700	10700.	1340.6	0.9	3.3	0.0	119.74	430.00
0.700	15000.	1342.5	1.9	3.4	0.0	136.14	430.00
0.980	5600.	1346.6	0.0	9.1	0.0	139.41	1640.00
0.980	9000.	1349.6	3.0	9.9	0.0	148.99	1640.00
0.980	10700.	1350.9	1.3	10.3	0.0	151.00	1640.00
0.980	15000.	1353.9	3.0	11.4	0.0	155.55	1640.00
* 1.200	5550.	1357.9	0.0	11.3	0.0	74.86	1120.00
* 1.200	8900.	1360.0	2.2	10.3	0.0	79.44	1120.00
* 1.200	10600.	1361.0	1.0	10.1	0.0	81.53	1120.00
* 1.200	14900.	1363.4	2.3	9.5	0.0	86.35	1120.00
1.200	5550.	1359.8	0.0	1.9	0.0	78.84	40.00
1.200	8900.	1362.2	2.5	2.2	0.0	84.00	40.00
1.200	10600.	1363.3	1.1	2.3	0.0	86.31	40.00
1.200	14900.	1365.9	2.6	2.6	0.0	98.78	40.00

H05

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.200	5550	1359.7	0.0	-0.0	0.0	73.26	1.00
1.200	8900	1362.2	2.5	0.0	0.0	78.54	1.00
1.200	10600	1363.5	1.2	0.1	0.0	81.09	1.00
1.200	14900	1366.4	3.0	0.5	0.0	88.12	1.00
1.200	5550	1360.5	0.0	0.8	0.0	74.92	30.00
1.200	8900	1363.2	2.7	0.9	0.0	80.47	30.00
1.200	10600	1364.4	1.3	1.0	0.0	83.15	30.00
1.200	14900	1367.4	3.0	0.9	0.0	90.46	30.00
1.200	5550	1360.6	0.0	0.1	0.0	80.60	1.00
1.200	8900	1363.2	2.6	0.0	0.0	85.99	1.00
1.200	10600	1364.4	1.2	-0.0	0.0	89.36	1.00
1.200	14900	1367.3	2.9	-0.1	0.0	106.84	1.00
1.200	5550	1360.7	0.0	0.1	0.0	80.78	10.00
1.200	8900	1363.3	2.6	0.1	0.0	86.18	10.00
1.200	10600	1364.5	1.2	0.1	0.0	89.96	10.00
1.200	14900	1367.4	2.9	0.1	0.0	107.44	10.00
1.350	5550	1364.0	0.0	3.4	0.0	78.93	570.00
1.350	8900	1366.8	2.7	3.5	0.0	85.80	570.00
1.350	10600	1368.0	1.2	3.5	0.0	88.42	570.00
1.350	14900	1370.7	2.7	3.3	0.0	94.36	570.00
1.500	5550	1373.2	0.0	9.2	0.0	86.11	860.00
1.500	8900	1375.3	2.1	8.6	0.0	90.51	860.00
1.500	10600	1376.3	1.0	8.3	0.0	92.54	860.00
1.500	14900	1378.7	2.4	7.9	0.0	97.43	860.00
1.500	5550	1379.2	0.0	6.0	0.0	86.10	10.00
1.500	8900	1381.3	2.1	6.0	0.0	90.53	10.00
1.500	10600	1382.3	1.0	6.0	0.0	92.52	10.00
1.500	14900	1384.6	2.3	5.9	0.0	97.23	10.00
1.540	5550	1383.2	0.0	4.0	0.0	86.11	180.00
1.540	8900	1385.3	2.1	4.0	0.0	90.53	180.00
1.540	10600	1386.3	1.0	4.0	0.0	92.52	180.00
1.540	14900	1388.6	2.3	4.0	0.0	97.28	180.00
1.660	5550	1398.6	0.0	15.4	0.0	95.48	640.00
1.660	8900	1400.8	2.2	15.5	0.0	104.35	640.00
1.660	10600	1401.9	1.0	15.6	0.0	108.49	640.00
1.660	14900	1404.1	2.3	15.5	0.0	117.40	640.00
1.680	5550	1401.4	0.0	2.7	0.0	95.53	110.00
1.680	8900	1403.6	2.2	2.7	0.0	104.39	110.00
1.680	10600	1404.5	1.0	2.7	0.0	108.30	110.00
1.680	14900	1406.8	2.3	2.7	0.0	117.33	110.00
1.700	5550	1404.1	0.0	2.7	0.0	95.51	110.00
1.700	8900	1406.3	2.2	2.7	0.0	104.38	110.00
1.700	10600	1407.2	1.0	2.7	0.0	108.35	110.00
1.700	14900	1409.5	2.3	2.7	0.0	117.34	110.00

\* \* \* \* \*

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.740	5500.	1408.7	0.0	4.7	0.0	102.31	210.00
1.740	8900.	1411.3	2.5	5.0	0.0	112.52	210.00
1.740	10600.	1412.4	1.1	5.1	0.0	116.84	210.00
1.740	14900.	1414.8	2.4	5.3	0.0	129.28	210.00
1.910	5500.	1421.5	0.0	12.7	0.0	119.74	840.00
1.910	8800.	1424.0	2.6	12.7	0.0	130.90	840.00
1.910	10500.	1425.2	1.1	12.8	0.0	135.49	840.00
1.910	14800.	1427.8	2.6	12.9	0.0	145.88	840.00
1.910	5500.	1422.4	0.0	0.9	0.0	124.27	40.00
1.910	8800.	1424.9	2.5	0.9	0.0	134.32	40.00
1.910	10500.	1426.0	1.1	0.8	0.0	138.83	40.00
1.910	14800.	1428.5	2.6	0.8	0.0	149.07	40.00
1.910	5500.	1421.7	0.0	-0.6	0.0	71.38	1.00
1.910	8800.	1423.9	2.2	-1.0	0.0	79.05	1.00
1.910	10500.	1424.9	1.0	-1.1	0.0	82.53	1.00
1.910	14800.	1427.2	2.3	-1.4	0.0	90.67	1.00
1.910	5500.	1424.1	0.0	2.4	0.0	79.71	30.00
1.910	8800.	1427.1	3.0	3.2	0.0	90.41	30.00
1.910	10500.	1428.5	1.4	3.6	0.0	93.43	30.00
1.910	14800.	1431.9	3.4	4.7	0.0	127.84	30.00
1.910	5500.	1424.9	0.0	0.8	0.0	134.44	1.00
1.910	8800.	1428.2	3.3	1.1	0.0	147.63	1.00
1.910	10500.	1429.6	1.5	1.2	0.0	153.25	1.00
1.910	14800.	1433.9	4.2	2.0	0.0	164.33	1.00
1.910	5500.	1424.9	0.0	0.1	0.0	134.61	10.00
1.910	8800.	1428.2	3.3	0.1	0.0	147.83	10.00
1.910	10500.	1429.7	1.5	0.1	0.0	153.38	10.00
1.910	14800.	1433.9	4.2	0.0	0.0	164.44	10.00

## SUMMARY OF ERRORS

CAUTION SECNO= 0.240 PROFILE= 4 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 0.310 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 0.310 PROFILE= 1

PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 0.310 PROFILE= 1

20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 0.310 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 0.310 PROFILE= 2

PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 0.310 PROFILE= 2

20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 0.310 PROFILE= 3 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 0.310 PROFILE= 3

PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 0.310 PROFILE= 3

20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 0.390 PROFILE= 4 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 0.390 PROFILE= 4

WSEL ASSUMED BASED ON MIN DIFF

CAUTION SECNO= 0.390 PROFILE= 4

20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 0.390 PROFILE= 2

WSEL ASSUMED BASED ON MIN DIFF

CAUTION SECNO= 0.390 PROFILE= 2

20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 1.200 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.200 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.200 PROFILE= 3 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.200 PROFILE= 3

PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 1.200 PROFILE= 3

20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 1.200 PROFILE= 4 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.200 PROFILE= 4

PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 1.200 PROFILE= 4

20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 1.500 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.500 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.500 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.500 PROFILE= 1

PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 1.500 PROFILE= 1

20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 1.500 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.500 PROFILE= 2

PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 1.500 PROFILE= 2

20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 1.500 PROFILE= 3 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.500 PROFILE= 3

PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 1.500 PROFILE= 3

20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 1.500 PROFILE= 4 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.500 PROFILE= 4

PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 1.500 PROFILE= 4

20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 1.540 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.540 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.540 PROFILE= 3 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.540 PROFILE= 4 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.660 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.660 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.660 PROFILE= 3 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.660 PROFILE= 4 CRITICAL DEPTH ASSUMED

K05

CAUTION	SECNO=	1.680	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	1.680	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	1.680	PROFILE=	3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	1.680	PROFILE=	4	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	1.700	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	1.700	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	1.700	PROFILE=	3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	1.700	PROFILE=	4	CRITICAL DEPTH ASSUMED

LOS

SPRING CREEK

HOT SPRINGS, N.C.

500-YEAR FLOOD    100-YEAR FLOOD    50-YEAR FLOOD    10-YEAR FLOOD

MILE	Q	ELEV	Q	ELEV	Q	ELEV	Q	ELEV
0.100	15000.	1318.2	10700.	1317.5	9000.	1317.5	5600.	1316.5
0.180	15000.	1319.6	10700.	1318.5	9000.	1318.2	5600.	1316.9
0.240	15000.	1321.7	10700.	1320.1	9000.	1319.5	5600.	1317.8
0.240	15000.	1326.3	10700.	1323.2	9000.	1322.1	5600.	1319.7
0.270	15000.	1326.2	10700.	1323.2	9000.	1322.2	5600.	1319.9
0.310	15000.	1327.3	10700.	1325.1	9000.	1324.4	5600.	1322.0
0.390	15000.	1330.2	10700.	1328.1	9000.	1327.5	5600.	1325.9
0.390	15000.	1334.8	10700.	1333.4	9000.	1331.7	5600.	1327.2
0.420	15000.	1335.7	10700.	1334.0	9000.	1332.5	5600.	1328.1
0.510	15000.	1335.4	10700.	1333.8	9000.	1332.3	5600.	1329.2
0.540	15000.	1336.6	10700.	1334.9	9000.	1333.7	5600.	1331.5
0.620	15000.	1339.1	10700.	1337.3	9000.	1336.7	5600.	1334.4
0.700	15000.	1342.5	10700.	1340.6	9000.	1339.7	5600.	1337.5
0.980	15000.	1353.9	10700.	1350.9	9000.	1349.6	5600.	1346.6
1.200	14900.	1363.4	10600.	1361.0	8900.	1360.0	5550.	1357.9
1.200	14900.	1367.4	10600.	1364.5	8900.	1363.3	5550.	1360.7
1.350	14900.	1370.7	10600.	1368.0	8900.	1366.8	5550.	1364.0
1.500	14900.	1378.7	10600.	1376.3	8900.	1375.3	5550.	1373.2
1.500	14900.	1384.6	10600.	1382.3	8900.	1381.3	5550.	1379.2
1.540	14900.	1388.6	10600.	1386.3	8900.	1385.3	5550.	1383.2
1.660	14900.	1404.1	10600.	1401.9	8900.	1400.8	5550.	1398.6
1.680	14900.	1406.8	10600.	1404.5	8900.	1403.6	5550.	1401.4
1.700	14900.	1409.5	10600.	1407.2	8900.	1406.3	5550.	1404.1
1.740	14900.	1414.8	10600.	1412.4	8900.	1411.3	5550.	1408.7
1.910	14800.	1427.8	10500.	1425.2	8800.	1424.0	5500.	1421.5
1.910	14800.	1433.9	10500.	1429.7	8800.	1428.2	5500.	1424.9

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HEC2 RELEASE DATED NOV 76 UPDATED JULY1979  
 ERROR CORR - 01,02,03  
 MODIFICATION - 50,51,52,53,54

T1	HOT SPRINGS, N.C.										5
T2	100-YEAR FLOOD										10
T3	SPRING CREEK 100 YR FLOODWAY										15
J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	0.	4.	0.	0.	0.0	0.	0.0	0.	1317.50	0.0	20
J2	NPROF	IPLT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	0.	0.	-1.	0.	0.	0.0	0.0	0.	0.	0.	25
J3	VARIABLE CODES FOR SUMMARY PRINTOUT										
	110.00	0.0	200.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30
NC	0.110	0.100	0.045	0.1	0.5						35
QT	5.	5600.	9000.	10700.	15000.	10700.	0.	0.	0.	0.	40
ET	0.	0.0	0.0	0.0	0.0	7.11	580.00	750.00	0.0	0.0	45
X1	0.10	16.	616.	709.	0.	0.	0.	0.0	0.0	0.	50
GR	1325.0	0.	1319.5	26.	1316.6	74.	1316.5	148.	1316.8	259.	55
GR	1314.9	360.	1315.8	463.	1315.8	565.	1314.1	616.	1304.0	642.	60
GR	1304.0	692.	1309.3	709.	1313.5	730.	1316.9	764.	1319.8	792.	65
GR	1320.0	859.	0.0	0.	0.0	0.	0.0	0.	0.0	0.	70
ET	0.	0.0	0.0	0.0	0.0	7.11	370.00	465.00	0.0	0.0	75
X1	0.18	15.	380.	443.	380.	360.	370.	0.0	0.0	0.	80
GR	1328.0	0.	1322.6	23.	1318.2	104.	1317.5	169.	1317.2	251.	85
GR	1314.3	312.	1314.0	357.	1308.0	380.	1306.5	386.	1306.5	438.	90
GR	1308.0	443.	1312.0	457.	1318.0	472.	1324.3	486.	1326.3	520.	95
ET	0.	0.0	0.0	0.0	0.0	7.11	110.00	230.00	0.0	0.0	100
X1	0.24	20.	112.	197.	150.	400.	320.	0.0	0.0	0.	105
GR	1350.0	5.	1336.8	60.	1333.9	80.	1331.6	80.	1328.7	112.	110
GR	1316.0	112.	1314.8	118.	1312.8	125.	1311.5	130.	1311.2	135.	115
GR	1311.8	150.	1312.0	160.	1310.8	170.	1311.8	180.	1311.8	185.	120
GR	1311.5	195.	1312.5	197.	1317.4	230.	1320.9	322.	1350.0	382.	125
ET	0.	0.0	0.0	0.0	0.0	7.11	110.00	230.00	0.0	0.0	130
X1	0.24	0.	0.	0.	100.	100.	100.	0.0	0.0	0.	135
X3	10.	0.0	0.0	0.	0.0	0.	0.0	1350.7	1330.8		140
SB	0.01	1.60	3.00	0.	85.01	0.01	1080.00	0.0	1312.9	1312.9	145
ET	0.	0.0	0.0	0.0	0.0	7.11	110.00	230.00	0.0	0.0	150

B01

X1	0.24	0.	0.	0.	20.	20.	20.	0.0	0.0	0.	155
X2	0.	0.0	1.	1325.6	1331.7	0.0	0.	0.0	0.0	0.	160
X3	10.	0.0	0.0	0.	0.0	0.	0.0	1331.7	1331.8	0.	165
BT	11.0	5.0	1350.0	0.0	60.0	1336.8	0.0	80.0	1333.9	0.0	170
BT	80.0	1332.0	0.0	112.0	1331.8	0.0	112.0	1334.0	0.0	200.0	175
BT	1334.0	0.0	200.0	1331.8	0.0	250.0	1332.2	0.0	299.0	1332.4	180
BT	0.0	337.0	1350.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	185
ET	0.	0.0	0.0	0.0	0.0	7.11	110.00	230.00	0.0	0.0	190

X1	0.24	20.	112.	197.	25.	25.	25.	0.0	0.0	0.	195
GR	1350.0	5.	1336.8	60.	1333.9	80.	1331.6	80.	1328.7	112.	200
GR	1316.0	112.	1314.8	118.	1312.8	125.	1311.5	130.	1311.2	135.	205
GR	1311.8	150.	1312.0	160.	1310.8	170.	1311.8	180.	1311.8	185.	210
GR	1311.5	195.	1312.9	197.	1317.4	230.	1319.0	270.	1350.0	337.	215
ET	0.	0.0	0.0	0.0	0.0	7.11	25.00	120.00	0.0	0.0	220

X1	0.27	12.	36.	96.	150.	40.	90.	0.0	0.0	0.	225
GR	1332.0	0.	1327.3	13.	1320.5	22.	1312.0	36.	1311.0	37.	230
GR	1311.0	93.	1312.0	96.	1316.9	105.	1317.1	151.	1321.5	168.	235
GR	1320.4	182.	1329.7	212.	0.0	0.	0.0	0.	0.0	0.	240
NC	0.100	0.100	0.045	0.0	0.0	0.	0.0	0.	0.0	0.	245
ET	0.	0.0	0.0	0.0	0.0	7.11	120.00	285.00	0.0	0.0	250

X1	0.31	17.	135.	173.	150.	200.	180.	0.0	0.0	0.	255
GR	1333.9	0.	1331.0	26.	1328.1	61.	1328.1	98.	1322.4	113.	260
GR	1314.9	135.	1314.0	137.	1312.5	141.	1312.5	167.	1314.0	169.	265
GR	1318.2	173.	1319.4	229.	1321.7	284.	1323.4	348.	1324.2	425.	270
GR	1323.9	498.	1333.5	537.	0.0	0.	0.0	0.	0.0	0.	275
NC	0.100	0.100	0.045	0.0	0.0	0.	0.0	0.	0.0	0.	280
ET	0.	0.0	0.0	0.0	0.0	7.11	250.00	425.00	0.0	0.0	285

X1	0.39	31.	305.	361.	440.	360.	400.	0.0	0.0	0.	290
GR	1331.2	0.	1330.3	75.	1335.0	75.	1335.0	125.	1329.8	125.	295
GR	1329.3	163.	1328.3	225.	1326.2	251.	1326.2	275.	1335.0	275.	300
GR	1335.0	293.	1326.1	293.	1326.0	305.	1317.8	307.	1316.8	308.	305
GR	1315.7	314.	1315.4	318.	1315.3	329.	1314.9	339.	1315.1	344.	310
GR	1315.0	349.	1317.8	356.	1324.5	361.	1325.5	386.	1325.9	460.	315
GR	1335.0	460.	1335.0	590.	1327.2	590.	1327.6	626.	1328.9	662.	320
GR	1332.8	683.	0.0	0.	0.0	0.	0.0	0.	0.0	0.	325
ET	0.	0.0	0.0	0.0	0.0	7.11	250.00	425.00	0.0	0.0	330

X1	0.39	0.	0.	0.	40.	40.	40.	0.0	0.0	0.	335
ET	0.	0.0	0.0	0.0	0.0	7.11	230.00	390.00	0.0	0.0	340

X1	0.39	40.	295.	360.	1.	1.	1.	0.0	0.0	0.	345
BT	12.0	215.0	1328.5	0.0	275.0	1328.3	0.0	275.0	1335.0	0.0	350
BT	293.0	1335.0	0.0	293.0	1330.0	0.0	295.0	1330.0	0.0	295.0	355
BT	1330.0	1326.3	368.0	1330.0	1326.3	368.0	1330.0	0.0	370.0	1330.0	360
BT	0.0	370.0	1328.1	0.0	390.0	1328.1	0.0	0.0	0.0	0.0	365
GR	1331.2	0.	1330.3	75.	1335.0	75.	1335.0	125.	1329.8	125.	370
GR	1329.3	163.	1328.5	215.	1328.5	240.	1328.3	275.	1335.0	275.	375
GR	1335.0	293.	1326.1	293.	1326.1	295.	1321.1	295.	1318.2	302.	380
GR	1326.3	302.	1326.3	304.	1317.8	304.	1316.8	308.	1315.7	314.	385

## C01

GR	1315.4	318.	1315.3	329.	1314.9	338.	1326.3	338.	1326.3	340.	390
GR	1314.9	340.	1315.1	344.	1315.0	349.	1317.8	356.	1319.2	360.	395
GR	1317.9	368.	1328.1	368.	1328.1	370.	1328.1	390.	1335.0	390.	400
GR	1335.0	590.	1329.2	590.	1329.6	626.	1330.0	668.	1332.8	683.	405
ET	0.	0.0	0.0	0.0	0.0	7.11	230.00	390.00	0.0	0.0	410
X1	0.39	0.	0.	0.	40.	40.	40.	0.0	0.0	0.	415
X2	0.	0.0	0.	0.0	0.0	0.0	1.	0.0	0.0	0.	420
ET	0.	0.0	0.0	0.0	0.0	7.11	230.00	390.00	0.0	0.0	425
X1	0.39	31.	305.	361.	1.	1.	1.	0.0	0.0	0.	430
GR	1331.2	0.	1330.3	75.	1335.0	75.	1335.0	125.	1329.8	125.	435
GR	1329.3	163.	1328.3	225.	1326.2	251.	1326.2	275.	1335.0	275.	440
GR	1335.0	293.	1326.1	293.	1326.0	305.	1317.8	307.	1316.8	308.	445
GR	1315.7	314.	1315.4	318.	1315.3	329.	1314.9	339.	1315.1	344.	450
GR	1315.0	349.	1317.8	356.	1324.5	361.	1325.5	386.	1325.5	390.	455
GR	1335.0	390.	1335.0	590.	1327.2	590.	1327.6	626.	1328.9	662.	460
GR	1332.8	683.	0.0	0.	0.0	0.	0.0	0.	0.0	0.	465
ET	0.	0.0	0.0	0.0	0.0	7.11	230.00	390.00	0.0	0.0	470
X1	0.39	0.	0.	0.	10.	10.	10.	0.0	0.0	0.	475
ET	0.	0.0	0.0	0.0	0.0	7.11	230.00	390.00	0.0	0.0	480
X1	0.42	20.	305.	361.	120.	120.	120.	0.0	0.0	0.	485
GR	1331.2	0.	1329.3	163.	1328.3	225.	1326.2	251.	1326.0	305.	490
GR	1317.8	307.	1316.8	308.	1315.7	314.	1315.4	318.	1315.3	329.	495
GR	1314.9	339.	1315.1	344.	1315.0	349.	1317.8	356.	1324.5	361.	500
GR	1325.5	386.	1326.0	488.	1327.6	626.	1328.9	662.	1332.8	683.	505
NC	0.110	0.110	0.050	0.0	0.0						510
ET	0.	0.0	0.0	0.0	0.0	7.11	45.00	140.00	0.0	0.0	515
X1	0.51	14.	50.	100.	450.	460.	440.	0.0	0.0	0.	520
GR	1352.6	0.	1352.4	14.	1352.7	24.	1322.6	50.	1321.0	51.	525
GR	1321.0	88.	1322.6	97.	1323.3	100.	1327.2	121.	1330.5	141.	530
GR	1330.3	190.	1330.5	259.	1333.3	295.	1336.9	353.	0.0	0.	535
ET	0.	0.0	0.0	0.0	0.0	7.11	45.00	140.00	0.0	0.0	540
X1	0.54	0.	0.	0.	160.	160.	160.	0.0	1.40	0.	545
NC	0.130	0.100	0.050	0.0	0.0						550
ET	0.	0.0	0.0	0.0	0.0	7.11	370.00	460.00	0.0	0.0	555
X1	0.62	17.	377.	448.	160.	360.	280.	0.0	0.0	0.	560
GR	1357.2	0.	1355.2	56.	1353.9	163.	1351.7	227.	1349.3	251.	565
GR	1341.1	274.	1334.0	307.	1331.9	341.	1330.7	377.	1327.2	389.	570
GR	1326.1	397.	1326.1	432.	1327.2	439.	1333.9	448.	1339.0	503.	575
GR	1358.3	511.	1365.0	512.	0.0	0.	0.0	0.	0.0	0.	580
ET	0.	0.0	0.0	0.0	0.0	7.11	250.00	340.00	0.0	0.0	585
X1	0.70	14.	277.	330.	300.	560.	430.	0.0	0.0	0.	590
GR	1360.1	30.	1348.9	110.	1345.4	144.	1343.3	200.	1341.2	214.	595
GR	1339.8	228.	1335.8	260.	1330.0	277.	1326.9	279.	1327.2	300.	600
GR	1327.3	325.	1329.8	330.	1351.4	350.	1360.7	359.	0.0	0.	605

DOM

NC 0.120 0.130 0.050 0.0 0.0 610  
 ET 0. 0.0 0.0 0.0 0.0 7.11 390.00 480.00 0.0 0.0 615

X1 0.98 19. 406. 478. 1640. 920. 1640. 0.0 0.0 0. 620  
 GR 1382.0 0. 1382.0 9. 1377.2 28. 1378.2 115. 1378.0 225. 625  
 GR 1377.6 290. 1371.5 310. 1365.1 330. 1343.9 354. 1342.4 406. 630  
 GR 1338.2 418. 1337.0 421. 1337.0 462. 1338.2 466. 1342.7 478. 635  
 GR 1348.3 496. 1363.1 502. 1379.7 525. 1385.0 530. 0.0 0. 640  
 NC 0.110 0.130 0.050 0.0 0.0 645  
 QT 5. 5550. 8900. 10600. 14900. 10600. 0. 0. 0. 0. 650  
 ET 0. 0.0 0.0 0.0 0.0 7.11 185.00 292.00 0.0 0.0 655

X1 1.20 20. 209. 276. 800. 1520. 1120. 0.0 0.0 0. 660  
 GR 1384.1 0. 1380.6 54. 1381.1 96. 1375.8 128. 1364.2 192. 665  
 GR 1354.1 209. 1352.3 210. 1351.6 225. 1351.2 239. 1351.4 249. 670  
 GR 1352.0 255. 1352.2 265. 1352.7 270. 1353.5 275. 1354.1 276. 675  
 GR 1363.9 280. 1373.0 285. 1376.3 335. 1380.8 364. 1384.0 475. 680  
 ET 0. 0.0 0.0 0.0 0.0 7.11 185.00 292.00 0.0 0.0 685

X1 1.20 0. 0. 0. 40. 40. 40. 0.0 0.0 0. 690  
 ET 0. 0.0 0.0 0.0 0.0 7.11 185.00 292.00 0.0 0.0 695

X1 1.20 27. 167. 302. 1. 1. 1. 0.0 0.0 0. 700  
 BT 10.0 0.0 1384.1 0.0 11.0 1383.4 0.0 160.0 1380.9 0.0 705  
 BT 167.0 1380.9 0.0 167.0 1382.0 1376.8 302.0 1382.0 1377.0 302.0 710  
 BT 1380.8 0.0 330.0 1380.8 0.0 364.0 1381.0 0.0 475.0 1384.0 715  
 BT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 720  
 GR 1384.1 0. 1383.4 11. 1380.9 160. 1380.9 167. 1376.8 167. 725  
 GR 1364.3 192. 1355.0 207. 1376.8 207. 1376.9 210. 1352.3 210. 730  
 GR 1351.6 225. 1351.2 239. 1351.4 249. 1351.7 252. 1376.9 252. 735  
 GR 1377.0 255. 1352.0 255. 1352.2 265. 1352.7 270. 1353.5 275. 740  
 GR 1354.1 276. 1373.1 285. 1374.2 302. 1380.8 302. 1380.8 330. 745  
 GR 1381.0 364. 1384.0 475. 0.0 0. 0.0 0. 0. 0. 750  
 ET 0. 0.0 0.0 0.0 0.0 7.11 185.00 292.00 0.0 0.0 755

X1 1.20 0. 0. 0. 30. 30. 30. 0.0 0.0 0. 760  
 X2 0. 0.0 0. 0.0 0.0 0.0 1. 0.0 0.0 0. 765  
 ET 0. 0.0 0.0 0.0 0.0 7.11 191.00 280.00 0.0 0.0 770

X1 1.20 20. 209. 276. 1. 1. 1. 0.0 0.0 0. 775  
 GR 1384.1 0. 1380.6 54. 1381.1 96. 1375.8 128. 1364.2 192. 780  
 GR 1354.1 209. 1352.3 210. 1351.6 225. 1351.2 239. 1351.4 249. 785  
 GR 1352.0 255. 1352.2 265. 1352.7 270. 1353.5 275. 1354.1 276. 790  
 GR 1363.9 280. 1373.0 285. 1376.3 335. 1380.8 364. 1384.0 475. 795  
 ET 0. 0.0 0.0 0.0 0.0 7.11 191.00 280.00 0.0 0.0 800

X1 1.20 0. 0. 0. 10. 10. 10. 0.0 0.0 0. 805  
 NC 0.120 0.130 0.050 0.0 0.0 810  
 ET 0. 0.0 0.0 0.0 0.0 7.11 54.00 143.00 0.0 0.0 815

X1 1.35 12. 74. 130. 780. 660. 570. 0.0 0.0 0. 820  
 GR 1386.0 0. 1378.7 8. 1378.7 27. 1376.7 45. 1365.5 57. 825

E01

GR	1356.0	74.	1355.0	76.	1355.0	127.	1356.0	130.	1367.3	142.	830
GR	1374.6	150.	1386.0	169.	0.0	0.	0.0	0.	0.0	0.	835
ET	0.	0.0	0.0	0.0	0.0	7.11	25.00	117.00	0.0	0.0	840
X1	1.50	14.	37.	100.	1060.	780.	860.	0.0	-10.00	0.	845
GR	1408.0	0.	1400.9	5.	1388.5	22.	1378.0	37.	1377.0	38.	850
GR	1377.0	92.	1378.0	100.	1382.2	115.	1393.0	122.	1396.3	133.	855
GR	1396.3	155.	1400.1	164.	1404.0	180.	1408.0	188.	0.0	0.	860
ET	0.	0.0	0.0	0.0	0.0	7.11	25.00	117.00	0.0	0.0	865
X1	1.50	0.	0.	0.	10.	10.	10.	0.0	6.00	0.	870
NC	0.120	0.130	0.050	0.0	0.0						875
ET	0.	0.0	0.0	0.0	0.0	7.11	25.00	117.00	0.0	0.0	880
X1	1.54	0.	0.	0.	180.	180.	180.	0.0	4.00	0.	885
NC	0.130	0.130	0.060	0.0	0.0						890
ET	0.	0.0	0.0	0.0	0.0	7.11	57.00	165.00	0.0	0.0	895
X1	1.66	15.	108.	149.	620.	650.	640.	0.0	0.0	0.	900
GR	1422.2	0.	1417.6	13.	1410.7	37.	1403.4	53.	1396.4	70.	905
GR	1392.0	108.	1391.0	116.	1391.0	147.	1392.0	149.	1398.0	159.	910
GR	1409.9	178.	1409.9	195.	1409.9	209.	1411.9	224.	1422.0	238.	915
ET	0.	0.0	0.0	0.0	0.0	7.11	57.00	165.00	0.0	0.0	920
X1	1.68	0.	0.	0.	100.	120.	110.	0.0	2.70	0.	925
ET	0.	0.0	0.0	0.0	0.0	7.11	57.00	165.00	0.0	0.0	930
X1	1.70	0.	0.	0.	70.	140.	110.	0.0	2.70	0.	935
ET	0.	0.0	0.0	0.0	0.0	7.11	57.00	165.00	0.0	0.0	940
X1	1.74	0.	0.	0.	200.	250.	210.	0.0	3.00	0.	945
NC	0.130	0.130	0.080	0.0	0.0						950
QT	5.	5500.	8800.	10500.	14800.	10500.	0.	0.	0.	0.	955
ET	0.	0.0	0.0	0.0	0.0	7.11	155.00	260.00	0.0	0.0	960
X1	1.91	13.	184.	240.	1080.	640.	840.	0.0	0.0	0.	965
GR	1442.5	94.	1429.5	112.	1416.5	148.	1416.0	184.	1414.8	193.	970
GR	1412.5	209.	1411.8	225.	1412.5	232.	1414.8	238.	1415.4	240.	975
GR	1422.3	256.	1436.1	273.	1444.8	301.	0.0	0.	0.0	0.	980
ET	0.	0.0	0.0	0.0	0.0	7.11	155.00	260.00	0.0	0.0	985
X1	1.91	0.	0.	0.	40.	40.	40.	0.0	0.0	0.	990
ET	0.	0.0	0.0	0.0	0.0	7.11	155.00	260.00	0.0	0.0	995
X1	1.91	30.	184.	255.	1.	1.	1.	0.0	0.0	0.	1000
BT	12.0	98.0	1440.0	0.0	163.0	1434.3	0.0	163.0	1436.0	0.0	1005
BT	165.0	1435.9	0.0	165.0	1435.9	1432.0	270.0	1432.1	1428.5	270.0	1010
BT	1432.0	0.0	273.0	1432.0	0.0	273.0	1430.4	0.0	275.0	1430.4	1015
BT	0.0	290.0	1430.1	0.0	314.0	1445.0	0.0	0.0	0.0	0.0	1020
GR	1440.0	98.	1434.3	163.	1434.2	165.	1432.0	165.	1430.0	165.	1025



\*PROF 1

CCHV= 0.100 CEHV= 0.500

\*SECNO .100

SPRING CREEK		OO-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.10	10700.	883.	9383.	435.	1.03	0	711.	
1317.50	0.0	863.	1079.	208.	0.50	0	1314.10	
13.50	1317.50	1.02	8.69	2.09	0.0	1318.53	1309.30	
0.002741	0.0	0.110	0.045	0.100	0.0	-0.00	59.10	
	1304.00	0.	0.	0.	603.	107.	769.79	0.

\*SECNO .180

3301 HV CHANGED MORE THAN HVINS

0.18	10700.	1469.	8634.	597.	1.70	2	374.	
1318.46	0.0	662.	745.	171.	0.67	0	1306.00	
11.96	0.0	2.22	11.59	3.50	1.29	1320.16	1308.00	
0.004606	0.045	0.110	0.045	0.100	0.33	-0.00	99.22	
	1306.50	380.	370.	360.	312.	62.	473.02	16.

\*SECNO .240

3301 HV CHANGED MORE THAN HVINS

0.24	10700.	0.	9719.	981.	2.86	5	189.	
1320.11	1319.85	0.	685.	261.	1.16	15	1328.70	
9.31	0.0	0.0	14.19	3.76	2.23	1322.97	1312.90	
0.012373	0.045	0.110	0.045	0.100	0.58	-0.00	112.00	
	1310.80	150.	320.	400.	43.	147.	301.44	24.

\*SECNO .240

\*\*\* GR CARDS REPEATED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.70 ELREA= 1330.80

0.24	10700.	0.	10700.	0.	2.96	2	85.	
1321.18	0.0	0.	775.	0.	0.10	0	1328.70	
10.38	0.0	0.0	13.80	0.0	1.11	1324.14	1312.90	
0.010078	0.045	0.110	0.045	0.100	0.05	-0.00	112.00	
	1310.80	100.	100.	100.	43.	43.	197.00	26.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	0.01	1.60	3.00	0.0	85.01	0.01	1080.00	0.0
	ELCHU	ELCHD						

H01

1312.90 1312.90

\*SECNO .240

\*\*\* GR CARDS REPEATED  
SPRING CREEK

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CCRAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

CLASS A LOW FLOW

3420 BRIDGE W.S.= 1321.18 BRIDGE VELOCITY=, 15.20

CALCULATED CHANNEL AREA= 704.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
0.0	1324.14	0.00	0.	10700.	1080.	1080.	1325.60

ELTRD  
1331.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1331.70 ELREA= 1331.80

0.24	10700.	0.	10700.	0.	2.96	0	85.	
1321.18	0.0	0.	775.	0.	0.00	0	1328.70	
10.38	0.0	0.0	13.80	0.0	0.00	1324.14	1312.90	
0.010082	0.045	0.110	0.045	0.100	0.0	0.0	112.00	
	1310.80	20.	20.	20.	43.	43.	197.00	27.

\*SECNO .240

3301 HV CHANGED MORE THAN HVINS

0.24	10700.	0.	9149.	1551.	1.26	4	167.	
1323.19	0.0	0.	946.	484.	-1.69	0	1328.70	
12.39	0.0	0.0	9.67	3.21	0.15	1324.45	1312.90	
0.003908	0.045	0.110	0.045	0.100	0.17	-0.00	112.00	
	1310.80	25.	25.	25.	43.	125.	279.05	27.

\*SECNO .270

3301 HV CHANGED MORE THAN HVINS

0.27	10700.	307.	8830.	1563.	1.89	2	173.	
1323.24	0.0	103.	733.	479.	0.63	0	1312.00	
12.24	0.0	2.98	12.05	3.27	0.36	1325.13	1312.00	
0.004798	0.045	0.110	0.045	0.100	0.31	-0.00	18.37	
	1311.00	150.	90.	40.	48.	125.	191.17	30.

\*SECNO .310

SPRING CREEK

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	



101

SLOPE	WTN ELMIN	XNL XLOBL	XNCH XLCH	XNR XLOBR	OLOSS WSDL	CORAR WSDR	SSTA ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
0.31	10700.	653.	6830.	3217.	2.30	20	397.	
1325.09	1325.09	151.	456.	942.	0.41	8	1314.90	
12.59	0.0	4.32	14.99	3.41	1.13	1327.39	1318.20	
0.008247	0.045	0.100	0.045	0.100	0.21	-0.00	105.92	
	1312.50	150.	180.	200.	48.	349.	502.83	36.

\*SECNO .390

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

0.39	10700.	185.	9778.	737.	3.06	4	266.	
1328.15	1328.08	95.	665.	291.	0.78	8	1326.00	
13.25	0.0	1.94	14.71	2.53	3.45	1331.22	1324.50	
0.009283	0.045	0.100	0.045	0.100	0.39	-0.00	226.90	
	1314.90	440.	400.	360.	106.	308.	641.13	47.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

SPRING CREEK		00-YEAR FLOOD			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.39	10700.	519.	8760.	1421.	1.68	6	395.	
1329.94	0.0	292.	765.	592.	-1.40	0	1326.00	
15.04	0.0	1.78	11.45	2.40	0.26	1331.62	1324.50	
0.004663	0.045	0.100	0.045	0.100	0.14	-0.00	125.00	
	1314.90	40.	40.	40.	208.	335.	667.59	49.

\*SECNO .390

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1328.10 MAX ELLC= 1326.30

J01

0.39	10700.	19.	10278.	403.	4.22	8	169.	
1328.68	1325.96	16.	613.	74.	2.54	9	1326.10	
13.78	0.0	1.25	16.78	5.46	0.01	1332.90	1319.20	
0.048531	0.045	0.100	0.045	0.100	1.27	-180.31	203.09	
	1314.90	1.	1.	1.	124.	63.	390.00	49.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3280 CROSS SECTION 0.39 EXTENDED 2.25 FEET

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1328.10 MAX ELLC= 1326.30

0.39	10700.	3069.	5945.	1685.	0.51	6	415.	
1333.45	0.0	894.	837.	533.	-3.70	0	1326.10	
18.55	0.0	3.43	7.11	3.16	0.69	1333.96	1319.20	
0.008755	0.045	0.100	0.045	0.100	0.37	-281.71	0.0	
	1314.90	40.	40.	40.	328.	356.	683.00	50.

\*SECNO .390

3265 DIVIDED FLOW

3280 CROSS SECTION 0.39 EXTENDED 2.14 FEET

0.39	10700.	1689.	7671.	1340.	0.73	2	415.	
1333.34	0.0	1037.	956.	689.	0.22	0	1326.00	
18.44	0.0	1.63	8.03	1.94	0.00	1334.07	1324.50	
0.001704	0.045	0.100	0.045	0.100	0.11	-0.00	0.0	
	1314.90	1.	1.	1.	333.	350.	683.00	50.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3280 CROSS SECTION 0.39 EXTENDED 2.16 FEET

0.39	10700.	1696.	7661.	1343.	0.73	2	415.	
1333.36	0.0	1042.	957.	692.	-0.00	0	1326.00	
18.46	0.0	1.63	8.01	1.94	0.02	1334.09	1324.50	
0.001693	0.045	0.100	0.045	0.100	0.00	-0.00	0.0	
	1314.90	10.	10.	10.	333.	350.	683.00	51.

\*SECNO .420

K01

3280 CROSS SECTION 0.42 EXTENDED 2.83 FEET

SPRING CREEK		00-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	IDC	BANK ELEV	
ELEV	CRISW	ALOB	ACH	AROB	DHV	EG	LEFT/RIGHT		
DEPTH	WSELK	VLOB	VCH	VROB	HL	CORAR	SSTA		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	WSDR	ENDST		VOL
	ELMIN	XLOBL	XLCH	XLOBR					
0.42	10700.	1890.	5269.	3541.	0.23	2	683.		
1334.03	0.0	1546.	994.	2344.	-0.50	0	1326.00		
19.13	0.0	1.22	5.30	1.51	0.12	1334.26	1324.50		
0.000704	0.045	0.100	0.045	0.100	0.05	-0.00	0.0		
	1314.90	120.	120.	120.	333.	350.	683.00		61.

\*SECNO .510

3301 HV CHANGED MORE THAN HVINS

0.51	10700.	146.	8270.	2284.	2.12	3	255.		
1333.81	0.0	54.	627.	741.	1.89	0	1322.60		
12.81	0.0	2.68	13.20	3.08	0.72	1335.93	1323.30		
0.006973	0.046	0.110	0.050	0.110	0.95	-0.00	40.32		
	1321.00	450.	440.	460.	35.	220.	295.19		94.

\*SECNO .540

\*\*\* GR CARDS REPEATED

0.54	10700.	143.	8412.	2145.	2.35	2	251.		
1334.88	0.0	51.	611.	679.	0.23	0	1324.00		
12.48	0.0	2.79	13.78	3.16	1.18	1337.23	1324.70		
0.007868	0.046	0.110	0.050	0.110	0.11	-0.00	40.59		
	1322.40	160.	160.	160.	34.	217.	291.60		99.

\*SECNO .620

0.62	10700.	1268.	9303.	129.	2.31	3	193.		
1337.32	0.0	391.	714.	63.	-0.04	0	1330.70		
11.22	0.0	3.25	13.03	2.05	2.40	1339.63	1333.90		
0.009337	0.047	0.130	0.050	0.100	0.00	-0.00	291.58		
	1326.10	160.	280.	360.	121.	72.	484.86		107.

\*SECNO .700

3301 HV CHANGED MORE THAN HVINS

0.70	10700.	662.	9873.	165.	2.85	2	120.		
1340.58	0.0	222.	702.	54.	0.54	0	1330.00		
13.68	0.0	2.98	14.07	3.07	3.52	1343.42	1329.80		
0.007572	0.047	0.130	0.050	0.100	0.27	-0.00	220.24		
	1326.90	300.	430.	560.	83.	36.	339.98		117.

\*SECNO .980

3301 HV CHANGED MORE THAN HVINS

L01

SPRING CREEK		00-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC			
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST		VOL
0.98	10700.	1279.	9210.	211.	1.37	2	151.		
1350.91	0.0	432.	917.	99.	-1.48	0	1342.40		
13.91	0.0	2.96	10.05	2.13	8.71	1352.28	1342.70		
0.003980	0.048	0.120	0.050	0.130	0.15	-0.00	346.06		
	1337.00	1640.	1640.	920.	96.	55.	497.06		161.

\*SECNO 1.200

3301 HV CHANGED MORE THAN HVINS

SPRING CREEK		00-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC			
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST		VOL
3685	20 TRIALS ATTEMPTED WSEL, CWSEL								
3693	PROBABLE MINIMUM SPECIFIC ENERGY								
3720	CRITICAL DEPTH ASSUMED								
1.20	10600.	151.	10431.	18.	4.44	20	82.		
1361.05	1361.05	41.	612.	10.	3.07	19	1354.10		
9.85	0.0	3.72	17.04	1.82	8.06	1365.48	1354.10		
0.017663	0.049	0.110	0.050	0.130	1.54	-0.00	197.31		
	1351.20	800.	1120.	1520.	45.	36.	278.84		187.

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

1.20	10600.	221.	10353.	26.	2.78	4	86.		
1363.34	0.0	72.	765.	17.	-1.66	0	1354.10		
12.14	0.0	3.08	13.53	1.51	0.47	1366.12	1354.10		
0.008269	0.049	0.110	0.050	0.130	0.17	-0.00	193.46		
	1351.20	40.	40.	40.	49.	37.	279.77		188.

\*SECNO 1.200

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 1380.80 MAX ELLC= 1377.00

1.20	10600.	0.	10600.	0.	2.67	2	81.		
1363.46	0.0	0.	808.	0.	-0.10	0	1380.90		
12.26	0.0	0.0	13.12	0.0	0.01	1366.14	1380.80		
0.017514	0.049	0.110	0.050	0.130	0.01	-0.00	193.35		

MO1

1351.20 1. 1. 1. 41. 46. 280.44 188.

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 1380.80 MAX ELLC= 1377.00

1.20	10600.	0.	10600.	0.	2.22	3	83.
1364.43	0.0	0.	887.	0.	-0.46	0	1380.90
13.23	0.0	0.0	11.95	0.0	0.46	1366.65	1380.80
0.013716	0.049	0.110	0.050	0.130	0.05	-0.00	191.75
	1351.20	30.	30.	30.	43.	46.	280.89 188.

\*SECNO 1.200

SPRING CREEK

00-YEAR FLOOD 08/06/80

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	LOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
1.20	10600.	257.	10312.	31.	2.30	2	89.	
1364.40	0.0	89.	837.	22.	0.08	0	1354.10	
13.20	0.0	2.88	12.32	1.43	0.01	1366.69	1354.10	
0.006094	0.049	0.110	0.050	0.130	0.04	-0.00	190.91	
	1351.20	1.	1.	1.	52.	38.	280.27 188.	

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

1.20	10600.	261.	10307.	32.	2.26	0	90.
1364.50	0.0	91.	843.	22.	-0.04	0	1354.10
13.30	0.0	2.87	12.22	1.43	0.06	1366.76	1354.10
0.005930	0.049	0.110	0.050	0.130	0.00	-0.00	190.37
	1351.20	10.	10.	10.	52.	38.	280.33 189.

\*SECNO 1.350

3301 HV CHANGED MORE THAN HVINS

1.35	10600.	442.	9955.	203.	2.76	2	88.
1367.99	0.0	126.	725.	76.	0.50	0	1356.00
12.99	0.0	3.50	13.73	2.66	3.74	1370.75	1356.00
0.007090	0.049	0.120	0.050	0.130	0.25	-0.00	54.33
	1355.00	780.	570.	660.	48.	41.	142.76 202.

\*SECNO 1.500

3301 HV CHANGED MORE THAN HVINS

1.50 10600. 182. 9949. 470. 4.27 4 93.

AD2

1376.32	1376.30	49.	582.	99.	1.51	19	1368.00	
9.32	0.0	3.68	17.09	4.76	9.08	1380.59	1368.00	
0.017207	0.049	0.120	0.050	0.130	0.76	-0.00	25.12	
	1367.00	1060.	860.	780.	43.	49.	117.67	218.

\*SECNO 1.500

\*\*\* GR CARDS REPEATED  
SPRING CREEK

00-YEAR FLOOD 08/06/80

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

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

1.50	10600.	181.	9949.	469.	4.28	20	93.	
1382.30	1382.30	49.	582.	99.	0.01	5	1374.00	
9.30	0.0	3.68	17.10	4.76	0.17	1386.59	1374.00	
0.017269	0.049	0.120	0.050	0.130	0.00	-0.00	25.14	
	1373.00	10.	10.	10.	43.	49.	117.66	218.

\*SECNO 1.540

\*\*\* GR CARDS REPEATED  
SPRING CREEK

00-YEAR FLOOD 08/06/80

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

1.54	10600.	181.	9949.	469.	4.28	2	93.	
1386.30	1386.30	49.	582.	99.	0.00	5	1378.00	
9.30	0.0	3.68	17.10	4.76	3.11	1390.59	1378.00	
0.017271	0.049	0.120	0.050	0.130	0.00	-0.00	25.14	
	1377.00	180.	180.	180.	43.	49.	117.66	221.

\*SECNO 1.660

SPRING CREEK

00-YEAR FLOOD 08/06/80

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

1.66	10600.	2091.	8088.	421.	4.13	3	108.	
1401.88	1401.88	328.	441.	81.	-0.16	8	1392.00	
10.88	0.0	6.37	18.34	5.21	12.74	1406.00	1392.00	
0.023330	0.050	0.130	0.060	0.130	0.02	-0.00	56.70	
	1391.00	620.	640.	650.	72.	37.	165.19	233.

\*SECNO 1.680

\*\*\* GR CARDS REPEATED

SPRING CREEK		00-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC		LEFT/RIGHT	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG			
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST		VOL

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

1.68	10600.	2086.	8095.	419.	4.17	2	108.		
1404.53	1404.53	326.	439.	80.	0.05	5	1394.70		
10.83	0.0	6.40	18.44	5.24	2.55	1408.70	1394.70		
0.023713	0.050	0.130	0.060	0.130	0.02	-0.00	56.81		
	1393.70	100.	110.	120.	72.	37.	165.11		235.

\*SECNO 1.700

\*\*\* GR CARDS REPEATED

SPRING CREEK		00-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC		LEFT/RIGHT	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG			
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST		VOL

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

1.70	10600.	2087.	8093.	420.	4.16	2	108.		
1407.24	1407.24	326.	440.	80.	-0.01	5	1397.40		
10.84	0.0	6.39	18.41	5.23	2.44	1411.40	1397.40		
0.023607	0.050	0.130	0.060	0.130	0.00	-0.00	56.78		
	1396.40	70.	110.	140.	72.	37.	165.13		237.

\*SECNO 1.740

\*\*\* GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

1.74	10600.	2320.	7777.	503.	2.58	2	117.		
1412.39	0.0	442.	527.	118.	-1.58	0	1400.40		
12.99	0.0	5.25	14.75	4.25	3.41	1414.97	1400.40		
0.011873	0.050	0.130	0.060	0.130	0.16	-0.00	51.72		
	1399.40	200.	210.	250.	77.	40.	168.56		242.

\*SECNO 1.910

3301 HV CHANGED MORE THAN HVINS

SPRING CREEK		00-YEAR FLOOD			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	BANK ELEV		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC		LEFT/RIGHT	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG			

CO2

SLOPE	WTN ELMIN	XNL XLOBL	XNCH XLCH	XNR XLOBR	OLOSS WSDL	CORAR WSDR	SSTA ENDST	VOL
1.91	10500.	2306.	7730.	464.	1.68	3	135.	
1425.16	0.0	424.	660.	106.	-0.90	0	1416.00	
13.36	0.0	5.43	11.71	4.38	11.78	1426.84	1415.40	
0.015092	0.053	0.130	0.080	0.130	0.09	-0.00	124.03	
	1411.80	1080.	840.	640.	88.	48.	259.52	265.

\*SECNO 1.910

\*\*\* GR CARDS REPEATED

1.91	10500.	2388.	7605.	507.	1.40	2	139.	
1425.99	0.0	475.	707.	123.	-0.28	0	1416.00	
14.19	0.0	5.02	10.76	4.13	0.53	1427.39	1415.40	
0.011630	0.053	0.130	0.080	0.130	0.03	-0.00	121.72	
	1411.80	40.	40.	40.	90.	49.	260.55	267.

\*SECNO 1.910

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1430.10 MAX ELLC= 1432.00

1.91	10500.	193.	10143.	164.	3.67	3	83.	
1424.88	0.0	29.	651.	28.	2.26	0	1420.40	
13.08	0.0	6.74	15.59	5.89	0.02	1428.55	1419.40	
0.082131	0.053	0.130	0.080	0.130	1.13	-0.00	173.62	
	1411.80	1.	1.	1.	46.	46.	265.15	267.

\*SECNO 1.910

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1430.10 MAX ELLC= 1432.00

1.91	10500.	461.	9627.	413.	1.77	4	93.	
1428.48	0.0	77.	873.	75.	-1.89	0	1420.40	
16.68	0.0	6.00	11.02	5.47	1.51	1430.25	1419.40	
0.034040	0.053	0.130	0.080	0.130	0.19	-0.00	167.57	
	1411.80	30.	30.	30.	52.	51.	270.00	267.

\*SECNO 1.910

3301 HV CHANGED MORE THAN HVINS



D02

1.91	10500.	2683.	7160.	656.	0.72	3	153.	
1429.65	0.0	722.	912.	206.	-1.05	0	1416.00	
17.85	0.0	3.72	7.85	3.19	0.01	1430.36	1415.40	
0.00417	0.053	0.130	0.080	0.130	0.11	-0.00	111.80	
	1411.80	1.	1.	1.	100.	53.	265.05	267.

\*SECNO 1.910

GR CARDS REPEATED

SPRING CREEK

00-YEAR FLOOD 08/06/80

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRINS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

1.91	10500.	2688.	7154.	658.	0.71	2	153.	
1429.70	0.0	725.	914.	207.	-0.01	0	1416.00	
17.90	0.0	3.71	7.82	3.18	0.04	1430.41	1415.40	
0.004364	0.053	0.130	0.080	0.130	0.00	-0.00	111.73	
	1411.80	10.	10.	10.	100.	53.	265.11	268.

E02

THIS RUN EXECUTED 08/06/80 17:24:04

\*\*\*\*\*  
HEC2 RELEASE DATED NOV 76 UPDATED JULY1979  
ERROR CORR - 01,02,03  
MODIFICATION - 50,51,52,53,54  
\*\*\*\*\*

T1 HOT SPRINGS, N.C. 1110  
T2 100 YEAR FLOODWAY 1115  
T3 SPRING CR. 1120

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	0.	6.	0.	0.	0.0	0.	0.0	0.	1318.50	0.0	1125
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	15.	0.	-1.	0.	0.	0.0	0.0	0.	0.	0.	1130

\*PROF 2

CCHV= 0.100 CEHV= 0.500

\*SECNO .100

SPRING CR.		100 YEAR FLOODWA			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	QLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3470 ENCROACHMENT STATIONS=	580.0	750.0	TYPE=	1	TARGET=	170.000		
0.10	10700.	206.	9970.	524.	1.05	0	170.	
1318.50	0.0	137.	1172.	229.	0.50	0	1314.10	
14.50	1317.50	1.51	8.51	2.29	0.0	1319.55	1309.30	
0.002350	0.0	0.110	0.045	0.100	0.0	-0.00	580.00	
	1304.00	0.	0.	0.	83.	87.	750.00	0.

\*SECNO .180

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=	370.0	465.0	TYPE=	1	TARGET=	95.000		
0.18	10700.	279.	9749.	672.	2.18	2	95.	
1319.14	0.0	98.	788.	172.	1.13	0	1308.00	
12.64	1318.46	2.83	12.37	3.90	1.21	1321.33	1308.00	
0.004868	0.045	0.110	0.045	0.100	0.57	-0.00	370.00	
	1306.50	380.	370.	360.	42.	53.	765.00	11.

\*SECNO .240

3470 ENCROACHMENT STATIONS=	110.0	230.0	TYPE=	1	TARGET=	120.000		
0.24	10700.	0.	9865.	835.	2.37	3	118.	
1321.12	0.0	0.	770.	197.	0.19	0	1328.70	
10.32	1320.11	0.0	12.81	4.24	2.07	1323.49	1312.90	
0.008765	0.045	0.110	0.045	0.100	0.10	-0.00	112.00	
	1310.80	150.	320.	400.	43.	75.	230.00	19.

\*SECNO .240

\*\*\* GR CARDS REPEATED

3470 ENCROACHMENT STATIONS=	110.0	230.0	TYPE=	1	TARGET=	120.000		
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1330.70 ELREA= 1330.80								
0.24	10700.	0.	10700.	0.	2.56	2	85.	
1321.86	0.0	0.	833.	0.	0.19	0	1328.70	
11.06	1321.18	0.0	12.84	0.0	0.84	1324.42	1312.90	
0.008013	0.045	0.110	0.045	0.100	0.09	-0.00	112.00	
	1310.80	100.	100.	100.	43.	43.	197.00	21.

602

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	0.01	1.60	3.00	0.0	85.01	0.01	1080.00	0.0
	ELCHU	ELCHD						
	1312.90	1312.90						

\*SECNO .240  
 3700. BRIDGE STENCL= 110.00 STENCR= 230.00

\*\*\* GR CARDS REPEATED  
 SPRING CR.

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	QLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

CLASS A LOW FLOW

3420 BRIDGE W.S.= 1321.86 BRIDGE VELOCITY=, 14.05  
 CALCULATED CHANNEL AREA=, 762.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
0.0	1324.42	0.00	0.	10700.	1080.	1080.	1325.60

ELTRD  
 1331.70

3470 ENCROACHMENT STATIONS= 110.0 230.0 TYPE= 1 TARGET= 120.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1331.70 ELREA= 1331.80

0.24	10700.	0.	10700.	0.	2.56	0	85.	
1321.86	0.0	0.	833.	0.	0.00	0	1328.70	
11.06	1321.18	0.0	12.84	0.0	0.0	1324.42	1312.90	
0.008014	0.045	0.110	0.045	0.100	0.0	-0.00	112.00	
	1310.80	20.	20.	20.	43.	43.	197.00	21.

\*SECNO .240

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 110.0 230.0 TYPE= 1 TARGET= 120.000

0.24	10700.	0.	9761.	939.	1.54	3	118.	
1323.13	0.0	0.	941.	263.	-1.02	0	1328.70	
12.33	1323.19	0.0	10.38	3.57	0.15	1324.67	1312.90	
0.004530	0.045	0.110	0.045	0.100	0.10	-0.00	112.00	
	1310.80	25.	25.	25.	43.	75.	230.00	22.

\*SECNO .270

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 25.0 120.0 TYPE= 1 TARGET= 95.000

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CA  
2  
CA

H02

0.27	10700.	262.	9800.	636.	2.65	2	95.		
1323.03	0.0	85.	720.	169.	1.11	0	1312.00		
12.03	1323.24	3.09	13.61	3.77	0.46	1325.68	1312.00		
0.006253	0.045	0.110	0.045	0.100	0.55	-0.00	25.00		
	1311.00	150.	90.	40.	41.	54.	120.00		24.

\*SECNO .310

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		100 YEAR FLOODWA			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	BANK ELEV	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	EG	LEFT/RIGHT	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	CORAR	SSTA	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	WSDR	ENDST	VOL
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL	

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=		120.0	285.0	TYPE=	1	TARGET=	165.000		
0.31	10700.	520.	7542.	2638.	3.30	2	165.		
1324.72	1324.72	109.	441.	564.	0.65	5	1314.90		
12.22	1325.09	4.77	17.09	4.68	1.49	1328.01	1318.20		
0.011172	0.045	0.100	0.045	0.100	0.32	-0.00	120.00		
	1312.50	150.	180.	200.	34.	131.	285.00		28.

\*SECNO .390

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=		250.0	425.0	TYPE=	1	TARGET=	175.000		
0.39	10700.	235.	9795.	670.	2.72	2	157.		
1328.93	0.0	103.	709.	228.	-0.57	0	1326.00		
14.03	1328.15	2.28	13.82	2.93	3.59	1331.66	1324.50		
0.007519	0.045	0.100	0.045	0.100	0.06	-0.00	250.00		
	1314.90	440.	400.	360.	83.	92.	425.00		38.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

SPRING CR.		100 YEAR FLOODWA			08/06/80		TOPWID		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	BANK ELEV	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	EG	LEFT/RIGHT	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	CORAR	SSTA	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	WSDR	ENDST	VOL
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL	

3470 ENCROACHMENT STATIONS= 250.0 425.0 TYPE= 1 TARGET= 175.000

102

0.39	10700.	304.	9583.	813.	2.28	3	157.	
1329.69	0.0	131.	751.	277.	-0.45	0	1326.00	
14.79	1329.94	2.32	12.75	2.94	0.27	1331.97	1324.50	
0.005929	0.045	0.100	0.045	0.100	0.04	-0.00	250.00	
	1314.90	40.	40.	40.	83.	92.	425.00	39.

\*SECNO .390  
 3700. BRIDGE STENCL= 230.00 STENCR= 390.00

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1328.10 MAX ELLC= 1326.30

3470 ENCROACHMENT STATIONS=	230.0	390.0	TYPE=	1	TARGET=	160.000		
0.39	10700.	22.	10272.	406.	4.21	12	142.	
1328.74	1325.96	14.	613.	75.	1.93	9	1326.10	
13.84	1328.68	1.52	16.77	5.43	0.01	1332.95	1319.20	
0.048472	0.045	0.100	0.045	0.100	0.97	-184.67	230.00	
	1314.90	1.	1.	1.	98.	62.	390.00	39.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3280 CROSS SECTION 0.39 EXTENDED 0.08 FEET

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1328.10 MAX ELLC= 1326.30

3470 ENCROACHMENT STATIONS=	230.0	390.0	TYPE=	1	TARGET=	160.000		
0.39	10700.	1078.	8747.	875.	1.59	5	142.	
1332.88	0.0	206.	799.	186.	-2.62	0	1326.10	
17.98	1333.45	5.23	10.94	4.70	1.26	1334.47	1319.20	
0.022051	0.045	0.100	0.045	0.100	0.26	-281.71	230.00	
	1314.90	40.	40.	40.	98.	62.	390.00	40.

\*SECNO .390

3265 DIVIDED FLOW

3280 CROSS SECTION 0.39 EXTENDED 0.45 FEET

3470 ENCROACHMENT STATIONS= 230.0 390.0 TYPE= 1 TARGET= 160.000

J02

0.39	10700.	843.	9189.	668.	1.26	2	142.	
1333.25	0.0	386.	950.	237.	-0.33	0	1326.00	
18.35	1333.34	2.19	9.67	2.82	0.01	1334.51	1324.50	
0.002490	0.045	0.100	0.045	0.100	0.03	-0.00	230.00	
	1314.90	1.	1.	1.	103.	57.	390.00	40.

\*SECNO .390

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3280 CROSS SECTION 0.39 EXTENDED 0.48 FEET

3470 ENCROACHMENT STATIONS=		230.0	390.0	TYPE=	1	TARGET=	160.000	
0.39	10700.	846.	9185.	669.	1.25	2	142.	
1333.28	0.0	387.	952.	238.	-0.01	0	1326.00	
18.38	1333.36	2.18	9.65	2.81	0.02	1334.53	1324.50	
0.002473	0.045	0.100	0.045	0.100	0.00	-0.00	230.00	
	1314.90	10.	10.	10.	103.	57.	390.00	40.

\*SECNO .420

3280 CROSS SECTION 0.42 EXTENDED 1.33 FEET

SPRING CR.	Q	QLOB	100 YEAR FLOODWA	QCH	QROB	HV	08/06/80	ITRIAL	TOPWID
MILE	Q	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
ELEV	CRISW	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
DEPTH	WSELK	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
SLOPE	WTN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST		VOL

3470 ENCROACHMENT STATIONS=		230.0	390.0	TYPE=	1	TARGET=	160.000	
0.42	10700.	1364.	8670.	666.	1.00	2	160.	
1333.82	0.0	560.	983.	254.	-0.26	0	1326.00	
18.92	1334.03	2.44	8.82	2.62	0.26	1334.82	1324.50	
0.001982	0.045	0.100	0.045	0.100	0.03	-0.00	230.00	
	1314.90	120.	120.	120.	103.	57.	390.00	45.

\*SECNO .510

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=		45.0	140.0	TYPE=	1	TARGET=	95.000	
0.51	10700.	115.	9257.	1328.	2.67	2	95.	
1334.51	0.0	45.	661.	303.	1.67	0	1322.60	
13.51	1333.81	2.54	13.99	4.38	1.52	1337.17	1323.30	
0.007296	0.046	0.110	0.050	0.110	0.84	-0.00	45.00	
	1321.00	450.	440.	460.	30.	65.	140.00	59.

\*SECNO .540

K02

GR CARDS REPEATED

3470 ENCROACHMENT STATIONS=	45.0	140.0	TYPE=	1	TARGET=	95.000		
0.54	10700.	115.	9280.	1306.	2.79	2	95.	
1335.65	0.0	44.	649.	293.	0.12	0	1324.00	
13.25	1334.88	2.62	14.30	4.45	1.21	1338.44	1324.70	
0.007819	0.046	0.110	0.050	0.110	0.06	-0.00	45.00	
	1322.40	160.	160.	160.	30.	65.	140.00	63.

\*SECNO .620

3470 ENCROACHMENT STATIONS=	370.0	460.0	TYPE=	1	TARGET=	90.000		
0.62	10700.	131.	10444.	125.	2.82	2	90.	
1338.05	0.0	51.	766.	43.	0.02	0	1330.70	
11.95	1337.32	2.58	13.63	2.89	2.42	1340.87	1333.90	
0.009295	0.046	0.130	0.050	0.100	0.01	-0.00	370.00	
	1326.10	160.	280.	360.	43.	47.	460.00	69.

\*SECNO .700

3470 ENCROACHMENT STATIONS=	250.0	340.0	TYPE=	1	TARGET=	90.000		
0.70	10700.	634.	9879.	186.	2.47	2	90.	
1341.58	0.0	199.	755.	64.	-0.35	0	1330.00	
14.68	1340.58	3.19	13.09	2.92	3.14	1344.05	1329.80	
0.005948	0.047	0.130	0.050	0.100	0.03	-0.00	250.00	
	1326.90	300.	430.	560.	54.	36.	340.00	78.

\*SECNO .980

3301 HV CHANGED MORE THAN HVINS

SPRING CR.			100 YEAR FLOODWA	08/06/80				
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3470 ENCROACHMENT STATIONS=	390.0	480.0	TYPE=	1	TARGET=	90.000		
0.98	10700.	363.	10319.	18.	1.88	2	90.	
1351.01	0.0	134.	923.	16.	-0.59	0	1342.40	
14.01	1350.91	2.71	11.18	1.11	8.78	1352.89	1342.70	
0.004885	0.048	0.120	0.050	0.130	0.06	-0.00	390.00	
	1337.00	1640.	1640.	920.	52.	38.	480.00	117.

\*SECNO 1.200

3301 HV CHANGED MORE THAN HVINS

SPRING CR.			100 YEAR FLOODWA	08/06/80				
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL



7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=			185.0	292.0	TYPE=	1	TARGET=	107.000	
1.20	10600.	151.	10431.	18.	4.44	4	82.		
1361.04	1361.04	41.	612.	10.	2.57	19	1354.10		
9.84	1361.05	3.72	17.04	1.82	9.32	1365.48	1354.10		
0.017687	0.048	0.110	0.050	0.130	1.28	-0.00	197.31		
	1351.20	800.	1120.	1520.	45.	36.	278.83		138.

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=			185.0	292.0	TYPE=	1	TARGET=	107.000	
1.20	10600.	221.	10353.	26.	2.78	4	86.		
1363.34	0.0	72.	765.	17.	-1.66	0	1354.10		
12.14	1363.34	3.08	13.52	1.51	0.47	1366.12	1354.10		
0.008266	0.048	0.110	0.050	0.130	0.17	-0.00	193.46		
	1351.20	40.	40.	40.	49.	37.	279.77		139.

\*SECNO 1.200

3700 BRIDGE STENCL= 185.00 STENCR= 292.00

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 1380.80 MAX ELLC= 1377.00

3470 ENCROACHMENT STATIONS=			185.0	292.0	TYPE=	1	TARGET=	107.000	
1.20	10600.	0.	10600.	0.	2.67	10	81.		
1363.47	0.0	0.	809.	0.	-0.11	0	100000.00		
12.27	1363.46	0.0	13.10	0.0	0.01	1366.14	100000.00		
0.017442	0.048	0.110	0.050	0.130	0.01	-0.00	193.32		
	1351.20	1.	1.	1.	41.	46.	280.44		139.

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 1380.80 MAX ELLC= 1377.00

3470 ENCROACHMENT STATIONS=			185.0	292.0	TYPE=	1	TARGET=	107.000	
1.20	10600.	0.	10600.	0.	2.22	3	83.		
1364.43	0.0	0.	887.	0.	-0.45	0	100000.00		
13.23	1364.43	0.0	11.95	0.0	0.46	1366.65	100000.00		
0.013718	0.048	0.110	0.050	0.130	0.04	-0.00	191.75		
	1351.20	30.	30.	30.	43.	46.	280.89		140.

\*SECNO 1.200

SPRING CR.		100 YEAR FLOODWA		08/06/80					
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL	
3470 ENCROACHMENT STATIONS=			191.0	280.0	TYPE=	1	TARGET=	89.000	
1.20	10600.	257.	10313.	30.	2.30	2	89.		
1364.40	0.0	89.	837.	22.	0.08	0	1354.10		
13.20	1364.40	2.88	12.33	1.39	0.01	1366.69	1354.10		
0.006097	0.048	0.110	0.050	0.130	0.04	-0.00	191.00		
	1351.20	1.	1.	1.	52.	37.	280.00	140.	

\*SECNO 1.200

\*\*\* GR CARDS REPEATED

3470 ENCROACHMENT STATIONS=			191.0	280.0	TYPE=	1	TARGET=	89.000	
1.20	10600.	261.	10308.	30.	2.26	0	89.		
1364.50	0.0	91.	843.	22.	-0.04	0	1354.10		
13.30	1364.50	2.87	12.22	1.38	0.06	1366.76	1354.10		
0.005933	0.048	0.110	0.050	0.130	0.00	-0.00	191.00		
	1351.20	10.	10.	10.	52.	37.	280.00	140.	

\*SECNO 1.350

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=			54.0	143.0	TYPE=	1	TARGET=	89.000	
1.35	10600.	442.	9955.	203.	2.76	2	88.		
1367.99	0.0	126.	725.	76.	0.50	0	1356.00		
12.99	1367.99	3.50	13.73	2.66	3.74	1370.75	1356.00		
0.007091	0.049	0.120	0.050	0.130	0.25	-0.00	54.33		
	1355.00	780.	570.	660.	48.	41.	142.75	153.	

\*SECNO 1.500

3301 HV CHANGED MORE THAN HVINS

SPRING CR.		100 YEAR FLOODWA		08/06/80					
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL	

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=			25.0	117.0	TYPE=	1	TARGET=	92.000	
1.50	10600.	182.	9949.	469.	4.27	3	92.		
1376.32	1376.32	49.	582.	98.	1.51	19	1368.00		

ACB

9.32	1376.32	3.68	17.08	4.77	9.08	1380.59	1368.00	
0.017202	0.049	0.120	0.050	0.130	0.76	-0.00	25.12	
	1367.00	1060.	860.	780.	43.	48.	117.00	169.

\*SECNO 1.500

\*\*\* GR CARDS REPEATED

SPRING CR.		100 YEAR FLOODWA			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALCB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLCB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

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

3470 ENCROACHMENT STATIONS=	25.0	117.0	TYPE=	1	TARGET=	92.000		
1.50	10600.	182.	9949.	469.	4.27	20	92.	
1382.32	1382.32	49.	582.	98.	-0.00	5	1374.00	
9.32	1382.30	3.68	17.08	4.77	0.17	1386.59	1374.00	
0.017193	0.049	0.120	0.050	0.130	0.00	-0.00	25.12	
	1373.00	10.	10.	10.	43.	48.	117.00	170.

\*SECNO 1.540

\*\*\* GR CARDS REPEATED

SPRING CR.		100 YEAR FLOODWA			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	25.0	117.0	TYPE=	1	TARGET=	92.000		
1.54	10600.	182.	9949.	469.	4.27	2	92.	
1386.32	1386.32	49.	583.	98.	-0.00	5	1378.00	
9.32	1386.30	3.68	17.07	4.77	3.09	1390.59	1378.00	
0.017171	0.049	0.120	0.050	0.130	0.00	-0.00	25.11	
	1377.00	180.	180.	180.	43.	48.	117.00	173.

\*SECNO 1.660

SPRING CR.		100 YEAR FLOODWA			08/06/80			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	57.0	165.0	TYPE=	1	TARGET=	108.000		
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B03

1.66	10600.	2094.	8084.	422.	4.11	3	108.	
1401.89	1401.89	329.	442.	81.	-0.16	8	1392.00	
10.89	1401.88	6.37	18.30	5.21	12.66	1406.00	1392.00	
0.023181	0.050	0.130	0.060	0.130	0.02	-0.00	57.00	
	1391.00	620.	640.	650.	72.	36.	165.00	184.

\*SECNO 1.680

\*\*\* GR CARDS REPEATED

SPRING CR.		100 YEAR FLOODWA		08/06/80				
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	57.0	165.0	TYPE=	1	TARGET=	108.000		
1.68	10600.	2089.	8090.	420.	4.15	2	108.	
1404.56	1404.56	327.	440.	80.	0.04	5	1394.70	
10.86	1404.53	6.39	18.38	5.23	2.53	1408.70	1394.70	
0.023496	0.050	0.130	0.060	0.130	0.02	-0.00	57.00	
	1393.70	100.	110.	120.	72.	36.	165.00	186.

\*SECNO 1.700

\*\*\* GR CARDS REPEATED

SPRING CR.		100 YEAR FLOODWA		08/06/80				
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	57.0	165.0	TYPE=	1	TARGET=	108.000		
1.70	10600.	2091.	8089.	421.	4.14	2	108.	
1407.27	1407.27	328.	441.	81.	-0.01	5	1397.40	
10.87	1407.24	6.38	18.36	5.22	2.42	1411.40	1397.40	
0.023407	0.050	0.130	0.060	0.130	0.00	-0.00	57.00	
	1396.40	70.	110.	140.	72.	36.	165.00	188.

\*SECNO 1.740

\*\*\* GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=	57.0	165.0	TYPE=	1	TARGET=	108.000	
1.74	10600.	2310.	7795.	496.	2.61	2	108.
1412.36	0.0	434.	526.	114.	-1.52	0	1400.40
12.96	1412.39	5.32	14.81	4.34	3.42	1414.97	1400.40

COB

0.012009 0.050 0.130 0.060 0.130 0.15 -0.00 57.00  
1399.40 200. 210. 250. 72. 36. 165.00 193.

\*SECNO 1.910

3301 HV CHANGED MORE THAN HVINS

SPRING CR.	100 YEAR FLOODWA	08/06/80							
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID		
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV		
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT		
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA		
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL	

3470 ENCROACHMENT STATIONS=	155.0	260.0	TYPE=	1	TARGET=	105.000				
1.91	10500.	1461.	8513.	526.	2.10	3	105.			
1425.37	0.0	266.	672.	110.	-0.51	0	1416.00			
13.57	1425.16	5.49	12.66	4.78	12.45	1427.47	1415.40			
0.017233	0.053	0.130	0.080	0.130	0.05	-0.00	155.00			
	1411.80	1080.	840.	640.	57.	48.	259.78	215.		

\*SECNO 1.910

\*\*\* GR CARDS REPEATED

3470 ENCROACHMENT STATIONS=	155.0	260.0	TYPE=	1	TARGET=	105.000				
1.91	10500.	1479.	8436.	585.	1.75	2	105.			
1426.35	0.0	295.	727.	130.	-0.35	0	1416.00			
14.55	1425.99	5.02	11.60	4.50	0.60	1428.10	1415.40			
0.013006	0.053	0.130	0.080	0.130	0.04	-0.00	155.00			
	1411.80	40.	40.	40.	57.	48.	260.00	216.		

\*SECNO 1.910

3700 BRIDGE STENCL= 155.00 STENCR= 260.00

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 1430.10 MAX ELLC= 1432.00

3470 ENCROACHMENT STATIONS=	155.0	260.0	TYPE=	1	TARGET=	105.000				
1.91	10500.	251.	10109.	140.	3.13	9	79.			
1425.69	0.0	38.	701.	25.	1.38	0	1420.40			
13.89	1424.88	6.67	14.42	5.68	0.03	1428.82	1419.40			
0.066856	0.053	0.130	0.080	0.130	0.69	-0.00	172.26			
	1411.80	1.	1.	1.	47.	40.	260.00	216.		

\*SECNO 1.910

\*\*\* GR CARDS REPEATED

DOB

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRDE= 12 MIN ELTRD= 1430.10 MAX ELLC= 1432.00

3470 ENCROACHMENT STATIONS=	155.0	260.0	TYPE=	1	TARGET=	105.000		
1.91	10500.	473.	9846.	181.	1.88	3	83.	
1428.49	0.0	77.	874.	39.	-1.25	0	1420.40	
16.62	1428.48	6.14	11.26	4.68	1.43	1430.37	1419.40	
0.035515	0.053	0.130	0.080	0.130	0.13	-0.00	167.55	
	1411.80	30.	30.	30.	52.	40.	260.00	216.

\*SECNO 1.910

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=	155.0	260.0	TYPE=	1	TARGET=	105.000		
1.91	10500.	1503.	8272.	725.	1.09	2	105.	
1429.37	0.0	382.	897.	190.	-0.79	0	1416.00	
17.57	1429.65	3.93	9.22	3.81	0.01	1430.46	1415.40	
0.006226	0.053	0.130	0.080	0.130	0.08	-0.00	155.00	
	1411.80	1.	1.	1.	57.	48.	260.00	216.

\*SECNO 1.910

\*\*\* GR CARDS REPEATED  
SPRING CR.

100 YEAR FLOODWA 08/06/80

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRISW	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3470 ENCROACHMENT STATIONS=	155.0	260.0	TYPE=	1	TARGET=	105.000		
1.91	10500.	1503.	8269.	728.	1.08	2	105.	
1429.44	0.0	384.	900.	192.	-0.01	0	1416.00	
17.64	1429.70	3.91	9.18	3.80	0.06	1430.52	1415.40	
0.003141	0.053	0.130	0.080	0.130	0.00	-0.00	155.00	
	1411.80	10.	10.	10.	57.	48.	260.00	217.

THIS RUN EXECUTED 08/06/80 17:24:11

\*\*\*\*\*  
 HEC2 RELEASE DATED NOV 76 UPDATED JULY1979  
 ERROR CORR - 01 02 03  
 MODIFICATION - 50,51,52,53,54  
 \*\*\*\*\*

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

SPRING CREEK

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	PERENC	STENCL	STENCR	STCHL	STCHR	QLOB	QCH	QROB
0.100	1317.50	0.0	1318.53	711.	0.	0.	0.	616.	709.	883.	9383.	435.
0.100	1318.50	1.00	1319.55	170.	170.	580.	750.	616.	709.	206.	9970.	524.
0.180	1318.46	0.0	1320.16	374.	0.	0.	0.	380.	443.	469.	8634.	597.
0.180	1319.14	0.68	1321.33	95.	95.	370.	465.	380.	443.	279.	9749.	672.
0.240	1320.11	0.0	1322.97	189.	0.	0.	0.	112.	197.	0.	9719.	981.
0.240	1321.12	1.00	1323.49	118.	120.	110.	230.	112.	197.	0.	9865.	835.
0.240	1321.18	0.0	1324.14	85.	0.	0.	0.	112.	197.	0.	10700.	0.
0.240	1321.86	0.68	1324.42	85.	120.	110.	230.	112.	197.	0.	10700.	0.
0.240	1321.18	0.0	1324.14	85.	0.	0.	0.	112.	197.	0.	10700.	0.
0.240	1321.86	0.68	1324.42	85.	120.	110.	230.	112.	197.	0.	10700.	0.
0.240	1323.19	0.0	1324.45	167.	0.	0.	0.	112.	197.	0.	9149.	1551.
0.240	1323.13	-0.06	1324.67	118.	120.	110.	230.	112.	197.	0.	9761.	939.
0.270	1323.24	0.0	1325.13	173.	0.	0.	0.	36.	96.	307.	8830.	1563.
0.270	1323.03	-0.20	1325.68	95.	95.	25.	120.	36.	96.	262.	9802.	636.
* 0.310	1325.09	0.0	1327.39	397.	0.	0.	0.	135.	173.	653.	6830.	3217.
* 0.310	1324.72	-0.37	1328.01	165.	165.	120.	285.	135.	173.	520.	7542.	2638.
0.390	1328.15	0.0	1331.22	266.	0.	0.	0.	305.	361.	185.	9778.	737.
0.390	1328.93	0.79	1331.66	157.	175.	250.	425.	305.	361.	235.	9795.	670.
0.390	1329.94	0.0	1331.62	395.	0.	0.	0.	305.	361.	519.	8760.	1421.
0.390	1329.69	-0.25	1331.97	157.	175.	250.	425.	305.	361.	304.	9583.	813.
0.390	1328.68	0.0	1332.90	169.	0.	0.	0.	295.	360.	19.	10278.	403.
0.390	1328.74	0.06	1332.95	142.	160.	230.	390.	295.	360.	22.	10272.	406.
0.390	1333.45	0.0	1333.96	415.	0.	0.	0.	295.	360.	3069.	5945.	1685.
0.390	1332.88	-0.57	1334.47	142.	160.	230.	390.	295.	360.	1078.	8747.	875.
0.390	1333.34	0.0	1334.07	415.	0.	0.	0.	305.	361.	1689.	7671.	1340.
0.390	1333.25	-0.09	1334.51	142.	160.	230.	390.	305.	361.	843.	9189.	668.

## FO3

SECNO	CWSEL	DIFKWS	EG	TOPWID	PERENC	STENCL	STENCR	STCHL	STCHR	QLOB	QCH	QROB
0.390	1333.36	0.0	1334.09	415.	0.	0.	0.	305.	361.	1696.	7661.	1343.
0.390	1333.28	-0.08	1334.53	142.	160.	230.	390.	305.	361.	846.	9185.	669.
0.420	1334.03	0.0	1334.26	683.	0.	0.	0.	305.	361.	1890.	5269.	3541.
0.420	1333.82	-0.21	1334.82	160.	160.	230.	390.	305.	361.	1364.	8670.	666.
0.510	1333.81	0.0	1335.93	255.	0.	0.	0.	50.	100.	146.	8270.	2284.
0.510	1334.50	0.70	1337.17	95.	95.	45.	140.	50.	100.	115.	9257.	1328.
0.540	1334.88	0.0	1337.23	251.	0.	0.	0.	50.	100.	143.	8412.	2145.
0.540	1335.65	0.77	1338.44	95.	95.	45.	140.	50.	100.	115.	9280.	1306.
0.620	1337.32	0.0	1339.63	193.	0.	0.	0.	377.	448.	1268.	9303.	129.
0.620	1338.05	0.73	1340.87	90.	90.	370.	460.	377.	448.	131.	10444.	125.
0.700	1340.58	0.0	1343.42	120.	0.	0.	0.	277.	330.	662.	9873.	165.
0.700	1341.58	1.00	1344.05	90.	90.	250.	340.	277.	330.	634.	9879.	186.
0.980	1350.91	0.0	1352.28	151.	0.	0.	0.	406.	478.	1279.	9210.	211.
0.980	1351.01	0.10	1352.89	90.	90.	390.	480.	406.	478.	363.	10319.	18.
* 1.200	1361.05	0.0	1365.48	82.	0.	0.	0.	209.	276.	151.	10431.	18.
* 1.200	1361.04	-0.00	1365.48	82.	107.	185.	292.	209.	276.	151.	10431.	18.
1.200	1363.34	0.0	1366.12	86.	0.	0.	0.	209.	276.	221.	10353.	26.
1.200	1363.34	0.00	1366.12	86.	107.	185.	292.	209.	276.	221.	10353.	26.
1.200	1363.46	0.0	1366.14	81.	0.	0.	0.	167.	302.	0.	10600.	0.
1.200	1363.47	0.01	1366.14	81.	107.	185.	292.	167.	302.	0.	10600.	0.
1.200	1364.43	0.0	1366.65	83.	0.	0.	0.	167.	302.	0.	10600.	0.
1.200	1364.43	-0.00	1366.65	83.	107.	185.	292.	167.	302.	0.	10600.	0.
1.200	1364.40	0.0	1366.69	89.	0.	0.	0.	209.	276.	257.	10312.	31.
1.200	1364.40	-0.00	1366.69	89.	89.	191.	280.	209.	276.	257.	10313.	30.
1.200	1364.50	0.0	1366.76	90.	0.	0.	0.	209.	276.	261.	10307.	32.
1.200	1364.50	-0.00	1366.76	89.	89.	191.	280.	209.	276.	261.	10308.	30.
1.350	1367.99	0.0	1370.75	88.	0.	0.	0.	74.	130.	442.	9955.	203.
1.350	1367.99	0.00	1370.75	88.	89.	54.	143.	74.	130.	442.	9955.	203.
1.500	1376.32	0.0	1380.59	93.	0.	0.	0.	37.	100.	182.	9949.	470.
* 1.500	1376.32	0.00	1380.59	92.	92.	25.	117.	37.	100.	182.	9949.	469.
* 1.500	1382.30	0.0	1386.59	93.	0.	0.	0.	37.	100.	181.	9949.	469.
* 1.500	1382.32	0.01	1386.59	92.	92.	25.	117.	37.	100.	182.	9949.	469.
* 1.540	1386.30	0.0	1390.59	93.	0.	0.	0.	37.	100.	181.	9949.	469.
* 1.540	1386.32	0.02	1390.59	92.	92.	25.	117.	37.	100.	182.	9949.	469.
* 1.660	1401.88	0.0	1406.00	108.	0.	0.	0.	108.	149.	2091.	8088.	421.
* 1.660	1401.89	0.02	1406.00	108.	108.	57.	165.	108.	149.	2094.	8084.	422.
* 1.680	1404.53	0.0	1408.70	108.	0.	0.	0.	108.	149.	2086.	8095.	419.
* 1.680	1404.56	0.03	1408.70	108.	108.	57.	165.	108.	149.	2089.	8090.	420.



SECNO	CWSEL	DIFKWS	EG	TOPWID	PERENC	STENCL	STENCR	STCHL	STCHR	QLOB	QCH	QROB
* 1.700	1407.24	0.0	1411.40	108.	0	0	0	108.	149.	2087.	8093.	420.
* 1.700	1407.27	0.02	1411.40	108.	108.	57.	165.	108.	149.	2091.	8089.	421.
1.740	1412.39	0.0	1414.97	117.	0	0	0	108.	149.	2320.	7777.	503.
1.740	1412.36	-0.03	1414.97	108.	108.	57.	165.	108.	149.	2310.	7795.	496.
1.910	1425.16	0.0	1426.84	135.	0	0	0	184.	240.	2306.	7730.	464.
1.910	1425.37	0.22	1427.47	105.	105.	155.	260.	184.	240.	1461.	8513.	526.
1.910	1425.99	0.0	1427.39	139.	0	0	0	184.	240.	2388.	7605.	507.
1.910	1426.35	0.37	1428.10	105.	105.	155.	260.	184.	240.	1479.	8436.	585.
1.910	1424.88	0.0	1428.55	83.	0	0	0	184.	255.	193.	10143.	164.
1.910	1425.69	0.81	1428.82	79.	105.	155.	260.	184.	255.	251.	10109.	140.
1.910	1428.48	0.0	1430.25	93.	0	0	0	184.	255.	461.	9627.	413.
1.910	1428.49	0.02	1430.37	83.	105.	155.	260.	184.	255.	473.	9846.	181.
1.910	1429.65	0.0	1430.36	153.	0	0	0	184.	240.	2683.	7160.	656.
1.910	1429.37	-0.27	1430.46	105.	105.	155.	260.	184.	240.	1503.	8272.	725.
1.910	1429.70	0.0	1430.41	153.	0	0	0	184.	240.	2688.	7154.	658.
1.910	1429.44	-0.25	1430.52	105.	105.	155.	260.	184.	240.	1503.	8269.	728.

SUMMARY OF ERRORS

CAUTION SECNO= 0.310 PROFILE= 1 CRITICAL DEPTH ASSUMED  
 CAUTION SECNO= 0.310 PROFILE= 1  
 PROBABLE MINIMUM SPECIFIC ENERGY  
 CAUTION SECNO= 0.310 PROFILE= 1  
 20 TRIALS ATTEMPTED TO BALANCE WSEL  
 CAUTION SECNO= 0.310 PROFILE= 2 CRITICAL DEPTH ASSUMED  
 CAUTION SECNO= 1.200 PROFILE= 1 CRITICAL DEPTH ASSUMED  
 CAUTION SECNO= 1.200 PROFILE= 1  
 PROBABLE MINIMUM SPECIFIC ENERGY  
 CAUTION SECNO= 1.200 PROFILE= 1  
 20 TRIALS ATTEMPTED TO BALANCE WSEL  
 CAUTION SECNO= 1.200 PROFILE= 2 CRITICAL DEPTH ASSUMED  
 CAUTION SECNO= 1.500 PROFILE= 2 CRITICAL DEPTH ASSUMED  
 CAUTION SECNO= 1.500 PROFILE= 1 CRITICAL DEPTH ASSUMED  
 CAUTION SECNO= 1.500 PROFILE= 1  
 PROBABLE MINIMUM SPECIFIC ENERGY  
 CAUTION SECNO= 1.500 PROFILE= 1  
 20 TRIALS ATTEMPTED TO BALANCE WSEL  
 CAUTION SECNO= 1.500 PROFILE= 2 CRITICAL DEPTH ASSUMED  
 CAUTION SECNO= 1.500 PROFILE= 2  
 PROBABLE MINIMUM SPECIFIC ENERGY  
 CAUTION SECNO= 1.500 PROFILE= 2  
 20 TRIALS ATTEMPTED TO BALANCE WSEL  
 CAUTION SECNO= 1.540 PROFILE= 1 CRITICAL DEPTH ASSUMED

H03

CAUTION SECNO= 1.540 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.660 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 1.660 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.680 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 1.680 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.700 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 1.700 PROFILE= 2 CRITICAL DEPTH ASSUMED

FLOODWAY DATA, SPRING CREEK  
 PROFILE NO. 2

STATION	FLOODWAY		WATER SURFACE ELEVATION		DIFFERENCE
	WIDTH (FT)	SECTION AREA	WITH FLOODWAY	WITHOUT FLOODWAY	
0.100	170.	1538.	1318.5	1317.5	1.0
0.180	95.	1059.	1319.1	1318.5	0.6
0.240	120.	967.	1321.1	1320.1	1.0
0.240	120.	833.	1321.9	1321.2	0.7
0.240	120.	833.	1321.9	1321.2	0.7
0.240	120.	1204.	1323.2	1323.2	0.0
0.270	95.	974.	1323.2	1323.2	0.0
0.310	165.	1114.	1325.1	1325.1	0.0
0.390	175.	1040.	1328.9	1328.1	0.8
0.390	175.	1159.	1329.9	1329.9	0.0
0.390	160.	702.	1328.7	1328.7	0.0
0.390	160.	1192.	1333.4	1333.4	0.0
0.390	160.	1573.	1333.3	1333.3	0.0
0.390	160.	1578.	1333.4	1333.4	0.0
0.420	160.	1796.	1334.0	1334.0	0.0
0.510	95.	1010.	1334.5	1333.8	0.7
0.540	95.	986.	1335.7	1334.9	0.8
0.620	90.	860.	1338.1	1337.3	0.8
0.700	90.	1017.	1341.6	1340.6	1.0
0.980	90.	1073.	1351.0	1350.9	0.1
1.200	107.	662.	1361.0	1361.0	0.0
1.200	107.	855.	1363.3	1363.3	0.0
1.200	107.	809.	1363.5	1363.5	0.0
1.200	107.	887.	1364.4	1364.4	0.0
1.200	89.	948.	1364.4	1364.4	0.0
1.200	89.	956.	1364.5	1364.5	0.0
1.350	89.	928.	1368.0	1368.0	0.0
1.500	92.	730.	1376.3	1376.3	0.0
1.500	92.	730.	1382.3	1382.3	0.0
1.540	92.	731.	1386.3	1386.3	0.0
1.660	108.	852.	1401.9	1401.9	0.0
1.680	108.	848.	1404.6	1404.5	0.1
1.700	108.	849.	1407.3	1407.2	0.1
1.740	108.	1075.	1412.4	1412.4	0.0
1.910	105.	1048.	1425.4	1425.2	0.2
1.910	105.	1152.	1426.4	1426.0	0.4
1.910	105.	763.	1425.7	1424.9	0.8
1.910	105.	990.	1428.5	1428.5	0.0
1.910	105.	1469.	1429.6	1429.6	0.0
1.910	105.	1476.	1429.7	1429.7	0.0

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