

KLZIAH RMAK1L 13-PAGES 637-LINES 0-PLOTS # RTI.A25.P03078  
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BEAVER

CREEK

MADE IN U.S.A.



\*\*\*\*\*  
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977  
 ERROR CORR - 01  
 MODIFICATION - 50,51,52  
 \*\*\*\*\*

T1 LANDIS-ROWAN CO. BASIN E-A STRM 2-1L BEAVER CREEK  
 T2 FLOODPLAIN STUDY AT ROWAN & DAVIDSON COUNTIES N-G JOB NO. 6918  
 T3 100 YEAR FLOOD WATER SURFACE PROFILE

J1	ICHECK	ING	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	0.	0.	0.006000	0.0	0.0	0.	653.000	0.0
J2	NPROF	IPL0T	PREVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	15.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MADE IN U.S.A.

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 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977  
 ERROR CORR - 01  
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NOTE- ASTERISK (\*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

10 YEAR FLOOD WATER SURF  
 SUMMARY PRINTOUT

SECNO	XLCH	ELTRD	ELLC	Q	ELMIN	CWSEL	CRWS	VCH	SSTA	ENDST	AREA	UFWSP
A 875.000	875.00	0.0	0.0	1125.00	645.00	650.26	0.0	6.47	1260.67	1464.79	296.78	0.0
875.000	875.00	0.0	0.0	2225.00	645.00	651.24	0.0	7.52	1244.39	1500.68	511.47	0.98
925.000	50.00	0.0	0.0	1125.00	645.10	650.63	0.0	5.49	1256.13	1470.79	349.00	0.0
925.000	50.00	0.0	0.0	2225.00	645.10	651.61	0.0	6.65	1239.85	1505.72	582.58	0.98
975.000	50.00	0.0	0.0	1125.00	645.20	650.52	0.0	7.18	1400.00	1440.00	156.71	0.0
* 975.000	50.00	0.0	0.0	2225.00	645.20	651.16	651.16	12.23	1400.00	1440.00	182.00	0.64
993.000	18.00	655.50	653.00	1125.00	645.20	650.52	0.0	7.19	1400.00	1440.00	156.52	0.0
993.000	18.00	655.50	653.00	2225.00	645.20	651.17	0.0	12.21	1400.00	1440.00	182.17	0.64
1043.000	50.00	0.0	0.0	1125.00	645.40	651.42	0.0	4.23	1248.03	1492.03	456.72	0.0
1043.000	50.00	0.0	0.0	2225.00	645.40	653.72	0.0	3.50	1209.55	1539.39	1124.13	2.30
B 1093.000	50.00	0.0	0.0	1125.00	645.60	651.51	0.0	4.47	1249.81	1487.37	431.39	0.0
1093.000	50.00	0.0	0.0	2225.00	645.60	653.75	0.0	3.69	1212.54	1536.06	1065.37	2.24
* C 3565.000	2472.00	0.0	0.0	1050.00	656.50	662.08	662.08	7.13	1169.32	1517.22	260.00	0.0
* 3565.000	2472.00	0.0	0.0	2100.00	656.50	662.85	662.85	8.67	1160.68	1519.72	520.78	0.78
* D 6615.000	3050.00	0.0	0.0	800.00	692.20	696.36	696.36	8.58	1164.20	1214.77	100.19	0.0
* 6615.000	3050.00	0.0	0.0	1630.00	692.20	697.81	697.81	10.09	1141.36	1226.63	198.53	1.45
6665.000	50.00	0.0	0.0	800.00	692.80	697.10	696.98	8.04	1162.26	1215.96	107.76	0.0
* 6665.000	50.00	0.0	0.0	1630.00	692.80	698.42	698.42	10.06	1141.20	1226.70	199.35	1.32
* 6705.000	40.00	0.0	0.0	800.00	693.90	698.02	698.02	10.68	1208.82	1230.00	74.92	0.0
* 6705.000	40.00	0.0	0.0	1630.00	693.90	700.16	700.16	13.53	1208.63	1230.00	120.45	2.14
6725.000	20.00	705.80	703.20	800.00	693.90	698.03	0.0	10.66	1208.82	1230.00	75.02	0.0
6725.000	20.00	705.80	703.20	1630.00	693.90	700.17	0.0	13.51	1208.63	1230.00	120.62	2.14
6765.000	40.00	0.0	0.0	800.00	695.00	699.60	0.0	7.13	1157.58	1218.34	124.50	0.0
6765.000	40.00	0.0	0.0	1630.00	695.00	703.07	0.0	5.11	1102.03	1246.70	481.14	3.47
E 6815.000	50.00	0.0	0.0	800.00	695.40	699.95	0.0	7.24	1158.23	1218.01	122.04	0.0
6815.000	50.00	0.0	0.0	1630.00	695.40	703.09	0.0	5.62	1108.25	1243.52	426.68	3.14

SECNO	XLCH	ELTRD	ELLC	Q	ELMIN	CWSEL	CRWS	VCH	SSTA	ENDST	AREA	DIFWSP
9970.000	3155.00	0.0	0.0	680.00	722.30	726.87	726.70	9.40	1241.26	1271.79	81.87	0.0
* F 9970.000	3155.00	0.0	0.0	1425.00	722.30	728.94	728.94	10.14	1223.44	1319.30	212.07	2.07
14045.000	4075.00	0.0	0.0	450.00	752.40	757.73	0.0	6.50	1304.60	1332.31	72.81	0.0
G 14045.000	4075.00	0.0	0.0	970.00	752.40	759.12	758.75	9.51	1303.17	1349.54	124.37	1.39
14095.000	50.00	0.0	0.0	450.00	753.20	757.83	0.0	7.95	1305.33	1323.65	56.71	0.0
* 14095.000	50.00	0.0	0.0	970.00	753.20	759.55	759.55	10.54	1303.55	1344.94	108.03	1.72
14145.000	50.00	0.0	0.0	450.00	753.90	758.07	0.0	8.40	1680.48	1696.72	55.99	0.0
* 14145.000	50.00	0.0	0.0	970.00	753.90	760.08	760.08	10.81	1678.52	1717.84	108.73	2.01
* 14340.000	195.00	779.10	764.90	450.00	758.90	762.64	0.0	9.46	1680.90	1696.37	49.18	0.0
* 14340.000	195.00	779.10	764.90	970.00	758.90	765.10	765.08	10.76	1678.50	1718.07	109.44	2.46
14390.000	50.00	0.0	0.0	450.00	758.50	763.65	0.0	6.86	1304.80	1329.95	67.76	0.0
14390.000	50.00	0.0	0.0	970.00	758.50	766.30	0.0	7.14	1302.07	1362.76	181.49	2.65
14440.000	50.00	0.0	0.0	450.00	758.20	764.17	0.0	5.44	1303.95	1340.19	93.14	0.0
H 14440.000	50.00	0.0	0.0	970.00	758.20	766.69	0.0	5.95	1301.34	1371.49	227.66	2.53
14740.000	300.00	0.0	0.0	440.00	759.00	765.09	0.0	5.04	1315.37	1336.71	87.26	0.0
I 14740.000	300.00	0.0	0.0	930.00	759.00	767.38	0.0	6.42	1232.26	1341.00	169.60	2.28
Rowan Co. LANDS 15370.000	630.00	0.0	0.0	410.00	766.70	770.40	770.40	7.91	1000.76	1028.55	51.83	0.0
* A 15370.000	630.00	0.0	0.0	875.00	766.70	771.71	771.71	9.73	999.25	1030.35	89.97	1.31
15420.000	50.00	0.0	0.0	410.00	767.30	771.35	0.0	6.65	1000.54	1029.03	61.61	0.0
15420.000	50.00	0.0	0.0	875.00	767.30	772.71	0.0	8.51	996.63	1030.89	102.80	1.36
* 15470.000	50.00	0.0	0.0	410.00	769.50	773.16	773.16	8.29	1245.51	1277.49	56.56	0.0
* 15470.000	50.00	0.0	0.0	875.00	769.50	774.36	774.36	10.29	1242.66	1279.14	97.67	1.20
15530.000	60.00	782.50	778.50	410.00	769.50	773.16	0.0	8.27	1245.50	1277.50	56.67	0.0
15530.000	60.00	782.50	778.50	875.00	769.50	774.36	0.0	10.27	1242.65	1279.15	97.87	1.20
* 15580.000	50.00	0.0	0.0	410.00	776.10	778.85	778.85	8.23	1117.03	1141.14	49.84	0.0
* 15580.000	50.00	0.0	0.0	875.00	776.10	780.45	780.45	8.93	1096.18	1162.22	116.40	1.60
* 15630.000	50.00	0.0	0.0	410.00	777.50	780.26	780.26	8.22	1117.03	1141.14	49.88	0.0
* B 15630.000	50.00	0.0	0.0	875.00	777.50	781.85	781.85	8.92	1096.16	1162.29	116.58	1.60
15710.000	80.00	0.0	0.0	240.00	778.50	781.63	0.0	1.75	1111.45	1235.70	193.20	0.0
C 15710.000	80.00	0.0	0.0	560.00	778.50	783.24	0.0	1.86	1108.64	1297.38	444.13	1.61
* 15760.000	50.00	0.0	0.0	240.00	780.80	782.38	782.38	5.68	1114.16	1179.18	48.18	0.0
* 15760.000	50.00	0.0	0.0	560.00	780.80	783.03	783.03	8.01	1113.03	1201.07	97.63	0.65
* 15810.000	50.00	0.0	0.0	240.00	784.40	787.44	787.44	8.94	1375.00	1386.00	26.84	0.0
* 15810.000	50.00	0.0	0.0	560.00	784.40	789.30	789.30	11.84	1375.00	1386.00	47.31	1.06
15843.000	33.00	790.90	789.60	240.00	784.40	787.44	0.0	8.91	1375.00	1386.00	26.94	0.0
15843.000	33.00	790.90	789.60	560.00	784.40	788.95	0.0	12.85	1375.00	1386.00	43.59	1.51
15893.000	50.00	0.0	0.0	240.00	784.00	788.81	0.0	0.77	1108.51	1300.21	458.97	0.0
15893.000	50.00	0.0	0.0	560.00	784.00	791.77	0.0	0.78	1098.14	1364.65	1136.18	2.97

SECNO	XLCH	ELTRD	ELLC	Q	ELMIN	CWSEL	CRWS	VCH	SSTA	ENDST	AREA	DIFWSP
15943.000	50.00	0.0	0.0	240.00	784.80	788.81	0.0	1.09	1109.90	1269.72	318.81	0.0
D 15943.000	50.00	0.0	0.0	560.00	784.80	791.77	0.0	0.93	1101.75	1347.29	931.97	2.96
* 17043.000	1100.00	0.0	0.0	129.00	800.60	803.53	803.53	7.45	1224.76	1235.11	17.35	0.0
E 17043.000	1100.00	0.0	0.0	330.00	800.60	805.07	805.07	8.98	1222.38	1237.34	36.74	1.53

SUMMARY OF ERRORS

CAUTION SECNO= 975.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 975.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 975.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 3565.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 3565.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 3565.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 3565.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 3565.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 6615.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 6615.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 6615.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO= 6615.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 6615.000 PROFILE= 2 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 6665.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 6665.000 PROFILE= 2 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 6705.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 6705.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 6705.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO= 6705.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 6705.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 6705.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 9970.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 9970.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 9970.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 14095.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 14095.000 PROFILE= 2 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 14145.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 14145.000 PROFILE= 2 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 14340.000 PROFILE= 1 WSEL ASSUMED BASED ON MIN DIFF  
CAUTION SECNO= 14340.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO= 14340.000 PROFILE= 2 WSEL ASSUMED BASED ON MIN DIFF  
CAUTION SECNO= 14340.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO= 14340.000 PROFILE= 2 HYDRAULIC JUMP D.S.

CAUTION SECNO= 15370.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 15370.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 15370.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO= 15370.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 15370.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO=15370.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=15470.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO=15470.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO=15470.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO=15470.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO=15470.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO=15470.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=15580.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO=15580.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO=15580.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO=15580.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO=15580.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO=15580.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=15630.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO=15630.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO=15630.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO=15630.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO=15630.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO=15630.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=15760.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO=15760.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO=15760.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO=15760.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO=15760.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO=15760.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=15810.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO=15810.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO=15810.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO=15810.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO=15810.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO=15810.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=17043.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO=17043.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO=17043.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO=17043.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO=17043.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO=17043.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

MADE IN U.S.A.

FLOOD INSURANCE ZONE DATA FOR 10 YEAR FLOOD WATER SURF

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND		
		10C	2C	0.2C
875.000	0.	650.3	651.2	0.0
925.000	50.	644.2	645.1	*****
975.000	100.	*****	*****	*****
993.000	118.	-0.1	0.5	*****
1043.000	168.	651.4	653.7	0.0
1093.000	218.	*****	*****	*****
3565.000	2690.	*****	*****	*****
6615.000	5740.	40.9	42.3	-2.5
6665.000	5790.	689.9	691.2	*****
6705.000	5830.	*****	*****	*****
6725.000	5850.	46.6	48.8	*****
6765.000	5890.	699.6	703.1	0.0
6815.000	5940.	*****	*****	*****
9970.000	9095.	*****	*****	*****
14045.000	13170.	757.7	759.1	0.0
14095.000	13220.	750.7	752.4	*****
14145.000	13270.	*****	*****	*****
14340.000	13465.	66.3	68.7	0.0
14390.000	13515.	763.7	766.3	11.0
14440.000	13565.	-35.8	-33.3	*****
14740.000	13865.	*****	*****	*****
15370.000	14495.	770.4	771.7	0.0
15420.000	14545.	760.7	762.0	*****
15470.000	14595.	*****	*****	*****
15530.000	14655.	75.1	76.3	*****
15580.000	14705.	778.9	780.5	0.0
15630.000	14755.	-19.7	-18.1	*****
15710.000	14835.	*****	*****	*****
15760.000	14885.	782.4	783.0	0.0
15810.000	14935.	780.2	782.1	*****
15843.000	14966.	*****	*****	*****
15893.000	15018.	61.9	64.9	-0.2
15943.000	15068.	788.8	791.8	0.0
17043.000	16168.	353.5	355.1	302.4

WEIGHTED AVG FOR REACH \*\*\*\*

FHF FOR THE REACH = 200 WITH 0.00 OF THE REACH WITHIN 3.0 FEET ZONE FOR THE REACH = A30

CONTINUOUS FLOOD HAZARD FACTORS BY EVEN INCREMENTS

INC NO.	TOTAL LENGTH	AVG ELEVATION DATA			WTD. AVG.	FHF	PERCENT WITHIN
		10C	1C	DIFF.			



1	0.	100.	650.6	6.5	644.2	644.2	SEC.	875.000	100.
2	50.	100.	50.				SEC.	925.000	
3	100.	118.	100.				SEC.	975.000	
4	168.	168.	168.				SEC.	993.000	
5	200.	200.	200.				SEC.	1043.000	
6	218.	218.	218.				SEC.	1093.000	
7	300.	300.	300.				SEC.	1093.000	
8	400.	400.	400.				SEC.	1093.000	
9	500.	500.	500.				SEC.	1093.000	
10	600.	600.	600.				SEC.	1093.000	
11	700.	700.	700.				SEC.	1093.000	
12	800.	800.	800.				SEC.	1093.000	
13	900.	900.	900.				SEC.	1093.000	
14	1000.	1000.	1000.				SEC.	1093.000	
15	1100.	1100.	1100.				SEC.	1093.000	
16	1200.	1200.	1200.				SEC.	1093.000	
17	1300.	1300.	1300.				SEC.	1093.000	
18	1400.	1400.	1400.				SEC.	1093.000	
19	1500.	1500.	1500.				SEC.	1093.000	
20	1600.	1600.	1600.				SEC.	1093.000	
21	1700.	1700.	1700.				SEC.	1093.000	
22	1800.	1800.	1800.				SEC.	1093.000	
23	1900.	1900.	1900.				SEC.	1093.000	
24	2000.	2000.	2000.				SEC.	1093.000	
25	2100.	2100.	2100.				SEC.	1093.000	
26	2200.	2200.	2200.				SEC.	1093.000	
27	2300.	2300.	2300.				SEC.	1093.000	
28	2400.	2400.	2400.				SEC.	1093.000	
29	2500.	2500.	2500.				SEC.	1093.000	
30	2600.	2600.	2600.				SEC.	1093.000	
31	2690.	2690.	2690.				SEC.	1093.000	
32	2700.	2700.	2700.				SEC.	1093.000	
33	2800.	2800.	2800.				SEC.	1093.000	
34	2900.	2900.	2900.				SEC.	1093.000	
35	3000.	3000.	3000.				SEC.	1093.000	
36	3100.	3100.	3100.				SEC.	1093.000	
37	3200.	3200.	3200.				SEC.	1093.000	
38	3300.	3300.	3300.				SEC.	1093.000	
39	3400.	3400.	3400.				SEC.	1093.000	
40	3500.	3500.	3500.				SEC.	1093.000	
41	3600.	3600.	3600.				SEC.	1093.000	
42	3700.	3700.	3700.				SEC.	1093.000	
43	3800.	3800.	3800.				SEC.	1093.000	
44	3900.	3900.	3900.				SEC.	1093.000	
45	4000.	4000.	4000.				SEC.	1093.000	
46	4100.	4100.	4100.				SEC.	1093.000	
47	4200.	4200.	4200.				SEC.	1093.000	
48	4300.	4300.	4300.				SEC.	1093.000	
49	4400.	4400.	4400.				SEC.	1093.000	
50	4500.	4500.	4500.				SEC.	1093.000	
51	4600.	4600.	4600.				SEC.	1093.000	
52	4700.	4700.	4700.				SEC.	1093.000	
53	4800.	4800.	4800.				SEC.	1093.000	
54	4900.	4900.	4900.				SEC.	1093.000	
55	5000.	5000.	5000.				SEC.	1093.000	
56	5100.	5100.	5100.				SEC.	1093.000	
57	5200.	5200.	5200.				SEC.	1093.000	
58	5300.	5300.	5300.				SEC.	1093.000	
59	5400.	5400.	5400.				SEC.	1093.000	
60	5500.	5500.	5500.				SEC.	1093.000	
61	5600.	5600.	5600.				SEC.	1093.000	
62	5700.	5700.	5700.				SEC.	1093.000	
63	5800.	5800.	5800.				SEC.	1093.000	
64	5900.	5900.	5900.				SEC.	1093.000	
65	6000.	6000.	6000.				SEC.	1093.000	
66	6100.	6100.	6100.				SEC.	1093.000	
67	6200.	6200.	6200.				SEC.	1093.000	
68	6300.	6300.	6300.				SEC.	1093.000	
69	6400.	6400.	6400.				SEC.	1093.000	
70	6500.	6500.	6500.				SEC.	1093.000	
71	6600.	6600.	6600.				SEC.	1093.000	
72	6700.	6700.	6700.				SEC.	1093.000	
73	6800.	6800.	6800.				SEC.	1093.000	
74	6900.	6900.	6900.				SEC.	1093.000	
75	7000.	7000.	7000.				SEC.	1093.000	
76	7100.	7100.	7100.				SEC.	1093.000	
77	7200.	7200.	7200.				SEC.	1093.000	
78	7300.	7300.	7300.				SEC.	1093.000	
79	7400.	7400.	7400.				SEC.	1093.000	
80	7500.	7500.	7500.				SEC.	1093.000	
81	7600.	7600.	7600.				SEC.	1093.000	
82	7700.	7700.	7700.				SEC.	1093.000	
83	7800.	7800.	7800.				SEC.	1093.000	
84	7900.	7900.	7900.				SEC.	1093.000	
85	8000.	8000.	8000.				SEC.	1093.000	
86	8100.	8100.	8100.				SEC.	1093.000	
87	8200.	8200.	8200.				SEC.	1093.000	
88	8300.	8300.	8300.				SEC.	1093.000	
89	8400.	8400.	8400.				SEC.	1093.000	
90	8500.	8500.	8500.				SEC.	1093.000	
91	8600.	8600.	8600.				SEC.	1093.000	
92	8700.	8700.	8700.				SEC.	1093.000	
93	8800.	8800.	8800.				SEC.	1093.000	
94	8900.	8900.	8900.				SEC.	1093.000	
95	9000.	9000.	9000.				SEC.	1093.000	
96	9100.	9100.	9100.				SEC.	1093.000	
97	9200.	9200.	9200.				SEC.	1093.000	
98	9300.	9300.	9300.				SEC.	1093.000	
99	9400.	9400.	9400.				SEC.	1093.000	
100	9500.	9500.	9500.				SEC.	1093.000	

SEC. 6615.000

5740.

	5790.				SEC. 6665.000	
58	5800.	697.2	136.7	560.6	***** 200	0.
	5830.				SEC. 6705.000	
	5850.				SEC. 6725.000	
	5890.				SEC. 6765.000	
59	5900.	699.6	112.5	87.1	***** 200	2.
	5940.				SEC. 6815.000	
60	6000.	700.1	678.4	21.6	***** 200	0.
61	6100.	700.9	1137.6	-436.7	***** 200	0.
62	6200.	701.7	1149.1	-447.4	***** 200	0.
63	6300.	702.6	1160.6	-458.0	***** 200	2.
64	6400.	703.5	1172.1	-468.6	***** 200	2.
65	6500.	704.3	1183.6	-479.3	***** 200	2.
66	6600.	705.2	1195.1	-489.9	***** 200	2.
67	6700.	706.0	1206.5	-500.5	***** 200	1.
68	6800.	706.9	1218.0	-511.2	***** 200	0.
69	6900.	707.7	1229.5	-521.8	***** 200	0.
70	7000.	708.6	1241.0	-532.4	***** 200	0.
71	7100.	709.4	1252.5	-543.1	***** 200	0.
72	7200.	710.3	1264.0	-553.7	***** 200	0.
73	7300.	711.1	1275.5	-564.3	***** 200	0.
74	7400.	712.0	1286.9	-575.0	***** 200	0.
75	7500.	712.8	1298.4	-585.6	***** 200	0.
76	7600.	713.7	1309.9	-596.2	***** 200	0.
77	7700.	714.5	1321.4	-606.9	***** 200	0.
78	7800.	715.4	1332.9	-617.5	***** 200	1.
79	7900.	716.2	1344.4	-628.1	***** 200	3.
80	8000.	717.1	1355.9	-638.8	***** 200	1.
81	8100.	718.0	1367.3	-649.4	***** 200	0.
82	8200.	718.8	1378.8	-660.0	***** 200	1.
83	8300.	719.7	1390.3	-670.7	***** 200	1.
84	8400.	720.5	1401.8	-681.3	***** 200	0.
85	8500.	721.4	1413.3	-691.9	***** 200	0.
86	8600.	722.2	1424.8	-702.6	***** 200	1.
87	8700.	723.1	1436.3	-713.2	***** 200	1.
88	8800.	723.9	1447.7	-723.8	***** 200	0.
89	8900.	724.8	1459.2	-734.4	***** 200	2.
90	9000.	725.6	1470.7	-745.1	***** 200	2.
	9095.				SEC. 9970.000	
91	9100.	726.5	1481.0	-754.5	***** 200	0.
92	9200.	727.3	1467.3	-740.0	***** 200	0.
93	9300.	728.0	1430.8	-702.7	***** 200	1.
94	9400.	728.8	1394.3	-665.5	***** 200	1.
95	9500.	729.6	1357.8	-628.2	***** 200	1.
96	9600.	730.3	1321.3	-591.0	***** 200	0.
97	9700.	731.1	1284.8	-553.7	***** 200	0.
98	9800.	731.8	1248.3	-516.5	***** 200	0.
99	9900.	732.6	1211.8	-479.2	***** 200	0.
100	10000.	733.3	1175.3	-441.9	***** 200	0.
101	10100.	734.1	1138.8	-404.7	***** 200	1.
102	10200.	734.9	1102.3	-367.4	***** 200	2.
103	10300.	735.6	1065.8	-330.2	***** 200	2.
104	10400.	736.4	1029.3	-292.9	***** 200	2.
105	10500.	737.1	992.8	-255.7	***** 200	0.
106	10600.	737.9	956.3	-218.4	***** 200	0.
107	10700.	738.6	919.8	-181.1	***** 200	1.
108	10800.	739.4	883.3	-143.9	***** 200	2.
109	10900.	740.2	846.8	-106.6	***** 200	1.
110	11000.	740.9	810.3	-69.4	***** 200	1.
111	11100.	741.7	773.8	-32.1	***** 200	1.
112	11200.	742.4	737.3	5.1	***** 200	0.
113	11300.	743.2	700.8	42.4	***** 200	1.
114	11400.	743.9	664.3	79.7	***** 200	1.
115	11500.	744.7	627.8	116.9	***** 200	2.
116	11600.	745.5	591.3	154.2	***** 200	0.
117	11700.	746.2	554.8	191.4	***** 200	0.

118	11800.	747.0	518.3	228.7	*****	200	0.
119	11900.	747.7	481.8	265.9	*****	200	0.
120	12000.	748.5	445.3	303.2	*****	200	1.
121	12100.	749.3	408.8	340.5	*****	200	1.
122	12200.	750.0	572.3	377.7	*****	200	0.
123	12300.	750.8	335.8	415.0	*****	200	0.
124	12400.	751.5	299.3	452.2	*****	200	1.
125	12500.	752.3	262.8	489.5	*****	200	0.
126	12600.	753.0	226.3	526.7	*****	200	0.
127	12700.	753.0	189.8	564.0	*****	200	0.
128	12800.	754.6	153.3	601.3	*****	200	0.
129	12900.	755.3	116.2	638.5	*****	200	0.
130	13000.	756.1	80.3	675.8	*****	200	0.
131	13100.	756.8	43.8	713.0	*****	200	2.
	13170.				SEC.	14045.000	
132	13200.	757.5	14.9	742.6	*****	200	0.
	13220.				SEC.	14095.000	
	13270.				SEC.	14145.000	
133	13300.	758.4	6159.7	*****	*****	200	0.
134	13400.	759.9	4186.8	*****	*****	200	1.
	13465.				SEC.	14340.000	
135	13500.	762.2	1439.1	-676.8	*****	200	1.
	13515.				SEC.	14390.000	
	13565.				SEC.	14440.000	
136	13600.	764.2	824.3	-60.0	*****	200	1.
137	13700.	764.4	917.9	-153.4	*****	200	1.
138	13800.	764.7	1056.5	-291.8	*****	200	0.
	13865.				SEC.	14740.000	
139	13900.	765.1	1137.1	-372.0	*****	200	0.
140	14000.	765.8	1051.9	-286.1	*****	200	0.
141	14100.	766.7	858.9	-92.2	*****	200	0.
142	14200.	767.5	665.9	101.6	*****	200	0.
143	14300.	768.3	472.9	295.5	*****	200	1.
144	14400.	769.2	279.9	489.3	*****	200	1.
	14495.				SEC.	15370.000	
145	14500.	770.1	92.2	677.8	*****	200	1.
	14545.				SEC.	15420.000	
	14595.				SEC.	15470.000	
146	14600.	773.2	6473.9	*****	*****	200	0.
	14655.				SEC.	15530.000	
147	14700.	775.7	3146.3	*****	*****	200	0.
	14705.				SEC.	15580.000	
	14755.				SEC.	15630.000	
148	14800.	780.6	917.7	-137.0	*****	200	1.
	14835.				SEC.	15710.000	
	14885.				SEC.	15760.000	
149	14900.	783.1	1.1	782.1	*****	200	0.
	14935.				SEC.	15810.000	
	14968.				SEC.	15843.000	
150	15000.	787.9	7012.2	*****	*****	200	1.
	15018.				SEC.	15893.000	
	15068.				SEC.	15943.000	
151	15100.	789.0	6.5	782.5	*****	200	0.
152	15200.	789.9	33.5	756.4	*****	200	0.
153	15300.	791.2	74.5	716.8	*****	200	1.
154	15400.	792.6	115.4	677.2	*****	200	1.
155	15500.	793.9	156.3	637.7	*****	200	0.
156	15600.	795.3	197.2	598.1	*****	200	0.
157	15700.	796.6	238.1	558.5	*****	200	1.
158	15800.	797.9	279.0	518.9	*****	200	0.
159	15900.	799.3	319.9	479.4	*****	200	0.
160	16000.	800.6	360.8	439.8	*****	200	1.
161	16100.	802.0	401.7	400.2	*****	200	1.
	16168.				SEC.	17043.000	

INPUT 20N WHERE N IS THE NUMBER OF REACHES AND THEN INPUT THE END  
OF EACH REACH BY INC NO. FOR EXAMPLEC 202 1 161  
A NEGATIVE INC NO. WILL SUPPRESS INTERMEDIATE INC OUTPUT.

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HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977  
ERROR CORR - 01  
MODIFICATION - 50,51,52  
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