Spook Hill ADMP Update

Flood Control District of Maricopa County

Appendix B
Volume 1

Level I - Hydrology

(1999 - 03/10/2000)

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Spook Hill Area Drainage Master Plan Update

Flood Control District of Maricopa County

List of Appendices

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Appendix A

Volume 1	HEC-1 Modeling Input Data & Output Files – Level III
Volume 2	SCS TR-20 Hydrology Analysis
Volume 3	TR-20 Hydrology Analysis
Volume 4	Design Alternative Analysis – Level I
Volume 5	Design Alternative Analysis – Level II
Volume 6	No-Action/Non-Structural Alternative Analysis
Volume 7	Conveyance Material Analysis
Volume 8	Hydraulics
Volume 9	Red Mountain Freeway Crude Cost Estimates

Appendix B

Volume 1	Level I – Hydrology (1999 – 03/10/2000)
Volume 2	Level I – Hydrology (03/10/2000 – 05/11/2000)
Volume 3	Level I – Hydrology (05/11/2000 – 06/19/2000)
Volume 4	Level I – Hydrology (06/19/2000 – 07/17/2000)
Volume 5	Level I – Hydrology (07/18/2000 – 07/27/2000)
Volume 6	Level I – Hydrology (12/06/2000)
Volume 7A	HEC-1 Modeling Output Files (Level II)
Volume 7B	HEC-1 Modeling Output Files (Level II)
Volume 7C	HEC-1 Modeling Output Files (Level II)

Registered Professional Engineer (Civil)
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FILE AND OPTION CROSS REFERENCE INDEX

McDowell Road alone

Option Name	Other Names Used	Description
MD1E	1A	This configuration is not modeled in HEC-1 as yet. Trapezoidal Earthen Channel with vertical drops. No storm drain system in Oak St. Two basins
MD1C	2A	This configuration is not modeled in HEC-1 as yet. Trapezoidal concrete channel with vertical drops. No basin at Oak St. & Hawes Rd. No storm drain system in Oak St. Two basins
MD2E	1B; S24CE17.dat Option 31	Based on S24CE10 a old 100Yr 24Hr Event since updated several times. Trapezoidal earthen channel with vertical drops. No storm drain in Oak St. west of Hawes Rd. Three basins
MD2C	2B	This configuration is not modeled in HEC-1 with concrete "n" values as of yet. Trapezoidal concrete channel with vertical drops. No storm drain in Oak St. west of Hawes Rd. Three basins
MD3E	1C; SPHFUAL2.dat Option 14	Based on obsolete 100Yr 24Hr event. More current Q's from combination with Pass Mtn. modeled but not applicable here. Trapezoidal earthen channel with vertical drops. Storm drain in Oak St. and McDowell Rd. Three basins
MD3C	2C	This configuration is not modeled in HEC-1 with concrete "n" values as of yet. Trapezoidal concrete channel with vertical drops. Storm drain in Oak St. & McDowell Rd. Three basins
MD4E	1D; Option 55; Option 56; S24CE46.dat S24CE47.dat	This configuration in not modeled in HEC-1 by itself; However, it was modeled with Pass Mtn. and again with Pass Mtn. & McKellips as a combination run. Trapezoidal earthen channel with verical drops. No storm drain in Oak St. west of Hawes Rd. No basin at 88th St. and McDowell. Two basins
MD4C	2D	This configuration is not modeled in HEC-1. Trapezoidal concrete channel with vertical drops. No storm drain in Oak St. west of Hawes Rd. No basin at 88th St. and McDowell. Two basins

FILE AND OPTION CROSS REFERENCE INDEX CONTINUED

McDowell Road alone

Option Name	Other Names Used	Description
MD5E	1E	This configuration is not modeled in HEC-1. Trapezoidal earthen channel with vertical drops. Storm drain in Oak St. & Hawes Rd. No basin at 88th St. and McDowell. Two basins.
MD5C	2E	This configuration is not modeled in HEC-1. Trapezoidal concrete channel with vertical drops. Storm drain in Oak St. & Hawes Rd. No basin at 88th St. and McDowell. Two basins.
MD6E	1F	This configuration is not modeled in HEC-1. Trapezoidal earthen channel with vertical drops. Southwest channel from Oak St. & Hawes Rd. to McDowell west of Sossaman. Two basins.
MD6C	2F	This configuration is not modeled in HEC-1. Trapezoidal concrete channel with vertical drops. Southwest channel from Oak St. & Hawes Rd. to McDowell west of Sossaman. Two basins.

FILE AND OPTION CROSS REFERENCE INDEX CONTINUED

McDowell Road with Pass Mountain

Option Name	Other Names Used	Description
MD2E PM4	1B; S24CE43.dat Option 52	Based on option 39 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. No storm drain in Oak St. west of Hawes Rd. three basins.
MD2C PM4	2B	This configuration is not modeled in HEC-1 with "n" values for concrete. Trapezoidal concrete channel with vertical drops. No storm drain in Oak St. west of Hawes Rd. Three basins
MD3E PM4	1C; S24CE45.dat Option 54	Based on option 39 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. Storm drain in Oak St. & McDowell Rd. Three basins.
MD3C PM4	2C	This configuration is not modeled in HEC-1 with concrete "n" values as of yet. Trapezoidal concrete channel with vertical drops. storm drain in Oak St. & McDowell Rd. Three basins.
MD4E PM4	1D; S24CE47.dat Option 56	Based on option 39 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. No storm drain in Oak St. west of Hawes Rd. No basin at 88th St. and McDowell. Two basins
MD4C PM4	2C	This configuration is not modeled in HEC-1 with concrete "n" values as of yet. Trapezoidal concrete channel with vertical drops. No Storm drain in Oak St. west of Hawes Rd. No basin at 88th & McDowell. Two basins.

FILE AND OPTION CROSS REFERENCE INDEX CONTINUED

McKellips Road alone

Option Name	Other Names Used	Description
MK1E	1A; S24CE24.dat Option 38	Based on option 24 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. Basin at the NE corner of Ellsworth Rd. & McKellips Rd. One basin.
MK1C	2A	This configuration is not modeled in HEC-1 with "n" values for concrete. Trapezoidal concrete channel with vertical drops. Basin at NE corner of Ellsworth & McKellips Rd. One basin.
MK2E	1B; S24CE15.dat Option 29	Based on option 24 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. Basins at Hawes & Ellsworth Rd. Two basins.
MK2C	2B	This configuration is not modeled in HEC-1 with concrete "n" values as of yet. Trapezoidal concrete channel with vertical drops. Basins at Hawes & Ellsworth Rd. Two basins.
MK3E	1C; S24CE23.dat Option 37	Based on option 24 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. Basin at Hawes Rd. One basin.
MK3C	2C	This configuration is not modeled in HEC-1 as of yet. Trapezoidal concrete channel with vertical drops. Basin at Hawes Rd. One basin.

FILE AND OPTION CROSS REFERENCE INDEX CONTINUED

McKellips Road with Pass Mountain

Option Name	Other Names Used	Description
MK2E PM4	1B; S24CE44.dat Option 53	Based on option 39 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. Basins at Hawes & Ellsworth Rd. Two basins.
MK2E PM4	2B	This configuration is not modeled in HEC-1 with "n" values for concrete. Trapezoidal concrete channel with vertical drops. Basins at Hawes & Ellsworth Rd. Two basins.
MK3E PM4	1B; S24CE46.dat Option 55	Based on option 39 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. Basins at Hawes & Ellsworth Rd. No channel across state land. Two basins.
MK3E PM4	2B	This configuration is not modeled in HEC-1 with concrete "n" values as of yet. Trapezoidal concrete channel with vertical drops. Basins at Hawes & Ellsworth Rd. No channel across state land. Two basins.

FILE AND OPTION CROSS REFERENCE INDEX CONTINUED

Culver Street alone

Option Name	Other Names Used	Description
C1E	1A; S24CE16.dat Option 30	Based on option 24 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. Basin at Hawes Rd. One basin.
C1C	2A	This configuration is not modeled in HEC-1 with "n" values for concrete. Trapezoidal concrete channel with vertical drops. Basin at Hawes Rd. One basin.
C1P	1B	This configuration is not modeled in HEC-1 with "n" values for pipe. Concrete Pipe along entire alignment. Basin at Hawes road. One basin.

FILE AND OPTION CROSS REFERENCE INDEX CONTINUED

Pass Mountain Diversion alone

Option Name	Other Names Used	Description
PM1	PM1; S24CE11.dat Option 25	Based on option 24 an outdated 100yr 24hr event. Earthen channel extending NW of current Pass Mtn. diversion. Additional levee placed upstream in sub-basin 350 to direct flow towards Pass Mtn. diversion.
PM2	PM2; S24CE20.dat Option 34	Based on option 24 an outdated 100yr 24hr event, and PM1 noted above. The removal of the levee placed upstream in sub-basin 350 is the only difference.
PM3	PM3; S24CE21.dat Option 35	Based on option 24 an outdated 100yr 24hr event, and PM2 noted above. Additional earthen channel added extending NW upstream into what was sub-basin 355.
PM4	PM4; S24CE22.dat Option 36; Pass Mountain full diversion.	Based on option 24 an outdated 100yr 24hr event, and PM3 noted above. Additional earthen channel added extending NW upstream into what was sub-basin 370. More current Q's are available in combination model runs mentioned earlier: options 49 - 56 being most current based on option 39 a recently outdated 100yr 24hr storm event model.

INDEX OF HEC-1 OPTIONS

1. Base 24-hr, 100-yr existing condition storm events:

   Index Numbers: 3, 4, 5, 6, 7 are obsolete and modeled prior to county comments. 15 is an update of previous runs to reflect county comments dated 3-30-00. 24 includes all previous runs & updates with additional sub-basin re-delineation. 39 includes all previous model runs. The updates to this model are re-alignment of sub-basins 385 (reduced) & 415 (enlarged), and utilization of split flow analysis results obtained for sub-basins 350 & 385. Options 58 through 60 are variations of 57 which have all of the d-theta values for all sub-basins changed to "dry", "normal", or "wet" respectively.

   Index Number: 57 is the current 100-yr 24-hr event model updated using: 1)No. of hydrograph ordinates increased to 2000; 2) SE, SV and SQ cards for three FRS's updated; 3) Sediment volumes subtracted from storage volumes; 4) Old elevation datum adjusted to NAVD 1988

2. Base 6-hr, 100-yr existing condition storm events:

   Index Numbers: 1, 2 are obsolete and modeled prior to county comments. 16 is an update of previous runs to reflect county comments dated 3-30-00. 27 was an update based on sub-basin redelineation but is no longer current.

   Index Number: 42 is the current 6-hr 100-yr existing condition model and includes all previous runs & updates with additional sub-basin re-delineation. 385 (Reduced) & 415 (Enlarged).

3. McDowell Road Options:

   Index Numbers: 13, 14 are based on 4 an outdated 24-hr, 100-Yr existing condition model since updated several times. 31 utilizes 24, which is no longer the current 24-hr 100-yr existing condition model along with additional collector channels in that area.

   Index Number: 40 and 41 are the latest Mcdowell options utilizing 40, the current 100yr 24hr storm, and RGRCP along certain routings.

INDEX OF HEC-1 OPTIONS

4. McKellips Road Option:

Index Number:	29 is not the current model for McKellips Rd and utilizes 24 which is not the current 24hr 100yr existing condition model.
Index Number:	37 and 38 are the current models for Mckellips Rd. and utilize 24 which is not the current 100-yr 24-hr model.

5. Culver Street Option:

Index Number:	30 is the current model for Culver St. and utilizes 24, which is the current 24-hr 100-yr existing condition model.

6. Pass Mountain Diversion Options:

Index Numbers:	18, 19 are based on 4 an outdated 24-hr, 100- yr existing condition model since updated. 20, 21, 22, 23 are based on 15 an outdated 24-hr 100-yr existing condition model since updated. 25, 34, 35, 36 are based on 24 the most current 24-hr 100-yr existing condition model.
Index Number:	28 is referred to as the current Pass Mountain Option utilizing 24 and 25 with additional levee and further division of sub-basins.

7. Eliminate Spook Hill FRS Options:

Index Numbers:	8, 9, 10, 11, 12 are obsolete and based on 4 an outdated 24-hr 100-yr existing condition model.
Index Number:	17 is the current Eliminate Spook Hill FRS Option utilizing 15 which is an outdated 24-hr 100-yr run that only reflects County comments dated 3-20-00. 17 has not been updated with the current 24-hr 100-yr run.

8. Combinations of various Options listed above:

Index Numbers:	48 through 56 utilize 39 the current 100-yr 24-hr model and are various combinations of Pass Mountain, Mcdowell Rd., and Mckellips Rd. options Options 26, 32, and 33 utilize 24 for their 100yr 24hr storm. Option 24 is no longer the current 100yr 24hr storm.

9. 24-hour, 10-year existing condition storm event

Index Number:	43 utilizes current sub-basin alignment

INDEX OF HEC-1 OPTIONS

10. 6-hour, 10-year existing condition storm event
    Index Number: 44 utilizes current sub-basin alignment

11. 24-hour, 100-year future conditions storm event.
    Index Number: 45 utilizes known future land use and development to reflect built out conditions.

12. 6-hour, 100-year future conditions storm event.
    Index Number: 46 utilizes known future land use and development to reflect built out conditions.

13. 24-hour, 100-year future conditions storm event.
    Index Number: 47 utilizes dummy detention basins within all sub-basins affected by future development.

SPOOK HILL ADMP FILE INDEX

File Directory Location: W:\1999Projects\99989-Spook Hill ADMP Update\Hydrology

	Date	File Name	Description
1.	12/22/99	SPHEXI .LDF	DDMS Existing Conditions 100-Year, 6 hr Storm
2.	1/5/00	SPHEXIRV.DAT	HEC-1 Existing Conditions 100-Year, 6 hr Storm
3.	12/22/99	SPHEX2.LDF	DDMS Existing Conditions 100-Year, 24 hr Storm
4.	1/5/00	SPHEX2RV.DAT	HEC-1 Existing Conditions 100-Year, 24 hr Storm
5.	1/5/00	SPHEXSRV.DAT	HEC-1 Existing Conditions 100-Year, 24 hr Storm Proposed Channels for FRS's, Improved Existing Channels
6.	1/6/00	SPHEX4RV.DAT	HEC-1 Existing Conditions 100-Year, 24 hr Storm 5' Depth of storage within FRS for retention.
7.	1/6/00	SPHEX5RV.DAT	HEC-1 Existing Conditions 100-Year, 24 hr Storm FRS Storage of all Q100 for max. Spook Hill Floodway
8.	1/7/00	SPHEX6RV.DAT	HEC-1 Existing Conditions 100-Year, 24 hr Storm Maintain Apache & Signal FRS & Eliminate Spook Hill FRS Use an improved channel along McDowell Rd.
9.	1/7/00	SPHEX7RV.DAT	HEC-1 Existing Conditions 100-Year, 24 hr Storm Maintain Apache & Signal FRS & Eliminate Spook Hill FRS Add an Offline Basin & maintain Spook Hill Floodway © 3700 cfs Use an improved channel along McDowell Rd.
10.	1/7/00	SPHEX8RV.DAT	HEC-1 Existing Conditions 100-Year, 24 hr Storm Maintain Apache & Signal FRS & Eliminate Spook Hill FRS Add an Offline Basin & maintain Spook Hill Floodway © 2900 cfs Use an improved channel along McDowell Rd.
11.	1/7/00	SPHEX9RV.DAT	HEC-1 Existing Conditions 100-Year, 24 hr Storm Maintain Apache & Signal FRS & Eliminate Spook Hill FRS Offline Basin added in D.A. 455 & Spook Hill Floodway © 2900 cfs No improved channel along McDowell Rd.
12.	1/7/00	SPHX1ORV.DAT	HEC-1 Existing Conditions 100-Year, 24 hr Storm Maintain Apache & Signal FRS & Eliminate Spook Hill FRS Offline Basin added in D.A. 380 & Spook Hill Floodway © 2900 cfs No improved channel along McDowell Rd.
13.	3/9/00	SPHFUAL I .DAT	HEC- I Proposed Conditions 100-Year, 24 hr Storm Detention/Retention Basins 370, 385, 454
14.	3/10/00	SPHFUAL2.DAT	HEC-1 Proposed Conditions 100 yr, 24 hr Storm Natural Channel, Detention/Retention Basins

1

*** O U T P U T D A T A ***

REVISED JUNE 1988 TO UPDATE COMPUTATION OF SHORT-DURATION VALUES

PRECIPITATION FREQUENCY VALUES FOR SPOOK HILL AMDP,

PRIMARY ZONE NUMBER= 7
SHORT-DURATION ZONE NUMBER= 8

OPTION NUMBER 2 --- INPUT OF 12 PRECIP VALUES

POINT VALUES

RETURN PERIOD

DURATION	2-YR	5-YR	10-YR	25-YR	50-YR	100-YR	500-YR
5-MIN	.30	.41	.48	.59	.67	.75	.93
10-MIN	.45	.62	.74	.90	1.02	1.14	1.43
15-MIN	.55	.78	.93	1.14	1.30	1.47	1.84
30-MIN	.72	1.04	1.25	1.54	1.77	1.99	2.50
1-HR	.88	1.29	1.55	1.92	2.20	2.48	3.13
2-HR	.99	1.42	1.71	2.11	2.41	2.72	3.42
3-HR	1.06	1.52	1.82	2.23	2.55	2.87	3.61
6-HR	1.20	1.69	2.02	2.47	2.82	3.17	3.97
12-HR	1.35	1.88	2.24	2.73	3.11	3.49	4.36
24-HR	1.51	2.08	2.46	2.99	3.40	3.81	4.75

* IF YOUR SITE IS IN ARIZONA OR NEW MEXICO, PLEASE CONSULT THE FOLLOWING PAPER FOR REVISED DEPTH-AREA VALUES:
DEPTH-AREA RATIOS IN THE SEMI-ARID SOUTHWEST UNITED STATES
NOAA TECHNICAL MEMORANDUM NWS HYDRO-40
ZEHR AND MYERS
AUGUST 1984

INPUT DATA

```
PROJECT NAME=SPOOK HILL AMDP,
ZONE= 7     SHORT-DURATION ZONE= 8
LATITUDE=    .00     LONGITUDE= 100.00     ELEVATION=     0
  12-VALUE PRECIPITATION OPTION
 PRECIPITATION VALUE:
 1.19      1.68
 2.02      2.50
 2.82      3.15
 1.50      2.10
 2.42      3.02
 3.40      3.80
```

* * * * E N D OF R U N * * * *

SPOOK HILL ADMP EXISTING SUBDIVISION RETENTION VOLUME DETERMINATIONS

		Volume (acre-feet)	
1.	Overlook Subdivision Retention Basin:	---	
2.	Thunder Mountain Retention Basin:	3.5	
3.& 4.	Boulder Mountain Highlands & The Estates At Boulder Mountain Highlands		Total Volume = 321.3 acre-feet
	Retention Basins:		3.5
	Basin 5	3.96	19.1
	Basin 6	2.85	2.87
	Basin 7	2.09	1.37
	Basin 8	2.53	86.3
	Basin 9	1.24	8.65
	Basin 10	1.59	8.03
	Basin 11	1.21	8.46
	Basin 12	1.09	120.5
	Basin 13	1.17	33.1
	Basin 14	1.37	291.88
	TOTAL	19.1	
5.	Falcon Ridge Retention Basins:		
	Basin I	1.02	
	Basin II	1.85	
	TOTAL	2.87	
6.	Marble Creek Retention Basins:		
	Basin I	1.28	
	Basin II	0.09	
	TOTAL	1.37	
7.	Mesa Highlands Retention Basins Total Volume for all Parcels 1-33	86.3	
8.	Gray Fox At Las Sendas Retention Basins:		
	Sub-basin 1	5.31	
	Sub-basin 2	1.86	
	Sub-basin 3	1.48	
	Total	8.65	
9.	Sierra Heights Retention Basins 1-8 Total Volume	8.03	

SPOOK HILL ADMP EXISTING SUBDIVISION RETENTION VOLUME DETERMINATIONS

10. Grandview Estates
    Retention Basins:

Basin 1	4.44
Basin 2	3.75
Basin 3	0.274
TOTAL	8.464

11. Las Sendas Addendum
    Retention Basins:

Basin 18	3.53
Basin 26	12.94
Basin 30	9.67
Basin 34	6.93
Basin 43	4.1
Basin 47	38.5
Basin 56	29.9
Basin 58	14.93
TOTAL	120.5

12. Las Sendas Mountain
    Retention Basins:

Basin 1	3.8
Basin 2	5
Basin 3	8.5
Basin 4	3.3
Basin 5	8.9
Basin 6	3.6
TOTAL	33.1

W:\1999Projects\99989-Spook Hill ADMP Update\Spreadsheets\Hydro-HEC-1\subretvolumecalc.xls

Spook Hill ADMP Weighted Soil Area Calculations

HEC-1 ID/SOILS	SOIL AREA (sq.in.)	AREA (acres)	Weighted Soil Area (acres)	
20		1165.67		
63	8.68	286.94	274.43	
98	4.57	419.65	401.36	
61	0.558	51.24	49.01	
44	4.54	416.90	398.72	
3	0.3	27.55	26.35	
116	0.18	16.53	15.81	
TOTAL		1218.81	1165.67	0.046
40		1429.04		
116	1.38	45.62	46.24	
113	0.744	24.60	24.93	
63	4.681	154.74	156.84	
44	5.53	182.81	185.29	
98	30.02	992.40	1005.86	
3	0.295	9.75	9.88	
TOTAL		1409.92	1429.04	0.013
60		1117.54		
63	6.93	229.09	219.74	
44	9.01	297.85	285.70	
98	17.282	571.31	547.99	
3	1.27	41.98	40.27	
116	0.488	16.13	15.47	
68	0.264	8.73	8.37	
TOTAL		1165.09	1117.54	0.043
80		943.75		
63	0.5425	49.82	49.93	
52	0.116	10.65	10.68	
45	0.62	56.93	57.06	
49	0.876	80.44	80.62	
68	0.14	12.86	12.88	
48	2.14	196.51	196.95	
113	1.04	95.50	95.71	
98	4.78	438.93	439.92	
TOTAL	10.2545	941.64	943.75	0.002

HEC-1 ID/SOILS	SOIL AREA (sq.in.)	AREA (acres)	Weighted Soil Area (acres)	
100		309.75		
98	6.665	220.33	214.47	
44	0.248	8.20	7.98	
48	2.48	81.98	79.80	
3	0.233	7.70	7.50	
TOTAL		318.21	309.75	0.027
120		1409.09		
98	6.183	204.40	201.48	
63	15.4	509.09	501.81	
61	5.26	173.88	171.40	
49	5.38	177.85	175.31	
44	9.61	317.69	313.15	
3	1.41	46.61	45.95	
TOTAL		1429.52	1409.09	0.014
140		382.51		
98	11.23	371.24	371.24	
63	0.341	11.27	11.27	
TOTAL		382.51	382.51	0.000
160		497.54		
63	2.17	71.74	71.22	
61	2.23	73.72	73.19	
115	0.388	12.83	12.73	
98	10.372	342.88	340.40	
TOTAL		501.16	497.54	0.007
180		639.98		
98		640		

Spook Hill ADMP Weighted Soil Area Calculations

HEC-1 ID/SOILS	SOIL AREA (sq.in.)	AREA (acres)	Weighted Soil Area (acres)	
200		1159.31		
63	5.636	517.54	496.25	
61	3.05	280.07	268.55	
98	2.97	272.73	261.51	
44	1.1625	106.75	102.36	
3	0.348	31.96	30.64	
TOTAL		1209.04	1159.31	0.043
220		801.14		
63	2.82	93.22	92.67	
61	8.541	282.35	280.68	
44	7.564	250.05	248.58	
68	0.108	3.57	3.55	
48	1.829	60.46	60.11	
47	0.341	11.27	11.21	
98	3.175	104.96	104.34	
TOTAL		805.88	801.14	0.006
240		663.04		
48	3.193	105.55	105.63	
68	6.11	201.98	202.13	
98	7.33	242.31	242.49	
61	1.905	62.98	63.02	
63	1.504	49.72	49.76	
TOTAL		662.55	663.04	0.001
260		170.88		
44	2.67	88.26	88.11	
98	1.81	59.83	59.73	
3	0.698	23.07	23.03	
TOTAL		171.17	170.88	0.002
280		194.71		
98	1.581	145.18	147.08	
44	0.512	47.02	47.63	
TOTAL		192.19	194.71	0.013

HEC-1 ID/SOILS	SOIL AREA (sq.in.)	AREA (acres)	Weighted Soil Area (acres)	
300		632.62		
63	2.12	70.08	67.84	
61	1.054	34.84	33.73	
68	1.378	45.55	44.10	
98	13.192	436.10	422.17	
44	0.558	18.45	17.86	
118	0.899	29.72	28.77	
115	0.093	3.07	2.98	
48	0.474	15.67	15.17	
TOTAL		653.49	632.62	0.033
320		977.14		
98	10.35	342.15	356.76	
118	5.21	172.23	179.59	
63	3.41	112.73	117.54	
61	1.88	62.15	64.80	
110	0.178	5.88	6.14	
68	3.71	122.64	127.88	
115	2.98	98.51	102.72	
44	0.63	20.83	21.72	
TOTAL		937.12	977.14	0.041
340		927.44		
61	0.295	27.09	26.29	
63	0.7825	71.85	69.72	
68	1.853	170.16	165.11	
98	4.923	452.07	438.66	
3	0.147	13.50	13.10	
115	1.628	149.49	145.06	
113	0.326	29.94	29.05	
44	0.085	7.81	7.57	
118	0.279	25.62	24.86	
110	0.09	8.26	8.02	
TOTAL		955.79	927.44	0.031

Spook Hill ADMP Weighted Soil Area Calculations

HEC-1 ID/SOILS	SOIL AREA (sq.in.)	AREA (acres)	Weighted Soil Area (acres)	
360		850.56		
63	1.442	47.67	47.99	
61	0.403	13.32	13.41	
118	2.601	85.98	86.57	
90	4.96	163.97	165.09	
110	0.434	14.35	14.45	
101	1.13	37.36	37.61	
98	10.09	333.55	335.83	
115	2.09	69.09	69.56	
68	0.945	31.24	31.45	
113	1.46	48.26	48.59	
TOTAL		844.79	850.56	0.007
380		1048.55		
63	3.239	107.07	109.44	
61	1.29	42.64	43.59	
90	5.24	173.22	177.04	
101	2.808	92.83	94.87	
110	0.31	10.25	10.47	
115	1.984	65.59	67.03	
98	8.29	274.05	280.10	
113	4.231	139.87	142.95	
118	1.348	44.56	45.55	
112	2.294	75.83	77.51	
TOTAL		1025.92	1048.55	0.022
400		1091.41		
63	7.688	254.15	250.02	
61	4.39	145.12	142.77	
68	0.372	12.30	12.10	
90	5.828	192.66	189.53	
101	2.262	74.78	73.56	
110	0.883	29.19	28.72	
98	8.15	269.42	265.05	
112	0.744	24.60	24.20	
113	0.713	23.57	23.19	
115	2.53	83.64	82.28	
TOTAL		1109.42	1091.41	0.017

HEC-1 ID/SOILS	SOIL AREA (sq.in.)	AREA (acres)	Weighted Soil Area (acres)	
420		543.14		
90	1.705	56.36	57.73	
68	2.88	95.21	97.52	
110	2.433	80.43	82.38	
118	2.078	68.69	70.36	
98	6.945	229.59	235.15	
TOTAL		530.28	543.14	0.024
455		997.9		
61	1.41	46.61	47.41	
63	2.11	69.75	70.94	
68	14.66	484.63	492.91	
90	2.62	86.61	88.09	
115	7.84	259.17	263.61	
110	0.527	17.42	17.72	
98	0.264	8.73	8.88	
118	0.248	8.20	8.34	
TOTAL		981.12	997.90	0.017
480		467.83		
63	1.29	42.64	43.11	
68	10.43	344.79	348.53	
115	2.28	75.37	76.19	
TOTAL		462.81	467.83	0.011
500		594.93		
63	2.23	204.78	208.27	
61	3.95	362.72	368.91	
113	0.19	17.45	17.75	
TOTAL		584.94	594.93	0.017
350		620.51		
63	3.116	103.01	102.57	
61	3.767	124.53	124.00	
118	9.47	313.06	311.74	
68	1.752	57.92	57.67	
98	0.543	17.95	17.87	
101	0.202	6.68	6.65	
TOTAL		623.14	620.51	0.004

Adjusted Drainage Areas as of 12/4/99

W:\1999Projects\99989-Spook Hill ADMP Update\Spreadsheets\Hydro-HEC-1\Soils12_1_99.xls

Spook Hill ADMP Weighted Soil Area Calculations

440		51.2		
63	0.76	25.12	26.29	
61	0.64	21.16	22.14	
44	0.08	2.64	2.77	
TOTAL		48.93	51.20	0.044
441		6.4		
68	0.12	3.97	3.84	
44	0.08	2.64	2.56	
TOTAL		6.61	6.40	0.033
442		64		
68	--	64.00	64.00	
TOTAL		64.00	64.00	0.000
443		51.2		
63	0.375	12.40	12.87	
68	0.202	6.68	6.93	
44	0.915	30.25	31.40	
TOTAL		49.32	51.20	0.037
444		25.6		
63	0.02	0.66	0.64	
61	0.375	12.40	12.06	
68	0.401	13.26	12.90	
TOTAL		26.31	25.60	0.028
445		121.6		
63	0.13	4.30	4.45	
61	0.196	6.48	6.70	
68	3.23	106.78	110.45	
TOTAL		117.55	121.60	0.033
446		25.6		
68	0.56	18.51	19.37	
44	0.18	5.95	6.23	
TOTAL		24.46	25.60	0.044

447		57.6		
68	1.59	52.56	52.04	
115	0.17	5.62	5.56	
TOTAL		58.18	57.60	0.010
448		28.8		
63	0.326	10.78	10.61	
68	0.559	18.48	18.19	
TOTAL		29.26	28.80	0.016
449		32		
63	0.09	2.98	3.10	
68	0.84	27.77	28.90	
TOTAL		30.74	32.00	0.039
450		44.8		
63	0.17	5.62	5.86	
68	0.97	32.07	33.43	
90	0.16	5.29	5.51	
TOTAL		42.98	44.80	0.041
451		16		
68	--	16.00	16.00	
TOTAL		16.00	16.00	0.000
452		25.6		
63	0.15	4.96	4.80	
68	0.65	21.49	20.80	
TOTAL		26.45	25.60	0.033
453		38.4		
68	--	38.40	38.40	
TOTAL		38.40	38.40	0.000
454		115.2		
63	0.2	6.61	6.84	
68	1.43	47.27	48.88	
90	1.74	57.52	59.48	
TOTAL		111.40	115.20	0.033

Spook Hill ADMP Weighted Soil Area Calculations

456		166.4		
63	2.29	75.70	78.83	
61	1.8	59.50	61.96	
68	0.744	24.60	25.61	
TOTAL		159.80	166.40	0.040
457		121.6		
63	0.28	9.26	9.48	
61	0.77	25.45	26.06	
68	2.35	77.69	79.53	
115	0.193	6.38	6.53	
TOTAL		118.78	121.60	0.023
458		121.6		
63	0.65	21.49	21.41	
61	2.67	88.26	87.94	
68	0.062	2.05	2.04	
115	0.31	10.25	10.21	
TOTAL		122.05	121.60	0.004
459		19.2		
68	0.55	18.18	18.21	
115	0.03	0.99	0.99	
TOTAL		19.17	19.20	0.001
460		89.6		
68	0.87	28.76	29.75	
115	1.75	57.85	59.85	
TOTAL		86.61	89.60	0.033

461		76.8		
63	0.05	1.65	1.59	
61	0.26	8.60	8.29	
68	0.05	1.65	1.59	
115	2.05	67.77	65.33	
TOTAL		79.67	76.80	0.037
462		83.2		
63	0.39	12.89	13.13	
61	0.85	28.10	28.61	
68	1.17	38.68	39.38	
115	0.062	2.05	2.09	
TOTAL		81.72	83.20	0.018

SPOOK HILL ADMP
AGUILA-CAREFREE SOILS
XKSAT - HYDRAULIC CONDUCTIVITY

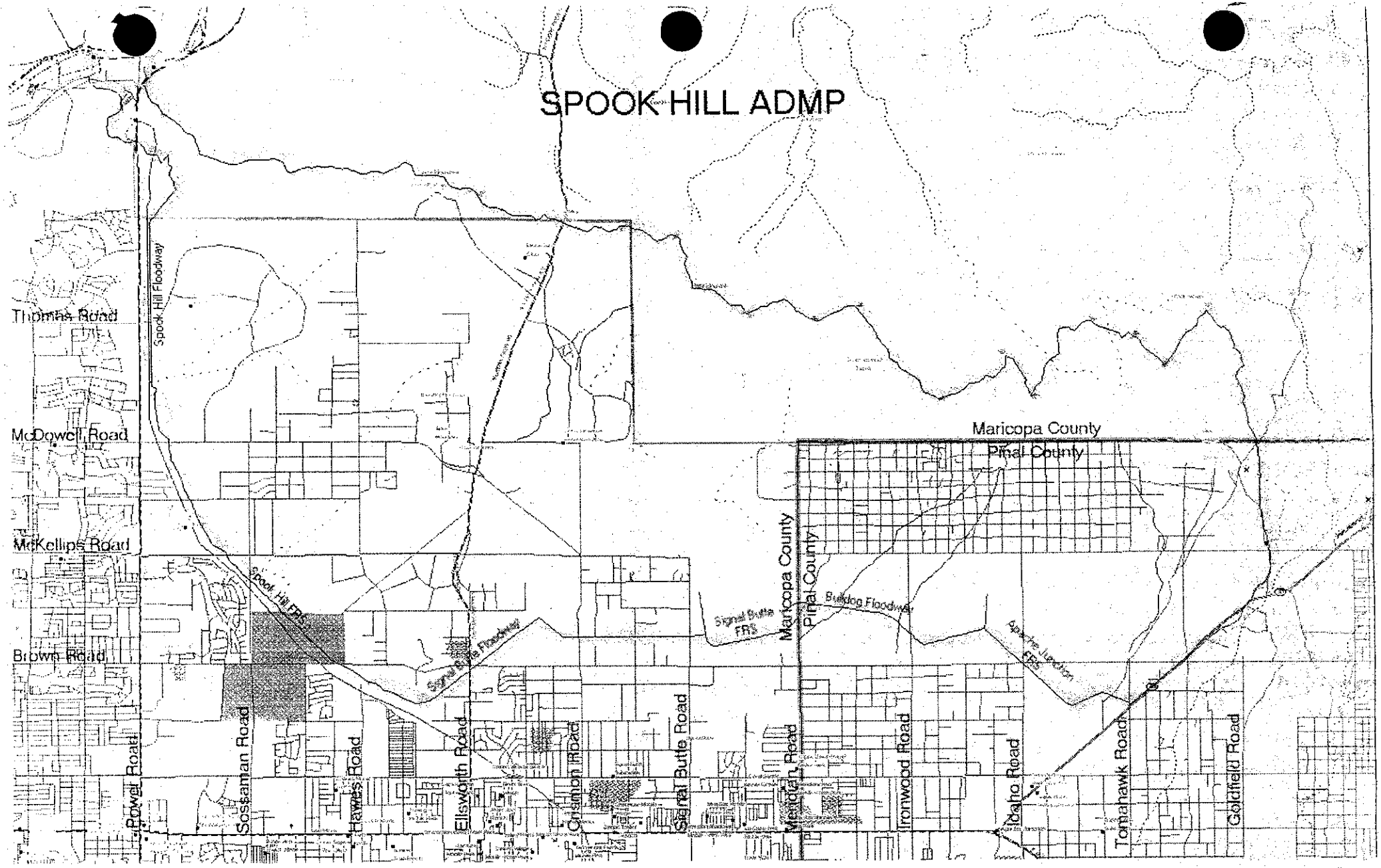
SOIL ID	XKSAT
3	0.58
44	0.03
45	0.03
47	0.11
48	0.06
49	0.06
52	0.16
61	0.15
63	0.14
68	0.63
90	0.39
98	0.37
101	0.28
110	0.13
112	0.39
113	0.39
115	0.39
116	0.23
118	0.42

SPOOK HILL ADMP
HEC-1 EXISTING CONDITIONS
100-YEAR, 6-HOUR STORM
ANALYSIS

This model was developed from the Maricopa County Flood Control District's DDMS program. The family name for the DDMS program is SPHEX1.LDF

File: W:\1999Projects\99989-Spook Hill ADMP Update\Hydrology\HEC-1\SPHEX1.DAT

SPOOK HILL ADMP



HEC-1 Existing Conditions 100-Year, 6hr Storm

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1****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*             JUN   1998               *
*           VERSION 4.1                *
*                                      *
*  RUN DATE   05JAN00  TIME  14:29:39  *
*                                      *
****************************************
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```
****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    HYDROLOGIC ENGINEERING CENTER     *
*          609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616        *
*           (916) 756-1104             *
*                                      *
****************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX        XXX
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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

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1                                    HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

   1          ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
   2          ID   FOR LAS SENDAS, AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
   3          ID
   4          ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
   5          ID
   6          ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
   7          ID   PRECIPITATION VALUES
   8          ID
   9          ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL, SIGNAL
  10          ID   BUTTE, AND BULLDOG FLOODWAY PLANS
  11          ID
  12          ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE :SPHEX1.DAT
  13          ID   SPOOK HILL ADMP MCUHP1  - EXISTING CONDITIONS MODEL - 100YR, 6HR STORM
  14          ID
  15          ID   MODEL UPDATE WITH LAS SENDAS EAST BASINS & ALL RETENTION BASINS DRAINED
  16          ID   BACK INTO THE SYSTEM WITHIN 36 HOURS
  17          ID         BY:JCD1/4/2000        FILE: SPHEX1RV.DAT
  18          ID
              *DIAGRAM
  19          IT       2                    1500
  20          IO       3
  21          IN      15
  22          JD    3.17    0.01
  23          PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
  24          PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
  25          PC    .962    .972    .983    .991   1.000
  26          JD    3.15    0.50
  27          JD    3.11    2.80
  28          PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
  29          PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
  30          PC    .950    .963    .975    .988   1.000
  31          JD    2.92    16.0
  32          PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
  33          PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
  34          PC    .946    .960    .973    .987   1.000
  35          JD    2.57    90.0
  36          PC    .000    .021    .035    .051    .071    .087    .105    .125    .143    .160
  37          PC    .179    .201    .232    .281    .364    .500    .658    .773    .841    .888
  38          PC    .927    .945    .964    .982   1.000
  39          JD    1.81   500.0
  40          PC    .000    .024    .043    .059    .078    .098    .119    .141    .162    .186
  41          PC    .212    .239    .271    .321    .408    .515    .627    .735    .814    .864
  42          PC    .907    .930    .954    .977   1.000
              * DDM   ***** Updated *****

  43          KK      20
  44          KM   SUB-BASIN 20
  45          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
  46          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
  47          KM     L = 4.58  Kb = .037  Adj. Slope =  118.0
  48          BA   1.821
  49          LG    .350    .360   6.600    .140   7.000
  50          UC    .942    .831
              * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  51          KK      40
  52          KM   SUB-BASIN 40
  53          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
  54          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
  55          KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
  56          BA   2.233
  57          LG    .340    .340   4.900    .280   5.000
  58          UC    .583    .316
              * DDM   ***** Updated *****

  59          KK      60
  60          KM   SUB-BASIN 60
  61          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
  62          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
  63          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
  64          BA   1.746
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 65          LG    .330    .350   5.800    .190   9.000
 66          UC    .692    .563
             * DDM   ***** Preserved *****

 67          KK     60C
 68          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 69          HC       3

 70          KK    SR60
 71          KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
 72          KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
 73          KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
 74          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
 75          KO       1       2
 76          RS       1    STOR       0
 77          SV       0       1     100     200     300     400
 78          SQ       0      71      81      87    91.5      94
 79          SE    83.5    93.5      96    97.7      99   99.77

 80          KK     R60
 81          KM        ROUTE FLOW WITHIN BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
 82          RS       2    FLOW      -1
 83          RC    .016    .016    .016    2850    .012
 84          RX       0       1       2     2.1     5.6     5.7       6       7
 85          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Preserved *****

 86          KK    RR60
 87          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
 88          RS       3    FLOW      -1
 89          RC    .016    .016    .016    3500    .005
 90          RX       0       1       2     2.1     7.1     7.2       8       9
 91          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Updated *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 92          KK      80
 93          KM   SUB-BASIN 80
 94          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 95          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
 96          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
 97          BA   1.475
 98          LG    .330    .330   5.600    .210   4.000
 99          UC    .488    .295
             * DDM   ***** Preserved *****

100          KK     80C
101          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
102          HC       2   1.475
             * DDM   ***** Preserved *****

103          KK     R80
104          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
105          RS       1    FLOW      -1
106          RC    .016    .016    .016    1200    .003
107          RX       0       1       2     2.1    37.1    37.2      38      39
108          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             * DDM   ***** Updated *****

109          KK     100
110          KM   SUB-BASIN 100
111          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
112          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
113          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
114          BA    .484
115          LG    .320    .290   5.100    .260   3.000
116          UC    .625    .564
             * DDM   ***** Preserved *****

117          KK    100C
118          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
119          HC       2
             * DDM   ***** Preserved *****

120          KK    R100
121          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
122          RS       1    FLOW      -1
123          RC    .016    .016    .016     940    .005
124          RX       0       1       2     2.1    52.1    52.2      53      54
125          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             * DDM   ***** Updated *****

126          KK     120
127          KM   SUB-BASIN 120
128          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
129          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
130          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
131          BA   2.202
132          LG    .330    .280   6.800    .130  11.000
133          UC    .475    .253
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

134          KK    120C
135          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
136          HC       2
             * DDM   ***** Preserved *****

137          KK    R120
138          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
139          RS       1    FLOW      -1
140          RC    .025    .016    .025    2100    .005
141          RX       0       6      10    10.1    60.1    60.2    74.2    80.2
142          RY       8       5       5       0       0       5       5       8
             * DDM   ***** Updated *****
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143          KK     140
144          KM   SUB-BASIN 140
145          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
146          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
147          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
148          BA    .598
149          LG    .310    .280   4.200    .440   5.000
150          UC    .483    .324
             * DDM   ***** Updated *****

151          KK     160
152          KM   SUB-BASIN 160
153          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
154          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
155          KM     L = 3.18  Kb = .043  Adj. Slope =  299.2
156          BA    .777
157          LG    .340    .340   4.600    .330   5.000
158          UC    .563    .569
             * DDM   ***** Updated *****

159          KK     180
160          KM   SUB-BASIN 180
161          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
162          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
163          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
164          BA   1.000
165          LG    .350    .350   4.150    .430    .000
166          UC    .688    .495
             * DDM   ***** Preserved *****

167          KK    180C
168          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
169          KM   STILL NEED FLOW FROM MOUNTAIN PASS DIVERSION
170          HC       4
             * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                          PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

171          KK     240
172          KM   SUB-BASIN 240
173          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
174          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
175          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
176          BA   1.036
177          LG    .350    .350   4.600    .330   2.000
178          UC    .596    .556
             * DDM   ***** Preserved *****

179          KK    R240
180          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
181          KM   PASS MOUNTAIN DIVERSION
182          RS       2    FLOW      -1
183          RC    .035    .025    .035    2100    .005
184          RX       0       1       2      11      41      50      51      52
185          RY       3       3       3       0       0       3       3       3
             * DDM   ***** Updated *****

186          KK     220
187          KM   SUB-BASIN 220
188          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
189          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
190          KM     L = 3.14  Kb = .040  Adj. Slope =  302.1
191          BA   1.252
192          LG    .350    .350   7.000    .120   3.000
193          UC    .471    .352
             * DDM   ***** Preserved *****

194          KK    220C
195          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
196          HC       2
             * DDM   ***** Preserved *****

197          KK    R220
198          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
199          KM   PASS MOUNTAIN DIVERSION
200          RS       1    FLOW      -1
201          RC    .035    .025    .035    1900    .005
202          RX       0       1       2      14      64      76      77      78
203          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

204          KK     200
205          KM   SUB-BASIN 200
206          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
207          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
208          KM     L = 3.28  Kb = .038  Adj. Slope =  299.9
209          BA   1.811
210          LG    .350    .390   5.800    .190  11.000
211          UC    .488    .307
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

212          KK    200C
213          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
214          HC       2
             * DDM   ***** Preserved *****

215          KK    R200
216          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
217          RS       1    FLOW      -1
218          RC    .035    .025    .035    1300    .005
219          RX       0       1       2      14     114     126     127     128
220          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

221          KK    C180
222          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
223          KM   INCLUDING FLOW FROM MOUNTAIN PASS DIVERSION
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*       1       2
HC        2

KK   SR180
KM   SIGNAL BUTTE FRS DATED 1/28/85
KM   OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
KM   EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
KO       1       2
RS       1    STOR       0
SV       0       1     250     500     750    1060
SQ       0   106.5   125.5   137.5     146     160
SE      90     101   104.5     107     109   112.4
* DDM   ***** Preserved *****

KK    R180
KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
RS       1    FLOW      -1
RC    .035    .025    .035    1500    .003
RX       0       1       2    22.6    38.6    59.2      60      61
RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
* DDM   ***** Updated *****

KK     260
KM   SUB-BASIN 260
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
KM     L =  .81  Kb = .049  Adj. Slope =   68.0
BA    .267
LG    .300    .170   6.800    .160  15.000
UC    .396    .237
* DDM   ***** Preserved *****
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1 HEC-1 INPUT PAGE 7

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LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK    260C
KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
HC       2    .267
* DDM   ***** Preserved *****

KK    R260
KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
RS       2    FLOW      -1
RC    .035    .025    .035    2300    .003
RX       0       1       2    23.4    43.4    64.8      65      66
RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
* DDM   ***** Updated *****

KK     280
KM   SUB-BASIN 280
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
KM     L =  .77  Kb = .049  Adj. Slope =   84.0
BA    .304
LG    .300    .250   5.300    .290  15.000
UC    .371    .197
* DDM   ***** Preserved *****

KK    280C
KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
HC       2
* DDM   ***** Preserved *****

KK    R280
KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
RS       2    FLOW      -1
RC    .035    .025    .035    2500    .003
RX       0       1       2    23.4    43.4    64.8      65      66
RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
* DDM   ***** Updated *****

KK     300
KM   SUB-BASIN 300
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
KM     L = 2.28  Kb = .041  Adj. Slope =  127.0
BA    .988
LG    .340    .320   4.500    .370   7.000
UC    .637    .437
* DDM   ***** Preserved *****

KK    300C
KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
HC       2
* DDM   ***** Preserved *****
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1 HEC-1 INPUT PAGE 8

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LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK    R300
KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
RS       2    FLOW      -1
RC    .035    .025    .035    2200    .003
RX       0       1       2    23.4    55.4    76.8      77      78
RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
* DDM   ***** Preserved *****

KK   RR300
KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
RS       1    FLOW      -1
RC    .016    .016    .016    6050   .0146
RX       0       1       2     2.1    16.1    16.2      17      18
RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
* DDM   ***** Updated *****

KK     320
KM   SUB-BASIN 320
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
KM     L = 4.67  Kb = .039  Adj. Slope =  248.6
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303          BA   1.527
304          LG    .330    .320   4.400    .390   9.000
305          UC    .779    .756
             * DDM   ***** Preserved *****

306          KK    D320
307          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
308          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
309          KM   SIERRA HEIGHTS, FALCON RIDGE, & MARBLE CREEK
310          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *      1
311          DT   BS320   12.27
312          DI       0   10000
313          DQ       0   10000

314          KK   RT320
315          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
316          DR   BS320

317          KK   SR320
318          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
319          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *      1
320          RS       1    STOR       0
321          SV       0     .01    12.3
322          SQ       0     4.2     4.2
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  9

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

323          KK    C320
324          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
325          HC       3
             * DDM   ***** Preserved *****

326          KK     340
327          KM   SUB-BASIN 340
328          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
329          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
330          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
331          BA   1.449
332          LG    .280    .280   4.150    .520  21.000
333          UC    .596    .340
             * DDM   ***** Preserved *****

334          KK    D340
335          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
336          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
337          KM   GRANDVIEW ESTATES, BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
338          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *      1
339          DT   BS340      56
340          DI       0   10000
341          DQ       0   10000

342          KK   RT340
343          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
344          DR   BS340

345          KK   SR340
346          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
347          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *      1
348          RS       1    STOR       0
349          SV       0     .01      56
350          SQ       0    18.9    18.9
             * DDM   ***** Preserved *****

351          KK    C340
352          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
353          HC       3
             * DDM   ***** Preserved *****

354          KK     350
355          KM   SUB-BASIN 350
356          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
357          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
358          KM     L = 2.22  Kb = .042  Adj. Slope =  315.0
359          BA    .970
360          LG    .350    .350   4.550    .340   4.000
361          UC    .421    .273
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

362          KK   RR350
363          KM   FROM SUB-BASIN 350 TO SUB-BASIN 360
364          RS      11    FLOW      -1
365          RC     .05    .035     .05   25600    .049
366          RX    1000    1010    1020    1036    1041    1057    1067    1077
367          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Updated *****

368          KK     360
369          KM   SUB-BASIN 360
370          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
371          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
372          KM     L = 4.84  Kb = .042  Adj. Slope =  257.5
373          BA   1.329
374          LG    .300    .300   4.250    .460  12.000
375          UC    .842    .917
             * DDM   ***** Preserved *****

376          KK    D360
377          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
378          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
379          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
380          DT   BS360    28.6
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381          DI       0   10000
382          DQ       0   10000

383          KK   RT360
384          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
385          DR   BS360

386          KK   SR360
387          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
388          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
389          RS       1    STOR       0
390          SV       0     .01    28.6
391          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

392          KK    360C
393          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
394          HC       4
             * DDM   ***** Updated *****

395          KK     380
396          KM   SUB-BASIN 380
397          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
398          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
399          KM     L = 5.05  Kb = .041  Adj. Slope =  255.8
400          BA   1.638
401          LG    .320    .320   4.400    .420   8.000
402          UC    .871    .875
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

403          KK    D380
404          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
405          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
406          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
407          DT   BS380    28.6
408          DI       0   10000
409          DQ       0   10000

410          KK   RT380
411          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
412          DR   BS380

413          KK   SR380
414          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
415          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
416          RS       1    STOR       0
417          SV       0     .01    28.6
418          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

419          KK    380C
420          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
421          HC       3
             * DDM   ***** Updated *****

422          KK     390
423          KM   SUB-BASIN 390
424          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
425          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
426          KM     L = 2.82  Kb = .041  Adj. Slope =  298.1
427          BA   1.089
428          LG    .330    .330   5.200    .260  14.000
429          UC    .467    .347
             * DDM   ***** Preserved *****

430          KK    D390
431          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
432          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
433          KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
             *      1
434          DT   BS390     3.5
435          DI       0   10000
436          DQ       0   10000

437          KK   RT390
438          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
439          DR   BS390
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

440          KK   SR390
441          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
442          KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
443          RS       1    STOR       0
444          SV       0     .01     3.5
445          SQ       0     1.2     1.2

446          KK    390C
447          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
448          HC       2

449          KK   RR390
450          KM   FROM SUB-BASIN 390 TO SUB-BASIN 400
451          RS       6    FLOW      -1
452          RC     .05    .035     .05   14890    .056
453          RX    1000    1010    1020    1036    1041    1057    1067    1077
454          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Updated *****

455          KK     400
456          KM   SUB-BASIN 400
457          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
458          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
459          KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
460          BA    .616
461          LG    .320    .320   3.130    .930   6.000
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462          UC    .700    .488
             * DDM   ***** Preserved *****

463          KK    400C
464          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
465          HC       3
             * DDM   ***** Updated *****

466          KK     420
467          KM   SUB-BASIN 420
468          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
469          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
470          KM     L = 1.91  Kb = .042  Adj. Slope =  120.0
471          BA    .849
472          LG    .310    .270   3.880    .580  12.000
473          UC    .604    .390
             * DDM   ***** Preserved *****

474          KK    D420
475          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
476          KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
477          KM   AND AN ADDITIONAL 29.9acre-feet FOR LAS SENDAS ADDENDUM III
478          KM        MAXIMUM VOLUME DIVERSION = 38.55acre-feet
             *      1
479          DT   BS420   38.55
480          DI       0   10000
481          DQ       0   10000
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

482          KK   RT420
483          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
484          DR   BS420

485          KK   SR420
486          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
487          KM   38.55 ACRE-FEETx43560/36x3600=13cfs
488          RS       1    STOR       0
489          SV       0     .01   38.55
490          SQ       0      13      13
             * DDM   ***** Preserved *****

491          KK    420C
492          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
493          HC       3
             * DDM   ***** Updated *****

494          KK     440
495          KM   SUB-BASIN 440
496          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
497          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
498          KM     L =  .40  Kb = .039  Adj. Slope =  315.0
499          BA    .080
500          LG    .190    .380   6.400    .140  13.000
501          UC    .142    .086

502          KK     R70
503          KM        ROUTE FLOW FROM SUB-BASIN 60 TO C108
504          RS       1    FLOW      -1
505          RC     .05    .035     .05    2250     .08
506          RX    1000    1025    1050    1070    1075    1095    1120    1145
507          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

508          KK     441
509          KM   SUB-BASIN 441
510          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
511          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
512          KM     L =  .28  Kb = .069  Adj. Slope =  315.0
513          BA    .010
514          LG    .300    .250   5.600    .220   5.000
515          UC    .158    .238
             * DDM   ***** Preserved *****

516          KK    C108
517          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60 AND 61A
518          HC       2
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

519          KK    DIV4
520          KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
             *      1
521          DT   SPLIT
522          DI       0      14      40      82     120     154     180
523          DQ       0       7      20      41      60      77      90
             * DDM   ***** Preserved *****

524          KK    R108
525          KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
526          RS       1    FLOW      -1
527          RC     .05    .035     .05    3200      .1
528          RX    1000    1025    1050    1070    1075    1095    1120    1145
529          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

530          KK     442
531          KM   SUB-BASIN 442
532          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
533          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
534          KM     L =  .83  Kb = .055  Adj. Slope =  274.2
535          BA    .100
536          LG    .300    .270   3.290    .770   5.000
537          UC    .296    .306
             * DDM   ***** Preserved *****

538          KK     C67
539          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60, 61 AND 67
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540          HC       2
             * DDM   ***** Preserved *****

541          KK    DIV6
542          KM        OFFLINE BASIN WITH 75 FOOT WEIR SET AT 3 FEET ABOVE BOTTOM OF CHANNEL
543          KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
             *      1
544          DT  BASIN4
545          DI       0      10      32      56   136.6   276.5     454   662.8
546          DQ       0       0       0       0    71.6   202.5     372   572.8

547          KK  RTDIV6
548          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
549          DR  BASIN4

550          KK  RFDIV6
551          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
552          KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
             *      1
553          RS       1    STOR       0
554          SV       0     .01     3.3
555          SQ       0     1.1     1.1
1                                          HEC-1 INPUT                                          PAGE 15

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


556          KK   CDIV6
557          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
558          HC       2
             * DDM   ***** Updated *****

559          KK     443
560          KM   SUB-BASIN 443
561          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
562          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
563          KM     L =  .71  Kb = .050  Adj. Slope =  315.0
564          BA    .080
565          LG    .250    .190   8.000    .080  10.000
566          UC    .208    .208
             * DDM   ***** Preserved *****

567          KK   DIV66
568          KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
569          KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
570          DT   WSH66
571          DI       0      78     100     200
572          DQ       0      78      78      78
             * DDM   ***** Preserved *****

573          KK    R113
574          KM        ROUTE FLOW FROM C113 TO C114
575          RS       1    FLOW      -1
576          RC    .019    .019    .019    1300    .029
577          RX    1000    1004    1008    1012    1018    1022    1026    1030
578          RY      17   15.33   12.67      10      10   12.67   15.33      17
             * DDM   ***** Preserved *****

579          KK    C114
580          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
581          HC       2
             * DDM   ***** Updated *****

582          KK     444
583          KM   SUB-BASIN 444
584          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
585          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
586          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
587          BA    .040
588          LG    .130    .350   4.450    .320   1.000
589          UC    .125    .095
             * DDM   ***** Preserved *****

590          KK     R58
591          KM        ROUTE FLOW FROM SUB-BASIN 58 TO C107
592          RS       1    FLOW      -1
593          RC     .05    .035     .05    2370   .0516
594          RX    1000    1010    1020    1050    1055    1085    1095    1105
595          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Updated *****
1                                          HEC-1 INPUT                                          PAGE 16

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


596          KK     445
597          KM   SUB-BASIN 445
598          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
599          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
600          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
601          BA    .190
602          LG    .170    .320   3.470    .590   3.000
603          UC    .208    .143
             * DDM   ***** Preserved *****

604          KK    C107
605          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 58 AND 59
606          HC       2
             * DDM   ***** Preserved *****

607          KK    R107
608          KM        ROUTE FLOW FROM C107 TO C109
609          RS       1    FLOW      -1
610          RC     .05    .035     .05     700   .0516
611          RX    1000    1010    1020    1050    1055    1085    1095    1105
612          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

613          KK    RTB2
614          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
615          DR   SPLIT
             * DDM   ***** Preserved *****
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616          KK  RSPLIT
617          KM        ROUTE FLOW FROM SPLIT TO C109
618          RS       1    FLOW      -1
619          RC     .05    .035     .05     800     .05
620          RX    1000    1025    1050    1070    1075    1095    1120    1145
621          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

622          KK     446
623          KM   SUB-BASIN 446
624          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
625          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
626          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
627          BA    .040
628          LG    .270    .250   4.500    .400  19.000
629          UC    .200    .209
             * DDM   ***** Preserved *****

630          KK    C109
631          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
632          HC       3
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                    PAGE 17

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

633          KK    DIV5
634          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
635          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
636          DT  WSH404
637          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
638          DQ       0      35      35      35      35      35      35      35
             * DDM   ***** Preserved *****

639          KK    R109
640          KM        ROUTE FLOW FROM C109 TO C110
641          RS       1    FLOW      -1
642          RC    .019    .019    .019    3080     .05
643          RX   .1000    1005    1010    1015    1025    1030    1035    1040
644          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
             * DDM   ***** Updated *****

645          KK     447
646          KM   SUB-BASIN 447
647          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
648          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
649          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
650          BA    .090
651          LG    .250    .270   3.350    .870  30.000
652          UC    .225    .158
             * DDM   ***** Preserved *****

653          KK   RT404
654          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
655          DR  WSH404
             * DDM   ***** Preserved *****

656          KK    R404
657          KM        ROUTE FLOW FROM C110 TO C110
658          RS       5    FLOW      -1
659          RC    .019    .019    .019    3540     .03
660          RX    1000    1012    1016    1020    1025    1029    1033    1045
661          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

662          KK    C110
663          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 62 AND C109
664          HC       3
             * DDM   ***** Preserved *****

665          KK    R110
666          KM        ROUTE FLOW FROM C110 TO C115
667          RS       1    FLOW      -1
668          RC    .019    .019    .019     580   .0291
669          RX    1000    1012    1016    1020    1035    1039    1043    1055
670          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                    PAGE 18

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

671          KK    C115
672          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
673          HC       2
             * DDM   ***** Preserved *****

674          KK    R115
675          KM        ROUTE FLOW FROM C115 TO C119
676          RS       1    FLOW      -1
677          RC    .019    .019    .019    2125    .029
678          RC    .019    .019    .019     580   .0291
679          RX    1000    1012    1016    1020    1035    1039    1043    1055
680          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Updated *****

681          KK     448
682          KM   SUB-BASIN 448
683          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
684          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
685          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
686          BA    .045
687          LG    .170    .310   4.200    .390  11.000
688          UC    .142    .109
             * DDM   ***** Updated *****

689          KK     449
690          KM   SUB-BASIN 449
691          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
692          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
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693          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
694          BA    .050
695          LG    .260    .280   3.500    .640   6.000
696          UC    .179    .145
             * DDM   ***** Preserved *****

697          KK   C6364
698          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 63 AND 64
699          HC       2
             * DDM   ***** Preserved *****

700          KK   R6364
701          KM        ROUTE FLOW FROM DIVERSIONS 63 AND 64 TO C116
702          RS       5    FLOW      -1
703          RC     .05    .035     .05    4375   .0333
704          RX    1000    1027    1053    1080    1090    1117    1143    1170
705          RY      15   13.33   11.67      10      10   11.67   13.33      15
             * DDM   ***** Updated *****

706          KK     450
707          KM   SUB-BASIN 450
708          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
709          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
710          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
711          BA    .070
712          LG    .340    .350   3.630    .570   4.000
1                                        HEC-1 INPUT                                          PAGE 19

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

713          UC    .346    .455
             * DDM   ***** Updated *****

714          KK     451
715          KM   SUB-BASIN 451
716          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
717          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
718          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
719          BA    .025
720          LG    .340    .340   3.290    .750   3.000
721          UC    .321    .547
             * DDM   ***** Preserved *****

722          KK    RT66
723          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
724          DR   WSH66
             * DDM   ***** Updated *****

725          KK     452
726          KM   SUB-BASIN 452
727          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
728          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
729          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
730          BA    .040
731          LG    .260    .280   3.700    .550   9.000
732          UC    .188    .184
             * DDM   ***** Preserved *****

733          KK   C6566
734          KM        COMBINE HYDROGRAPHS FROM DIVERSIONS 65 AND 66
735          HC       2
             * DDM   ***** Preserved *****

736          KK   R6566
737          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
738          RS       2    FLOW      -1
739          RC     .05    .035     .05    2435   .0282
740          RX    1000    1045    1090    1150    1160    1220    1265    1310
741          RY      25      23      20      10      10      20      23      25
             * DDM   ***** Preserved *****

742          KK    C116
743          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 68 AND 69 AND DIVERTED FLOWS
744          KM        FROM SUB-BASINS 63, 64, 65 AND 66
745          HC       4
             * DDM   ***** Preserved *****

746          KK  BASIN5
747          KM        RESERVOIR WITHIN PARCEL 31, 2-48 INCH PIPES AT OUTFALL
748          KM        BASIN 5 FEET DEEP -  OVERTOPPING AT 5'
749          RS       1    ELEV       0
750          SV       0     4.5     9.9   12.06
751          SQ       0      69     190     250
752          SE       0     2.5       5       6
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 20

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

753          KK    R116
754          KM        ROUTE FLOW FROM C116 TO C118
755          RS       3    FLOW      -1
756          RC     .05    .035     .05    1300   .0333
757          RX    1000    1100    1200    1300    1320    1420    1520    1620
758          RY      13      12      11      10      10      11      12      13
             * DDM   ***** Updated *****

759          KK     453
760          KM   SUB-BASIN 453
761          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
762          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
763          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
764          BA    .060
765          LG    .290    .300   3.290    .820  18.000
766          UC    .321    .337
             * DDM   ***** Preserved *****

767          KK    C117
768          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 70 AND C115
769          HC       2
             * DDM   ***** Preserved *****
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770          KK    C118
771          KM        COMBINE HYDROGRAPHS FROM C116 AND C117
772          HC       2
             * DDM   ***** Preserved *****

773          KK    R118
774          KM        ROUTE FLOW FROM C118 TO C119
775          RS       1    FLOW      -1
776          RC    .019    .019    .019    1500    .024
777          RX    1000    1012    1016    1020    1035    1039    1043    1055
778          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

779          KK    DIV7
780          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE, FLOWS ENTER BASIN OVER
781          KM        60' WEIR SET AT 1.5' ABOVE THE CHANNEL BOTTOM
             *      1
782          DT  BASIN6
783          DI       0    20.4    76.9   176.4   383.8   696.7  1105.8  1611.6
784          DQ       0       0       0       0    57.3     162   297.6   458.2

785          KK  RTDIV7
786          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
787          DR  BASIN6

788          KK  RFDIV7
789          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
790          KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
791          RS       1    STOR       0
792          SV       0     .01     3.6
793          SQ       0     1.2     1.2
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

794          KK   CDIV7
795          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
796          HC       2
             * DDM   ***** Updated *****

797          KK     454
798          KM   SUB-BASIN 454
799          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
800          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
801          KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
802          BA    .180
803          LG    .300    .310   3.780    .560  14.000
804          UC    .438    .464

805          KK    C119
806          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 71 AND C119
             *      1       2
807          HC       2

808          KK    R454
809          KM   FROM SUB-BASIN 454 TO SUB-BASIN 455
810          RS       8    FLOW      -1
811          RC     .05    .035     .05    6000    .005
812          RX    1000    1010    1020    1036    1041    1057    1067    1077
813          RY      15    14.5      14      10      10      14    14.5      15

814          KK     455
815          KM   SUB-BASIN 455
816          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
817          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
818          KM     L = 2.92  Kb = .039  Adj. Slope =  269.2
819          BA   1.559
820          LG    .280    .270   3.850    .590  22.000
821          UC    .517    .325

822          KK    D455
823          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
824          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
825          KM   FOR BASIN #: 30,34,43,47&58
826          KM        MAXIMUM VOLUME DIVERSION = 74.1 acre-feet
             *      1
827          DT   BS455    74.1
828          DI       0   10000
829          DQ       0   10000

830          KK   RT455
831          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
832          DR   BS455
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

833          KK   SR455
834          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
835          KM    74.1 ACRE-FEETx43560/36x3600=25cfs
836          RS       1    STOR       0
837          SV       0     .01    74.1
838          SQ       0      25      25

839          KK    C455
840          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
841          HC       2

842          KK    455C
843          KM   HYDROGRAPH COMBINATION AT THE END OF THE SPOOK HILL FRS
             *      1       2
844          HC       3

845          KK   SR440
846          KM   SPOOK HILL FRS PLANS DATED 6/15/77
847          KM   OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
848          KM   EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
849          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
850          KO       1       2
851          RS       1    STOR       0
852          SV       0      10     100     300     500     680
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853          SQ       0     640     720     780     825     860
854          SE      66    77.5      79    80.2    81.2      82

855          KK   RR455
856          KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
857          RS       9    FLOW      -1
858          RC    .035    .025    .035    9200    .002
859          RX       0       1       2      28      58      84      85      86
860          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5

861          KK     456
862          KM   SUB-BASIN 456
863          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
864          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
865          KM     L =  .94  Kb = .045  Adj. Slope =  315.0
866          BA    .260
867          LG    .300    .380   5.600    .200  12.000
868          UC    .237    .154

869          KK    DIV1
870          KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
871          KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
             *      1
872          DT  BASIN1
873          DI       0    24.4    70.8   132.2   194.1   281.1   415.5   571.9   753.2
874          DQ       0       0       0       0       0    57.3     162   297.6   458.2
1                                          HEC-1 INPUT                                          PAGE 23

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

875          KK    DIV2
876          KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
877          KM        WASHES THAT DRAIN TO THE WEST, SOUTHERN WASHES FED BY 30" AND 18" PIPE
878          DT    WA30
879          DI       0    24.4    70.8   132.2   194.1   223.8   253.5  274.25     295
880          DQ       0     8.4    24.8    40.2    52.1    57.8    63.5    67.3      71

881          KK    R456
882          KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
883          RS       3    FLOW      -1
884          RC     .05    .035     .05    3800    .044
885          RX    1000    1010    1020    1036    1041    1057    1067    1077
886          RY   14.88   14.44      14      10      10      14   14.44   14.88

887          KK     457
888          KM   SUB-BASIN 457
889          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
890          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
891          KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
892          BA    .190
893          LG    .270    .330   3.950    .460   6.000
894          UC    .262    .218

895          KK    C101
896          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
897          HC       2

898          KK    DIV3
899          KM        RESERVOIR AT THE EDGE OF THE PROPERTY, FLOW FROM 10' WIDE CHANNEL
900          KM        DIVERTED INTO OFFLINE BASIN OVER A 150' WEIR SET AT 0.75 FEET
901          KM        ABOVE CHANNEL
             *      1
902          DT  BASIN2
903          DI       0      18    59.3   121.6   255.8   454.1   703.1   998.3  1338.4
904          DQ       0       0       0       0    50.6   143.2   263.1     405     566

905          KK  RTDIV3
906          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
907          DR  BASIN2

908          KK  RFDIV3
909          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
910          KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
911          RS       1    STOR       0
912          SV       0     .01       5
913          SQ       0     1.7     1.7

914          KK   CDIV3
915          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
916          HC       2
1                                          HEC-1 INPUT                                          PAGE 24

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

917          KK    R101
918          KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
919          RS       1    FLOW      -1
920          RC     .05    .035     .05    1450     .05
921          RX    1000    1010    1020    1036    1041    1057    1067    1077
922          RY      15    14.5      14      10      10      14    14.5      15

923          KK     458
924          KM   SUB-BASIN 458
925          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
926          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
927          KM     L =  .76  Kb = .048  Adj. Slope =  299.0
928          BA    .190
929          LG    .290    .330   5.800    .190   6.000
930          UC    .221    .143

931          KK    C103
932          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
933          HC       2

934          KK    R103
935          KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
936          RS       1    FLOW      -1
937          RC     .05    .035     .05     900     .03
938          RX    1000    1010    1020    1030    1050    1060    1070    1080
939          RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
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 940          KK    RT30
 941          KM       RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
 942          DR    WA30

 943          KK     R30
 944          KM       ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
 945          RS       2    FLOW      -1
 946          RC     .05    .035     .05    1630     .05
 947          RX    1000    1010    1020    1036    1041    1057    1067    1077
 948          RY      15    14.5      14      10      10      14    14.5      15

 949          KK   RTB1
 950          KM       RETRIEVE DIVERTED FLOW FROM BASIN 1
              *      1       2
 951          DR  BASIN1

 952          KK      B1
 953          KM       ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
 954          KM       FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
              *      1       2
 955          RS       1    STOR       0
 956          SV       0      .7     1.4     2.3     2.7     3.2     3.5     3.7    3.95     4.2
 957          SQ       0       5      16      28    32.5      37      94     159     255     375
 958          SE       0       1       2       3     3.5       4     4.3     4.5    4.75       5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 959          KK     RB1
 960          KM       ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
 961          RS       1    FLOW      -1
 962          RC     .05    .035     .05    1720     .05
 963          RX    1000    1010    1020    1036    1041    1057    1067    1077
 964          RY      15    14.5      14      10      10      14    14.5      15

 965          KK    CDIV
 966          KM       COMBINE FLOWS FROM WA30 AND BASIN 1
 967          HC       2     .12

 968          KK     459
 969          KM   SUB-BASIN 459
 970          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 971          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 972          KM     L =  .35  Kb = .052  Adj. Slope =  251.6
 973          BA    .030
 974          LG    .220    .300   3.330    .710   8.000
 975          UC    .179    .175

 976          KK     C52
 977          KM       COMBINE FLOWS FROM SUB-BASIN 52, WA30 AND BASIN 1
 978          HC       2

 979          KK     R52
 980          KM       ROUTE FLOW FROM SUBBASIN 52 TO C102
 981          RS       1    FLOW      -1
 982          RC     .05    .035     .05    2000     .05
 983          RX    1000    1010    1020    1036    1041    1057    1067    1077
 984          RY      15    14.5      14      10      10      14    14.5      15

 985          KK     460
 986          KM   SUB-BASIN 460
 987          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 988          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
 989          KM     L =  .62  Kb = .058  Adj. Slope =  194.0
 990          BA    .140
 991          LG    .250    .260   3.740    .690  27.000
 992          UC    .271    .182

 993          KK    C102
 994          KM       COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
 995          HC       2

 996          KK  BASIN3
 997          KM       RESERVOIR AT CLUBHOUSE LOCATION, 1-30 INCH PIPE AT OUTFALL
 998          KM       BOTTOM OF BASIN AT 6 FEET ABOVE 0 ELEVATION
 999          RS       1    ELEV       0
1000          SA       0       0       0     .21    1.15       2    2.12    2.31    2.65    2.66
1001          SE       0     2.5       6       7     7.5       8       9    10.5    12.5    13.5
1002          SQ       0      22      51      57    59.5      62      67      73      81     160
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1003          KK      R3
1004          KM       ROUTE FLOW FROM C102 to C106
1005          RS       3    FLOW      -1
1006          RC     .05     .03     .05    2750   .0375
1007          RX    1000    1010    1020    1052    1086    1118    1128    1138
1008          RY    19.2    18.4      18      10      10      18    18.4    19.2

1009          KK     461
1010          KM   SUB-BASIN 461
1011          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1012          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1013          KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1014          BA    .120
1015          LG    .270    .250   4.250    .450  21.000
1016          UC    .304    .285

1017          KK    C104
1018          KM       COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1019          HC       2

1020          KK    C106
1021          KM       COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1022          HC       2

1023          KK    R106
1024          KM       ROUTE FLOW FROM C106 TO C49
1025          RS       2    FLOW      -1
1026          RC     .05    .035     .05    3950    .033
```

```
1027          RX    1000    1010    1020    1030    1050    1060    1070    1080
1028          RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16

1029          KK     462
1030          KM   SUB-BASIN 462
1031          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1032          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1033          KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1034          BA    .301
1035          LG    .300    .330   5.300    .240  12.000
1036          UC    .246    .151

1037          KK     C56
1038          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
              *      1       2
1039          HC       2

1040          KK     480
1041          KM   SUB-BASIN 480
1042          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1043          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1044          KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1045          BA    .731
1046          LG    .270    .270   3.580    .730  27.000
1047          UC    .367    .169
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1048          KK    D480
1049          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1050          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1051          KM   FOR BASIN #: 18 & 26
1052          KM       MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
              *      1
1053          DT   BS480    16.5
1054          DI       0   10000
1055          DQ       0   10000

1056          KK   RT480
1057          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1058          DR   BS480

1059          KK   SR480
1060          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1061          KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1062          RS       1    STOR       0
1063          SV       0     .01    16.5
1064          SQ       0     5.6     5.6

1065          KK    C480
1066          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1067          HC       2

1068          KK    480C
1069          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1070          HC       3    2.09

1071          KK   RR480
1072          KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
1073          RS       2    FLOW      -1
1074          RC    .025    .025    .025    6500     .05
1075          RX       0       1       2      28      58      84      85      86
1076          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5

1077          KK     500
1078          KM   SUB-BASIN 500
1079          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1080          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
1081          KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
1082          BA    .930
1083          LG    .350    .400   6.000    .170   9.000
1084          UC    .471    .378

1085          KK    500C
1086          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1087          KO       1
1088          HC       2    2.84
1089          ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  43         20
             .
             .
  51         .          40
             .           .
             .           .
  59         .           .          60
             .           .           .
             .           .           .
  67       60C.......................
             V
             V
  70      SR60
             V
             V
  80       R60
             V
             V
  86      RR60
             .
             .
  92         .          80
             .           .
             .           .
 100       80C............
             V
             V
 103       R80
             .
             .
 109         .         100
             .           .
             .           .
 117      100C............
             V
             V
 120      R100
             .
             .
 126         .         120
             .           .
             .           .
 134      120C............
             V
             V
 137      R120
             .
             .
 143         .         140
             .           .
             .           .
 151         .           .         160
             .           .           .
             .           .           .
 159         .           .           .         180
             .           .           .           .
             .           .           .           .
 167      180C...................................
             .
             .
 171         .         240
             .           V
             .           V
 179         .        R240
             .           .
             .           .
 186         .           .         220
             .           .           .
             .           .           .
 194         .        220C............
             .           V
             .           V
 197         .        R220
             .           .
             .           .
 204         .           .         200
             .           .           .
             .           .           .
 212         .        200C............
             .           V
             .           V
 215         .        R200
             .           .
             .           .
 221      C180............
             V
             V
 225     SR180
             V
             V
 235      R180
             .
             .
 241         .         260
             .           .
             .           .
 249      260C............
             V
             V
 252      R260
             .
             .
 258         .         280
             .           .
             .           .
 266      280C............
             V
```

```
            V
269       R280
            .
            .
275         .         300
            .           .
            .           .
283       300C............
            V
            V
286       R300
            V
            V
292      RR300
            .
            .
298         .         320
            .           .
            .           .
311         .           .-------->   BS320
306         .       D320
            .           .
            .           .
316         .           .          .<--------   BS320
314         .           .      RT320
            .           .          V
            .           .          V
317         .           .      SR320
            .           .          .
            .           .          .
323       C320......................
            .
            .
326         .         340
            .           .
            .           .
339         .           .-------->   BS340
334         .       D340
            .           .
            .           .
344         .           .          .<--------   BS340
342         .           .      RT340
            .           .          V
            .           .          V
345         .           .      SR340
            .           .          .
            .           .          .
351       C340......................
            .
            .
354         .         350
            .           V
            .           V
362         .       RR350
            .           .
            .           .
368         .           .         360
            .           .          .
            .           .          .
380         .           .          .-------->   BS360
376         .           .       D360
            .           .          .
            .           .          .
385         .           .          .          .<--------   BS360
383         .           .          .      RT360
            .           .          .          V
            .           .          .          V
386         .           .          .      SR360
            .           .          .          .
            .           .          .          .
392       360C.................................
            .
            .
395         .         380
            .           .
            .           .
407         .           .-------->   BS380
403         .       D380
            .           .
            .           .
412         .           .          .<--------   BS380
410         .           .      RT380
            .           .          V
            .           .          V
413         .           .      SR380
            .           .          .
            .           .          .
419       380C......................
            .
            .
422         .         390
            .           .
            .           .
434         .           .-------->   BS390
430         .       D390
            .           .
            .           .
439         .           .          .<--------   BS390
437         .           .      RT390
            .           .          V
            .           .          V
440         .           .      SR390
            .           .          .
            .           .          .
446         .       390C............
            .           V
            .           V
449         .       RR390
            .           .
            .           .
455         .           .         400
            .           .          .
            .           .          .
```

```
463     400C.......................
          .
466       .        420
          .          .
          .          .
479       .          .-------->   BS420
474       .       D420
          .          .
          .          .
484       .          .            .<--------   BS420
482       .          .       RT420
          .          .          V
          .          .          V
485       .          .       SR420
          .          .            .
          .          .            .
491     420C.......................
          .
          .
494       .        440
          .          V
          .          V
502       .        R70
          .          .
          .          .
508       .          .         441
          .          .           .
          .          .           .
516       .       C108............
          .          .
          .          .
521       .          .-------->   SPLIT
519       .       DIV4
          .          V
          .          V
524       .       R108
          .          .
          .          .
530       .          .         442
          .          .           .
          .          .           .
538       .        C67............
          .          .
          .          .
544       .          .-------->  BASIN4
541       .       DIV6
          .          .
          .          .
549       .          .            .<--------  BASIN4
547       .          .      RTDIV6
          .          .          V
          .          .          V
550       .          .      RFDIV6
          .          .           .
          .          .           .
556       .      CDIV6............
          .          .
          .          .
559       .          .         443
          .          .           .
          .          .           .
570       .          .           .-------->   WSH66
567       .          .       DIV66
          .          .          V
          .          .          V
573       .          .       R113
          .          .           .
          .          .           .
579       .       C114............
          .          .
          .          .
582       .          .         444
          .          .          V
          .          .          V
590       .          .         R58
          .          .           .
          .          .           .
596       .          .           .        445
          .          .           .          .
          .          .           .          .
604       .          .       C107............
          .          .          V
          .          .          V
607       .          .       R107
          .          .           .
          .          .           .
615       .          .           .           .<--------   SPLIT
613       .          .           .       RTB2
          .          .           .          V
          .          .           .          V
616       .          .           .     RSPLIT
          .          .           .          .
          .          .           .          .
622       .          .           .          .        446
          .          .           .          .          .
          .          .           .          .          .
630       .          .       C109........................
          .          .           .
          .          .           .
636       .          .           .-------->  WSH404
633       .          .       DIV5
          .          .          V
          .          .          V
639       .          .       R109
          .          .           .
          .          .           .
645       .          .           .        447
          .          .           .          .
          .          .           .          .
655       .          .           .          .           .<--------  WSH404
653       .          .           .          .       RT404
          .          .           .          .          V
```

```
                                                   V
656                                              R404
                                                   .
                                                   .
662                                C110.......................
                                     V
                                     V
665                                R110
                                     .
                                     .
671                        C115............
                                V
                                V
674                        R115
                                .
                                .
681                                448
                                     .
                                     .
689                                     .         449
                                     .           .
                                     .           .
697                               C6364............
                                     V
                                     V
700                               R6364
                                     .
                                     .
706                                     .         450
                                     .           .
                                     .           .
714                                     .           .         451
                                     .           .           .
                                     .           .           .
724                                     .           .           .          .<-------   WSH66
722                                     .           .           .       RT66
                                     .           .           .          .
                                     .           .           .          .
725                                     .           .           .          .         452
                                     .           .           .          .           .
                                     .           .           .          .           .
733                                     .           .           .      C6566............
                                     .           .           .          V
                                     .           .           .          V
736                                     .           .           .      R6566
                                     .           .           .          .
                                     .           .           .          .
742                                C116.................................
                                     V
                                     V
746                               BASIN5
                                     V
                                     V
753                                R116
                                     .
                                     .
759                                     .         453
                                     .           .
                                     .           .
767                                C117............
                                     .
                                     .
770                        C118............
                                V
                                V
773                        R118
                                .
                                .
782                        .-------> BASIN6
779                        DIV7
                                .
                                .
787                                     .<-------  BASIN6
785                               RTDIV7
                                     V
                                     V
788                               RFDIV7
                                     .
                                     .
794                       CDIV7............
                                .
                                .
797                                454
                                     .
                                     .
805                        C119............
                                V
                                V
808                        R454
                                .
                                .
814                                455
                                     .
                                     .
827                                     .-------> BS455
822                                D455
                                     .
                                     .
832                                     .           .<-------  BS455
830                                     .       RT455
                                     .           V
                                     .           V
833                                     .       SR455
                                     .           .
                                     .           .
839                                D455............
                                     .
                                     .
842                     455C.......................
                           V
                           V
845                     SR440
                           V
```

```
                V
855        RR455
                .
                .
861             .        456
                .          .
                .          .
872             .          .-------> BASIN1
869             .      DIV1
                .          .
                .          .
878             .          .------->   WA30
875             .      DIV2
                .          V
                .          V
881             .      R456
                .          .
                .          .
887             .          .        457
                .          .          .
                .          .          .
895             .      C101............
                .          .
                .          .
902             .          .-------> BASIN2
898             .      DIV3
                .          .
                .          .
907             .          .          .<-------  BASIN2
905             .          .     RTDIV3
                .          .          V
                .          .          V
908             .          .     RFDIV3
                .          .          .
                .          .          .
914             .     CDIV3............
                .          V
                .          V
917             .      R101
                .          .
                .          .
923             .          .        458
                .          .          .
                .          .          .
931             .      C103............
                .          V
                .          V
934             .      R103
                .          .
                .          .
942             .          .          .<-------   WA30
940             .          .       RT30
                .          .          V
                .          .          V
943             .          .        R30
                .          .          .
                .          .          .
951             .          .          .          .<-------  BASIN1
949             .          .          .       RTB1
                .          .          .          V
                .          .          .          V
952             .          .          .         B1
                .          .          .          V
                .          .          .          V
959             .          .          .        RB1
                .          .          .          .
                .          .          .          .
965             .          .       CDIV............
                .          .          .
                .          .          .
968             .          .          .        459
                .          .          .          .
                .          .          .          .
976             .          .        C52............
                .          .          V
                .          .          V
979             .          .        R52
                .          .          .
                .          .          .
985             .          .          .        460
                .          .          .          .
                .          .          .          .
993             .          .       C102............
                .          .          V
                .          .          V
996             .          .     BASIN3
                .          .          V
                .          .          V
1003            .          .         R3
                .          .          .
                .          .          .
1009            .          .          .        461
                .          .          .          .
                .          .          .          .
1017            .          .       C104............
                .          .          .
                .          .          .
1020            .      C106............
                .          V
                .          V
1023            .      R106
                .          .
                .          .
1029            .          .        462
                .          .          .
                .          .          .
1037            .       C56............
                .          .
                .          .
1040            .          .        480
                .          .          .
                .          .          .
1053            .          .          .------->  BS480
```

```
1048          .           .        D480
              .           .          .
              .           .          .
1058          .           .          .          .<-------   BS480
1056          .           .          .      RT480
              .           .          .          V
              .           .          .          V
1059          .           .          .      SR480
              .           .          .          .
              .           .          .          .
1065          .           .        C480............
              .           .          .
              .           .          .
1068       480C........................
              V
              V
1071      RR480
              .
              .
1077          .         500
              .           .
              .           .
1085       500C............
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             JUN   1998                *
*           VERSION 4.1                 *
*                                       *
*  RUN DATE   04JAN00  TIME  14:42:52   *
*                                       *
*****************************************
```

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

EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
FOR LAS SENDAS, AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS

ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS

A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
PRECIPITATION VALUES

ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL, SIGNAL
BUTTE, AND BULLDOG FLOODWAY PLANS

ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE :SPHEX1.DAT
SPOOK HILL ADMP MCUHP1 - EXISTING CONDITIONS MODEL - 100YR, 6HR STORM

MODEL UPDATE WITH LAS SENDAS EAST BASINS & ALL RETENTION BASINS DRAINED
BACK INTO THE SYSTEM WITHIN 36 HOURS
BY:JCD1/4/2000 FILE: SPHEX1RV.DAT

```
20 IO        OUTPUT CONTROL VARIABLES
                IPRNT          3  PRINT CONTROL
                IPLOT          0  PLOT CONTROL
                QSCAL         0.  HYDROGRAPH PLOT SCALE

21 IN        TIME DATA FOR INPUT TIME SERIES
                JXMIN         15  TIME INTERVAL IN MINUTES
               JXDATE      1    0  STARTING DATE
               JXTIME           0  STARTING TIME

   IT        HYDROGRAPH TIME DATA
                NMIN           2  MINUTES IN COMPUTATION INTERVAL
               IDATE      1    0  STARTING DATE
               ITIME        0000  STARTING TIME
                  NQ        1500  NUMBER OF HYDROGRAPH ORDINATES
              NDDATE      3    0  ENDING DATE
              NDTIME        0158  ENDING TIME
               ICENT          19  CENTURY MARK

          COMPUTATION INTERVAL     .03 HOURS
               TOTAL TIME BASE   49.97 HOURS

      ENGLISH UNITS
           DRAINAGE AREA          SQUARE MILES
           PRECIPITATION DEPTH    INCHES
           LENGTH, ELEVATION      FEET
           FLOW                   CUBIC FEET PER SECOND
           STORAGE VOLUME         ACRE-FEET
           SURFACE AREA           ACRES
           TEMPERATURE            DEGREES FAHRENHEIT

22 JD        INDEX STORM NO. 1
                STRM        3.17  PRECIPITATION DEPTH
                TRDA         .01  TRANSPOSITION DRAINAGE AREA

23 PI          PRECIPITATION PATTERN
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .01       .01       .01
                 .01       .01       .01       .01       .01       .02       .02       .02       .02       .02
                 .02       .02       .04       .06       .06       .06       .06       .06       .06       .06
                 .01       .01       .01       .01       .01       .01       .01       .01       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00

26 JD        INDEX STORM NO. 2
                STRM        3.15  PRECIPITATION DEPTH
                TRDA         .50  TRANSPOSITION DRAINAGE AREA

 0 PI          PRECIPITATION PATTERN
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .01       .01       .01
                 .01       .01       .01       .01       .01       .02       .02       .02       .02       .02
                 .02       .02       .04       .06       .06       .06       .06       .06       .06       .06
                 .01       .01       .01       .01       .01       .01       .01       .01       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
```

27 JD INDEX STORM NO. 3

STRM	3.11	PRECIPITATION DEPTH
TRDA	2.80	TRANSPOSITION DRAINAGE AREA

28 PI PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.03	.03	.03	.03	.03
.03	.03	.03	.03	.03	.03	.03	.03	.03	.03
.02	.02	.02	.02	.02	.02	.02	.01	.01	.01
.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
.01	.01	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

31 JD INDEX STORM NO. 4

STRM	2.92	PRECIPITATION DEPTH
TRDA	16.00	TRANSPOSITION DRAINAGE AREA

32 PI PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.02	.02	.02	.02	.02
.02	.02	.02	.03	.03	.03	.03	.03	.03	.03
.02	.02	.02	.02	.02	.02	.02	.01	.01	.01
.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
.01	.01	.01	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

35 JD INDEX STORM NO. 5

STRM	2.57	PRECIPITATION DEPTH
TRDA	90.00	TRANSPOSITION DRAINAGE AREA

36 PI PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.02	.02	.02	.02	.02
.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
.02	.02	.02	.02	.02	.02	.02	.01	.01	.01
.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

39 JD INDEX STORM NO. 6

STRM	1.81	PRECIPITATION DEPTH
TRDA	500.00	TRANSPOSITION DRAINAGE AREA

40 PI PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	20	1181.	4.70	309.	78.	37.	1.82		
+	HYDROGRAPH AT	40	2109.	4.33	313.	78.	38.	2.23		
+	HYDROGRAPH AT	60	1448.	4.47	290.	73.	35.	1.75		
+	3 COMBINED AT	60C	3705.	4.47	797.	201.	97.	5.80		
+	ROUTED TO	SR60	93.	7.13	93.	91.	82.	5.80		
+	ROUTED TO	R60	93.	7.20	93.	91.	82.	5.80		
+	ROUTED TO	RR60	93.	7.30	93.	91.	82.	5.80		
+	HYDROGRAPH AT	80	1765.	4.27	233.	58.	28.	1.48		
+	2 COMBINED AT	80C	1840.	4.27	321.	150.	112.	1.48		
+	ROUTED TO	R80	1837.	4.30	320.	150.	112.	1.48		
+	HYDROGRAPH AT	100	489.	4.40	83.	21.	10.	.48		
+	2 COMBINED AT	100C	2062.	4.33	385.	165.	120.	1.96		
+	ROUTED TO	R100	2062.	4.33	385.	165.	119.	1.96		
+	HYDROGRAPH AT	120	2829.	4.27	415.	104.	50.	2.20		
+	2 COMBINED AT	120C	4237.	4.30	741.	254.	162.	4.16		
+	ROUTED TO	R120	4225.	4.33	741.	254.	162.	4.16		
+	HYDROGRAPH AT	140	763.	4.27	90.	22.	11.	.60		
+	HYDROGRAPH AT	160	686.	4.37	117.	29.	14.	.78		
+	HYDROGRAPH AT	180	752.	4.47	121.	30.	15.	1.00		
+	4 COMBINED AT	180C	5211.	4.33	935.	302.	185.	6.54		
+	HYDROGRAPH AT	240	837.	4.40	143.	36.	17.	1.04		
+	ROUTED TO	R240	829.	4.47	143.	36.	17.	1.04		
+	HYDROGRAPH AT	220	1557.	4.27	220.	55.	26.	1.25		
+	2 COMBINED AT	220C	1972.	4.37	337.	85.	41.	2.29		
+	ROUTED TO	R220	1959.	4.40	337.	85.	41.	2.29		
+	HYDROGRAPH AT	200	2048.	4.30	298.	75.	36.	1.81		
+	2 COMBINED AT	200C	3422.	4.37	586.	147.	71.	4.10		
+	ROUTED TO	R200	3411.	4.37	586.	147.	71.	4.10		
+	2 COMBINED AT	C180	7626.	4.37	1383.	413.	239.	10.64		
+	ROUTED TO	SR180	142.	6.90	142.	140.	133.	10.64		
+	ROUTED TO	R180	142.	6.93	142.	140.	132.	10.64		
+	HYDROGRAPH AT	260	532.	4.20	58.	15.	7.	.27		
+	2 COMBINED AT	260C	650.	4.20	202.	163.	147.	.27		
+	ROUTED TO	R260	634.	4.27	202.	163.	147.	.27		
+	HYDROGRAPH AT	280	606.	4.17	58.	15.	7.	.30		

2 COMBINED AT	280C	1170.	4.20	255.	176.	153.	.57
ROUTED TO	R280	1143.	4.27	255.	176.	153.	.57
HYDROGRAPH AT	300	917.	4.40	145.	36.	17.	.99
2 COMBINED AT	300C	1718.	4.33	379.	205.	166.	1.56
ROUTED TO	R300	1704.	4.40	378.	205.	165.	1.56
ROUTED TO	RR300	1677.	4.43	378.	205.	165.	1.56
HYDROGRAPH AT	320	923.	4.57	213.	54.	26.	1.53
DIVERSION TO	BS320	515.	4.17	25.	6.	3.	1.53
HYDROGRAPH AT	D320	923.	4.57	191.	48.	23.	1.53
HYDROGRAPH AT	RT320	515.	4.17	25.	6.	3.	1.53
ROUTED TO	SR320	4.	.93	4.	4.	3.	1.53
3 COMBINED AT	C320	2230.	4.50	534.	245.	184.	3.09
HYDROGRAPH AT	340	1445.	4.37	231.	58.	28.	1.45
DIVERSION TO	BS340	1444.	4.33	113.	28.	14.	1.45
HYDROGRAPH AT	D340	1350.	4.47	119.	30.	14.	1.45
HYDROGRAPH AT	RT340	1444.	4.33	113.	28.	14.	1.45
ROUTED TO	SR340	19.	1.17	19.	19.	14.	1.45
3 COMBINED AT	C340	2937.	4.47	618.	279.	205.	4.53
HYDROGRAPH AT	350	1236.	4.23	137.	34.	17.	.97
ROUTED TO	RR350	1101.	4.60	137.	34.	17.	.97
HYDROGRAPH AT	360	717.	4.63	189.	48.	23.	1.33
DIVERSION TO	BS360	683.	4.50	58.	14.	7.	1.33
HYDROGRAPH AT	D360	715.	4.67	135.	34.	16.	1.33
HYDROGRAPH AT	RT360	683.	4.50	58.	14.	7.	1.33
ROUTED TO	SR360	10.	2.50	10.	10.	7.	1.33
4 COMBINED AT	360C	3588.	4.67	786.	327.	230.	6.83
HYDROGRAPH AT	380	840.	4.67	216.	55.	26.	1.64
DIVERSION TO	BS380	766.	4.47	58.	14.	7.	1.64
HYDROGRAPH AT	D380	840.	4.67	161.	40.	19.	1.64
HYDROGRAPH AT	RT380	766.	4.47	58.	14.	7.	1.64
ROUTED TO	SR380	10.	3.03	10.	10.	7.	1.64
3 COMBINED AT	380C	3668.	4.77	876.	357.	246.	8.47
HYDROGRAPH AT	390	1328.	4.27	188.	47.	23.	1.09
DIVERSION TO	BS390	41.	3.53	7.	2.	1.	1.09
HYDROGRAPH AT	D390	1328.	4.27	181.	45.	22.	1.09
HYDROGRAPH AT	RT390	41.	3.53	7.	2.	1.	1.09
ROUTED TO	SR390	1.	.33	1.	1.	1.	1.09
2 COMBINED AT	390C	1330.	4.27	183.	47.	23.	1.09

+	ROUTED TO	RR390	1274.	4.47	183.	47.	23.	1.09
+	HYDROGRAPH AT	400	433.	4.47	70.	17.	8.	.62
+	3 COMBINED AT	400C	4277.	4.67	1012.	391.	263.	10.18
+	HYDROGRAPH AT	420	829.	4.37	123.	31.	15.	.85
+	DIVERSION TO	BS420	829.	4.37	78.	19.	9.	.85
+	HYDROGRAPH AT	D420	506.	4.57	46.	12.	6.	.85
+	HYDROGRAPH AT	RT420	829.	4.37	78.	19.	9.	.85
+	ROUTED TO	SR420	13.	3.37	13.	13.	9.	.85
+	3 COMBINED AT	420C	4183.	4.77	1015.	401.	271.	11.03
+	HYDROGRAPH AT	440	246.	4.03	16.	4.	2.	.08
+	ROUTED TO	R70	238.	4.07	16.	4.	2.	.08
+	HYDROGRAPH AT	441	22.	4.07	2.	0.	0.	.01
+	2 COMBINED AT	C108	259.	4.07	18.	5.	2.	.09
+	DIVERSION TO	SPLIT	130.	4.07	9.	2.	1.	.09
+	HYDROGRAPH AT	DIV4	130.	4.07	9.	2.	1.	.09
+	ROUTED TO	R108	121.	4.10	9.	2.	1.	.09
+	HYDROGRAPH AT	442	136.	4.17	13.	3.	2.	.10
+	2 COMBINED AT	C67	252.	4.13	22.	6.	3.	.19
+	DIVERSION TO	BASIN4	180.	4.13	10.	3.	1.	.19
+	HYDROGRAPH AT	DIV6	72.	4.13	12.	3.	1.	.19
+	HYDROGRAPH AT	RTDIV6	180.	4.13	10.	3.	1.	.19
+	ROUTED TO	RFDIV6	1.	3.90	1.	1.	1.	.19
+	2 COMBINED AT	CDIV6	74.	4.13	13.	4.	2.	.19
+	HYDROGRAPH AT	443	194.	4.07	18.	5.	2.	.08
+	DIVERSION TO	WSH66	78.	3.87	13.	3.	2.	.08
+	HYDROGRAPH AT	DIV66	116.	4.07	6.	1.	1.	.08
+	ROUTED TO	R113	116.	4.10	6.	1.	1.	.08
+	2 COMBINED AT	C114	189.	4.10	18.	5.	3.	.27
+	HYDROGRAPH AT	444	113.	4.03	7.	2.	1.	.04
+	ROUTED TO	R58	105.	4.07	7.	2.	1.	.04
+	HYDROGRAPH AT	445	417.	4.07	27.	7.	3.	.19
+	2 COMBINED AT	C107	521.	4.07	33.	8.	4.	.23
+	ROUTED TO	R107	517.	4.07	33.	8.	4.	.23
+	HYDROGRAPH AT	RTB2	130.	4.07	9.	2.	1.	.09
+	ROUTED TO	RSPLIT	129.	4.07	9.	2.	1.	.09
+	HYDROGRAPH AT	446	86.	4.07	8.	2.	1.	.04
+	3 COMBINED AT	C109	731.	4.07	50.	13.	6.	.27
+	DIVERSION TO	WSH404	35.	3.70	8.	2.	1.	.27

+ HYDROGRAPH AT	DIV5	696.	4.07	42.	11.	5.	.27
+ ROUTED TO	R109	685.	4.10	42.	11.	5.	.27
+ HYDROGRAPH AT	447	193.	4.07	16.	4.	2.	.09
+ HYDROGRAPH AT	RT404	35.	3.70	8.	2.	1.	.27
+ ROUTED TO	R404	35.	3.87	8.	2.	1.	.27
+ 3 COMBINED AT	C110	911.	4.10	66.	17.	8.	.36
+ ROUTED TO	R110	910.	4.10	66.	17.	8.	.36
+ 2 COMBINED AT	C115	1025.	4.10	82.	21.	11.	.63
+ ROUTED TO	R115	1022.	4.10	82.	21.	11.	.63
+ HYDROGRAPH AT	448	123.	4.03	8.	2.	1.	.05
+ HYDROGRAPH AT	449	111.	4.07	7.	2.	1.	.05
+ 2 COMBINED AT	C6364	232.	4.03	15.	4.	2.	.09
+ ROUTED TO	R6364	205.	4.20	15.	4.	2.	.09
+ HYDROGRAPH AT	450	75.	4.20	9.	2.	1.	.07
+ HYDROGRAPH AT	451	22.	4.20	3.	1.	0.	.03
+ HYDROGRAPH AT	RT66	78.	3.87	13.	3.	2.	.08
+ HYDROGRAPH AT	452	84.	4.07	6.	2.	1.	.04
+ 2 COMBINED AT	C6566	162.	4.07	19.	5.	2.	.04
+ ROUTED TO	R6566	156.	4.13	19.	5.	2.	.04
+ 4 COMBINED AT	C116	455.	4.17	46.	12.	6.	.23
+ ROUTED TO	BASIN5	215.	4.47	46.	12.	6.	.23
+ ROUTED TO	R116	214.	4.53	46.	12.	6.	.23
+ HYDROGRAPH AT	453	80.	4.17	9.	2.	1.	.06
+ 2 COMBINED AT	C117	251.	4.50	55.	14.	7.	.29
+ 2 COMBINED AT	C118	1022.	4.13	130.	34.	17.	.92
+ ROUTED TO	R118	1008.	4.13	129.	34.	17.	.92
+ DIVERSION TO	BASIN6	264.	4.13	20.	5.	2.	.92
+ HYDROGRAPH AT	DIV7	744.	4.13	109.	28.	14.	.92
+ HYDROGRAPH AT	RTDIV7	264.	4.13	20.	5.	2.	.92
+ ROUTED TO	RPDIV7	1.	3.90	1.	1.	1.	.92
+ 2 COMBINED AT	CDIV7	745.	4.13	110.	30.	15.	.92
+ HYDROGRAPH AT	454	200.	4.27	29.	7.	3.	.18
+ 2 COMBINED AT	C119	846.	4.17	134.	36.	18.	1.10
+ ROUTED TO	R454	775.	4.43	134.	36.	18.	1.10
+ HYDROGRAPH AT	455	1584.	4.30	244.	61.	29.	1.56
+ DIVERSION TO	BS455	1584.	4.30	149.	37.	18.	1.56
+ HYDROGRAPH AT	D455	1106.	4.57	96.	24.	11.	1.56
+ HYDROGRAPH AT	RT455	1584.	4.30	149.	37.	18.	1.56

+	ROUTED TO	SR455	25.	2.60	25.	25.	18.	1.56
+	2 COMBINED AT	C455	1131.	4.57	121.	49.	29.	1.56
+	3 COMBINED AT	455C	4382.	4.77	1123.	448.	300.	13.68
+	ROUTED TO	SR440	784.	6.30	765.	448.	299.	13.68
+	ROUTED TO	RR455	784.	6.60	764.	448.	297.	13.68
+	HYDROGRAPH AT	456	619.	4.07	49.	12.	6.	.26
+	DIVERSION TO	BASIN1	340.	4.07	16.	4.	2.	.26
+	HYDROGRAPH AT	DIV1	280.	4.07	33.	8.	4.	.26
+	DIVERSION TO	WA30	68.	4.07	9.	2.	1.	.26
+	HYDROGRAPH AT	DIV2	211.	4.07	24.	6.	3.	.26
+	ROUTED TO	R456	209.	4.17	24.	6.	3.	.26
+	HYDROGRAPH AT	457	348.	4.10	29.	7.	3.	.19
+	2 COMBINED AT	C101	554.	4.13	53.	13.	6.	.45
+	DIVERSION TO	BASIN2	191.	4.13	12.	3.	1.	.45
+	HYDROGRAPH AT	DIV3	363.	4.13	40.	10.	5.	.45
+	HYDROGRAPH AT	RTDIV3	191.	4.13	12.	3.	1.	.45
+	ROUTED TO	RFDIV3	2.	3.87	2.	2.	1.	.45
+	2 COMBINED AT	CDIV3	364.	4.13	41.	12.	6.	.45
+	ROUTED TO	R101	361.	4.13	41.	12.	6.	.45
+	HYDROGRAPH AT	458	475.	4.07	35.	9.	4.	.19
+	2 COMBINED AT	C103	774.	4.10	75.	20.	10.	.64
+	ROUTED TO	R103	769.	4.10	75.	20.	10.	.64
+	HYDROGRAPH AT	RT30	68.	4.07	9.	2.	1.	.26
+	ROUTED TO	R30	68.	4.13	9.	2.	1.	.26
+	HYDROGRAPH AT	RTB1	340.	4.07	16.	4.	2.	.26
+	ROUTED TO	B1	288.	4.17	15.	4.	2.	.26
+	ROUTED TO	RB1	257.	4.20	15.	4.	2.	.26
+	2 COMBINED AT	CDIV	325.	4.20	24.	6.	3.	.12
+	HYDROGRAPH AT	459	61.	4.07	4.	1.	1.	.03
+	2 COMBINED AT	C52	363.	4.20	28.	7.	3.	.15
+	ROUTED TO	R52	337.	4.23	28.	7.	3.	.15
+	HYDROGRAPH AT	460	285.	4.10	26.	6.	3.	.14
+	2 COMBINED AT	C102	562.	4.20	53.	14.	7.	.29
+	ROUTED TO	BASIN3	160.	4.50	53.	14.	7.	.29
+	ROUTED TO	R3	158.	4.57	53.	14.	7.	.29
+	HYDROGRAPH AT	461	207.	4.17	23.	6.	3.	.12
+	2 COMBINED AT	C104	272.	4.17	75.	19.	9.	.41
+	2 COMBINED AT	C106	914.	4.13	142.	37.	18.	1.05

+	ROUTED TO	R106	889.	4.20	142.	37.	18.	1.05
+	HYDROGRAPH AT	462	714.	4.10	56.	14.	7.	.30
+	2 COMBINED AT	C56	1322.	4.13	189.	49.	24.	1.35
	HYDROGRAPH AT	480	1252.	4.17	126.	32.	15.	.73
+	DIVERSION TO	BS480	697.	3.97	33.	8.	4.	.73
+	HYDROGRAPH AT	D480	1252.	4.17	93.	23.	11.	.73
+	HYDROGRAPH AT	RT480	697.	3.97	33.	8.	4.	.73
+	ROUTED TO	SR480	6.	.33	6.	6.	4.	.73
+	2 COMBINED AT	C480	1257.	4.17	99.	29.	15.	.73
+	3 COMBINED AT	480C	2243.	4.17	1005.	643.	396.	2.09
+	ROUTED TO	RR480	2216.	4.20	1004.	642.	395.	2.09
+	HYDROGRAPH AT	500	1142.	4.27	162.	40.	19.	.93
+	2 COMBINED AT	500C	2868.	4.27	1122.	656.	402.	2.84

*** NORMAL END OF HEC-1 ***

NSTEP Estimation for Spook Hill ADMP 100-YR, 6hr Existing Conditions

Trial 1

$time_{min}$ = 2

Route	length ft	lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.07	11.31	2.0	2.1
RR60	3500	0.1	9.72	3.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.03	19.44	1.0	0.9
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.01	36.11	1.0	0.3
R180	1500	0.03	13.89	2.0	0.9
R260	2300	0.08	7.99	2.0	2.4
R280	2500	0.07	9.92	3.0	2.1
R300	2200	0.07	8.73	2.0	2.1
RR300	6050	0.03	56.02	2.0	0.9
RR350	25600	0.34	20.92	12.0	10.2
RR390	14890	0.2	20.68	6.0	6.0
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.01	88.89	1.0	0.3
R113	1300	0.01	36.11	1.0	0.3
R58	2370	0.03	21.94	1.0	0.9
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.01	85.56	1.0	0.3
R404	3540	0.13	7.56	4.0	3.9
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.03	19.68	1.0	0.9
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.08	8.45	2.0	2.4
R116	1300	0.09	4.01	3.0	2.7
R118	1500	0.01	41.67	1.0	0.3
R454	6000	0.25	6.67	8.0	7.5
RR455	9200	0.25	10.22	8.0	7.5
R456	3800	0.09	11.73	3.0	2.7
R101	1450	0.08	5.03	2.0	2.4
R103	900	0.01	25.00	1.0	0.3
R30	1630	0.08	5.66	2.0	2.4
RB1	1720	0.04	11.94	1.0	1.2
R52	2000	0.01	55.56	1.0	0.3
R3	2750	0.09	8.49	3.0	2.7
R106	3950	0.01	109.72	1.0	0.3
RR480	6500	0.03	60.19	1.0	0.9

Trial 2

$time_{min}$ = 2

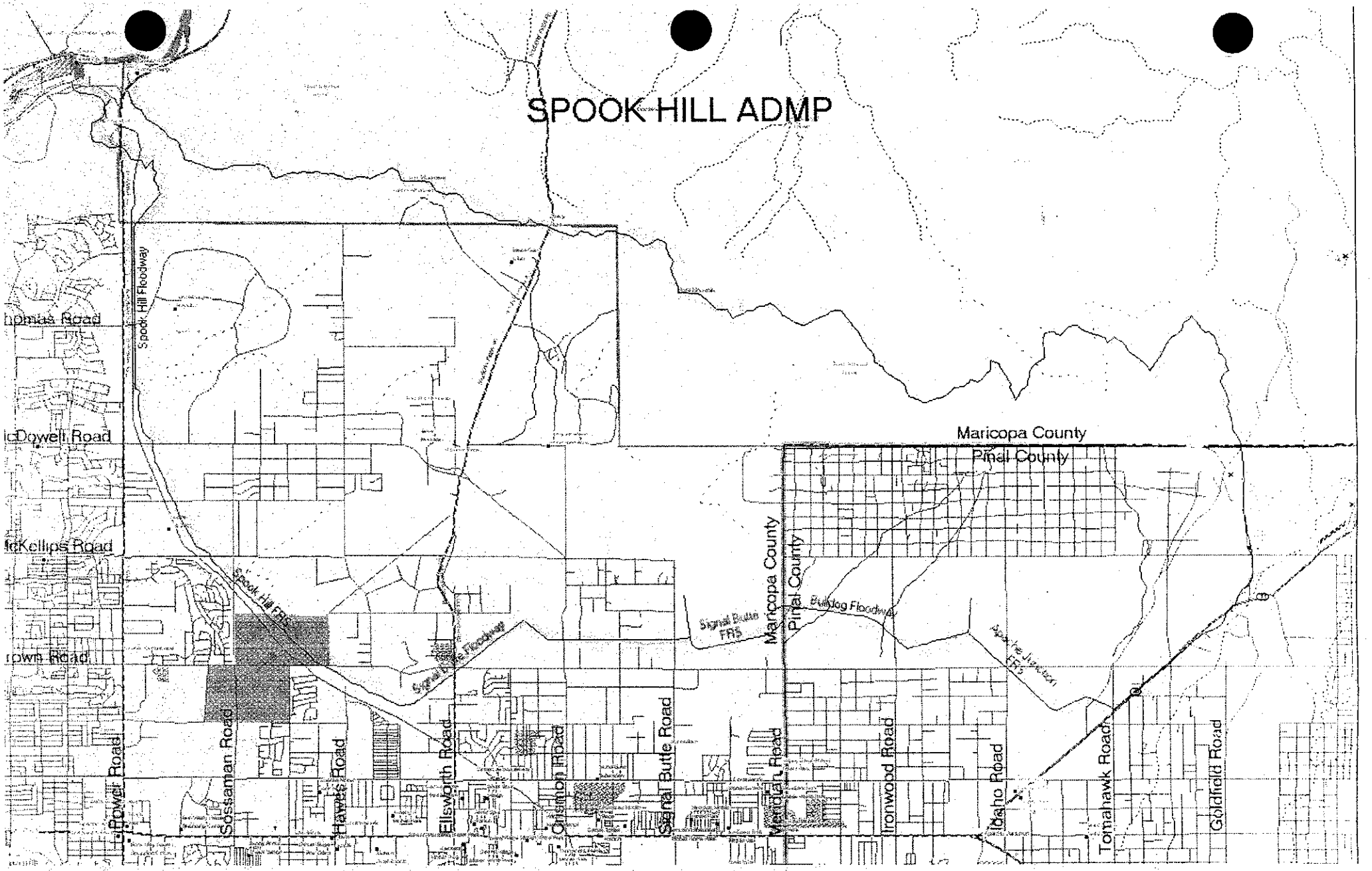
Route	length ft	lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.07	11.31	2.0	2.1
RR60	3500	0.1	9.72	3.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.03	19.44	1.0	0.9
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.01	36.11	1.0	0.3
R180	1500	0.03	13.89	2.0	0.9
R260	2300	0.07	9.13	2.0	2.1
R280	2500	0.07	9.92	1.0	2.1
R300	2200	0.07	8.73	2.0	2.1
RR300	6050	0.03	56.02	1.0	0.9
RR350	25600	0.37	19.22	10.0	11.1
RR390	14890	0.2	20.68	6.0	6.0
R70	2250	0.04	15.63	1.0	1.2
R108	3200	0.03	29.63	1.0	0.9
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.04	16.46	2.0	1.2
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.06	6.02	2.0	1.8
R118	1500	0.01	41.67	1.0	0.3
R454	6000	0.26	6.41	8.0	7.8
RR455	9200	0.3	8.52	10.0	9.0
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.01	40.28	3.0	0.3
R103	900	0.01	25.00	1.0	0.3
R30	1630	0.06	7.55	3.0	1.8
RB1	1720	0.03	15.93	2.0	0.9
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.07	10.91	2.0	2.1
R106	3950	0.07	15.67	1.0	2.1
RR480	6500	0.07	25.79	1.0	2.1

Trial 3

$time_{min}$ = 2

Route	length ft	lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.07	11.31	2.0	2.1
RR60	3500	0.1	9.72	3.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.03	19.44	1.0	0.9
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.01	36.11	1.0	0.3
R180	1500	0.03	13.89	1.0	0.9
R260	2300	0.07	9.13	2.0	2.1
R280	2500	0.07	9.92	2.0	2.1
R300	2200	0.07	8.73	2.0	2.1
RR300	6050	0.03	56.02	1.0	0.9
RR350	25600	0.37	19.22	11.0	11.1
RR390	14890	0.2	20.68	6.0	6.0
R70	2250	0.04	15.63	1.0	1.2
R108	3200	0.03	29.63	1.0	0.9
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.04	16.46	1.0	1.2
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.06	6.02	3.0	1.8
R118	1500	0.01	41.67	1.0	0.3
R454	6000	0.26	6.41	8.0	7.8
RR455	9200	0.3	8.52	9.0	9.0
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.01	40.28	1.0	0.3
R103	900	0.01	25.00	1.0	0.3
R30	1630	0.06	7.55	2.0	1.8
RB1	1720	0.03	15.93	1.0	0.9
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.07	10.91	3.0	2.1
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.03	60.19	2.0	0.9

SPOOK HILL ADMP



HEC-1 Existing Conditions 100-Year, 6hr Storm

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1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*            JUN   1998             *
*          VERSION 4.1              *
*                                   *
*  RUN DATE   05JAN00  TIME  15:04:01  *
*                                   *
*************************************
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*************************************
*                                   *
*   U.S. ARMY CORPS OF ENGINEERS    *
*   HYDROLOGIC ENGINEERING CENTER   *
*         609 SECOND STREET         *
*      DAVIS, CALIFORNIA 95616      *
*          (916) 756-1104           *
*                                   *
*************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX        XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                    HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS, AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL, SIGNAL
 10           ID   BUTTE, AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE :SPHEX1.DAT
 13           ID   SPOOK HILL ADMP MCUHP1  - EXISTING CONDITIONS MODEL - 100YR, 6HR STORM
 14           ID
 15           ID   MODEL UPDATE WITH LAS SENDAS EAST BASINS & ALL RETENTION BASINS DRAINED
 16           ID   BACK INTO THE SYSTEM WITHIN 36 HOURS
 17           ID          BY:JCD1/4/2000        FILE: SPHEX1RV.DAT
 18           ID
 19           ID   MODEL UPDATE WITH THE IT RECORD CHANGED FROM 2 TO 5 MINUTES
 20           ID   FOR DETERMINATION OF TOTAL PROJECT Q100 DISCHARGE VOLUME AND DRAIN TIME
 21           ID   BY JCD; 1/4/2000            FILE: SPEX1VOL.DAT
              *DIAGRAM
 22           IT       5                    1500
 23           IO       3
 24           IN      15
 25           JD    3.17    0.01
 26           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 27           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 28           PC    .962    .972    .983    .991   1.000
 29           JD    3.15    0.50
 30           JD    3.11    2.80
 31           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 32           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 33           PC    .950    .963    .975    .988   1.000
 34           JD    2.92    16.0
 35           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 36           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 37           PC    .946    .960    .973    .987   1.000
 38           JD    2.57    90.0
 39           PC    .000    .021    .035    .051    .071    .087    .105    .125    .143    .160
 40           PC    .179    .201    .232    .281    .364    .500    .658    .773    .841    .888
 41           PC    .927    .945    .964    .982   1.000
 42           JD    1.81   500.0
 43           PC    .000    .024    .043    .059    .078    .098    .119    .141    .162    .186
 44           PC    .212    .239    .271    .321    .408    .515    .627    .735    .814    .864
 45           PC    .907    .930    .954    .977   1.000
              * DDM   ***** Updated *****

 46           KK      20
 47           KM   SUB-BASIN 20
 48           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 49           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
 50           KM     L = 4.58  Kb = .037  Adj. Slope =  118.0
 51           BA   1.821
 52           LG    .350    .360   6.600    .140   7.000
1                                    HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 53           UC    .942    .831
              * DDM   ***** Updated *****

 54           KK      40
 55           KM   SUB-BASIN 40
 56           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 57           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 58           KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 59           BA   2.233
 60           LG    .340    .340   4.900    .280   5.000
 61           UC    .583    .316
              * DDM   ***** Updated *****

 62           KK      60
 63           KM   SUB-BASIN 60
 64           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
```

INTERPOLATED HYDROGRAPH AT SR60

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	2		0715	376	86.	3		1430	751	42.	4		2145	1126	0.
1		0005	2	0.	2		0720	377	86.	3		1435	752	42.	4		2150	1127	0.
1		0010	3	0.	2		0725	378	86.	3		1440	753	42.	4		2155	1128	0.
1		0015	4	1.	2		0730	379	86.	3		1445	754	42.	4		2200	1129	0.
1		0020	5	2.	2		0735	380	86.	3		1450	755	42.	4		2205	1130	0.
1		0025	6	3.	2		0740	381	86.	3		1455	756	42.	4		2210	1131	0.
1		0030	7	4.	2		0745	382	86.	3		1500	757	42.	4		2215	1132	0.
1		0035	8	6.	2		0750	383	86.	3		1505	758	42.	4		2220	1133	0.
1		0040	9	8.	2		0755	384	86.	3		1510	759	42.	4		2225	1134	0.
1		0045	10	10.	2		0800	385	86.	3		1515	760	42.	4		2230	1135	0.
1		0050	11	12.	2		0805	386	86.	3		1520	761	42.	4		2235	1136	0.
1		0055	12	13.	2		0810	387	86.	3		1525	762	42.	4		2240	1137	0.
1		0100	13	15.	2		0815	388	86.	3		1530	763	42.	4		2245	1138	0.
1		0105	14	17.	2		0820	389	86.	3		1535	764	42.	4		2250	1139	0.
1		0110	15	19.	2		0825	390	86.	3		1540	765	42.	4		2255	1140	0.
1		0115	16	20.	2		0830	391	86.	3		1545	766	42.	4		2300	1141	0.
1		0120	17	22.	2		0835	392	86.	3		1550	767	42.	4		2305	1142	0.
1		0125	18	23.	2		0840	393	86.	3		1555	768	42.	4		2310	1143	0.
1		0130	19	25.	2		0845	394	85.	3		1600	769	42.	4		2315	1144	0.
1		0135	20	26.	2		0850	395	85.	3		1605	770	42.	4		2320	1145	0.
1		0140	21	27.	2		0855	396	85.	3		1610	771	42.	4		2325	1146	0.
1		0145	22	28.	2		0900	397	85.	3		1615	772	42.	4		2330	1147	0.
1		0150	23	28.	2		0905	398	85.	3		1620	773	41.	4		2335	1148	0.
1		0155	24	29.	2		0910	399	85.	3		1625	774	41.	4		2340	1149	0.
1		0200	25	29.	2		0915	400	85.	3		1630	775	41.	4		2345	1150	0.
1		0205	26	30.	2		0920	401	85.	3		1635	776	41.	4		2350	1151	0.
1		0210	27	30.	2		0925	402	85.	3		1640	777	41.	4		2355	1152	0.
1		0215	28	30.	2		0930	403	85.	3		1645	778	41.	5		0000	1153	0.
1		0220	29	31.	2		0935	404	85.	3		1650	779	32.	5		0005	1154	0.
1		0225	30	31.	2		0940	405	85.	3		1655	780	19.	5		0010	1155	0.
1		0230	31	31.	2		0945	406	85.	3		1700	781	12.	5		0015	1156	0.
1		0235	32	32.	2		0950	407	85.	3		1705	782	7.	5		0020	1157	0.
1		0240	33	32.	2		0955	408	85.	3		1710	783	4.	5		0025	1158	0.
1		0245	34	33.	2		1000	409	85.	3		1715	784	3.	5		0030	1159	0.
1		0250	35	34.	2		1005	410	85.	3		1720	785	2.	5		0035	1160	0.
1		0255	36	35.	2		1010	411	85.	3		1725	786	1.	5		0040	1161	0.
1		0300	37	36.	2		1015	412	85.	3		1730	787	1.	5		0045	1162	0.
1		0305	38	37.	2		1020	413	85.	3		1735	788	0.	5		0050	1163	0.
1		0310	39	39.	2		1025	414	85.	3		1740	789	0.	5		0055	1164	0.
1		0315	40	42.	2		1030	415	85.	3		1745	790	0.	5		0100	1165	0.
1		0320	41	46.	2		1035	416	85.	3		1750	791	0.	5		0105	1166	0.
1		0325	42	52.	2		1040	417	85.	3		1755	792	0.	5		0110	1167	0.
1		0330	43	60.	2		1045	418	85.	3		1800	793	0.	5		0115	1168	0.
1		0335	44	71.	2		1050	419	85.	3		1805	794	0.	5		0120	1169	0.
1		0340	45	71.	2		1055	420	85.	3		1810	795	0.	5		0125	1170	0.
1		0345	46	71.	2		1100	421	85.	3		1815	796	0.	5		0130	1171	0.
1		0350	47	72.	2		1105	422	85.	3		1820	797	0.	5		0135	1172	0.
1		0355	48	72.	2		1110	423	85.	3		1825	798	0.	5		0140	1173	0.
1		0400	49	73.	2		1115	424	85.	3		1830	799	0.	5		0145	1174	0.
1		0405	50	74.	2		1120	425	85.	3		1835	800	0.	5		0150	1175	0.
1		0410	51	76.	2		1125	426	84.	3		1840	801	0.	5		0155	1176	0.
1		0415	52	78.	2		1130	427	84.	3		1845	802	0.	5		0200	1177	0.
1		0420	53	80.	2		1135	428	84.	3		1850	803	0.	5		0205	1178	0.
1		0425	54	82.	2		1140	429	84.	3		1855	804	0.	5		0210	1179	0.
1		0430	55	84.	2		1145	430	84.	3		1900	805	0.	5		0215	1180	0.
1		0435	56	85.	2		1150	431	84.	3		1905	806	0.	5		0220	1181	0.
1		0440	57	86.	2		1155	432	84.	3		1910	807	0.	5		0225	1182	0.
1		0445	58	87.	2		1200	433	84.	3		1915	808	0.	5		0230	1183	0.
1		0450	59	88.	2		1205	434	84.	3		1920	809	0.	5		0235	1184	0.
1		0455	60	89.	2		1210	435	84.	3		1925	810	0.	5		0240	1185	0.
1		0500	61	90.	2		1215	436	84.	3		1930	811	0.	5		0245	1186	0.
1		0505	62	90.	2		1220	437	84.	3		1935	812	0.	5		0250	1187	0.
1		0510	63	91.	2		1225	438	84.	3		1940	813	0.	5		0255	1188	0.
1		0515	64	91.	2		1230	439	84.	3		1945	814	0.	5		0300	1189	0.
1		0520	65	91.	2		1235	440	84.	3		1950	815	0.	5		0305	1190	0.
1		0525	66	92.	2		1240	441	84.	3		1955	816	0.	5		0310	1191	0.
1		0530	67	92.	2		1245	442	84.	3		2000	817	0.	5		0315	1192	0.
1		0535	68	92.	2		1250	443	84.	3		2005	818	0.	5		0320	1193	0.
1		0540	69	92.	2		1255	444	84.	3		2010	819	0.	5		0325	1194	0.
1		0545	70	92.	2		1300	445	84.	3		2015	820	0.	5		0330	1195	0.
1		0550	71	92.	2		1305	446	84.	3		2020	821	0.	5		0335	1196	0.
1		0555	72	93.	2		1310	447	84.	3		2025	822	0.	5		0340	1197	0.
1		0600	73	93.	2		1315	448	84.	3		2030	823	0.	5		0345	1198	0.
1		0605	74	93.	2		1320	449	84.	3		2035	824	0.	5		0350	1199	0.
1		0610	75	93.	2		1325	450	84.	3		2040	825	0.	5		0355	1200	0.
1		0615	76	93.	2		1330	451	84.	3		2045	826	0.	5		0400	1201	0.
1		0620	77	93.	2		1335	452	83.	3		2050	827	0.	5		0405	1202	0.
1		0625	78	93.	2		1340	453	83.	3		2055	828	0.	5		0410	1203	0.
1		0630	79	93.	2		1345	454	83.	3		2100	829	0.	5		0415	1204	0.
1		0635	80	93.	2		1350	455	83.	3		2105	830	0.	5		0420	1205	0.
1		0640	81	93.	2		1355	456	83.	3		2110	831	0.	5		0425	1206	0.
1		0645	82	93.	2		1400	457	83.	3		2115	832	0.	5		0430	1207	0.
1		0650	83	93.	2		1405	458	83.	3		2120	833	0.	5		0435	1208	0.
1		0655	84	93.	2		1410	459	83.	3		2125	834	0.	5		0440	1209	0.
1		0700	85	93.	2		1415	460	83.	3		2130	835	0.	5		0445	1210	0.
1		0705	86	93.	2		1420	461	83.	3		2135	836	0.	5		0450	1211	0.
1		0710	87	93.	2		1425	462	83.	3		2140	837	0.	5		0455	1212	0.
1		0715	88	93.	2		1430	463	83.	3		2145	838	0.	5		0500	1213	0.
1		0720	89	93.	2		1435	464	83.	3		2150	839	0.	5		0505	1214	0.
1		0725	90	93.	2		1440	465	83.	3		2155	840	0.	5		0510	1215	0.
1		0730	91	93.	2		1445	466	83.	3		2200	841	0.	5		0515	1216	0.
1		0735	92	93.	2		1450	467	83.	3		2205	842	0.	5		0520	1217	0.
1		0740	93	93.	2		1455	468	83.	3		2210	843	0.	5		0525	1218	0.
1		0745	94	93.	2		1500	469	83.	3		2215	844	0.	5		0530	1219	0.
1		0750	95	93.	2		1505	470	83.	3		2220	845	0.	5		0535	1220	0.
1		0755	96	93.	2		1510	471	83.	3		2225	846	0.	5		0540	1221	0.
1		0800	97	93.	2		1515	472	83.	3		2230	847	0.	5		0545	1222	0.
1		0805	98	93.	2		1520	473	83.	3		2235	848	0.	5		0550	1223	0.
1		0810	99	93.	2		1525	474	82.	3		2240	849	0.	5		0555	1224	0.
1		0815	100	93.	2		1530	475	82.	3		2245	850	0.	5		0600	1225	0.
1		0820	101	93.	2		1535	476	82.	3		2250	851	0.	5		0605	1226	0.
1		0825	102	93.	2		1540	477	82.	3		2255	852	0.	5		0610	1227	0.
1		0830	103	93.	2		1545	478	82.	3		2300	853	0.	5		0615	1228	0.
1		0835	104	93.	2		1550	479	82.	3		2305	854	0.	5		0620	1229	0.
1		0840	105	93.	2		1555	480	82.	3		2310	855	0.	5		0625	1230	0.

1	0845	106	93.	*	2	1600	481	82.	*	3	2315	856	0.	*	5	0630	1231	0.
1	0850	107	93.	*	2	1605	482	82.	*	3	2320	857	0.	*	5	0635	1232	0.
1	0855	108	93.	*	2	1610	483	82.	*	3	2325	858	0.	*	5	0640	1233	0.
1	0900	109	93.	*	2	1615	484	82.	*	3	2330	859	0.	*	5	0645	1234	0.
1	0905	110	93.	*	2	1620	485	82.	*	3	2335	860	0.	*	5	0650	1235	0.
1	0910	111	93.	*	2	1625	486	82.	*	3	2340	861	0.	*	5	0655	1236	0.
1	0915	112	93.	*	2	1630	487	82.	*	3	2345	862	0.	*	5	0700	1237	0.
1	0920	113	93.	*	2	1635	488	82.	*	3	2350	863	0.	*	5	0705	1238	0.
1	0925	114	93.	*	2	1640	489	82.	*	3	2355	864	0.	*	5	0710	1239	0.
1	0930	115	93.	*	2	1645	490	82.	*	4	0000	865	0.	*	5	0715	1240	0.
1	0935	116	93.	*	2	1650	491	82.	*	4	0005	866	0.	*	5	0720	1241	0.
1	0940	117	93.	*	2	1655	492	82.	*	4	0010	867	0.	*	5	0725	1242	0.
1	0945	118	93.	*	2	1700	493	82.	*	4	0015	868	0.	*	5	0730	1243	0.
1	0950	119	93.	*	2	1705	494	82.	*	4	0020	869	0.	*	5	0735	1244	0.
1	0955	120	93.	*	2	1710	495	82.	*	4	0025	870	0.	*	5	0740	1245	0.
1	1000	121	93.	*	2	1715	496	82.	*	4	0030	871	0.	*	5	0745	1246	0.
1	1005	122	93.	*	2	1720	497	82.	*	4	0035	872	0.	*	5	0750	1247	0.
1	1010	123	92.	*	2	1725	498	81.	*	4	0040	873	0.	*	5	0755	1248	0.
1	1015	124	92.	*	2	1730	499	81.	*	4	0045	874	0.	*	5	0800	1249	0.
1	1020	125	92.	*	2	1735	500	81.	*	4	0050	875	0.	*	5	0805	1250	0.
1	1025	126	92.	*	2	1740	501	81.	*	4	0055	876	0.	*	5	0810	1251	0.
1	1030	127	92.	*	2	1745	502	81.	*	4	0100	877	0.	*	5	0815	1252	0.
1	1035	128	92.	*	2	1750	503	81.	*	4	0105	878	0.	*	5	0820	1253	0.
1	1040	129	92.	*	2	1755	504	81.	*	4	0110	879	0.	*	5	0825	1254	0.
1	1045	130	92.	*	2	1800	505	81.	*	4	0115	880	0.	*	5	0830	1255	0.
1	1050	131	92.	*	2	1805	506	81.	*	4	0120	881	0.	*	5	0835	1256	0.
1	1055	132	92.	*	2	1810	507	81.	*	4	0125	882	0.	*	5	0840	1257	0.
1	1100	133	92.	*	2	1815	508	81.	*	4	0130	883	0.	*	5	0845	1258	0.
1	1105	134	92.	*	2	1820	509	81.	*	4	0135	884	0.	*	5	0850	1259	0.
1	1110	135	92.	*	2	1825	510	81.	*	4	0140	885	0.	*	5	0855	1260	0.
1	1115	136	92.	*	2	1830	511	81.	*	4	0145	886	0.	*	5	0900	1261	0.
1	1120	137	92.	*	2	1835	512	81.	*	4	0150	887	0.	*	5	0905	1262	0.
1	1125	138	92.	*	2	1840	513	81.	*	4	0155	888	0.	*	5	0910	1263	0.
1	1130	139	92.	*	2	1845	514	81.	*	4	0200	889	0.	*	5	0915	1264	0.
1	1135	140	92.	*	2	1850	515	81.	*	4	0205	890	0.	*	5	0920	1265	0.
1	1140	141	92.	*	2	1855	516	81.	*	4	0210	891	0.	*	5	0925	1266	0.
1	1145	142	92.	*	2	1900	517	81.	*	4	0215	892	0.	*	5	0930	1267	0.
1	1150	143	92.	*	2	1905	518	81.	*	4	0220	893	0.	*	5	0935	1268	0.
1	1155	144	92.	*	2	1910	519	81.	*	4	0225	894	0.	*	5	0940	1269	0.
1	1200	145	92.	*	2	1915	520	81.	*	4	0230	895	0.	*	5	0945	1270	0.
1	1205	146	92.	*	2	1920	521	80.	*	4	0235	896	0.	*	5	0950	1271	0.
1	1210	147	92.	*	2	1925	522	80.	*	4	0240	897	0.	*	5	0955	1272	0.
1	1215	148	92.	*	2	1930	523	80.	*	4	0245	898	0.	*	5	1000	1273	0.
1	1220	149	92.	*	2	1935	524	80.	*	4	0250	899	0.	*	5	1005	1274	0.
1	1225	150	92.	*	2	1940	525	80.	*	4	0255	900	0.	*	5	1010	1275	0.
1	1230	151	92.	*	2	1945	526	80.	*	4	0300	901	0.	*	5	1015	1276	0.
1	1235	152	92.	*	2	1950	527	80.	*	4	0305	902	0.	*	5	1020	1277	0.
1	1240	153	92.	*	2	1955	528	80.	*	4	0310	903	0.	*	5	1025	1278	0.
1	1245	154	92.	*	2	2000	529	80.	*	4	0315	904	0.	*	5	1030	1279	0.
1	1250	155	92.	*	2	2005	530	80.	*	4	0320	905	0.	*	5	1035	1280	0.
1	1255	156	92.	*	2	2010	531	80.	*	4	0325	906	0.	*	5	1040	1281	0.
1	1300	157	92.	*	2	2015	532	80.	*	4	0330	907	0.	*	5	1045	1282	0.
1	1305	158	92.	*	2	2020	533	80.	*	4	0335	908	0.	*	5	1050	1283	0.
1	1310	159	92.	*	2	2025	534	80.	*	4	0340	909	0.	*	5	1055	1284	0.
1	1315	160	92.	*	2	2030	535	80.	*	4	0345	910	0.	*	5	1100	1285	0.
1	1320	161	92.	*	2	2035	536	80.	*	4	0350	911	0.	*	5	1105	1286	0.
1	1325	162	92.	*	2	2040	537	80.	*	4	0355	912	0.	*	5	1110	1287	0.
1	1330	163	92.	*	2	2045	538	80.	*	4	0400	913	0.	*	5	1115	1288	0.
1	1335	164	92.	*	2	2050	539	80.	*	4	0405	914	0.	*	5	1120	1289	0.
1	1340	165	92.	*	2	2055	540	80.	*	4	0410	915	0.	*	5	1125	1290	0.
1	1345	166	92.	*	2	2100	541	80.	*	4	0415	916	0.	*	5	1130	1291	0.
1	1350	167	92.	*	2	2105	542	80.	*	4	0420	917	0.	*	5	1135	1292	0.
1	1355	168	92.	*	2	2110	543	80.	*	4	0425	918	0.	*	5	1140	1293	0.
1	1400	169	92.	*	2	2115	544	80.	*	4	0430	919	0.	*	5	1145	1294	0.
1	1405	170	91.	*	2	2120	545	79.	*	4	0435	920	0.	*	5	1150	1295	0.
1	1410	171	91.	*	2	2125	546	79.	*	4	0440	921	0.	*	5	1155	1296	0.
1	1415	172	91.	*	2	2130	547	79.	*	4	0445	922	0.	*	5	1200	1297	0.
1	1420	173	91.	*	2	2135	548	79.	*	4	0450	923	0.	*	5	1205	1298	0.
1	1425	174	91.	*	2	2140	549	79.	*	4	0455	924	0.	*	5	1210	1299	0.
1	1430	175	91.	*	2	2145	550	79.	*	4	0500	925	0.	*	5	1215	1300	0.
1	1435	176	91.	*	2	2150	551	79.	*	4	0505	926	0.	*	5	1220	1301	0.
1	1440	177	91.	*	2	2155	552	79.	*	4	0510	927	0.	*	5	1225	1302	0.
1	1445	178	91.	*	2	2200	553	79.	*	4	0515	928	0.	*	5	1230	1303	0.
1	1450	179	91.	*	2	2205	554	79.	*	4	0520	929	0.	*	5	1235	1304	0.
1	1455	180	91.	*	2	2210	555	79.	*	4	0525	930	0.	*	5	1240	1305	0.
1	1500	181	91.	*	2	2215	556	79.	*	4	0530	931	0.	*	5	1245	1306	0.
1	1505	182	91.	*	2	2220	557	79.	*	4	0535	932	0.	*	5	1250	1307	0.
1	1510	183	91.	*	2	2225	558	79.	*	4	0540	933	0.	*	5	1255	1308	0.
1	1515	184	91.	*	2	2230	559	79.	*	4	0545	934	0.	*	5	1300	1309	0.
1	1520	185	91.	*	2	2235	560	79.	*	4	0550	935	0.	*	5	1305	1310	0.
1	1525	186	91.	*	2	2240	561	79.	*	4	0555	936	0.	*	5	1310	1311	0.
1	1530	187	91.	*	2	2245	562	79.	*	4	0600	937	0.	*	5	1315	1312	0.
1	1535	188	91.	*	2	2250	563	79.	*	4	0605	938	0.	*	5	1320	1313	0.
1	1540	189	91.	*	2	2255	564	79.	*	4	0610	939	0.	*	5	1325	1314	0.
1	1545	190	91.	*	2	2300	565	79.	*	4	0615	940	0.	*	5	1330	1315	0.
1	1550	191	91.	*	2	2305	566	79.	*	4	0620	941	0.	*	5	1335	1316	0.
1	1555	192	91.	*	2	2310	567	79.	*	4	0625	942	0.	*	5	1340	1317	0.
1	1600	193	91.	*	2	2315	568	79.	*	4	0630	943	0.	*	5	1345	1318	0.
1	1605	194	91.	*	2	2320	569	78.	*	4	0635	944	0.	*	5	1350	1319	0.
1	1610	195	91.	*	2	2325	570	78.	*	4	0640	945	0.	*	5	1355	1320	0.
1	1615	196	91.	*	2	2330	571	78.	*	4	0645	946	0.	*	5	1400	1321	0.
1	1620	197	91.	*	2	2335	572	78.	*	4	0650	947	0.	*	5	1405	1322	0.
1	1625	198	91.	*	2	2340	573	78.	*	4	0655	948	0.	*	5	1410	1323	0.
1	1630	199	91.	*	2	2345	574	78.	*	4	0700	949	0.	*	5	1415	1324	0.
1	1635	200	91.	*	2	2350	575	78.	*	4	0705	950	0.	*	5	1420	1325	0.
1	1640	201	91.	*	2	2355	576	78.	*	4	0710	951	0.	*	5	1425	1326	0.
1	1645	202	91.	*	3	0000	577	78.	*	4	0715	952	0.	*	5	1430	1327	0.
1	1650	203	91.	*	3	0005	578	78.	*	4	0720	953	0.	*	5	1435	1328	0.
1	1655	204	91.	*	3	0010	579	78.	*	4	0725	954	0.	*	5	1440	1329	0.
1	1700	205	91.	*	3	0015	580	78.	*	4	0730	955	0.	*	5	1445	1330	0.
1	1705	206	91.	*	3	0020	581	78.	*	4	0735	956	0.	*	5	1450	1331	0.
1	1710	207	91.	*	3	0025	582	78.	*	4	0740	957	0.	*	5	1455	1332	0.
1	1715	208	91.	*	3	0030	583	78.	*	4	0745	958	0.	*	5	1500	1333	0.
1	1720	209	91.	*	3	0035	584	78.	*	4	0750	959	0.	*	5	1505	1334	0.
1	1725	210	91.	*	3	0040	585	78.	*	4	0755	960	0.	*	5	1510	1335	0.
1	1730	211	91.	*	3	0045	586	78.	*	4	0800	961	0.	*	5	1515	1336	0.
1	1735	212	91.	*	3	0050	587	78.	*	4	0805	962	0.	*	5	1520	1337	0.
1	1740	213	91.	*	3	0055	588	78.	*	4	0810	963	0.	*	5	1525	1338	0.
1	1745	214	91.	*	3	0100	589	78.	*	4	0815	964	0.	*	5	1530	1339	0.
1	1750	215	91.	*	3	0105	590	78.	*	4	0820	965	0.	*	5	1535	1340	0.
1	1755	216	91.	*	3	0110	591	78.	*	4	0825	966	0.	*	5	1540	1341	0.
1	1800	217	91.	*	3	0115	592	77.	*	4	0830	967	0.	*	5	1545	1342	0.
1	1805	218	90.	*	3	0120	593	77.	*	4	0835	968	0.	*	5	1550	1343	0.

1	1810	219	90.	*	3	0125	594	77.	*	4	0840	969	0.	*	5	1555	1344	0.
1	1815	220	90.	*	3	0130	595	77.	*	4	0845	970	0.	*	5	1600	1345	0.
1	1820	221	90.	*	3	0135	596	77.	*	4	0850	971	0.	*	5	1605	1346	0.
1	1825	222	90.	*	3	0140	597	77.	*	4	0855	972	0.	*	5	1610	1347	0.
1	1830	223	90.	*	3	0145	598	77.	*	4	0900	973	0.	*	5	1615	1348	0.
1	1835	224	90.	*	3	0150	599	77.	*	4	0905	974	0.	*	5	1620	1349	0.
1	1840	225	90.	*	3	0155	600	77.	*	4	0910	975	0.	*	5	1625	1350	0.
1	1845	226	90.	*	3	0200	601	77.	*	4	0915	976	0.	*	5	1630	1351	0.
1	1850	227	90.	*	3	0205	602	77.	*	4	0920	977	0.	*	5	1635	1352	0.
1	1855	228	90.	*	3	0210	603	77.	*	4	0925	978	0.	*	5	1640	1353	0.
1	1900	229	90.	*	3	0215	604	77.	*	4	0930	979	0.	*	5	1645	1354	0.
1	1905	230	90.	*	3	0220	605	77.	*	4	0935	980	0.	*	5	1650	1355	0.
1	1910	231	90.	*	3	0225	606	77.	*	4	0940	981	0.	*	5	1655	1356	0.
1	1915	232	90.	*	3	0230	607	77.	*	4	0945	982	0.	*	5	1700	1357	0.
1	1920	233	90.	*	3	0235	608	77.	*	4	0950	983	0.	*	5	1705	1358	0.
1	1925	234	90.	*	3	0240	609	77.	*	4	0955	984	0.	*	5	1710	1359	0.
1	1930	235	90.	*	3	0245	610	77.	*	4	1000	985	0.	*	5	1715	1360	0.
1	1935	236	90.	*	3	0250	611	76.	*	4	1005	986	0.	*	5	1720	1361	0.
1	1940	237	90.	*	3	0255	612	76.	*	4	1010	987	0.	*	5	1725	1362	0.
1	1945	238	90.	*	3	0300	613	76.	*	4	1015	988	0.	*	5	1730	1363	0.
1	1950	239	90.	*	3	0305	614	76.	*	4	1020	989	0.	*	5	1735	1364	0.
1	1955	240	90.	*	3	0310	615	76.	*	4	1025	990	0.	*	5	1740	1365	0.
1	2000	241	90.	*	3	0315	616	76.	*	4	1030	991	0.	*	5	1745	1366	0.
1	2005	242	90.	*	3	0320	617	76.	*	4	1035	992	0.	*	5	1750	1367	0.
1	2010	243	90.	*	3	0325	618	76.	*	4	1040	993	0.	*	5	1755	1368	0.
1	2015	244	90.	*	3	0330	619	76.	*	4	1045	994	0.	*	5	1800	1369	0.
1	2020	245	90.	*	3	0335	620	76.	*	4	1050	995	0.	*	5	1805	1370	0.
1	2025	246	90.	*	3	0340	621	76.	*	4	1055	996	0.	*	5	1810	1371	0.
1	2030	247	90.	*	3	0345	622	76.	*	4	1100	997	0.	*	5	1815	1372	0.
1	2035	248	90.	*	3	0350	623	76.	*	4	1105	998	0.	*	5	1820	1373	0.
1	2040	249	90.	*	3	0355	624	76.	*	4	1110	999	0.	*	5	1825	1374	0.
1	2045	250	90.	*	3	0400	625	76.	*	4	1115	1000	0.	*	5	1830	1375	0.
1	2050	251	90.	*	3	0405	626	76.	*	4	1120	1001	0.	*	5	1835	1376	0.
1	2055	252	90.	*	3	0410	627	76.	*	4	1125	1002	0.	*	5	1840	1377	0.
1	2100	253	90.	*	3	0415	628	76.	*	4	1130	1003	0.	*	5	1845	1378	0.
1	2105	254	90.	*	3	0420	629	76.	*	4	1135	1004	0.	*	5	1850	1379	0.
1	2110	255	90.	*	3	0425	630	65.	*	4	1140	1005	0.	*	5	1855	1380	0.
1	2115	256	90.	*	3	0430	631	57.	*	4	1145	1006	0.	*	5	1900	1381	0.
1	2120	257	90.	*	3	0435	632	53.	*	4	1150	1007	0.	*	5	1905	1382	0.
1	2125	258	90.	*	3	0440	633	50.	*	4	1155	1008	0.	*	5	1910	1383	0.
1	2130	259	90.	*	3	0445	634	48.	*	4	1200	1009	0.	*	5	1915	1384	0.
1	2135	260	90.	*	3	0450	635	47.	*	4	1205	1010	0.	*	5	1920	1385	0.
1	2140	261	90.	*	3	0455	636	47.	*	4	1210	1011	0.	*	5	1925	1386	0.
1	2145	262	90.	*	3	0500	637	46.	*	4	1215	1012	0.	*	5	1930	1387	0.
1	2150	263	90.	*	3	0505	638	46.	*	4	1220	1013	0.	*	5	1935	1388	0.
1	2155	264	89.	*	3	0510	639	46.	*	4	1225	1014	0.	*	5	1940	1389	0.
1	2200	265	89.	*	3	0515	640	46.	*	4	1230	1015	0.	*	5	1945	1390	0.
1	2205	266	89.	*	3	0520	641	46.	*	4	1235	1016	0.	*	5	1950	1391	0.
1	2210	267	89.	*	3	0525	642	45.	*	4	1240	1017	0.	*	5	1955	1392	0.
1	2215	268	89.	*	3	0530	643	45.	*	4	1245	1018	0.	*	5	2000	1393	0.
1	2220	269	89.	*	3	0535	644	45.	*	4	1250	1019	0.	*	5	2005	1394	0.
1	2225	270	89.	*	3	0540	645	45.	*	4	1255	1020	0.	*	5	2010	1395	0.
1	2230	271	89.	*	3	0545	646	45.	*	4	1300	1021	0.	*	5	2015	1396	0.
1	2235	272	89.	*	3	0550	647	45.	*	4	1305	1022	0.	*	5	2020	1397	0.
1	2240	273	89.	*	3	0555	648	45.	*	4	1310	1023	0.	*	5	2025	1398	0.
1	2245	274	89.	*	3	0600	649	45.	*	4	1315	1024	0.	*	5	2030	1399	0.
1	2250	275	89.	*	3	0605	650	45.	*	4	1320	1025	0.	*	5	2035	1400	0.
1	2255	276	89.	*	3	0610	651	45.	*	4	1325	1026	0.	*	5	2040	1401	0.
1	2300	277	89.	*	3	0615	652	45.	*	4	1330	1027	0.	*	5	2045	1402	0.
1	2305	278	89.	*	3	0620	653	45.	*	4	1335	1028	0.	*	5	2050	1403	0.
1	2310	279	89.	*	3	0625	654	45.	*	4	1340	1029	0.	*	5	2055	1404	0.
1	2315	280	89.	*	3	0630	655	45.	*	4	1345	1030	0.	*	5	2100	1405	0.
1	2320	281	89.	*	3	0635	656	45.	*	4	1350	1031	0.	*	5	2105	1406	0.
1	2325	282	89.	*	3	0640	657	45.	*	4	1355	1032	0.	*	5	2110	1407	0.
1	2330	283	89.	*	3	0645	658	45.	*	4	1400	1033	0.	*	5	2115	1408	0.
1	2335	284	89.	*	3	0650	659	45.	*	4	1405	1034	0.	*	5	2120	1409	0.
1	2340	285	89.	*	3	0655	660	45.	*	4	1410	1035	0.	*	5	2125	1410	0.
1	2345	286	89.	*	3	0700	661	45.	*	4	1415	1036	0.	*	5	2130	1411	0.
1	2350	287	89.	*	3	0705	662	45.	*	4	1420	1037	0.	*	5	2135	1412	0.
1	2355	288	89.	*	3	0710	663	45.	*	4	1425	1038	0.	*	5	2140	1413	0.
2	0000	289	89.	*	3	0715	664	45.	*	4	1430	1039	0.	*	5	2145	1414	0.
2	0005	290	89.	*	3	0720	665	45.	*	4	1435	1040	0.	*	5	2150	1415	0.
2	0010	291	89.	*	3	0725	666	45.	*	4	1440	1041	0.	*	5	2155	1416	0.
2	0015	292	89.	*	3	0730	667	45.	*	4	1445	1042	0.	*	5	2200	1417	0.
2	0020	293	89.	*	3	0735	668	45.	*	4	1450	1043	0.	*	5	2205	1418	0.
2	0025	294	89.	*	3	0740	669	45.	*	4	1455	1044	0.	*	5	2210	1419	0.
2	0030	295	89.	*	3	0745	670	45.	*	4	1500	1045	0.	*	5	2215	1420	0.
2	0035	296	88.	*	3	0750	671	45.	*	4	1505	1046	0.	*	5	2220	1421	0.
2	0040	297	88.	*	3	0755	672	45.	*	4	1510	1047	0.	*	5	2225	1422	0.
2	0045	298	88.	*	3	0800	673	44.	*	4	1515	1048	0.	*	5	2230	1423	0.
2	0050	299	88.	*	3	0805	674	44.	*	4	1520	1049	0.	*	5	2235	1424	0.
2	0055	300	88.	*	3	0810	675	44.	*	4	1525	1050	0.	*	5	2240	1425	0.
2	0100	301	88.	*	3	0815	676	44.	*	4	1530	1051	0.	*	5	2245	1426	0.
2	0105	302	88.	*	3	0820	677	44.	*	4	1535	1052	0.	*	5	2250	1427	0.
2	0110	303	88.	*	3	0825	678	44.	*	4	1540	1053	0.	*	5	2255	1428	0.
2	0115	304	88.	*	3	0830	679	44.	*	4	1545	1054	0.	*	5	2300	1429	0.
2	0120	305	88.	*	3	0835	680	44.	*	4	1550	1055	0.	*	5	2305	1430	0.
2	0125	306	88.	*	3	0840	681	44.	*	4	1555	1056	0.	*	5	2310	1431	0.
2	0130	307	88.	*	3	0845	682	44.	*	4	1600	1057	0.	*	5	2315	1432	0.
2	0135	308	88.	*	3	0850	683	44.	*	4	1605	1058	0.	*	5	2320	1433	0.
2	0140	309	88.	*	3	0855	684	44.	*	4	1610	1059	0.	*	5	2325	1434	0.
2	0145	310	88.	*	3	0900	685	44.	*	4	1615	1060	0.	*	5	2330	1435	0.
2	0150	311	88.	*	3	0905	686	44.	*	4	1620	1061	0.	*	5	2335	1436	0.
2	0155	312	88.	*	3	0910	687	44.	*	4	1625	1062	0.	*	5	2340	1437	0.
2	0200	313	88.	*	3	0915	688	44.	*	4	1630	1063	0.	*	5	2345	1438	0.
2	0205	314	88.	*	3	0920	689	44.	*	4	1635	1064	0.	*	5	2350	1439	0.
2	0210	315	88.	*	3	0925	690	44.	*	4	1640	1065	0.	*	5	2355	1440	0.
2	0215	316	88.	*	3	0930	691	44.	*	4	1645	1066	0.	*	6	0000	1441	0.
2	0220	317	88.	*	3	0935	692	44.	*	4	1650	1067	0.	*	6	0005	1442	0.
2	0225	318	88.	*	3	0940	693	44.	*	4	1655	1068	0.	*	6	0010	1443	0.
2	0230	319	88.	*	3	0945	694	44.	*	4	1700	1069	0.	*	6	0015	1444	0.
2	0235	320	88.	*	3	0950	695	44.	*	4	1705	1070	0.	*	6	0020	1445	0.
2	0240	321	88.	*	3	0955	696	44.	*	4	1710	1071	0.	*	6	0025	1446	0.
2	0245	322	88.	*	3	1000	697	44.	*	4	1715	1072	0.	*	6	0030	1447	0.
2	0250	323	88.	*	3	1005	698	44.	*	4	1720	1073	0.	*	6	0035	1448	0.
2	0255	324	88.	*	3	1010	699	44.	*	4	1725	1074	0.	*	6	0040	1449	0.
2	0300	325	88.	*	3	1015	700	44.	*	4	1730	1075	0.	*	6	0045	1450	0.
2	0305	326	88.	*	3	1020	701	44.	*	4	1735	1076	0.	*	6	0050	1451	0.
2	0310	327	88.	*	3	1025	702	44.	*	4	1740	1077	0.	*	6	0055	1452	0.
2	0315	328	87.	*	3	1030	703	44.	*	4	1745	1078	0.	*	6	0100	1453	0.
2	0320	329	87.	*	3	1035	704	44.	*	4	1750	1079	0.	*	6	0105	1454	0.
2	0325	330	87.	*	3	1040	705	44.	*	4	1755	1080	0.	*	6	0110	1455	0.
2	0330	331	87.	*	3	1045	706	43.	*	4	1800	1081	0.	*	6	0115	1456	0.

2	0335	332	87.	*	3	1050	707	43.	*	4	1805	1082	0.	*	6	0120	1457	0.
2	0340	333	87.	*	3	1055	708	43.	*	4	1810	1083	0.	*	6	0125	1458	0.
2	0345	334	87.	*	3	1100	709	43.	*	4	1815	1084	0.	*	6	0130	1459	0.
2	0350	335	87.	*	3	1105	710	43.	*	4	1820	1085	0.	*	6	0135	1460	0.
2	0355	336	87.	*	3	1110	711	43.	*	4	1825	1086	0.	*	6	0140	1461	0.
2	0400	337	87.	*	3	1115	712	43.	*	4	1830	1087	0.	*	6	0145	1462	0.
2	0405	338	87.	*	3	1120	713	43.	*	4	1835	1088	0.	*	6	0150	1463	0.
2	0410	339	87.	*	3	1125	714	43.	*	4	1840	1089	0.	*	6	0155	1464	0.
2	0415	340	87.	*	3	1130	715	43.	*	4	1845	1090	0.	*	6	0200	1465	0.
2	0420	341	87.	*	3	1135	716	43.	*	4	1850	1091	0.	*	6	0205	1466	0.
2	0425	342	87.	*	3	1140	717	43.	*	4	1855	1092	0.	*	6	0210	1467	0.
2	0430	343	87.	*	3	1145	718	43.	*	4	1900	1093	0.	*	6	0215	1468	0.
2	0435	344	87.	*	3	1150	719	43.	*	4	1905	1094	0.	*	6	0220	1469	0.
2	0440	345	87.	*	3	1155	720	43.	*	4	1910	1095	0.	*	6	0225	1470	0.
2	0445	346	87.	*	3	1200	721	43.	*	4	1915	1096	0.	*	6	0230	1471	0.
2	0450	347	87.	*	3	1205	722	43.	*	4	1920	1097	0.	*	6	0235	1472	0.
2	0455	348	87.	*	3	1210	723	43.	*	4	1925	1098	0.	*	6	0240	1473	0.
2	0500	349	87.	*	3	1215	724	43.	*	4	1930	1099	0.	*	6	0245	1474	0.
2	0505	350	87.	*	3	1220	725	43.	*	4	1935	1100	0.	*	6	0250	1475	0.
2	0510	351	87.	*	3	1225	726	43.	*	4	1940	1101	0.	*	6	0255	1476	0.
2	0515	352	87.	*	3	1230	727	43.	*	4	1945	1102	0.	*	6	0300	1477	0.
2	0520	353	87.	*	3	1235	728	43.	*	4	1950	1103	0.	*	6	0305	1478	0.
2	0525	354	87.	*	3	1240	729	43.	*	4	1955	1104	0.	*	6	0310	1479	0.
2	0530	355	87.	*	3	1245	730	43.	*	4	2000	1105	0.	*	6	0315	1480	0.
2	0535	356	87.	*	3	1250	731	43.	*	4	2005	1106	0.	*	6	0320	1481	0.
2	0540	357	87.	*	3	1255	732	43.	*	4	2010	1107	0.	*	6	0325	1482	0.
2	0545	358	87.	*	3	1300	733	43.	*	4	2015	1108	0.	*	6	0330	1483	0.
2	0550	359	87.	*	3	1305	734	43.	*	4	2020	1109	0.	*	6	0335	1484	0.
2	0555	360	87.	*	3	1310	735	43.	*	4	2025	1110	0.	*	6	0340	1485	0.
2	0600	361	86.	*	3	1315	736	43.	*	4	2030	1111	0.	*	6	0345	1486	0.
2	0605	362	86.	*	3	1320	737	43.	*	4	2035	1112	0.	*	6	0350	1487	0.
2	0610	363	86.	*	3	1325	738	43.	*	4	2040	1113	0.	*	6	0355	1488	0.
2	0615	364	86.	*	3	1330	739	42.	*	4	2045	1114	0.	*	6	0400	1489	0.
2	0620	365	86.	*	3	1335	740	42.	*	4	2050	1115	0.	*	6	0405	1490	0.
2	0625	366	86.	*	3	1340	741	42.	*	4	2055	1116	0.	*	6	0410	1491	0.
2	0630	367	86.	*	3	1345	742	42.	*	4	2100	1117	0.	*	6	0415	1492	0.
2	0635	368	86.	*	3	1350	743	42.	*	4	2105	1118	0.	*	6	0420	1493	0.
2	0640	369	86.	*	3	1355	744	42.	*	4	2110	1119	0.	*	6	0425	1494	0.
2	0645	370	86.	*	3	1400	745	42.	*	4	2115	1120	0.	*	6	0430	1495	0.
2	0650	371	86.	*	3	1405	746	42.	*	4	2120	1121	0.	*	6	0435	1496	0.
2	0655	372	86.	*	3	1410	747	42.	*	4	2125	1122	0.	*	6	0440	1497	0.
2	0700	373	86.	*	3	1415	748	42.	*	4	2130	1123	0.	*	6	0445	1498	0.
2	0705	374	86.	*	3	1420	749	42.	*	4	2135	1124	0.	*	6	0450	1499	0.
2	0710	375	86.	*	3	1425	750	42.	*	4	2140	1125	0.	*	6	0455	1500	0.
				*					*					*				

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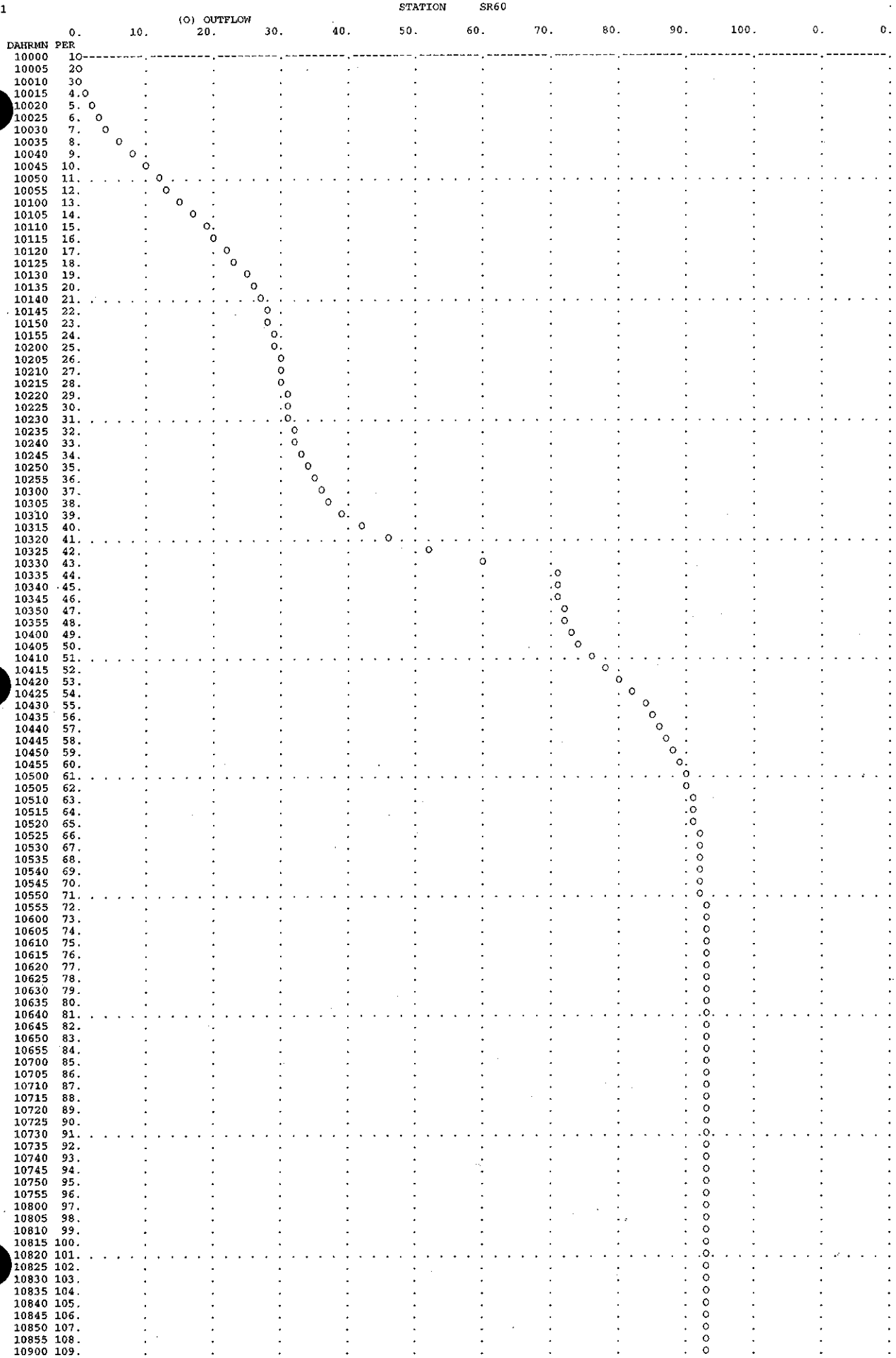
PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	124.92-HR
+ (CFS)	(HR)	(CFS)				
+ 93.	7.17		93.	91.	67.	39.
		(INCHES)	.149	.581	1.292	1.292
		(AC-FT)	46.	180.	400.	400.

CUMULATIVE AREA = 5.80 SQ MI

STATION SR60

(O) OUTFLOW



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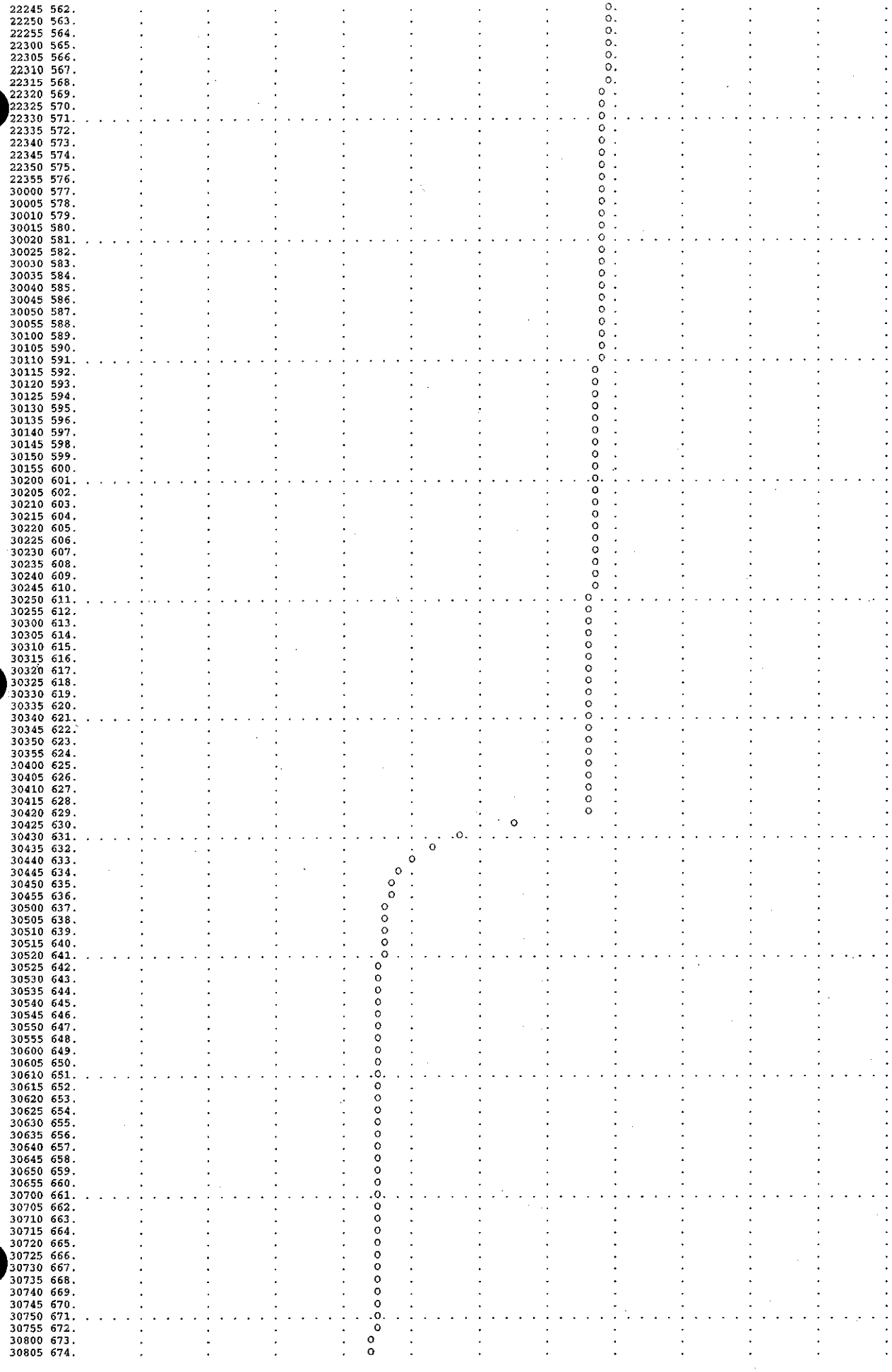
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INTERPOLATED HYDROGRAPH AT SR180

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
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1		0005	2	0.	2		0720	377	138.	3		1435	752	130.	4		2150	1127	28.
1		0010	3	0.	2		0725	378	138.	3		1440	753	129.	4		2155	1128	28.
1		0015	4	1.	2		0730	379	138.	3		1445	754	129.	4		2200	1129	28.
1		0020	5	3.	2		0735	380	138.	3		1450	755	129.	4		2205	1130	28.
1		0025	6	6.	2		0740	381	138.	3		1455	756	129.	4		2210	1131	28.
1		0030	7	10.	2		0745	382	138.	3		1500	757	129.	4		2215	1132	28.
1		0035	8	14.	2		0750	383	138.	3		1505	758	129.	4		2220	1133	28.
1		0040	9	19.	2		0755	384	138.	3		1510	759	129.	4		2225	1134	28.
1		0045	10	22.	2		0800	385	138.	3		1515	760	129.	4		2230	1135	28.
1		0050	11	25.	2		0805	386	138.	3		1520	761	129.	4		2235	1136	28.
1		0055	12	28.	2		0810	387	138.	3		1525	762	129.	4		2240	1137	28.
1		0100	13	31.	2		0815	388	138.	3		1530	763	129.	4		2245	1138	28.
1		0105	14	35.	2		0820	389	138.	3		1535	764	129.	4		2250	1139	28.
1		0110	15	39.	2		0825	390	138.	3		1540	765	129.	4		2255	1140	28.
1		0115	16	44.	2		0830	391	138.	3		1545	766	129.	4		2300	1141	28.
1		0120	17	50.	2		0835	392	138.	3		1550	767	129.	4		2305	1142	28.
1		0125	18	56.	2		0840	393	138.	3		1555	768	129.	4		2310	1143	28.
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1		0235	32	95.	2		0950	407	138.	3		1705	782	128.	5		0020	1157	28.
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1		0505	62	139.	2		1220	437	137.	3		1935	812	127.	5		0250	1187	27.
1		0510	63	140.	2		1225	438	137.	3		1940	813	127.	5		0255	1188	27.
1		0515	64	140.	2		1230	439	137.	3		1945	814	127.	5		0300	1189	27.
1		0520	65	140.	2		1235	440	137.	3		1950	815	127.	5		0305	1190	27.
1		0525	66	141.	2		1240	441	137.	3		1955	816	126.	5		0310	1191	27.
1		0530	67	141.	2		1245	442	137.	3		2000	817	126.	5		0315	1192	27.
1		0535	68	141.	2		1250	443	137.	3		2005	818	126.	5		0320	1193	27.
1		0540	69	141.	2		1255	444	137.	3		2010	819	126.	5		0325	1194	27.
1		0545	70	141.	2		1300	445	137.	3		2015	820	126.	5		0330	1195	27.
1		0550	71	141.	2		1305	446	137.	3		2020	821	126.	5		0335	1196	27.
1		0555	72	141.	2		1310	447	137.	3		2025	822	126.	5		0340	1197	27.
1		0600	73	142.	2		1315	448	137.	3		2030	823	126.	5		0345	1198	27.
1		0605	74	142.	2		1320	449	137.	3		2035	824	126.	5		0350	1199	27.
1		0610	75	142.	2		1325	450	137.	3		2040	825	126.	5		0355	1200	27.
1		0615	76	142.	2		1330	451	137.	3		2045	826	126.	5		0400	1201	27.
1		0620	77	142.	2		1335	452	137.	3		2050	827	126.	5		0405	1202	27.
1		0625	78	142.	2		1340	453	137.	3		2055	828	126.	5		0410	1203	27.
1		0630	79	142.	2		1345	454	137.	3		2100	829	126.	5		0415	1204	27.
1		0635	80	142.	2		1350	455	137.	3		2105	830	126.	5		0420	1205	27.
1		0640	81	142.	2		1355	456	137.	3		2110	831	126.	5		0425	1206	27.
1		0645	82	142.	2		1400	457	137.	3		2115	832	126.	5		0430	1207	27.
1		0650	83	142.	2		1405	458	137.	3		2120	833	125.	5		0435	1208	27.
1		0655	84	142.	2		1410	459	137.	3		2125	834	125.	5		0440	1209	27.
1		0700	85	142.	2		1415	460	137.	3		2130	835	125.	5		0445	1210	27.
1		0705	86	142.	2		1420	461	137.	3		2135	836	125.	5		0450	1211	27.
1		0710	87	142.	2		1425	462	137.	3		2140	837	125.	5		0455	1212	27.
1		0715	88	142.	2		1430	463	137.	3		2145	838	125.	5		0500	1213	27.
1		0720	89	142.	2		1435	464	137.	3		2150	839	125.	5		0505	1214	27.
1		0725	90	142.	2		1440	465	137.	3		2155	840	125.	5		0510	1215	27.
1		0730	91	142.	2		1445	466	137.	3		2200	841	125.	5		0515	1216	27.
1		0735	92	142.	2		1450	467	137.	3		2205	842	125.	5		0520	1217	27.
1		0740	93	142.	2		1455	468	137.	3		2210	843	125.	5		0525	1218	27.
1		0745	94	142.	2		1500	469	137.	3		2215	844	125.	5		0530	1219	27.
1		0750	95	142.	2		1505	470	137.	3		2220	845	125.	5		0535	1220	27.
1		0755	96	142.	2		1510	471	137.	3		2225	846	125.	5		0540	1221	27.
1		0800	97	142.	2		1515	472	137.	3		2230	847	125.	5		0545	1222	27.
1		0805	98	142.	2		1520	473	137.	3		2235	848	125.	5		0550	1223	27.
1		0810	99	142.	2		1525	474	137.	3		2240	849	125.	5		0555	1224	27.
1		0815	100	142.	2		1530	475	137.	3		2245	850	124.	5		0600	1225	27.
1		0820	101	142.	2		1535	476	137.	3		2250	851	124.	5		0605	1226	27.
1		0825	102	142.	2		1540	477	137.	3		2255	852	124.	5		0610	1227	27.
1		0830	103	142.	2		1545	478	137.	3		2300	853	124.	5		0615	1228	27.
1		0835	104	142.	2		1550	479	137.	3		2305	854	124.	5		0620	1229	27.
1		0840	105	142.	2		1555	480	136.	3		2310	855	124.	5		0625	1230	27.

1	0845	106	142.	*	2	1600	481	136.	*	3	2315	856	124.	*	5	0630	1231	27.
1	0850	107	142.	*	2	1605	482	136.	*	3	2320	857	124.	*	5	0635	1232	27.
1	0855	108	142.	*	2	1610	483	136.	*	3	2325	858	124.	*	5	0640	1233	27.
1	0900	109	142.	*	2	1615	484	136.	*	3	2330	859	124.	*	5	0645	1234	27.
1	0905	110	142.	*	2	1620	485	136.	*	3	2335	860	124.	*	5	0650	1235	27.
1	0910	111	142.	*	2	1625	486	136.	*	3	2340	861	124.	*	5	0655	1236	27.
1	0915	112	142.	*	2	1630	487	136.	*	3	2345	862	124.	*	5	0700	1237	27.
1	0920	113	142.	*	2	1635	488	136.	*	3	2350	863	124.	*	5	0705	1238	27.
1	0925	114	142.	*	2	1640	489	136.	*	3	2355	864	124.	*	5	0710	1239	27.
1	0930	115	142.	*	2	1645	490	136.	*	4	0000	865	124.	*	5	0715	1240	27.
1	0935	116	142.	*	2	1650	491	136.	*	4	0005	866	124.	*	5	0720	1241	27.
1	0940	117	142.	*	2	1655	492	136.	*	4	0010	867	123.	*	5	0725	1242	27.
1	0945	118	142.	*	2	1700	493	136.	*	4	0015	868	123.	*	5	0730	1243	27.
1	0950	119	141.	*	2	1705	494	136.	*	4	0020	869	123.	*	5	0735	1244	27.
1	0955	120	141.	*	2	1710	495	136.	*	4	0025	870	123.	*	5	0740	1245	27.
1	1000	121	141.	*	2	1715	496	136.	*	4	0030	871	123.	*	5	0745	1246	27.
1	1005	122	141.	*	2	1720	497	136.	*	4	0035	872	123.	*	5	0750	1247	27.
1	1010	123	141.	*	2	1725	498	136.	*	4	0040	873	123.	*	5	0755	1248	27.
1	1015	124	141.	*	2	1730	499	136.	*	4	0045	874	123.	*	5	0800	1249	26.
1	1020	125	141.	*	2	1735	500	136.	*	4	0050	875	123.	*	5	0805	1250	26.
1	1025	126	141.	*	2	1740	501	136.	*	4	0055	876	123.	*	5	0810	1251	26.
1	1030	127	141.	*	2	1745	502	136.	*	4	0100	877	123.	*	5	0815	1252	26.
1	1035	128	141.	*	2	1750	503	136.	*	4	0105	878	123.	*	5	0820	1253	26.
1	1040	129	141.	*	2	1755	504	136.	*	4	0110	879	123.	*	5	0825	1254	26.
1	1045	130	141.	*	2	1800	505	136.	*	4	0115	880	123.	*	5	0830	1255	26.
1	1050	131	141.	*	2	1805	506	136.	*	4	0120	881	123.	*	5	0835	1256	26.
1	1055	132	141.	*	2	1810	507	136.	*	4	0125	882	123.	*	5	0840	1257	26.
1	1100	133	141.	*	2	1815	508	136.	*	4	0130	883	123.	*	5	0845	1258	26.
1	1105	134	141.	*	2	1820	509	136.	*	4	0135	884	122.	*	5	0850	1259	26.
1	1110	135	141.	*	2	1825	510	136.	*	4	0140	885	122.	*	5	0855	1260	26.
1	1115	136	141.	*	2	1830	511	136.	*	4	0145	886	122.	*	5	0900	1261	26.
1	1120	137	141.	*	2	1835	512	136.	*	4	0150	887	122.	*	5	0905	1262	26.
1	1125	138	141.	*	2	1840	513	136.	*	4	0155	888	122.	*	5	0910	1263	26.
1	1130	139	141.	*	2	1845	514	136.	*	4	0200	889	122.	*	5	0915	1264	26.
1	1135	140	141.	*	2	1850	515	136.	*	4	0205	890	122.	*	5	0920	1265	26.
1	1140	141	141.	*	2	1855	516	136.	*	4	0210	891	122.	*	5	0925	1266	26.
1	1145	142	141.	*	2	1900	517	136.	*	4	0215	892	122.	*	5	0930	1267	26.
1	1150	143	141.	*	2	1905	518	136.	*	4	0220	893	122.	*	5	0935	1268	26.
1	1155	144	141.	*	2	1910	519	136.	*	4	0225	894	122.	*	5	0940	1269	26.
1	1200	145	141.	*	2	1915	520	136.	*	4	0230	895	122.	*	5	0945	1270	26.
1	1205	146	141.	*	2	1920	521	136.	*	4	0235	896	122.	*	5	0950	1271	26.
1	1210	147	141.	*	2	1925	522	136.	*	4	0240	897	122.	*	5	0955	1272	26.
1	1215	148	141.	*	2	1930	523	136.	*	4	0245	898	122.	*	5	1000	1273	26.
1	1220	149	141.	*	2	1935	524	136.	*	4	0250	899	122.	*	5	1005	1274	26.
1	1225	150	141.	*	2	1940	525	136.	*	4	0255	900	122.	*	5	1010	1275	26.
1	1230	151	141.	*	2	1945	526	136.	*	4	0300	901	121.	*	5	1015	1276	26.
1	1235	152	141.	*	2	1950	527	136.	*	4	0305	902	121.	*	5	1020	1277	26.
1	1240	153	141.	*	2	1955	528	136.	*	4	0310	903	121.	*	5	1025	1278	26.
1	1245	154	141.	*	2	2000	529	136.	*	4	0315	904	121.	*	5	1030	1279	26.
1	1250	155	141.	*	2	2005	530	136.	*	4	0320	905	121.	*	5	1035	1280	26.
1	1255	156	141.	*	2	2010	531	136.	*	4	0325	906	121.	*	5	1040	1281	26.
1	1300	157	141.	*	2	2015	532	136.	*	4	0330	907	121.	*	5	1045	1282	26.
1	1305	158	141.	*	2	2020	533	136.	*	4	0335	908	121.	*	5	1050	1283	26.
1	1310	159	141.	*	2	2025	534	136.	*	4	0340	909	121.	*	5	1055	1284	26.
1	1315	160	141.	*	2	2030	535	136.	*	4	0345	910	121.	*	5	1100	1285	26.
1	1320	161	141.	*	2	2035	536	136.	*	4	0350	911	121.	*	5	1105	1286	26.
1	1325	162	141.	*	2	2040	537	135.	*	4	0355	912	121.	*	5	1110	1287	26.
1	1330	163	141.	*	2	2045	538	135.	*	4	0400	913	121.	*	5	1115	1288	26.
1	1335	164	141.	*	2	2050	539	135.	*	4	0405	914	121.	*	5	1120	1289	26.
1	1340	165	141.	*	2	2055	540	135.	*	4	0410	915	121.	*	5	1125	1290	26.
1	1345	166	141.	*	2	2100	541	135.	*	4	0415	916	121.	*	5	1130	1291	26.
1	1350	167	141.	*	2	2105	542	135.	*	4	0420	917	121.	*	5	1135	1292	26.
1	1355	168	141.	*	2	2110	543	135.	*	4	0425	918	120.	*	5	1140	1293	26.
1	1400	169	141.	*	2	2115	544	135.	*	4	0430	919	120.	*	5	1145	1294	26.
1	1405	170	141.	*	2	2120	545	135.	*	4	0435	920	120.	*	5	1150	1295	26.
1	1410	171	141.	*	2	2125	546	135.	*	4	0440	921	120.	*	5	1155	1296	26.
1	1415	172	141.	*	2	2130	547	135.	*	4	0445	922	120.	*	5	1200	1297	26.
1	1420	173	141.	*	2	2135	548	135.	*	4	0450	923	120.	*	5	1205	1298	26.
1	1425	174	141.	*	2	2140	549	135.	*	4	0455	924	120.	*	5	1210	1299	26.
1	1430	175	141.	*	2	2145	550	135.	*	4	0500	925	120.	*	5	1215	1300	26.
1	1435	176	141.	*	2	2150	551	135.	*	4	0505	926	120.	*	5	1220	1301	26.
1	1440	177	141.	*	2	2155	552	135.	*	4	0510	927	120.	*	5	1225	1302	26.
1	1445	178	141.	*	2	2200	553	135.	*	4	0515	928	120.	*	5	1230	1303	26.
1	1450	179	141.	*	2	2205	554	135.	*	4	0520	929	120.	*	5	1235	1304	26.
1	1455	180	141.	*	2	2210	555	135.	*	4	0525	930	120.	*	5	1240	1305	26.
1	1500	181	141.	*	2	2215	556	135.	*	4	0530	931	120.	*	5	1245	1306	26.
1	1505	182	141.	*	2	2220	557	135.	*	4	0535	932	120.	*	5	1250	1307	26.
1	1510	183	141.	*	2	2225	558	135.	*	4	0540	933	120.	*	5	1255	1308	26.
1	1515	184	141.	*	2	2230	559	135.	*	4	0545	934	120.	*	5	1300	1309	26.
1	1520	185	141.	*	2	2235	560	135.	*	4	0550	935	120.	*	5	1305	1310	26.
1	1525	186	141.	*	2	2240	561	135.	*	4	0555	936	119.	*	5	1310	1311	26.
1	1530	187	141.	*	2	2245	562	135.	*	4	0600	937	119.	*	5	1315	1312	26.
1	1535	188	141.	*	2	2250	563	135.	*	4	0605	938	119.	*	5	1320	1313	26.
1	1540	189	141.	*	2	2255	564	135.	*	4	0610	939	119.	*	5	1325	1314	26.
1	1545	190	141.	*	2	2300	565	135.	*	4	0615	940	119.	*	5	1330	1315	26.
1	1550	191	141.	*	2	2305	566	135.	*	4	0620	941	119.	*	5	1335	1316	26.
1	1555	192	141.	*	2	2310	567	135.	*	4	0625	942	119.	*	5	1340	1317	26.
1	1600	193	141.	*	2	2315	568	135.	*	4	0630	943	119.	*	5	1345	1318	26.
1	1605	194	141.	*	2	2320	569	135.	*	4	0635	944	119.	*	5	1350	1319	26.
1	1610	195	141.	*	2	2325	570	135.	*	4	0640	945	119.	*	5	1355	1320	26.
1	1615	196	141.	*	2	2330	571	135.	*	4	0645	946	119.	*	5	1400	1321	26.
1	1620	197	141.	*	2	2335	572	135.	*	4	0650	947	119.	*	5	1405	1322	25.
1	1625	198	141.	*	2	2340	573	135.	*	4	0655	948	119.	*	5	1410	1323	25.
1	1630	199	141.	*	2	2345	574	135.	*	4	0700	949	119.	*	5	1415	1324	25.
1	1635	200	141.	*	2	2350	575	135.	*	4	0705	950	119.	*	5	1420	1325	25.
1	1640	201	141.	*	2	2355	576	135.	*	4	0710	951	119.	*	5	1425	1326	25.
1	1645	202	141.	*	3	0000	577	135.	*	4	0715	952	119.	*	5	1430	1327	25.
1	1650	203	141.	*	3	0005	578	135.	*	4	0720	953	118.	*	5	1435	1328	25.
1	1655	204	140.	*	3	0010	579	135.	*	4	0725	954	118.	*	5	1440	1329	25.
1	1700	205	140.	*	3	0015	580	135.	*	4	0730	955	118.	*	5	1445	1330	25.
1	1705	206	140.	*	3	0020	581	135.	*	4	0735	956	118.	*	5	1450	1331	25.
1	1710	207	140.	*	3	0025	582	135.	*	4	0740	957	118.	*	5	1455	1332	25.
1	1715	208	140.	*	3	0030	583	135.	*	4	0745	958	118.	*	5	1500	1333	25.
1	1720	209	140.	*	3	0035	584	135.	*	4	0750	959	118.	*	5	1505	1334	25.
1	1725	210	140.	*	3	0040	585	135.	*	4	0755	960	118.	*	5	1510	1335	25.
1	1730	211	140.	*	3	0045	586	135.	*	4	0800	961	118.	*	5	1515	1336	25.
1	1735	212	140.	*	3	0050	587	135.	*	4	0805	962	118.	*	5	1520	1337	25.
1	1740	213	140.	*	3	0055	588	135.	*	4	0810	963	118.	*	5	1525	1338	25.
1	1745	214	140.	*	3	0100	589	135.	*	4	0815	964	118.	*	5	1530	1339	25.
1	1750	215	140.	*	3	0105	590	135.	*	4	0820	965	118.	*	5	1535	1340	25.
1	1755	216	140.	*	3	0110	591	135.	*	4	0825	966	118.	*	5	1540	1341	25.
1	1800	217	140.	*	3	0115	592	134.	*	4	0830	967	118.	*	5	1545	1342	25.
1	1805	218	140.	*	3	0120	593	134.	*	4	0835	968	118.	*	5	1550	1343	25.

1	1810	219	140.	*	3	0125	594	134.	*	4	0840	969	118.	*	5	1555	1344	25.
1	1815	220	140.	*	3	0130	595	134.	*	4	0845	970	118.	*	5	1600	1345	25.
1	1820	221	140.	*	3	0135	596	134.	*	4	0850	971	117.	*	5	1605	1346	25.
1	1825	222	140.	*	3	0140	597	134.	*	4	0855	972	117.	*	5	1610	1347	25.
1	1830	223	140.	*	3	0145	598	134.	*	4	0900	973	117.	*	5	1615	1348	25.
1	1835	224	140.	*	3	0150	599	134.	*	4	0905	974	117.	*	5	1620	1349	25.
1	1840	225	140.	*	3	0155	600	134.	*	4	0910	975	117.	*	5	1625	1350	25.
1	1845	226	140.	*	3	0200	601	134.	*	4	0915	976	117.	*	5	1630	1351	25.
1	1850	227	140.	*	3	0205	602	134.	*	4	0920	977	117.	*	5	1635	1352	25.
1	1855	228	140.	*	3	0210	603	134.	*	4	0925	978	117.	*	5	1640	1353	25.
1	1900	229	140.	*	3	0215	604	134.	*	4	0930	979	117.	*	5	1645	1354	25.
1	1905	230	140.	*	3	0220	605	134.	*	4	0935	980	117.	*	5	1650	1355	25.
1	1910	231	140.	*	3	0225	606	134.	*	4	0940	981	117.	*	5	1655	1356	25.
1	1915	232	140.	*	3	0230	607	134.	*	4	0945	982	117.	*	5	1700	1357	25.
1	1920	233	140.	*	3	0235	608	134.	*	4	0950	983	117.	*	5	1705	1358	25.
1	1925	234	140.	*	3	0240	609	134.	*	4	0955	984	117.	*	5	1710	1359	25.
1	1930	235	140.	*	3	0245	610	134.	*	4	1000	985	117.	*	5	1715	1360	25.
1	1935	236	140.	*	3	0250	611	134.	*	4	1005	986	117.	*	5	1720	1361	25.
1	1940	237	140.	*	3	0255	612	134.	*	4	1010	987	117.	*	5	1725	1362	25.
1	1945	238	140.	*	3	0300	613	134.	*	4	1015	988	117.	*	5	1730	1363	21.
1	1950	239	140.	*	3	0305	614	134.	*	4	1020	989	116.	*	5	1735	1364	10.
1	1955	240	140.	*	3	0310	615	134.	*	4	1025	990	116.	*	5	1740	1365	4.
1	2000	241	140.	*	3	0315	616	134.	*	4	1030	991	116.	*	5	1745	1366	2.
1	2005	242	140.	*	3	0320	617	134.	*	4	1035	992	116.	*	5	1750	1367	1.
1	2010	243	140.	*	3	0325	618	134.	*	4	1040	993	116.	*	5	1755	1368	0.
1	2015	244	140.	*	3	0330	619	134.	*	4	1045	994	116.	*	5	1800	1369	0.
1	2020	245	140.	*	3	0335	620	134.	*	4	1050	995	116.	*	5	1805	1370	0.
1	2025	246	140.	*	3	0340	621	134.	*	4	1055	996	116.	*	5	1810	1371	0.
1	2030	247	140.	*	3	0345	622	134.	*	4	1100	997	116.	*	5	1815	1372	0.
1	2035	248	140.	*	3	0350	623	134.	*	4	1105	998	116.	*	5	1820	1373	0.
1	2040	249	140.	*	3	0355	624	134.	*	4	1110	999	116.	*	5	1825	1374	0.
1	2045	250	140.	*	3	0400	625	134.	*	4	1115	1000	116.	*	5	1830	1375	0.
1	2050	251	140.	*	3	0405	626	134.	*	4	1120	1001	116.	*	5	1835	1376	0.
1	2055	252	140.	*	3	0410	627	134.	*	4	1125	1002	116.	*	5	1840	1377	0.
1	2100	253	140.	*	3	0415	628	134.	*	4	1130	1003	116.	*	5	1845	1378	0.
1	2105	254	140.	*	3	0420	629	134.	*	4	1135	1004	116.	*	5	1850	1379	0.
1	2110	255	140.	*	3	0425	630	134.	*	4	1140	1005	116.	*	5	1855	1380	0.
1	2115	256	140.	*	3	0430	631	134.	*	4	1145	1006	116.	*	5	1900	1381	0.
1	2120	257	140.	*	3	0435	632	134.	*	4	1150	1007	115.	*	5	1905	1382	0.
1	2125	258	140.	*	3	0440	633	134.	*	4	1155	1008	115.	*	5	1910	1383	0.
1	2130	259	140.	*	3	0445	634	134.	*	4	1200	1009	115.	*	5	1915	1384	0.
1	2135	260	140.	*	3	0450	635	134.	*	4	1205	1010	115.	*	5	1920	1385	0.
1	2140	261	140.	*	3	0455	636	134.	*	4	1210	1011	115.	*	5	1925	1386	0.
1	2145	262	140.	*	3	0500	637	134.	*	4	1215	1012	115.	*	5	1930	1387	0.
1	2150	263	140.	*	3	0505	638	134.	*	4	1220	1013	115.	*	5	1935	1388	0.
1	2155	264	140.	*	3	0510	639	134.	*	4	1225	1014	115.	*	5	1940	1389	0.
1	2200	265	140.	*	3	0515	640	134.	*	4	1230	1015	115.	*	5	1945	1390	0.
1	2205	266	140.	*	3	0520	641	134.	*	4	1235	1016	115.	*	5	1950	1391	0.
1	2210	267	140.	*	3	0525	642	133.	*	4	1240	1017	115.	*	5	1955	1392	0.
1	2215	268	140.	*	3	0530	643	133.	*	4	1245	1018	115.	*	5	2000	1393	0.
1	2220	269	140.	*	3	0535	644	133.	*	4	1250	1019	115.	*	5	2005	1394	0.
1	2225	270	140.	*	3	0540	645	133.	*	4	1255	1020	115.	*	5	2010	1395	0.
1	2230	271	140.	*	3	0545	646	133.	*	4	1300	1021	115.	*	5	2015	1396	0.
1	2235	272	140.	*	3	0550	647	133.	*	4	1305	1022	115.	*	5	2020	1397	0.
1	2240	273	140.	*	3	0555	648	133.	*	4	1310	1023	115.	*	5	2025	1398	0.
1	2245	274	140.	*	3	0600	649	133.	*	4	1315	1024	115.	*	5	2030	1399	0.
1	2250	275	140.	*	3	0605	650	133.	*	4	1320	1025	115.	*	5	2035	1400	0.
1	2255	276	140.	*	3	0610	651	133.	*	4	1325	1026	114.	*	5	2040	1401	0.
1	2300	277	140.	*	3	0615	652	133.	*	4	1330	1027	114.	*	5	2045	1402	0.
1	2305	278	140.	*	3	0620	653	133.	*	4	1335	1028	114.	*	5	2050	1403	0.
1	2310	279	140.	*	3	0625	654	133.	*	4	1340	1029	114.	*	5	2055	1404	0.
1	2315	280	140.	*	3	0630	655	133.	*	4	1345	1030	114.	*	5	2100	1405	0.
1	2320	281	140.	*	3	0635	656	133.	*	4	1350	1031	114.	*	5	2105	1406	0.
1	2325	282	140.	*	3	0640	657	133.	*	4	1355	1032	114.	*	5	2110	1407	0.
1	2330	283	140.	*	3	0645	658	133.	*	4	1400	1033	114.	*	5	2115	1408	0.
1	2335	284	140.	*	3	0650	659	133.	*	4	1405	1034	114.	*	5	2120	1409	0.
1	2340	285	140.	*	3	0655	660	133.	*	4	1410	1035	114.	*	5	2125	1410	0.
1	2345	286	140.	*	3	0700	661	133.	*	4	1415	1036	114.	*	5	2130	1411	0.
1	2350	287	139.	*	3	0705	662	133.	*	4	1420	1037	114.	*	5	2135	1412	0.
1	2355	288	139.	*	3	0710	663	133.	*	4	1425	1038	114.	*	5	2140	1413	0.
2	0000	289	139.	*	3	0715	664	133.	*	4	1430	1039	114.	*	5	2145	1414	0.
2	0005	290	139.	*	3	0720	665	133.	*	4	1435	1040	114.	*	5	2150	1415	0.
2	0010	291	139.	*	3	0725	666	133.	*	4	1440	1041	114.	*	5	2155	1416	0.
2	0015	292	139.	*	3	0730	667	133.	*	4	1445	1042	114.	*	5	2200	1417	0.
2	0020	293	139.	*	3	0735	668	133.	*	4	1450	1043	114.	*	5	2205	1418	0.
2	0025	294	139.	*	3	0740	669	132.	*	4	1455	1044	113.	*	5	2210	1419	0.
2	0030	295	139.	*	3	0745	670	132.	*	4	1500	1045	113.	*	5	2215	1420	0.
2	0035	296	139.	*	3	0750	671	132.	*	4	1505	1046	113.	*	5	2220	1421	0.
2	0040	297	139.	*	3	0755	672	132.	*	4	1510	1047	113.	*	5	2225	1422	0.
2	0045	298	139.	*	3	0800	673	132.	*	4	1515	1048	113.	*	5	2230	1423	0.
2	0050	299	139.	*	3	0805	674	132.	*	4	1520	1049	113.	*	5	2235	1424	0.
2	0055	300	139.	*	3	0810	675	132.	*	4	1525	1050	113.	*	5	2240	1425	0.
2	0100	301	139.	*	3	0815	676	132.	*	4	1530	1051	113.	*	5	2245	1426	0.
2	0105	302	139.	*	3	0820	677	132.	*	4	1535	1052	113.	*	5	2250	1427	0.
2	0110	303	139.	*	3	0825	678	132.	*	4	1540	1053	113.	*	5	2255	1428	0.
2	0115	304	139.	*	3	0830	679	132.	*	4	1545	1054	113.	*	5	2300	1429	0.
2	0120	305	139.	*	3	0835	680	132.	*	4	1550	1055	113.	*	5	2305	1430	0.
2	0125	306	139.	*	3	0840	681	132.	*	4	1555	1056	113.	*	5	2310	1431	0.
2	0130	307	139.	*	3	0845	682	132.	*	4	1600	1057	113.	*	5	2315	1432	0.
2	0135	308	139.	*	3	0850	683	132.	*	4	1605	1058	113.	*	5	2320	1433	0.
2	0140	309	139.	*	3	0855	684	132.	*	4	1610	1059	113.	*	5	2325	1434	0.
2	0145	310	139.	*	3	0900	685	132.	*	4	1615	1060	113.	*	5	2330	1435	0.
2	0150	311	139.	*	3	0905	686	132.	*	4	1620	1061	113.	*	5	2335	1436	0.
2	0155	312	139.	*	3	0910	687	132.	*	4	1625	1062	112.	*	5	2340	1437	0.
2	0200	313	139.	*	3	0915	688	132.	*	4	1630	1063	112.	*	5	2345	1438	0.
2	0205	314	139.	*	3	0920	689	132.	*	4	1635	1064	112.	*	5	2350	1439	0.
2	0210	315	139.	*	3	0925	690	132.	*	4	1640	1065	112.	*	5	2355	1440	0.
2	0215	316	139.	*	3	0930	691	132.	*	4	1645	1066	112.	*	6	0000	1441	0.
2	0220	317	139.	*	3	0935	692	132.	*	4	1650	1067	112.	*	6	0005	1442	0.
2	0225	318	139.	*	3	0940	693	132.	*	4	1655	1068	112.	*	6	0010	1443	0.
2	0230	319	139.	*	3	0945	694	132.	*	4	1700	1069	112.	*	6	0015	1444	0.
2	0235	320	139.	*	3	0950	695	132.	*	4	1705	1070	112.	*	6	0020	1445	0.
2	0240	321	139.	*	3	0955	696	132.	*	4	1710	1071	112.	*	6	0025	1446	0.
2	0245	322	139.	*	3	1000	697	131.	*	4	1715	1072	112.	*	6	0030	1447	0.
2	0250	323	139.	*	3	1005	698	131.	*	4	1720	1073	112.	*	6	0035	1448	0.
2	0255	324	139.	*	3	1010	699	131.	*	4	1725	1074	112.	*	6	0040	1449	0.
2	0300	325	139.	*	3	1015	700	131.	*	4	1730	1075	112.	*	6	0045	1450	0.
2	0305	326	139.	*	3	1020	701	131.	*	4	1735	1076	112.	*	6	0050	1451	0.
2	0310	327	139.	*	3	1025	702	131.	*	4	1740	1077	112.	*	6	0055	1452	0.
2	0315	328	139.	*	3	1030	703	131.	*	4	1745	1078	112.	*	6	0100	1453	0.
2	0320	329	139.	*	3	1035	704	131.	*	4	1750	1079	111.	*	6	0105	1454	0.
2	0325	330	139.	*	3	1040	705	131.	*	4	1755	1080	111.	*	6	0110	1455	0.
2	0330	331	139.	*	3	1045	706	131.	*	4	1800	1081	111.	*	6	0115	1456	0.

2	0335	332	139.	*	3	1050	707	131.	*	4	1805	1082	111.	*	6	0120	1457	0.
2	0340	333	139.	*	3	1055	708	131.	*	4	1810	1083	111.	*	6	0125	1458	0.
2	0345	334	139.	*	3	1100	709	131.	*	4	1815	1084	111.	*	6	0130	1459	0.
2	0350	335	139.	*	3	1105	710	131.	*	4	1820	1085	111.	*	6	0135	1460	0.
2	0355	336	139.	*	3	1110	711	131.	*	4	1825	1086	111.	*	6	0140	1461	0.
2	0400	337	139.	*	3	1115	712	131.	*	4	1830	1087	111.	*	6	0145	1462	0.
2	0405	338	139.	*	3	1120	713	131.	*	4	1835	1088	111.	*	6	0150	1463	0.
2	0410	339	139.	*	3	1125	714	131.	*	4	1840	1089	111.	*	6	0155	1464	0.
2	0415	340	139.	*	3	1130	715	131.	*	4	1845	1090	111.	*	6	0200	1465	0.
2	0420	341	139.	*	3	1135	716	131.	*	4	1850	1091	111.	*	6	0205	1466	0.
2	0425	342	139.	*	3	1140	717	131.	*	4	1855	1092	111.	*	6	0210	1467	0.
2	0430	343	139.	*	3	1145	718	131.	*	4	1900	1093	111.	*	6	0215	1468	0.
2	0435	344	139.	*	3	1150	719	131.	*	4	1905	1094	111.	*	6	0220	1469	0.
2	0440	345	139.	*	3	1155	720	131.	*	4	1910	1095	111.	*	6	0225	1470	0.
2	0445	346	139.	*	3	1200	721	131.	*	4	1915	1096	110.	*	6	0230	1471	0.
2	0450	347	139.	*	3	1205	722	131.	*	4	1920	1097	110.	*	6	0235	1472	0.
2	0455	348	139.	*	3	1210	723	131.	*	4	1925	1098	110.	*	6	0240	1473	0.
2	0500	349	139.	*	3	1215	724	131.	*	4	1930	1099	110.	*	6	0245	1474	0.
2	0505	350	139.	*	3	1220	725	130.	*	4	1935	1100	110.	*	6	0250	1475	0.
2	0510	351	139.	*	3	1225	726	130.	*	4	1940	1101	98.	*	6	0255	1476	0.
2	0515	352	139.	*	3	1230	727	130.	*	4	1945	1102	61.	*	6	0300	1477	0.
2	0520	353	139.	*	3	1235	728	130.	*	4	1950	1103	44.	*	6	0305	1478	0.
2	0525	354	139.	*	3	1240	729	130.	*	4	1955	1104	36.	*	6	0310	1479	0.
2	0530	355	139.	*	3	1245	730	130.	*	4	2000	1105	32.	*	6	0315	1480	0.
2	0535	356	139.	*	3	1250	731	130.	*	4	2005	1106	30.	*	6	0320	1481	0.
2	0540	357	139.	*	3	1255	732	130.	*	4	2010	1107	29.	*	6	0325	1482	0.
2	0545	358	139.	*	3	1300	733	130.	*	4	2015	1108	29.	*	6	0330	1483	0.
2	0550	359	139.	*	3	1305	734	130.	*	4	2020	1109	29.	*	6	0335	1484	0.
2	0555	360	139.	*	3	1310	735	130.	*	4	2025	1110	29.	*	6	0340	1485	0.
2	0600	361	138.	*	3	1315	736	130.	*	4	2030	1111	29.	*	6	0345	1486	0.
2	0605	362	138.	*	3	1320	737	130.	*	4	2035	1112	28.	*	6	0350	1487	0.
2	0610	363	138.	*	3	1325	738	130.	*	4	2040	1113	28.	*	6	0355	1488	0.
2	0615	364	138.	*	3	1330	739	130.	*	4	2045	1114	28.	*	6	0400	1489	0.
2	0620	365	138.	*	3	1335	740	130.	*	4	2050	1115	28.	*	6	0405	1490	0.
2	0625	366	138.	*	3	1340	741	130.	*	4	2055	1116	28.	*	6	0410	1491	0.
2	0630	367	138.	*	3	1345	742	130.	*	4	2100	1117	28.	*	6	0415	1492	0.
2	0635	368	138.	*	3	1350	743	130.	*	4	2105	1118	28.	*	6	0420	1493	0.
2	0640	369	138.	*	3	1355	744	130.	*	4	2110	1119	28.	*	6	0425	1494	0.
2	0645	370	138.	*	3	1400	745	130.	*	4	2115	1120	28.	*	6	0430	1495	0.
2	0650	371	138.	*	3	1405	746	130.	*	4	2120	1121	28.	*	6	0435	1496	0.
2	0655	372	138.	*	3	1410	747	130.	*	4	2125	1122	28.	*	6	0440	1497	0.
2	0700	373	138.	*	3	1415	748	130.	*	4	2130	1123	28.	*	6	0445	1498	0.
2	0705	374	138.	*	3	1420	749	130.	*	4	2135	1124	28.	*	6	0450	1499	0.
2	0710	375	138.	*	3	1425	750	130.	*	4	2140	1125	28.	*	6	0455	1500	0.
				*					*					*				

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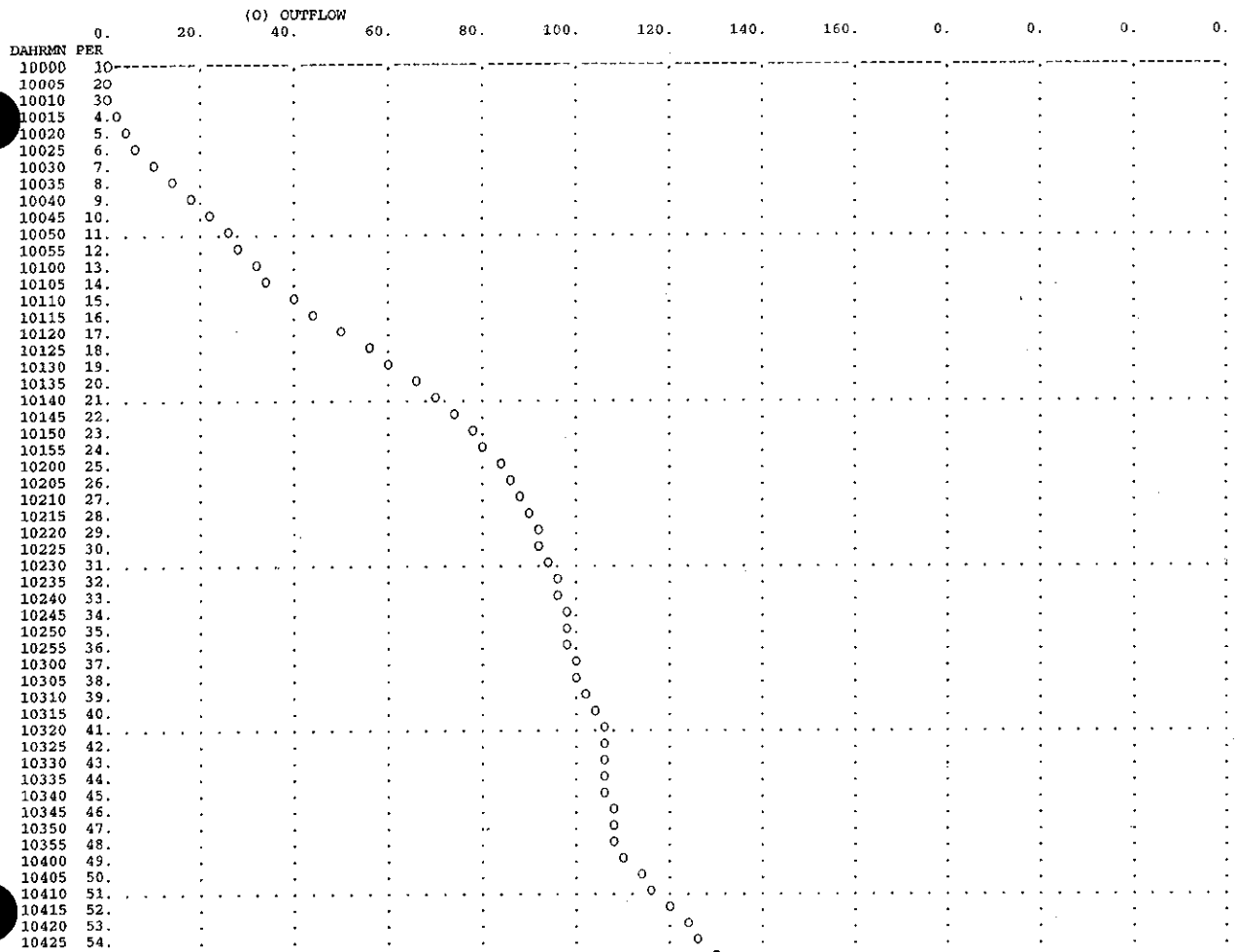
PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	124.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 142.	6.92		142.	140.	135.	99.
		(INCHES)	.124	.491	1.415	1.804
		(AC-FT)	70.	278.	803.	1023.

CUMULATIVE AREA = 10.64 SQ MI

STATION SR180



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INTERPOLATED HYDROGRAPH AT SR440

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	2		0715	376	220.	3		1430	751	128.	4		2145	1126	20.
1		0005	2	0.	2		0720	377	220.	3		1435	752	128.	4		2150	1127	18.
1		0010	3	1.	2		0725	378	220.	3		1440	753	128.	4		2155	1128	17.
1		0015	4	3.	2		0730	379	220.	3		1445	754	128.	4		2200	1129	16.
1		0020	5	7.	2		0735	380	220.	3		1450	755	128.	4		2205	1130	15.
1		0025	6	12.	2		0740	381	220.	3		1455	756	128.	4		2210	1131	15.
1		0030	7	19.	2		0745	382	220.	3		1500	757	128.	4		2215	1132	14.
1		0035	8	27.	2		0750	383	220.	3		1505	758	128.	4		2220	1133	13.
1		0040	9	34.	2		0755	384	220.	3		1510	759	128.	4		2225	1134	13.
1		0045	10	40.	2		0800	385	220.	3		1515	760	128.	4		2230	1135	12.
1		0050	11	45.	2		0805	386	220.	3		1520	761	128.	4		2235	1136	12.
1		0055	12	50.	2		0810	387	220.	3		1525	762	128.	4		2240	1137	12.
1		0100	13	56.	2		0815	388	220.	3		1530	763	128.	4		2245	1138	12.
1		0105	14	61.	2		0820	389	220.	3		1535	764	128.	4		2250	1139	11.
1		0110	15	66.	2		0825	390	220.	3		1540	765	128.	4		2255	1140	11.
1		0115	16	71.	2		0830	391	220.	3		1545	766	128.	4		2300	1141	11.
1		0120	17	76.	2		0835	392	220.	3		1550	767	128.	4		2305	1142	11.
1		0125	18	81.	2		0840	393	220.	3		1555	768	128.	4		2310	1143	11.
1		0130	19	86.	2		0845	394	220.	3		1600	769	128.	4		2315	1144	11.
1		0135	20	91.	2		0850	395	220.	3		1605	770	128.	4		2320	1145	11.
1		0140	21	97.	2		0855	396	220.	3		1610	771	128.	4		2325	1146	11.
1		0145	22	104.	2		0900	397	220.	3		1615	772	128.	4		2330	1147	11.
1		0150	23	111.	2		0905	398	220.	3		1620	773	128.	4		2335	1148	11.
1		0155	24	121.	2		0910	399	220.	3		1625	774	128.	4		2340	1149	11.
1		0200	25	131.	2		0915	400	220.	3		1630	775	128.	4		2345	1150	11.
1		0205	26	140.	2		0920	401	220.	3		1635	776	127.	4		2350	1151	11.
1		0210	27	149.	2		0925	402	220.	3		1640	777	127.	4		2355	1152	11.
1		0215	28	158.	2		0930	403	220.	3		1645	778	127.	5		0000	1153	11.
1		0220	29	166.	2		0935	404	220.	3		1650	779	127.	5		0005	1154	11.
1		0225	30	173.	2		0940	405	220.	3		1655	780	127.	5		0010	1155	11.
1		0230	31	179.	2		0945	406	220.	3		1700	781	127.	5		0015	1156	11.
1		0235	32	185.	2		0950	407	220.	3		1705	782	127.	5		0020	1157	11.
1		0240	33	190.	2		0955	408	220.	3		1710	783	127.	5		0025	1158	11.
1		0245	34	195.	2		1000	409	220.	3		1715	784	127.	5		0030	1159	11.
1		0250	35	199.	2		1005	410	220.	3		1720	785	127.	5		0035	1160	11.
1		0255	36	203.	2		1010	411	220.	3		1725	786	127.	5		0040	1161	11.
1		0300	37	207.	2		1015	412	220.	3		1730	787	127.	5		0045	1162	11.
1		0305	38	210.	2		1020	413	220.	3		1735	788	127.	5		0050	1163	11.
1		0310	39	213.	2		1025	414	220.	3		1740	789	127.	5		0055	1164	11.
1		0315	40	216.	2		1030	415	220.	3		1745	790	127.	5		0100	1165	11.
1		0320	41	219.	2		1035	416	220.	3		1750	791	127.	5		0105	1166	11.
1		0325	42	222.	2		1040	417	220.	3		1755	792	127.	5		0110	1167	11.
1		0330	43	226.	2		1045	418	219.	3		1800	793	127.	5		0115	1168	11.
1		0335	44	231.	2		1050	419	219.	3		1805	794	127.	5		0120	1169	11.
1		0340	45	239.	2		1055	420	219.	3		1810	795	127.	5		0125	1170	11.
1		0345	46	251.	2		1100	421	219.	3		1815	796	127.	5		0130	1171	11.
1		0350	47	275.	2		1105	422	219.	3		1820	797	127.	5		0135	1172	11.
1		0355	48	322.	2		1110	423	219.	3		1825	798	127.	5		0140	1173	11.
1		0400	49	412.	2		1115	424	219.	3		1830	799	126.	5		0145	1174	11.
1		0405	50	566.	2		1120	425	219.	3		1835	800	126.	5		0150	1175	11.
1		0410	51	643.	2		1125	426	219.	3		1840	801	126.	5		0155	1176	11.
1		0415	52	650.	2		1130	427	219.	3		1845	802	126.	5		0200	1177	11.
1		0420	53	661.	2		1135	428	219.	3		1850	803	126.	5		0205	1178	11.
1		0425	54	676.	2		1140	429	219.	3		1855	804	126.	5		0210	1179	11.
1		0430	55	692.	2		1145	430	219.	3		1900	805	126.	5		0215	1180	11.
1		0435	56	709.	2		1150	431	219.	3		1905	806	126.	5		0220	1181	11.
1		0440	57	724.	2		1155	432	217.	3		1910	807	126.	5		0225	1182	11.
1		0445	58	731.	2		1200	433	213.	3		1915	808	126.	5		0230	1183	11.
1		0450	59	738.	2		1205	434	210.	3		1920	809	126.	5		0235	1184	11.
1		0455	60	745.	2		1210	435	207.	3		1925	810	126.	5		0240	1185	11.
1		0500	61	752.	2		1215	436	206.	3		1930	811	126.	5		0245	1186	11.
1		0505	62	758.	2		1220	437	203.	3		1935	812	126.	5		0250	1187	11.
1		0510	63	763.	2		1225	438	195.	3		1940	813	126.	5		0255	1188	11.
1		0515	64	767.	2		1230	439	183.	3		1945	814	126.	5		0300	1189	11.
1		0520	65	770.	2		1235	440	175.	3		1950	815	125.	5		0305	1190	11.
1		0525	66	773.	2		1240	441	169.	3		1955	816	125.	5		0310	1191	10.
1		0530	67	776.	2		1245	442	165.	3		2000	817	125.	5		0315	1192	10.
1		0535	68	778.	2		1250	443	163.	3		2005	818	125.	5		0320	1193	10.
1		0540	69	779.	2		1255	444	161.	3		2010	819	125.	5		0325	1194	10.
1		0545	70	781.	2		1300	445	158.	3		2015	820	125.	5		0330	1195	10.
1		0550	71	782.	2		1305	446	153.	3		2020	821	125.	5		0335	1196	10.
1		0555	72	783.	2		1310	447	149.	3		2025	822	125.	5		0340	1197	10.
1		0600	73	783.	2		1315	448	145.	3		2030	823	125.	5		0345	1198	10.
1		0605	74	784.	2		1320	449	143.	3		2035	824	125.	5		0350	1199	10.
1		0610	75	784.	2		1325	450	142.	3		2040	825	125.	5		0355	1200	10.
1		0615	76	784.	2		1330	451	141.	3		2045	826	125.	5		0400	1201	10.
1		0620	77	784.	2		1335	452	140.	3		2050	827	125.	5		0405	1202	10.
1		0625	78	784.	2		1340	453	139.	3		2055	828	125.	5		0410	1203	10.
1		0630	79	784.	2		1345	454	139.	3		2100	829	125.	5		0415	1204	10.
1		0635	80	783.	2		1350	455	138.	3		2105	830	125.	5		0420	1205	10.
1		0640	81	783.	2		1355	456	138.	3		2110	831	124.	5		0425	1206	10.
1		0645	82	782.	2		1400	457	138.	3		2115	832	124.	5		0430	1207	10.
1		0650	83	782.	2		1405	458	138.	3		2120	833	124.	5		0435	1208	10.
1		0655	84	781.	2		1410	459	137.	3		2125	834	124.	5		0440	1209	10.
1		0700	85	781.	2		1415	460	137.	3		2130	835	124.	5		0445	1210	10.
1		0705	86	780.	2		1420	461	137.	3		2135	836	124.	5		0450	1211	10.
1		0710	87	779.	2		1425	462	137.	3		2140	837	124.	5		0455	1212	10.
1		0715	88	778.	2		1430	463	137.	3		2145	838	124.	5		0500	1213	10.
1		0720	89	777.	2		1435	464	137.	3		2150	839	124.	5		0505	1214	10.
1		0725	90	777.	2		1440	465	137.	3		2155	840	124.	5		0510	1215	10.
1		0730	91	776.	2		1445	466	137.	3		2200	841	124.	5		0515	1216	10.
1		0735	92	775.	2		1450	467	137.	3		2205	842	124.	5		0520	1217	10.
1		0740	93	774.	2		1455	468	137.	3		2210	843	124.	5		0525	1218	10.
1		0745	94	773.	2		1500	469	137.	3		2215	844	124.	5		0530	1219	10.
1		0750	95	772.	2		1505	470	137.	3		2220	845	124.	5		0535	1220	10.
1		0755	96	771.	2		1510	471	137.	3		2225	846	124.	5		0540	1221	10.
1		0800	97	770.	2		1515	472	137.	3		2230	847	123.	5		0545	1222	10.
1		0805	98	769.	2		1520	473	137.	3		2235	848	123.	5		0550	1223	10.
1		0810	99	768.	2		1525	474	137.	3		2240	849	123.	5		0555	1224	10.
1		0815	100	767.	2		1530	475	137.	3		2245	850	123.	5		0600	1225	10.
1		0820	101	766.	2		1535	476	137.	3		2250	851	123.	5		0605	1226	10.
1		0825	102	765.	2		1540	477	136.	3		2255	852	123.	5		0610	1227	10.
1		0830	103	764.	2		1545	478	136.	3		2300	853	123.	5		0615	1228	10.
1		0835	104	763.	2		1550	479	136.	3		2305	854	123.	5		0620	1229	10.
1		0840	105	762.	2		1555	480	136.	3		2310	855	123.	5		0625	1230	10.

1	0845	106	761.	*	2	1600	481	136.	*	3	2315	856	123.	*	5	0630	1231	10.
1	0850	107	760.	*	2	1605	482	136.	*	3	2320	857	123.	*	5	0635	1232	10.
1	0855	108	759.	*	2	1610	483	136.	*	3	2325	858	123.	*	5	0640	1233	10.
1	0900	109	758.	*	2	1615	484	136.	*	3	2330	859	123.	*	5	0645	1234	10.
1	0905	110	757.	*	2	1620	485	136.	*	3	2335	860	123.	*	5	0650	1235	10.
1	0910	111	756.	*	2	1625	486	136.	*	3	2340	861	123.	*	5	0655	1236	10.
1	0915	112	755.	*	2	1630	487	136.	*	3	2345	862	123.	*	5	0700	1237	10.
1	0920	113	754.	*	2	1635	488	136.	*	3	2350	863	122.	*	5	0705	1238	10.
1	0925	114	753.	*	2	1640	489	136.	*	3	2355	864	122.	*	5	0710	1239	10.
1	0930	115	752.	*	2	1645	490	136.	*	4	0000	865	122.	*	5	0715	1240	10.
1	0935	116	750.	*	2	1650	491	136.	*	4	0005	866	122.	*	5	0720	1241	10.
1	0940	117	749.	*	2	1655	492	136.	*	4	0010	867	122.	*	5	0725	1242	10.
1	0945	118	748.	*	2	1700	493	136.	*	4	0015	868	122.	*	5	0730	1243	10.
1	0950	119	747.	*	2	1705	494	136.	*	4	0020	869	122.	*	5	0735	1244	10.
1	0955	120	746.	*	2	1710	495	136.	*	4	0025	870	122.	*	5	0740	1245	10.
1	1000	121	745.	*	2	1715	496	136.	*	4	0030	871	122.	*	5	0745	1246	10.
1	1005	122	744.	*	2	1720	497	136.	*	4	0035	872	122.	*	5	0750	1247	10.
1	1010	123	743.	*	2	1725	498	135.	*	4	0040	873	122.	*	5	0755	1248	10.
1	1015	124	742.	*	2	1730	499	135.	*	4	0045	874	122.	*	5	0800	1249	10.
1	1020	125	741.	*	2	1735	500	135.	*	4	0050	875	122.	*	5	0805	1250	10.
1	1025	126	740.	*	2	1740	501	135.	*	4	0055	876	122.	*	5	0810	1251	10.
1	1030	127	739.	*	2	1745	502	135.	*	4	0100	877	122.	*	5	0815	1252	10.
1	1035	128	738.	*	2	1750	503	135.	*	4	0105	878	122.	*	5	0820	1253	10.
1	1040	129	737.	*	2	1755	504	135.	*	4	0110	879	121.	*	5	0825	1254	10.
1	1045	130	736.	*	2	1800	505	135.	*	4	0115	880	121.	*	5	0830	1255	10.
1	1050	131	735.	*	2	1805	506	135.	*	4	0120	881	121.	*	5	0835	1256	10.
1	1055	132	734.	*	2	1810	507	135.	*	4	0125	882	121.	*	5	0840	1257	10.
1	1100	133	733.	*	2	1815	508	135.	*	4	0130	883	121.	*	5	0845	1258	10.
1	1105	134	732.	*	2	1820	509	135.	*	4	0135	884	121.	*	5	0850	1259	10.
1	1110	135	731.	*	2	1825	510	135.	*	4	0140	885	121.	*	5	0855	1260	10.
1	1115	136	730.	*	2	1830	511	135.	*	4	0145	886	121.	*	5	0900	1261	10.
1	1120	137	729.	*	2	1835	512	135.	*	4	0150	887	121.	*	5	0905	1262	10.
1	1125	138	728.	*	2	1840	513	135.	*	4	0155	888	121.	*	5	0910	1263	10.
1	1130	139	727.	*	2	1845	514	135.	*	4	0200	889	121.	*	5	0915	1264	10.
1	1135	140	726.	*	2	1850	515	135.	*	4	0205	890	121.	*	5	0920	1265	10.
1	1140	141	723.	*	2	1855	516	135.	*	4	0210	891	121.	*	5	0925	1266	10.
1	1145	142	721.	*	2	1900	517	135.	*	4	0215	892	121.	*	5	0930	1267	10.
1	1150	143	718.	*	2	1905	518	135.	*	4	0220	893	121.	*	5	0935	1268	10.
1	1155	144	715.	*	2	1910	519	135.	*	4	0225	894	121.	*	5	0940	1269	10.
1	1200	145	712.	*	2	1915	520	135.	*	4	0230	895	120.	*	5	0945	1270	10.
1	1205	146	709.	*	2	1920	521	135.	*	4	0235	896	120.	*	5	0950	1271	10.
1	1210	147	707.	*	2	1925	522	135.	*	4	0240	897	120.	*	5	0955	1272	10.
1	1215	148	704.	*	2	1930	523	135.	*	4	0245	898	120.	*	5	1000	1273	10.
1	1220	149	701.	*	2	1935	524	135.	*	4	0250	899	120.	*	5	1005	1274	10.
1	1225	150	698.	*	2	1940	525	135.	*	4	0255	900	120.	*	5	1010	1275	10.
1	1230	151	696.	*	2	1945	526	135.	*	4	0300	901	120.	*	5	1015	1276	10.
1	1235	152	693.	*	2	1950	527	135.	*	4	0305	902	120.	*	5	1020	1277	10.
1	1240	153	690.	*	2	1955	528	135.	*	4	0310	903	120.	*	5	1025	1278	10.
1	1245	154	688.	*	2	2000	529	135.	*	4	0315	904	120.	*	5	1030	1279	10.
1	1250	155	685.	*	2	2005	530	135.	*	4	0320	905	120.	*	5	1035	1280	10.
1	1255	156	682.	*	2	2010	531	135.	*	4	0325	906	120.	*	5	1040	1281	10.
1	1300	157	680.	*	2	2015	532	135.	*	4	0330	907	120.	*	5	1045	1282	10.
1	1305	158	677.	*	2	2020	533	135.	*	4	0335	908	120.	*	5	1050	1283	10.
1	1310	159	675.	*	2	2025	534	135.	*	4	0340	909	120.	*	5	1055	1284	10.
1	1315	160	672.	*	2	2030	535	135.	*	4	0345	910	120.	*	5	1100	1285	10.
1	1320	161	670.	*	2	2035	536	135.	*	4	0350	911	120.	*	5	1105	1286	10.
1	1325	162	667.	*	2	2040	537	135.	*	4	0355	912	119.	*	5	1110	1287	10.
1	1330	163	665.	*	2	2045	538	135.	*	4	0400	913	119.	*	5	1115	1288	10.
1	1335	164	662.	*	2	2050	539	135.	*	4	0405	914	119.	*	5	1120	1289	10.
1	1340	165	660.	*	2	2055	540	135.	*	4	0410	915	119.	*	5	1125	1290	10.
1	1345	166	657.	*	2	2100	541	135.	*	4	0415	916	119.	*	5	1130	1291	10.
1	1350	167	655.	*	2	2105	542	135.	*	4	0420	917	119.	*	5	1135	1292	10.
1	1355	168	652.	*	2	2110	543	135.	*	4	0425	918	119.	*	5	1140	1293	10.
1	1400	169	650.	*	2	2115	544	135.	*	4	0430	919	119.	*	5	1145	1294	10.
1	1405	170	522.	*	2	2120	545	135.	*	4	0435	920	119.	*	5	1150	1295	10.
1	1410	171	430.	*	2	2125	546	135.	*	4	0440	921	119.	*	5	1155	1296	10.
1	1415	172	372.	*	2	2130	547	135.	*	4	0445	922	119.	*	5	1200	1297	10.
1	1420	173	335.	*	2	2135	548	135.	*	4	0450	923	119.	*	5	1205	1298	10.
1	1425	174	311.	*	2	2140	549	135.	*	4	0455	924	119.	*	5	1210	1299	10.
1	1430	175	296.	*	2	2145	550	135.	*	4	0500	925	119.	*	5	1215	1300	10.
1	1435	176	286.	*	2	2150	551	135.	*	4	0505	926	119.	*	5	1220	1301	10.
1	1440	177	279.	*	2	2155	552	134.	*	4	0510	927	119.	*	5	1225	1302	10.
1	1445	178	275.	*	2	2200	553	134.	*	4	0515	928	119.	*	5	1230	1303	10.
1	1450	179	273.	*	2	2205	554	134.	*	4	0520	929	118.	*	5	1235	1304	10.
1	1455	180	271.	*	2	2210	555	134.	*	4	0525	930	118.	*	5	1240	1305	10.
1	1500	181	270.	*	2	2215	556	134.	*	4	0530	931	118.	*	5	1245	1306	10.
1	1505	182	269.	*	2	2220	557	134.	*	4	0535	932	118.	*	5	1250	1307	10.
1	1510	183	269.	*	2	2225	558	134.	*	4	0540	933	118.	*	5	1255	1308	10.
1	1515	184	268.	*	2	2230	559	134.	*	4	0545	934	118.	*	5	1300	1309	10.
1	1520	185	268.	*	2	2235	560	134.	*	4	0550	935	118.	*	5	1305	1310	10.
1	1525	186	268.	*	2	2240	561	134.	*	4	0555	936	118.	*	5	1310	1311	10.
1	1530	187	268.	*	2	2245	562	134.	*	4	0600	937	118.	*	5	1315	1312	10.
1	1535	188	267.	*	2	2250	563	134.	*	4	0605	938	118.	*	5	1320	1313	10.
1	1540	189	267.	*	2	2255	564	134.	*	4	0610	939	118.	*	5	1325	1314	10.
1	1545	190	267.	*	2	2300	565	134.	*	4	0615	940	118.	*	5	1330	1315	10.
1	1550	191	267.	*	2	2305	566	134.	*	4	0620	941	118.	*	5	1335	1316	10.
1	1555	192	267.	*	2	2310	567	134.	*	4	0625	942	118.	*	5	1340	1317	10.
1	1600	193	267.	*	2	2315	568	134.	*	4	0630	943	118.	*	5	1345	1318	10.
1	1605	194	267.	*	2	2320	569	134.	*	4	0635	944	117.	*	5	1350	1319	10.
1	1610	195	267.	*	2	2325	570	134.	*	4	0640	945	117.	*	5	1355	1320	10.
1	1615	196	266.	*	2	2330	571	134.	*	4	0645	946	117.	*	5	1400	1321	10.
1	1620	197	266.	*	2	2335	572	134.	*	4	0650	947	117.	*	5	1405	1322	10.
1	1625	198	266.	*	2	2340	573	134.	*	4	0655	948	117.	*	5	1410	1323	10.
1	1630	199	265.	*	2	2345	574	134.	*	4	0700	949	117.	*	5	1415	1324	10.
1	1635	200	265.	*	2	2350	575	134.	*	4	0705	950	117.	*	5	1420	1325	10.
1	1640	201	265.	*	2	2355	576	134.	*	4	0710	951	117.	*	5	1425	1326	10.
1	1645	202	265.	*	3	0000	577	134.	*	4	0715	952	117.	*	5	1430	1327	10.
1	1650	203	264.	*	3	0005	578	134.	*	4	0720	953	117.	*	5	1435	1328	10.
1	1655	204	264.	*	3	0010	579	134.	*	4	0725	954	117.	*	5	1440	1329	10.
1	1700	205	264.	*	3	0015	580	134.	*	4	0730	955	117.	*	5	1445	1330	10.
1	1705	206	264.	*	3	0020	581	134.	*	4	0735	956	117.	*	5	1450	1331	10.
1	1710	207	263.	*	3	0025	582	134.	*	4	0740	957	117.	*	5	1455	1332	10.
1	1715	208	263.	*	3	0030	583	134.	*	4	0745	958	117.	*	5	1500	1333	10.
1	1720	209	263.	*	3	0035	584	134.	*	4	0750	959	117.	*	5	1505	1334	10.
1	1725	210	263.	*	3	0040	585	134.	*	4	0755	960	116.	*	5	1510	1335	10.
1	1730	211	262.	*	3	0045	586	134.	*	4	0800	961	116.	*	5	1515	1336	10.
1	1735	212	262.	*	3	0050	587	134.	*	4	0805	962	116.	*	5	1520	1337	10.
1	1740	213	262.	*	3	0055	588	134.	*	4	0810	963	116.	*	5	1525	1338	10.
1	1745	214	262.	*	3	0100	589	134.	*	4	0815	964	116.	*	5	1530	1339	10.
1	1750	215	261.	*	3	0105	590	134.	*	4	0820	965	116.	*	5	1535	1340	10.
1	1755	216	261.	*	3	0110	591	134.	*	4	0825	966	116.	*	5	1540	1341	10.
1	1800	217	261.	*	3	0115	592	134.	*	4	0830	967	116.	*	5	1545	1342	10.
1	1805	218	261.	*	3	0120	593	134.	*	4	0835	968	116.	*	5	1550	1343	10.

1	1810	219	260.	*	3	0125	594	134.	*	4	0840	969	116.	*	5	1555	1344	10.
1	1815	220	260.	*	3	0130	595	134.	*	4	0845	970	116.	*	5	1600	1345	10.
1	1820	221	260.	*	3	0135	596	134.	*	4	0850	971	116.	*	5	1605	1346	10.
1	1825	222	260.	*	3	0140	597	134.	*	4	0855	972	116.	*	5	1610	1347	10.
1	1830	223	259.	*	3	0145	598	134.	*	4	0900	973	116.	*	5	1615	1348	10.
1	1835	224	254.	*	3	0150	599	134.	*	4	0905	974	116.	*	5	1620	1349	10.
1	1840	225	243.	*	3	0155	600	134.	*	4	0910	975	116.	*	5	1625	1350	10.
1	1845	226	235.	*	3	0200	601	134.	*	4	0915	976	116.	*	5	1630	1351	10.
1	1850	227	231.	*	3	0205	602	134.	*	4	0920	977	115.	*	5	1635	1352	10.
1	1855	228	228.	*	3	0210	603	134.	*	4	0925	978	115.	*	5	1640	1353	10.
1	1900	229	226.	*	3	0215	604	134.	*	4	0930	979	115.	*	5	1645	1354	10.
1	1905	230	224.	*	3	0220	605	133.	*	4	0935	980	115.	*	5	1650	1355	10.
1	1910	231	224.	*	3	0225	606	133.	*	4	0940	981	115.	*	5	1655	1356	10.
1	1915	232	223.	*	3	0230	607	133.	*	4	0945	982	115.	*	5	1700	1357	10.
1	1920	233	223.	*	3	0235	608	133.	*	4	0950	983	115.	*	5	1705	1358	10.
1	1925	234	223.	*	3	0240	609	133.	*	4	0955	984	115.	*	5	1710	1359	10.
1	1930	235	222.	*	3	0245	610	133.	*	4	1000	985	115.	*	5	1715	1360	10.
1	1935	236	222.	*	3	0250	611	133.	*	4	1005	986	115.	*	5	1720	1361	10.
1	1940	237	222.	*	3	0255	612	133.	*	4	1010	987	115.	*	5	1725	1362	10.
1	1945	238	222.	*	3	0300	613	133.	*	4	1015	988	115.	*	5	1730	1363	10.
1	1950	239	222.	*	3	0305	614	133.	*	4	1020	989	115.	*	5	1735	1364	10.
1	1955	240	222.	*	3	0310	615	133.	*	4	1025	990	115.	*	5	1740	1365	10.
1	2000	241	222.	*	3	0315	616	133.	*	4	1030	991	115.	*	5	1745	1366	10.
1	2005	242	222.	*	3	0320	617	133.	*	4	1035	992	115.	*	5	1750	1367	9.
1	2010	243	222.	*	3	0325	618	133.	*	4	1040	993	115.	*	5	1755	1368	9.
1	2015	244	222.	*	3	0330	619	133.	*	4	1045	994	115.	*	5	1800	1369	9.
1	2020	245	222.	*	3	0335	620	133.	*	4	1050	995	114.	*	5	1805	1370	8.
1	2025	246	222.	*	3	0340	621	133.	*	4	1055	996	114.	*	5	1810	1371	8.
1	2030	247	222.	*	3	0345	622	133.	*	4	1100	997	114.	*	5	1815	1372	7.
1	2035	248	222.	*	3	0350	623	133.	*	4	1105	998	114.	*	5	1820	1373	6.
1	2040	249	222.	*	3	0355	624	133.	*	4	1110	999	114.	*	5	1825	1374	5.
1	2045	250	222.	*	3	0400	625	133.	*	4	1115	1000	114.	*	5	1830	1375	4.
1	2050	251	222.	*	3	0405	626	133.	*	4	1120	1001	114.	*	5	1835	1376	4.
1	2055	252	222.	*	3	0410	627	133.	*	4	1125	1002	114.	*	5	1840	1377	3.
1	2100	253	222.	*	3	0415	628	133.	*	4	1130	1003	114.	*	5	1845	1378	3.
1	2105	254	222.	*	3	0420	629	133.	*	4	1135	1004	114.	*	5	1850	1379	3.
1	2110	255	222.	*	3	0425	630	133.	*	4	1140	1005	114.	*	5	1855	1380	2.
1	2115	256	222.	*	3	0430	631	133.	*	4	1145	1006	114.	*	5	1900	1381	2.
1	2120	257	222.	*	3	0435	632	133.	*	4	1150	1007	114.	*	5	1905	1382	2.
1	2125	258	222.	*	3	0440	633	133.	*	4	1155	1008	114.	*	5	1910	1383	2.
1	2130	259	222.	*	3	0445	634	133.	*	4	1200	1009	114.	*	5	1915	1384	2.
1	2135	260	222.	*	3	0450	635	133.	*	4	1205	1010	114.	*	5	1920	1385	1.
1	2140	261	222.	*	3	0455	636	133.	*	4	1210	1011	114.	*	5	1925	1386	1.
1	2145	262	222.	*	3	0500	637	133.	*	4	1215	1012	113.	*	5	1930	1387	1.
1	2150	263	222.	*	3	0505	638	133.	*	4	1220	1013	113.	*	5	1935	1388	1.
1	2155	264	222.	*	3	0510	639	133.	*	4	1225	1014	113.	*	5	1940	1389	1.
1	2200	265	222.	*	3	0515	640	133.	*	4	1230	1015	113.	*	5	1945	1390	1.
1	2205	266	222.	*	3	0520	641	133.	*	4	1235	1016	113.	*	5	1950	1391	1.
1	2210	267	222.	*	3	0525	642	133.	*	4	1240	1017	113.	*	5	1955	1392	0.
1	2215	268	222.	*	3	0530	643	133.	*	4	1245	1018	113.	*	5	2000	1393	0.
1	2220	269	222.	*	3	0535	644	133.	*	4	1250	1019	113.	*	5	2005	1394	0.
1	2225	270	222.	*	3	0540	645	133.	*	4	1255	1020	113.	*	5	2010	1395	0.
1	2230	271	222.	*	3	0545	646	133.	*	4	1300	1021	113.	*	5	2015	1396	0.
1	2235	272	222.	*	3	0550	647	133.	*	4	1305	1022	113.	*	5	2020	1397	0.
1	2240	273	222.	*	3	0555	648	133.	*	4	1310	1023	113.	*	5	2025	1398	0.
1	2245	274	222.	*	3	0600	649	133.	*	4	1315	1024	113.	*	5	2030	1399	0.
1	2250	275	222.	*	3	0605	650	133.	*	4	1320	1025	113.	*	5	2035	1400	0.
1	2255	276	222.	*	3	0610	651	132.	*	4	1325	1026	113.	*	5	2040	1401	0.
1	2300	277	222.	*	3	0615	652	132.	*	4	1330	1027	113.	*	5	2045	1402	0.
1	2305	278	222.	*	3	0620	653	132.	*	4	1335	1028	113.	*	5	2050	1403	0.
1	2310	279	222.	*	3	0625	654	132.	*	4	1340	1029	112.	*	5	2055	1404	0.
1	2315	280	222.	*	3	0630	655	132.	*	4	1345	1030	112.	*	5	2100	1405	0.
1	2320	281	222.	*	3	0635	656	132.	*	4	1350	1031	112.	*	5	2105	1406	0.
1	2325	282	222.	*	3	0640	657	132.	*	4	1355	1032	112.	*	5	2110	1407	0.
1	2330	283	222.	*	3	0645	658	132.	*	4	1400	1033	112.	*	5	2115	1408	0.
1	2335	284	222.	*	3	0650	659	132.	*	4	1405	1034	112.	*	5	2120	1409	0.
1	2340	285	222.	*	3	0655	660	132.	*	4	1410	1035	112.	*	5	2125	1410	0.
1	2345	286	222.	*	3	0700	661	132.	*	4	1415	1036	112.	*	5	2130	1411	0.
1	2350	287	222.	*	3	0705	662	132.	*	4	1420	1037	112.	*	5	2135	1412	0.
1	2355	288	222.	*	3	0710	663	132.	*	4	1425	1038	112.	*	5	2140	1413	0.
2	0000	289	222.	*	3	0715	664	132.	*	4	1430	1039	112.	*	5	2145	1414	0.
2	0005	290	222.	*	3	0720	665	132.	*	4	1435	1040	112.	*	5	2150	1415	0.
2	0010	291	222.	*	3	0725	666	132.	*	4	1440	1041	112.	*	5	2155	1416	0.
2	0015	292	221.	*	3	0730	667	132.	*	4	1445	1042	112.	*	5	2200	1417	0.
2	0020	293	221.	*	3	0735	668	132.	*	4	1450	1043	112.	*	5	2205	1418	0.
2	0025	294	221.	*	3	0740	669	132.	*	4	1455	1044	112.	*	5	2210	1419	0.
2	0030	295	221.	*	3	0745	670	132.	*	4	1500	1045	112.	*	5	2215	1420	0.
2	0035	296	221.	*	3	0750	671	132.	*	4	1505	1046	112.	*	5	2220	1421	0.
2	0040	297	221.	*	3	0755	672	132.	*	4	1510	1047	111.	*	5	2225	1422	0.
2	0045	298	221.	*	3	0800	673	132.	*	4	1515	1048	111.	*	5	2230	1423	0.
2	0050	299	221.	*	3	0805	674	132.	*	4	1520	1049	111.	*	5	2235	1424	0.
2	0055	300	221.	*	3	0810	675	132.	*	4	1525	1050	111.	*	5	2240	1425	0.
2	0100	301	221.	*	3	0815	676	131.	*	4	1530	1051	111.	*	5	2245	1426	0.
2	0105	302	221.	*	3	0820	677	131.	*	4	1535	1052	111.	*	5	2250	1427	0.
2	0110	303	221.	*	3	0825	678	131.	*	4	1540	1053	111.	*	5	2255	1428	0.
2	0115	304	221.	*	3	0830	679	131.	*	4	1545	1054	111.	*	5	2300	1429	0.
2	0120	305	221.	*	3	0835	680	131.	*	4	1550	1055	111.	*	5	2305	1430	0.
2	0125	306	221.	*	3	0840	681	131.	*	4	1555	1056	111.	*	5	2310	1431	0.
2	0130	307	221.	*	3	0845	682	131.	*	4	1600	1057	111.	*	5	2315	1432	0.
2	0135	308	221.	*	3	0850	683	131.	*	4	1605	1058	111.	*	5	2320	1433	0.
2	0140	309	221.	*	3	0855	684	131.	*	4	1610	1059	111.	*	5	2325	1434	0.
2	0145	310	221.	*	3	0900	685	131.	*	4	1615	1060	111.	*	5	2330	1435	0.
2	0150	311	221.	*	3	0905	686	131.	*	4	1620	1061	111.	*	5	2335	1436	0.
2	0155	312	221.	*	3	0910	687	131.	*	4	1625	1062	111.	*	5	2340	1437	0.
2	0200	313	221.	*	3	0915	688	131.	*	4	1630	1063	111.	*	5	2345	1438	0.
2	0205	314	221.	*	3	0920	689	131.	*	4	1635	1064	111.	*	5	2350	1439	0.
2	0210	315	221.	*	3	0925	690	131.	*	4	1640	1065	110.	*	5	2355	1440	0.
2	0215	316	221.	*	3	0930	691	131.	*	4	1645	1066	110.	*	6	0000	1441	0.
2	0220	317	221.	*	3	0935	692	131.	*	4	1650	1067	110.	*	6	0005	1442	0.
2	0225	318	221.	*	3	0940	693	131.	*	4	1655	1068	110.	*	6	0010	1443	0.
2	0230	319	221.	*	3	0945	694	131.	*	4	1700	1069	110.	*	6	0015	1444	0.
2	0235	320	221.	*	3	0950	695	131.	*	4	1705	1070	110.	*	6	0020	1445	0.
2	0240	321	221.	*	3	0955	696	131.	*	4	1710	1071	110.	*	6	0025	1446	0.
2	0245	322	221.	*	3	1000	697	131.	*	4	1715	1072	110.	*	6	0030	1447	0.
2	0250	323	221.	*	3	1005	698	131.	*	4	1720	1073	110.	*	6	0035	1448	0.
2	0255	324	221.	*	3	1010	699	131.	*	4	1725	1074	110.	*	6	0040	1449	0.
2	0300	325	221.	*	3	1015	700	130.	*	4	1730	1075	110.	*	6	0045	1450	0.
2	0305	326	221.	*	3	1020	701	130.	*	4	1735	1076	110.	*	6	0050	1451	0.
2	0310	327	221.	*	3	1025	702	130.	*	4	1740	1077	110.	*	6	0055	1452	0.
2	0315	328	221.	*	3	1030	703	130.	*	4	1745	1078	110.	*	6	0100	1453	0.
2	0320	329	221.	*	3	1035	704	130.	*	4	1750	1079	110.	*	6	0105	1454	0.
2	0325	330	221.	*	3	1040	705	130.	*	4	1755	1080	110.	*	6	0110	1455	0.
2	0330	331	221.	*	3	1045	706	130.	*	4	1800	1081	110.	*	6	0115	1456	0.

2	0335	332	221.	*	3	1050	707	130.	*	4	1805	1082	109.	*	6	0120	1457	0.
2	0340	333	221.	*	3	1055	708	130.	*	4	1810	1083	109.	*	6	0125	1458	0.
2	0345	334	221.	*	3	1100	709	130.	*	4	1815	1084	109.	*	6	0130	1459	0.
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2	0420	341	221.	*	3	1135	716	130.	*	4	1850	1091	109.	*	6	0205	1466	0.
2	0425	342	221.	*	3	1140	717	130.	*	4	1855	1092	109.	*	6	0210	1467	0.
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2	0435	344	221.	*	3	1150	719	130.	*	4	1905	1094	109.	*	6	0220	1469	0.
2	0440	345	221.	*	3	1155	720	130.	*	4	1910	1095	109.	*	6	0225	1470	0.
2	0445	346	221.	*	3	1200	721	130.	*	4	1915	1096	109.	*	6	0230	1471	0.
2	0450	347	221.	*	3	1205	722	130.	*	4	1920	1097	109.	*	6	0235	1472	0.
2	0455	348	221.	*	3	1210	723	130.	*	4	1925	1098	109.	*	6	0240	1473	0.
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2	0515	352	221.	*	3	1230	727	129.	*	4	1945	1102	108.	*	6	0300	1477	0.
2	0520	353	221.	*	3	1235	728	129.	*	4	1950	1103	108.	*	6	0305	1478	0.
2	0525	354	221.	*	3	1240	729	129.	*	4	1955	1104	108.	*	6	0310	1479	0.
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2	0540	357	221.	*	3	1255	732	129.	*	4	2010	1107	100.	*	6	0325	1482	0.
2	0545	358	221.	*	3	1300	733	129.	*	4	2015	1108	95.	*	6	0330	1483	0.
2	0550	359	221.	*	3	1305	734	129.	*	4	2020	1109	88.	*	6	0335	1484	0.
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2	0600	361	221.	*	3	1315	736	129.	*	4	2030	1111	71.	*	6	0345	1486	0.
2	0605	362	221.	*	3	1320	737	129.	*	4	2035	1112	63.	*	6	0350	1487	0.
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2	0630	367	220.	*	3	1345	742	129.	*	4	2100	1117	39.	*	6	0415	1492	0.
2	0635	368	220.	*	3	1350	743	129.	*	4	2105	1118	36.	*	6	0420	1493	0.
2	0640	369	220.	*	3	1355	744	129.	*	4	2110	1119	33.	*	6	0425	1494	0.
2	0645	370	220.	*	3	1400	745	129.	*	4	2115	1120	31.	*	6	0430	1495	0.
2	0650	371	220.	*	3	1405	746	129.	*	4	2120	1121	29.	*	6	0435	1496	0.
2	0655	372	220.	*	3	1410	747	129.	*	4	2125	1122	27.	*	6	0440	1497	0.
2	0700	373	220.	*	3	1415	748	129.	*	4	2130	1123	25.	*	6	0445	1498	0.
2	0705	374	220.	*	3	1420	749	129.	*	4	2135	1124	23.	*	6	0450	1499	0.
2	0710	375	220.	*	3	1425	750	128.	*	4	2140	1125	21.	*	6	0455	1500	0.
				*					*					*				

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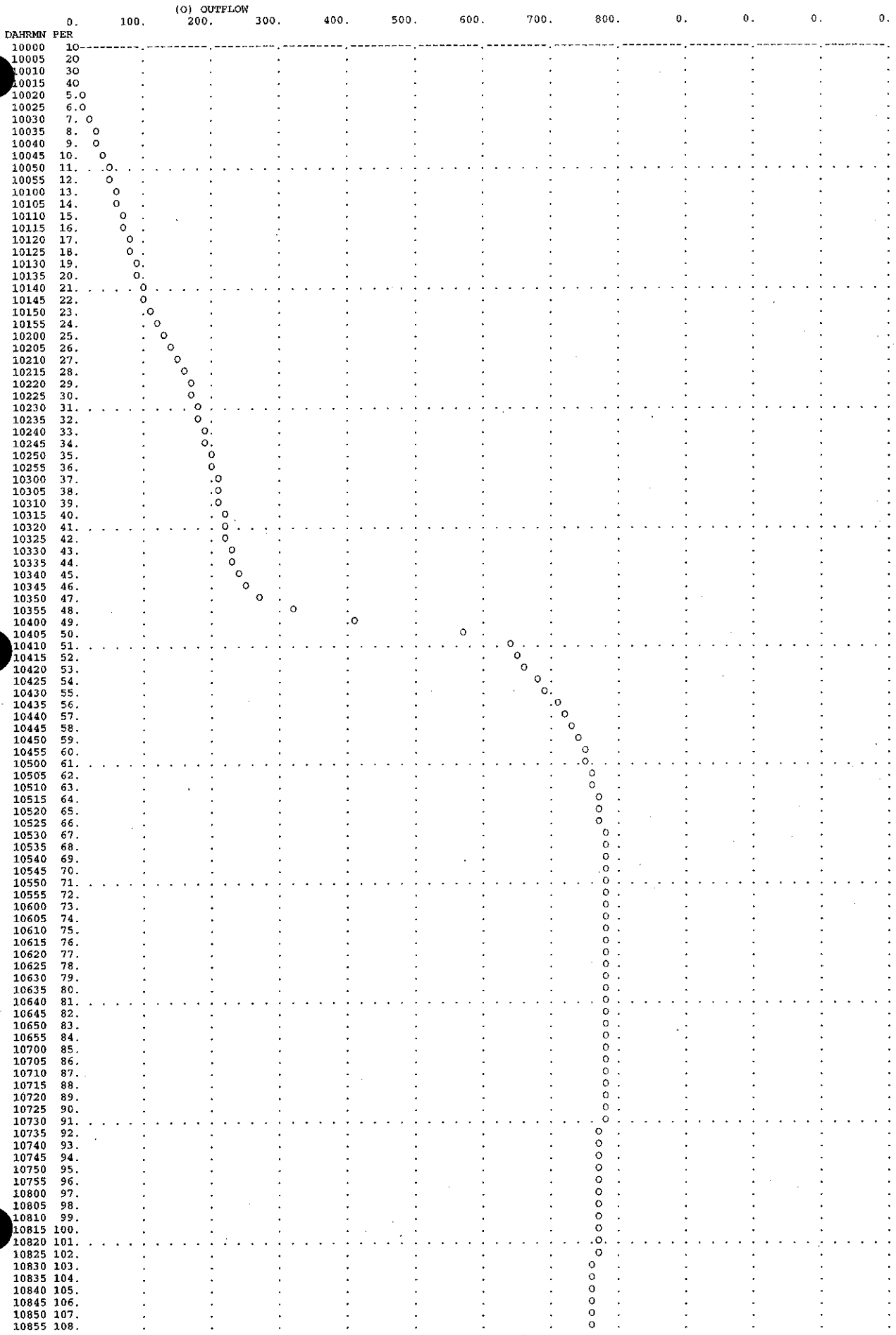
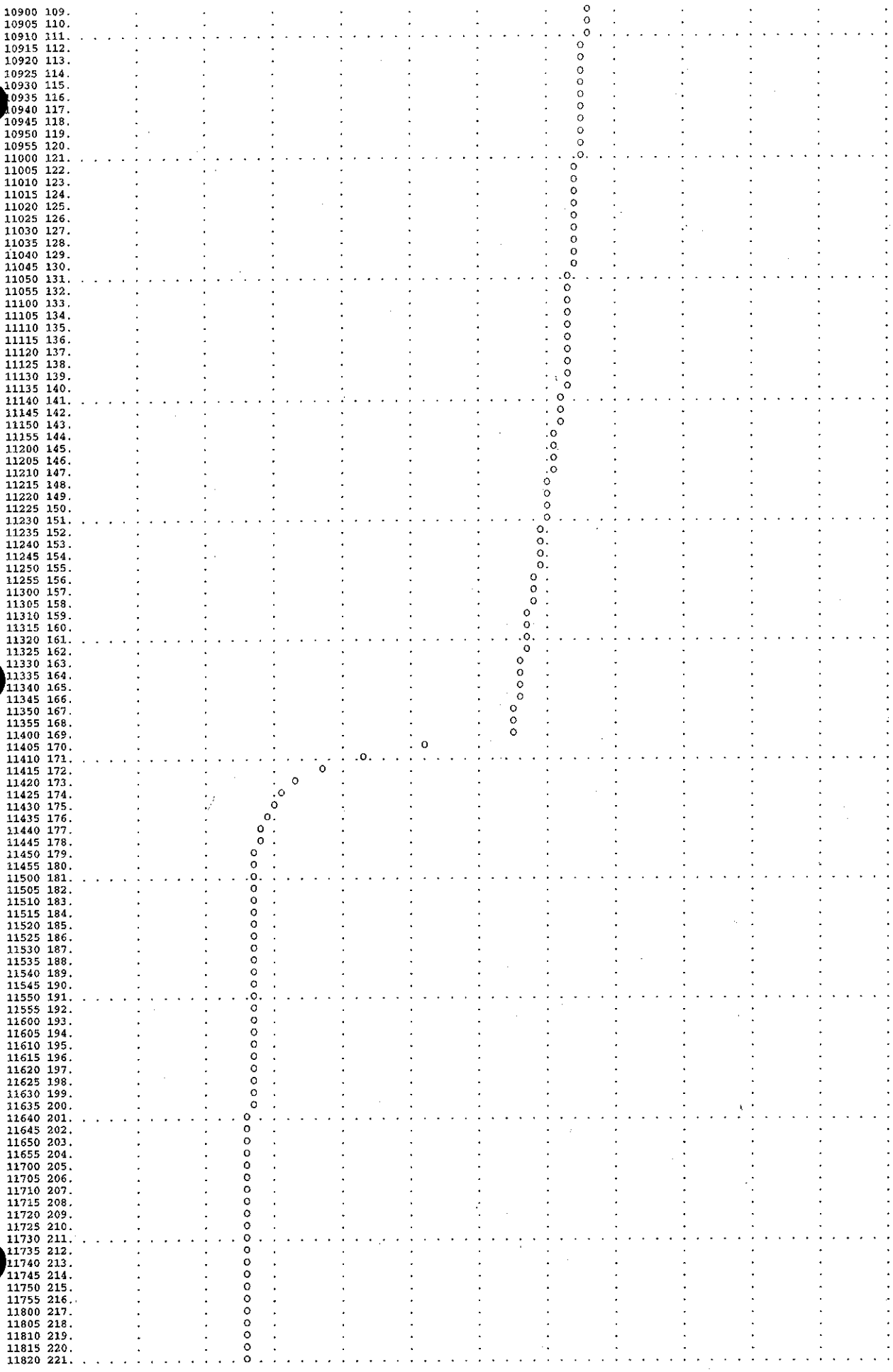
PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	124.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 784.	6.25		765.	448.	249.	163.
		(INCHES)	.520	1.218	2.031	2.312
		(AC-FT)	379.	889.	1483.	1688.

CUMULATIVE AREA = 13.68 SQ MI

STATION SR440

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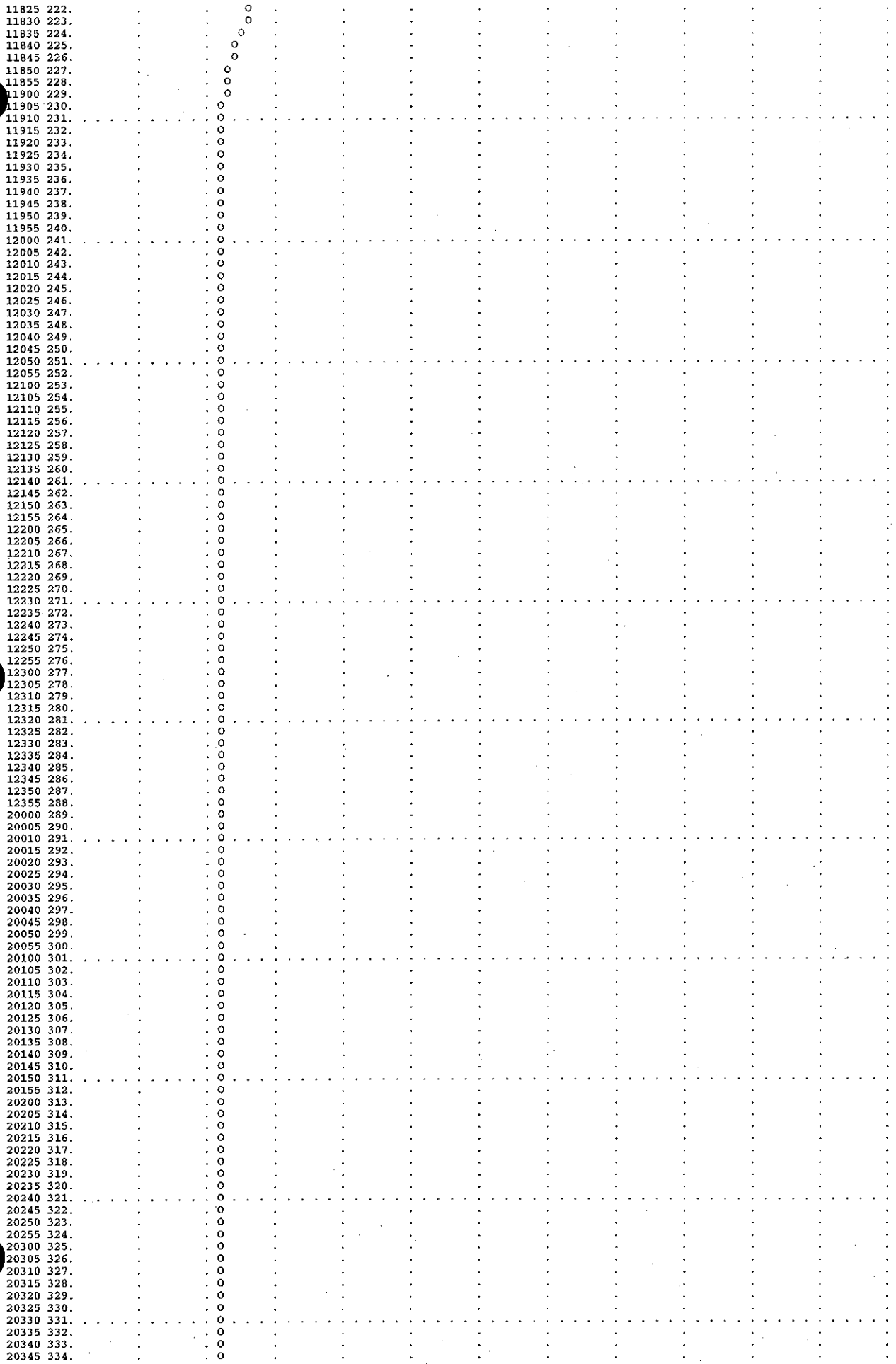
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INTERPOLATED HYDROGRAPH AT 500C

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	2		0715	376	234.	3		1430	751	139.	4		2145	1126	121.
1		0005	2	0.	2		0720	377	234.	3		1435	752	139.	4		2150	1127	121.
1		0010	3	1.	2		0725	378	234.	3		1440	753	139.	4		2155	1128	121.
1		0015	4	2.	2		0730	379	234.	3		1445	754	139.	4		2200	1129	121.
1		0020	5	5.	2		0735	380	234.	3		1450	755	139.	4		2205	1130	121.
1		0025	6	7.	2		0740	381	234.	3		1455	756	139.	4		2210	1131	121.
1		0030	7	9.	2		0745	382	234.	3		1500	757	139.	4		2215	1132	121.
1		0035	8	11.	2		0750	383	234.	3		1505	758	139.	4		2220	1133	121.
1		0040	9	12.	2		0755	384	234.	3		1510	759	139.	4		2225	1134	121.
1		0045	10	13.	2		0800	385	234.	3		1515	760	139.	4		2230	1135	120.
1		0050	11	14.	2		0805	386	234.	3		1520	761	139.	4		2235	1136	120.
1		0055	12	15.	2		0810	387	234.	3		1525	762	139.	4		2240	1137	120.
1		0100	13	16.	2		0815	388	234.	3		1530	763	139.	4		2245	1138	120.
1		0105	14	17.	2		0820	389	233.	3		1535	764	139.	4		2250	1139	120.
1		0110	15	19.	2		0825	390	233.	3		1540	765	139.	4		2255	1140	120.
1		0115	16	20.	2		0830	391	233.	3		1545	766	139.	4		2300	1141	120.
1		0120	17	22.	2		0835	392	233.	3		1550	767	139.	4		2305	1142	120.
1		0125	18	24.	2		0840	393	233.	3		1555	768	139.	4		2310	1143	120.
1		0130	19	26.	2		0845	394	233.	3		1600	769	139.	4		2315	1144	120.
1		0135	20	29.	2		0850	395	233.	3		1605	770	139.	4		2320	1145	120.
1		0140	21	32.	2		0855	396	233.	3		1610	771	139.	4		2325	1146	120.
1		0145	22	35.	2		0900	397	233.	3		1615	772	139.	4		2330	1147	120.
1		0150	23	40.	2		0905	398	233.	3		1620	773	139.	4		2335	1148	119.
1		0155	24	45.	2		0910	399	233.	3		1625	774	139.	4		2340	1149	119.
1		0200	25	53.	2		0915	400	233.	3		1630	775	139.	4		2345	1150	119.
1		0205	26	63.	2		0920	401	233.	3		1635	776	139.	4		2350	1151	119.
1		0210	27	74.	2		0925	402	233.	3		1640	777	139.	4		2355	1152	119.
1		0215	28	84.	2		0930	403	233.	3		1645	778	139.	5		0000	1153	119.
1		0220	29	92.	2		0935	404	233.	3		1650	779	139.	5		0005	1154	119.
1		0225	30	99.	2		0940	405	233.	3		1655	780	139.	5		0010	1155	119.
1		0230	31	105.	2		0945	406	233.	3		1700	781	139.	5		0015	1156	119.
1		0235	32	112.	2		0950	407	233.	3		1705	782	139.	5		0020	1157	119.
1		0240	33	118.	2		0955	408	233.	3		1710	783	138.	5		0025	1158	119.
1		0245	34	124.	2		1000	409	233.	3		1715	784	138.	5		0030	1159	119.
1		0250	35	131.	2		1005	410	233.	3		1720	785	138.	5		0035	1160	119.
1		0255	36	138.	2		1010	411	233.	3		1725	786	138.	5		0040	1161	119.
1		0300	37	145.	2		1015	412	233.	3		1730	787	138.	5		0045	1162	119.
1		0305	38	152.	2		1020	413	232.	3		1735	788	138.	5		0050	1163	118.
1		0310	39	161.	2		1025	414	232.	3		1740	789	138.	5		0055	1164	118.
1		0315	40	170.	2		1030	415	232.	3		1745	790	138.	5		0100	1165	118.
1		0320	41	181.	2		1035	416	232.	3		1750	791	138.	5		0105	1166	118.
1		0325	42	194.	2		1040	417	232.	3		1755	792	138.	5		0110	1167	118.
1		0330	43	208.	2		1045	418	232.	3		1800	793	138.	5		0115	1168	118.
1		0335	44	237.	2		1050	419	232.	3		1805	794	138.	5		0120	1169	118.
1		0340	45	307.	2		1055	420	232.	3		1810	795	138.	5		0125	1170	118.
1		0345	46	483.	2		1100	421	232.	3		1815	796	138.	5		0130	1171	118.
1		0350	47	736.	2		1105	422	232.	3		1820	797	138.	5		0135	1172	118.
1		0355	48	1058.	2		1110	423	232.	3		1825	798	138.	5		0140	1173	118.
1		0400	49	1590.	2		1115	424	232.	3		1830	799	138.	5		0145	1174	118.
1		0405	50	2254.	2		1120	425	232.	3		1835	800	138.	5		0150	1175	118.
1		0410	51	2721.	2		1125	426	232.	3		1840	801	138.	5		0155	1176	118.
1		0415	52	2859.	2		1130	427	232.	3		1845	802	138.	5		0200	1177	118.
1		0420	53	2838.	2		1135	428	231.	3		1850	803	138.	5		0205	1178	118.
1		0425	54	2726.	2		1140	429	231.	3		1855	804	138.	5		0210	1179	117.
1		0430	55	2549.	2		1145	430	231.	3		1900	805	138.	5		0215	1180	117.
1		0435	56	2318.	2		1150	431	231.	3		1905	806	138.	5		0220	1181	117.
1		0440	57	2061.	2		1155	432	229.	3		1910	807	138.	5		0225	1182	117.
1		0445	58	1835.	2		1200	433	227.	3		1915	808	138.	5		0230	1183	117.
1		0450	59	1636.	2		1205	434	226.	3		1920	809	138.	5		0235	1184	117.
1		0455	60	1474.	2		1210	435	226.	3		1925	810	138.	5		0240	1185	117.
1		0500	61	1345.	2		1215	436	225.	3		1930	811	138.	5		0245	1186	117.
1		0505	62	1243.	2		1220	437	225.	3		1935	812	138.	5		0250	1187	117.
1		0510	63	1166.	2		1225	438	225.	3		1940	813	138.	5		0255	1188	117.
1		0515	64	1108.	2		1230	439	224.	3		1945	814	138.	5		0300	1189	117.
1		0520	65	1067.	2		1235	440	224.	3		1950	815	138.	5		0305	1190	117.
1		0525	66	1037.	2		1240	441	223.	3		1955	816	138.	5		0310	1191	117.
1		0530	67	1014.	2		1245	442	222.	3		2000	817	137.	5		0315	1192	117.
1		0535	68	997.	2		1250	443	221.	3		2005	818	137.	5		0320	1193	117.
1		0540	69	984.	2		1255	444	220.	3		2010	819	137.	5		0325	1194	117.
1		0545	70	974.	2		1300	445	217.	3		2015	820	137.	5		0330	1195	116.
1		0550	71	967.	2		1305	446	214.	3		2020	821	137.	5		0335	1196	116.
1		0555	72	961.	2		1310	447	209.	3		2025	822	137.	5		0340	1197	116.
1		0600	73	956.	2		1315	448	204.	3		2030	823	137.	5		0345	1198	116.
1		0605	74	951.	2		1320	449	199.	3		2035	824	137.	5		0350	1199	116.
1		0610	75	946.	2		1325	450	193.	3		2040	825	137.	5		0355	1200	116.
1		0615	76	939.	2		1330	451	189.	3		2045	826	137.	5		0400	1201	116.
1		0620	77	930.	2		1335	452	185.	3		2050	827	137.	5		0405	1202	116.
1		0625	78	923.	2		1340	453	181.	3		2055	828	137.	5		0410	1203	116.
1		0630	79	916.	2		1345	454	178.	3		2100	829	137.	5		0415	1204	116.
1		0635	80	910.	2		1350	455	175.	3		2105	830	137.	5		0420	1205	116.
1		0640	81	906.	2		1355	456	173.	3		2110	831	137.	5		0425	1206	116.
1		0645	82	903.	2		1400	457	170.	3		2115	832	137.	5		0430	1207	116.
1		0650	83	900.	2		1405	458	167.	3		2120	833	137.	5		0435	1208	116.
1		0655	84	895.	2		1410	459	164.	3		2125	834	137.	5		0440	1209	116.
1		0700	85	887.	2		1415	460	161.	3		2130	835	137.	5		0445	1210	116.
1		0705	86	875.	2		1420	461	157.	3		2135	836	137.	5		0450	1211	115.
1		0710	87	863.	2		1425	462	154.	3		2140	837	137.	5		0455	1212	115.
1		0715	88	853.	2		1430	463	152.	3		2145	838	137.	5		0500	1213	115.
1		0720	89	846.	2		1435	464	150.	3		2150	839	136.	5		0505	1214	115.
1		0725	90	841.	2		1440	465	148.	3		2155	840	136.	5		0510	1215	115.
1		0730	91	838.	2		1445	466	147.	3		2200	841	136.	5		0515	1216	115.
1		0735	92	836.	2		1450	467	146.	3		2205	842	136.	5		0520	1217	115.
1		0740	93	834.	2		1455	468	145.	3		2210	843	136.	5		0525	1218	115.
1		0745	94	833.	2		1500	469	145.	3		2215	844	136.	5		0530	1219	115.
1		0750	95	832.	2		1505	470	144.	3		2220	845	136.	5		0535	1220	115.
1		0755	96	831.	2		1510	471	144.	3		2225	846	136.	5		0540	1221	115.
1		0800	97	830.	2		1515	472	144.	3		2230	847	136.	5		0545	1222	115.
1		0805	98	828.	2		1520	473	143.	3		2235	848	136.	5		0550	1223	115.
1		0810	99	827.	2		1525	474	143.	3		2240	849	136.	5		0555	1224	115.
1		0815	100	826.	2		1530	475	143.	3		2245	850	136.	5		0600	1225	115.
1		0820	101	825.	2		1535	476	143.	3		2250	851	136.	5		0605	1226	115.
1		0825	102	824.	2		1540	477	143.	3		2255	852	136.	5		0610	1227	115.
1		0830	103	824.	2		1545	478	143.	3		2300	853	136.	5		0615	1228	114.
1		0835	104	823.	2		1550	479	143.	3		2305	854	136.	5		0620	1229	114.
1		0840	105	822.	2		1555	480	143.	3		2310	855	136.	5		0625	1230	114.

1	0845	106	821.	*	2	1600	481	143.	*	3	2315	856	136.	*	5	0630	1231	114.
1	0850	107	820.	*	2	1605	482	143.	*	3	2320	857	136.	*	5	0635	1232	114.
1	0855	108	819.	*	2	1610	483	143.	*	3	2325	858	136.	*	5	0640	1233	114.
1	0900	109	818.	*	2	1615	484	143.	*	3	2330	859	136.	*	5	0645	1234	114.
1	0905	110	817.	*	2	1620	485	143.	*	3	2335	860	136.	*	5	0650	1235	114.
1	0910	111	816.	*	2	1625	486	143.	*	3	2340	861	135.	*	5	0655	1236	114.
1	0915	112	815.	*	2	1630	487	143.	*	3	2345	862	135.	*	5	0700	1237	114.
1	0920	113	814.	*	2	1635	488	143.	*	3	2350	863	135.	*	5	0705	1238	114.
1	0925	114	813.	*	2	1640	489	143.	*	3	2355	864	135.	*	5	0710	1239	114.
1	0930	115	812.	*	2	1645	490	143.	*	4	0000	865	135.	*	5	0715	1240	114.
1	0935	116	811.	*	2	1650	491	143.	*	4	0005	866	135.	*	5	0720	1241	114.
1	0940	117	811.	*	2	1655	492	143.	*	4	0010	867	135.	*	5	0725	1242	114.
1	0945	118	810.	*	2	1700	493	143.	*	4	0015	868	135.	*	5	0730	1243	114.
1	0950	119	809.	*	2	1705	494	143.	*	4	0020	869	135.	*	5	0735	1244	114.
1	0955	120	808.	*	2	1710	495	143.	*	4	0025	870	135.	*	5	0740	1245	113.
1	1000	121	807.	*	2	1715	496	143.	*	4	0030	871	135.	*	5	0745	1246	113.
1	1005	122	806.	*	2	1720	497	143.	*	4	0035	872	135.	*	5	0750	1247	113.
1	1010	123	805.	*	2	1725	498	143.	*	4	0040	873	135.	*	5	0755	1248	113.
1	1015	124	804.	*	2	1730	499	143.	*	4	0045	874	135.	*	5	0800	1249	113.
1	1020	125	803.	*	2	1735	500	143.	*	4	0050	875	135.	*	5	0805	1250	113.
1	1025	126	802.	*	2	1740	501	143.	*	4	0055	876	135.	*	5	0810	1251	113.
1	1030	127	801.	*	2	1745	502	143.	*	4	0100	877	135.	*	5	0815	1252	113.
1	1035	128	800.	*	2	1750	503	143.	*	4	0105	878	135.	*	5	0820	1253	113.
1	1040	129	800.	*	2	1755	504	143.	*	4	0110	879	135.	*	5	0825	1254	113.
1	1045	130	799.	*	2	1800	505	143.	*	4	0115	880	135.	*	5	0830	1255	113.
1	1050	131	798.	*	2	1805	506	142.	*	4	0120	881	135.	*	5	0835	1256	113.
1	1055	132	797.	*	2	1810	507	142.	*	4	0125	882	135.	*	5	0840	1257	113.
1	1100	133	796.	*	2	1815	508	142.	*	4	0130	883	135.	*	5	0845	1258	113.
1	1105	134	795.	*	2	1820	509	142.	*	4	0135	884	134.	*	5	0850	1259	113.
1	1110	135	794.	*	2	1825	510	142.	*	4	0140	885	134.	*	5	0855	1260	113.
1	1115	136	793.	*	2	1830	511	142.	*	4	0145	886	134.	*	5	0900	1261	112.
1	1120	137	792.	*	2	1835	512	142.	*	4	0150	887	134.	*	5	0905	1262	112.
1	1125	138	792.	*	2	1840	513	142.	*	4	0155	888	134.	*	5	0910	1263	112.
1	1130	139	791.	*	2	1845	514	142.	*	4	0200	889	134.	*	5	0915	1264	112.
1	1135	140	790.	*	2	1850	515	142.	*	4	0205	890	134.	*	5	0920	1265	112.
1	1140	141	789.	*	2	1855	516	142.	*	4	0210	891	134.	*	5	0925	1266	112.
1	1145	142	788.	*	2	1900	517	142.	*	4	0215	892	134.	*	5	0930	1267	112.
1	1150	143	787.	*	2	1905	518	142.	*	4	0220	893	134.	*	5	0935	1268	112.
1	1155	144	786.	*	2	1910	519	142.	*	4	0225	894	134.	*	5	0940	1269	112.
1	1200	145	785.	*	2	1915	520	142.	*	4	0230	895	134.	*	5	0945	1270	112.
1	1205	146	784.	*	2	1920	521	142.	*	4	0235	896	134.	*	5	0950	1271	112.
1	1210	147	783.	*	2	1925	522	142.	*	4	0240	897	134.	*	5	0955	1272	112.
1	1215	148	782.	*	2	1930	523	142.	*	4	0245	898	134.	*	5	1000	1273	112.
1	1220	149	780.	*	2	1935	524	142.	*	4	0250	899	134.	*	5	1005	1274	112.
1	1225	150	779.	*	2	1940	525	142.	*	4	0255	900	134.	*	5	1010	1275	112.
1	1230	151	778.	*	2	1945	526	142.	*	4	0300	901	134.	*	5	1015	1276	112.
1	1235	152	777.	*	2	1950	527	142.	*	4	0305	902	134.	*	5	1020	1277	112.
1	1240	153	776.	*	2	1955	528	142.	*	4	0310	903	134.	*	5	1025	1278	111.
1	1245	154	775.	*	2	2000	529	142.	*	4	0315	904	134.	*	5	1030	1279	111.
1	1250	155	774.	*	2	2005	530	142.	*	4	0320	905	134.	*	5	1035	1280	111.
1	1255	156	772.	*	2	2010	531	142.	*	4	0325	906	134.	*	5	1040	1281	111.
1	1300	157	771.	*	2	2015	532	142.	*	4	0330	907	133.	*	5	1045	1282	111.
1	1305	158	770.	*	2	2020	533	142.	*	4	0335	908	133.	*	5	1050	1283	111.
1	1310	159	769.	*	2	2025	534	142.	*	4	0340	909	133.	*	5	1055	1284	111.
1	1315	160	768.	*	2	2030	535	142.	*	4	0345	910	133.	*	5	1100	1285	111.
1	1320	161	767.	*	2	2035	536	142.	*	4	0350	911	133.	*	5	1105	1286	111.
1	1325	162	766.	*	2	2040	537	142.	*	4	0355	912	133.	*	5	1110	1287	111.
1	1330	163	765.	*	2	2045	538	142.	*	4	0400	913	133.	*	5	1115	1288	111.
1	1335	164	764.	*	2	2050	539	142.	*	4	0405	914	133.	*	5	1120	1289	111.
1	1340	165	762.	*	2	2055	540	142.	*	4	0410	915	133.	*	5	1125	1290	111.
1	1345	166	761.	*	2	2100	541	142.	*	4	0415	916	133.	*	5	1130	1291	111.
1	1350	167	760.	*	2	2105	542	142.	*	4	0420	917	133.	*	5	1135	1292	111.
1	1355	168	759.	*	2	2110	543	142.	*	4	0425	918	133.	*	5	1140	1293	111.
1	1400	169	758.	*	2	2115	544	142.	*	4	0430	919	133.	*	5	1145	1294	111.
1	1405	170	757.	*	2	2120	545	142.	*	4	0435	920	133.	*	5	1150	1295	111.
1	1410	171	756.	*	2	2125	546	142.	*	4	0440	921	133.	*	5	1155	1296	110.
1	1415	172	755.	*	2	2130	547	142.	*	4	0445	922	133.	*	5	1200	1297	110.
1	1420	173	753.	*	2	2135	548	142.	*	4	0450	923	133.	*	5	1205	1298	110.
1	1425	174	752.	*	2	2140	549	142.	*	4	0455	924	133.	*	5	1210	1299	110.
1	1430	175	750.	*	2	2145	550	142.	*	4	0500	925	133.	*	5	1215	1300	110.
1	1435	176	749.	*	2	2150	551	142.	*	4	0505	926	133.	*	5	1220	1301	110.
1	1440	177	747.	*	2	2155	552	142.	*	4	0510	927	133.	*	5	1225	1302	110.
1	1445	178	746.	*	2	2200	553	142.	*	4	0515	928	133.	*	5	1230	1303	110.
1	1450	179	745.	*	2	2205	554	142.	*	4	0520	929	132.	*	5	1235	1304	110.
1	1455	180	743.	*	2	2210	555	142.	*	4	0525	930	132.	*	5	1240	1305	110.
1	1500	181	742.	*	2	2215	556	142.	*	4	0530	931	132.	*	5	1245	1306	110.
1	1505	182	741.	*	2	2220	557	142.	*	4	0535	932	132.	*	5	1250	1307	110.
1	1510	183	740.	*	2	2225	558	142.	*	4	0540	933	132.	*	5	1255	1308	110.
1	1515	184	739.	*	2	2230	559	142.	*	4	0545	934	132.	*	5	1300	1309	110.
1	1520	185	738.	*	2	2235	560	142.	*	4	0550	935	132.	*	5	1305	1310	110.
1	1525	186	737.	*	2	2240	561	142.	*	4	0555	936	132.	*	5	1310	1311	110.
1	1530	187	736.	*	2	2245	562	142.	*	4	0600	937	132.	*	5	1315	1312	110.
1	1535	188	735.	*	2	2250	563	142.	*	4	0605	938	132.	*	5	1320	1313	109.
1	1540	189	733.	*	2	2255	564	142.	*	4	0610	939	132.	*	5	1325	1314	109.
1	1545	190	732.	*	2	2300	565	142.	*	4	0615	940	132.	*	5	1330	1315	109.
1	1550	191	731.	*	2	2305	566	142.	*	4	0620	941	132.	*	5	1335	1316	109.
1	1555	192	730.	*	2	2310	567	142.	*	4	0625	942	132.	*	5	1340	1317	109.
1	1600	193	729.	*	2	2315	568	142.	*	4	0630	943	132.	*	5	1345	1318	109.
1	1605	194	729.	*	2	2320	569	142.	*	4	0635	944	132.	*	5	1350	1319	109.
1	1610	195	728.	*	2	2325	570	142.	*	4	0640	945	132.	*	5	1355	1320	109.
1	1615	196	727.	*	2	2330	571	142.	*	4	0645	946	132.	*	5	1400	1321	109.
1	1620	197	725.	*	2	2335	572	142.	*	4	0650	947	131.	*	5	1405	1322	109.
1	1625	198	724.	*	2	2340	573	142.	*	4	0655	948	131.	*	5	1410	1323	109.
1	1630	199	723.	*	2	2345	574	142.	*	4	0700	949	131.	*	5	1415	1324	109.
1	1635	200	720.	*	2	2350	575	142.	*	4	0705	950	131.	*	5	1420	1325	109.
1	1640	201	718.	*	2	2355	576	142.	*	4	0710	951	131.	*	5	1425	1326	109.
1	1645	202	715.	*	3	0000	577	142.	*	4	0715	952	131.	*	5	1430	1327	109.
1	1650	203	712.	*	3	0005	578	142.	*	4	0720	953	131.	*	5	1435	1328	109.
1	1655	204	710.	*	3	0010	579	142.	*	4	0725	954	131.	*	5	1440	1329	109.
1	1700	205	707.	*	3	0015	580	141.	*	4	0730	955	131.	*	5	1445	1330	109.
1	1705	206	705.	*	3	0020	581	141.	*	4	0735	956	131.	*	5	1450	1331	108.
1	1710	207	702.	*	3	0025	582	141.	*	4	0740	957	130.	*	5	1455	1332	108.
1	1715	208	699.	*	3	0030	583	141.	*	4	0745	958	130.	*	5	1500	1333	108.
1	1720	209	696.	*	3	0035	584	141.	*	4	0750	959	130.	*	5	1505	1334	108.
1	1725	210	693.	*	3	0040	585	141.	*	4	0755	960	130.	*	5	1510	1335	108.
1	1730	211	691.	*	3	0045	586	141.	*	4	0800	961	130.	*	5	1515	1336	108.
1	1735	212	688.	*	3	0050	587	141.	*	4	0805	962	130.	*	5	1520	1337	108.
1	1740	213	685.	*	3	0055	588	141.	*	4	0810	963	130.	*	5	1525	1338	108.
1	1745	214	682.	*	3	0100	589	141.	*	4	0815	964	130.	*	5	1530	1339	108.
1	1750	215	680.	*	3	0105	590	141.	*	4	0820	965	130.	*	5	1535	1340	108.
1	1755	216	677.	*	3	0110	591	141.	*	4	0825	966	130.	*	5	1540	1341	108.
1	1800	217	674.	*	3	0115	592	141.	*	4	0830	967	130.	*	5	1545	1342	108.
1	1805	218	672.	*	3	0120	593	141.	*	4	0835	968	130.	*	5	1550	1343	108.

1	1810	219	669.	*	3	0125	594	141.	*	4	0840	969	130.	*	5	1555	1344	108.
1	1815	220	666.	*	3	0130	595	141.	*	4	0845	970	130.	*	5	1600	1345	108.
1	1820	221	664.	*	3	0135	596	141.	*	4	0850	971	130.	*	5	1605	1346	108.
1	1825	222	661.	*	3	0140	597	141.	*	4	0855	972	129.	*	5	1610	1347	108.
1	1830	223	658.	*	3	0145	598	141.	*	4	0900	973	129.	*	5	1615	1348	107.
1	1835	224	656.	*	3	0150	599	141.	*	4	0905	974	129.	*	5	1620	1349	107.
1	1840	225	653.	*	3	0155	600	141.	*	4	0910	975	129.	*	5	1625	1350	107.
1	1845	226	646.	*	3	0200	601	141.	*	4	0915	976	129.	*	5	1630	1351	107.
1	1850	227	631.	*	3	0205	602	141.	*	4	0920	977	129.	*	5	1635	1352	107.
1	1855	228	600.	*	3	0210	603	141.	*	4	0925	978	129.	*	5	1640	1353	107.
1	1900	229	552.	*	3	0215	604	141.	*	4	0930	979	129.	*	5	1645	1354	107.
1	1905	230	495.	*	3	0220	605	141.	*	4	0935	980	129.	*	5	1650	1355	107.
1	1910	231	437.	*	3	0225	606	141.	*	4	0940	981	129.	*	5	1655	1356	107.
1	1915	232	384.	*	3	0230	607	141.	*	4	0945	982	129.	*	5	1700	1357	107.
1	1920	233	341.	*	3	0235	608	141.	*	4	0950	983	129.	*	5	1705	1358	107.
1	1925	234	311.	*	3	0240	609	141.	*	4	0955	984	129.	*	5	1710	1359	107.
1	1930	235	290.	*	3	0245	610	141.	*	4	1000	985	129.	*	5	1715	1360	107.
1	1935	236	275.	*	3	0250	611	141.	*	4	1005	986	129.	*	5	1720	1361	107.
1	1940	237	263.	*	3	0255	612	141.	*	4	1010	987	129.	*	5	1725	1362	107.
1	1945	238	255.	*	3	0300	613	141.	*	4	1015	988	129.	*	5	1730	1363	107.
1	1950	239	248.	*	3	0305	614	141.	*	4	1020	989	129.	*	5	1735	1364	107.
1	1955	240	244.	*	3	0310	615	141.	*	4	1025	990	129.	*	5	1740	1365	107.
1	2000	241	241.	*	3	0315	616	141.	*	4	1030	991	129.	*	5	1745	1366	106.
1	2005	242	239.	*	3	0320	617	141.	*	4	1035	992	129.	*	5	1750	1367	106.
1	2010	243	238.	*	3	0325	618	141.	*	4	1040	993	129.	*	5	1755	1368	106.
1	2015	244	237.	*	3	0330	619	141.	*	4	1045	994	129.	*	5	1800	1369	106.
1	2020	245	237.	*	3	0335	620	141.	*	4	1050	995	128.	*	5	1805	1370	106.
1	2025	246	236.	*	3	0340	621	141.	*	4	1055	996	128.	*	5	1810	1371	106.
1	2030	247	236.	*	3	0345	622	141.	*	4	1100	997	128.	*	5	1815	1372	106.
1	2035	248	236.	*	3	0350	623	141.	*	4	1105	998	128.	*	5	1820	1373	105.
1	2040	249	236.	*	3	0355	624	141.	*	4	1110	999	128.	*	5	1825	1374	104.
1	2045	250	236.	*	3	0400	625	141.	*	4	1115	1000	128.	*	5	1830	1375	103.
1	2050	251	236.	*	3	0405	626	141.	*	4	1120	1001	128.	*	5	1835	1376	100.
1	2055	252	236.	*	3	0410	627	141.	*	4	1125	1002	128.	*	5	1840	1377	97.
1	2100	253	236.	*	3	0415	628	141.	*	4	1130	1003	128.	*	5	1845	1378	93.
1	2105	254	236.	*	3	0420	629	141.	*	4	1135	1004	128.	*	5	1850	1379	88.
1	2110	255	236.	*	3	0425	630	141.	*	4	1140	1005	128.	*	5	1855	1380	82.
1	2115	256	236.	*	3	0430	631	141.	*	4	1145	1006	128.	*	5	1900	1381	75.
1	2120	257	236.	*	3	0435	632	141.	*	4	1150	1007	128.	*	5	1905	1382	69.
1	2125	258	236.	*	3	0440	633	141.	*	4	1155	1008	128.	*	5	1910	1383	63.
1	2130	259	236.	*	3	0445	634	141.	*	4	1200	1009	128.	*	5	1915	1384	58.
1	2135	260	235.	*	3	0450	635	141.	*	4	1205	1010	128.	*	5	1920	1385	53.
1	2140	261	235.	*	3	0455	636	141.	*	4	1210	1011	128.	*	5	1925	1386	50.
1	2145	262	235.	*	3	0500	637	141.	*	4	1215	1012	128.	*	5	1930	1387	48.
1	2150	263	235.	*	3	0505	638	141.	*	4	1220	1013	128.	*	5	1935	1388	46.
1	2155	264	235.	*	3	0510	639	141.	*	4	1225	1014	128.	*	5	1940	1389	44.
1	2200	265	235.	*	3	0515	640	141.	*	4	1230	1015	128.	*	5	1945	1390	43.
1	2205	266	235.	*	3	0520	641	141.	*	4	1235	1016	128.	*	5	1950	1391	41.
1	2210	267	235.	*	3	0525	642	141.	*	4	1240	1017	128.	*	5	1955	1392	39.
1	2215	268	235.	*	3	0530	643	141.	*	4	1245	1018	127.	*	5	2000	1393	37.
1	2220	269	235.	*	3	0535	644	141.	*	4	1250	1019	127.	*	5	2005	1394	35.
1	2225	270	235.	*	3	0540	645	141.	*	4	1255	1020	127.	*	5	2010	1395	33.
1	2230	271	235.	*	3	0545	646	141.	*	4	1300	1021	127.	*	5	2015	1396	30.
1	2235	272	235.	*	3	0550	647	141.	*	4	1305	1022	127.	*	5	2020	1397	28.
1	2240	273	235.	*	3	0555	648	141.	*	4	1310	1023	127.	*	5	2025	1398	26.
1	2245	274	235.	*	3	0600	649	141.	*	4	1315	1024	127.	*	5	2030	1399	24.
1	2250	275	235.	*	3	0605	650	141.	*	4	1320	1025	127.	*	5	2035	1400	21.
1	2255	276	235.	*	3	0610	651	141.	*	4	1325	1026	127.	*	5	2040	1401	19.
1	2300	277	235.	*	3	0615	652	140.	*	4	1330	1027	127.	*	5	2045	1402	17.
1	2305	278	235.	*	3	0620	653	140.	*	4	1335	1028	127.	*	5	2050	1403	15.
1	2310	279	235.	*	3	0625	654	140.	*	4	1340	1029	127.	*	5	2055	1404	14.
1	2315	280	235.	*	3	0630	655	140.	*	4	1345	1030	127.	*	5	2100	1405	12.
1	2320	281	235.	*	3	0635	656	140.	*	4	1350	1031	127.	*	5	2105	1406	11.
1	2325	282	235.	*	3	0640	657	140.	*	4	1355	1032	127.	*	5	2110	1407	9.
1	2330	283	235.	*	3	0645	658	140.	*	4	1400	1033	127.	*	5	2115	1408	8.
1	2335	284	235.	*	3	0650	659	140.	*	4	1405	1034	127.	*	5	2120	1409	7.
1	2340	285	235.	*	3	0655	660	140.	*	4	1410	1035	127.	*	5	2125	1410	6.
1	2345	286	235.	*	3	0700	661	140.	*	4	1415	1036	127.	*	5	2130	1411	5.
1	2350	287	235.	*	3	0705	662	140.	*	4	1420	1037	127.	*	5	2135	1412	4.
1	2355	288	235.	*	3	0710	663	140.	*	4	1425	1038	127.	*	5	2140	1413	4.
2	0000	289	235.	*	3	0715	664	140.	*	4	1430	1039	127.	*	5	2145	1414	3.
2	0005	290	235.	*	3	0720	665	140.	*	4	1435	1040	127.	*	5	2150	1415	3.
2	0010	291	235.	*	3	0725	666	140.	*	4	1440	1041	127.	*	5	2155	1416	2.
2	0015	292	235.	*	3	0730	667	140.	*	4	1445	1042	126.	*	5	2200	1417	2.
2	0020	293	235.	*	3	0735	668	140.	*	4	1450	1043	126.	*	5	2205	1418	2.
2	0025	294	235.	*	3	0740	669	140.	*	4	1455	1044	126.	*	5	2210	1419	1.
2	0030	295	235.	*	3	0745	670	140.	*	4	1500	1045	126.	*	5	2215	1420	1.
2	0035	296	235.	*	3	0750	671	140.	*	4	1505	1046	126.	*	5	2220	1421	1.
2	0040	297	235.	*	3	0755	672	140.	*	4	1510	1047	126.	*	5	2225	1422	1.
2	0045	298	235.	*	3	0800	673	140.	*	4	1515	1048	126.	*	5	2230	1423	1.
2	0050	299	235.	*	3	0805	674	140.	*	4	1520	1049	126.	*	5	2235	1424	0.
2	0055	300	235.	*	3	0810	675	140.	*	4	1525	1050	126.	*	5	2240	1425	0.
2	0100	301	235.	*	3	0815	676	140.	*	4	1530	1051	126.	*	5	2245	1426	0.
2	0105	302	235.	*	3	0820	677	140.	*	4	1535	1052	126.	*	5	2250	1427	0.
2	0110	303	235.	*	3	0825	678	140.	*	4	1540	1053	126.	*	5	2255	1428	0.
2	0115	304	235.	*	3	0830	679	140.	*	4	1545	1054	126.	*	5	2300	1429	0.
2	0120	305	235.	*	3	0835	680	140.	*	4	1550	1055	126.	*	5	2305	1430	0.
2	0125	306	235.	*	3	0840	681	140.	*	4	1555	1056	126.	*	5	2310	1431	0.
2	0130	307	235.	*	3	0845	682	140.	*	4	1600	1057	126.	*	5	2315	1432	0.
2	0135	308	235.	*	3	0850	683	140.	*	4	1605	1058	126.	*	5	2320	1433	0.
2	0140	309	235.	*	3	0855	684	140.	*	4	1610	1059	126.	*	5	2325	1434	0.
2	0145	310	235.	*	3	0900	685	140.	*	4	1615	1060	126.	*	5	2330	1435	0.
2	0150	311	235.	*	3	0905	686	140.	*	4	1620	1061	126.	*	5	2335	1436	0.
2	0155	312	235.	*	3	0910	687	140.	*	4	1625	1062	126.	*	5	2340	1437	0.
2	0200	313	235.	*	3	0915	688	140.	*	4	1630	1063	126.	*	5	2345	1438	0.
2	0205	314	235.	*	3	0920	689	140.	*	4	1635	1064	126.	*	5	2350	1439	0.
2	0210	315	235.	*	3	0925	690	140.	*	4	1640	1065	125.	*	5	2355	1440	0.
2	0215	316	235.	*	3	0930	691	140.	*	4	1645	1066	125.	*	6	0000	1441	0.
2	0220	317	235.	*	3	0935	692	140.	*	4	1650	1067	125.	*	6	0005	1442	0.
2	0225	318	235.	*	3	0940	693	140.	*	4	1655	1068	125.	*	6	0010	1443	0.
2	0230	319	235.	*	3	0945	694	140.	*	4	1700	1069	125.	*	6	0015	1444	0.
2	0235	320	235.	*	3	0950	695	140.	*	4	1705	1070	125.	*	6	0020	1445	0.
2	0240	321	235.	*	3	0955	696	140.	*	4	1710	1071	125.	*	6	0025	1446	0.
2	0245	322	235.	*	3	1000	697	140.	*	4	1715	1072	125.	*	6	0030	1447	0.
2	0250	323	235.	*	3	1005	698	140.	*	4	1720	1073	125.	*	6	0035	1448	0.
2	0255	324	235.	*	3	1010	699	140.	*	4	1725	1074	125.	*	6	0040	1449	0.
2	0300	325	235.	*	3	1015	700	140.	*	4	1730	1075	125.	*	6	0045	1450	0.
2	0305	326	235.	*	3	1020	701	140.	*	4	1735	1076	125.	*	6	0050	1451	0.
2	0310	327	235.	*	3	1025	702	140.	*	4	1740	1077	125.	*	6	0055	1452	0.
2	0315	328	235.	*	3	1030	703	140.	*	4	1745	1078	125.	*	6	0100	1453	0.
2	0320	329	235.	*	3	1035	704	140.	*	4	1750	1079	125.	*	6	0105	1454	0.
2	0325	330	235.	*	3	1040	705	140.	*	4	1755	1080	125.	*	6	0110	1455	0.
2	0330	331	235.	*	3	1045	706	140.	*	4	1800	1081	125.	*	6	0115	1456	0.

2	0335	332	235.	*	3	1050	707	140.	*	4	1805	1082	124.	*	6	0120	1457	0.
2	0340	333	235.	*	3	1055	708	140.	*	4	1810	1083	124.	*	6	0125	1458	0.
2	0345	334	235.	*	3	1100	709	140.	*	4	1815	1084	124.	*	6	0130	1459	0.
2	0350	335	235.	*	3	1105	710	140.	*	4	1820	1085	124.	*	6	0135	1460	0.
2	0355	336	235.	*	3	1110	711	140.	*	4	1825	1086	124.	*	6	0140	1461	0.
2	0400	337	235.	*	3	1115	712	140.	*	4	1830	1087	124.	*	6	0145	1462	0.
2	0405	338	235.	*	3	1120	713	140.	*	4	1835	1088	124.	*	6	0150	1463	0.
2	0410	339	235.	*	3	1125	714	140.	*	4	1840	1089	124.	*	6	0155	1464	0.
2	0415	340	234.	*	3	1130	715	140.	*	4	1845	1090	124.	*	6	0200	1465	0.
2	0420	341	234.	*	3	1135	716	140.	*	4	1850	1091	124.	*	6	0205	1466	0.
2	0425	342	234.	*	3	1140	717	140.	*	4	1855	1092	124.	*	6	0210	1467	0.
2	0430	343	234.	*	3	1145	718	140.	*	4	1900	1093	124.	*	6	0215	1468	0.
2	0435	344	234.	*	3	1150	719	140.	*	4	1905	1094	124.	*	6	0220	1469	0.
2	0440	345	234.	*	3	1155	720	139.	*	4	1910	1095	124.	*	6	0225	1470	0.
2	0445	346	234.	*	3	1200	721	139.	*	4	1915	1096	124.	*	6	0230	1471	0.
2	0450	347	234.	*	3	1205	722	139.	*	4	1920	1097	124.	*	6	0235	1472	0.
2	0455	348	234.	*	3	1210	723	139.	*	4	1925	1098	123.	*	6	0240	1473	0.
2	0500	349	234.	*	3	1215	724	139.	*	4	1930	1099	123.	*	6	0245	1474	0.
2	0505	350	234.	*	3	1220	725	139.	*	4	1935	1100	123.	*	6	0250	1475	0.
2	0510	351	234.	*	3	1225	726	139.	*	4	1940	1101	123.	*	6	0255	1476	0.
2	0515	352	234.	*	3	1230	727	139.	*	4	1945	1102	123.	*	6	0300	1477	0.
2	0520	353	234.	*	3	1235	728	139.	*	4	1950	1103	123.	*	6	0305	1478	0.
2	0525	354	234.	*	3	1240	729	139.	*	4	1955	1104	123.	*	6	0310	1479	0.
2	0530	355	234.	*	3	1245	730	139.	*	4	2000	1105	123.	*	6	0315	1480	0.
2	0535	356	234.	*	3	1250	731	139.	*	4	2005	1106	123.	*	6	0320	1481	0.
2	0540	357	234.	*	3	1255	732	139.	*	4	2010	1107	123.	*	6	0325	1482	0.
2	0545	358	234.	*	3	1300	733	139.	*	4	2015	1108	123.	*	6	0330	1483	0.
2	0550	359	234.	*	3	1305	734	139.	*	4	2020	1109	123.	*	6	0335	1484	0.
2	0555	360	234.	*	3	1310	735	139.	*	4	2025	1110	123.	*	6	0340	1485	0.
2	0600	361	234.	*	3	1315	736	139.	*	4	2030	1111	123.	*	6	0345	1486	0.
2	0605	362	234.	*	3	1320	737	139.	*	4	2035	1112	123.	*	6	0350	1487	0.
2	0610	363	234.	*	3	1325	738	139.	*	4	2040	1113	122.	*	6	0355	1488	0.
2	0615	364	234.	*	3	1330	739	139.	*	4	2045	1114	122.	*	6	0400	1489	0.
2	0620	365	234.	*	3	1335	740	139.	*	4	2050	1115	122.	*	6	0405	1490	0.
2	0625	366	234.	*	3	1340	741	139.	*	4	2055	1116	122.	*	6	0410	1491	0.
2	0630	367	234.	*	3	1345	742	139.	*	4	2100	1117	122.	*	6	0415	1492	0.
2	0635	368	234.	*	3	1350	743	139.	*	4	2105	1118	122.	*	6	0420	1493	0.
2	0640	369	234.	*	3	1355	744	139.	*	4	2110	1119	122.	*	6	0425	1494	0.
2	0645	370	234.	*	3	1400	745	139.	*	4	2115	1120	122.	*	6	0430	1495	0.
2	0650	371	234.	*	3	1405	746	139.	*	4	2120	1121	122.	*	6	0435	1496	0.
2	0655	372	234.	*	3	1410	747	139.	*	4	2125	1122	121.	*	6	0440	1497	0.
2	0700	373	234.	*	3	1415	748	139.	*	4	2130	1123	121.	*	6	0445	1498	0.
2	0705	374	234.	*	3	1420	749	139.	*	4	2135	1124	121.	*	6	0450	1499	0.
2	0710	375	234.	*	3	1425	750	139.	*	4	2140	1125	121.	*	6	0455	1500	0.
				*					*					*				

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	124.92-HR
+ (CFS)	(HR)	(CFS)				
+ 2859.	4.25		1123.	657.	325.	228.
		(INCHES)	3.675	8.605	12.787	15.521
		(AC-FT)	557.	1303.	1937.	2351.

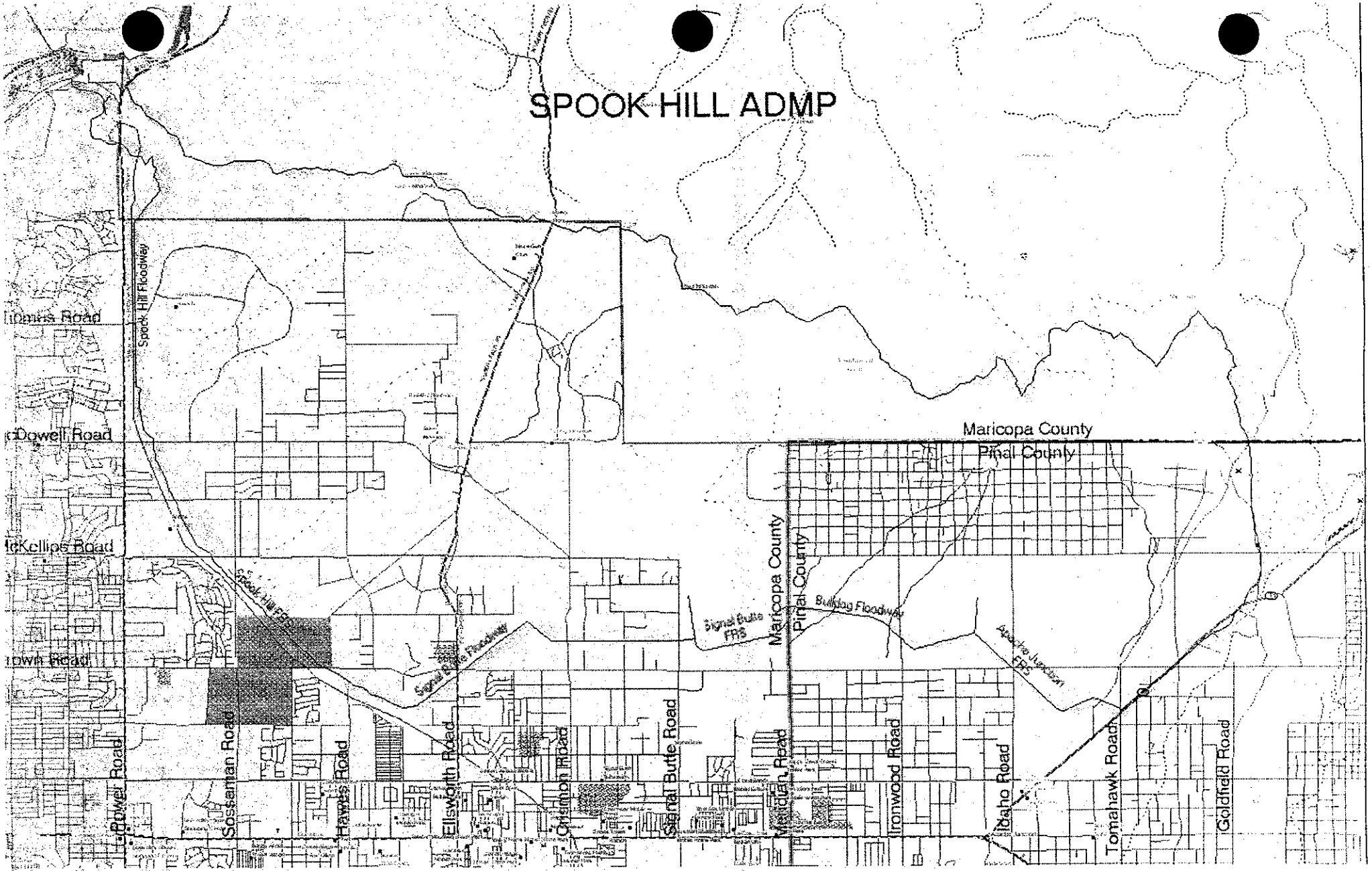
CUMULATIVE AREA = 2.84 SQ MI

SPOOK HILL ADMP
HEC-1 EXISTING CONDITIONS
100-YEAR, 24-HOUR STORM
ANALYSIS

This model was developed from the Maricopa County Flood Control District's DDMS program. The family name for the DDMS program is SPHEX2.LDF

File: W:\1999Projects\99989-Spook Hill ADMP Update\Hydrology\HEC-1\SPHEX2.DAT

SPOOK HILL ADMP



HEC-1 Existing Conditions 100-Year, 24hr Storm

```
1****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*             JUN  1998                *
*           VERSION 4.1                *
*                                      *
*  RUN DATE   05JAN00  TIME  14:53:58  *
*                                      *
****************************************
```

```
****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    HYDROLOGIC ENGINEERING CENTER     *
*          609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616        *
*          (916) 756-1104              *
*                                      *
****************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX         XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                   HEC-1 INPUT                                          PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS, AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL, SIGNAL
 10           ID   BUTTE, AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE: SPHEX2.DAT
 13           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
 14           ID
 15           ID   MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
 16           ID   DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
 17           ID   BY: JCD; 1/4/2000            FILE: SPHEX2RV.DAT
 18           ID
              *DIAGRAM
 19           IT       2                  1500
 20           IO       3
 21           IN      15
 22           JD    3.81    0.01
 23           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 24           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 25           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 26           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 27           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 28           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 29           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 30           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 31           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 32           PC    .983    .986    .989    .992    .995    .998   1.000
 33           JD    3.58   10.00
 34           JD    3.43   30.00
 35           JD    3.28   60.00
 36           JD    3.22   90.00
 37           JD    3.18  120.00
 38           JD    3.14  150.00
 39           JD    3.05  300.00
 40           JD    2.97  500.00

 41           KK      20
 42           KM   SUB-BASIN 20
 43           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 44           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
 45           KM     L = 4.58  Kb = .037  Adj. Slope =  118.0
 46           BA   1.821
 47           LG    .350    .360   6.600    .140   7.000
 48           UC    .804    .697
1                                   HEC-1 INPUT                                          PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 49           KK      40
 50           KM   SUB-BASIN 40
 51           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 52           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 53           KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 54           BA   2.233
 55           LG    .340    .340   4.900    .280   5.000
 56           UC    .496    .264

 57           KK      60
 58           KM   SUB-BASIN 60
 59           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 60           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 61           KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 62           BA   1.746
 63           LG    .330    .350   5.800    .190   9.000
 64           UC    .596    .477

 65           KK     60C
 66           KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
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            *      1       2
 67         HC       3

 68         KK    SR60
 69         KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
 70         KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
 71         KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
 72         KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
 73         RS       1    STOR       0
 74         SV       0       1     100     200     300     400
 75         SQ       0      71      81      87    91.5      94
 76         SE    83.5    93.5      96    97.7      99   99.77

 77         KK     R60
 78         KM        ROUTE FLOW THROUGH BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
 79         RS       2    FLOW      -1
 80         RC    .016    .016    .016    2850    .012
 81         RX       0       1       2     2.1     5.6     5.7       6       7
 82         RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5

 83         KK    RR60
 84         KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
 85         RS       3    FLOW      -1
 86         RC    .016    .016    .016    3500    .005
 87         RX       0       1       2     2.1     7.1     7.2       8       9
 88         RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5

 89         KK      80
 90         KM   SUB-BASIN 80
 91         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 92         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
 93         KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
 94         BA   1.475
 95         LG    .330    .330   5.600    .210   4.000
                                     HEC-1 INPUT                                    PAGE  3
1
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 96         UC    .433    .259

 97         KK     80C
 98         KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
 99         HC       2   1.475

100         KK     R80
101         KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
102         RS       1    FLOW      -1
103         RC    .016    .016    .016    1200    .003
104         RX       0       1       2     2.1    37.1    37.2      38      39
105         RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5

106         KK     100
107         KM   SUB-BASIN 100
108         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
109         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
110         KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
111         BA    .484
112         LG    .320    .290   5.100    .260   3.000
113         UC    .533    .473

114         KK    100C
115         KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
116         HC       2

117         KK    R100
118         KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
119         RS       1    FLOW      -1
120         RC    .016    .016    .016     940    .005
121         RX       0       1       2     2.1    52.1    52.2      53      54
122         RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5

123         KK     120
124         KM   SUB-BASIN 120
125         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
126         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
127         KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
128         BA   2.202
129         LG    .330    .280   6.800    .130  11.000
130         UC    .429    .226

131         KK    120C
132         KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
133         HC       2

134         KK    R120
135         KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
136         RS       1    FLOW      -1
137         RC    .025    .016    .025    2100    .005
138         RX       0       6      10    10.1    60.1    60.2    74.2    80.2
139         RY       8       5       5       0       0       5       5       8
                                     HEC-1 INPUT                                    PAGE  4
1
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

140         KK     140
141         KM   SUB-BASIN 140
142         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
143         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
144         KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
145         BA    .598
146         LG    .310    .280   4.200    .440   5.000
147         UC    .421    .278

148         KK     160
149         KM   SUB-BASIN 160
150         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
151         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
152         KM     L = 3.18  Kb = .043  Adj. Slope =  299.2
153         BA    .777
154         LG    .340    .340   4.600    .330   5.000
155         UC    .479    .476
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156          KK     180
157          KM   SUB-BASIN 180
158          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
159          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
160          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
161          BA   1.000
162          LG    .350    .350   4.150    .430    .000
163          UC    .571    .403

164          KK    180C
165          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
166          HC       4

167          KK     240
168          KM   SUB-BASIN 240
169          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
170          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
171          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
172          BA   1.036
173          LG    .350    .350   4.600    .330   2.000
174          UC    .500    .458

175          KK    R240
176          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
177          KM   PASS MOUNTAIN DIVERSION
178          RS       2    FLOW      -1
179          RC    .035    .025    .035    2100    .005
180          RX       0       1       2      11      41      50      51      52
181          RY       3       3       3       0       0       3       3       3

182          KK     220
183          KM   SUB-BASIN 220
184          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
185          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
186          KM     L = 3.14  Kb = .040  Adj. Slope =  302.1
187          BA   1.252
```



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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

188          LG    .350    .350   7.000    .120   3.000
189          UC    .425    .315
             * DDM   ***** Preserved *****

190          KK    220C
191          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
192          HC       2
             * DDM   ***** Preserved *****

193          KK    R220
194          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
195          KM   PASS MOUNTAIN DIVERSION
196          RS       1    FLOW      -1
197          RC    .035    .025    .035    1900    .005
198          RX       0       1       2      14      64      76      77      78
199          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

200          KK     200
201          KM   SUB-BASIN 200
202          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
203          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
204          KM     L = 3.28  Kb = .038  Adj. Slope =  299.9
205          BA   1.811
206          LG    .350    .390   5.800    .190  11.000
207          UC    .433    .270
             * DDM   ***** Preserved *****

208          KK    200C
209          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
210          HC       2
             * DDM   ***** Preserved *****

211          KK    R200
212          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
213          RS       1    FLOW      -1
214          RC    .035    .025    .035    1300    .005
215          RX       0       1       2      14     114     126     127     128
216          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

217          KK    C180
218          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *      1       2
219          HC       2
             * DDM   ***** Preserved *****

220          KK   SR180
221          KM   SIGNAL BUTTE FRS DATED 1/28/85
222          KM   OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
223          KM   EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
224          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
225          RS       1    STOR       0
226          SV       0       1     250     500     750    1060
227          SQ       0   106.5   125.5   137.5     146     160
```



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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

228          SE      90     101   104.5     107     109   112.4
             * DDM   ***** Preserved *****

229          KK    R180
230          KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
231          RS       3    FLOW      -1
232          RC    .035    .025    .035    1500    .003
233          RX       0       1       2    22.6    38.6    59.2      60      61
234          RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
             * DDM   ***** Updated *****

235          KK     260
236          KM   SUB-BASIN 260
237          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
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238          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
239          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
240          BA    .267
241          LG    .300    .170   6.800    .160  15.000
242          UC    .363    .215
             * DDM   ***** Preserved *****

243          KK    260C
244          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
245          HC       2    .267
             * DDM   ***** Preserved *****

246          KK    R260
247          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
248          RS       2    FLOW      -1
249          RC    .035    .025    .035    2300    .003
250          RX       0       1       2    23.4    43.4    64.8      65      66
251          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****

252          KK     280
253          KM   SUB-BASIN 280
254          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
255          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
256          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
257          BA    .304
258          LG    .300    .250   5.300    .290  15.000
259          UC    .333    .175
             * DDM   ***** Preserved *****

260          KK    280C
261          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
262          HC       2
             * DDM   ***** Preserved *****

263          KK    R280
264          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
265          RS       3    FLOW      -1
266          RC    .035    .025    .035    2500    .003
267          RX       0       1       2    23.4    43.4    64.8      65      66
268          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                          PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

269          KK     300
270          KM   SUB-BASIN 300
271          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
272          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
273          KM     L = 2.28  Kb = .041  Adj. Slope =  127.0
274          BA    .988
275          LG    .340    .320   4.500    .370   7.000
276          UC    .538    .362
             * DDM   ***** Preserved *****

277          KK    300C
278          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
279          HC       2
             * DDM   ***** Preserved *****

280          KK    R300
281          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
282          RS       2    FLOW      -1
283          RC    .035    .025    .035    2200    .003
284          RX       0       1       2    23.4    55.4    76.8      77      78
285          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Preserved *****

286          KK   RR300
287          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
288          RS       2    FLOW      -1
289          RC    .016    .016    .016    6050   .0146
290          RX       0       1       2     2.1    16.1    16.2      17      18
291          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
             * DDM   ***** Updated *****

292          KK     320
293          KM   SUB-BASIN 320
294          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
295          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
296          KM     L = 4.67  Kb = .039  Adj. Slope =  248.6
             *      1       2
297          BA   1.527
298          LG    .330    .320   4.400    .390   9.000
299          UC    .658    .627
             * DDM   ***** Preserved *****

300          KK    D320
301          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
302          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
303          KM   SIERRA HEIGHTS, FALCON RIDGE, & MARBLE CREEK
304          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *      1
305          DT   BS320   12.27
306          DI       0   10000
307          DQ       0   10000
1                                    HEC-1 INPUT                                          PAGE  8

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

308          KK   RT320
309          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
310          DR   BS320

311          KK   SR320
312          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
313          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *      1
314          RS       1    STOR       0
315          SV       0     .01    12.3
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316          SQ       0     4.2     4.2

317          KK    C320
318          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
319          HC       3

320          KK     340
321          KM   SUB-BASIN 340
322          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
323          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
324          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
325          BA   1.449
326          LG    .280    .280   4.150    .520  21.000
327          UC    .512    .287

328          KK    D340
329          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
330          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
331          KM   GRANDVIEW ESTATES, BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
332          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *      1
333          DT   BS340      56
334          DI       0   10000
335          DQ       0   10000

336          KK   RT340
337          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
338          DR   BS340

339          KK   SR340
340          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
341          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *      1
342          RS       1    STOR       0
343          SV       0     .01      56
344          SQ       0    18.9    18.9

345          KK    C340
346          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
347          HC       3
1                                    HEC-1 INPUT                                    PAGE  9

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


348          KK     350
349          KM   SUB-BASIN 350
350          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
351          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
352          KM     L = 2.22  Kb = .042  Adj. Slope =  315.0
353          BA    .970
354          LG    .350    .350   4.550    .340   4.000
355          UC    .367    .234

356          KK   RR350
357          KM   FROM SUB-BASIN 350 TO SUB-BASIN 360
358          RS      12    FLOW      -1
359          RC     .05    .035     .05   25600    .049
360          RX    1000    1010    1020    1036    1041    1057    1067    1077
361          RY      15    14.5      14      10      10      14    14.5      15

362          KK     360
363          KM   SUB-BASIN 360
364          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
365          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
366          KM     L = 4.84  Kb = .042  Adj. Slope =  257.5
367          BA   1.329
368          LG    .300    .300   4.250    .460  12.000
369          UC    .712    .763

370          KK    D360
371          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
372          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
373          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
374          DT   BS360    28.6
375          DI       0   10000
376          DQ       0   10000

377          KK   RT360
378          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
379          DR   BS360

380          KK   SR360
381          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
382          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
383          RS       1    STOR       0
384          SV       0     .01    28.6
385          SQ       0     9.6     9.6

386          KK    360C
387          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
388          HC       4
1                                    HEC-1 INPUT                                    PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


389          KK     380
390          KM   SUB-BASIN 380
391          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
392          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
393          KM     L = 5.05  Kb = .041  Adj. Slope =  255.8
394          BA   1.638
395          LG    .320    .320   4.400    .420   8.000
396          UC    .733    .723

397          KK    D380
398          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
399          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
400          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
401          DT   BS380    28.6
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402          DI       0   10000
403          DQ       0   10000

404          KK   RT380
405          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
406          DR   BS380

407          KK   SR380
408          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
409          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
410          RS       1    STOR       0
411          SV       0     .01    28.6
412          SQ       0     9.6     9.6

413          KK    380C
414          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
415          HC       3

416          KK     390
417          KM   SUB-BASIN 390
418          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
419          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
420          KM     L = 2.82  Kb = .041  Adj. Slope =  298.1
421          BA   1.089
422          LG    .330    .330   5.200    .260  14.000
423          UC     .41    .306

424          KK    D390
425          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
426          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
427          KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
             *      1
428          DT   BS390     3.5
429          DI       0   10000
430          DQ       0   10000
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

431          KK   RT390
432          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
433          DR   BS390

434          KK   SR390
435          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
436          KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
437          RS       1    STOR       0
438          SV       0     .01     3.5
439          SQ       0     1.2     1.2

440          KK    390C
441          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
442          HC       2

443          KK   RR390
444          KM   FROM SUB-BASIN 390 TO SUB-BASIN 400
445          RS       6    FLOW      -1
446          RC     .05    .035     .05   14890    .056
447          RX    1000    1010    1020    1036    1041    1057    1067    1077
448          RY      15    14.5      14      10      10      14    14.5      15

449          KK     400
450          KM   SUB-BASIN 400
451          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
452          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
453          KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
454          BA    .616
455          LG    .320    .320   3.130    .930   6.000
456          UC    .592    .405

457          KK    400C
458          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
459          HC       3

460          KK     420
461          KM   SUB-BASIN 420
462          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
463          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
464          KM     L = 1.91  Kb = .042  Adj. Slope =  120.0
465          BA    .849
466          LG    .310    .270   3.880    .580  12.000
467          UC    .512    .325

468          KK    D420
469          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
470          KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
471          KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
             *      1
472          DT   BS420   38.55
473          DI       0   10000
474          DQ       0   10000
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

475          KK   RT420
476          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
477          DR   BS420

478          KK   SR420
479          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
480          KM   38.55 ACRE-FEETx43560/36x3600=13cfs
481          RS       1    STOR       0
482          SV       0     .01   38.55
483          SQ       0      13      13

484          KK    420C
485          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
486          HC       3

487          KK     440
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488          KM   SUB-BASIN 440
489          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
490          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
491          KM     L =  .40  Kb = .039  Adj. Slope =  315.0
492          BA    .080
493          LG    .190    .380   6.400    .140  13.000
494          UC    .129    .077

495          KK     R70
496          KM        ROUTE FLOW FROM SUB-BASIN 60 TO C108
497          RS       1    FLOW      -1
498          RC     .05    .035     .05    2250     .08
499          RX    1000    1025    1050    1070    1075    1095    1120    1145
500          RY      30    22.9    15.7      10      10    15.7    22.9      30

501          KK     441
502          KM   SUB-BASIN 441
503          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
504          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
505          KM     L =  .28  Kb = .069  Adj. Slope =  315.0
506          BA    .010
507          LG    .300    .250   5.600    .220   5.000
508          UC    .150    .225

509          KK    C108
510          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60 AND 61A
511          HC       2

512          KK    DIV4
513          KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
             *      1
514          DT   SPLIT
515          DI       0      14      40      82     120     154     180
516          DQ       0       7      20      41      60      77      90
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

517          KK    R108
518          KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
519          RS       2    FLOW      -1
520          RC     .05    .035     .05    3200      .1
521          RX    1000    1025    1050    1070    1075    1095    1120    1145
522          RY      30    22.9    15.7      10      10    15.7    22.9      30

523          KK     442
524          KM   SUB-BASIN 442
525          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
526          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
527          KM     L =  .83  Kb = .055  Adj. Slope =  274.2
528          BA    .100
529          LG    .300    .270   3.290    .770   5.000
530          UC    .258    .264

531          KK     C67
532          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60, 61 AND 67
533          HC       2

534          KK    DIV6
535          KM        OFFLINE BASIN WITH 75 FOOT WEIR SET AT 3 FEET ABOVE BOTTOM OF CHANNEL
536          KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
             *      1
537          DT  BASIN4
538          DI       0      10      32      56   136.6   276.5     454   662.8
539          DQ       0       0       0       0    71.6   202.5     372   572.8

540          KK  RTDIV6
541          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
542          DR  BASIN4

543          KK  RFDIV6
544          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
545          KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
             *      1
546          RS       1    STOR       0
547          SV       0     .01     3.3
548          SQ       0     1.1     1.1

549          KK   CDIV6
550          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
551          HC       2

552          KK     443
553          KM   SUB-BASIN 443
554          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
555          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
556          KM     L =  .71  Kb = .050  Adj. Slope =  315.0
557          BA    .080
558          LG    .250    .190   8.000    .080  10.000
559          UC    .196    .194
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

560          KK   DIV66
561          KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
562          KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
563          DT   WSH66
564          DI       0      78     100     200
565          DQ       0      78      78      78

566          KK    R113
567          KM        ROUTE FLOW FROM C113 TO C114
568          RS       1    FLOW      -1
569          RC    .019    .019    .019    1300    .029
570          RX    1000    1004    1008    1012    1018    1022    1026    1030
571          RY      17   15.33   12.67      10      10   12.67   15.33      17

572          KK    C114
573          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
574          HC       2
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575          KK     444
576          KM   SUB-BASIN 444
577          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
578          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
579          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
580          BA    .040
581          LG    .130    .350   4.450    .320   1.000
582          UC    .112    .084

583          KK     R58
584          KM        ROUTE FLOW FROM SUB-BASIN 58 TO C107
585          RS       2    FLOW      -1
586          RC     .05    .035     .05    2370   .0516
587          RX    1000    1010    1020    1050    1055    1085    1095    1105
588          RY      19      18      17      10      10      17      18      19

589          KK     445
590          KM   SUB-BASIN 445
591          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
592          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
593          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
594          BA    .190
595          LG    .170    .320   3.470    .590   3.000
596          UC    .192    .130

597          KK    C107
598          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 58 AND 59
599          HC       2

600          KK    R107
601          KM        ROUTE FLOW FROM C107 TO C109
602          RS       1    FLOW      -1
603          RC     .05    .035     .05     700   .0516
604          RX    1000    1010    1020    1050    1055    1085    1095    1105
605          RY      19      18      17      10      10      17      18      19
1                                        HEC-1 INPUT                                                    PAGE 15

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


606          KK    RTB2
607          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
608          DR   SPLIT

609          KK  RSPLIT
610          KM        ROUTE FLOW FROM SPLIT TO C109
611          RS       1    FLOW      -1
612          RC     .05    .035     .05     800     .05
613          RX    1000    1025    1050    1070    1075    1095    1120    1145
614          RY      30    22.9    15.7      10      10    15.7    22.9      30

615          KK     446
616          KM   SUB-BASIN 446
617          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
618          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
619          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
620          BA    .040
621          LG    .270    .250   4.500    .400  19.000
622          UC    .183    .189

623          KK    C109
624          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
625          HC       3

626          KK    DIV5
627          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
628          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
629          DT  WSH404
630          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
631          DQ       0      35      35      35      35      35      35      35

632          KK    R109
633          KM        ROUTE FLOW FROM C109 TO C110
634          RS       1    FLOW      -1
635          RC    .019    .019    .019    3080     .05
636          RX    1000    1005    1010    1015    1025    1030    1035    1040
637          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75

638          KK     447
639          KM   SUB-BASIN 447
640          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
641          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
642          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
643          BA    .090
644          LG    .250    .270   3.350    .870  30.000
645          UC    .208    .145
1                                        HEC-1 INPUT                                                    PAGE 16

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


646          KK   RT404
647          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
648          DR  WSH404
             * DDM    ***** Preserved *****

649          KK    R404
650          KM        ROUTE FLOW FROM C110 TO C110
651          RS       5    FLOW      -1
652          RC    .019    .019    .019    3540     .03
653          RX    1000    1012    1016    1020    1025    1029    1033    1045
654          RY      15      12      11      10      10      11      12      15
             * DDM    ***** Preserved *****

655          KK    C110
656          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 62 AND C109
657          HC       3
             * DDM    ***** Preserved *****

658          KK    R110
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659          KM        ROUTE FLOW FROM C110 TO C115
660          RS       1    FLOW      -1
661          RC    .019    .019    .019     580   .0291
662          RX    1000    1012    1016    1020    1035    1039    1043    1055
663          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

664          KK    C115
665          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
666          HC       2
             * DDM   ***** Preserved *****

667          KK    R115
668          KM        ROUTE FLOW FROM C115 TO C119
669          RS       1    FLOW      -1
670          RC    .019    .019    .019    2125    .029
671          RC    .019    .019    .019     580   .0291
672          RX    1000    1012    1016    1020    1035    1039    1043    1055
673          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Updated *****

674          KK     448
675          KM   SUB-BASIN 448
676          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
677          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
678          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
679          BA    .045
680          LG    .170    .310   4.200    .390  11.000
681          UC    .133    .102
             * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                    PAGE 17

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

682          KK     449
683          KM   SUB-BASIN 449
684          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
685          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
686          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
687          BA    .050
688          LG    .260    .280   3.500    .640   6.000
689          UC    .167    .134
             * DDM   ***** Preserved *****

690          KK   C6364
691          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 63 AND 64
692          HC       2
             * DDM   ***** Preserved *****

693          KK   R6364
694          KM        ROUTE FLOW FROM DIVERSIONS 63 AND 64 TO C116
695          RS       5    FLOW      -1
696          RC     .05    .035     .05    4375   .0333
697          RX    1000    1027    1053    1080    1090    1117    1143    1170
698          RY      15   13.33   11.67      10      10   11.67   13.33      15
             * DDM   ***** Updated *****

699          KK     450
700          KM   SUB-BASIN 450
701          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
702          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
703          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
704          BA    .070
705          LG    .340    .350   3.630    .570   4.000
706          UC    .296    .383
             * DDM   ***** Updated *****

707          KK     451
708          KM   SUB-BASIN 451
709          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
710          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
711          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
712          BA    .025
713          LG    .340    .340   3.290    .750   3.000
714          UC    .271    .453
             * DDM   ***** Preserved *****

715          KK    RT66
716          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
717          DR   WSH66
             * DDM   ***** Updated *****

718          KK     452
719          KM   SUB-BASIN 452
720          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
721          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
722          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
723          BA    .040
1                                    HEC-1 INPUT                                    PAGE 18

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

724          LG    .260    .280   3.700    .550   9.000
725          UC    .171    .166
             * DDM   ***** Preserved *****

726          KK   C6566
727          KM        COMBINE HYDROGRAPHS FROM DIVERSIONS 65 AND 66
728          HC       2
             * DDM   ***** Preserved *****

729          KK   R6566
730          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
731          RS       2    FLOW      -1
732          RC     .05    .035     .05    2435   .0282
733          RX    1000    1045    1090    1150    1160    1220    1265    1310
734          RY      25      23      20      10      10      20      23      25
             * DDM   ***** Preserved *****

735          KK    C116
736          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 68 AND 69 AND DIVERTED FLOWS
737          KM        FROM SUB-BASINS 63, 64, 65 AND 66
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738          HC       4
             * DDM   ***** Preserved *****

739          KK  BASIN5
740          KM        RESERVOIR WITHIN PARCEL 31, 2-48 INCH PIPES AT OUTFALL
741          KM        BASIN 5 FEET DEEP
742          RS       1    ELEV       0
743          SV       0     4.5     9.9
744          SQ       0      69     190
745          SE       0     2.5       5
             * DDM   ***** Preserved *****

746          KK    R116
747          KM        ROUTE FLOW FROM C116 TO C118
748          RS       2    FLOW      -1
749          RC     .05    .035     .05    1300   .0333
750          RX    1000    1100    1200    1300    1320    1420    1520    1620
751          RY      13      12      11      10      10      11      12      13
             * DDM   ***** Updated *****

752          KK     453
753          KM   SUB-BASIN 453
754          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
755          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
756          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
757          BA    .060
758          LG    .290    .300   3.290    .820  18.000
759          UC    .275    .284
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                    PAGE 19

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

760          KK    C117
761          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 70 AND C115
762          HC       2
             * DDM   ***** Preserved *****

763          KK    C118
764          KM        COMBINE HYDROGRAPHS FROM C116 AND C117
765          HC       2
             * DDM   ***** Preserved *****

766          KK    R118
767          KM        ROUTE FLOW FROM C118 TO C119
768          RS       1    FLOW      -1
769          RC    .019    .019    .019    1500    .024
770          RX    1000    1012    1016    1020    1035    1039    1043    1055
771          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

772          KK    DIV7
773          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE, FLOWS ENTER BASIN OVER
774          KM        60' WEIR SET AT 1.5' ABOVE THE CHANNEL BOTTOM
             *      1
775          DT  BASIN6
776          DI       0    20.4    76.9   176.4   383.8   696.7  1105.8  1611.6
777          DQ       0       0       0       0    57.3     162   297.6   458.2

778          KK  RTDIV7
779          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
780          DR  BASIN6

781          KK  RFDIV7
782          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
783          KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
784          RS       1    STOR       0
785          SV       0     .01     3.6
786          SQ       0     1.2     1.2

787          KK   CDIV7
788          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
789          HC       2
             * DDM   ***** Updated *****

790          KK     454
791          KM   SUB-BASIN 454
792          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
793          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
794          KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
795          BA    .180
796          LG    .300    .310   3.780    .560  14.000
797          UC    .379    .395
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                    PAGE 20

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

798          KK    C119
799          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 71 AND C119
             *      1       2
800          HC       2
             * DDM   ***** Preserved *****

801          KK    R454
802          KM   FROM SUB-BASIN 454 TO SUB-BASIN 455
803          RS       8    FLOW      -1
804          RC     .05    .035     .05    6000    .005
805          RX    1000    1010    1020    1036    1041    1057    1067    1077
806          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Updated *****

807          KK     455
808          KM   SUB-BASIN 455
809          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
810          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
811          KM     L = 2.92  Kb = .039  Adj. Slope =  269.2
812          BA   1.559
813          LG    .280    .270   3.850    .590  22.000
814          UC    .450    .279
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815          KK    D455
816          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
817          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
818          KM   FOR BASIN #: 30,34,43,47&58
819          KM        MAXIMUM VOLUME DIVERSION = 74.1 acre-feet
             *      1
820          DT   BS455     74.1
821          DI       0    10000
822          DQ       0    10000

823          KK   RT455
824          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
825          DR   BS455

826          KK   SR455
827          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
828          KM    74.1 ACRE-FEETx43560/36x3600=25cfs
829          RS       1    STOR        0
830          SV       0     .01     74.1
831          SQ       0      25       25

832          KK    C455
833          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
834          HC       2
             * DDM    ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

835          KK    455C
836          KM   HYDROGRAPH COMBINATION AT THE END OF THE SPOOK HILL FRS
             *      1       2
837          HC       3
             * DDM    ***** Preserved *****

838          KK   SR440
839          KM   SPOOK HILL FRS PLANS DATED 6/15/77
840          KM   OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
841          KM   EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
842          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
843          RS       1    STOR        0
844          SV       0      10      100      300      500      680
845          SQ       0     640      720      780      825      860
846          SE      66    77.5       79     80.2     81.2       82
             * DDM    ***** Preserved *****

847          KK   RR455
848          KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
849          RS       9    FLOW       -1
850          RC    .035    .025     .035     9200     .002
851          RX       0       1        2       28       58       84       85       86
852          RY    13.5    13.5     13.5        0        0     13.5     13.5     13.5

853          KK     456
854          KM   SUB-BASIN 456
855          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
856          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
857          KM     L =  .94  Kb = .045  Adj. Slope =  315.0
858          BA    .260
859          LG    .300    .380    5.600     .200   12.000
860          UC    .217    .139

861          KK    DIV1
862          KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
863          KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
             *      1
864          DT  BASIN1
865          DI       0    24.4     70.8    132.2    194.1    281.1    415.5    571.9    753.2
866          DQ       0       0        0        0        0     57.3      162    297.6    458.2
             * DDM    ***** Preserved *****

867          KK    DIV2
868          KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
869          KM        WASHES THAT DRAIN TO THE WEST, SOUTHERN WASHES FED BY 30" AND 18" PIPE
870          DT    WA30
871          DI       0    24.4     70.8    132.2    194.1    223.8    253.5   274.25      295
872          DQ       0     8.4     24.8     40.2     52.1     57.8     63.5     67.3       71
             * DDM    ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

873          KK    R456
874          KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
875          RS       3    FLOW       -1
876          RC     .05     .035      .05     3800     .044
877          RX    1000    1010     1020     1036     1041     1057     1067     1077
878          RY   14.88   14.44       14       10       10       14    14.44    14.88
             * DDM    ***** Updated *****

879          KK     457
880          KM   SUB-BASIN 457
881          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
882          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
883          KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
884          BA    .190
885          LG    .270    .330    3.950     .460    6.000
886          UC    .237    .195
             * DDM    ***** Preserved *****

887          KK    C101
888          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
889          HC       2
             * DDM    ***** Preserved *****

890          KK    DIV3
891          KM        RESERVOIR AT THE EDGE OF THE PROPERTY, FLOW FROM 10' WIDE CHANNEL
892          KM        DIVERTED INTO OFFLINE BASIN OVER A 150' WEIR SET AT 0.75 FEET
893          KM        ABOVE CHANNEL
             *      1
894          DT  BASIN2
```

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895          DI       0      18    59.3   121.6   255.8   454.1   703.1   998.3  1338.4
896          DQ       0       0       0       0    50.6   143.2   263.1     405     566

897          KK  RTDIV3
898          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
899          DR  BASIN2

900          KK  RFDIV3
901          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
902          KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
903          RS       1    STOR       0
904          SV       0     .01       5
905          SQ       0     1.7     1.7

906          KK   CDIV3
907          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
908          HC       2
             * DDM   ***** Preserved *****

909          KK    R101
910          KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
911          RS       1    FLOW      -1
912          RC     .05    .035     .05    1450     .05
913          RX    1000    1010    1020    1036    1041    1057    1067    1077
914          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                    PAGE 23

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

915          KK     458
916          KM   SUB-BASIN 458
917          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
918          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
919          KM     L =  .76  Kb = .048  Adj. Slope =  299.0
920          BA    .190
921          LG    .290    .330   5.800    .190   6.000
922          UC    .204    .131
             * DDM   ***** Preserved *****

923          KK    C103
924          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
925          HC       2
             * DDM   ***** Preserved *****

926          KK    R103
927          KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
928          RS       1    FLOW      -1
929          RC     .05    .035     .05     900     .03
930          RX    1000    1010    1020    1030    1050    1060    1070    1080
931          RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
             * DDM   ***** Preserved *****

932          KK    RT30
933          KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
934          DR    WA30
             * DDM   ***** Preserved *****

935          KK     R30
936          KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
937          RS       1    FLOW      -1
938          RC     .05    .035     .05    1630     .05
939          RX    1000    1010    1020    1036    1041    1057    1067    1077
940          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Preserved *****

941          KK    RTB1
942          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1       2
943          DR  BASIN1
             * DDM   ***** Preserved *****

944          KK      B1
945          KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
946          KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
             *      1       2
947          RS       1    ELEV       0
948          SV                 .7     1.4     2.3     2.7     3.2
949          SQ       0       5      16      28    32.5      37
950          SE       0       1       2       3     3.5       4
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                    PAGE 24

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

951          KK     RB1
952          KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
953          RS       2    FLOW      -1
954          RC     .05    .035     .05    1720     .05
955          RX    1000    1010    1020    1036    1041    1057    1067    1077
956          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Preserved *****

957          KK    CDIV
958          KM        COMBINE FLOWS FROM WA30 AND BASIN 1
959          HC       2     .12
             * DDM   ***** Updated *****

960          KK     459
961          KM   SUB-BASIN 459
962          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
963          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
964          KM     L =  .35  Kb = .052  Adj. Slope =  251.6
965          BA    .030
966          LG    .220    .300   3.330    .710   8.000
967          UC    .162    .157
             * DDM   ***** Preserved *****

968          KK     C52
969          KM        COMBINE FLOWS FROM SUB-BASIN 52, WA30 AND BASIN 1
970          HC       2
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            * DDM   ***** Preserved *****

971         KK     R52
972         KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
973         RS       1    FLOW      -1
974         RC     .05    .035     .05    2000     .05
975         RX    1000    1010    1020    1036    1041    1057    1067    1077
976         RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

977         KK     460
978         KM   SUB-BASIN 460
979         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
980         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
981         KM     L =  .62  Kb = .058  Adj. Slope =  194.0
982         BA    .140
983         LG    .250    .260   3.740    .690  27.000
984         UC    .242    .160
            * DDM   ***** Preserved *****

985         KK    C102
986         KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
987         HC       2
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 25

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


988         KK  BASIN3
989         KM        RESERVOIR AT CLUBHOUSE LOCATION, 1-30 INCH PIPE AT OUTFALL
990         KM        BOTTOM OF BASIN AT 6 FEET ABOVE 0 ELEVATION
991         RS       1    ELEV       0
992         SA       0       0       0       0     .21    1.15       2    2.12    2.31    2.65
            *      0       0       0       0    1.14    3.25    5.52    9.23
993         SE       0     2.5       5       6       7     7.5       8       9    10.5    12.5
994         SQ       0      22      45      51      57    59.5      62      67      73      81
            * DDM   ***** Preserved *****

995         KK      R3
996         KM        ROUTE FLOW FROM C102 to C106
997         RS       4    FLOW      -1
998         RC     .05     .03     .05    2750   .0375
999         RX    1000    1010    1020    1052    1086    1118    1128    1138
1000        RY    19.2    18.4      18      10      10      18    18.4    19.2
            * DDM   ***** Updated *****

1001        KK     461
1002        KM   SUB-BASIN 461
1003        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1004        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1005        KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1006        BA    .120
1007        LG    .270    .250   4.250    .450  21.000
1008        UC    .271    .250
            * DDM   ***** Preserved *****

1009        KK    C104
1010        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1011        HC       2
            * DDM   ***** Preserved *****

1012        KK    C106
1013        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1014        HC       2
            * DDM   ***** Preserved *****

1015        KK    R106
1016        KM        ROUTE FLOW FROM C106 TO C49
1017        RS       2    FLOW      -1
1018        RC     .05    .035     .05    3950    .033
1019        RX    1000    1010    1020    1030    1050    1060    1070    1080
1020        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Updated *****

1021        KK     462
1022        KM   SUB-BASIN 462
1023        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1024        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1025        KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1026        BA    .301
1027        LG    .300    .330   5.300    .240  12.000
1028        UC    .225    .137
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 26

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


1029        KK     C56
1030        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
            *      1       2
1031        HC       2

1032        KK     480
1033        KM   SUB-BASIN 480
1034        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1035        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1036        KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1037        BA    .731
1038        LG    .270    .270   3.580    .730  27.000
1039        UC    .325    .148

1040        KK    D480
1041        KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1042        KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1043        KM   FOR BASIN #: 18 & 26
1044        KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
            *      1
1045        DT   BS480    16.5
1046        DI       0   10000
1047        DQ       0   10000
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1048          KK   RT480
1049          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1050          DR   BS480

1051          KK   SR480
1052          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1053          KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1054          RS       1    STOR       0
1055          SV       0     .01    16.5
1056          SQ       0     5.6     5.6

1057          KK    C480
1058          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1059          HC       2

1060          KK    480C
1061          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1062          HC       3    2.09

1063          KK   RR480
1064          KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
1065          RS       2    FLOW      -1
1066          RC    .025    .025    .025    6500     .05
1067          RX       0       1       2      28      58      84      85      86
1068          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
1                                          HEC-1 INPUT                                                    PAGE 27

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


1069          KK     500
1070          KM   SUB-BASIN 500
1071          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1072          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
1073          KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
1074          BA    .930
1075          LG    .350    .400   6.000    .170   9.000
1076          UC    .421    .333
              * DDM   ***** Preserved *****

1077          KK    500C
1078          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1079          HC       2    2.84
1080          ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   41          20
               .
               .
   49          .          40
               .           .
               .           .
   57          .           .          60
               .           .           .
               .           .           .
   65        60C.......................
               V
               V
   68       SR60
               V
               V
   77        R60
               V
               V
   83       RR60
               .
               .
   89          .          80
               .           .
               .           .
   97        80C............
               V
               V
  100        R80
               .
               .
  106          .         100
               .           .
               .           .
  114       100C............
               V
               V
  117       R100
               .
               .
  123          .         120
               .           .
               .           .
  131       120C............
               V
               V
  134       R120
               .
               .
  140          .         140
               .           .
               .           .
  148          .           .         160
               .           .           .
               .           .           .
  156          .           .           .         180
               .           .           .           .
               .           .           .           .
  164       180C...................................
               .
               .
  167          .         240
               .           V
               .           V
  175          .        R240
               .           .
               .           .
  182          .           .         220
               .           .           .
               .           .           .
  190          .        220C............
               .           V
               .           V
  193          .        R220
               .           .
               .           .
  200          .           .         200
               .           .           .
               .           .           .
  208          .        200C............
               .           V
               .           V
  211          .        R200
               .           .
               .           .
  217       C180............
               V
               V
  220      SR180
               V
               V
  229       R180
               .
               .
  235          .         260
               .           .
               .           .
  243       260C............
               V
               V
  246       R260
               .
               .
  252          .         280
               .           .
               .           .
  260       280C............
               V
```

```
            V
263       R280
            .
            .
269         .         300
            .           .
            .           .
277       300C...........
            V
            V
280       R300
            V
            V
286      RR300
            .
            .
292         .         320
            .           .
            .           .
305         .           .-------->   BS320
300         .       D320
            .           .
            .           .
310         .           .           .<-------   BS320
308         .           .       RT320
            .           .           V
            .           .           V
311         .           .       SR320
            .           .           .
            .           .           .
317       C320......................
            .
            .
320         .         340
            .           .
            .           .
333         .           .-------->   BS340
328         .       D340
            .           .
            .           .
338         .           .           .<-------   BS340
336         .           .       RT340
            .           .           V
            .           .           V
339         .           .       SR340
            .           .           .
            .           .           .
345       C340......................
            .
            .
348         .         350
            .           V
            .           V
356         .      RR350
            .           .
            .           .
362         .           .         360
            .           .           .
            .           .           .
374         .           .           .-------->   BS360
370         .           .       D360
            .           .           .
            .           .           .
379         .           .           .           .<-------   BS360
377         .           .           .       RT360
            .           .           .           V
            .           .           .           V
380         .           .           .       SR360
            .           .           .           .
            .           .           .           .
386       360C...................................
            .
            .
389         .         380
            .           .
            .           .
401         .           .-------->   BS380
397         .       D380
            .           .
            .           .
406         .           .           .<-------   BS380
404         .           .       RT380
            .           .           V
            .           .           V
407         .           .       SR380
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413       380C......................
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416         .         390
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428         .           .-------->   BS390
424         .       D390
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433         .           .           .<-------   BS390
431         .           .       RT390
            .           .           V
            .           .           V
434         .           .       SR390
            .           .           .
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440         .       390C............
            .           V
            .           V
443         .      RR390
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449         .           .         400
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457     400C.......................
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460         .        420
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472         .          .-------->   BS420
468         .      D420
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477         .          .          .<-------   BS420
475         .          .      RT420
            .          .          V
            .          .          V
478         .          .      SR420
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484     420C.......................
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487         .        440
            .          V
            .          V
495         .        R70
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501         .          .         441
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509         .      C108............
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514         .          .-------->   SPLIT
512         .      DIV4
            .          V
            .          V
517         .      R108
            .          .
            .          .
523         .          .         442
            .          .          .
            .          .          .
531         .       C67............
            .          .
            .          .
537         .          .-------->  BASIN4
534         .      DIV6
            .          .
            .          .
542         .          .          .<-------  BASIN4
540         .          .     RTDIV6
            .          .          V
            .          .          V
543         .          .     RFDIV6
            .          .          .
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549         .     CDIV6............
            .          .
            .          .
552         .          .         443
            .          .          .
            .          .          .
563         .          .          .-------->   WSH66
560         .          .      DIV66
            .          .          V
            .          .          V
566         .          .       R113
            .          .          .
            .          .          .
572         .      C114............
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            .          .
575         .          .         444
            .          .          V
            .          .          V
583         .          .         R58
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589         .          .          .         445
            .          .          .          .
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597         .          .       C107............
            .          .          V
            .          .          V
600         .          .       R107
            .          .          .
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608         .          .          .           .<-------   SPLIT
606         .          .          .       RTB2
            .          .          .          V
            .          .          .          V
609         .          .          .     RSPLIT
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615         .          .          .          .         446
            .          .          .          .          .
            .          .          .          .          .
623         .          .       C109........................
            .          .          .
            .          .          .
629         .          .          .-------> WSH404
626         .          .       DIV5
            .          .          V
            .          .          V
632         .          .       R109
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638         .          .          .         447
            .          .          .          .
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648         .          .          .          .          .<-------  WSH404
646         .          .          .          .      RT404
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649                                            R404
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655                        C110.......................
                              V
                              V
658                        R110
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664                 C115............
                       V
                       V
667                 R115
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674                        448
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682                                     449
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690                        C6364...........
                              V
                              V
693                        R6364
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699                                     450
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707                                          451
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717                                                  .<-------   WSH66
715                                             RT66
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718                                                 .         452
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726                                             C6566...........
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729                                             R6566
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735                        C116.................................
                              V
                              V
739                       BASIN5
                              V
                              V
746                        R116
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752                                     453
                                          .
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760                        C117...........
                              .
                              .
763                 C118............
                       V
                       V
766                 R118
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                              .
775                 .-------> BASIN6
772                 DIV7
                              .
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780                           .<-------  BASIN6
778                       RTDIV7
                              V
                              V
781                       RFDIV7
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787                CDIV7...........
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790                        454
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798                 C119............
                       V
                       V
801                 R454
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807                        455
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820                           .------->   BS455
815                        D455
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825                           .           .<-------   BS455
823                           .       RT455
                              .           V
                              .           V
826                           .       SR455
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832                        C455...........
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835          455C.......................
                V
                V
838          SR440
                V
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                V
847        RR455
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853             .        456
                .         .
                .         .-------> BASIN1
864             .
861             .      DIV1
                .         .
                .         .------->   WA30
870             .
867             .      DIV2
                .         V
                .         V
873             .      R456
                .         .
                .         .
879             .         .        457
                .         .         .
                .         .         .
887             .      C101............
                .         .
                .         .-------> BASIN2
894             .
890             .      DIV3
                .         .
                .         .
899             .         .          .<-------  BASIN2
897             .         .     RTDIV3
                .         .         V
                .         .         V
900             .         .     RFDIV3
                .         .         .
                .         .         .
906             .     CDIV3............
                .         V
                .         V
909             .      R101
                .         .
                .         .
915             .         .        458
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                .         .         .
923             .      C103............
                .         V
                .         V
926             .      R103
                .         .
                .         .
934             .         .          .<-------   WA30
932             .         .       RT30
                .         .         V
                .         .         V
935             .         .       R30
                .         .         .
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943             .         .         .          .<-------  BASIN1
941             .         .         .       RTB1
                .         .         .          V
                .         .         .          V
944             .         .         .         B1
                .         .         .          V
                .         .         .          V
951             .         .         .       RB1
                .         .         .         .
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957             .         .       CDIV............
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960             .         .         .        459
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968             .         .       C52............
                .         .         V
                .         .         V
971             .         .       R52
                .         .         .
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977             .         .         .        460
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985             .         .       C102............
                .         .         V
                .         .         V
988             .         .     BASIN3
                .         .         V
                .         .         V
995             .         .        R3
                .         .         .
                .         .         .
1001            .         .         .        461
                .         .         .         .
                .         .         .         .
1009            .         .       C104............
                .         .         .
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1012            .      C106............
                .         V
                .         V
1015            .      R106
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1021            .         .        462
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1029            .      C56............
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1032            .         .        480
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1045            .         .          .------->  BS480
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1040          .           .        D480
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1050          .           .          .          .<-------   BS480
1048          .           .          .      RT480
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1051          .           .          .      SR480
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1057          .           .        C480............
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1060       480C......................
              V
              V
1063      RR480
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1069          .         500
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              .           .
1077       500C............
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              JUN  1998                *
*            VERSION 4.1                *
*                                       *
*  RUN DATE   04JAN00  TIME  14:31:25   *
*                                       *
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*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*   HYDROLOGIC ENGINEERING CENTER       *
*         609 SECOND STREET             *
*      DAVIS, CALIFORNIA 95616          *
*          (916) 756-1104               *
*                                       *
*****************************************
```

EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
FOR LAS SENDAS, AND LANDISCOR JAN.1999 AERIAL PHOTOGRAPHS

ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS

A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
PRECIPITATION VALUES

ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL, SIGNAL
BUTTE, AND BULLDOG FLOODWAY PLANS

ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE: SPHEX2.DAT
DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM

MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
BY: JCD; 1/4/2000 FILE: SPHEX2RV.DAT

```
20 IO        OUTPUT CONTROL VARIABLES
                 IPRNT          3  PRINT CONTROL
                 IPLOT          0  PLOT CONTROL
                 QSCAL         0.  HYDROGRAPH PLOT SCALE

21 IN        TIME DATA FOR INPUT TIME SERIES
                 JXMIN         15  TIME INTERVAL IN MINUTES
                JXDATE     1    0  STARTING DATE
                JXTIME          0  STARTING TIME

   IT        HYDROGRAPH TIME DATA
                  NMIN          2  MINUTES IN COMPUTATION INTERVAL
                 IDATE     1    0  STARTING DATE
                 ITIME        0000  STARTING TIME
                    NQ        1500  NUMBER OF HYDROGRAPH ORDINATES
                NDDATE     3    0  ENDING DATE
                NDTIME        0158  ENDING TIME
                 ICENT         19  CENTURY MARK

            COMPUTATION INTERVAL     .03 HOURS
                 TOTAL TIME BASE   49.97 HOURS

      ENGLISH UNITS
          DRAINAGE AREA          SQUARE MILES
          PRECIPITATION DEPTH    INCHES
          LENGTH, ELEVATION      FEET
          FLOW                   CUBIC FEET PER SECOND
          STORAGE VOLUME         ACRE-FEET
          SURFACE AREA           ACRES
          TEMPERATURE            DEGREES FAHRENHEIT

22 JD        INDEX STORM NO. 1
                 STRM        3.81  PRECIPITATION DEPTH
                 TRDA         .01  TRANSPOSITION DRAINAGE AREA

23 PI          PRECIPITATION PATTERN
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                .01       .01       .03       .04       .04       .04       .04       .04       .04       .04
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33 JD INDEX STORM NO. 2
STRM 3.58 PRECIPITATION DEPTH
TRDA 10.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

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34 JD INDEX STORM NO. 3
STRM 3.43 PRECIPITATION DEPTH
TRDA 30.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

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.01	.01	.03	.04	.04	.04	.04	.04	.04	.04
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35 JD INDEX STORM NO. 4

STRM 3.28 PRECIPITATION DEPTH

TRDA 60.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.01	.01	.03	.04	.04	.04	.04	.04	.04	.04

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36 JD INDEX STORM NO. 5
STRM 3.22 PRECIPITATION DEPTH
TRDA 90.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.01	.01	.03	.04	.04	.04	.04	.04	.04	.04
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37 JD INDEX STORM NO. 6
STRM 3.18 PRECIPITATION DEPTH
TRDA 120.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

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38 JD INDEX STORM NO. 7
STRM 3.14 PRECIPITATION DEPTH
TRDA 150.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

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.01	.01	.03	.04	.04	.04	.04	.04	.04	.04
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39 JD INDEX STORM NO. 8
STRM 3.05 PRECIPITATION DEPTH
TRDA 300.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

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.01	.01	.03	.04	.04	.04	.04	.04	.04	.04
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40 JD INDEX STORM NO. 9

STRM	2.97	PRECIPITATION DEPTH
TRDA	500.00	TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

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RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	20	1130.	12.57	243.	64.	31.	1.82		
+	HYDROGRAPH AT	40	2286.	12.27	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1405.	12.37	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	4438.	12.30	712.	189.	91.	5.80		
+	ROUTED TO	SR60	92.	14.77	92.	89.	71.	5.80		
+	ROUTED TO	R60	92.	14.83	92.	89.	70.	5.80		
+	ROUTED TO	RR60	92.	14.93	92.	89.	70.	5.80		
+	HYDROGRAPH AT	80	1693.	12.20	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	1767.	12.20	266.	134.	93.	1.48		
+	ROUTED TO	R80	1765.	12.23	266.	134.	93.	1.48		
+	HYDROGRAPH AT	100	389.	12.33	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2117.	12.23	321.	148.	99.	1.96		
+	ROUTED TO	R100	2116.	12.27	321.	148.	99.	1.96		
+	HYDROGRAPH AT	120	2960.	12.20	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	4993.	12.23	636.	229.	141.	4.16		
+	ROUTED TO	R120	4949.	12.27	636.	229.	141.	4.16		
+	HYDROGRAPH AT	140	598.	12.23	64.	17.	8.	.60		
+	HYDROGRAPH AT	160	588.	12.30	85.	22.	11.	.78		
+	HYDROGRAPH AT	180	694.	12.33	90.	23.	11.	1.00		
+	4 COMBINED AT	180C	6691.	12.27	863.	286.	169.	6.54		
+	HYDROGRAPH AT	240	770.	12.30	107.	27.	13.	1.04		
+	ROUTED TO	R240	760.	12.37	107.	27.	13.	1.04		
+	HYDROGRAPH AT	220	1427.	12.23	167.	43.	21.	1.25		
+	2 COMBINED AT	220C	2088.	12.27	271.	69.	33.	2.29		
+	ROUTED TO	R220	2057.	12.30	271.	69.	33.	2.29		
+	HYDROGRAPH AT	200	2059.	12.23	236.	65.	31.	1.81		
+	2 COMBINED AT	200C	3995.	12.27	501.	132.	64.	4.10		
+	ROUTED TO	R200	3967.	12.30	501.	132.	64.	4.10		
+	2 COMBINED AT	C180	10520.	12.27	1345.	410.	230.	10.64		
+	ROUTED TO	SR180	141.	15.23	141.	140.	116.	10.64		
+	ROUTED TO	R180	141.	15.30	141.	140.	116.	10.64		
+	HYDROGRAPH AT	260	401.	12.17	43.	12.	6.	.27		
+	2 COMBINED AT	260C	515.	12.17	180.	151.	123.	.27		
+	ROUTED TO	R260	500.	12.23	180.	151.	122.	.27		
+	HYDROGRAPH AT	280	452.	12.13	42.	12.	6.	.30		

+	2 COMBINED AT	280C	908.	12.17	219.	161.	128.	.57
+	ROUTED TO	R280	889.	12.27	219.	161.	127.	.57
+	HYDROGRAPH AT	300	824.	12.30	109.	29.	14.	.99
+	2 COMBINED AT	300C	1686.	12.27	325.	188.	141.	1.56
+	ROUTED TO	R300	1664.	12.33	325.	188.	140.	1.56
+	ROUTED TO	RR300	1641.	12.40	325.	188.	140.	1.56
+	HYDROGRAPH AT	320	889.	12.43	171.	47.	22.	1.53
+	DIVERSION TO	BS320	390.	12.07	21.	6.	3.	1.53
+	HYDROGRAPH AT	D320	889.	12.43	157.	41.	19.	1.53
+	HYDROGRAPH AT	RT320	390.	12.07	21.	6.	3.	1.53
+	ROUTED TO	SR320	4.	4.40	4.	4.	3.	1.53
+	3 COMBINED AT	C320	2503.	12.40	482.	232.	162.	3.09
+	HYDROGRAPH AT	340	1381.	12.27	186.	55.	26.	1.45
+	DIVERSION TO	BS340	1381.	12.27	104.	28.	14.	1.45
+	HYDROGRAPH AT	D340	1219.	12.40	98.	27.	13.	1.45
+	HYDROGRAPH AT	RT340	1381.	12.27	104.	28.	14.	1.45
+	ROUTED TO	SR340	19.	9.03	19.	19.	14.	1.45
+	3 COMBINED AT	C340	3709.	12.40	592.	276.	187.	4.53
+	HYDROGRAPH AT	350	1102.	12.17	103.	27.	13.	.97
+	ROUTED TO	RR350	941.	12.57	103.	27.	13.	.97
+	HYDROGRAPH AT	360	668.	12.50	151.	42.	20.	1.33
+	DIVERSION TO	BS360	655.	12.43	53.	14.	7.	1.33
+	HYDROGRAPH AT	D360	657.	12.57	106.	28.	13.	1.33
+	HYDROGRAPH AT	RT360	655.	12.43	53.	14.	7.	1.33
+	ROUTED TO	SR360	10.	9.47	10.	10.	7.	1.33
+	4 COMBINED AT	360C	4557.	12.53	799.	337.	219.	6.83
+	HYDROGRAPH AT	380	821.	12.50	175.	48.	23.	1.64
+	DIVERSION TO	BS380	779.	12.40	54.	14.	7.	1.64
+	HYDROGRAPH AT	D380	821.	12.50	128.	33.	16.	1.64
+	HYDROGRAPH AT	RT380	779.	12.40	54.	14.	7.	1.64
+	ROUTED TO	SR380	10.	10.30	10.	10.	7.	1.64
+	3 COMBINED AT	380C	5348.	12.53	929.	378.	241.	8.47
+	HYDROGRAPH AT	390	1179.	12.20	144.	40.	19.	1.09
+	DIVERSION TO	BS390	7.	8.13	6.	2.	1.	1.09
+	HYDROGRAPH AT	D390	1179.	12.20	144.	38.	18.	1.09
+	HYDROGRAPH AT	RT390	7.	8.13	6.	2.	1.	1.09
+	ROUTED TO	SR390	1.	.50	1.	1.	1.	1.09
+	2 COMBINED AT	390C	1180.	12.20	145.	40.	19.	1.09

+	ROUTED TO	RR390	1102.	12.40	145.	40.	19.	1.09
+	HYDROGRAPH AT	400	333.	12.37	47.	13.	6.	.62
	3 COMBINED AT	400C	6543.	12.53	1107.	426.	265.	10.18
	HYDROGRAPH AT	420	710.	12.30	92.	26.	12.	.85
+	DIVERSION TO	BS420	710.	12.30	74.	19.	9.	.85
+	HYDROGRAPH AT	D420	219.	12.80	23.	7.	3.	.85
+	HYDROGRAPH AT	RT420	710.	12.30	74.	19.	9.	.85
+	ROUTED TO	SR420	13.	11.10	13.	13.	9.	.85
+	3 COMBINED AT	420C	6539.	12.53	1137.	444.	277.	11.03
+	HYDROGRAPH AT	440	179.	12.00	12.	3.	2.	.08
+	ROUTED TO	R70	174.	12.03	12.	3.	2.	.08
+	HYDROGRAPH AT	441	16.	12.07	1.	0.	0.	.01
+	2 COMBINED AT	C108	189.	12.03	14.	4.	2.	.09
+	DIVERSION TO	SPLIT	95.	12.03	7.	2.	1.	.09
+	HYDROGRAPH AT	DIV4	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	R108	87.	12.10	7.	2.	1.	.09
+	HYDROGRAPH AT	442	99.	12.13	9.	2.	1.	.10
+	2 COMBINED AT	C67	183.	12.13	15.	4.	2.	.19
	DIVERSION TO	BASIN4	115.	12.13	6.	1.	1.	.19
	HYDROGRAPH AT	DIV6	68.	12.13	10.	3.	1.	.19
+	HYDROGRAPH AT	RTDIV6	115.	12.13	6.	1.	1.	.19
+	ROUTED TO	RFDIV6	1.	11.93	1.	1.	1.	.19
+	2 COMBINED AT	CDIV6	69.	12.13	11.	4.	2.	.19
+	HYDROGRAPH AT	443	146.	12.07	14.	4.	2.	.08
+	DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	DIV66	68.	12.07	3.	1.	0.	.08
+	ROUTED TO	R113	66.	12.10	3.	1.	0.	.08
+	2 COMBINED AT	C114	133.	12.10	13.	4.	2.	.27
+	HYDROGRAPH AT	444	81.	12.00	5.	1.	1.	.04
+	ROUTED TO	R58	78.	12.07	5.	1.	1.	.04
+	HYDROGRAPH AT	445	288.	12.07	18.	5.	2.	.19
+	2 COMBINED AT	C107	363.	12.07	22.	6.	3.	.23
+	ROUTED TO	R107	362.	12.07	22.	6.	3.	.23
+	HYDROGRAPH AT	RTB2	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	RSPLIT	94.	12.07	7.	2.	1.	.09
	HYDROGRAPH AT	446	64.	12.07	6.	2.	1.	.04
+	3 COMBINED AT	C109	516.	12.07	35.	9.	4.	.27
+	DIVERSION TO	WSH404	35.	11.73	7.	2.	1.	.27

+	HYDROGRAPH AT	DIV5	481.	12.07	27.	7.	3.	.27
+	ROUTED TO	R109	469.	12.10	27.	7.	3.	.27
	HYDROGRAPH AT	447	135.	12.07	12.	4.	2.	.09
	HYDROGRAPH AT	RT404	35.	11.73	7.	2.	1.	.27
+	ROUTED TO	R404	35.	11.90	7.	2.	1.	.27
+	3 COMBINED AT	C110	631.	12.10	46.	13.	6.	.36
+	ROUTED TO	R110	632.	12.10	46.	13.	6.	.36
+	2 COMBINED AT	C115	759.	12.10	59.	17.	8.	.63
+	ROUTED TO	R115	758.	12.10	59.	17.	8.	.63
+	HYDROGRAPH AT	448	87.	12.03	6.	2.	1.	.05
+	HYDROGRAPH AT	449	77.	12.03	5.	1.	1.	.05
+	2 COMBINED AT	C6364	163.	12.03	11.	3.	1.	.09
+	ROUTED TO	R6364	140.	12.20	11.	3.	1.	.09
+	HYDROGRAPH AT	450	58.	12.17	6.	2.	1.	.07
+	HYDROGRAPH AT	451	17.	12.17	2.	1.	0.	.03
+	HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	452	61.	12.07	4.	1.	1.	.04
+	2 COMBINED AT	C6566	139.	12.07	16.	4.	2.	.04
	ROUTED TO	R6566	134.	12.13	16.	4.	2.	.04
	4 COMBINED AT	C116	340.	12.17	35.	9.	4.	.23
+	ROUTED TO	BASIN5	153.	12.47	35.	9.	4.	.23
+	ROUTED TO	R116	151.	12.57	35.	9.	4.	.23
+	HYDROGRAPH AT	453	60.	12.13	7.	2.	1.	.06
+	2 COMBINED AT	C117	172.	12.50	41.	11.	5.	.29
+	2 COMBINED AT	C118	838.	12.10	99.	28.	14.	.92
+	ROUTED TO	R118	834.	12.13	99.	28.	14.	.92
+	DIVERSION TO	BASIN6	207.	12.13	12.	3.	1.	.92
+	HYDROGRAPH AT	DIV7	626.	12.13	86.	25.	12.	.92
+	HYDROGRAPH AT	RTDIV7	207.	12.13	12.	3.	1.	.92
+	ROUTED TO	RFDIV7	1.	11.93	1.	1.	1.	.92
+	2 COMBINED AT	CDIV7	627.	12.13	87.	25.	13.	.92
+	HYDROGRAPH AT	454	152.	12.23	21.	6.	3.	.18
+	2 COMBINED AT	C119	762.	12.13	107.	31.	16.	1.10
+	ROUTED TO	R454	676.	12.40	107.	31.	16.	1.10
+	HYDROGRAPH AT	455	1541.	12.23	198.	59.	28.	1.56
	DIVERSION TO	BS455	1541.	12.23	139.	37.	18.	1.56
+	HYDROGRAPH AT	D455	893.	12.50	77.	22.	10.	1.56
+	HYDROGRAPH AT	RT455	1541.	12.23	139.	37.	18.	1.56

+	ROUTED TO	SR455	25.	9.73	25.	25.	18.	1.56
+	2 COMBINED AT	C455	918.	12.50	102.	47.	28.	1.56
	3 COMBINED AT	455C	7436.	12.53	1307.	511.	316.	13.68
	ROUTED TO	SR440	801.	14.07	787.	511.	315.	13.68
+	ROUTED TO	RR455	801.	14.37	787.	511.	313.	13.68
+	HYDROGRAPH AT	456	458.	12.07	36.	10.	5.	.26
+	DIVERSION TO	BASIN1	198.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV1	259.	12.07	28.	8.	4.	.26
+	DIVERSION TO	WA30	65.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV2	195.	12.07	20.	6.	3.	.26
+	ROUTED TO	R456	191.	12.17	20.	6.	3.	.26
+	HYDROGRAPH AT	457	254.	12.10	20.	5.	3.	.19
+	2 COMBINED AT	C101	438.	12.10	40.	11.	5.	.45
+	DIVERSION TO	BASIN2	136.	12.10	8.	2.	1.	.45
+	HYDROGRAPH AT	DIV3	302.	12.10	32.	9.	4.	.45
+	HYDROGRAPH AT	RTDIV3	136.	12.10	8.	2.	1.	.45
+	ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+	2 COMBINED AT	CDIV3	304.	12.10	33.	10.	5.	.45
	ROUTED TO	R101	301.	12.13	33.	10.	5.	.45
	HYDROGRAPH AT	458	347.	12.07	25.	7.	3.	.19
+	2 COMBINED AT	C103	625.	12.07	58.	16.	8.	.64
+	ROUTED TO	R103	624.	12.10	58.	16.	8.	.64
+	HYDROGRAPH AT	RT30	65.	12.07	8.	2.	1.	.26
+	ROUTED TO	R30	64.	12.10	8.	2.	1.	.26
+	HYDROGRAPH AT	RTB1	198.	12.07	8.	2.	1.	.26
+	ROUTED TO	B1	36.	12.23	7.	2.	1.	.26
+	ROUTED TO	RB1	36.	12.30	7.	2.	1.	.26
+	2 COMBINED AT	CDIV	94.	12.23	15.	4.	2.	.12
+	HYDROGRAPH AT	459	43.	12.07	3.	1.	0.	.03
+	2 COMBINED AT	C52	118.	12.17	18.	5.	2.	.15
+	ROUTED TO	R52	116.	12.20	18.	5.	2.	.15
+	HYDROGRAPH AT	460	205.	12.10	19.	6.	3.	.14
+	2 COMBINED AT	C102	310.	12.10	37.	11.	5.	.29
+	ROUTED TO	BASIN3	75.	12.60	37.	11.	5.	.29
+	ROUTED TO	R3	75.	12.73	37.	11.	5.	.29
	HYDROGRAPH AT	461	156.	12.13	17.	5.	2.	.12
+	2 COMBINED AT	C104	216.	12.13	53.	16.	7.	.41
+	2 COMBINED AT	C106	833.	12.10	110.	32.	16.	1.05

+	ROUTED TO	R106	799.	12.17	110.	32.	16.	1.05
+	HYDROGRAPH AT	462	523.	12.07	40.	11.	5.	.30
	2 COMBINED AT	C56	1238.	12.13	149.	42.	21.	1.35
	HYDROGRAPH AT	480	991.	12.13	96.	29.	14.	.73
+	DIVERSION TO	BS480	458.	11.93	27.	8.	4.	.73
+	HYDROGRAPH AT	D480	991.	12.13	78.	21.	10.	.73
+	HYDROGRAPH AT	RT480	458.	11.93	27.	8.	4.	.73
+	ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT	C480	997.	12.13	84.	27.	14.	.73
+	3 COMBINED AT	480C	2461.	12.13	962.	595.	357.	2.09
+	ROUTED TO	RR480	2394.	12.20	960.	595.	357.	2.09
+	HYDROGRAPH AT	500	988.	12.23	122.	33.	16.	.93
+	2 COMBINED AT	500C	3351.	12.20	1068.	623.	371.	2.84

*** NORMAL END OF HEC-1 ***

NSTEP Estimation for Spook Hill ADMP 100-YR, 24hr Existing Conditions

Trial 1

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.06	13.19	2.0	1.8
RR60	3500	0.1	9.72	3.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.04	6.53	1.0	1.2
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.1	4.17	2.0	3.0
R260	2300	0.06	10.65	2.0	1.8
R280	2500	0.1	6.94	3.0	3.0
R300	2200	0.06	10.19	2.0	1.8
RR300	6050	0.07	24.01	2.0	2.1
RR350	25600	0.4	17.78	12.0	12.0
RR390	14890	0.2	20.68	6.0	6.0
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	1.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	1.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	1.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.06	6.02	3.0	1.8
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.3	8.52	8.0	9.0
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	2.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	2.0	0.9
RB1	1720	0.07	6.83	1.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	3.0	3.9
R106	3950	0.07	15.67	1.0	2.1
RR480	6500	0.07	25.79	1.0	2.1

Trial 2

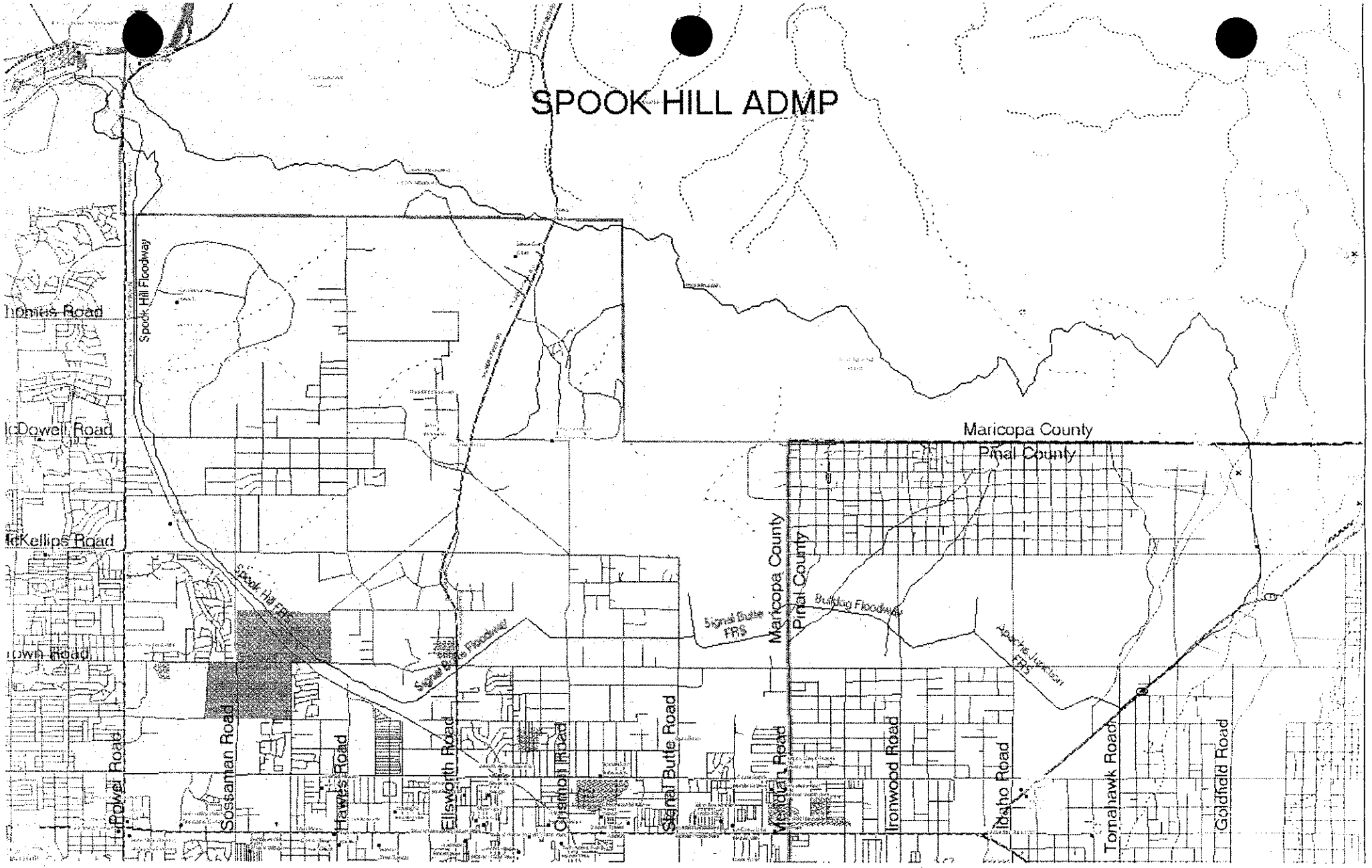
$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.06	13.19	2.0	1.8
RR60	3500	0.1	9.72	3.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.04	6.53	1.0	1.2
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.1	4.17	3.0	3.0
R260	2300	0.06	10.65	2.0	1.8
R280	2500	0.1	6.94	3.0	3.0
R300	2200	0.06	10.19	2.0	1.8
RR300	6050	0.07	24.01	2.0	2.1
RR350	25600	0.4	17.78	12.0	12.0
RR390	14890	0.2	20.68	6.0	6.0
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.06	6.02	2.0	1.8
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.3	8.52	9.0	9.0
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.07	25.79	2.0	2.1

Trial 3

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.06	13.19	2.0	1.8
RR60	3500	0.1	9.72	3.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.04	6.53	1.0	1.2
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.06	6.94	3.0	1.8
R260	2300	0.06	10.65	2.0	1.8
R280	2500	0.1	6.94	3.0	3.0
R300	2200	0.06	10.19	2.0	1.8
RR300	6050	0.07	24.01	2.0	2.1
RR350	25600	0.4	17.78	12.0	12.0
RR390	14890	0.2	20.68	6.0	6.0
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.06	6.02	3.0	1.8
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.3	8.52	9.0	9.0
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.07	25.79	2.0	2.1



HEC-1 Existing Conditions 100-Year, 24hr Storm

```
1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*             JUN  1998             *
*           VERSION 4.1             *
*                                   *
*  RUN DATE   05JAN00  TIME  15:04:26  *
*                                   *
*************************************
```

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

```
X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX        XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                   HEC-1 INPUT                                          PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS, AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL, SIGNAL
 10           ID   BUTTE, AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE: SPHEX2.DAT
 13           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
 14           ID
 15           ID   MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
 16           ID   DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
 17           ID   BY: JCD; 1/4/2000            FILE: SPHEX2RV.DAT
 18           ID
 19           ID   MODEL UPDATE WITH A CHANGE ON THE IT RECORD FROM 2 TO 5 MINUTES
 20           ID   TO DETERMINE THE Q100 DISCHARGE VOLUME AND DRAIN TIME
 21           ID   BY JCD; 1/5/2000             FILE: SPEX2VOL.DAT
              *DIAGRAM
 22           IT       5                    1500
 23           IO       3
 24           IN      15
 25           JD    3.81    0.01
 26           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 27           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 28           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 29           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 30           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 31           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 32           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 33           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 34           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 35           PC    .983    .986    .989    .992    .995    .998   1.000
 36           JD    3.58   10.00
 37           JD    3.43   30.00
 38           JD    3.28   60.00
 39           JD    3.22   90.00
 40           JD    3.18  120.00
 41           JD    3.14  150.00
 42           JD    3.05  300.00
 43           JD    2.97  500.00

 44           KK      20
 45           KM   SUB-BASIN 20
 46           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 47           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
 48           KM     L = 4.58  Kb = .037  Adj. Slope =  118.0
 49           BA   1.821
 50           LG    .350    .360   6.600    .140   7.000
 51           UC    .804    .697
1                                   HEC-1 INPUT                                          PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 52           KK      40
 53           KM   SUB-BASIN 40
 54           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 55           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 56           KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 57           BA   2.233
 58           LG    .340    .340   4.900    .280   5.000
 59           UC    .496    .264

 60           KK      60
 61           KM   SUB-BASIN 60
 62           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 63           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 64           KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 65           BA   1.746
 66           LG    .330    .350   5.800    .190   9.000
 67           UC    .596    .477
```

INTERPOLATED HYDROGRAPH AT SR60

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	2		0715	376	88.	3		1430	751	71.	4		2145	1126	0.
1		0005	2	0.	2		0720	377	88.	3		1435	752	71.	4		2150	1127	0.
1		0010	3	0.	2		0725	378	88.	3		1440	753	71.	4		2155	1128	0.
1		0015	4	0.	2		0730	379	88.	3		1445	754	71.	4		2200	1129	0.
1		0020	5	0.	2		0735	380	88.	3		1450	755	71.	4		2205	1130	0.
1		0025	6	1.	2		0740	381	87.	3		1455	756	71.	4		2210	1131	0.
1		0030	7	1.	2		0745	382	87.	3		1500	757	60.	4		2215	1132	0.
1		0035	8	2.	2		0750	383	87.	3		1505	758	39.	4		2220	1133	0.
1		0040	9	3.	2		0755	384	87.	3		1510	759	26.	4		2225	1134	0.
1		0045	10	4.	2		0800	385	87.	3		1515	760	18.	4		2230	1135	0.
1		0050	11	5.	2		0805	386	87.	3		1520	761	13.	4		2235	1136	0.
1		0055	12	5.	2		0810	387	87.	3		1525	762	10.	4		2240	1137	0.
1		0100	13	6.	2		0815	388	87.	3		1530	763	9.	4		2245	1138	0.
1		0105	14	7.	2		0820	389	87.	3		1535	764	7.	4		2250	1139	0.
1		0110	15	7.	2		0825	390	87.	3		1540	765	7.	4		2255	1140	0.
1		0115	16	8.	2		0830	391	87.	3		1545	766	6.	4		2300	1141	0.
1		0120	17	8.	2		0835	392	87.	3		1550	767	6.	4		2305	1142	0.
1		0125	18	9.	2		0840	393	87.	3		1555	768	6.	4		2310	1143	0.
1		0130	19	9.	2		0845	394	87.	3		1600	769	6.	4		2315	1144	0.
1		0135	20	9.	2		0850	395	87.	3		1605	770	6.	4		2320	1145	0.
1		0140	21	10.	2		0855	396	87.	3		1610	771	6.	4		2325	1146	0.
1		0145	22	10.	2		0900	397	87.	3		1615	772	6.	4		2330	1147	0.
1		0150	23	10.	2		0905	398	87.	3		1620	773	6.	4		2335	1148	0.
1		0155	24	10.	2		0910	399	87.	3		1625	774	6.	4		2340	1149	0.
1		0200	25	10.	2		0915	400	87.	3		1630	775	6.	4		2345	1150	0.
1		0205	26	10.	2		0920	401	87.	3		1635	776	6.	4		2350	1151	0.
1		0210	27	10.	2		0925	402	87.	3		1640	777	6.	4		2355	1152	0.
1		0215	28	10.	2		0930	403	87.	3		1645	778	6.	5		0000	1153	0.
1		0220	29	11.	2		0935	404	87.	3		1650	779	6.	5		0005	1154	0.
1		0225	30	11.	2		0940	405	87.	3		1655	780	6.	5		0010	1155	0.
1		0230	31	11.	2		0945	406	87.	3		1700	781	6.	5		0015	1156	0.
1		0235	32	11.	2		0950	407	87.	3		1705	782	6.	5		0020	1157	0.
1		0240	33	11.	2		0955	408	87.	3		1710	783	6.	5		0025	1158	0.
1		0245	34	11.	2		1000	409	87.	3		1715	784	6.	5		0030	1159	0.
1		0250	35	11.	2		1005	410	87.	3		1720	785	6.	5		0035	1160	0.
1		0255	36	11.	2		1010	411	87.	3		1725	786	6.	5		0040	1161	0.
1		0300	37	11.	2		1015	412	86.	3		1730	787	6.	5		0045	1162	0.
1		0305	38	11.	2		1020	413	86.	3		1735	788	6.	5		0050	1163	0.
1		0310	39	11.	2		1025	414	86.	3		1740	789	6.	5		0055	1164	0.
1		0315	40	11.	2		1030	415	86.	3		1745	790	6.	5		0100	1165	0.
1		0320	41	11.	2		1035	416	86.	3		1750	791	6.	5		0105	1166	0.
1		0325	42	11.	2		1040	417	86.	3		1755	792	6.	5		0110	1167	0.
1		0330	43	11.	2		1045	418	86.	3		1800	793	6.	5		0115	1168	0.
1		0335	44	11.	2		1050	419	86.	3		1805	794	6.	5		0120	1169	0.
1		0340	45	11.	2		1055	420	86.	3		1810	795	6.	5		0125	1170	0.
1		0345	46	11.	2		1100	421	86.	3		1815	796	6.	5		0130	1171	0.
1		0350	47	11.	2		1105	422	86.	3		1820	797	6.	5		0135	1172	0.
1		0355	48	11.	2		1110	423	86.	3		1825	798	6.	5		0140	1173	0.
1		0400	49	11.	2		1115	424	86.	3		1830	799	6.	5		0145	1174	0.
1		0405	50	11.	2		1120	425	86.	3		1835	800	6.	5		0150	1175	0.
1		0410	51	11.	2		1125	426	86.	3		1840	801	6.	5		0155	1176	0.
1		0415	52	12.	2		1130	427	86.	3		1845	802	6.	5		0200	1177	0.
1		0420	53	12.	2		1135	428	86.	3		1850	803	6.	5		0205	1178	0.
1		0425	54	12.	2		1140	429	86.	3		1855	804	6.	5		0210	1179	0.
1		0430	55	13.	2		1145	430	86.	3		1900	805	6.	5		0215	1180	0.
1		0435	56	13.	2		1150	431	86.	3		1905	806	6.	5		0220	1181	0.
1		0440	57	13.	2		1155	432	86.	3		1910	807	6.	5		0225	1182	0.
1		0445	58	13.	2		1200	433	86.	3		1915	808	6.	5		0230	1183	0.
1		0450	59	14.	2		1205	434	86.	3		1920	809	6.	5		0235	1184	0.
1		0455	60	14.	2		1210	435	86.	3		1925	810	6.	5		0240	1185	0.
1		0500	61	14.	2		1215	436	86.	3		1930	811	6.	5		0245	1186	0.
1		0505	62	14.	2		1220	437	86.	3		1935	812	6.	5		0250	1187	0.
1		0510	63	14.	2		1225	438	86.	3		1940	813	5.	5		0255	1188	0.
1		0515	64	14.	2		1230	439	86.	3		1945	814	3.	5		0300	1189	0.
1		0520	65	14.	2		1235	440	86.	3		1950	815	2.	5		0305	1190	0.
1		0525	66	14.	2		1240	441	85.	3		1955	816	1.	5		0310	1191	0.
1		0530	67	14.	2		1245	442	85.	3		2000	817	1.	5		0315	1192	0.
1		0535	68	14.	2		1250	443	85.	3		2005	818	0.	5		0320	1193	0.
1		0540	69	14.	2		1255	444	85.	3		2010	819	0.	5		0325	1194	0.
1		0545	70	14.	2		1300	445	85.	3		2015	820	0.	5		0330	1195	0.
1		0550	71	14.	2		1305	446	85.	3		2020	821	0.	5		0335	1196	0.
1		0555	72	14.	2		1310	447	85.	3		2025	822	0.	5		0340	1197	0.
1		0600	73	15.	2		1315	448	85.	3		2030	823	0.	5		0345	1198	0.
1		0605	74	15.	2		1320	449	85.	3		2035	824	0.	5		0350	1199	0.
1		0610	75	15.	2		1325	450	85.	3		2040	825	0.	5		0355	1200	0.
1		0615	76	15.	2		1330	451	85.	3		2045	826	0.	5		0400	1201	0.
1		0620	77	15.	2		1335	452	85.	3		2050	827	0.	5		0405	1202	0.
1		0625	78	15.	2		1340	453	85.	3		2055	828	0.	5		0410	1203	0.
1		0630	79	15.	2		1345	454	85.	3		2100	829	0.	5		0415	1204	0.
1		0635	80	16.	2		1350	455	85.	3		2105	830	0.	5		0420	1205	0.
1		0640	81	16.	2		1355	456	85.	3		2110	831	0.	5		0425	1206	0.
1		0645	82	16.	2		1400	457	85.	3		2115	832	0.	5		0430	1207	0.
1		0650	83	16.	2		1405	458	85.	3		2120	833	0.	5		0435	1208	0.
1		0655	84	17.	2		1410	459	85.	3		2125	834	0.	5		0440	1209	0.
1		0700	85	17.	2		1415	460	85.	3		2130	835	0.	5		0445	1210	0.
1		0705	86	17.	2		1420	461	85.	3		2135	836	0.	5		0450	1211	0.
1		0710	87	17.	2		1425	462	85.	3		2140	837	0.	5		0455	1212	0.
1		0715	88	17.	2		1430	463	85.	3		2145	838	0.	5		0500	1213	0.
1		0720	89	18.	2		1435	464	85.	3		2150	839	0.	5		0505	1214	0.
1		0725	90	18.	2		1440	465	85.	3		2155	840	0.	5		0510	1215	0.
1		0730	91	18.	2		1445	466	85.	3		2200	841	0.	5		0515	1216	0.
1		0735	92	18.	2		1450	467	85.	3		2205	842	0.	5		0520	1217	0.
1		0740	93	18.	2		1455	468	85.	3		2210	843	0.	5		0525	1218	0.
1		0745	94	18.	2		1500	469	85.	3		2215	844	0.	5		0530	1219	0.
1		0750	95	18.	2		1505	470	84.	3		2220	845	0.	5		0535	1220	0.
1		0755	96	18.	2		1510	471	84.	3		2225	846	0.	5		0540	1221	0.
1		0800	97	18.	2		1515	472	84.	3		2230	847	0.	5		0545	1222	0.
1		0805	98	18.	2		1520	473	84.	3		2235	848	0.	5		0550	1223	0.
1		0810	99	18.	2		1525	474	84.	3		2240	849	0.	5		0555	1224	0.
1		0815	100	18.	2		1530	475	84.	3		2245	850	0.	5		0600	1225	0.
1		0820	101	18.	2		1535	476	84.	3		2250	851	0.	5		0605	1226	0.
1		0825	102	19.	2		1540	477	84.	3		2255	852	0.	5		0610	1227	0.
1		0830	103	19.	2		1545	478	84.	3		2300	853	0.	5		0615	1228	0.
1		0835	104	19.	2		1550	479	84.	3		2305	854	0.	5		0620	1229	0.
1		0840	105	20.	2		1555	480	84.	3		2310	855	0.	5		0625	1230	0.

1	0845	106	21.	*	2	1600	481	84.	*	3	2315	856	0.	*	5	0630	1231	0.
1	0850	107	21.	*	2	1605	482	84.	*	3	2320	857	0.	*	5	0635	1232	0.
1	0855	108	22.	*	2	1610	483	84.	*	3	2325	858	0.	*	5	0640	1233	0.
1	0900	109	22.	*	2	1615	484	84.	*	3	2330	859	0.	*	5	0645	1234	0.
1	0905	110	23.	*	2	1620	485	84.	*	3	2335	860	0.	*	5	0650	1235	0.
1	0910	111	23.	*	2	1625	486	84.	*	3	2340	861	0.	*	5	0655	1236	0.
1	0915	112	24.	*	2	1630	487	84.	*	3	2345	862	0.	*	5	0700	1237	0.
1	0920	113	24.	*	2	1635	488	84.	*	3	2350	863	0.	*	5	0705	1238	0.
1	0925	114	24.	*	2	1640	489	84.	*	3	2355	864	0.	*	5	0710	1239	0.
1	0930	115	25.	*	2	1645	490	84.	*	4	0000	865	0.	*	5	0715	1240	0.
1	0935	116	25.	*	2	1650	491	84.	*	4	0005	866	0.	*	5	0720	1241	0.
1	0940	117	26.	*	2	1655	492	84.	*	4	0010	867	0.	*	5	0725	1242	0.
1	0945	118	26.	*	2	1700	493	84.	*	4	0015	868	0.	*	5	0730	1243	0.
1	0950	119	27.	*	2	1705	494	84.	*	4	0020	869	0.	*	5	0735	1244	0.
1	0955	120	28.	*	2	1710	495	84.	*	4	0025	870	0.	*	5	0740	1245	0.
1	1000	121	28.	*	2	1715	496	84.	*	4	0030	871	0.	*	5	0745	1246	0.
1	1005	122	29.	*	2	1720	497	84.	*	4	0035	872	0.	*	5	0750	1247	0.
1	1010	123	29.	*	2	1725	498	84.	*	4	0040	873	0.	*	5	0755	1248	0.
1	1015	124	30.	*	2	1730	499	83.	*	4	0045	874	0.	*	5	0800	1249	0.
1	1020	125	30.	*	2	1735	500	83.	*	4	0050	875	0.	*	5	0805	1250	0.
1	1025	126	31.	*	2	1740	501	83.	*	4	0055	876	0.	*	5	0810	1251	0.
1	1030	127	32.	*	2	1745	502	83.	*	4	0100	877	0.	*	5	0815	1252	0.
1	1035	128	33.	*	2	1750	503	83.	*	4	0105	878	0.	*	5	0820	1253	0.
1	1040	129	34.	*	2	1755	504	83.	*	4	0110	879	0.	*	5	0825	1254	0.
1	1045	130	35.	*	2	1800	505	83.	*	4	0115	880	0.	*	5	0830	1255	0.
1	1050	131	36.	*	2	1805	506	83.	*	4	0120	881	0.	*	5	0835	1256	0.
1	1055	132	38.	*	2	1810	507	83.	*	4	0125	882	0.	*	5	0840	1257	0.
1	1100	133	40.	*	2	1815	508	83.	*	4	0130	883	0.	*	5	0845	1258	0.
1	1105	134	42.	*	2	1820	509	83.	*	4	0135	884	0.	*	5	0850	1259	0.
1	1110	135	44.	*	2	1825	510	83.	*	4	0140	885	0.	*	5	0855	1260	0.
1	1115	136	47.	*	2	1830	511	83.	*	4	0145	886	0.	*	5	0900	1261	0.
1	1120	137	50.	*	2	1835	512	83.	*	4	0150	887	0.	*	5	0905	1262	0.
1	1125	138	53.	*	2	1840	513	83.	*	4	0155	888	0.	*	5	0910	1263	0.
1	1130	139	56.	*	2	1845	514	83.	*	4	0200	889	0.	*	5	0915	1264	0.
1	1135	140	63.	*	2	1850	515	83.	*	4	0205	890	0.	*	5	0920	1265	0.
1	1140	141	71.	*	2	1855	516	83.	*	4	0210	891	0.	*	5	0925	1266	0.
1	1145	142	71.	*	2	1900	517	83.	*	4	0215	892	0.	*	5	0930	1267	0.
1	1150	143	71.	*	2	1905	518	83.	*	4	0220	893	0.	*	5	0935	1268	0.
1	1155	144	72.	*	2	1910	519	83.	*	4	0225	894	0.	*	5	0940	1269	0.
1	1200	145	73.	*	2	1915	520	83.	*	4	0230	895	0.	*	5	0945	1270	0.
1	1205	146	75.	*	2	1920	521	83.	*	4	0235	896	0.	*	5	0950	1271	0.
1	1210	147	77.	*	2	1925	522	83.	*	4	0240	897	0.	*	5	0955	1272	0.
1	1215	148	80.	*	2	1930	523	83.	*	4	0245	898	0.	*	5	1000	1273	0.
1	1220	149	82.	*	2	1935	524	83.	*	4	0250	899	0.	*	5	1005	1274	0.
1	1225	150	84.	*	2	1940	525	83.	*	4	0255	900	0.	*	5	1010	1275	0.
1	1230	151	85.	*	2	1945	526	83.	*	4	0300	901	0.	*	5	1015	1276	0.
1	1235	152	87.	*	2	1950	527	83.	*	4	0305	902	0.	*	5	1020	1277	0.
1	1240	153	88.	*	2	1955	528	82.	*	4	0310	903	0.	*	5	1025	1278	0.
1	1245	154	88.	*	2	2000	529	82.	*	4	0315	904	0.	*	5	1030	1279	0.
1	1250	155	89.	*	2	2005	530	82.	*	4	0320	905	0.	*	5	1035	1280	0.
1	1255	156	90.	*	2	2010	531	82.	*	4	0325	906	0.	*	5	1040	1281	0.
1	1300	157	90.	*	2	2015	532	82.	*	4	0330	907	0.	*	5	1045	1282	0.
1	1305	158	90.	*	2	2020	533	82.	*	4	0335	908	0.	*	5	1050	1283	0.
1	1310	159	91.	*	2	2025	534	82.	*	4	0340	909	0.	*	5	1055	1284	0.
1	1315	160	91.	*	2	2030	535	82.	*	4	0345	910	0.	*	5	1100	1285	0.
1	1320	161	91.	*	2	2035	536	82.	*	4	0350	911	0.	*	5	1105	1286	0.
1	1325	162	91.	*	2	2040	537	82.	*	4	0355	912	0.	*	5	1110	1287	0.
1	1330	163	92.	*	2	2045	538	82.	*	4	0400	913	0.	*	5	1115	1288	0.
1	1335	164	92.	*	2	2050	539	82.	*	4	0405	914	0.	*	5	1120	1289	0.
1	1340	165	92.	*	2	2055	540	82.	*	4	0410	915	0.	*	5	1125	1290	0.
1	1345	166	92.	*	2	2100	541	82.	*	4	0415	916	0.	*	5	1130	1291	0.
1	1350	167	92.	*	2	2105	542	82.	*	4	0420	917	0.	*	5	1135	1292	0.
1	1355	168	92.	*	2	2110	543	82.	*	4	0425	918	0.	*	5	1140	1293	0.
1	1400	169	92.	*	2	2115	544	82.	*	4	0430	919	0.	*	5	1145	1294	0.
1	1405	170	92.	*	2	2120	545	82.	*	4	0435	920	0.	*	5	1150	1295	0.
1	1410	171	92.	*	2	2125	546	82.	*	4	0440	921	0.	*	5	1155	1296	0.
1	1415	172	92.	*	2	2130	547	82.	*	4	0445	922	0.	*	5	1200	1297	0.
1	1420	173	92.	*	2	2135	548	82.	*	4	0450	923	0.	*	5	1205	1298	0.
1	1425	174	92.	*	2	2140	549	82.	*	4	0455	924	0.	*	5	1210	1299	0.
1	1430	175	92.	*	2	2145	550	82.	*	4	0500	925	0.	*	5	1215	1300	0.
1	1435	176	92.	*	2	2150	551	82.	*	4	0505	926	0.	*	5	1220	1301	0.
1	1440	177	92.	*	2	2155	552	82.	*	4	0510	927	0.	*	5	1225	1302	0.
1	1445	178	92.	*	2	2200	553	82.	*	4	0515	928	0.	*	5	1230	1303	0.
1	1450	179	92.	*	2	2205	554	82.	*	4	0520	929	0.	*	5	1235	1304	0.
1	1455	180	92.	*	2	2210	555	82.	*	4	0525	930	0.	*	5	1240	1305	0.
1	1500	181	92.	*	2	2215	556	82.	*	4	0530	931	0.	*	5	1245	1306	0.
1	1505	182	92.	*	2	2220	557	81.	*	4	0535	932	0.	*	5	1250	1307	0.
1	1510	183	92.	*	2	2225	558	81.	*	4	0540	933	0.	*	5	1255	1308	0.
1	1515	184	92.	*	2	2230	559	81.	*	4	0545	934	0.	*	5	1300	1309	0.
1	1520	185	92.	*	2	2235	560	81.	*	4	0550	935	0.	*	5	1305	1310	0.
1	1525	186	92.	*	2	2240	561	81.	*	4	0555	936	0.	*	5	1310	1311	0.
1	1530	187	92.	*	2	2245	562	81.	*	4	0600	937	0.	*	5	1315	1312	0.
1	1535	188	92.	*	2	2250	563	81.	*	4	0605	938	0.	*	5	1320	1313	0.
1	1540	189	92.	*	2	2255	564	81.	*	4	0610	939	0.	*	5	1325	1314	0.
1	1545	190	92.	*	2	2300	565	81.	*	4	0615	940	0.	*	5	1330	1315	0.
1	1550	191	92.	*	2	2305	566	81.	*	4	0620	941	0.	*	5	1335	1316	0.
1	1555	192	92.	*	2	2310	567	81.	*	4	0625	942	0.	*	5	1340	1317	0.
1	1600	193	92.	*	2	2315	568	81.	*	4	0630	943	0.	*	5	1345	1318	0.
1	1605	194	92.	*	2	2320	569	81.	*	4	0635	944	0.	*	5	1350	1319	0.
1	1610	195	92.	*	2	2325	570	81.	*	4	0640	945	0.	*	5	1355	1320	0.
1	1615	196	92.	*	2	2330	571	81.	*	4	0645	946	0.	*	5	1400	1321	0.
1	1620	197	92.	*	2	2335	572	81.	*	4	0650	947	0.	*	5	1405	1322	0.
1	1625	198	92.	*	2	2340	573	81.	*	4	0655	948	0.	*	5	1410	1323	0.
1	1630	199	92.	*	2	2345	574	81.	*	4	0700	949	0.	*	5	1415	1324	0.
1	1635	200	92.	*	2	2350	575	81.	*	4	0705	950	0.	*	5	1420	1325	0.
1	1640	201	92.	*	2	2355	576	81.	*	4	0710	951	0.	*	5	1425	1326	0.
1	1645	202	92.	*	3	0000	577	81.	*	4	0715	952	0.	*	5	1430	1327	0.
1	1650	203	92.	*	3	0005	578	81.	*	4	0720	953	0.	*	5	1435	1328	0.
1	1655	204	92.	*	3	0010	579	81.	*	4	0725	954	0.	*	5	1440	1329	0.
1	1700	205	92.	*	3	0015	580	80.	*	4	0730	955	0.	*	5	1445	1330	0.
1	1705	206	92.	*	3	0020	581	80.	*	4	0735	956	0.	*	5	1450	1331	0.
1	1710	207	92.	*	3	0025	582	80.	*	4	0740	957	0.	*	5	1455	1332	0.
1	1715	208	92.	*	3	0030	583	80.	*	4	0745	958	0.	*	5	1500	1333	0.
1	1720	209	92.	*	3	0035	584	80.	*	4	0750	959	0.	*	5	1505	1334	0.
1	1725	210	92.	*	3	0040	585	80.	*	4	0755	960	0.	*	5	1510	1335	0.
1	1730	211	92.	*	3	0045	586	80.	*	4	0800	961	0.	*	5	1515	1336	0.
1	1735	212	92.	*	3	0050	587	80.	*	4	0805	962	0.	*	5	1520	1337	0.
1	1740	213	92.	*	3	0055	588	80.	*	4	0810	963	0.	*	5	1525	1338	0.
1	1745	214	92.	*	3	0100	589	80.	*	4	0815	964	0.	*	5	1530	1339	0.
1	1750	215	92.	*	3	0105	590	80.	*	4	0820	965	0.	*	5	1535	1340	0.
1	1755	216	92.	*	3	0110	591	80.	*	4	0825	966	0.	*	5	1540	1341	0.
1	1800	217	92.	*	3	0115	592	80.	*	4	0830	967	0.	*	5	1545	1342	0.
1	1805	218	92.	*	3	0120	593	80.	*	4	0835	968	0.	*	5	1550	1343	0.

1	1810	219	92.	*	3	0125	594	80.	*	4	0840	969	0.	*	5	1555	1344	0.
1	1815	220	92.	*	3	0130	595	80.	*	4	0845	970	0.	*	5	1600	1345	0.
1	1820	221	92.	*	3	0135	596	80.	*	4	0850	971	0.	*	5	1605	1346	0.
1	1825	222	92.	*	3	0140	597	80.	*	4	0855	972	0.	*	5	1610	1347	0.
1	1830	223	92.	*	3	0145	598	79.	*	4	0900	973	0.	*	5	1615	1348	0.
1	1835	224	92.	*	3	0150	599	79.	*	4	0905	974	0.	*	5	1620	1349	0.
1	1840	225	91.	*	3	0155	600	79.	*	4	0910	975	0.	*	5	1625	1350	0.
1	1845	226	91.	*	3	0200	601	79.	*	4	0915	976	0.	*	5	1630	1351	0.
1	1850	227	91.	*	3	0205	602	79.	*	4	0920	977	0.	*	5	1635	1352	0.
1	1855	228	91.	*	3	0210	603	79.	*	4	0925	978	0.	*	5	1640	1353	0.
1	1900	229	91.	*	3	0215	604	79.	*	4	0930	979	0.	*	5	1645	1354	0.
1	1905	230	91.	*	3	0220	605	79.	*	4	0935	980	0.	*	5	1650	1355	0.
1	1910	231	91.	*	3	0225	606	79.	*	4	0940	981	0.	*	5	1655	1356	0.
1	1915	232	91.	*	3	0230	607	79.	*	4	0945	982	0.	*	5	1700	1357	0.
1	1920	233	91.	*	3	0235	608	79.	*	4	0950	983	0.	*	5	1705	1358	0.
1	1925	234	91.	*	3	0240	609	79.	*	4	0955	984	0.	*	5	1710	1359	0.
1	1930	235	91.	*	3	0245	610	79.	*	4	1000	985	0.	*	5	1715	1360	0.
1	1935	236	91.	*	3	0250	611	79.	*	4	1005	986	0.	*	5	1720	1361	0.
1	1940	237	91.	*	3	0255	612	79.	*	4	1010	987	0.	*	5	1725	1362	0.
1	1945	238	91.	*	3	0300	613	79.	*	4	1015	988	0.	*	5	1730	1363	0.
1	1950	239	91.	*	3	0305	614	79.	*	4	1020	989	0.	*	5	1735	1364	0.
1	1955	240	91.	*	3	0310	615	79.	*	4	1025	990	0.	*	5	1740	1365	0.
1	2000	241	91.	*	3	0315	616	79.	*	4	1030	991	0.	*	5	1745	1366	0.
1	2005	242	91.	*	3	0320	617	78.	*	4	1035	992	0.	*	5	1750	1367	0.
1	2010	243	91.	*	3	0325	618	78.	*	4	1040	993	0.	*	5	1755	1368	0.
1	2015	244	91.	*	3	0330	619	78.	*	4	1045	994	0.	*	5	1800	1369	0.
1	2020	245	91.	*	3	0335	620	78.	*	4	1050	995	0.	*	5	1805	1370	0.
1	2025	246	91.	*	3	0340	621	78.	*	4	1055	996	0.	*	5	1810	1371	0.
1	2030	247	91.	*	3	0345	622	78.	*	4	1100	997	0.	*	5	1815	1372	0.
1	2035	248	91.	*	3	0350	623	78.	*	4	1105	998	0.	*	5	1820	1373	0.
1	2040	249	91.	*	3	0355	624	78.	*	4	1110	999	0.	*	5	1825	1374	0.
1	2045	250	91.	*	3	0400	625	78.	*	4	1115	1000	0.	*	5	1830	1375	0.
1	2050	251	91.	*	3	0405	626	78.	*	4	1120	1001	0.	*	5	1835	1376	0.
1	2055	252	91.	*	3	0410	627	78.	*	4	1125	1002	0.	*	5	1840	1377	0.
1	2100	253	91.	*	3	0415	628	78.	*	4	1130	1003	0.	*	5	1845	1378	0.
1	2105	254	91.	*	3	0420	629	78.	*	4	1135	1004	0.	*	5	1850	1379	0.
1	2110	255	91.	*	3	0425	630	78.	*	4	1140	1005	0.	*	5	1855	1380	0.
1	2115	256	91.	*	3	0430	631	78.	*	4	1145	1006	0.	*	5	1900	1381	0.
1	2120	257	91.	*	3	0435	632	78.	*	4	1150	1007	0.	*	5	1905	1382	0.
1	2125	258	91.	*	3	0440	633	78.	*	4	1155	1008	0.	*	5	1910	1383	0.
1	2130	259	91.	*	3	0445	634	78.	*	4	1200	1009	0.	*	5	1915	1384	0.
1	2135	260	91.	*	3	0450	635	78.	*	4	1205	1010	0.	*	5	1920	1385	0.
1	2140	261	91.	*	3	0455	636	77.	*	4	1210	1011	0.	*	5	1925	1386	0.
1	2145	262	91.	*	3	0500	637	77.	*	4	1215	1012	0.	*	5	1930	1387	0.
1	2150	263	91.	*	3	0505	638	77.	*	4	1220	1013	0.	*	5	1935	1388	0.
1	2155	264	91.	*	3	0510	639	77.	*	4	1225	1014	0.	*	5	1940	1389	0.
1	2200	265	91.	*	3	0515	640	77.	*	4	1230	1015	0.	*	5	1945	1390	0.
1	2205	266	91.	*	3	0520	641	77.	*	4	1235	1016	0.	*	5	1950	1391	0.
1	2210	267	91.	*	3	0525	642	77.	*	4	1240	1017	0.	*	5	1955	1392	0.
1	2215	268	90.	*	3	0530	643	77.	*	4	1245	1018	0.	*	5	2000	1393	0.
1	2220	269	90.	*	3	0535	644	77.	*	4	1250	1019	0.	*	5	2005	1394	0.
1	2225	270	90.	*	3	0540	645	77.	*	4	1255	1020	0.	*	5	2010	1395	0.
1	2230	271	90.	*	3	0545	646	77.	*	4	1300	1021	0.	*	5	2015	1396	0.
1	2235	272	90.	*	3	0550	647	77.	*	4	1305	1022	0.	*	5	2020	1397	0.
1	2240	273	90.	*	3	0555	648	77.	*	4	1310	1023	0.	*	5	2025	1398	0.
1	2245	274	90.	*	3	0600	649	77.	*	4	1315	1024	0.	*	5	2030	1399	0.
1	2250	275	90.	*	3	0605	650	77.	*	4	1320	1025	0.	*	5	2035	1400	0.
1	2255	276	90.	*	3	0610	651	77.	*	4	1325	1026	0.	*	5	2040	1401	0.
1	2300	277	90.	*	3	0615	652	77.	*	4	1330	1027	0.	*	5	2045	1402	0.
1	2305	278	90.	*	3	0620	653	77.	*	4	1335	1028	0.	*	5	2050	1403	0.
1	2310	279	90.	*	3	0625	654	76.	*	4	1340	1029	0.	*	5	2055	1404	0.
1	2315	280	90.	*	3	0630	655	76.	*	4	1345	1030	0.	*	5	2100	1405	0.
1	2320	281	90.	*	3	0635	656	76.	*	4	1350	1031	0.	*	5	2105	1406	0.
1	2325	282	90.	*	3	0640	657	76.	*	4	1355	1032	0.	*	5	2110	1407	0.
1	2330	283	90.	*	3	0645	658	76.	*	4	1400	1033	0.	*	5	2115	1408	0.
1	2335	284	90.	*	3	0650	659	76.	*	4	1405	1034	0.	*	5	2120	1409	0.
1	2340	285	90.	*	3	0655	660	76.	*	4	1410	1035	0.	*	5	2125	1410	0.
1	2345	286	90.	*	3	0700	661	76.	*	4	1415	1036	0.	*	5	2130	1411	0.
1	2350	287	90.	*	3	0705	662	76.	*	4	1420	1037	0.	*	5	2135	1412	0.
1	2355	288	90.	*	3	0710	663	76.	*	4	1425	1038	0.	*	5	2140	1413	0.
2	0000	289	90.	*	3	0715	664	76.	*	4	1430	1039	0.	*	5	2145	1414	0.
2	0005	290	90.	*	3	0720	665	76.	*	4	1435	1040	0.	*	5	2150	1415	0.
2	0010	291	90.	*	3	0725	666	76.	*	4	1440	1041	0.	*	5	2155	1416	0.
2	0015	292	90.	*	3	0730	667	76.	*	4	1445	1042	0.	*	5	2200	1417	0.
2	0020	293	90.	*	3	0735	668	76.	*	4	1450	1043	0.	*	5	2205	1418	0.
2	0025	294	90.	*	3	0740	669	76.	*	4	1455	1044	0.	*	5	2210	1419	0.
2	0030	295	90.	*	3	0745	670	76.	*	4	1500	1045	0.	*	5	2215	1420	0.
2	0035	296	90.	*	3	0750	671	76.	*	4	1505	1046	0.	*	5	2220	1421	0.
2	0040	297	90.	*	3	0755	672	76.	*	4	1510	1047	0.	*	5	2225	1422	0.
2	0045	298	90.	*	3	0800	673	75.	*	4	1515	1048	0.	*	5	2230	1423	0.
2	0050	299	90.	*	3	0805	674	75.	*	4	1520	1049	0.	*	5	2235	1424	0.
2	0055	300	90.	*	3	0810	675	75.	*	4	1525	1050	0.	*	5	2240	1425	0.
2	0100	301	90.	*	3	0815	676	75.	*	4	1530	1051	0.	*	5	2245	1426	0.
2	0105	302	90.	*	3	0820	677	75.	*	4	1535	1052	0.	*	5	2250	1427	0.
2	0110	303	90.	*	3	0825	678	75.	*	4	1540	1053	0.	*	5	2255	1428	0.
2	0115	304	90.	*	3	0830	679	75.	*	4	1545	1054	0.	*	5	2300	1429	0.
2	0120	305	90.	*	3	0835	680	75.	*	4	1550	1055	0.	*	5	2305	1430	0.
2	0125	306	90.	*	3	0840	681	75.	*	4	1555	1056	0.	*	5	2310	1431	0.
2	0130	307	90.	*	3	0845	682	75.	*	4	1600	1057	0.	*	5	2315	1432	0.
2	0135	308	89.	*	3	0850	683	75.	*	4	1605	1058	0.	*	5	2320	1433	0.
2	0140	309	89.	*	3	0855	684	75.	*	4	1610	1059	0.	*	5	2325	1434	0.
2	0145	310	89.	*	3	0900	685	75.	*	4	1615	1060	0.	*	5	2330	1435	0.
2	0150	311	89.	*	3	0905	686	75.	*	4	1620	1061	0.	*	5	2335	1436	0.
2	0155	312	89.	*	3	0910	687	75.	*	4	1625	1062	0.	*	5	2340	1437	0.
2	0200	313	89.	*	3	0915	688	75.	*	4	1630	1063	0.	*	5	2345	1438	0.
2	0205	314	89.	*	3	0920	689	75.	*	4	1635	1064	0.	*	5	2350	1439	0.
2	0210	315	89.	*	3	0925	690	75.	*	4	1640	1065	0.	*	5	2355	1440	0.
2	0215	316	89.	*	3	0930	691	75.	*	4	1645	1066	0.	*	6	0000	1441	0.
2	0220	317	89.	*	3	0935	692	74.	*	4	1650	1067	0.	*	6	0005	1442	0.
2	0225	318	89.	*	3	0940	693	74.	*	4	1655	1068	0.	*	6	0010	1443	0.
2	0230	319	89.	*	3	0945	694	74.	*	4	1700	1069	0.	*	6	0015	1444	0.
2	0235	320	89.	*	3	0950	695	74.	*	4	1705	1070	0.	*	6	0020	1445	0.
2	0240	321	89.	*	3	0955	696	74.	*	4	1710	1071	0.	*	6	0025	1446	0.
2	0245	322	89.	*	3	1000	697	74.	*	4	1715	1072	0.	*	6	0030	1447	0.
2	0250	323	89.	*	3	1005	698	74.	*	4	1720	1073	0.	*	6	0035	1448	0.
2	0255	324	89.	*	3	1010	699	74.	*	4	1725	1074	0.	*	6	0040	1449	0.
2	0300	325	89.	*	3	1015	700	74.	*	4	1730	1075	0.	*	6	0045	1450	0.
2	0305	326	89.	*	3	1020	701	74.	*	4	1735	1076	0.	*	6	0050	1451	0.
2	0310	327	89.	*	3	1025	702	74.	*	4	1740	1077	0.	*	6	0055	1452	0.
2	0315	328	89.	*	3	1030	703	74.	*	4	1745	1078	0.	*	6	0100	1453	0.
2	0320	329	89.	*	3	1035	704	74.	*	4	1750	1079	0.	*	6	0105	1454	0.
2	0325	330	89.	*	3	1040	705	74.	*	4	1755	1080	0.	*	6	0110	1455	0.
2	0330	331	89.	*	3	1045	706	74.	*	4	1800	1081	0.	*	6	0115	1456	0.

2	0335	332	89.	*	3	1050	707	74.	*	4	1805	1082	0.	*	6	0120	1457	0.
2	0340	333	89.	*	3	1055	708	74.	*	4	1810	1083	0.	*	6	0125	1458	0.
2	0345	334	89.	*	3	1100	709	74.	*	4	1815	1084	0.	*	6	0130	1459	0.
2	0350	335	89.	*	3	1105	710	74.	*	4	1820	1085	0.	*	6	0135	1460	0.
2	0355	336	89.	*	3	1110	711	74.	*	4	1825	1086	0.	*	6	0140	1461	0.
2	0400	337	89.	*	3	1115	712	73.	*	4	1830	1087	0.	*	6	0145	1462	0.
2	0405	338	89.	*	3	1120	713	73.	*	4	1835	1088	0.	*	6	0150	1463	0.
2	0410	339	89.	*	3	1125	714	73.	*	4	1840	1089	0.	*	6	0155	1464	0.
2	0415	340	89.	*	3	1130	715	73.	*	4	1845	1090	0.	*	6	0200	1465	0.
2	0420	341	89.	*	3	1135	716	73.	*	4	1850	1091	0.	*	6	0205	1466	0.
2	0425	342	89.	*	3	1140	717	73.	*	4	1855	1092	0.	*	6	0210	1467	0.
2	0430	343	89.	*	3	1145	718	73.	*	4	1900	1093	0.	*	6	0215	1468	0.
2	0435	344	88.	*	3	1150	719	73.	*	4	1905	1094	0.	*	6	0220	1469	0.
2	0440	345	88.	*	3	1155	720	73.	*	4	1910	1095	0.	*	6	0225	1470	0.
2	0445	346	88.	*	3	1200	721	73.	*	4	1915	1096	0.	*	6	0230	1471	0.
2	0450	347	88.	*	3	1205	722	73.	*	4	1920	1097	0.	*	6	0235	1472	0.
2	0455	348	88.	*	3	1210	723	73.	*	4	1925	1098	0.	*	6	0240	1473	0.
2	0500	349	88.	*	3	1215	724	73.	*	4	1930	1099	0.	*	6	0245	1474	0.
2	0505	350	88.	*	3	1220	725	73.	*	4	1935	1100	0.	*	6	0250	1475	0.
2	0510	351	88.	*	3	1225	726	73.	*	4	1940	1101	0.	*	6	0255	1476	0.
2	0515	352	88.	*	3	1230	727	73.	*	4	1945	1102	0.	*	6	0300	1477	0.
2	0520	353	88.	*	3	1235	728	73.	*	4	1950	1103	0.	*	6	0305	1478	0.
2	0525	354	88.	*	3	1240	729	73.	*	4	1955	1104	0.	*	6	0310	1479	0.
2	0530	355	88.	*	3	1245	730	73.	*	4	2000	1105	0.	*	6	0315	1480	0.
2	0535	356	88.	*	3	1250	731	73.	*	4	2005	1106	0.	*	6	0320	1481	0.
2	0540	357	88.	*	3	1255	732	72.	*	4	2010	1107	0.	*	6	0325	1482	0.
2	0545	358	88.	*	3	1300	733	72.	*	4	2015	1108	0.	*	6	0330	1483	0.
2	0550	359	88.	*	3	1305	734	72.	*	4	2020	1109	0.	*	6	0335	1484	0.
2	0555	360	88.	*	3	1310	735	72.	*	4	2025	1110	0.	*	6	0340	1485	0.
2	0600	361	88.	*	3	1315	736	72.	*	4	2030	1111	0.	*	6	0345	1486	0.
2	0605	362	88.	*	3	1320	737	72.	*	4	2035	1112	0.	*	6	0350	1487	0.
2	0610	363	88.	*	3	1325	738	72.	*	4	2040	1113	0.	*	6	0355	1488	0.
2	0615	364	88.	*	3	1330	739	72.	*	4	2045	1114	0.	*	6	0400	1489	0.
2	0620	365	88.	*	3	1335	740	72.	*	4	2050	1115	0.	*	6	0405	1490	0.
2	0625	366	88.	*	3	1340	741	72.	*	4	2055	1116	0.	*	6	0410	1491	0.
2	0630	367	88.	*	3	1345	742	72.	*	4	2100	1117	0.	*	6	0415	1492	0.
2	0635	368	88.	*	3	1350	743	72.	*	4	2105	1118	0.	*	6	0420	1493	0.
2	0640	369	88.	*	3	1355	744	72.	*	4	2110	1119	0.	*	6	0425	1494	0.
2	0645	370	88.	*	3	1400	745	72.	*	4	2115	1120	0.	*	6	0430	1495	0.
2	0650	371	88.	*	3	1405	746	72.	*	4	2120	1121	0.	*	6	0435	1496	0.
2	0655	372	88.	*	3	1410	747	72.	*	4	2125	1122	0.	*	6	0440	1497	0.
2	0700	373	88.	*	3	1415	748	72.	*	4	2130	1123	0.	*	6	0445	1498	0.
2	0705	374	88.	*	3	1420	749	72.	*	4	2135	1124	0.	*	6	0450	1499	0.
2	0710	375	88.	*	3	1425	750	72.	*	4	2140	1125	0.	*	6	0455	1500	0.
				*					*					*				

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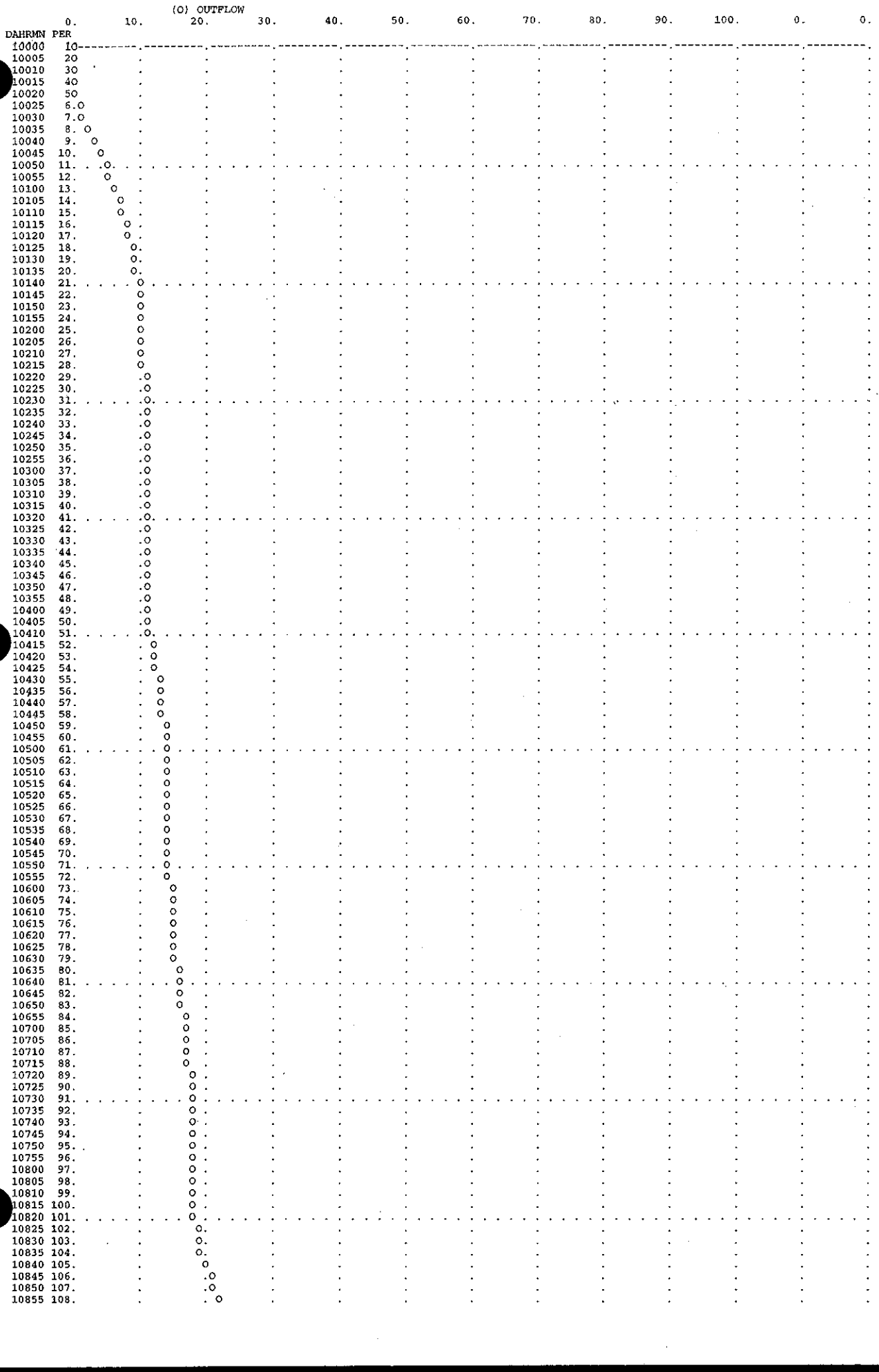
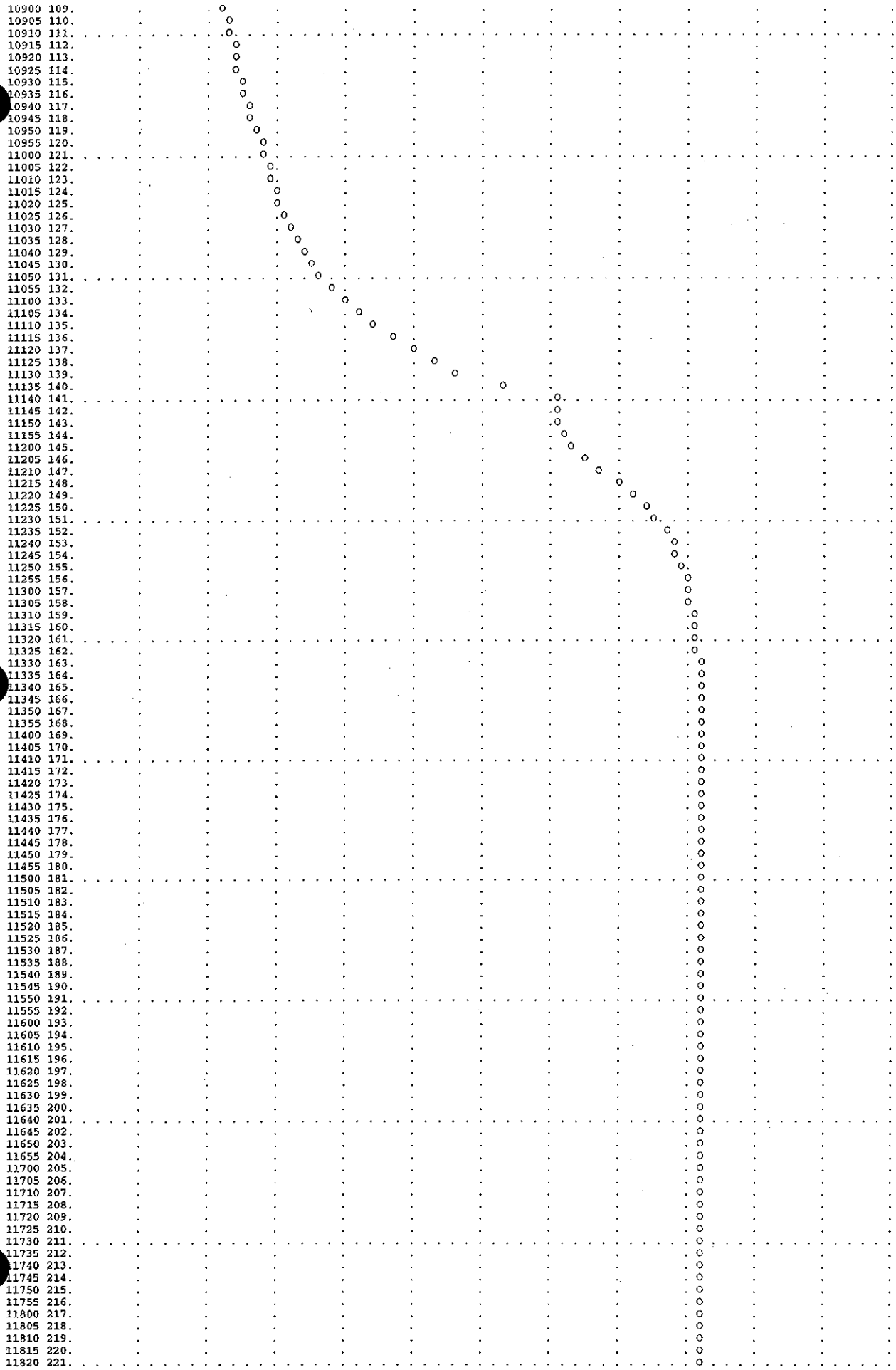
PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	124.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 92.	14.75		92.	89.	63.	36.
		(INCHES)	.147	.573	1.214	1.214
		(AC-FT)	45.	177.	376.	376.

CUMULATIVE AREA = 5.80 SQ MI

STATION SR60

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10910 111.
10915 112.
10920 113.
10925 114.
10930 115.
10935 116.
10940 117.
10945 118.
10950 119.
10955 120.
11000 121.
11005 122.
11010 123.
11015 124.
11020 125.
11025 126.
11030 127.
11035 128.
11040 129.
11045 130.
11050 131.
11055 132.
11100 133.
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11110 135.
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11120 137.
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11155 144.
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11445 178.
11450 179.
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11505 182.
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11515 184.
11520 185.
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11545 190.
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11700 205.
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11820 221.

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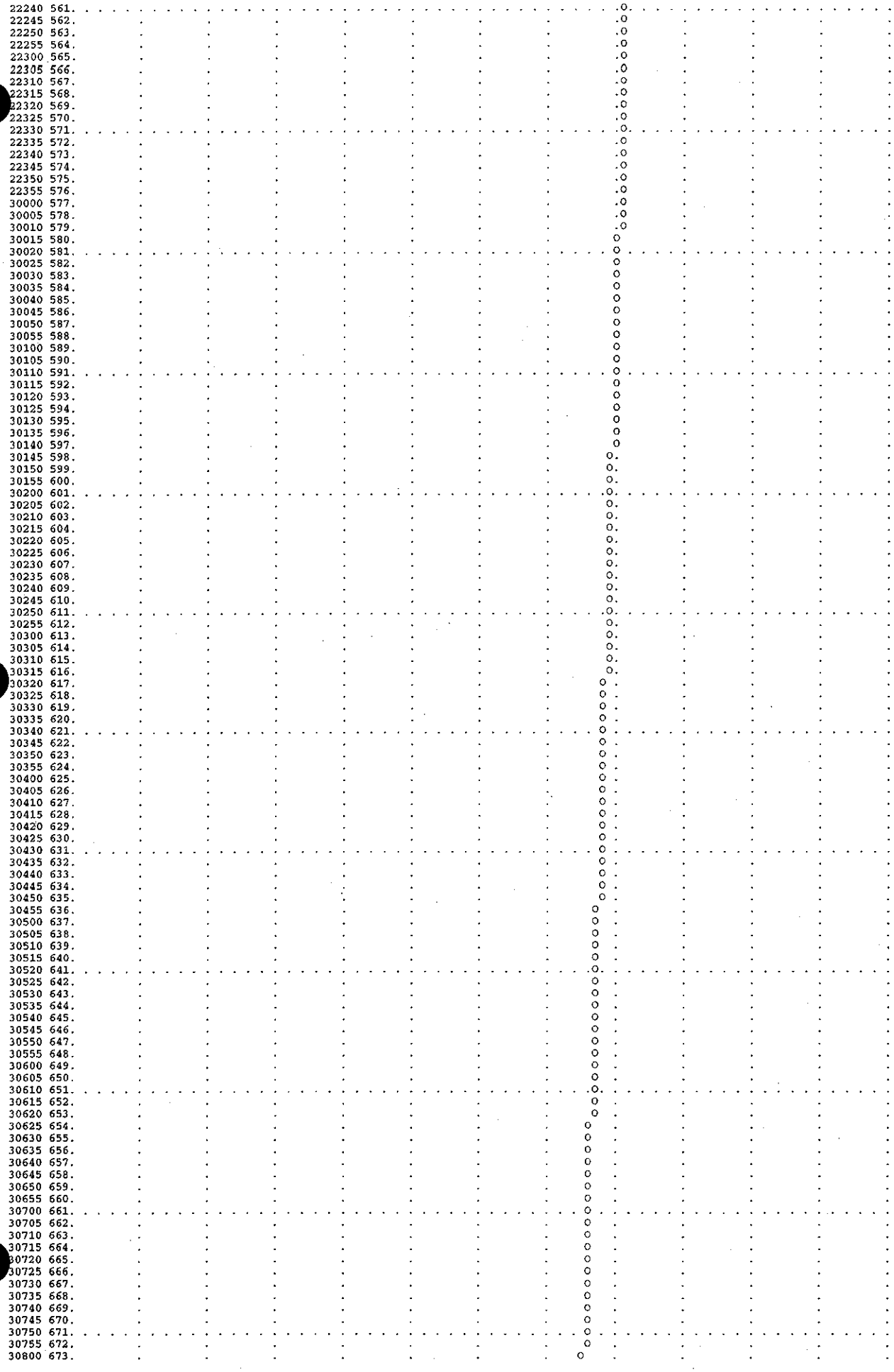
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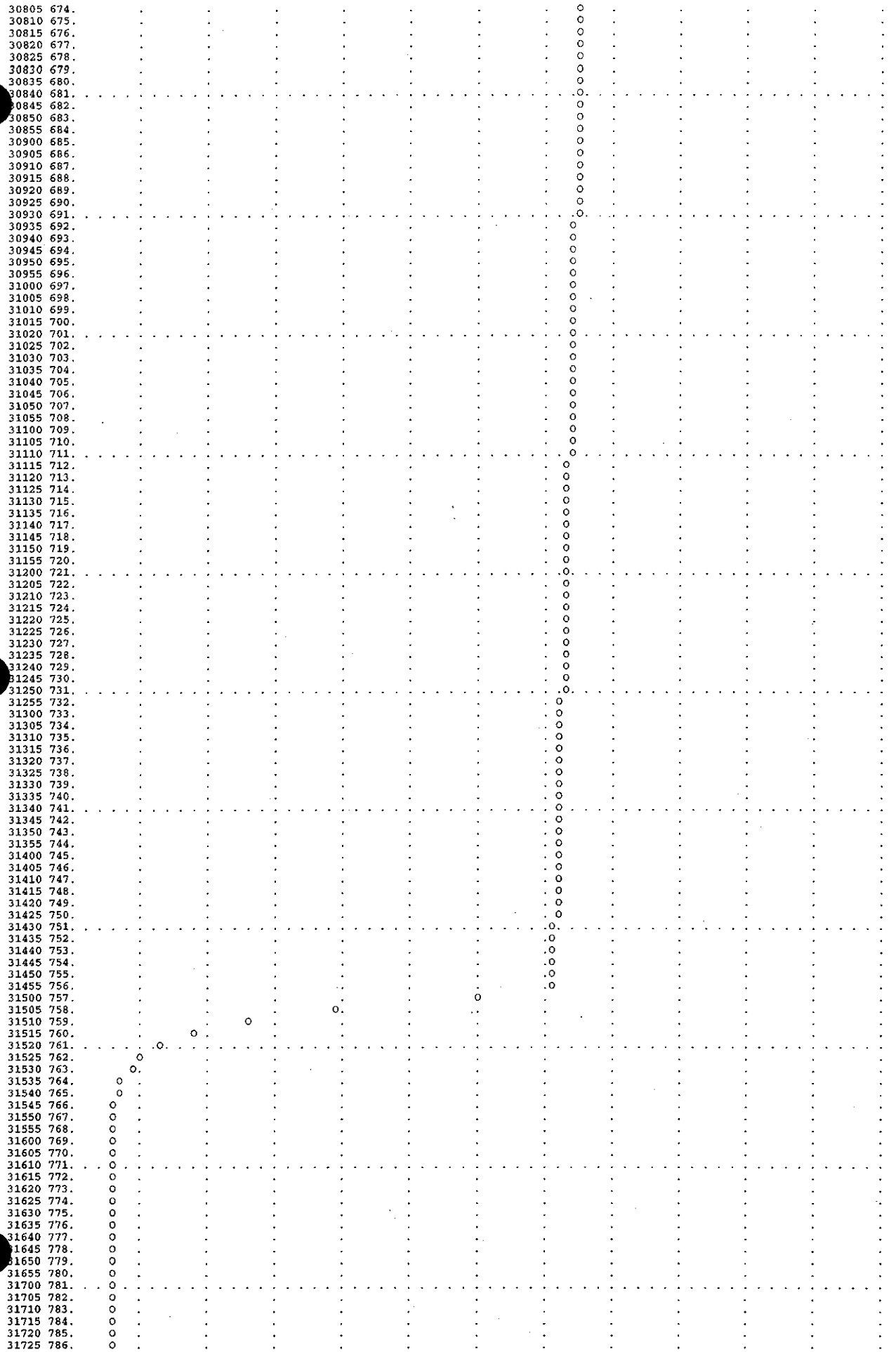
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INTERPOLATED HYDROGRAPH AT SR180

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1		0015	4	0.	2		0730	379	139.	3		1445	754	133.	4		2200	1129	114.
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1		0025	6	1.	2		0740	381	139.	3		1455	756	133.	4		2210	1131	113.
1		0030	7	3.	2		0745	382	139.	3		1500	757	133.	4		2215	1132	113.
1		0035	8	4.	2		0750	383	139.	3		1505	758	133.	4		2220	1133	113.
1		0040	9	5.	2		0755	384	139.	3		1510	759	133.	4		2225	1134	113.
1		0045	10	7.	2		0800	385	139.	3		1515	760	133.	4		2230	1135	113.
1		0050	11	9.	2		0805	386	139.	3		1520	761	133.	4		2235	1136	113.
1		0055	12	10.	2		0810	387	139.	3		1525	762	133.	4		2240	1137	113.
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1		0840	105	50.	2		1555	480	138.	3		2310	855	129.	5		0625	1230	102.

1	0845	106	52.	*	2	1500	481	138.	*	3	2315	856	129.	*	5	0630	1231	102.
1	0850	107	53.	*	2	1505	482	138.	*	3	2320	857	129.	*	5	0635	1232	102.
1	0855	108	54.	*	2	1510	483	138.	*	3	2325	858	129.	*	5	0640	1233	102.
1	0900	109	55.	*	2	1515	484	138.	*	3	2330	859	129.	*	5	0645	1234	102.
1	0905	110	56.	*	2	1520	485	138.	*	3	2335	860	129.	*	5	0650	1235	102.
1	0910	111	57.	*	2	1525	486	138.	*	3	2340	861	129.	*	5	0655	1236	101.
1	0915	112	58.	*	2	1530	487	138.	*	3	2345	862	129.	*	5	0700	1237	101.
1	0920	113	60.	*	2	1535	488	138.	*	3	2350	863	129.	*	5	0705	1238	101.
1	0925	114	61.	*	2	1540	489	138.	*	3	2355	864	129.	*	5	0710	1239	101.
1	0930	115	62.	*	2	1545	490	138.	*	4	0000	865	129.	*	5	0715	1240	101.
1	0935	116	63.	*	2	1550	491	138.	*	4	0005	866	129.	*	5	0720	1241	101.
1	0940	117	65.	*	2	1555	492	138.	*	4	0010	867	128.	*	5	0725	1242	101.
1	0945	118	66.	*	2	1700	493	138.	*	4	0015	868	128.	*	5	0730	1243	101.
1	0950	119	67.	*	2	1705	494	138.	*	4	0020	869	128.	*	5	0735	1244	101.
1	0955	120	69.	*	2	1710	495	138.	*	4	0025	870	128.	*	5	0740	1245	101.
1	1000	121	70.	*	2	1715	496	138.	*	4	0030	871	128.	*	5	0745	1246	101.
1	1005	122	72.	*	2	1720	497	138.	*	4	0035	872	128.	*	5	0750	1247	101.
1	1010	123	73.	*	2	1725	498	138.	*	4	0040	873	128.	*	5	0755	1248	101.
1	1015	124	75.	*	2	1730	499	138.	*	4	0045	874	128.	*	5	0800	1249	101.
1	1020	125	76.	*	2	1735	500	138.	*	4	0050	875	128.	*	5	0805	1250	101.
1	1025	126	78.	*	2	1740	501	138.	*	4	0055	876	128.	*	5	0810	1251	101.
1	1030	127	80.	*	2	1745	502	138.	*	4	0100	877	128.	*	5	0815	1252	101.
1	1035	128	82.	*	2	1750	503	138.	*	4	0105	878	128.	*	5	0820	1253	101.
1	1040	129	84.	*	2	1755	504	138.	*	4	0110	879	128.	*	5	0825	1254	98.
1	1045	130	87.	*	2	1800	505	138.	*	4	0115	880	128.	*	5	0830	1255	45.
1	1050	131	90.	*	2	1805	506	138.	*	4	0120	881	128.	*	5	0835	1256	21.
1	1055	132	94.	*	2	1810	507	138.	*	4	0125	882	128.	*	5	0840	1257	10.
1	1100	133	98.	*	2	1815	508	138.	*	4	0130	883	128.	*	5	0845	1258	4.
1	1105	134	102.	*	2	1820	509	138.	*	4	0135	884	128.	*	5	0850	1259	2.
1	1110	135	106.	*	2	1825	510	138.	*	4	0140	885	128.	*	5	0855	1260	1.
1	1115	136	107.	*	2	1830	511	138.	*	4	0145	886	128.	*	5	0900	1261	0.
1	1120	137	107.	*	2	1835	512	138.	*	4	0150	887	128.	*	5	0905	1262	0.
1	1125	138	107.	*	2	1840	513	138.	*	4	0155	888	128.	*	5	0910	1263	0.
1	1130	139	107.	*	2	1845	514	138.	*	4	0200	889	128.	*	5	0915	1264	0.
1	1135	140	107.	*	2	1850	515	138.	*	4	0205	890	127.	*	5	0920	1265	0.
1	1140	141	107.	*	2	1855	516	138.	*	4	0210	891	127.	*	5	0925	1266	0.
1	1145	142	107.	*	2	1900	517	138.	*	4	0215	892	127.	*	5	0930	1267	0.
1	1150	143	107.	*	2	1905	518	138.	*	4	0220	893	127.	*	5	0935	1268	0.
1	1155	144	108.	*	2	1910	519	138.	*	4	0225	894	127.	*	5	0940	1269	0.
1	1200	145	110.	*	2	1915	520	138.	*	4	0230	895	127.	*	5	0945	1270	0.
1	1205	146	113.	*	2	1920	521	138.	*	4	0235	896	127.	*	5	0950	1271	0.
1	1210	147	117.	*	2	1925	522	138.	*	4	0240	897	127.	*	5	0955	1272	0.
1	1215	148	122.	*	2	1930	523	138.	*	4	0245	898	127.	*	5	1000	1273	0.
1	1220	149	127.	*	2	1935	524	138.	*	4	0250	899	127.	*	5	1005	1274	0.
1	1225	150	130.	*	2	1940	525	138.	*	4	0255	900	127.	*	5	1010	1275	0.
1	1230	151	133.	*	2	1945	526	138.	*	4	0300	901	127.	*	5	1015	1276	0.
1	1235	152	135.	*	2	1950	527	137.	*	4	0305	902	127.	*	5	1020	1277	0.
1	1240	153	136.	*	2	1955	528	137.	*	4	0310	903	127.	*	5	1025	1278	0.
1	1245	154	137.	*	2	2000	529	137.	*	4	0315	904	127.	*	5	1030	1279	0.
1	1250	155	138.	*	2	2005	530	137.	*	4	0320	905	127.	*	5	1035	1280	0.
1	1255	156	139.	*	2	2010	531	137.	*	4	0325	906	127.	*	5	1040	1281	0.
1	1300	157	139.	*	2	2015	532	137.	*	4	0330	907	127.	*	5	1045	1282	0.
1	1305	158	140.	*	2	2020	533	137.	*	4	0335	908	127.	*	5	1050	1283	0.
1	1310	159	140.	*	2	2025	534	137.	*	4	0340	909	127.	*	5	1055	1284	0.
1	1315	160	140.	*	2	2030	535	137.	*	4	0345	910	127.	*	5	1100	1285	0.
1	1320	161	140.	*	2	2035	536	137.	*	4	0350	911	127.	*	5	1105	1286	0.
1	1325	162	140.	*	2	2040	537	137.	*	4	0355	912	127.	*	5	1110	1287	0.
1	1330	163	140.	*	2	2045	538	137.	*	4	0400	913	126.	*	5	1115	1288	0.
1	1335	164	141.	*	2	2050	539	137.	*	4	0405	914	126.	*	5	1120	1289	0.
1	1340	165	141.	*	2	2055	540	137.	*	4	0410	915	126.	*	5	1125	1290	0.
1	1345	166	141.	*	2	2100	541	137.	*	4	0415	916	126.	*	5	1130	1291	0.
1	1350	167	141.	*	2	2105	542	137.	*	4	0420	917	126.	*	5	1135	1292	0.
1	1355	168	141.	*	2	2110	543	137.	*	4	0425	918	126.	*	5	1140	1293	0.
1	1400	169	141.	*	2	2115	544	137.	*	4	0430	919	126.	*	5	1145	1294	0.
1	1405	170	141.	*	2	2120	545	137.	*	4	0435	920	126.	*	5	1150	1295	0.
1	1410	171	141.	*	2	2125	546	137.	*	4	0440	921	126.	*	5	1155	1296	0.
1	1415	172	141.	*	2	2130	547	137.	*	4	0445	922	126.	*	5	1200	1297	0.
1	1420	173	141.	*	2	2135	548	137.	*	4	0450	923	126.	*	5	1205	1298	0.
1	1425	174	141.	*	2	2140	549	137.	*	4	0455	924	126.	*	5	1210	1299	0.
1	1430	175	141.	*	2	2145	550	137.	*	4	0500	925	126.	*	5	1215	1300	0.
1	1435	176	141.	*	2	2150	551	137.	*	4	0505	926	126.	*	5	1220	1301	0.
1	1440	177	141.	*	2	2155	552	137.	*	4	0510	927	126.	*	5	1225	1302	0.
1	1445	178	141.	*	2	2200	553	137.	*	4	0515	928	126.	*	5	1230	1303	0.
1	1450	179	141.	*	2	2205	554	137.	*	4	0520	929	126.	*	5	1235	1304	0.
1	1455	180	141.	*	2	2210	555	137.	*	4	0525	930	126.	*	5	1240	1305	0.
1	1500	181	141.	*	2	2215	556	137.	*	4	0530	931	126.	*	5	1245	1306	0.
1	1505	182	141.	*	2	2220	557	137.	*	4	0535	932	126.	*	5	1250	1307	0.
1	1510	183	141.	*	2	2225	558	137.	*	4	0540	933	126.	*	5	1255	1308	0.
1	1515	184	141.	*	2	2230	559	137.	*	4	0545	934	126.	*	5	1300	1309	0.
1	1520	185	141.	*	2	2235	560	137.	*	4	0550	935	126.	*	5	1305	1310	0.
1	1525	186	141.	*	2	2240	561	137.	*	4	0555	936	125.	*	5	1310	1311	0.
1	1530	187	141.	*	2	2245	562	137.	*	4	0600	937	125.	*	5	1315	1312	0.
1	1535	188	141.	*	2	2250	563	137.	*	4	0605	938	125.	*	5	1320	1313	0.
1	1540	189	141.	*	2	2255	564	137.	*	4	0610	939	125.	*	5	1325	1314	0.
1	1545	190	141.	*	2	2300	565	137.	*	4	0615	940	125.	*	5	1330	1315	0.
1	1550	191	141.	*	2	2305	566	137.	*	4	0620	941	125.	*	5	1335	1316	0.
1	1555	192	141.	*	2	2310	567	137.	*	4	0625	942	125.	*	5	1340	1317	0.
1	1600	193	141.	*	2	2315	568	137.	*	4	0630	943	125.	*	5	1345	1318	0.
1	1605	194	141.	*	2	2320	569	137.	*	4	0635	944	125.	*	5	1350	1319	0.
1	1610	195	141.	*	2	2325	570	137.	*	4	0640	945	125.	*	5	1355	1320	0.
1	1615	196	141.	*	2	2330	571	137.	*	4	0645	946	125.	*	5	1400	1321	0.
1	1620	197	141.	*	2	2335	572	137.	*	4	0650	947	125.	*	5	1405	1322	0.
1	1625	198	141.	*	2	2340	573	137.	*	4	0655	948	125.	*	5	1410	1323	0.
1	1630	199	141.	*	2	2345	574	137.	*	4	0700	949	125.	*	5	1415	1324	0.
1	1635	200	141.	*	2	2350	575	137.	*	4	0705	950	125.	*	5	1420	1325	0.
1	1640	201	141.	*	2	2355	576	137.	*	4	0710	951	125.	*	5	1425	1326	0.
1	1645	202	141.	*	3	0000	577	137.	*	4	0715	952	125.	*	5	1430	1327	0.
1	1650	203	141.	*	3	0005	578	137.	*	4	0720	953	125.	*	5	1435	1328	0.
1	1655	204	141.	*	3	0010	579	137.	*	4	0725	954	124.	*	5	1440	1329	0.
1	1700	205	141.	*	3	0015	580	137.	*	4	0730	955	124.	*	5	1445	1330	0.
1	1705	206	141.	*	3	0020	581	137.	*	4	0735	956	124.	*	5	1450	1331	0.
1	1710	207	141.	*	3	0025	582	137.	*	4	0740	957	124.	*	5	1455	1332	0.
1	1715	208	141.	*	3	0030	583	136.	*	4	0745	958	124.	*	5	1500	1333	0.
1	1720	209	141.	*	3	0035	584	136.	*	4	0750	959	124.	*	5	1505	1334	0.
1	1725	210	141.	*	3	0040	585	136.	*	4	0755	960	124.	*	5	1510	1335	0.
1	1730	211	141.	*	3	0045	586	136.	*	4	0800	961	124.	*	5	1515	1336	0.
1	1735	212	141.	*	3	0050	587	136.	*	4	0805	962	124.	*	5	1520	1337	0.
1	1740	213	141.	*	3	0055	588	136.	*	4	0810	963	124.	*	5	1525	1338	0.
1	1745	214	141.	*	3	0100	589	136.	*	4	0815	964	124.	*	5	1530	1339	0.
1	1750	215	141.	*	3	0105	590	136.	*	4	0820	965	124.	*	5	1535	1340	0.
1	1755	216	141.	*	3	0110	591	136.	*	4	0825	966	124.	*	5	1540	1341	0.
1	1800	217	141.	*	3	0115	592	136.	*	4	0830	967	124.	*	5	1545	1342	0.
1	1805	218	141.	*	3	0120	593	136.	*	4	0835	968	124.	*	5	1550	1343	0.

1	1810	219	141.	*	3	0125	594	136.	*	4	0840	969	123.	*	5	1555	1344	0.
1	1815	220	141.	*	3	0130	595	136.	*	4	0845	970	123.	*	5	1600	1345	0.
1	1820	221	141.	*	3	0135	596	136.	*	4	0850	971	123.	*	5	1605	1346	0.
1	1825	222	141.	*	3	0140	597	136.	*	4	0855	972	123.	*	5	1610	1347	0.
1	1830	223	141.	*	3	0145	598	136.	*	4	0900	973	123.	*	5	1615	1348	0.
1	1835	224	141.	*	3	0150	599	136.	*	4	0905	974	123.	*	5	1620	1349	0.
1	1840	225	141.	*	3	0155	600	136.	*	4	0910	975	123.	*	5	1625	1350	0.
1	1845	226	141.	*	3	0200	601	136.	*	4	0915	976	123.	*	5	1630	1351	0.
1	1850	227	141.	*	3	0205	602	136.	*	4	0920	977	123.	*	5	1635	1352	0.
1	1855	228	141.	*	3	0210	603	136.	*	4	0925	978	123.	*	5	1640	1353	0.
1	1900	229	141.	*	3	0215	604	136.	*	4	0930	979	123.	*	5	1645	1354	0.
1	1905	230	141.	*	3	0220	605	136.	*	4	0935	980	123.	*	5	1650	1355	0.
1	1910	231	141.	*	3	0225	606	136.	*	4	0940	981	123.	*	5	1655	1356	0.
1	1915	232	141.	*	3	0230	607	136.	*	4	0945	982	123.	*	5	1700	1357	0.
1	1920	233	141.	*	3	0235	608	136.	*	4	0950	983	123.	*	5	1705	1358	0.
1	1925	234	141.	*	3	0240	609	136.	*	4	0955	984	122.	*	5	1710	1359	0.
1	1930	235	141.	*	3	0245	610	136.	*	4	1000	985	122.	*	5	1715	1360	0.
1	1935	236	141.	*	3	0250	611	136.	*	4	1005	986	122.	*	5	1720	1361.	0.
1	1940	237	141.	*	3	0255	612	136.	*	4	1010	987	122.	*	5	1725	1362	0.
1	1945	238	141.	*	3	0300	613	136.	*	4	1015	988	122.	*	5	1730	1363	0.
1	1950	239	141.	*	3	0305	614	136.	*	4	1020	989	122.	*	5	1735	1364	0.
1	1955	240	141.	*	3	0310	615	136.	*	4	1025	990	122.	*	5	1740	1365	0.
1	2000	241	141.	*	3	0315	616	136.	*	4	1030	991	122.	*	5	1745	1366	0.
1	2005	242	141.	*	3	0320	617	136.	*	4	1035	992	122.	*	5	1750	1367	0.
1	2010	243	141.	*	3	0325	618	136.	*	4	1040	993	122.	*	5	1755	1368	0.
1	2015	244	141.	*	3	0330	619	136.	*	4	1045	994	122.	*	5	1800	1369	0.
1	2020	245	141.	*	3	0335	620	136.	*	4	1050	995	122.	*	5	1805	1370	0.
1	2025	246	141.	*	3	0340	621	136.	*	4	1055	996	122.	*	5	1810	1371	0.
1	2030	247	141.	*	3	0345	622	136.	*	4	1100	997	122.	*	5	1815	1372	0.
1	2035	248	141.	*	3	0350	623	136.	*	4	1105	998	122.	*	5	1820	1373	0.
1	2040	249	141.	*	3	0355	624	136.	*	4	1110	999	122.	*	5	1825	1374	0.
1	2045	250	141.	*	3	0400	625	136.	*	4	1115	1000	121.	*	5	1830	1375	0.
1	2050	251	141.	*	3	0405	626	136.	*	4	1120	1001	121.	*	5	1835	1376	0.
1	2055	252	141.	*	3	0410	627	136.	*	4	1125	1002	121.	*	5	1840	1377	0.
1	2100	253	141.	*	3	0415	628	136.	*	4	1130	1003	121.	*	5	1845	1378	0.
1	2105	254	141.	*	3	0420	629	136.	*	4	1135	1004	121.	*	5	1850	1379	0.
1	2110	255	141.	*	3	0425	630	136.	*	4	1140	1005	121.	*	5	1855	1380	0.
1	2115	256	141.	*	3	0430	631	136.	*	4	1145	1006	121.	*	5	1900	1381	0.
1	2120	257	141.	*	3	0435	632	136.	*	4	1150	1007	121.	*	5	1905	1382	0.
1	2125	258	141.	*	3	0440	633	136.	*	4	1155	1008	121.	*	5	1910	1383	0.
1	2130	259	141.	*	3	0445	634	136.	*	4	1200	1009	121.	*	5	1915	1384	0.
1	2135	260	141.	*	3	0450	635	136.	*	4	1205	1010	121.	*	5	1920	1385	0.
1	2140	261	141.	*	3	0455	636	135.	*	4	1210	1011	121.	*	5	1925	1386	0.
1	2145	262	141.	*	3	0500	637	135.	*	4	1215	1012	121.	*	5	1930	1387	0.
1	2150	263	141.	*	3	0505	638	135.	*	4	1220	1013	121.	*	5	1935	1388	0.
1	2155	264	141.	*	3	0510	639	135.	*	4	1225	1014	121.	*	5	1940	1389	0.
1	2200	265	141.	*	3	0515	640	135.	*	4	1230	1015	121.	*	5	1945	1390	0.
1	2205	266	141.	*	3	0520	641	135.	*	4	1235	1016	120.	*	5	1950	1391	0.
1	2210	267	141.	*	3	0525	642	135.	*	4	1240	1017	120.	*	5	1955	1392	0.
1	2215	268	141.	*	3	0530	643	135.	*	4	1245	1018	120.	*	5	2000	1393	0.
1	2220	269	141.	*	3	0535	644	135.	*	4	1250	1019	120.	*	5	2005	1394	0.
1	2225	270	141.	*	3	0540	645	135.	*	4	1255	1020	120.	*	5	2010	1395	0.
1	2230	271	141.	*	3	0545	646	135.	*	4	1300	1021	120.	*	5	2015	1396	0.
1	2235	272	141.	*	3	0550	647	135.	*	4	1305	1022	120.	*	5	2020	1397	0.
1	2240	273	141.	*	3	0555	648	135.	*	4	1310	1023	120.	*	5	2025	1398	0.
1	2245	274	141.	*	3	0600	649	135.	*	4	1315	1024	120.	*	5	2030	1399	0.
1	2250	275	141.	*	3	0605	650	135.	*	4	1320	1025	120.	*	5	2035	1400	0.
1	2255	276	141.	*	3	0610	651	135.	*	4	1325	1026	120.	*	5	2040	1401	0.
1	2300	277	141.	*	3	0615	652	135.	*	4	1330	1027	120.	*	5	2045	1402	0.
1	2305	278	141.	*	3	0620	653	135.	*	4	1335	1028	120.	*	5	2050	1403	0.
1	2310	279	140.	*	3	0625	654	135.	*	4	1340	1029	120.	*	5	2055	1404	0.
1	2315	280	140.	*	3	0630	655	135.	*	4	1345	1030	120.	*	5	2100	1405	0.
1	2320	281	140.	*	3	0635	656	135.	*	4	1350	1031	120.	*	5	2105	1406	0.
1	2325	282	140.	*	3	0640	657	135.	*	4	1355	1032	119.	*	5	2110	1407	0.
1	2330	283	140.	*	3	0645	658	135.	*	4	1400	1033	119.	*	5	2115	1408	0.
1	2335	284	140.	*	3	0650	659	135.	*	4	1405	1034	119.	*	5	2120	1409	0.
1	2340	285	140.	*	3	0655	660	135.	*	4	1410	1035	119.	*	5	2125	1410	0.
1	2345	286	140.	*	3	0700	661	135.	*	4	1415	1036	119.	*	5	2130	1411	0.
1	2350	287	140.	*	3	0705	662	135.	*	4	1420	1037	119.	*	5	2135	1412	0.
1	2355	288	140.	*	3	0710	663	135.	*	4	1425	1038	119.	*	5	2140	1413	0.
2	0000	289	140.	*	3	0715	664	135.	*	4	1430	1039	119.	*	5	2145	1414	0.
2	0005	290	140.	*	3	0720	665	135.	*	4	1435	1040	119.	*	5	2150	1415	0.
2	0010	291	140.	*	3	0725	666	135.	*	4	1440	1041	119.	*	5	2155	1416	0.
2	0015	292	140.	*	3	0730	667	135.	*	4	1445	1042	119.	*	5	2200	1417	0.
2	0020	293	140.	*	3	0735	668	135.	*	4	1450	1043	119.	*	5	2205	1418	0.
2	0025	294	140.	*	3	0740	669	135.	*	4	1455	1044	119.	*	5	2210	1419	0.
2	0030	295	140.	*	3	0745	670	135.	*	4	1500	1045	119.	*	5	2215	1420	0.
2	0035	296	140.	*	3	0750	671	135.	*	4	1505	1046	119.	*	5	2220	1421	0.
2	0040	297	140.	*	3	0755	672	135.	*	4	1510	1047	119.	*	5	2225	1422	0.
2	0045	298	140.	*	3	0800	673	135.	*	4	1515	1048	118.	*	5	2230	1423	0.
2	0050	299	140.	*	3	0805	674	135.	*	4	1520	1049	118.	*	5	2235	1424	0.
2	0055	300	140.	*	3	0810	675	135.	*	4	1525	1050	118.	*	5	2240	1425	0.
2	0100	301	140.	*	3	0815	676	135.	*	4	1530	1051	118.	*	5	2245	1426	0.
2	0105	302	140.	*	3	0820	677	135.	*	4	1535	1052	118.	*	5	2250	1427	0.
2	0110	303	140.	*	3	0825	678	135.	*	4	1540	1053	118.	*	5	2255	1428	0.
2	0115	304	140.	*	3	0830	679	135.	*	4	1545	1054	118.	*	5	2300	1429	0.
2	0120	305	140.	*	3	0835	680	135.	*	4	1550	1055	118.	*	5	2305	1430	0.
2	0125	306	140.	*	3	0840	681	135.	*	4	1555	1056	118.	*	5	2310	1431	0.
2	0130	307	140.	*	3	0845	682	135.	*	4	1600	1057	118.	*	5	2315	1432	0.
2	0135	308	140.	*	3	0850	683	135.	*	4	1605	1058	118.	*	5	2320	1433	0.
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2	0155	312	140.	*	3	0910	687	134.	*	4	1625	1062	118.	*	5	2340	1437	0.
2	0200	313	140.	*	3	0915	688	134.	*	4	1630	1063	118.	*	5	2345	1438	0.
2	0205	314	140.	*	3	0920	689	134.	*	4	1635	1064	117.	*	5	2350	1439	0.
2	0210	315	140.	*	3	0925	690	134.	*	4	1640	1065	117.	*	5	2355	1440	0.
2	0215	316	140.	*	3	0930	691	134.	*	4	1645	1066	117.	*	6	0000	1441	0.
2	0220	317	140.	*	3	0935	692	134.	*	4	1650	1067	117.	*	6	0005	1442	0.
2	0225	318	140.	*	3	0940	693	134.	*	4	1655	1068	117.	*	6	0010	1443	0.
2	0230	319	140.	*	3	0945	694	134.	*	4	1700	1069	117.	*	6	0015	1444	0.
2	0235	320	140.	*	3	0950	695	134.	*	4	1705	1070	117.	*	6	0020	1445	0.
2	0240	321	140.	*	3	0955	696	134.	*	4	1710	1071	117.	*	6	0025	1446	0.
2	0245	322	140.	*	3	1000	697	134.	*	4	1715	1072	117.	*	6	0030	1447	0.
2	0250	323	140.	*	3	1005	698	134.	*	4	1720	1073	117.	*	6	0035	1448	0.
2	0255	324	140.	*	3	1010	699	134.	*	4	1725	1074	117.	*	6	0040	1449	0.
2	0300	325	140.	*	3	1015	700	134.	*	4	1730	1075	117.	*	6	0045	1450	0.
2	0305	326	140.	*	3	1020	701	134.	*	4	1735	1076	117.	*	6	0050	1451	0.
2	0310	327	140.	*	3	1025	702	134.	*	4	1740	1077	117.	*	6	0055	1452	0.
2	0315	328	140.	*	3	1030	703	134.	*	4	1745	1078	117.	*	6	0100	1453	0.
2	0320	329	140.	*	3	1035	704	134.	*	4	1750	1079	117.	*	6	0105	1454	0.
2	0325	330	140.	*	3	1040	705	134.	*	4	1755	1080	116.	*	6	0110	1455	0.
2	0330	331	140.	*	3	1045	706	134.	*	4	1800	1081	116.	*	6	0115	1456	0.

2	0335	332	140.	*	3	1050	707	134.	*	4	1805	1082	116.	*	6	0120	1457	0.
2	0340	333	140.	*	3	1055	708	134.	*	4	1810	1083	116.	*	6	0125	1458	0.
2	0345	334	140.	*	3	1100	709	134.	*	4	1815	1084	116.	*	6	0130	1459	0.
2	0350	335	140.	*	3	1105	710	134.	*	4	1820	1085	116.	*	6	0135	1460	0.
2	0355	336	140.	*	3	1110	711	134.	*	4	1825	1086	116.	*	6	0140	1461	0.
2	0400	337	140.	*	3	1115	712	134.	*	4	1830	1087	116.	*	6	0145	1462	0.
2	0405	338	140.	*	3	1120	713	134.	*	4	1835	1088	116.	*	6	0150	1463	0.
2	0410	339	140.	*	3	1125	714	134.	*	4	1840	1089	116.	*	6	0155	1464	0.
2	0415	340	140.	*	3	1130	715	134.	*	4	1845	1090	116.	*	6	0200	1465	0.
2	0420	341	140.	*	3	1135	716	134.	*	4	1850	1091	116.	*	6	0205	1466	0.
2	0425	342	140.	*	3	1140	717	134.	*	4	1855	1092	116.	*	6	0210	1467	0.
2	0430	343	140.	*	3	1145	718	134.	*	4	1900	1093	116.	*	6	0215	1468	0.
2	0435	344	140.	*	3	1150	719	134.	*	4	1905	1094	116.	*	6	0220	1469	0.
2	0440	345	140.	*	3	1155	720	134.	*	4	1910	1095	116.	*	6	0225	1470	0.
2	0445	346	140.	*	3	1200	721	134.	*	4	1915	1096	115.	*	6	0230	1471	0.
2	0450	347	140.	*	3	1205	722	134.	*	4	1920	1097	115.	*	6	0235	1472	0.
2	0455	348	140.	*	3	1210	723	134.	*	4	1925	1098	115.	*	6	0240	1473	0.
2	0500	349	140.	*	3	1215	724	134.	*	4	1930	1099	115.	*	6	0245	1474	0.
2	0505	350	140.	*	3	1220	725	134.	*	4	1935	1100	115.	*	6	0250	1475	0.
2	0510	351	140.	*	3	1225	726	134.	*	4	1940	1101	115.	*	6	0255	1476	0.
2	0515	352	140.	*	3	1230	727	134.	*	4	1945	1102	115.	*	6	0300	1477	0.
2	0520	353	140.	*	3	1235	728	134.	*	4	1950	1103	115.	*	6	0305	1478	0.
2	0525	354	140.	*	3	1240	729	134.	*	4	1955	1104	115.	*	6	0310	1479	0.
2	0530	355	140.	*	3	1245	730	134.	*	4	2000	1105	115.	*	6	0315	1480	0.
2	0535	356	140.	*	3	1250	731	134.	*	4	2005	1106	115.	*	6	0320	1481	0.
2	0540	357	140.	*	3	1255	732	134.	*	4	2010	1107	115.	*	6	0325	1482	0.
2	0545	358	140.	*	3	1300	733	134.	*	4	2015	1108	115.	*	6	0330	1483	0.
2	0550	359	140.	*	3	1305	734	134.	*	4	2020	1109	115.	*	6	0335	1484	0.
2	0555	360	140.	*	3	1310	735	134.	*	4	2025	1110	115.	*	6	0340	1485	0.
2	0600	361	140.	*	3	1315	736	134.	*	4	2030	1111	115.	*	6	0345	1486	0.
2	0605	362	140.	*	3	1320	737	133.	*	4	2035	1112	115.	*	6	0350	1487	0.
2	0610	363	140.	*	3	1325	738	133.	*	4	2040	1113	114.	*	6	0355	1488	0.
2	0615	364	140.	*	3	1330	739	133.	*	4	2045	1114	114.	*	6	0400	1489	0.
2	0620	365	140.	*	3	1335	740	133.	*	4	2050	1115	114.	*	6	0405	1490	0.
2	0625	366	140.	*	3	1340	741	133.	*	4	2055	1116	114.	*	6	0410	1491	0.
2	0630	367	140.	*	3	1345	742	133.	*	4	2100	1117	114.	*	6	0415	1492	0.
2	0635	368	140.	*	3	1350	743	133.	*	4	2105	1118	114.	*	6	0420	1493	0.
2	0640	369	139.	*	3	1355	744	133.	*	4	2110	1119	114.	*	6	0425	1494	0.
2	0645	370	139.	*	3	1400	745	133.	*	4	2115	1120	114.	*	6	0430	1495	0.
2	0650	371	139.	*	3	1405	746	133.	*	4	2120	1121	114.	*	6	0435	1496	0.
2	0655	372	139.	*	3	1410	747	133.	*	4	2125	1122	114.	*	6	0440	1497	0.
2	0700	373	139.	*	3	1415	748	133.	*	4	2130	1123	114.	*	6	0445	1498	0.
2	0705	374	139.	*	3	1420	749	133.	*	4	2135	1124	114.	*	6	0450	1499	0.
2	0710	375	139.	*	3	1425	750	133.	*	4	2140	1125	114.	*	6	0455	1500	0.
				*					*					*				

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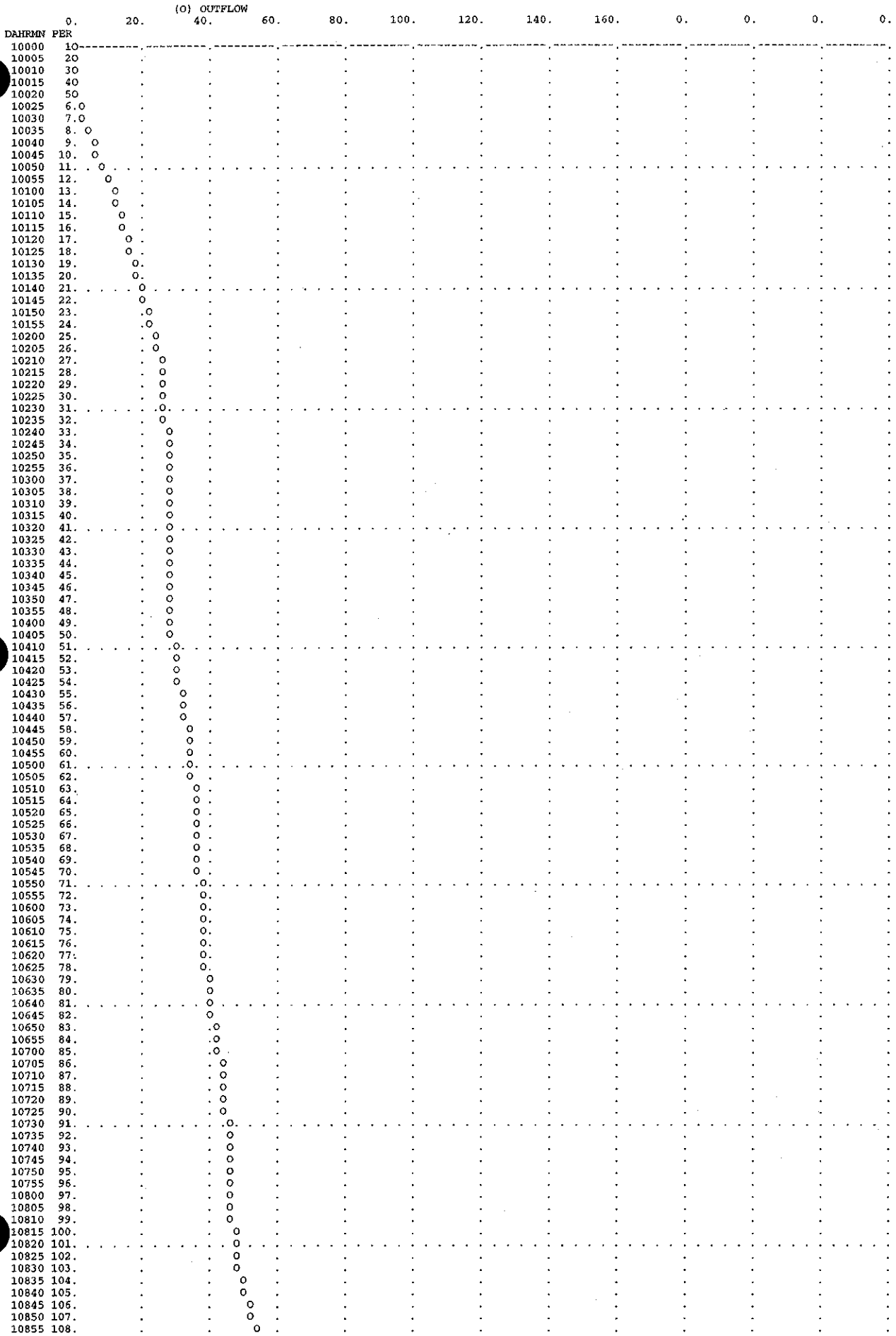
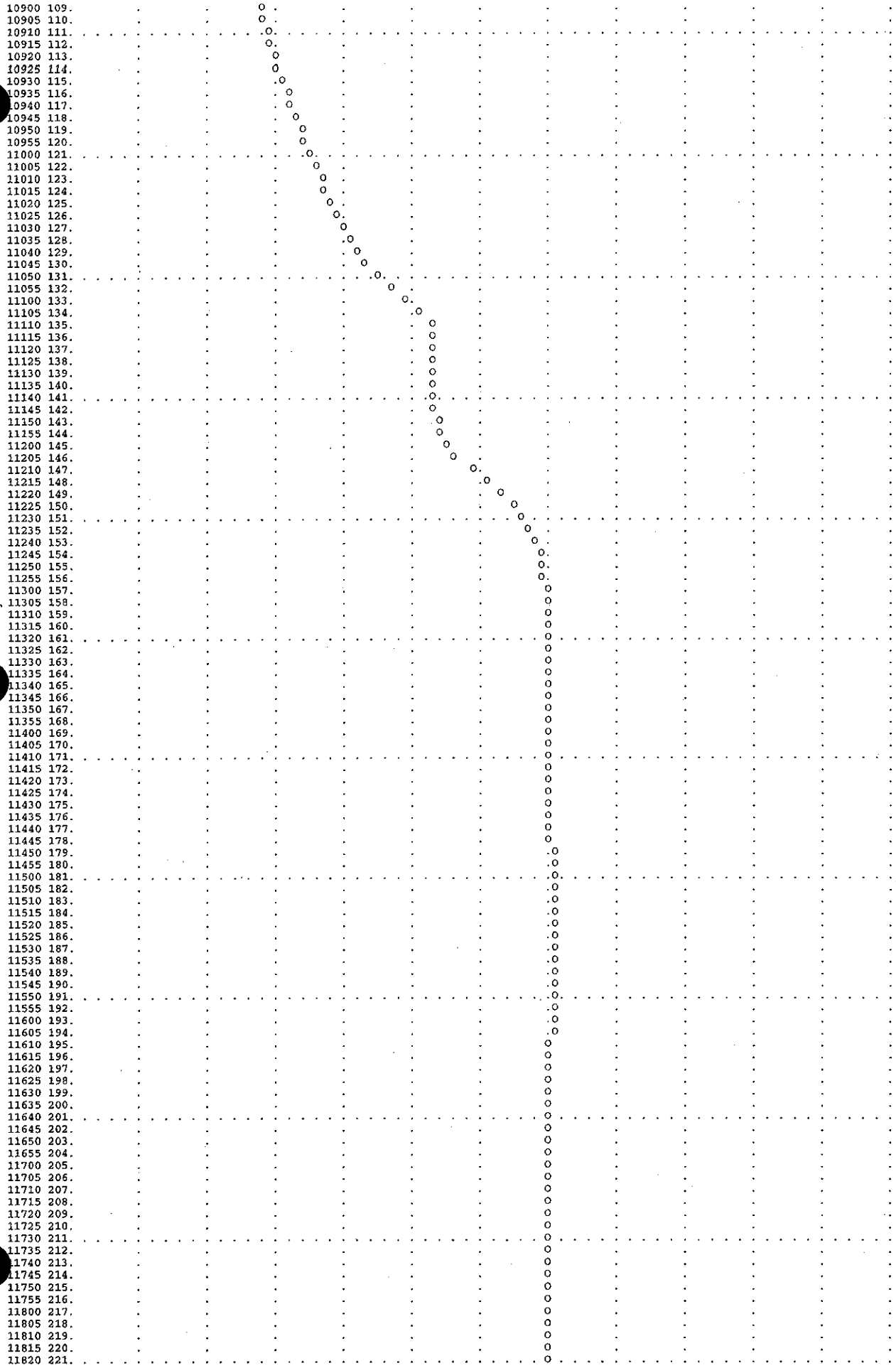
PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	124.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 141.	15.33		141.	140.	135.	100.
		(INCHES)	.123	.490	1.415	1.826
		(AC-FT)	70.	278.	802.	1036.

CUMULATIVE AREA = 10.64 SQ MI

STATION SR180

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10950 119.
10955 120.
11000 121.
11005 122.
11010 123.
11015 124.
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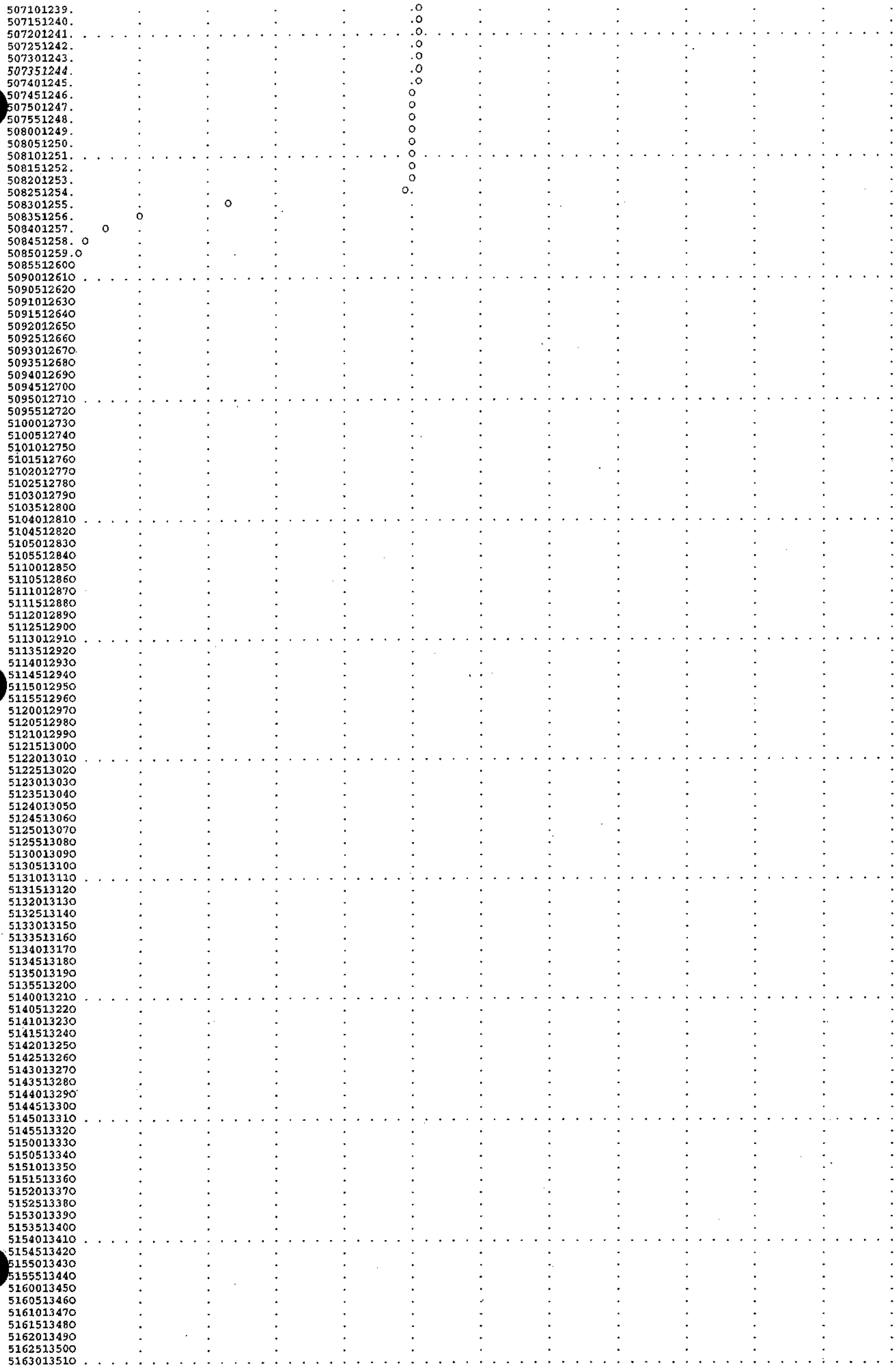
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INTERPOLATED HYDROGRAPH AT SR440

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1		0010	3	0.	2		0725	378	223.	3		1440	753	134.	4		2155	1128	113.
1		0015	4	1.	2		0730	379	223.	3		1445	754	134.	4		2200	1129	113.
1		0020	5	2.	2		0735	380	223.	3		1450	755	134.	4		2205	1130	113.
1		0025	6	3.	2		0740	381	223.	3		1455	756	134.	4		2210	1131	113.
1		0030	7	5.	2		0745	382	223.	3		1500	757	134.	4		2215	1132	113.
1		0035	8	8.	2		0750	383	223.	3		1505	758	134.	4		2220	1133	113.
1		0040	9	10.	2		0755	384	223.	3		1510	759	134.	4		2225	1134	113.
1		0045	10	13.	2		0800	385	223.	3		1515	760	134.	4		2230	1135	113.
1		0050	11	16.	2		0805	386	223.	3		1520	761	134.	4		2235	1136	113.
1		0055	12	18.	2		0810	387	223.	3		1525	762	134.	4		2240	1137	113.
1		0100	13	21.	2		0815	388	223.	3		1530	763	134.	4		2245	1138	113.
1		0105	14	23.	2		0820	389	223.	3		1535	764	134.	4		2250	1139	113.
1		0110	15	25.	2		0825	390	223.	3		1540	765	134.	4		2255	1140	112.
1		0115	16	27.	2		0830	391	223.	3		1545	766	134.	4		2300	1141	112.
1		0120	17	28.	2		0835	392	223.	3		1550	767	134.	4		2305	1142	112.
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1		0135	20	33.	2		0850	395	223.	3		1605	770	133.	4		2320	1145	112.
1		0140	21	34.	2		0855	396	223.	3		1610	771	133.	4		2325	1146	112.
1		0145	22	36.	2		0900	397	223.	3		1615	772	133.	4		2330	1147	112.
1		0150	23	37.	2		0905	398	223.	3		1620	773	133.	4		2335	1148	112.
1		0155	24	38.	2		0910	399	223.	3		1625	774	133.	4		2340	1149	112.
1		0200	25	40.	2		0915	400	223.	3		1630	775	133.	4		2345	1150	112.
1		0205	26	41.	2		0920	401	223.	3		1635	776	133.	4		2350	1151	112.
1		0210	27	43.	2		0925	402	223.	3		1640	777	133.	4		2355	1152	112.
1		0215	28	45.	2		0930	403	223.	3		1645	778	133.	5		0000	1153	112.
1		0220	29	46.	2		0935	404	223.	3		1650	779	133.	5		0005	1154	112.
1		0225	30	48.	2		0940	405	223.	3		1655	780	133.	5		0010	1155	112.
1		0230	31	49.	2		0945	406	223.	3		1700	781	133.	5		0015	1156	112.
1		0235	32	51.	2		0950	407	223.	3		1705	782	133.	5		0020	1157	111.
1		0240	33	52.	2		0955	408	223.	3		1710	783	133.	5		0025	1158	111.
1		0245	34	54.	2		1000	409	223.	3		1715	784	133.	5		0030	1159	111.
1		0250	35	56.	2		1005	410	223.	3		1720	785	133.	5		0035	1160	111.
1		0255	36	57.	2		1010	411	223.	3		1725	786	133.	5		0040	1161	111.
1		0300	37	59.	2		1015	412	223.	3		1730	787	133.	5		0045	1162	111.
1		0305	38	60.	2		1020	413	223.	3		1735	788	132.	5		0050	1163	111.
1		0310	39	62.	2		1025	414	223.	3		1740	789	132.	5		0055	1164	111.
1		0315	40	63.	2		1030	415	222.	3		1745	790	132.	5		0100	1165	111.
1		0320	41	64.	2		1035	416	222.	3		1750	791	132.	5		0105	1166	111.
1		0325	42	65.	2		1040	417	222.	3		1755	792	132.	5		0110	1167	111.
1		0330	43	66.	2		1045	418	222.	3		1800	793	132.	5		0115	1168	111.
1		0335	44	67.	2		1050	419	222.	3		1805	794	132.	5		0120	1169	111.
1		0340	45	68.	2		1055	420	222.	3		1810	795	132.	5		0125	1170	111.
1		0345	46	68.	2		1100	421	222.	3		1815	796	132.	5		0130	1171	111.
1		0350	47	69.	2		1105	422	222.	3		1820	797	132.	5		0135	1172	111.
1		0355	48	69.	2		1110	423	222.	3		1825	798	132.	5		0140	1173	111.
1		0400	49	70.	2		1115	424	222.	3		1830	799	132.	5		0145	1174	110.
1		0405	50	70.	2		1120	425	222.	3		1835	800	132.	5		0150	1175	110.
1		0410	51	71.	2		1125	426	222.	3		1840	801	132.	5		0155	1176	110.
1		0415	52	72.	2		1130	427	222.	3		1845	802	132.	5		0200	1177	110.
1		0420	53	74.	2		1135	428	222.	3		1850	803	132.	5		0205	1178	110.
1		0425	54	75.	2		1140	429	222.	3		1855	804	132.	5		0210	1179	110.
1		0430	55	76.	2		1145	430	222.	3		1900	805	132.	5		0215	1180	110.
1		0435	56	77.	2		1150	431	222.	3		1905	806	132.	5		0220	1181	110.
1		0440	57	78.	2		1155	432	222.	3		1910	807	132.	5		0225	1182	110.
1		0445	58	79.	2		1200	433	222.	3		1915	808	132.	5		0230	1183	110.
1		0450	59	79.	2		1205	434	222.	3		1920	809	132.	5		0235	1184	110.
1		0455	60	80.	2		1210	435	222.	3		1925	810	131.	5		0240	1185	110.
1		0500	61	81.	2		1215	436	222.	3		1930	811	131.	5		0245	1186	110.
1		0505	62	82.	2		1220	437	222.	3		1935	812	131.	5		0250	1187	110.
1		0510	63	83.	2		1225	438	222.	3		1940	813	131.	5		0255	1188	110.
1		0515	64	84.	2		1230	439	222.	3		1945	814	131.	5		0300	1189	110.
1		0520	65	84.	2		1235	440	222.	3		1950	815	131.	5		0305	1190	110.
1		0525	66	85.	2		1240	441	222.	3		1955	816	131.	5		0310	1191	109.
1		0530	67	86.	2		1245	442	221.	3		2000	817	131.	5		0315	1192	109.
1		0535	68	87.	2		1250	443	220.	3		2005	818	131.	5		0320	1193	108.
1		0540	69	87.	2		1255	444	219.	3		2010	819	131.	5		0325	1194	107.
1		0545	70	88.	2		1300	445	218.	3		2015	820	131.	5		0330	1195	106.
1		0550	71	88.	2		1305	446	218.	3		2020	821	131.	5		0335	1196	103.
1		0555	72	89.	2		1310	447	217.	3		2025	822	131.	5		0340	1197	101.
1		0600	73	89.	2		1315	448	217.	3		2030	823	131.	5		0345	1198	98.
1		0605	74	90.	2		1320	449	217.	3		2035	824	131.	5		0350	1199	95.
1		0610	75	90.	2		1325	450	217.	3		2040	825	131.	5		0355	1200	93.
1		0615	76	91.	2		1330	451	217.	3		2045	826	131.	5		0400	1201	91.
1		0620	77	92.	2		1335	452	217.	3		2050	827	131.	5		0405	1202	89.
1		0625	78	93.	2		1340	453	216.	3		2055	828	131.	5		0410	1203	88.
1		0630	79	94.	2		1345	454	216.	3		2100	829	131.	5		0415	1204	87.
1		0635	80	95.	2		1350	455	216.	3		2105	830	131.	5		0420	1205	86.
1		0640	81	96.	2		1355	456	216.	3		2110	831	131.	5		0425	1206	85.
1		0645	82	97.	2		1400	457	216.	3		2115	832	131.	5		0430	1207	85.
1		0650	83	99.	2		1405	458	216.	3		2120	833	131.	5		0435	1208	84.
1		0655	84	100.	2		1410	459	216.	3		2125	834	130.	5		0440	1209	83.
1		0700	85	101.	2		1415	460	216.	3		2130	835	130.	5		0445	1210	82.
1		0705	86	101.	2		1420	461	216.	3		2135	836	130.	5		0450	1211	82.
1		0710	87	102.	2		1425	462	216.	3		2140	837	130.	5		0455	1212	81.
1		0715	88	103.	2		1430	463	216.	3		2145	838	130.	5		0500	1213	81.
1		0720	89	104.	2		1435	464	216.	3		2150	839	130.	5		0505	1214	80.
1		0725	90	105.	2		1440	465	216.	3		2155	840	130.	5		0510	1215	80.
1		0730	91	106.	2		1445	466	216.	3		2200	841	130.	5		0515	1216	79.
1		0735	92	106.	2		1450	467	216.	3		2205	842	130.	5		0520	1217	79.
1		0740	93	107.	2		1455	468	216.	3		2210	843	130.	5		0525	1218	79.
1		0745	94	108.	2		1500	469	216.	3		2215	844	130.	5		0530	1219	79.
1		0750	95	109.	2		1505	470	216.	3		2220	845	130.	5		0535	1220	78.
1		0755	96	109.	2		1510	471	216.	3		2225	846	130.	5		0540	1221	78.
1		0800	97	110.	2		1515	472	216.	3		2230	847	130.	5		0545	1222	78.
1		0805	98	111.	2		1520	473	216.	3		2235	848	130.	5		0550	1223	78.
1		0810	99	111.	2		1525	474	216.	3		2240	849	130.	5		0555	1224	78.
1		0815	100	112.	2		1530	475	216.	3		2245	850	130.	5		0600	1225	78.
1		0820	101	113.	2		1535	476	216.	3		2250	851	130.	5		0605	1226	78.
1		0825	102	114.	2		1540	477	216.	3		2255	852	129.	5		0610	1227	78.
1		0830	103	115.	2		1545	478	216.	3		2300	853	129.	5		0615	1228	78.
1		0835	104	117.	2		1550	479	216.	3		2305	854	129.	5		0620	1229	77.
1		0840	105	119.	2		1555	480	216.	3		2310	855	129.	5		0625	1230	77.

1	0845	106	121.	*	2	1600	481	213.	*	3	2315	856	129.	*	5	0630	1231	77.
1	0850	107	123.	*	2	1605	482	209.	*	3	2320	857	129.	*	5	0635	1232	77.
1	0855	108	126.	*	2	1610	483	207.	*	3	2325	858	129.	*	5	0640	1233	77.
1	0900	109	128.	*	2	1615	484	204.	*	3	2330	859	129.	*	5	0645	1234	77.
1	0905	110	130.	*	2	1620	485	201.	*	3	2335	860	129.	*	5	0650	1235	77.
1	0910	111	132.	*	2	1625	486	199.	*	3	2340	861	129.	*	5	0655	1236	77.
1	0915	112	134.	*	2	1630	487	198.	*	3	2345	862	129.	*	5	0700	1237	77.
1	0920	113	136.	*	2	1635	488	196.	*	3	2350	863	129.	*	5	0705	1238	77.
1	0925	114	139.	*	2	1640	489	194.	*	3	2355	864	128.	*	5	0710	1239	77.
1	0930	115	142.	*	2	1645	490	190.	*	4	0000	865	128.	*	5	0715	1240	77.
1	0935	116	146.	*	2	1650	491	183.	*	4	0005	866	128.	*	5	0720	1241	77.
1	0940	117	149.	*	2	1655	492	178.	*	4	0010	867	128.	*	5	0725	1242	77.
1	0945	118	152.	*	2	1700	493	173.	*	4	0015	868	128.	*	5	0730	1243	77.
1	0950	119	156.	*	2	1705	494	169.	*	4	0020	869	128.	*	5	0735	1244	77.
1	0955	120	158.	*	2	1710	495	166.	*	4	0025	870	128.	*	5	0740	1245	77.
1	1000	121	161.	*	2	1715	496	165.	*	4	0030	871	128.	*	5	0745	1246	77.
1	1005	122	164.	*	2	1720	497	163.	*	4	0035	872	128.	*	5	0750	1247	77.
1	1010	123	166.	*	2	1725	498	163.	*	4	0040	873	128.	*	5	0755	1248	77.
1	1015	124	169.	*	2	1730	499	161.	*	4	0045	874	128.	*	5	0800	1249	77.
1	1020	125	171.	*	2	1735	500	159.	*	4	0050	875	128.	*	5	0805	1250	77.
1	1025	126	174.	*	2	1740	501	157.	*	4	0055	876	128.	*	5	0810	1251	77.
1	1030	127	176.	*	2	1745	502	156.	*	4	0100	877	128.	*	5	0815	1252	77.
1	1035	128	179.	*	2	1750	503	154.	*	4	0105	878	128.	*	5	0820	1253	76.
1	1040	129	181.	*	2	1755	504	153.	*	4	0110	879	128.	*	5	0825	1254	76.
1	1045	130	184.	*	2	1800	505	153.	*	4	0115	880	128.	*	5	0830	1255	76.
1	1050	131	187.	*	2	1805	506	152.	*	4	0120	881	128.	*	5	0835	1256	76.
1	1055	132	190.	*	2	1810	507	152.	*	4	0125	882	128.	*	5	0840	1257	76.
1	1100	133	194.	*	2	1815	508	152.	*	4	0130	883	128.	*	5	0845	1258	76.
1	1105	134	198.	*	2	1820	509	152.	*	4	0135	884	127.	*	5	0850	1259	75.
1	1110	135	202.	*	2	1825	510	152.	*	4	0140	885	127.	*	5	0855	1260	73.
1	1115	136	206.	*	2	1830	511	152.	*	4	0145	886	127.	*	5	0900	1261	69.
1	1120	137	211.	*	2	1835	512	152.	*	4	0150	887	127.	*	5	0905	1262	64.
1	1125	138	217.	*	2	1840	513	152.	*	4	0155	888	127.	*	5	0910	1263	58.
1	1130	139	223.	*	2	1845	514	152.	*	4	0200	889	127.	*	5	0915	1264	50.
1	1135	140	230.	*	2	1850	515	152.	*	4	0205	890	127.	*	5	0920	1265	43.
1	1140	141	238.	*	2	1855	516	152.	*	4	0210	891	127.	*	5	0925	1266	37.
1	1145	142	247.	*	2	1900	517	151.	*	4	0215	892	127.	*	5	0930	1267	32.
1	1150	143	261.	*	2	1905	518	151.	*	4	0220	893	127.	*	5	0935	1268	28.
1	1155	144	291.	*	2	1910	519	151.	*	4	0225	894	127.	*	5	0940	1269	25.
1	1200	145	361.	*	2	1915	520	151.	*	4	0230	895	127.	*	5	0945	1270	23.
1	1205	146	524.	*	2	1920	521	150.	*	4	0235	896	127.	*	5	0950	1271	20.
1	1210	147	645.	*	2	1925	522	147.	*	4	0240	897	127.	*	5	0955	1272	18.
1	1215	148	659.	*	2	1930	523	144.	*	4	0245	898	127.	*	5	1000	1273	16.
1	1220	149	679.	*	2	1935	524	142.	*	4	0250	899	127.	*	5	1005	1274	14.
1	1225	150	706.	*	2	1940	525	141.	*	4	0255	900	127.	*	5	1010	1275	12.
1	1230	151	727.	*	2	1945	526	140.	*	4	0300	901	127.	*	5	1015	1276	11.
1	1235	152	741.	*	2	1950	527	139.	*	4	0305	902	127.	*	5	1020	1277	9.
1	1240	153	753.	*	2	1955	528	139.	*	4	0310	903	127.	*	5	1025	1278	8.
1	1245	154	764.	*	2	2000	529	139.	*	4	0315	904	127.	*	5	1030	1279	6.
1	1250	155	772.	*	2	2005	530	139.	*	4	0320	905	126.	*	5	1035	1280	5.
1	1255	156	779.	*	2	2010	531	138.	*	4	0325	906	126.	*	5	1040	1281	4.
1	1300	157	784.	*	2	2015	532	138.	*	4	0330	907	126.	*	5	1045	1282	3.
1	1305	158	788.	*	2	2020	533	138.	*	4	0335	908	126.	*	5	1050	1283	3.
1	1310	159	791.	*	2	2025	534	138.	*	4	0340	909	126.	*	5	1055	1284	2.
1	1315	160	793.	*	2	2030	535	138.	*	4	0345	910	126.	*	5	1100	1285	2.
1	1320	161	795.	*	2	2035	536	138.	*	4	0350	911	126.	*	5	1105	1286	1.
1	1325	162	797.	*	2	2040	537	138.	*	4	0355	912	126.	*	5	1110	1287	1.
1	1330	163	798.	*	2	2045	538	138.	*	4	0400	913	126.	*	5	1115	1288	1.
1	1335	164	799.	*	2	2050	539	138.	*	4	0405	914	126.	*	5	1120	1289	1.
1	1340	165	800.	*	2	2055	540	138.	*	4	0410	915	126.	*	5	1125	1290	0.
1	1345	166	801.	*	2	2100	541	138.	*	4	0415	916	126.	*	5	1130	1291	0.
1	1350	167	801.	*	2	2105	542	138.	*	4	0420	917	126.	*	5	1135	1292	0.
1	1355	168	801.	*	2	2110	543	138.	*	4	0425	918	126.	*	5	1140	1293	0.
1	1400	169	801.	*	2	2115	544	138.	*	4	0430	919	126.	*	5	1145	1294	0.
1	1405	170	801.	*	2	2120	545	138.	*	4	0435	920	126.	*	5	1150	1295	0.
1	1410	171	801.	*	2	2125	546	138.	*	4	0440	921	126.	*	5	1155	1296	0.
1	1415	172	801.	*	2	2130	547	138.	*	4	0445	922	126.	*	5	1200	1297	0.
1	1420	173	801.	*	2	2135	548	138.	*	4	0450	923	126.	*	5	1205	1298	0.
1	1425	174	801.	*	2	2140	549	138.	*	4	0455	924	126.	*	5	1210	1299	0.
1	1430	175	800.	*	2	2145	550	138.	*	4	0500	925	125.	*	5	1215	1300	0.
1	1435	176	800.	*	2	2150	551	138.	*	4	0505	926	125.	*	5	1220	1301	0.
1	1440	177	800.	*	2	2155	552	138.	*	4	0510	927	125.	*	5	1225	1302	0.
1	1445	178	799.	*	2	2200	553	138.	*	4	0515	928	125.	*	5	1230	1303	0.
1	1450	179	799.	*	2	2205	554	138.	*	4	0520	929	125.	*	5	1235	1304	0.
1	1455	180	798.	*	2	2210	555	138.	*	4	0525	930	125.	*	5	1240	1305	0.
1	1500	181	798.	*	2	2215	556	138.	*	4	0530	931	125.	*	5	1245	1306	0.
1	1505	182	797.	*	2	2220	557	138.	*	4	0535	932	125.	*	5	1250	1307	0.
1	1510	183	797.	*	2	2225	558	138.	*	4	0540	933	125.	*	5	1255	1308	0.
1	1515	184	796.	*	2	2230	559	138.	*	4	0545	934	125.	*	5	1300	1309	0.
1	1520	185	795.	*	2	2235	560	138.	*	4	0550	935	125.	*	5	1305	1310	0.
1	1525	186	795.	*	2	2240	561	138.	*	4	0555	936	125.	*	5	1310	1311	0.
1	1530	187	794.	*	2	2245	562	138.	*	4	0600	937	125.	*	5	1315	1312	0.
1	1535	188	794.	*	2	2250	563	138.	*	4	0605	938	125.	*	5	1320	1313	0.
1	1540	189	793.	*	2	2255	564	138.	*	4	0610	939	125.	*	5	1325	1314	0.
1	1545	190	792.	*	2	2300	565	138.	*	4	0615	940	125.	*	5	1330	1315	0.
1	1550	191	792.	*	2	2305	566	138.	*	4	0620	941	125.	*	5	1335	1316	0.
1	1555	192	791.	*	2	2310	567	138.	*	4	0625	942	125.	*	5	1340	1317	0.
1	1600	193	790.	*	2	2315	568	138.	*	4	0630	943	125.	*	5	1345	1318	0.
1	1605	194	790.	*	2	2320	569	138.	*	4	0635	944	125.	*	5	1350	1319	0.
1	1610	195	789.	*	2	2325	570	138.	*	4	0640	945	125.	*	5	1355	1320	0.
1	1615	196	788.	*	2	2330	571	138.	*	4	0645	946	124.	*	5	1400	1321	0.
1	1620	197	787.	*	2	2335	572	138.	*	4	0650	947	124.	*	5	1405	1322	0.
1	1625	198	787.	*	2	2340	573	138.	*	4	0655	948	124.	*	5	1410	1323	0.
1	1630	199	786.	*	2	2345	574	138.	*	4	0700	949	124.	*	5	1415	1324	0.
1	1635	200	785.	*	2	2350	575	138.	*	4	0705	950	124.	*	5	1420	1325	0.
1	1640	201	784.	*	2	2355	576	138.	*	4	0710	951	124.	*	5	1425	1326	0.
1	1645	202	783.	*	3	0000	577	137.	*	4	0715	952	124.	*	5	1430	1327	0.
1	1650	203	783.	*	3	0005	578	137.	*	4	0720	953	124.	*	5	1435	1328	0.
1	1655	204	782.	*	3	0010	579	137.	*	4	0725	954	124.	*	5	1440	1329	0.
1	1700	205	781.	*	3	0015	580	137.	*	4	0730	955	124.	*	5	1445	1330	0.
1	1705	206	780.	*	3	0020	581	137.	*	4	0735	956	124.	*	5	1450	1331	0.
1	1710	207	780.	*	3	0025	582	137.	*	4	0740	957	124.	*	5	1455	1332	0.
1	1715	208	779.	*	3	0030	583	137.	*	4	0745	958	124.	*	5	1500	1333	0.
1	1720	209	778.	*	3	0035	584	137.	*	4	0750	959	124.	*	5	1505	1334	0.
1	1725	210	777.	*	3	0040	585	137.	*	4	0755	960	124.	*	5	1510	1335	0.
1	1730	211	776.	*	3	0045	586	137.	*	4	0800	961	124.	*	5	1515	1336	0.
1	1735	212	775.	*	3	0050	587	137.	*	4	0805	962	124.	*	5	1520	1337	0.
1	1740	213	775.	*	3	0055	588	137.	*	4	0810	963	123.	*	5	1525	1338	0.
1	1745	214	774.	*	3	0100	589	137.	*	4	0815	964	123.	*	5	1530	1339	0.
1	1750	215	773.	*	3	0105	590	137.	*	4	0820	965	123.	*	5	1535	1340	0.
1	1755	216	772.	*	3	0110	591	137.	*	4	0825	966	123.	*	5	1540	1341	0.
1	1800	217	771.	*	3	0115	592	137.	*	4	0830	967	123.	*	5	1545	1342	0.
1	1805	218	770.	*	3	0120	593	137.	*	4	0835	968	123.	*	5	1550	1343	0.

1	1810	219	769.	*	3	0125	594	137.	*	4	0840	969	123.	*	5	1555	1344	0.
1	1815	220	768.	*	3	0130	595	137.	*	4	0845	970	123.	*	5	1600	1345	0.
1	1820	221	767.	*	3	0135	596	137.	*	4	0850	971	123.	*	5	1605	1346	0.
1	1825	222	766.	*	3	0140	597	137.	*	4	0855	972	123.	*	5	1610	1347	0.
1	1830	223	765.	*	3	0145	598	137.	*	4	0900	973	123.	*	5	1615	1348	0.
1	1835	224	764.	*	3	0150	599	137.	*	4	0905	974	123.	*	5	1620	1349	0.
1	1840	225	763.	*	3	0155	600	137.	*	4	0910	975	123.	*	5	1625	1350	0.
1	1845	226	762.	*	3	0200	601	137.	*	4	0915	976	123.	*	5	1630	1351	0.
1	1850	227	761.	*	3	0205	602	137.	*	4	0920	977	123.	*	5	1635	1352	0.
1	1855	228	760.	*	3	0210	603	137.	*	4	0925	978	122.	*	5	1640	1353	0.
1	1900	229	759.	*	3	0215	604	137.	*	4	0930	979	122.	*	5	1645	1354	0.
1	1905	230	758.	*	3	0220	605	137.	*	4	0935	980	122.	*	5	1650	1355	0.
1	1910	231	757.	*	3	0225	606	137.	*	4	0940	981	122.	*	5	1655	1356	0.
1	1915	232	756.	*	3	0230	607	137.	*	4	0945	982	122.	*	5	1700	1357	0.
1	1920	233	755.	*	3	0235	608	137.	*	4	0950	983	122.	*	5	1705	1358	0.
1	1925	234	754.	*	3	0240	609	137.	*	4	0955	984	122.	*	5	1710	1359	0.
1	1930	235	753.	*	3	0245	610	137.	*	4	1000	985	122.	*	5	1715	1360	0.
1	1935	236	752.	*	3	0250	611	137.	*	4	1005	986	122.	*	5	1720	1361	0.
1	1940	237	751.	*	3	0255	612	137.	*	4	1010	987	122.	*	5	1725	1362	0.
1	1945	238	750.	*	3	0300	613	137.	*	4	1015	988	122.	*	5	1730	1363	0.
1	1950	239	749.	*	3	0305	614	137.	*	4	1020	989	122.	*	5	1735	1364	0.
1	1955	240	748.	*	3	0310	615	137.	*	4	1025	990	122.	*	5	1740	1365	0.
1	2000	241	747.	*	3	0315	616	137.	*	4	1030	991	122.	*	5	1745	1366	0.
1	2005	242	746.	*	3	0320	617	137.	*	4	1035	992	122.	*	5	1750	1367	0.
1	2010	243	746.	*	3	0325	618	137.	*	4	1040	993	122.	*	5	1755	1368	0.
1	2015	244	745.	*	3	0330	619	137.	*	4	1045	994	121.	*	5	1800	1369	0.
1	2020	245	744.	*	3	0335	620	137.	*	4	1050	995	121.	*	5	1805	1370	0.
1	2025	246	743.	*	3	0340	621	137.	*	4	1055	996	121.	*	5	1810	1371	0.
1	2030	247	742.	*	3	0345	622	137.	*	4	1100	997	121.	*	5	1815	1372	0.
1	2035	248	741.	*	3	0350	623	137.	*	4	1105	998	121.	*	5	1820	1373	0.
1	2040	249	740.	*	3	0355	624	137.	*	4	1110	999	121.	*	5	1825	1374	0.
1	2045	250	739.	*	3	0400	625	137.	*	4	1115	1000	121.	*	5	1830	1375	0.
1	2050	251	738.	*	3	0405	626	137.	*	4	1120	1001	121.	*	5	1835	1376	0.
1	2055	252	737.	*	3	0410	627	137.	*	4	1125	1002	121.	*	5	1840	1377	0.
1	2100	253	736.	*	3	0415	628	137.	*	4	1130	1003	121.	*	5	1845	1378	0.
1	2105	254	735.	*	3	0420	629	137.	*	4	1135	1004	121.	*	5	1850	1379	0.
1	2110	255	734.	*	3	0425	630	137.	*	4	1140	1005	121.	*	5	1855	1380	0.
1	2115	256	733.	*	3	0430	631	136.	*	4	1145	1006	121.	*	5	1900	1381	0.
1	2120	257	732.	*	3	0435	632	136.	*	4	1150	1007	121.	*	5	1905	1382	0.
1	2125	258	731.	*	3	0440	633	136.	*	4	1155	1008	121.	*	5	1910	1383	0.
1	2130	259	730.	*	3	0445	634	136.	*	4	1200	1009	120.	*	5	1915	1384	0.
1	2135	260	729.	*	3	0450	635	136.	*	4	1205	1010	120.	*	5	1920	1385	0.
1	2140	261	728.	*	3	0455	636	136.	*	4	1210	1011	120.	*	5	1925	1386	0.
1	2145	262	726.	*	3	0500	637	136.	*	4	1215	1012	120.	*	5	1930	1387	0.
1	2150	263	725.	*	3	0505	638	136.	*	4	1220	1013	120.	*	5	1935	1388	0.
1	2155	264	723.	*	3	0510	639	136.	*	4	1225	1014	120.	*	5	1940	1389	0.
1	2200	265	722.	*	3	0515	640	136.	*	4	1230	1015	120.	*	5	1945	1390	0.
1	2205	266	720.	*	3	0520	641	136.	*	4	1235	1016	120.	*	5	1950	1391	0.
1	2210	267	719.	*	3	0525	642	136.	*	4	1240	1017	120.	*	5	1955	1392	0.
1	2215	268	717.	*	3	0530	643	136.	*	4	1245	1018	120.	*	5	2000	1393	0.
1	2220	269	716.	*	3	0535	644	136.	*	4	1250	1019	120.	*	5	2005	1394	0.
1	2225	270	715.	*	3	0540	645	136.	*	4	1255	1020	120.	*	5	2010	1395	0.
1	2230	271	713.	*	3	0545	646	136.	*	4	1300	1021	120.	*	5	2015	1396	0.
1	2235	272	712.	*	3	0550	647	136.	*	4	1305	1022	120.	*	5	2020	1397	0.
1	2240	273	710.	*	3	0555	648	136.	*	4	1310	1023	120.	*	5	2025	1398	0.
1	2245	274	709.	*	3	0600	649	136.	*	4	1315	1024	120.	*	5	2030	1399	0.
1	2250	275	706.	*	3	0605	650	136.	*	4	1320	1025	119.	*	5	2035	1400	0.
1	2255	276	704.	*	3	0610	651	136.	*	4	1325	1026	119.	*	5	2040	1401	0.
1	2300	277	701.	*	3	0615	652	136.	*	4	1330	1027	119.	*	5	2045	1402	0.
1	2305	278	698.	*	3	0620	653	136.	*	4	1335	1028	119.	*	5	2050	1403	0.
1	2310	279	696.	*	3	0625	654	136.	*	4	1340	1029	119.	*	5	2055	1404	0.
1	2315	280	693.	*	3	0630	655	136.	*	4	1345	1030	119.	*	5	2100	1405	0.
1	2320	281	691.	*	3	0635	656	136.	*	4	1350	1031	119.	*	5	2105	1406	0.
1	2325	282	688.	*	3	0640	657	136.	*	4	1355	1032	119.	*	5	2110	1407	0.
1	2330	283	685.	*	3	0645	658	136.	*	4	1400	1033	119.	*	5	2115	1408	0.
1	2335	284	683.	*	3	0650	659	136.	*	4	1405	1034	119.	*	5	2120	1409	0.
1	2340	285	680.	*	3	0655	660	136.	*	4	1410	1035	119.	*	5	2125	1410	0.
1	2345	286	678.	*	3	0700	661	136.	*	4	1415	1036	119.	*	5	2130	1411	0.
1	2350	287	675.	*	3	0705	662	136.	*	4	1420	1037	119.	*	5	2135	1412	0.
1	2355	288	673.	*	3	0710	663	136.	*	4	1425	1038	119.	*	5	2140	1413	0.
2	0000	289	670.	*	3	0715	664	136.	*	4	1430	1039	119.	*	5	2145	1414	0.
2	0005	290	668.	*	3	0720	665	136.	*	4	1435	1040	119.	*	5	2150	1415	0.
2	0010	291	666.	*	3	0725	666	136.	*	4	1440	1041	118.	*	5	2155	1416	0.
2	0015	292	636.	*	3	0730	667	136.	*	4	1445	1042	118.	*	5	2200	1417	0.
2	0020	293	604.	*	3	0735	668	136.	*	4	1450	1043	118.	*	5	2205	1418	0.
2	0025	294	584.	*	3	0740	669	136.	*	4	1455	1044	118.	*	5	2210	1419	0.
2	0030	295	569.	*	3	0745	670	136.	*	4	1500	1045	118.	*	5	2215	1420	0.
2	0035	296	559.	*	3	0750	671	136.	*	4	1505	1046	118.	*	5	2220	1421	0.
2	0040	297	552.	*	3	0755	672	136.	*	4	1510	1047	118.	*	5	2225	1422	0.
2	0045	298	546.	*	3	0800	673	136.	*	4	1515	1048	118.	*	5	2230	1423	0.
2	0050	299	542.	*	3	0805	674	136.	*	4	1520	1049	118.	*	5	2235	1424	0.
2	0055	300	538.	*	3	0810	675	136.	*	4	1525	1050	118.	*	5	2240	1425	0.
2	0100	301	535.	*	3	0815	676	136.	*	4	1530	1051	118.	*	5	2245	1426	0.
2	0105	302	532.	*	3	0820	677	136.	*	4	1535	1052	118.	*	5	2250	1427	0.
2	0110	303	529.	*	3	0825	678	136.	*	4	1540	1053	118.	*	5	2255	1428	0.
2	0115	304	527.	*	3	0830	679	136.	*	4	1545	1054	118.	*	5	2300	1429	0.
2	0120	305	524.	*	3	0835	680	136.	*	4	1550	1055	118.	*	5	2305	1430	0.
2	0125	306	426.	*	3	0840	681	136.	*	4	1555	1056	118.	*	5	2310	1431	0.
2	0130	307	355.	*	3	0845	682	135.	*	4	1600	1057	117.	*	5	2315	1432	0.
2	0135	308	310.	*	3	0850	683	135.	*	4	1605	1058	117.	*	5	2320	1433	0.
2	0140	309	281.	*	3	0855	684	135.	*	4	1610	1059	117.	*	5	2325	1434	0.
2	0145	310	262.	*	3	0900	685	135.	*	4	1615	1060	117.	*	5	2330	1435	0.
2	0150	311	250.	*	3	0905	686	135.	*	4	1620	1061	117.	*	5	2335	1436	0.
2	0155	312	242.	*	3	0910	687	135.	*	4	1625	1062	117.	*	5	2340	1437	0.
2	0200	313	236.	*	3	0915	688	135.	*	4	1630	1063	117.	*	5	2345	1438	0.
2	0205	314	233.	*	3	0920	689	135.	*	4	1635	1064	117.	*	5	2350	1439	0.
2	0210	315	230.	*	3	0925	690	135.	*	4	1640	1065	117.	*	5	2355	1440	0.
2	0215	316	229.	*	3	0930	691	135.	*	4	1645	1066	117.	*	6	0000	1441	0.
2	0220	317	228.	*	3	0935	692	135.	*	4	1650	1067	117.	*	6	0005	1442	0.
2	0225	318	227.	*	3	0940	693	135.	*	4	1655	1068	117.	*	6	0010	1443	0.
2	0230	319	226.	*	3	0945	694	135.	*	4	1700	1069	117.	*	6	0015	1444	0.
2	0235	320	226.	*	3	0950	695	135.	*	4	1705	1070	117.	*	6	0020	1445	0.
2	0240	321	225.	*	3	0955	696	135.	*	4	1710	1071	117.	*	6	0025	1446	0.
2	0245	322	225.	*	3	1000	697	135.	*	4	1715	1072	117.	*	6	0030	1447	0.
2	0250	323	225.	*	3	1005	698	135.	*	4	1720	1073	117.	*	6	0035	1448	0.
2	0255	324	225.	*	3	1010	699	135.	*	4	1725	1074	116.	*	6	0040	1449	0.
2	0300	325	224.	*	3	1015	700	135.	*	4	1730	1075	116.	*	6	0045	1450	0.
2	0305	326	224.	*	3	1020	701	135.	*	4	1735	1076	116.	*	6	0050	1451	0.
2	0310	327	224.	*	3	1025	702	135.	*	4	1740	1077	116.	*	6	0055	1452	0.
2	0315	328	224.	*	3	1030	703	135.	*	4	1745	1078	116.	*	6	0100	1453	0.
2	0320	329	224.	*	3	1035	704	135.	*	4	1750	1079	116.	*	6	0105	1454	0.
2	0325	330	224.	*	3	1040	705	135.	*	4	1755	1080	116.	*	6	0110	1455	0.
2	0330	331	224.	*	3	1045	706	135.	*	4	1800	1081	116.	*	6	0115	1456	0.

2	0335	332	224.	*	3	1050	707	135.	*	4	1805	1082	116.	*	6	0120	1457	0.
2	0340	333	224.	*	3	1055	708	135.	*	4	1810	1083	116.	*	6	0125	1458	0.
2	0345	334	224.	*	3	1100	709	135.	*	4	1815	1084	116.	*	6	0130	1459	0.
2	0350	335	224.	*	3	1105	710	135.	*	4	1820	1085	116.	*	6	0135	1460	0.
2	0355	336	224.	*	3	1110	711	135.	*	4	1825	1086	116.	*	6	0140	1461	0.
2	0400	337	224.	*	3	1115	712	135.	*	4	1830	1087	116.	*	6	0145	1462	0.
2	0405	338	224.	*	3	1120	713	135.	*	4	1835	1088	116.	*	6	0150	1463	0.
2	0410	339	223.	*	3	1125	714	135.	*	4	1840	1089	116.	*	6	0155	1464	0.
2	0415	340	223.	*	3	1130	715	135.	*	4	1845	1090	115.	*	6	0200	1465	0.
2	0420	341	223.	*	3	1135	716	135.	*	4	1850	1091	115.	*	6	0205	1466	0.
2	0425	342	223.	*	3	1140	717	135.	*	4	1855	1092	115.	*	6	0210	1467	0.
2	0430	343	223.	*	3	1145	718	135.	*	4	1900	1093	115.	*	6	0215	1468	0.
2	0435	344	223.	*	3	1150	719	135.	*	4	1905	1094	115.	*	6	0220	1469	0.
2	0440	345	223.	*	3	1155	720	135.	*	4	1910	1095	115.	*	6	0225	1470	0.
2	0445	346	223.	*	3	1200	721	135.	*	4	1915	1096	115.	*	6	0230	1471	0.
2	0450	347	223.	*	3	1205	722	135.	*	4	1920	1097	115.	*	6	0235	1472	0.
2	0455	348	223.	*	3	1210	723	135.	*	4	1925	1098	115.	*	6	0240	1473	0.
2	0500	349	223.	*	3	1215	724	135.	*	4	1930	1099	115.	*	6	0245	1474	0.
2	0505	350	223.	*	3	1220	725	135.	*	4	1935	1100	115.	*	6	0250	1475	0.
2	0510	351	223.	*	3	1225	726	135.	*	4	1940	1101	115.	*	6	0255	1476	0.
2	0515	352	223.	*	3	1230	727	135.	*	4	1945	1102	115.	*	6	0300	1477	0.
2	0520	353	223.	*	3	1235	728	135.	*	4	1950	1103	115.	*	6	0305	1478	0.
2	0525	354	223.	*	3	1240	729	135.	*	4	1955	1104	115.	*	6	0310	1479	0.
2	0530	355	223.	*	3	1245	730	135.	*	4	2000	1105	115.	*	6	0315	1480	0.
2	0535	356	223.	*	3	1250	731	135.	*	4	2005	1106	115.	*	6	0320	1481	0.
2	0540	357	223.	*	3	1255	732	135.	*	4	2010	1107	114.	*	6	0325	1482	0.
2	0545	358	223.	*	3	1300	733	134.	*	4	2015	1108	114.	*	6	0330	1483	0.
2	0550	359	223.	*	3	1305	734	134.	*	4	2020	1109	114.	*	6	0335	1484	0.
2	0555	360	223.	*	3	1310	735	134.	*	4	2025	1110	114.	*	6	0340	1485	0.
2	0600	361	223.	*	3	1315	736	134.	*	4	2030	1111	114.	*	6	0345	1486	0.
2	0605	362	223.	*	3	1320	737	134.	*	4	2035	1112	114.	*	6	0350	1487	0.
2	0610	363	223.	*	3	1325	738	134.	*	4	2040	1113	114.	*	6	0355	1488	0.
2	0615	364	223.	*	3	1330	739	134.	*	4	2045	1114	114.	*	6	0400	1489	0.
2	0620	365	223.	*	3	1335	740	134.	*	4	2050	1115	114.	*	6	0405	1490	0.
2	0625	366	223.	*	3	1340	741	134.	*	4	2055	1116	114.	*	6	0410	1491	0.
2	0630	367	223.	*	3	1345	742	134.	*	4	2100	1117	114.	*	6	0415	1492	0.
2	0635	368	223.	*	3	1350	743	134.	*	4	2105	1118	114.	*	6	0420	1493	0.
2	0640	369	223.	*	3	1355	744	134.	*	4	2110	1119	114.	*	6	0425	1494	0.
2	0645	370	223.	*	3	1400	745	134.	*	4	2115	1120	114.	*	6	0430	1495	0.
2	0650	371	223.	*	3	1405	746	134.	*	4	2120	1121	114.	*	6	0435	1496	0.
2	0655	372	223.	*	3	1410	747	134.	*	4	2125	1122	114.	*	6	0440	1497	0.
2	0700	373	223.	*	3	1415	748	134.	*	4	2130	1123	113.	*	6	0445	1498	0.
2	0705	374	223.	*	3	1420	749	134.	*	4	2135	1124	113.	*	6	0450	1499	0.
2	0710	375	223.	*	3	1425	750	134.	*	4	2140	1125	113.	*	6	0455	1500	0.
				*					*					*				

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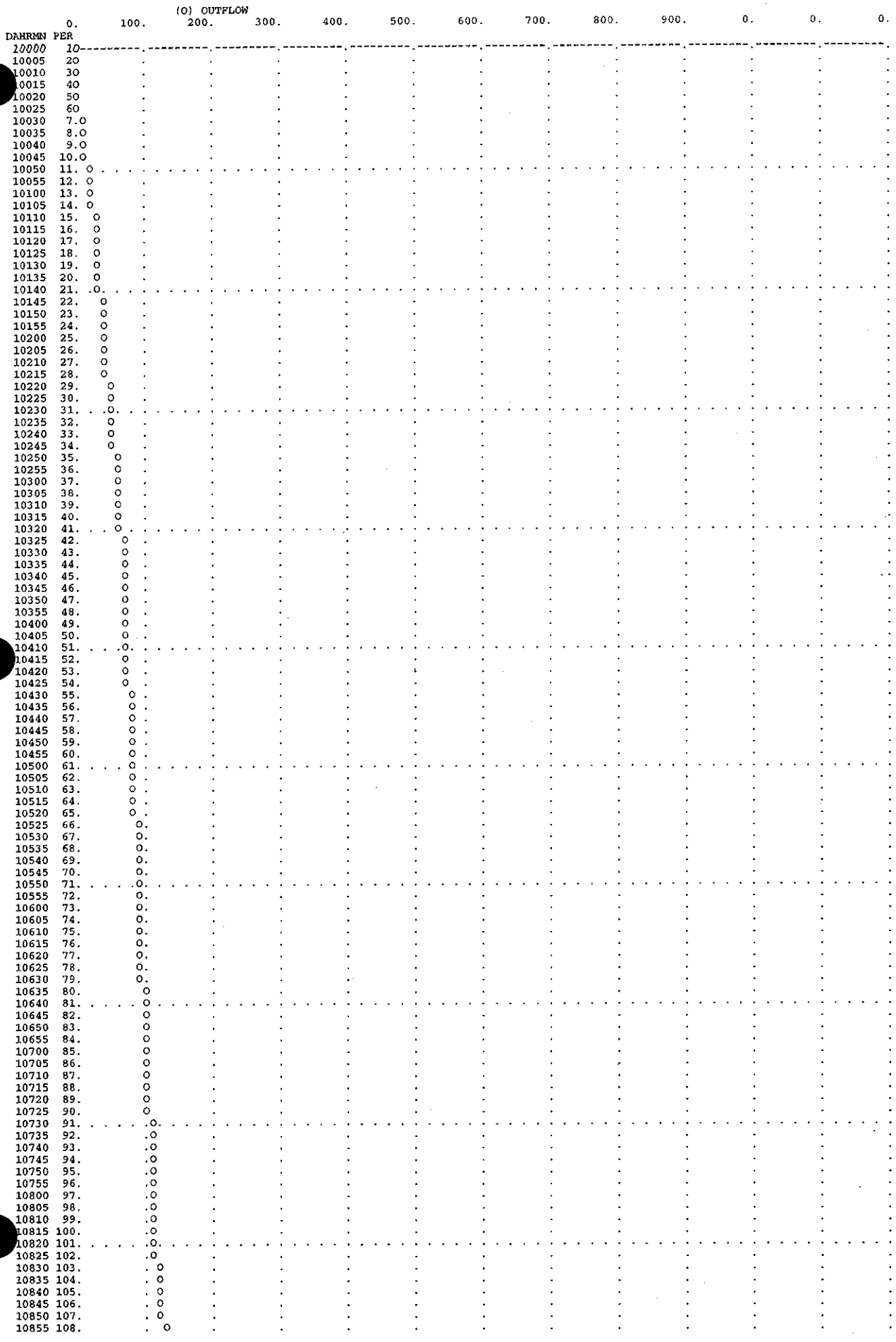
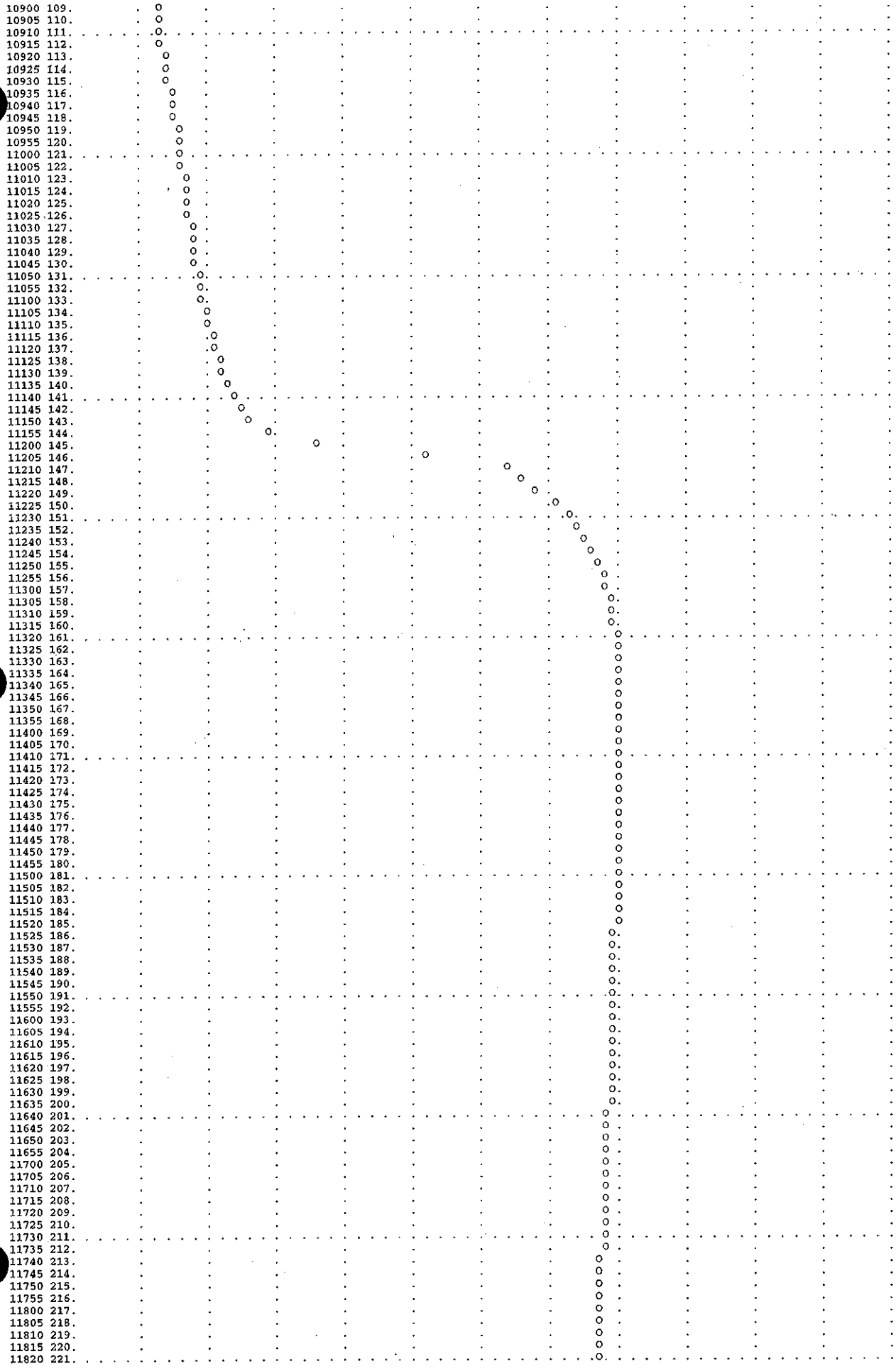
PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	124.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 801.	14.08		787.	511.	267.	180.
		(INCHES)	.535	1.388	2.177	2.546
		(AC-FT)	390.	1013.	1589.	1858.

CUMULATIVE AREA = 13.68 SQ MI

STATION SR440

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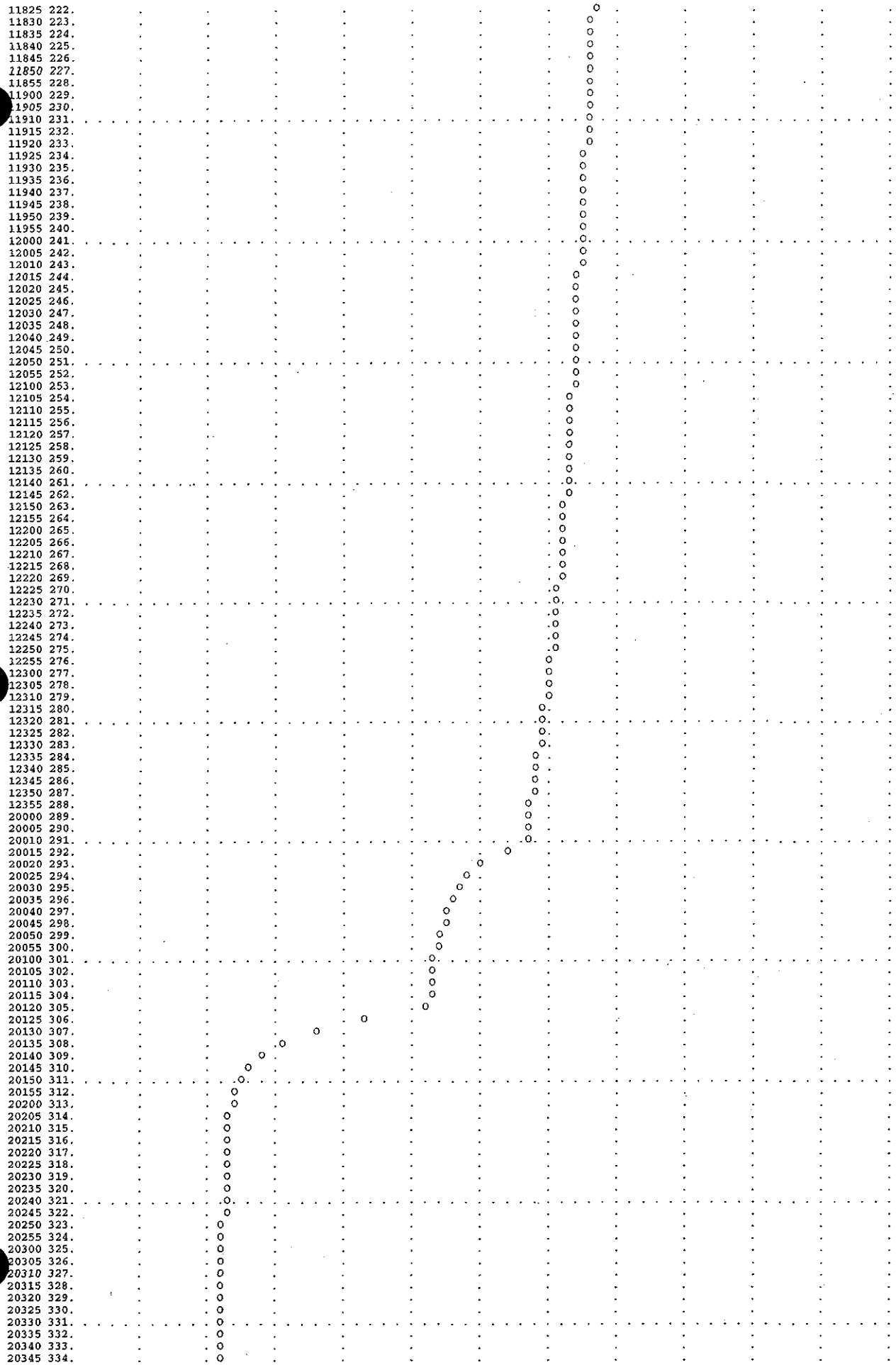
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31945	814.	O
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31955	816.	O
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32005	818.	O
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32015	820.	O
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32050	827.	O
32055	828.	O
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32110	831.	O
32115	832.	O
32120	833.	O
32125	834.	O
32130	835.	O
32135	836.	O
32140	837.	O
32145	838.	O
32150	839.	O
32155	840.	O
32200	841.	O
32205	842.	O
32210	843.	O
32215	844.	O
32220	845.	O
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INTERPOLATED HYDROGRAPH AT 500C

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1		0000	1	0.	2		0715	376	231.	3		1430	751	135.	4		2145	1126	116.
1		0005	2	0.	2		0720	377	231.	3		1435	752	135.	4		2150	1127	116.
1		0010	3	0.	2		0725	378	231.	3		1440	753	135.	4		2155	1128	116.
1		0015	4	1.	2		0730	379	231.	3		1445	754	135.	4		2200	1129	116.
1		0020	5	1.	2		0735	380	231.	3		1450	755	135.	4		2205	1130	116.
1		0025	6	3.	2		0740	381	231.	3		1455	756	135.	4		2210	1131	116.
1		0030	7	4.	2		0745	382	231.	3		1500	757	135.	4		2215	1132	116.
1		0035	8	5.	2		0750	383	231.	3		1505	758	135.	4		2220	1133	116.
1		0040	9	6.	2		0755	384	231.	3		1510	759	135.	4		2225	1134	116.
1		0045	10	7.	2		0800	385	231.	3		1515	760	135.	4		2230	1135	116.
1		0050	11	8.	2		0805	386	231.	3		1520	761	135.	4		2235	1136	116.
1		0055	12	9.	2		0810	387	231.	3		1525	762	135.	4		2240	1137	115.
1		0100	13	9.	2		0815	388	231.	3		1530	763	135.	4		2245	1138	115.
1		0105	14	10.	2		0820	389	231.	3		1535	764	135.	4		2250	1139	115.
1		0110	15	11.	2		0825	390	231.	3		1540	765	135.	4		2255	1140	115.
1		0115	16	11.	2		0830	391	231.	3		1545	766	135.	4		2300	1141	115.
1		0120	17	12.	2		0835	392	231.	3		1550	767	135.	4		2305	1142	115.
1		0125	18	13.	2		0840	393	231.	3		1555	768	135.	4		2310	1143	115.
1		0130	19	14.	2		0845	394	231.	3		1600	769	135.	4		2315	1144	115.
1		0135	20	15.	2		0850	395	231.	3		1605	770	135.	4		2320	1145	115.
1		0140	21	16.	2		0855	396	231.	3		1610	771	135.	4		2325	1146	115.
1		0145	22	17.	2		0900	397	231.	3		1615	772	135.	4		2330	1147	115.
1		0150	23	19.	2		0905	398	231.	3		1620	773	135.	4		2335	1148	115.
1		0155	24	21.	2		0910	399	231.	3		1625	774	135.	4		2340	1149	115.
1		0200	25	22.	2		0915	400	231.	3		1630	775	135.	4		2345	1150	115.
1		0205	26	24.	2		0920	401	231.	3		1635	776	135.	4		2350	1151	115.
1		0210	27	26.	2		0925	402	231.	3		1640	777	135.	4		2355	1152	115.
1		0215	28	28.	2		0930	403	231.	3		1645	778	135.	5		0000	1153	114.
1		0220	29	30.	2		0935	404	231.	3		1650	779	135.	5		0005	1154	114.
1		0225	30	32.	2		0940	405	231.	3		1655	780	135.	5		0010	1155	114.
1		0230	31	34.	2		0945	406	231.	3		1700	781	135.	5		0015	1156	114.
1		0235	32	36.	2		0950	407	231.	3		1705	782	135.	5		0020	1157	114.
1		0240	33	38.	2		0955	408	231.	3		1710	783	135.	5		0025	1158	114.
1		0245	34	40.	2		1000	409	231.	3		1715	784	135.	5		0030	1159	114.
1		0250	35	42.	2		1005	410	231.	3		1720	785	135.	5		0035	1160	114.
1		0255	36	43.	2		1010	411	231.	3		1725	786	135.	5		0040	1161	114.
1		0300	37	45.	2		1015	412	231.	3		1730	787	135.	5		0045	1162	114.
1		0305	38	47.	2		1020	413	231.	3		1735	788	135.	5		0050	1163	114.
1		0310	39	49.	2		1025	414	231.	3		1740	789	135.	5		0055	1164	114.
1		0315	40	51.	2		1030	415	231.	3		1745	790	135.	5		0100	1165	114.
1		0320	41	54.	2		1035	416	231.	3		1750	791	134.	5		0105	1166	114.
1		0325	42	58.	2		1040	417	231.	3		1755	792	134.	5		0110	1167	114.
1		0330	43	62.	2		1045	418	231.	3		1800	793	134.	5		0115	1168	114.
1		0335	44	66.	2		1050	419	231.	3		1805	794	134.	5		0120	1169	114.
1		0340	45	69.	2		1055	420	231.	3		1810	795	134.	5		0125	1170	113.
1		0345	46	71.	2		1100	421	231.	3		1815	796	134.	5		0130	1171	113.
1		0350	47	73.	2		1105	422	231.	3		1820	797	134.	5		0135	1172	113.
1		0355	48	74.	2		1110	423	231.	3		1825	798	134.	5		0140	1173	113.
1		0400	49	76.	2		1115	424	231.	3		1830	799	134.	5		0145	1174	113.
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1		0430	55	83.	2		1145	430	231.	3		1900	805	134.	5		0215	1180	113.
1		0435	56	84.	2		1150	431	231.	3		1905	806	134.	5		0220	1181	113.
1		0440	57	84.	2		1155	432	230.	3		1910	807	134.	5		0225	1182	113.
1		0445	58	85.	2		1200	433	230.	3		1915	808	134.	5		0230	1183	113.
1		0450	59	86.	2		1205	434	230.	3		1920	809	134.	5		0235	1184	113.
1		0455	60	87.	2		1210	435	229.	3		1925	810	134.	5		0240	1185	113.
1		0500	61	88.	2		1215	436	228.	3		1930	811	134.	5		0245	1186	113.
1		0505	62	89.	2		1220	437	227.	3		1935	812	134.	5		0250	1187	112.
1		0510	63	90.	2		1225	438	226.	3		1940	813	134.	5		0255	1188	112.
1		0515	64	91.	2		1230	439	225.	3		1945	814	134.	5		0300	1189	112.
1		0520	65	92.	2		1235	440	225.	3		1950	815	134.	5		0305	1190	112.
1		0525	66	93.	2		1240	441	225.	3		1955	816	134.	5		0310	1191	112.
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1		0535	68	95.	2		1250	443	225.	3		2005	818	133.	5		0320	1193	112.
1		0540	69	96.	2		1255	444	225.	3		2010	819	133.	5		0325	1194	112.
1		0545	70	97.	2		1300	445	225.	3		2015	820	133.	5		0330	1195	112.
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1		0630	79	105.	2		1345	454	220.	3		2100	829	133.	5		0415	1204	111.
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1		0640	81	106.	2		1355	456	219.	3		2110	831	133.	5		0425	1206	111.
1		0645	82	107.	2		1400	457	219.	3		2115	832	133.	5		0430	1207	111.
1		0650	83	107.	2		1405	458	219.	3		2120	833	133.	5		0435	1208	111.
1		0655	84	108.	2		1410	459	218.	3		2125	834	133.	5		0440	1209	111.
1		0700	85	109.	2		1415	460	218.	3		2130	835	133.	5		0445	1210	111.
1		0705	86	110.	2		1420	461	218.	3		2135	836	133.	5		0450	1211	111.
1		0710	87	111.	2		1425	462	218.	3		2140	837	133.	5		0455	1212	111.
1		0715	88	112.	2		1430	463	218.	3		2145	838	133.	5		0500	1213	111.
1		0720	89	113.	2		1435	464	218.	3		2150	839	133.	5		0505	1214	111.
1		0725	90	114.	2		1440	465	218.	3		2155	840	133.	5		0510	1215	111.
1		0730	91	115.	2		1445	466	218.	3		2200	841	133.	5		0515	1216	111.
1		0735	92	117.	2		1450	467	218.	3		2205	842	132.	5		0520	1217	111.
1		0740	93	118.	2		1455	468	218.	3		2210	843	132.	5		0525	1218	111.
1		0745	94	119.	2		1500	469	218.	3		2215	844	132.	5		0530	1219	111.
1		0750	95	120.	2		1505	470	218.	3		2220	845	132.	5		0535	1220	111.
1		0755	96	121.	2		1510	471	218.	3		2225	846	132.	5		0540	1221	110.
1		0800	97	122.	2		1515	472	218.	3		2230	847	132.	5		0545	1222	110.
1		0805	98	123.	2		1520	473	218.	3		2235	848	132.	5		0550	1223	110.
1		0810	99	124.	2		1525	474	218.	3		2240	849	132.	5		0555	1224	110.
1		0815	100	125.	2		1530	475	218.	3		2245	850	132.	5		0600	1225	110.
1		0820	101	126.	2		1535	476	218.	3		2250	851	132.	5		0605	1226	110.
1		0825	102	127.	2		1540	477	218.	3		2255	852	132.	5		0610	1227	110.
1		0830	103	128.	2		1545	478	218.	3		2300	853	132.	5		0615	1228	110.
1		0835	104	129.	2		1550	479	218.	3		2305	854	132.	5		0620	1229	110.
1		0840	105	130.	2		1555	480	217.	3		2310	855	132.	5		0625	1230	110.

1	0845	106	131.	*	2	1600	481	217.	*	3	2315	856	132.	*	5	0630	1231	110.
1	0850	107	132.	*	2	1605	482	217.	*	3	2320	857	132.	*	5	0635	1232	110.
1	0855	108	133.	*	2	1610	483	217.	*	3	2325	858	132.	*	5	0640	1233	110.
1	0900	109	134.	*	2	1615	484	217.	*	3	2330	859	132.	*	5	0645	1234	110.
1	0905	110	135.	*	2	1620	485	216.	*	3	2335	860	131.	*	5	0650	1235	110.
1	0910	111	137.	*	2	1625	486	215.	*	3	2340	861	131.	*	5	0655	1236	110.
1	0915	112	138.	*	2	1630	487	213.	*	3	2345	862	131.	*	5	0700	1237	110.
1	0920	113	140.	*	2	1635	488	211.	*	3	2350	863	131.	*	5	0705	1238	110.
1	0925	114	143.	*	2	1640	489	209.	*	3	2355	864	131.	*	5	0710	1239	109.
1	0930	115	145.	*	2	1645	490	206.	*	4	0000	865	131.	*	5	0715	1240	109.
1	0935	116	147.	*	2	1650	491	204.	*	4	0005	866	131.	*	5	0720	1241	109.
1	0940	117	150.	*	2	1655	492	201.	*	4	0010	867	131.	*	5	0725	1242	109.
1	0945	118	152.	*	2	1700	493	199.	*	4	0015	868	131.	*	5	0730	1243	109.
1	0950	119	155.	*	2	1705	494	196.	*	4	0020	869	131.	*	5	0735	1244	109.
1	0955	120	158.	*	2	1710	495	193.	*	4	0025	870	131.	*	5	0740	1245	109.
1	1000	121	161.	*	2	1715	496	190.	*	4	0030	871	130.	*	5	0745	1246	109.
1	1005	122	165.	*	2	1720	497	186.	*	4	0035	872	130.	*	5	0750	1247	109.
1	1010	123	168.	*	2	1725	498	181.	*	4	0040	873	130.	*	5	0755	1248	109.
1	1015	124	173.	*	2	1730	499	177.	*	4	0045	874	130.	*	5	0800	1249	109.
1	1020	125	177.	*	2	1735	500	174.	*	4	0050	875	130.	*	5	0805	1250	109.
1	1025	126	181.	*	2	1740	501	170.	*	4	0055	876	130.	*	5	0810	1251	109.
1	1030	127	185.	*	2	1745	502	168.	*	4	0100	877	130.	*	5	0815	1252	109.
1	1035	128	189.	*	2	1750	503	166.	*	4	0105	878	130.	*	5	0820	1253	109.
1	1040	129	193.	*	2	1755	504	164.	*	4	0110	879	130.	*	5	0825	1254	109.
1	1045	130	196.	*	2	1800	505	162.	*	4	0115	880	130.	*	5	0830	1255	109.
1	1050	131	200.	*	2	1805	506	161.	*	4	0120	881	130.	*	5	0835	1256	108.
1	1055	132	204.	*	2	1810	507	159.	*	4	0125	882	130.	*	5	0840	1257	108.
1	1100	133	208.	*	2	1815	508	158.	*	4	0130	883	130.	*	5	0845	1258	108.
1	1105	134	212.	*	2	1820	509	157.	*	4	0135	884	130.	*	5	0850	1259	108.
1	1110	135	216.	*	2	1825	510	155.	*	4	0140	885	130.	*	5	0855	1260	108.
1	1115	136	221.	*	2	1830	511	155.	*	4	0145	886	130.	*	5	0900	1261	108.
1	1120	137	226.	*	2	1835	512	154.	*	4	0150	887	130.	*	5	0905	1262	108.
1	1125	138	231.	*	2	1840	513	154.	*	4	0155	888	130.	*	5	0910	1263	108.
1	1130	139	237.	*	2	1845	514	153.	*	4	0200	889	129.	*	5	0915	1264	108.
1	1135	140	252.	*	2	1850	515	153.	*	4	0205	890	129.	*	5	0920	1265	107.
1	1140	141	301.	*	2	1855	516	153.	*	4	0210	891	129.	*	5	0925	1266	106.
1	1145	142	393.	*	2	1900	517	153.	*	4	0215	892	129.	*	5	0930	1267	105.
1	1150	143	556.	*	2	1905	518	153.	*	4	0220	893	129.	*	5	0935	1268	103.
1	1155	144	849.	*	2	1910	519	153.	*	4	0225	894	129.	*	5	0940	1269	100.
1	1200	145	1492.	*	2	1915	520	153.	*	4	0230	895	129.	*	5	0945	1270	96.
1	1205	146	2563.	*	2	1920	521	153.	*	4	0235	896	129.	*	5	0950	1271	92.
1	1210	147	3294.	*	2	1925	522	153.	*	4	0240	897	129.	*	5	0955	1272	86.
1	1215	148	3245.	*	2	1930	523	153.	*	4	0245	898	129.	*	5	1000	1273	81.
1	1220	149	2791.	*	2	1935	524	152.	*	4	0250	899	129.	*	5	1005	1274	75.
1	1225	150	2270.	*	2	1940	525	152.	*	4	0255	900	129.	*	5	1010	1275	70.
1	1230	151	1901.	*	2	1945	526	151.	*	4	0300	901	129.	*	5	1015	1276	65.
1	1235	152	1654.	*	2	1950	527	150.	*	4	0305	902	129.	*	5	1020	1277	62.
1	1240	153	1467.	*	2	1955	528	149.	*	4	0310	903	129.	*	5	1025	1278	60.
1	1245	154	1323.	*	2	2000	529	148.	*	4	0315	904	129.	*	5	1030	1279	58.
1	1250	155	1217.	*	2	2005	530	147.	*	4	0320	905	129.	*	5	1035	1280	57.
1	1255	156	1143.	*	2	2010	531	145.	*	4	0325	906	129.	*	5	1040	1281	56.
1	1300	157	1089.	*	2	2015	532	144.	*	4	0330	907	129.	*	5	1045	1282	55.
1	1305	158	1051.	*	2	2020	533	143.	*	4	0335	908	129.	*	5	1050	1283	53.
1	1310	159	1024.	*	2	2025	534	142.	*	4	0340	909	129.	*	5	1055	1284	51.
1	1315	160	1003.	*	2	2030	535	142.	*	4	0345	910	129.	*	5	1100	1285	50.
1	1320	161	986.	*	2	2035	536	141.	*	4	0350	911	129.	*	5	1105	1286	48.
1	1325	162	973.	*	2	2040	537	141.	*	4	0355	912	128.	*	5	1110	1287	46.
1	1330	163	963.	*	2	2045	538	140.	*	4	0400	913	128.	*	5	1115	1288	44.
1	1335	164	954.	*	2	2050	539	140.	*	4	0405	914	128.	*	5	1120	1289	42.
1	1340	165	947.	*	2	2055	540	140.	*	4	0410	915	128.	*	5	1125	1290	40.
1	1345	166	941.	*	2	2100	541	140.	*	4	0415	916	128.	*	5	1130	1291	38.
1	1350	167	934.	*	2	2105	542	140.	*	4	0420	917	128.	*	5	1135	1292	36.
1	1355	168	929.	*	2	2110	543	140.	*	4	0425	918	128.	*	5	1140	1293	34.
1	1400	169	924.	*	2	2115	544	139.	*	4	0430	919	128.	*	5	1145	1294	33.
1	1405	170	922.	*	2	2120	545	139.	*	4	0435	920	128.	*	5	1150	1295	31.
1	1410	171	920.	*	2	2125	546	139.	*	4	0440	921	128.	*	5	1155	1296	30.
1	1415	172	918.	*	2	2130	547	139.	*	4	0445	922	128.	*	5	1200	1297	28.
1	1420	173	916.	*	2	2135	548	139.	*	4	0450	923	128.	*	5	1205	1298	27.
1	1425	174	914.	*	2	2140	549	139.	*	4	0455	924	128.	*	5	1210	1299	26.
1	1430	175	912.	*	2	2145	550	139.	*	4	0500	925	128.	*	5	1215	1300	25.
1	1435	176	908.	*	2	2150	551	139.	*	4	0505	926	128.	*	5	1220	1301	24.
1	1440	177	901.	*	2	2155	552	139.	*	4	0510	927	128.	*	5	1225	1302	24.
1	1445	178	891.	*	2	2200	553	139.	*	4	0515	928	128.	*	5	1230	1303	23.
1	1450	179	879.	*	2	2205	554	139.	*	4	0520	929	128.	*	5	1235	1304	23.
1	1455	180	869.	*	2	2210	555	139.	*	4	0525	930	128.	*	5	1240	1305	22.
1	1500	181	862.	*	2	2215	556	139.	*	4	0530	931	128.	*	5	1245	1306	22.
1	1505	182	857.	*	2	2220	557	139.	*	4	0535	932	128.	*	5	1250	1307	21.
1	1510	183	852.	*	2	2225	558	139.	*	4	0540	933	128.	*	5	1255	1308	21.
1	1515	184	848.	*	2	2230	559	139.	*	4	0545	934	128.	*	5	1300	1309	21.
1	1520	185	846.	*	2	2235	560	139.	*	4	0550	935	128.	*	5	1305	1310	21.
1	1525	186	844.	*	2	2240	561	139.	*	4	0555	936	127.	*	5	1310	1311	21.
1	1530	187	842.	*	2	2245	562	139.	*	4	0600	937	127.	*	5	1315	1312	20.
1	1535	188	841.	*	2	2250	563	139.	*	4	0605	938	127.	*	5	1320	1313	20.
1	1540	189	839.	*	2	2255	564	139.	*	4	0610	939	127.	*	5	1325	1314	20.
1	1545	190	838.	*	2	2300	565	139.	*	4	0615	940	127.	*	5	1330	1315	20.
1	1550	191	836.	*	2	2305	566	139.	*	4	0620	941	127.	*	5	1335	1316	20.
1	1555	192	835.	*	2	2310	567	139.	*	4	0625	942	127.	*	5	1340	1317	20.
1	1600	193	834.	*	2	2315	568	139.	*	4	0630	943	127.	*	5	1345	1318	20.
1	1605	194	833.	*	2	2320	569	139.	*	4	0635	944	127.	*	5	1350	1319	20.
1	1610	195	832.	*	2	2325	570	139.	*	4	0640	945	127.	*	5	1355	1320	20.
1	1615	196	831.	*	2	2330	571	139.	*	4	0645	946	127.	*	5	1400	1321	20.
1	1620	197	831.	*	2	2335	572	139.	*	4	0650	947	127.	*	5	1405	1322	20.
1	1625	198	830.	*	2	2340	573	139.	*	4	0655	948	127.	*	5	1410	1323	20.
1	1630	199	829.	*	2	2345	574	139.	*	4	0700	949	127.	*	5	1415	1324	20.
1	1635	200	828.	*	2	2350	575	139.	*	4	0705	950	127.	*	5	1420	1325	20.
1	1640	201	827.	*	2	2355	576	139.	*	4	0710	951	127.	*	5	1425	1326	20.
1	1645	202	826.	*	3	0000	577	139.	*	4	0715	952	127.	*	5	1430	1327	20.
1	1650	203	824.	*	3	0005	578	139.	*	4	0720	953	127.	*	5	1435	1328	20.
1	1655	204	823.	*	3	0010	579	139.	*	4	0725	954	127.	*	5	1440	1329	20.
1	1700	205	822.	*	3	0015	580	139.	*	4	0730	955	127.	*	5	1445	1330	20.
1	1705	206	821.	*	3	0020	581	139.	*	4	0735	956	127.	*	5	1450	1331	20.
1	1710	207	819.	*	3	0025	582	139.	*	4	0740	957	127.	*	5	1455	1332	20.
1	1715	208	818.	*	3	0030	583	139.	*	4	0745	958	127.	*	5	1500	1333	20.
1	1720	209	818.	*	3	0035	584	139.	*	4	0750	959	126.	*	5	1505	1334	20.
1	1725	210	817.	*	3	0040	585	139.	*	4	0755	960	126.	*	5	1510	1335	20.
1	1730	211	816.	*	3	0045	586	139.	*	4	0800	961	126.	*	5	1515	1336	20.
1	1735	212	815.	*	3	0050	587	139.	*	4	0805	962	126.	*	5	1520	1337	20.
1	1740	213	814.	*	3	0055	588	138.	*	4	0810	963	126.	*	5	1525	1338	20.
1	1745	214	813.	*	3	0100	589	138.	*	4	0815	964	126.	*	5	1530	1339	20.
1	1750	215	812.	*	3	0105	590	138.	*	4	0820	965	126.	*	5	1535	1340	20.
1	1755	216	811.	*	3	0110	591	138.	*	4	0825	966	126.	*	5	1540	1341	20.
1	1800	217	810.	*	3	0115	592	138.	*	4	0830	967	126.	*	5	1545	1342	20.
1	1805	218	808.	*	3	0120	593	138.	*	4	0835	968	126.	*	5	1550	1343	20.

1	1810	219	807.	*	3	0125	594	138.	*	4	0840	969	126.	*	5	1555	1344	20.
1	1815	220	805.	*	3	0130	595	138.	*	4	0845	970	126.	*	5	1600	1345	20.
1	1820	221	804.	*	3	0135	596	138.	*	4	0850	971	126.	*	5	1605	1346	20.
1	1825	222	803.	*	3	0140	597	138.	*	4	0855	972	126.	*	5	1610	1347	20.
1	1830	223	802.	*	3	0145	598	138.	*	4	0900	973	126.	*	5	1615	1348	20.
1	1835	224	801.	*	3	0150	599	138.	*	4	0905	974	126.	*	5	1620	1349	20.
1	1840	225	800.	*	3	0155	600	138.	*	4	0910	975	126.	*	5	1625	1350	20.
1	1845	226	798.	*	3	0200	601	138.	*	4	0915	976	125.	*	5	1630	1351	20.
1	1850	227	797.	*	3	0205	602	138.	*	4	0920	977	125.	*	5	1635	1352	20.
1	1855	228	796.	*	3	0210	603	138.	*	4	0925	978	125.	*	5	1640	1353	20.
1	1900	229	795.	*	3	0215	604	138.	*	4	0930	979	125.	*	5	1645	1354	20.
1	1905	230	794.	*	3	0220	605	138.	*	4	0935	980	125.	*	5	1650	1355	20.
1	1910	231	793.	*	3	0225	606	138.	*	4	0940	981	125.	*	5	1655	1356	20.
1	1915	232	792.	*	3	0230	607	138.	*	4	0945	982	125.	*	5	1700	1357	20.
1	1920	233	791.	*	3	0235	608	138.	*	4	0950	983	125.	*	5	1705	1358	20.
1	1925	234	790.	*	3	0240	609	138.	*	4	0955	984	125.	*	5	1710	1359	20.
1	1930	235	789.	*	3	0245	610	138.	*	4	1000	985	125.	*	5	1715	1360	20.
1	1935	236	788.	*	3	0250	611	138.	*	4	1005	986	125.	*	5	1720	1361	20.
1	1940	237	787.	*	3	0255	612	138.	*	4	1010	987	125.	*	5	1725	1362	20.
1	1945	238	786.	*	3	0300	613	138.	*	4	1015	988	125.	*	5	1730	1363	19.
1	1950	239	785.	*	3	0305	614	138.	*	4	1020	989	125.	*	5	1735	1364	19.
1	1955	240	784.	*	3	0310	615	138.	*	4	1025	990	125.	*	5	1740	1365	19.
1	2000	241	783.	*	3	0315	616	138.	*	4	1030	991	125.	*	5	1745	1366	19.
1	2005	242	781.	*	3	0320	617	138.	*	4	1035	992	124.	*	5	1750	1367	19.
1	2010	243	780.	*	3	0325	618	138.	*	4	1040	993	124.	*	5	1755	1368	19.
1	2015	244	778.	*	3	0330	619	138.	*	4	1045	994	124.	*	5	1800	1369	18.
1	2020	245	777.	*	3	0335	620	138.	*	4	1050	995	124.	*	5	1805	1370	17.
1	2025	246	776.	*	3	0340	621	138.	*	4	1055	996	124.	*	5	1810	1371	16.
1	2030	247	775.	*	3	0345	622	138.	*	4	1100	997	124.	*	5	1815	1372	15.
1	2035	248	773.	*	3	0350	623	138.	*	4	1105	998	124.	*	5	1820	1373	14.
1	2040	249	772.	*	3	0355	624	138.	*	4	1110	999	124.	*	5	1825	1374	13.
1	2045	250	771.	*	3	0400	625	138.	*	4	1115	1000	124.	*	5	1830	1375	11.
1	2050	251	770.	*	3	0405	626	138.	*	4	1120	1001	124.	*	5	1835	1376	10.
1	2055	252	769.	*	3	0410	627	138.	*	4	1125	1002	124.	*	5	1840	1377	10.
1	2100	253	768.	*	3	0415	628	138.	*	4	1130	1003	124.	*	5	1845	1378	9.
1	2105	254	767.	*	3	0420	629	138.	*	4	1135	1004	124.	*	5	1850	1379	9.
1	2110	255	766.	*	3	0425	630	138.	*	4	1140	1005	124.	*	5	1855	1380	8.
1	2115	256	765.	*	3	0430	631	138.	*	4	1145	1006	123.	*	5	1900	1381	8.
1	2120	257	764.	*	3	0435	632	138.	*	4	1150	1007	123.	*	5	1905	1382	8.
1	2125	258	763.	*	3	0440	633	138.	*	4	1155	1008	123.	*	5	1910	1383	7.
1	2130	259	762.	*	3	0445	634	138.	*	4	1200	1009	123.	*	5	1915	1384	7.
1	2135	260	761.	*	3	0450	635	138.	*	4	1205	1010	123.	*	5	1920	1385	7.
1	2140	261	760.	*	3	0455	636	138.	*	4	1210	1011	123.	*	5	1925	1386	6.
1	2145	262	759.	*	3	0500	637	138.	*	4	1215	1012	123.	*	5	1930	1387	6.
1	2150	263	758.	*	3	0505	638	138.	*	4	1220	1013	123.	*	5	1935	1388	5.
1	2155	264	757.	*	3	0510	639	138.	*	4	1225	1014	123.	*	5	1940	1389	5.
1	2200	265	756.	*	3	0515	640	138.	*	4	1230	1015	123.	*	5	1945	1390	5.
1	2205	266	755.	*	3	0520	641	138.	*	4	1235	1016	123.	*	5	1950	1391	4.
1	2210	267	754.	*	3	0525	642	138.	*	4	1240	1017	123.	*	5	1955	1392	4.
1	2215	268	753.	*	3	0530	643	138.	*	4	1245	1018	123.	*	5	2000	1393	3.
1	2220	269	752.	*	3	0535	644	137.	*	4	1250	1019	123.	*	5	2005	1394	3.
1	2225	270	751.	*	3	0540	645	137.	*	4	1255	1020	123.	*	5	2010	1395	3.
1	2230	271	750.	*	3	0545	646	137.	*	4	1300	1021	123.	*	5	2015	1396	2.
1	2235	272	749.	*	3	0550	647	137.	*	4	1305	1022	122.	*	5	2020	1397	2.
1	2240	273	748.	*	3	0555	648	137.	*	4	1310	1023	122.	*	5	2025	1398	2.
1	2245	274	747.	*	3	0600	649	137.	*	4	1315	1024	122.	*	5	2030	1399	1.
1	2250	275	746.	*	3	0605	650	137.	*	4	1320	1025	122.	*	5	2035	1400	1.
1	2255	276	746.	*	3	0610	651	137.	*	4	1325	1026	122.	*	5	2040	1401	1.
1	2300	277	744.	*	3	0615	652	137.	*	4	1330	1027	122.	*	5	2045	1402	1.
1	2305	278	743.	*	3	0620	653	137.	*	4	1335	1028	122.	*	5	2050	1403	1.
1	2310	279	741.	*	3	0625	654	137.	*	4	1340	1029	122.	*	5	2055	1404	1.
1	2315	280	740.	*	3	0630	655	137.	*	4	1345	1030	122.	*	5	2100	1405	0.
1	2320	281	738.	*	3	0635	656	137.	*	4	1350	1031	122.	*	5	2105	1406	0.
1	2325	282	735.	*	3	0640	657	137.	*	4	1355	1032	122.	*	5	2110	1407	0.
1	2330	283	733.	*	3	0645	658	137.	*	4	1400	1033	122.	*	5	2115	1408	0.
1	2335	284	731.	*	3	0650	659	137.	*	4	1405	1034	122.	*	5	2120	1409	0.
1	2340	285	729.	*	3	0655	660	137.	*	4	1410	1035	122.	*	5	2125	1410	0.
1	2345	286	727.	*	3	0700	661	137.	*	4	1415	1036	122.	*	5	2130	1411	0.
1	2350	287	724.	*	3	0705	662	137.	*	4	1420	1037	122.	*	5	2135	1412	0.
1	2355	288	722.	*	3	0710	663	137.	*	4	1425	1038	122.	*	5	2140	1413	0.
2	0000	289	719.	*	3	0715	664	137.	*	4	1430	1039	121.	*	5	2145	1414	0.
2	0005	290	716.	*	3	0720	665	137.	*	4	1435	1040	121.	*	5	2150	1415	0.
2	0010	291	713.	*	3	0725	666	137.	*	4	1440	1041	121.	*	5	2155	1416	0.
2	0015	292	710.	*	3	0730	667	137.	*	4	1445	1042	121.	*	5	2200	1417	0.
2	0020	293	706.	*	3	0735	668	137.	*	4	1450	1043	121.	*	5	2205	1418	0.
2	0025	294	702.	*	3	0740	669	137.	*	4	1455	1044	121.	*	5	2210	1419	0.
2	0030	295	699.	*	3	0745	670	137.	*	4	1500	1045	121.	*	5	2215	1420	0.
2	0035	296	696.	*	3	0750	671	137.	*	4	1505	1046	121.	*	5	2220	1421	0.
2	0040	297	693.	*	3	0755	672	137.	*	4	1510	1047	121.	*	5	2225	1422	0.
2	0045	298	690.	*	3	0800	673	137.	*	4	1515	1048	121.	*	5	2230	1423	0.
2	0050	299	687.	*	3	0805	674	137.	*	4	1520	1049	121.	*	5	2235	1424	0.
2	0055	300	685.	*	3	0810	675	137.	*	4	1525	1050	121.	*	5	2240	1425	0.
2	0100	301	682.	*	3	0815	676	137.	*	4	1530	1051	121.	*	5	2245	1426	0.
2	0105	302	679.	*	3	0820	677	137.	*	4	1535	1052	121.	*	5	2250	1427	0.
2	0110	303	676.	*	3	0825	678	137.	*	4	1540	1053	121.	*	5	2255	1428	0.
2	0115	304	674.	*	3	0830	679	137.	*	4	1545	1054	121.	*	5	2300	1429	0.
2	0120	305	671.	*	3	0835	680	137.	*	4	1550	1055	121.	*	5	2305	1430	0.
2	0125	306	668.	*	3	0840	681	137.	*	4	1555	1056	120.	*	5	2310	1431	0.
2	0130	307	665.	*	3	0845	682	137.	*	4	1600	1057	120.	*	5	2315	1432	0.
2	0135	308	657.	*	3	0850	683	137.	*	4	1605	1058	120.	*	5	2320	1433	0.
2	0140	309	640.	*	3	0855	684	137.	*	4	1610	1059	120.	*	5	2325	1434	0.
2	0145	310	607.	*	3	0900	685	137.	*	4	1615	1060	120.	*	5	2330	1435	0.
2	0150	311	560.	*	3	0905	686	137.	*	4	1620	1061	120.	*	5	2335	1436	0.
2	0155	312	508.	*	3	0910	687	137.	*	4	1625	1062	120.	*	5	2340	1437	0.
2	0200	313	460.	*	3	0915	688	137.	*	4	1630	1063	120.	*	5	2345	1438	0.
2	0205	314	419.	*	3	0920	689	137.	*	4	1635	1064	120.	*	5	2350	1439	0.
2	0210	315	388.	*	3	0925	690	137.	*	4	1640	1065	120.	*	5	2355	1440	0.
2	0215	316	367.	*	3	0930	691	137.	*	4	1645	1066	120.	*	6	0000	1441	0.
2	0220	317	353.	*	3	0935	692	137.	*	4	1650	1067	120.	*	6	0005	1442	0.
2	0225	318	342.	*	3	0940	693	137.	*	4	1655	1068	120.	*	6	0010	1443	0.
2	0230	319	334.	*	3	0945	694	137.	*	4	1700	1069	120.	*	6	0015	1444	0.
2	0235	320	327.	*	3	0950	695	137.	*	4	1705	1070	120.	*	6	0020	1445	0.
2	0240	321	322.	*	3	0955	696	137.	*	4	1710	1071	120.	*	6	0025	1446	0.
2	0245	322	319.	*	3	1000	697	137.	*	4	1715	1072	119.	*	6	0030	1447	0.
2	0250	323	316.	*	3	1005	698	137.	*	4	1720	1073	119.	*	6	0035	1448	0.
2	0255	324	314.	*	3	1010	699	136.	*	4	1725	1074	119.	*	6	0040	1449	0.
2	0300	325	313.	*	3	1015	700	136.	*	4	1730	1075	119.	*	6	0045	1450	0.
2	0305	326	311.	*	3	1020	701	136.	*	4	1735	1076	119.	*	6	0050	1451	0.
2	0310	327	310.	*	3	1025	702	136.	*	4	1740	1077	119.	*	6	0055	1452	0.
2	0315	328	308.	*	3	1030	703	136.	*	4	1745	1078	119.	*	6	0100	1453	0.
2	0320	329	304.	*	3	1035	704	136.	*	4	1750	1079	119.	*	6	0105	1454	0.
2	0325	330	296.	*	3	1040	705	136.	*	4	1755	1080	119.	*	6	0110	1455	0.
2	0330	331	286.	*	3	1045	706	136.	*	4	1800	1081	119.	*	6	0115	1456	0.

2	0335	332	274.	*	3	1050	707	136.	*	4	1805	1082	119.	*	6	0120	1457	0.
2	0340	333	263.	*	3	1055	708	136.	*	4	1810	1083	119.	*	6	0125	1458	0.
2	0345	334	254.	*	3	1100	709	136.	*	4	1815	1084	119.	*	6	0130	1459	0.
2	0350	335	247.	*	3	1105	710	136.	*	4	1820	1085	119.	*	6	0135	1460	0.
2	0355	336	243.	*	3	1110	711	136.	*	4	1825	1086	119.	*	6	0140	1461	0.
2	0400	337	240.	*	3	1115	712	136.	*	4	1830	1087	119.	*	6	0145	1462	0.
2	0405	338	238.	*	3	1120	713	136.	*	4	1835	1088	118.	*	6	0150	1463	0.
2	0410	339	236.	*	3	1125	714	136.	*	4	1840	1089	118.	*	6	0155	1464	0.
2	0415	340	234.	*	3	1130	715	136.	*	4	1845	1090	118.	*	6	0200	1465	0.
2	0420	341	233.	*	3	1135	716	136.	*	4	1850	1091	118.	*	6	0205	1466	0.
2	0425	342	233.	*	3	1140	717	136.	*	4	1855	1092	118.	*	6	0210	1467	0.
2	0430	343	232.	*	3	1145	718	136.	*	4	1900	1093	118.	*	6	0215	1468	0.
2	0435	344	232.	*	3	1150	719	136.	*	4	1905	1094	118.	*	6	0220	1469	0.
2	0440	345	232.	*	3	1155	720	136.	*	4	1910	1095	118.	*	6	0225	1470	0.
2	0445	346	232.	*	3	1200	721	136.	*	4	1915	1096	118.	*	6	0230	1471	0.
2	0450	347	232.	*	3	1205	722	136.	*	4	1920	1097	118.	*	6	0235	1472	0.
2	0455	348	232.	*	3	1210	723	136.	*	4	1925	1098	118.	*	6	0240	1473	0.
2	0500	349	232.	*	3	1215	724	136.	*	4	1930	1099	118.	*	6	0245	1474	0.
2	0505	350	232.	*	3	1220	725	136.	*	4	1935	1100	118.	*	6	0250	1475	0.
2	0510	351	232.	*	3	1225	726	136.	*	4	1940	1101	118.	*	6	0255	1476	0.
2	0515	352	232.	*	3	1230	727	136.	*	4	1945	1102	118.	*	6	0300	1477	0.
2	0520	353	231.	*	3	1235	728	136.	*	4	1950	1103	118.	*	6	0305	1478	0.
2	0525	354	231.	*	3	1240	729	136.	*	4	1955	1104	117.	*	6	0310	1479	0.
2	0530	355	231.	*	3	1245	730	136.	*	4	2000	1105	117.	*	6	0315	1480	0.
2	0535	356	231.	*	3	1250	731	136.	*	4	2005	1106	117.	*	6	0320	1481	0.
2	0540	357	231.	*	3	1255	732	136.	*	4	2010	1107	117.	*	6	0325	1482	0.
2	0545	358	231.	*	3	1300	733	136.	*	4	2015	1108	117.	*	6	0330	1483	0.
2	0550	359	231.	*	3	1305	734	136.	*	4	2020	1109	117.	*	6	0335	1484	0.
2	0555	360	231.	*	3	1310	735	136.	*	4	2025	1110	117.	*	6	0340	1485	0.
2	0600	361	231.	*	3	1315	736	136.	*	4	2030	1111	117.	*	6	0345	1486	0.
2	0605	362	231.	*	3	1320	737	136.	*	4	2035	1112	117.	*	6	0350	1487	0.
2	0610	363	231.	*	3	1325	738	136.	*	4	2040	1113	117.	*	6	0355	1488	0.
2	0615	364	231.	*	3	1330	739	136.	*	4	2045	1114	117.	*	6	0400	1489	0.
2	0620	365	231.	*	3	1335	740	136.	*	4	2050	1115	117.	*	6	0405	1490	0.
2	0625	366	231.	*	3	1340	741	136.	*	4	2055	1116	117.	*	6	0410	1491	0.
2	0630	367	231.	*	3	1345	742	136.	*	4	2100	1117	117.	*	6	0415	1492	0.
2	0635	368	231.	*	3	1350	743	136.	*	4	2105	1118	117.	*	6	0420	1493	0.
2	0640	369	231.	*	3	1355	744	136.	*	4	2110	1119	117.	*	6	0425	1494	0.
2	0645	370	231.	*	3	1400	745	136.	*	4	2115	1120	116.	*	6	0430	1495	0.
2	0650	371	231.	*	3	1405	746	136.	*	4	2120	1121	116.	*	6	0435	1496	0.
2	0655	372	231.	*	3	1410	747	136.	*	4	2125	1122	116.	*	6	0440	1497	0.
2	0700	373	231.	*	3	1415	748	136.	*	4	2130	1123	116.	*	6	0445	1498	0.
2	0705	374	231.	*	3	1420	749	136.	*	4	2135	1124	116.	*	6	0450	1499	0.
2	0710	375	231.	*	3	1425	750	135.	*	4	2140	1125	116.	*	6	0455	1500	0.
				*					*					*				

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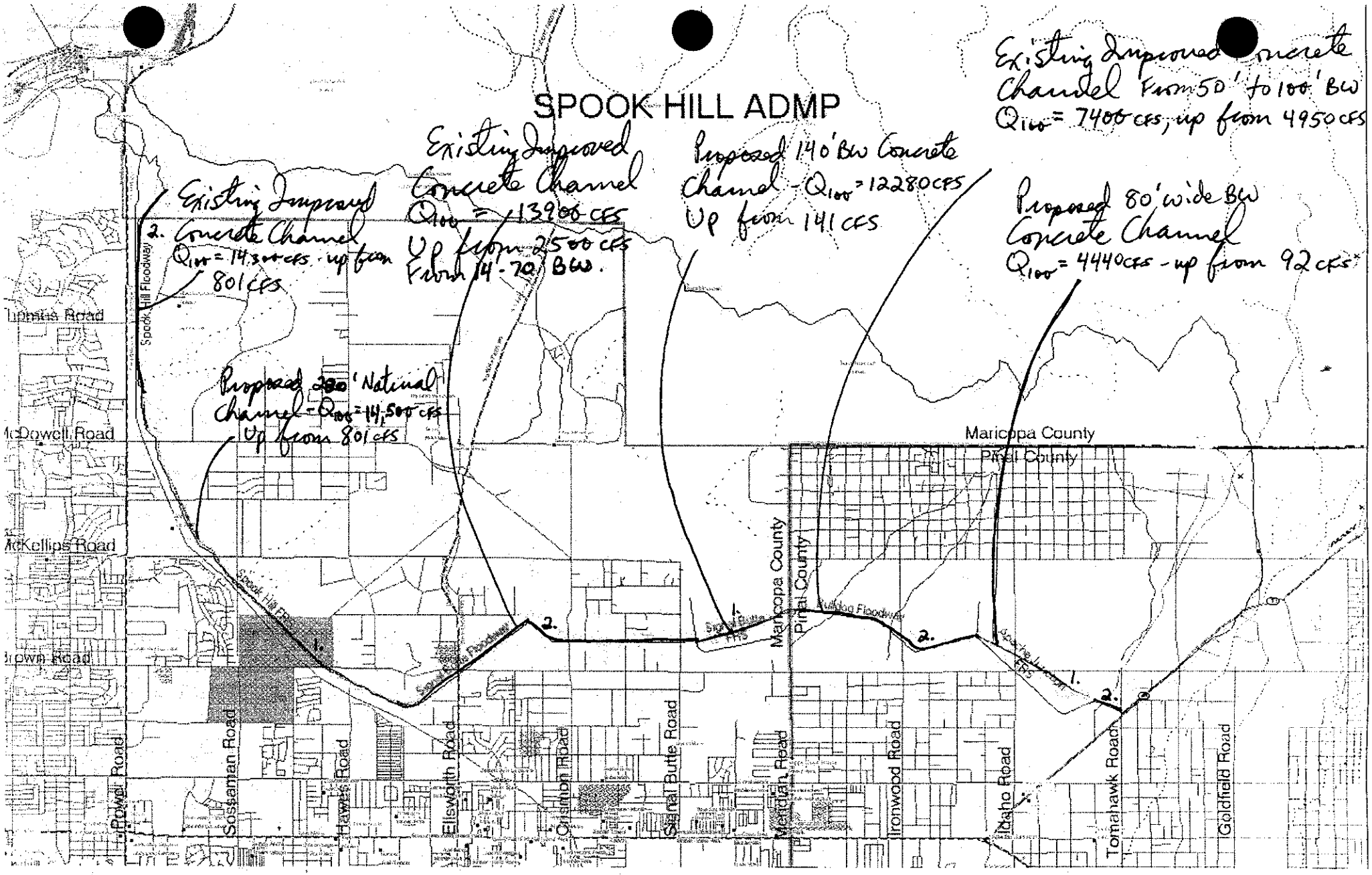
PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	124.92-HR
+ (CFS)	(HR)	(CFS)				
+ 3294.	12.17		1068.	623.	307.	207.
		(INCHES)	3.498	8.161	12.041	14.104
		(AC-FT)	530.	1236.	1824.	2136.

CUMULATIVE AREA = 2.84 SQ MI



1. Proposed Channel
2. Existing Improved Channel

HEC-1 Existing Conditions 100-Year, 24hr Storm
Proposed Channels for FRSs, Improved Existing Channels

5

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1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)*
*            JUN   1998             *
*          VERSION 4.1              *
*                                   *
*  RUN DATE   05JAN00  TIME  16:33:12*
*                                   *
*************************************
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*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS   *
*    HYDROLOGIC ENGINEERING CENTER  *
*          609 SECOND STREET        *
*       DAVIS, CALIFORNIA 95616     *
*          (916) 756-1104           *
*                                   *
*************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX
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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

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1                                        HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS, AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL, SIGNAL
 10           ID   BUTTE, AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE: SPHEX2.DAT
 13           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
 14           ID
 15           ID
 16           ID   REVISED MODEL BASED ON BYPASSING OF FRS STRUCTURES
 17           ID   AND INCREASING THE EXISTING CHANNELS WIDTHS - MAINTAINING THE SAME DEPTHS
 18           ID   REVISED ON 11/9/99 BY JCD; FILE: SPHEX3.DAT
 19           ID
 20           ID   MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
 21           ID   DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
 22           ID   BY: JCD; 1/4/2000            FILE: SPHEX2RV.DAT
 23           ID
 24           ID   MODEL UPDATE BASED ON BYPASSING OF FRS STRUCTURES AND INCREASING
 25           ID   THE EXISTING CHANNEL WIDTHS WHILE MAINTAINING THE SAME DEPTHS
 26           ID   FILE: SPHEX3RV.DAT           1/4/2000
 27           ID
              *DIAGRAM
 28           IT       2                    1500
 29           IO       3
 30           IN      15
 31           JD    3.81    0.01
 32           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 33           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 34           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 35           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 36           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 37           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 38           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 39           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 40           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 41           PC    .983    .986    .989    .992    .995    .998   1.000
 42           JD    3.58   10.00
 43           JD    3.43   30.00
 44           JD    3.28   60.00
 45           JD    3.22   90.00
 46           JD    3.18  120.00
 47           JD    3.14  150.00
 48           JD    3.05  300.00
 49           JD    2.97  500.00
1                                        HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 50           KK      20
 51           KM   SUB-BASIN 20
 52           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 53           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
 54           KM     L = 4.58  Kb = .037  Adj. Slope =  118.0
 55           BA   1.821
 56           LG    .350    .360   6.600    .140   7.000
 57           UC    .804    .697

 58           KK      40
 59           KM   SUB-BASIN 40
 60           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 61           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 62           KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 63           BA   2.233
 64           LG    .340    .340   4.900    .280   5.000
 65           UC    .496    .264

 66           KK      60
 67           KM   SUB-BASIN 60
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 68          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 69          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 70          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 71          BA   1.746
 72          LG    .330    .350   5.800    .190   9.000
 73          UC    .596    .477

 74          KK     60C
 75          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 76          HC       3

 77          KK     60R
 78          KM   ROUTE FLOW PAST APACHE JUNCTION FRS
 79          RS       4    FLOW      -1
 80          RC    .025    .016    .025    6600   .0025
 81          RX       0       4       8     8.1    88.1    88.2   102.2   106.2
 82          RY     4.5     2.5     2.5       0       0     2.5     2.5     4.5

 83          KK     R60
 84          KM   ROUTE FLOW FROM APACHE JUNCTION FRS TO START OF BULLDOG FLOODWAY
 85          RS       1    FLOW      -1
 86          RC    .016    .016    .016    2850    .012
 87          RX       0       1       2     2.1    82.1    82.2      83      84
 88          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             *      0       1       2     2.1     5.6     5.7       6       7
             *    3.5     3.5     3.5       0       0     3.5     3.5     3.5

 89          KK    RR60
 90          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
 91          RS       1    FLOW      -1
 92          RC    .016    .016    .016    3500    .005
 93          RX       0       1       2     2.1   102.1   102.2     103     104
 94          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             *      0       1       2     2.1     7.1     7.2       8       9
             *    3.5     3.5     3.5       0       0     3.5     3.5     3.5
             *   SR60
             *  APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
             *  OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
             *  EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
             *  STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
             *      1    STOR       0
             *      0     .03     100     200     300     400
             *      0      71      81      87    91.5      94
             *   83.5    93.5      96    97.7      99   99.77
1                                        HEC-1 INPUT                                                    PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 95          KK      80
 96          KM   SUB-BASIN 80
 97          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 98          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
 99          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
100          BA   1.475
101          LG    .330    .330   5.600    .210   4.000
102          UC    .433    .259

103          KK     80C
104          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
105          HC       2   1.475

106          KK     R80
107          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
108          RS       1    FLOW      -1
109          RC    .016    .016    .016    1200    .005
110          RX       0       1       2     2.1   102.1   102.2     103     104
111          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             *      0       1       2     2.1    37.1    37.2      38      39
             *    4.5     4.5     4.5       0       0     4.5     4.5     4.5

112          KK     100
113          KM   SUB-BASIN 100
114          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
115          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
116          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
117          BA    .484
118          LG    .320    .290   5.100    .260   3.000
119          UC    .533    .473

120          KK    100C
121          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
122          HC       2

123          KK    R100
124          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
125          RS       1    FLOW      -1
126          RC    .016    .016    .016     940    .005
127          RX       0       1       2     2.1   102.1   102.2     103     104
128          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             *      0       1       2     2.1    52.1    52.2      53      54
             *    4.5     4.5     4.5       0       0     4.5     4.5     4.5

129          KK     120
130          KM   SUB-BASIN 120
131          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
132          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
133          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
134          BA   2.202
135          LG    .330    .280   6.800    .130  11.000
136          UC    .429    .226
1                                        HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


137          KK    120C
138          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
139          HC       2

140          KK    R120
141          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
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142          RS       1    FLOW      -1
143          RC    .025    .016    .025    2100    .005
144          RX       0       6      10    10.1   110.1   110.2   124.2   128.2
145          RY       8       5       5       0       0       5       5       8
             *      0       6      10    10.1    60.1    60.2    74.2    80.2
             *      8       5       5       0       0       5       5       8

146          KK     140
147          KM   SUB-BASIN 140
148          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
149          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
150          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
151          BA    .598
152          LG    .310    .280   4.200    .440   5.000
153          UC    .421    .278

154          KK     160
155          KM   SUB-BASIN 160
156          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
157          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
158          KM     L = 3.18  Kb = .043  Adj. Slope =  299.2
159          BA    .777
160          LG    .340    .340   4.600    .330   5.000
161          UC    .479    .476

162          KK     180
163          KM   SUB-BASIN 180
164          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
165          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
166          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
167          BA   1.000
168          LG    .350    .350   4.150    .430    .000
169          UC    .571    .403

170          KK    180C
171          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
172          HC       4

173          KK     240
174          KM   SUB-BASIN 240
175          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
176          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
177          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
178          BA   1.036
179          LG    .350    .350   4.600    .330   2.000
180          UC    .500    .458
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

181          KK    R240
182          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
183          KM   PASS MOUNTAIN DIVERSION
184          RS       2    FLOW      -1
185          RC    .035    .025    .035    2100    .005
186          RX       0       1       2      11      41      50      51      52
187          RY       3       3       3       0       0       3       3       3

188          KK     220
189          KM   SUB-BASIN 220
190          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
191          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
192          KM     L = 3.14  Kb = .040  Adj. Slope =  302.1
193          BA   1.252
194          LG    .350    .350   7.000    .120   3.000
195          UC    .425    .315
             * DDM   ***** Preserved *****

196          KK    220C
197          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
198          HC       2
             * DDM   ***** Preserved *****

199          KK    R220
200          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
201          KM   PASS MOUNTAIN DIVERSION
202          RS       1    FLOW      -1
203          RC    .035    .025    .035    1900    .005
204          RX       0       1       2      14      64      76      77      78
205          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

206          KK     200
207          KM   SUB-BASIN 200
208          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
209          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
210          KM     L = 3.28  Kb = .038  Adj. Slope =  299.9
211          BA   1.811
212          LG    .350    .390   5.800    .190  11.000
213          UC    .433    .270
             * DDM   ***** Preserved *****

214          KK    200C
215          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
216          HC       2
             * DDM   ***** Preserved *****

217          KK    R200
218          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
219          RS       1    FLOW      -1
220          RC    .035    .025    .035    1300    .005
221          RX       0       1       2      14     114     126     127     128
222          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

223          KK    C180
224          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *      1       2
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225          HC       2
             * DDM   ***** Preserved *****

226          KK    180R
227          KM   ROUTE FLOW THROUGH SIGNAL BUTTE FRS
228          RS       1    FLOW      -1
229          RC    .016    .016    .016    4400    .0034
230          RX       0       1       2     2.1   142.1   142.2     143     144
231          RY     5.5     5.5     5.5       0       0     5.5     5.5     5.5

232          KK    R180
233          KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
234          RS       1    FLOW      -1
235          RC    .035    .025    .035    1500    .003
236          RX       0       1       2    22.6   122.6   142.6     143     144
237          RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
             *      0       1       2    22.6    38.6    59.2      60      61
             *    9.3     9.3     9.3       0       0     9.3     9.3     9.3
             *  SR180
             *  SIGNAL BUTTE FRS DATED 1/28/85
             *  OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
             *  EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
             *  STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
             *      1    STOR       0
             *      0     .04     250     500     750    1060
             *      0   106.5   125.5   137.5     146     160
             *     90     101   104.5     107     109   112.4
             * DDM   ***** Updated *****

238          KK     260
239          KM   SUB-BASIN 260
240          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
241          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
242          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
243          BA    .267
244          LG    .300    .170   6.800    .160  15.000
245          UC    .363    .215
             * DDM   ***** Preserved *****

246          KK    260C
247          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
248          HC       2    .267

249          KK    R260
250          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
251          RS       1    FLOW      -1
252          RC    .035    .025    .035    2300    .003
253          RX       0       1       2    23.4   123.4   143.4     144     145
254          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             *      0       1       2    23.4    43.4    64.8      65      66
             *    9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

255          KK     280
256          KM   SUB-BASIN 280
257          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
258          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
259          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
260          BA    .304
261          LG    .300    .250   5.300    .290  15.000
262          UC    .333    .175
             * DDM   ***** Preserved *****

263          KK    280C
264          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
265          HC       2

266          KK    R280
267          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
268          RS       1    FLOW      -1
269          RC    .035    .025    .035    2500    .003
270          RX       0       1       2    23.4   123.4   143.4     144     145
271          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             *      0       1       2    23.4    43.4    64.8      65      66
             *    9.7     9.7     9.7       0       0     9.7     9.7     9.7

272          KK     300
273          KM   SUB-BASIN 300
274          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
275          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
276          KM     L = 2.28  Kb = .041  Adj. Slope =  127.0
277          BA    .988
278          LG    .340    .320   4.500    .370   7.000
279          UC    .538    .362
             * DDM   ***** Preserved *****

280          KK    300C
281          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
282          HC       2

283          KK    R300
284          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
285          RS       1    FLOW      -1
286          RC    .035    .025    .035    2200    .003
287          RX       0       1       2    23.4   143.4   163.4     164     165
288          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             *      0       1       2    23.4    55.4    76.8      77      78
             *    9.7     9.7     9.7       0       0     9.7     9.7     9.7

289          KK   RR300
290          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
291          RS       1    FLOW      -1
292          RC    .016    .016    .016    6050   .0146
293          RX       0       1       2     2.1    72.1    72.2      73      74
294          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
             *      0       1       2     2.1    16.1    16.2      17      18
             *    7.5     7.5     7.5       0       0     7.5     7.5     7.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 295          KK     320
 296          KM   SUB-BASIN 320
 297          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 298          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
 299          KM     L = 4.67  Kb = .039  Adj. Slope =  248.6
              *      1       2
 300          BA   1.527
 301          LG    .330    .320   4.400    .390   9.000
 302          UC    .658    .627

 303          KK    D320
 304          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 305          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
 306          KM   SIERRA HEIGHTS, FALCON RIDGE, & MARBLE CREEK
 307          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
              *      1
 308          DT   BS320   12.27
 309          DI       0   10000
 310          DQ       0   10000

 311          KK   RT320
 312          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
 313          DR   BS320

 314          KK   SR320
 315          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 316          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
              *      1
 317          RS       1    STOR       0
 318          SV       0     .01    12.3
 319          SQ       0     4.2     4.2

 320          KK    C320
 321          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 322          HC       3

 323          KK    R320
 324          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
 325          RS       5    FLOW      -1
 326          RC    .025    .025    .025    6800   .0016
 327          RX       0       1       2      30     250     278     279     280
 328          RY       7       7       7       0       0       7       7       7
              *      0       1       2      30      90     118     119     120
              *      7       7       7       0       0       7       7       7

 329          KK     340
 330          KM   SUB-BASIN 340
 331          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 332          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
 333          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
 334          BA   1.449
 335          LG    .280    .280   4.150    .520  21.000
 336          UC    .512    .287
                                        HEC-1 INPUT                                          PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 337          KK    D340
 338          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 339          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
 340          KM   GRANDVIEW ESTATES, BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
 341          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
              *      1
 342          DT   BS340      56
 343          DI       0   10000
 344          DQ       0   10000

 345          KK   RT340
 346          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
 347          DR   BS340

 348          KK   SR340
 349          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 350          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
              *      1
 351          RS       1    STOR       0
 352          SV       0     .01      56
 353          SQ       0    18.9    18.9

 354          KK    C340
 355          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 356          HC       3

 357          KK    R340
 358          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
 359          RS       1    FLOW      -1
 360          RC    .025    .025    .025    2000   .0016
 361          RX       0       1       2      30     270     298     299     300
 362          RY       7       7       7       0       0       7       7       7
              *      0       1       2      30     114     142     143     144
              *      7       7       7       0       0       7       7       7

 363          KK     350
 364          KM   SUB-BASIN 350
 365          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 366          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
 367          KM     L = 2.22  Kb = .042  Adj. Slope =  315.0
 368          BA    .970
 369          LG    .350    .350   4.550    .340   4.000
 370          UC    .367    .234

 371          KK   RR350
 372          KM   FROM SUB-BASIN 350 TO SUB-BASIN 360
 373          RS      12    FLOW      -1
 374          RC     .05    .035     .05   25600    .049
 375          RX    1000    1010    1020    1036    1041    1057    1067    1077
 376          RY      15    14.5      14      10      10      14    14.5      15
1                                       HEC-1 INPUT                                          PAGE 10
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 377          KK     360
 378          KM   SUB-BASIN 360
 379          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 380          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
 381          KM     L = 4.84  Kb = .042  Adj. Slope =  257.5
 382          BA   1.329
 383          LG    .300    .300   4.250    .460  12.000
 384          UC    .712    .763
              * DDM   ***** Preserved *****

 385          KK    D360
 386          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 387          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
 388          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
              *      1
 389          DT   BS360    28.6
 390          DI       0   10000
 391          DQ       0   10000

 392          KK   RT360
 393          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
 394          DR   BS360

 395          KK   SR360
 396          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 397          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
 398          RS       1    STOR       0
 399          SV       0     .01    28.6
 400          SQ       0     9.6     9.6

 401          KK    360C
 402          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 403          HC       4

 404          KK    R360
 405          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
 406          RS       2    FLOW      -1
 407          RC    .025    .025    .025    2600   .0016
 408          RX       0       1       2      30     300     328     329     330
 409          RY       7       7       7       0       0       7       7       7
              *      0       1       2      30     130     158     159     160
              *      7       7       7       0       0       7       7       7

 410          KK     380
 411          KM   SUB-BASIN 380
 412          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 413          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 414          KM     L = 5.05  Kb = .041  Adj. Slope =  255.8
 415          BA   1.638
 416          LG    .320    .320   4.400    .420   8.000
 417          UC    .733    .723
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 418          KK    D380
 419          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 420          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
 421          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
              *      1
 422          DT   BS380    28.6
 423          DI       0   10000
 424          DQ       0   10000

 425          KK   RT380
 426          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
 427          DR   BS380

 428          KK   SR380
 429          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 430          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
 431          RS       1    STOR       0
 432          SV       0     .01    28.6
 433          SQ       0     9.6     9.6

 434          KK    380C
 435          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 436          HC       3

 437          KK    R380
 438          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
 439          RS       2    FLOW      -1
 440          RC    .025    .025    .025    4000   .0016
 441          RX       0       1       2      30     300     328     329     330
 442          RY       7       7       7       0       0       7       7       7
              *      0       1       2      30     150     178     179     180
              *      7       7       7       0       0       7       7       7

 443          KK     390
 444          KM   SUB-BASIN 390
 445          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 446          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
 447          KM     L = 2.82  Kb = .041  Adj. Slope =  298.1
 448          BA   1.089
 449          LG    .330    .330   5.200    .260  14.000
 450          UC     .41    .306

 451          KK    D390
 452          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 453          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
 454          KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
              *      1
 455          DT   BS390     3.5
 456          DI       0   10000
 457          DQ       0   10000
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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458          KK   RT390
459          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
460          DR   BS390

461          KK   SR390
462          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
463          KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
464          RS       1    STOR       0
465          SV      .0     .01     3.5
466          SQ       0     1.2     1.2

467          KK    390C
468          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
469          HC       2

470          KK   RR390
471          KM   FROM SUB-BASIN 390 TO SUB-BASIN 400
472          RS       6    FLOW      -1
473          RC     .05    .035     .05   14890    .056
474          RX    1000    1010    1020    1036    1041    1057    1067    1077
475          RY      15    14.5      14      10      10      14    14.5      15

476          KK     400
477          KM   SUB-BASIN 400
478          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
479          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
480          KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
481          BA    .616
482          LG    .320    .320   3.130    .930   6.000
483          UC    .592    .405

484          KK    400C
485          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
486          HC       3

487          KK    R400
488          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
489          RS       3    FLOW      -1
490          RC    .025    .025    .025    3800   .0016
491          RX       0       1       2      30     310     338     339     340
492          RY       7       7       7       0       0       7       7       7
             *        0       1       2      30     180     208     209     210
             *        7       7       7       0       0       7       7       7

493          KK     420
494          KM   SUB-BASIN 420
495          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
496          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
497          KM     L = 1.91  Kb = .042  Adj. Slope =  120.0
498          BA    .849
499          LG    .310    .270   3.880    .580  12.000
500          UC    .512    .325
             * DDM    ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

501          KK    D420
502          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
503          KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
504          KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
             *      1
505          DT   BS420   38.55
506          DI       0   10000
507          DQ       0   10000

508          KK   RT420
509          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
510          DR   BS420

511          KK   SR420
512          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
513          KM   38.55 ACRE-FEETx43560/36x3600=13cfs
514          RS       1    STOR       0
515          SV       0     .01   38.55
516          SQ       0      13      13

517          KK    420C
518          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
519          HC       3

520          KK    R420
521          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
522          RS       2    FLOW      -1
523          RC    .025    .025    .025    2900   .0016
524          RX       0       1       2      30     310     338     339     340
525          RY       7       7       7       0       0       7       7       7
             * DDM    ***** Updated *****

526          KK     440
527          KM   SUB-BASIN 440
528          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
529          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
530          KM     L =  .40  Kb = .039  Adj. Slope =  315.0
531          BA    .080
532          LG    .190    .380   6.400    .140  13.000
533          UC    .129    .077

534          KK     R70
535          KM        ROUTE FLOW FROM SUB-BASIN 60 TO C108
536          RS       1    FLOW      -1
537          RC     .05    .035     .05    2250     .08
538          RX    1000    1025    1050    1070    1075    1095    1120    1145
539          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM    ***** Updated *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

540          KK     441
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541          KM   SUB-BASIN 441
542          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
543          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
544          KM     L =  .28  Kb = .069  Adj. Slope =  315.0
545          BA    .010
546          LG    .300    .250   5.600    .220   5.000
547          UC    .150    .225
             * DDM   ***** Preserved *****

548          KK    C108
549          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60 AND 61A
550          HC       2
             * DDM   ***** Preserved *****

551          KK    DIV4
552          KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
             *      1
553          DT   SPLIT
554          DI       0      14      40      82     120     154     180
555          DQ       0       7      20      41      60      77      90
             * DDM   ***** Preserved *****

556          KK    R108
557          KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
558          RS       2    FLOW      -1
559          RC     .05    .035     .05    3200      .1
560          RX    1000    1025    1050    1070    1075    1095    1120    1145
561          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

562          KK     442
563          KM   SUB-BASIN 442
564          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
565          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
566          KM     L =  .83  Kb = .055  Adj. Slope =  274.2
567          BA    .100
568          LG    .300    .270   3.290    .770   5.000
569          UC    .258    .264
             * DDM   ***** Preserved *****

570          KK     C67
571          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60, 61 AND 67
572          HC       2
             * DDM   ***** Preserved *****

573          KK    DIV6
574          KM        OFFLINE BASIN WITH 75 FOOT WEIR SET AT 3 FEET ABOVE BOTTOM OF CHANNEL
575          KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
             *      1
576          DT  BASIN4
577          DI       0      10      32      56   136.6   276.5     454   662.8
578          DQ       0       0       0       0    71.6   202.5     372   572.8
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

579          KK  RTDIV6
580          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
581          DR  BASIN4

582          KK  RFDIV6
583          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
584          KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
             *      1
585          RS       1    STOR       0
586          SV       0     .01     3.3
587          SQ       0     1.1     1.1

588          KK   CDIV6
589          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
590          HC       2

591          KK     443
592          KM   SUB-BASIN 443
593          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
594          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
595          KM     L =  .71  Kb = .050  Adj. Slope =  315.0
596          BA    .080
597          LG    .250    .190   8.000    .080  10.000
598          UC    .196    .194

599          KK   DIV66
600          KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
601          KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
602          DT   WSH66
603          DI       0      78     100     200
604          DQ       0      78      78      78

605          KK    R113
606          KM        ROUTE FLOW FROM C113 TO C114
607          RS       1    FLOW      -1
608          RC    .019    .019    .019    1300    .029
609          RX    1000    1004    1008    1012    1018    1022    1026    1030
610          RY      17   15.33   12.67      10      10   12.67   15.33      17

611          KK    C114
612          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
613          HC       2

614          KK     444
615          KM   SUB-BASIN 444
616          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
617          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
618          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
619          BA    .040
620          LG    .130    .350   4.450    .320   1.000
621          UC    .112    .084
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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622          KK     R58
623          KM        ROUTE FLOW FROM SUB-BASIN 58 TO C107
624          RS       2    FLOW      -1
625          RC     .05    .035     .05    2370   .0516
626          RX    1000    1010    1020    1050    1055    1085    1095    1105
627          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Updated *****

628          KK     445
629          KM   SUB-BASIN 445
630          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
631          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
632          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
633          BA    .190
634          LG    .170    .320   3.470    .590   3.000
635          UC    .192    .130
             * DDM   ***** Preserved *****

636          KK    C107
637          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 58 AND 59
638          HC       2
             * DDM   ***** Preserved *****

639          KK    R107
640          KM        ROUTE FLOW FROM C107 TO C109
641          RS       1    FLOW      -1
642          RC     .05    .035     .05     700   .0516
643          RX    1000    1010    1020    1050    1055    1085    1095    1105
644          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

645          KK    RTB2
646          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
647          DR   SPLIT
             * DDM   ***** Preserved *****

648          KK  RSPLIT
649          KM        ROUTE FLOW FROM SPLIT TO C109
650          RS       1    FLOW      -1
651          RC     .05    .035     .05     800     .05
652          RX    1000    1025    1050    1070    1075    1095    1120    1145
653          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

654          KK     446
655          KM   SUB-BASIN 446
656          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
657          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
658          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
659          BA    .040
660          LG    .270    .250   4.500    .400  19.000
661          UC    .183    .189
             * DDM   ***** Preserved *****
                                        HEC-1 INPUT                                          PAGE 17

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

662          KK    C109
663          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
664          HC       3
             * DDM   ***** Preserved *****

665          KK    DIV5
666          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
667          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
668          DT  WSH404
669          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
670          DQ       0      35      35      35      35      35      35      35
             * DDM   ***** Preserved *****

671          KK    R109
672          KM        ROUTE FLOW FROM C109 TO C110
673          RS       1    FLOW      -1
674          RC    .019    .019    .019    3080     .05
675          RX    1000    1005    1010    1015    1025    1030    1035    1040
676          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
             * DDM   ***** Updated *****

677          KK     447
678          KM   SUB-BASIN 447
679          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
680          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
681          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
682          BA    .090
683          LG    .250    .270   3.350    .870  30.000
684          UC    .208    .145
             * DDM   ***** Preserved *****

685          KK   RT404
686          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
687          DR  WSH404
             * DDM   ***** Preserved *****

688          KK    R404
689          KM        ROUTE FLOW FROM C110 TO C110
690          RS       5    FLOW      -1
691          RC    .019    .019    .019    3540     .03
692          RX    1000    1012    1016    1020    1025    1029    1033    1045
693          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

694          KK    C110
695          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 62 AND C109
696          HC       3
             * DDM   ***** Preserved *****
1                                       HEC-1 INPUT                                          PAGE 18

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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697          KK    R110
698          KM        ROUTE FLOW FROM C110 TO C115
699          RS       1    FLOW      -1
700          RC    .019    .019    .019     580    .029
701          RX    1000    1012    1016    1020    1035    1039    1043    1055
702          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

703          KK    C115
704          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
705          HC       2
             * DDM   ***** Preserved *****

706          KK    R115
707          KM        ROUTE FLOW FROM C115 TO C119
708          RS       1    FLOW      -1
709          RC    .019    .019    .019    2125    .029
710          RC    .019    .019    .019     580   .0291
711          RX    1000    1012    1016    1020    1035    1039    1043    1055
712          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Updated *****

713          KK     448
714          KM   SUB-BASIN 448
715          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
716          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
717          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
718          BA    .045
719          LG    .170    .310   4.200    .390  11.000
720          UC    .133    .102
             * DDM   ***** Updated *****

721          KK     449
722          KM   SUB-BASIN 449
723          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
724          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
725          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
726          BA    .050
727          LG    .260    .280   3.500    .640   6.000
728          UC    .167    .134
             * DDM   ***** Preserved *****

729          KK   C6364
730          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 63 AND 64
731          HC       2
             * DDM   ***** Preserved *****

732          KK   R6364
733          KM        ROUTE FLOW FROM DIVERSIONS 63 AND 64 TO C116
734          RS       5    FLOW      -1
735          RC     .05    .035     .05    4375   .0333
736          RX    1000    1027    1053    1080    1090    1117    1143    1170
737          RY      15   13.33   11.67      10      10   11.67   13.33      15
             * DDM   ***** Updated *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

738          KK     450
739          KM   SUB-BASIN 450
740          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
741          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
742          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
743          BA    .070
744          LG    .340    .350   3.630    .570   4.000
745          UC    .296    .383
             * DDM   ***** Updated *****

746          KK     451
747          KM   SUB-BASIN 451
748          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
749          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
750          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
751          BA    .025
752          LG    .340    .340   3.290    .750   3.000
753          UC    .271    .453
             * DDM   ***** Preserved *****

754          KK    RT66
755          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
756          DR   WSH66
             * DDM   ***** Updated *****

757          KK     452
758          KM   SUB-BASIN 452
759          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
760          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
761          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
762          BA    .040
763          LG    .260    .280   3.700    .550   9.000
764          UC    .171    .166
             * DDM   ***** Preserved *****

765          KK   C6566
766          KM        COMBINE HYDROGRAPHS FROM DIVERSIONS 65 AND 66
767          HC       2
             * DDM   ***** Preserved *****

768          KK   R6566
769          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
770          RS       2    FLOW      -1
771          RC     .05    .035     .05    2435   .0282
772          RX    1000    1045    1090    1150    1160    1220    1265    1310
773          RY      25      23      20      10      10      20      23      25
             * DDM   ***** Preserved *****

774          KK    C116
775          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 68 AND 69 AND DIVERTED FLOWS
776          KM        FROM SUB-BASINS 63, 64, 65 AND 66
777          HC       4
             * DDM   ***** Preserved *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 778          KK  BASIN5
 779          KM        RESERVOIR WITHIN PARCEL 31, 2-48 INCH PIPES AT OUTFALL
 780          KM        BASIN 5 FEET DEEP
 781          RS       1    ELEV       0
 782          SV       0     4.5     9.9
 783          SQ       0      69     190
 784          SE       0     2.5       5
              * DDM   ***** Preserved *****

 785          KK    R116
 786          KM        ROUTE FLOW FROM C116 TO C118
 787          RS       3    FLOW      -1
 788          RC     .05    .035     .05    1300   .0333
 789          RX    1000    1100    1200    1300    1320    1420    1520    1620
 790          RY      13      12      11      10      10      11      12      13
              * DDM   ***** Updated *****

 791          KK     453
 792          KM   SUB-BASIN 453
 793          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 794          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 795          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
 796          BA    .060
 797          LG    .290    .300   3.290    .820  18.000
 798          UC    .275    .284
              * DDM   ***** Preserved *****

 799          KK    C117
 800          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 70 AND C115
 801          HC       2
              * DDM   ***** Preserved *****

 802          KK    C118
 803          KM        COMBINE HYDROGRAPHS FROM C116 AND C117
 804          HC       2
              * DDM   ***** Preserved *****

 805          KK    R118
 806          KM        ROUTE FLOW FROM C118 TO C119
 807          RS       1    FLOW      -1
 808          RC    .019    .019    .019    1500    .024
 809          RX    1000    1012    1016    1020    1035    1039    1043    1055
 810          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

 811          KK    DIV7
 812          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE, FLOWS ENTER BASIN OVER
 813          KM        60' WEIR SET AT 1.5' ABOVE THE CHANNEL BOTTOM
              *      1
 814          DT  BASIN6
 815          DI       0    20.4    76.9   176.4   383.8   696.7  1105.8  1611.6
 816          DQ       0       0       0       0    57.3     162   297.6   458.2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 817          KK  RTDIV7
 818          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
 819          DR  BASIN6

 820          KK  RFDIV7
 821          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 822          KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
 823          RS       1    STOR       0
 824          SV       0     .01     3.6
 825          SQ       0     1.2     1.2

 826          KK   CDIV7
 827          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
 828          HC       2

 829          KK     454
 830          KM   SUB-BASIN 454
 831          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 832          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
 833          KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
 834          BA    .180
 835          LG    .300    .310   3.780    .560  14.000
 836          UC    .379    .395
              * DDM   ***** Preserved *****

 837          KK    C119
 838          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 71 AND C119
              *      1       2
 839          HC       2
              * DDM   ***** Preserved *****

 840          KK    R454
 841          KM   FROM SUB-BASIN 454 TO SUB-BASIN 455
 842          RS       8    FLOW      -1
 843          RC     .05    .035     .05    6000    .005
 844          RX    1000    1010    1020    1036    1041    1057    1067    1077
 845          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Updated *****

 846          KK     455
 847          KM   SUB-BASIN 455
 848          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 849          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
 850          KM     L = 2.92  Kb = .039  Adj. Slope =  269.2
 851          BA   1.559
 852          LG    .280    .270   3.850    .590  22.000
 853          UC    .450    .279

 854          KK    D455
 855          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 856          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
```

```
857          KM   FOR BASIN #: 30,34,43,47&58
858          KM        MAXIMUM VOLUME DIVERSION = 74.1 acre-feet
             *      1
1                                   HEC-1 INPUT                                                    PAGE 22

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

859          DT   BS455    74.1
860          DI       0   10000
861          DQ       0   10000

862          KK   RT455
863          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
864          DR   BS455

865          KK   SR455
866          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
867          KM    74.1 ACRE-FEETx43560/36x3600=25cfs
868          RS       1    STOR       0
869          SV       0     .01    74.1
870          SQ       0      25      25

871          KK    C455
872          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
873          HC       2

874          KK    455C
875          KM   HYDROGRAPH COMBINATION AT THE END OF THE SPOOK HILL FRS
             *      1       2
876          HC       3
             *  SR440
             *  SPOOK HILL FRS PLANS DATED 6/15/77
             *  OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
             *  EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
             *  STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
             *      1    STOR       0
             *      0     .04     100     300     500     680
             *      0     640     720     780     825     860
             *     66    77.5      79    80.2    81.2      82

877          KK   RR455
878          KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
879          RS       3    FLOW      -1
880          RC    .016    .016    .016    9200    .002
881          RX       0       1       2      15      71      84      85      86
882          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
             *     11    FLOW      -1
             *   .035    .025    .035    9200    .002
             *      0       1       2      28      58      84      85      86
             *     13      13      13       0       0      13      13      13

883          KK     456
884          KM   SUB-BASIN 456
885          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
886          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
887          KM     L =  .94  Kb = .045  Adj. Slope =  315.0
888          BA    .260
889          LG    .300    .380   5.600    .200  12.000
890          UC    .217    .139
1                                   HEC-1 INPUT                                                    PAGE 23

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

891          KK    DIV1
892          KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
893          KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
             *      1
894          DT  BASIN1
895          DI       0    24.4    70.8   132.2   194.1   281.1   415.5   571.9   753.2
896          DQ       0       0       0       0       0    57.3     162   297.6   458.2
             * DDM   ***** Preserved *****

897          KK    DIV2
898          KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
899          KM        WASHES THAT DRAIN TO THE WEST, SOUTHERN WASHES FED BY 30" AND 18" PIPE
900          DT    WA30
901          DI       0    24.4    70.8   132.2   194.1   223.8   253.5  274.25     295
902          DQ       0     8.4    24.8    40.2    52.1    57.8    63.5    67.3      71
             * DDM   ***** Preserved *****

903          KK    R456
904          KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
905          RS       3    FLOW      -1
906          RC     .05    .035     .05    3800    .044
907          RX    1000    1010    1020    1036    1041    1057    1067    1077
908          RY   14.88   14.44      14      10      10      14   14.44   14.88
             * DDM   ***** Updated *****

909          KK     457
910          KM   SUB-BASIN 457
911          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
912          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
913          KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
914          BA    .190
915          LG    .270    .330   3.950    .460   6.000
916          UC    .237    .195
             * DDM   ***** Preserved *****

917          KK    C101
918          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
919          HC       2
             * DDM   ***** Preserved *****

920          KK    DIV3
921          KM        RESERVOIR AT THE EDGE OF THE PROPERTY, FLOW FROM 10' WIDE CHANNEL
922          KM        DIVERTED INTO OFFLINE BASIN OVER A 150' WEIR SET AT 0.75 FEET
923          KM        ABOVE CHANNEL
             *      1
924          DT  BASIN2
925          DI       0      18    59.3   121.6   255.8   454.1   703.1   998.3  1338.4
926          DQ       0       0       0       0    50.6   143.2   263.1     405     566
1                                   HEC-1 INPUT                                                    PAGE 24
```

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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 927          KK  RTDIV3
 928          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
 929          DR  BASIN2

 930          KK  RFDIV3
 931          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 932          KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
 933          RS       1    STOR       0
 934          SV       0     .01       5
 935          SQ       0     1.7     1.7

 936          KK   CDIV3
 937          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
 938          HC       2
              * DDM   ***** Preserved *****

 939          KK    R101
 940          KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
 941          RS       1    FLOW      -1
 942          RC     .05    .035     .05    1450     .05
 943          RX    1000    1010    1020    1036    1041    1057    1067    1077
 944          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Updated *****

 945          KK     458
 946          KM   SUB-BASIN 458
 947          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 948          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
 949          KM     L =  .76  Kb = .048  Adj. Slope =  299.0
 950          BA    .190
 951          LG    .290    .330   5.800    .190   6.000
 952          UC    .204    .131
              * DDM   ***** Preserved *****

 953          KK    C103
 954          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
 955          HC       2
              * DDM   ***** Preserved *****

 956          KK    R103
 957          KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
 958          RS       1    FLOW      -1
 959          RC     .05    .035     .05     900     .03
 960          RX    1000    1010    1020    1030    1050    1060    1070    1080
 961          RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
              * DDM   ***** Preserved *****

 962          KK    RT30
 963          KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
 964          DR    WA30
              * DDM   ***** Preserved *****
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 965          KK     R30
 966          KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
 967          RS       1    FLOW      -1
 968          RC     .05    .035     .05    1630     .05
 969          RX    1000    1010    1020    1036    1041    1057    1067    1077
 970          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****

 971          KK    RTB1
 972          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
              *      1       2
 973          DR  BASIN1
              * DDM   ***** Preserved *****

 974          KK      B1
 975          KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
 976          KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
              *      1       2
 977          RS       1    ELEV       0
 978          SV              .7     1.4     2.3     2.7     3.2
 979          SQ       0       5      16      28    32.5      37
 980          SE       0       1       2       3     3.5       4
              * DDM   ***** Preserved *****

 981          KK     RB1
 982          KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
 983          RS       2    FLOW      -1
 984          RC     .05    .035     .05    1720     .05
 985          RX    1000    1010    1020    1036    1041    1057    1067    1077
 986          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****

 987          KK    CDIV
 988          KM        COMBINE FLOWS FROM WA30 AND BASIN 1
 989          HC       2     .12
              * DDM   ***** Updated *****

 990          KK     459
 991          KM   SUB-BASIN 459
 992          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 993          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 994          KM     L =  .35  Kb = .052  Adj. Slope =  251.6
 995          BA    .030
 996          LG    .220    .300   3.330    .710   8.000
 997          UC    .162    .157
              * DDM   ***** Preserved *****

 998          KK     C52
 999          KM        COMBINE FLOWS FROM SUB-BASIN 52, WA30 AND BASIN 1
1000          HC       2
              * DDM   ***** Preserved *****
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
1001        KK     R52
1002        KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1003        RS       1    FLOW      -1
1004        RC     .05    .035     .05    2000     .05
1005        RX    1000    1010    1020    1036    1041    1057    1067    1077
1006        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

1007        KK     460
1008        KM   SUB-BASIN 460
1009        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1010        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1011        KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1012        BA    .140
1013        LG    .250    .260   3.740    .690  27.000
1014        UC    .242    .160
            * DDM   ***** Preserved *****

1015        KK    C102
1016        KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1017        HC       2
            * DDM   ***** Preserved *****

1018        KK  BASIN3
1019        KM        RESERVOIR AT CLUBHOUSE LOCATION, 1-30 INCH PIPE AT OUTFALL
1020        KM        BOTTOM OF BASIN AT 6 FEET ABOVE 0 ELEVATION
1021        RS       1    ELEV       0
1022        SA       0       0       0       0     .21    1.15       2    2.12    2.31    2.65
            *      0       0       0       0    1.14    3.25    5.52    9.23
1023        SE       0     2.5       5       6       7     7.5       8       9    10.5    12.5
1024        SQ       0      22      45      51      57    59.5      62      67      73      81
            * DDM   ***** Preserved *****

1025        KK      R3
1026        KM        ROUTE FLOW FROM C102 to C106
1027        RS       4    FLOW      -1
1028        RC     .05     .03     .05    2750   .0375
1029        RX    1000    1010    1020    1052    1086    1118    1128    1138
1030        RY    19.2    18.4      18      10      10      18    18.4    19.2
            * DDM   ***** Updated *****

1031        KK     461
1032        KM   SUB-BASIN 461
1033        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1034        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1035        KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1036        BA    .120
1037        LG    .270    .250   4.250    .450  21.000
1038        UC    .271    .250
            * DDM   ***** Preserved *****
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```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1039        KK    C104
1040        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1041        HC       2
            * DDM   ***** Preserved *****

1042        KK    C106
1043        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1044        HC       2
            * DDM   ***** Preserved *****

1045        KK    R106
1046        KM        ROUTE FLOW FROM C106 TO C49
1047        RS       2    FLOW      -1
1048        RC     .05    .035     .05    3950    .033
1049        RX    1000    1010    1020    1030    1050    1060    1070    1080
1050        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Updated *****

1051        KK     462
1052        KM   SUB-BASIN 462
1053        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1054        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1055        KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1056        BA    .301
1057        LG    .300    .330   5.300    .240  12.000
1058        UC    .225    .137
            * DDM   ***** Preserved *****

1059        KK     C56
1060        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
            *      1       2
1061        HC       2
            * DDM   ***** Updated *****

1062        KK     480
1063        KM   SUB-BASIN 480
1064        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1065        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1066        KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1067        BA    .731
1068        LG    .270    .270   3.580    .730  27.000
1069        UC    .325    .148

1070        KK    D480
1071        KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1072        KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1073        KM   FOR BASIN #: 18 & 26
1074        KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
            *      1
1075        DT   BS480    16.5
1076        DI       0   10000
1077        DQ       0   10000
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
KK   RT480
KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
DR   BS480

KK   SR480
KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
RS       1     STOR        0
SV       0      .01     16.5
SQ       0      5.6      5.6

KK    C480
KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
HC       2
* DDM   ***** Preserved *****

KK    480C
KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
HC       3     2.09
* DDM   ***** Preserved *****

KK   RR480
KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
RS       2     FLOW       -1
RC    .025     .025     .025     6500      .05
RX       0        1        2       28       58       84       85       86
RY    13.5     13.5     13.5        0        0     13.5     13.5     13.5
* DDM   ***** Updated *****

KK     500
KM   SUB-BASIN 500
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
BA    .930
LG    .350     .400    6.000     .170    9.000
UC    .421     .333
* DDM   ***** Preserved *****

KK    500C
KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
HC       2     2.84
ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  50          20
               .
  58           .          40
               .           .
               .           .
  66           .           .          60
               .           .           .
               .           .           .
  74         60C.......................
              V
              V
  77         60R
              V
              V
  83         R60
              V
              V
  89        RR60
               .
               .
  95           .          80
               .           .
               .           .
 103         80C............
              V
              V
 106         R80
               .
               .
 112           .         100
               .           .
               .           .
 120        100C............
              V
              V
 123        R100
               .
               .
 129           .         120
               .           .
               .           .
 137        120C............
              V
              V
 140        R120
               .
               .
 146           .         140
               .           .
               .           .
 154           .           .         160
               .           .           .
               .           .           .
 162           .           .           .         180
               .           .           .           .
               .           .           .           .
 170        180C.................................
               .
               .
 173           .         240
               .           V
               .           V
 181           .        R240
               .           .
               .           .
 188           .           .         220
               .           .           .
               .           .           .
 196           .        220C............
               .           V
               .           V
 199           .        R220
               .           .
               .           .
 206           .           .         200
               .           .           .
               .           .           .
 214           .        200C............
               .           V
               .           V
 217           .        R200
               .           .
               .           .
 223        C180............
              V
              V
 226        180R
              V
              V
 232        R180
               .
               .
 238           .         260
               .           .
               .           .
 246        260C............
              V
              V
 249        R260
               .
               .
 255           .         280
               .           .
               .           .
 263        280C............
```

```
            V
            V
266       R280
            .
            .
272         .         300
            .           .
            .           .
280       300C...........
            V
            V
283       R300
            V
            V
289      RR300
            .
            .
295         .         320
            .           .
            .           .
308         .           .-------->   BS320
303         .       D320
            .           .
            .           .
313         .           .          .<-------   BS320
311         .           .      RT320
            .           .          V
            .           .          V
314         .           .      SR320
            .           .          .
            .           .          .
320       C320......................
            V
            V
323       R320
            .
            .
329         .         340
            .           .
            .           .
342         .           .-------->   BS340
337         .       D340
            .           .
            .           .
347         .           .          .<-------   BS340
345         .           .      RT340
            .           .          V
            .           .          V
348         .           .      SR340
            .           .          .
            .           .          .
354       C340......................
            V
            V
357       R340
            .
            .
363         .         350
            .           V
            .           V
371         .       RR350
            .           .
            .           .
377         .           .        360
            .           .          .
            .           .          .
389         .           .          .-------->   BS360
385         .           .       D360
            .           .          .
            .           .          .
394         .           .          .          .<-------   BS360
392         .           .          .      RT360
            .           .          .          V
            .           .          .          V
395         .           .          .      SR360
            .           .          .          .
            .           .          .          .
401       360C.................................
            V
            V
404       R360
            .
            .
410         .         380
            .           .
            .           .
422         .           .-------->   BS380
418         .       D380
            .           .
            .           .
427         .           .          .<-------   BS380
425         .           .      RT380
            .           .          V
            .           .          V
428         .           .      SR380
            .           .          .
            .           .          .
434       380C......................
            V
            V
437       R380
            .
            .
443         .         390
            .           .
            .           .
455         .           .-------->   BS390
451         .       D390
            .           .
            .           .
460         .           .          .<-------   BS390
458         .           .      RT390
            .           .          V
```

```
                .           .          V
461             .           .      SR390
                .           .          .
                .           .          .
467             .       390C............
                .          V
                .          V
470             .      RR390
                .           .
                .           .
476             .           .        400
                .           .          .
                .           .          .
484         400C........................
               V
               V
487         R400
                .
                .
493             .        420
                .          .
                .          .
505             .          .-------->  BS420
501             .       D420
                .          .
                .          .
510             .          .          .<-------   BS420
508             .           .      RT420
                .           .          V
                .           .          V
511             .           .      SR420
                .           .          .
                .           .          .
517         420C........................
               V
               V
520         R420
                .
                .
526             .        440
                .          V
                .          V
534             .        R70
                .          .
                .          .
540             .          .        441
                .          .          .
                .          .          .
548             .       C108............
                .          .
                .          .
553             .          .-------->  SPLIT
551             .       DIV4
                .          V
                .          V
556             .       R108
                .          .
                .          .
562             .          .        442
                .          .          .
                .          .          .
570             .        C67............
                .          .
                .          .
576             .          .-------->  BASIN4
573             .       DIV6
                .          .
                .          .
581             .          .          .<-------  BASIN4
579             .          .     RTDIV6
                .          .          V
                .          .          V
582             .          .     RFDIV6
                .          .          .
                .          .          .
588             .      CDIV6............
                .          .
                .          .
591             .          .        443
                .          .          .
                .          .          .
602             .          .          .-------->  WSH66
599             .          .      DIV66
                .          .          V
                .          .          V
605             .          .       R113
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611             .       C114............
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614             .          .        444
                .          .          V
                .          .          V
622             .          .       R58
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628             .          .          .        445
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636             .          .       C107............
                .          .          V
                .          .          V
639             .          .       R107
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647             .          .          .          .<-------   SPLIT
645             .          .          .       RTB2
                .          .          .          V
                .          .          .          V
648             .          .          .     RSPLIT
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654                                                446
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662                  C109.......................
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668                     .-------> WSH404
665                  DIV5
                        V
                        V
671                  R109
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677                                447
                                    .
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687                                                .<-------  WSH404
685                                            RT404
                                                   V
                                                   V
688                                            R404
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694                  C110.......................
                        V
                        V
697                  R110
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703            C115............
                  V
                  V
706            R115
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713                   448
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721                                449
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729                 C6364............
                        V
                        V
732                 R6364
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738                                450
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746                                                451
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756                                                        .<-------   WSH66
754                                                    RT66
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757                                                                452
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765                                                    C6566............
                                                            V
                                                            V
768                                                    R6566
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774                  C116.................................
                        V
                        V
778                BASIN5
                        V
                        V
785                  R116
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791                                453
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799                  C117............
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802            C118............
                  V
                  V
805            R118
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814               .-------> BASIN6
811            DIV7
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819                     .<-------  BASIN6
817                RTDIV7
                        V
                        V
820                RFDIV7
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826           CDIV7............
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829                   454
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837            C119............
                  V
                  V
840            R454
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846                   455
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859          .          .          .-------->  BS455
854          .          .       D455
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864          .          .          .          .<-------  BS455
862          .          .          .      RT455
             .          .          .          V
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865          .          .          .      SR455
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871          .          .       C455............
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874       455C........................
             V
             V
877      RR455
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883          .        456
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894          .          .-------->  BASIN1
891          .      DIV1
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900          .          .-------->   WA30
897          .      DIV2
             .          V
             .          V
903          .      R456
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909          .          .         457
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917          .      C101............
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924          .          .-------->  BASIN2
920          .      DIV3
             .          .
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929          .          .          .<-------  BASIN2
927          .          .     RTDIV3
             .          .          V
             .          .          V
930          .          .     RFDIV3
             .          .          .
             .          .          .
936          .     CDIV3............
             .          V
             .          V
939          .      R101
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945          .          .         458
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953          .      C103............
             .          V
             .          V
956          .      R103
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964          .          .          .<-------   WA30
962          .          .       RT30
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             .          .          V
965          .          .        R30
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973          .          .          .          .<-------  BASIN1
971          .          .          .      RTB1
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974          .          .          .         B1
             .          .          .          V
             .          .          .          V
981          .          .          .        RB1
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987          .          .       CDIV............
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990          .          .          .         459
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998          .          .        C52............
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1001         .          .        R52
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1007         .          .          .         460
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1015         .          .       C102............
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1018         .          .     BASIN3
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1025         .          .         R3
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1031         .          .          .         461
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1039         .          .       C104............
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1042          .        C106...........
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1045          .        R106
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1051          .           .         462
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1059          .         C56...........
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1062          .           .         480
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1075          .           .           .-------->   BS480
1070          .           .       D480
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1080          .           .           .           .<-------   BS480
1078          .           .           .       RT480
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1081          .           .           .       SR480
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1087          .           .       C480...........
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1090       480C........................
              V
              V
1093      RR480
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1099          .         500
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1107       500C...........
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              JUN  1998                *
*            VERSION 4.1                *
*                                       *
*  RUN DATE   04JAN00  TIME  15:34:40   *
*                                       *
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****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    HYDROLOGIC ENGINEERING CENTER     *
*          609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616        *
*           (916) 756-1104             *
*                                      *
****************************************
```

EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
FOR LAS SENDAS, AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS

ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS

A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
PRECIPITATION VALUES

ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL, SIGNAL
BUTTE, AND BULLDOG FLOODWAY PLANS

ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE: SPHEX2.DAT
DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM

REVISED MODEL BASED ON BYPASSING OF FRS STRUCTURES
AND INCREASING THE EXISTING CHANNELS WIDTHS - MAINTAINING THE SAME DEPTHS
REVISED ON 11/9/99 BY JCD; FILE: SPHEX3.DAT

MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
BY: JCD; 1/4/2000 FILE: SPHEX2RV.DAT

MODEL UPDATE BASED ON BYPASSING OF FRS STRUCTURES AND INCREASING
THE EXISTING CHANNEL WIDTHS WHILE MAINTAINING THE SAME DEPTHS
FILE: SPHEX3RV.DAT 1/4/2000

```
29 IO        OUTPUT CONTROL VARIABLES
                IPRNT          3  PRINT CONTROL
                IPLOT          0  PLOT CONTROL
                QSCAL         0.  HYDROGRAPH PLOT SCALE

30 IN        TIME DATA FOR INPUT TIME SERIES
                JXMIN         15  TIME INTERVAL IN MINUTES
               JXDATE      1   0  STARTING DATE
               JXTIME          0  STARTING TIME

   IT        HYDROGRAPH TIME DATA
                 NMIN          2  MINUTES IN COMPUTATION INTERVAL
                IDATE      1   0  STARTING DATE
                ITIME       0000  STARTING TIME
                   NQ       1500  NUMBER OF HYDROGRAPH ORDINATES
               NDDATE      3   0  ENDING DATE
               NDTIME       0158  ENDING TIME
                ICENT         19  CENTURY MARK

            COMPUTATION INTERVAL     .03 HOURS
                 TOTAL TIME BASE   49.97 HOURS

      ENGLISH UNITS
           DRAINAGE AREA          SQUARE MILES
           PRECIPITATION DEPTH    INCHES
           LENGTH, ELEVATION      FEET
           FLOW                   CUBIC FEET PER SECOND
           STORAGE VOLUME         ACRE-FEET
           SURFACE AREA           ACRES
           TEMPERATURE            DEGREES FAHRENHEIT

31 JD        INDEX STORM NO. 1
                STRM        3.81  PRECIPITATION DEPTH
                TRDA         .01  TRANSPOSITION DRAINAGE AREA

32 PI          PRECIPITATION PATTERN
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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42 JD INDEX STORM NO. 2

STRM 3.58 PRECIPITATION DEPTH

TRDA 10.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

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43 JD INDEX STORM NO. 3
STRM 3.43 PRECIPITATION DEPTH
TRDA 30.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

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44 JD INDEX STORM NO. 4
STRM 3.28 PRECIPITATION DEPTH
TRDA 60.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

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.01	.01	.03	.04	.04	.04	.04	.04	.04	.04
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45 JD INDEX STORM NO. 5
STRM 3.22 PRECIPITATION DEPTH
TRDA 90.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

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46 JD INDEX STORM NO. 6

STRM 3.18 PRECIPITATION DEPTH

TRDA 120.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

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47 JD INDEX STORM NO. 7

STRM 3.14 PRECIPITATION DEPTH

TRDA 150.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

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48 JD INDEX STORM NO. 8
STRM 3.05 PRECIPITATION DEPTH
TRDA 300.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

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49 JD          INDEX STORM NO. 9
                   STRM       2.97  PRECIPITATION DEPTH
                   TRDA     500.00  TRANSPOSITION DRAINAGE AREA

 0 PI            PRECIPITATION PATTERN
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HYDROGRAPH AT STATION 500C
TRANSPOSITION AREA 120.0 SQ MI

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
10909.	13.40	(CFS)	2705.	819.	419.	419.
		(INCHES)	8.855	10.721	11.423	11.423
		(AC-FT)	1341.	1624.	1730.	1730.

CUMULATIVE AREA = 2.84 SQ MI

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HYDROGRAPH AT STATION 500C
TRANSPOSITION AREA 150.0 SQ MI

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+ 10587.	13.43	(CFS)	2637.	801.	410.	410.
		(INCHES)	8.633	10.486	11.188	11.188
		(AC-FT)	1308.	1588.	1695.	1695.

CUMULATIVE AREA = 2.84 SQ MI

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HYDROGRAPH AT STATION 500C
TRANSPOSITION AREA 300.0 SQ MI

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+ 9844.	13.47	(CFS)	2488.	761.	391.	391.
		(INCHES)	8.146	9.966	10.665	10.665
		(AC-FT)	1234.	1510.	1615.	1615.

CUMULATIVE AREA = 2.84 SQ MI

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HYDROGRAPH AT STATION 500C
TRANSPOSITION AREA 500.0 SQ MI

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
9180.	13.50	(CFS)	2358.	727.	374.	374.
		(INCHES)	7.719	9.518	10.204	10.204
		(AC-FT)	1169.	1442.	1546.	1546.

CUMULATIVE AREA = 2.84 SQ MI

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INTERPOLATED HYDROGRAPH AT 500C

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+ 14772.	13.30	(CFS)	3479.	1021.	516.	516.
		(INCHES)	11.391	13.364	14.078	14.078
		(AC-FT)	1725.	2024.	2132.	2132.

CUMULATIVE AREA = 2.84 SQ MI

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	20	1130.	12.57	243.	64.	31.	1.82		
+	HYDROGRAPH AT	40	2286.	12.27	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1405.	12.37	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	4438.	12.30	712.	189.	91.	5.80		
+	ROUTED TO	60R	4353.	12.43	711.	189.	91.	5.80		
+	ROUTED TO	R60	4333.	12.47	711.	189.	91.	5.80		
+	ROUTED TO	RR60	4268.	12.50	711.	189.	91.	5.80		
+	HYDROGRAPH AT	80	1693.	12.20	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	5262.	12.47	903.	239.	115.	1.48		
+	ROUTED TO	R80	5264.	12.47	903.	239.	115.	1.48		
+	HYDROGRAPH AT	100	389.	12.33	58.	15.	7.	.48		
+	2 COMBINED AT	100C	5578.	12.47	956.	252.	121.	1.96		
+	ROUTED TO	R100	5577.	12.47	956.	252.	121.	1.96		
+	HYDROGRAPH AT	120	2960.	12.20	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	7355.	12.40	1266.	337.	162.	4.16		
+	ROUTED TO	R120	7337.	12.40	1266.	337.	162.	4.16		
+	HYDROGRAPH AT	140	598.	12.23	64.	17.	8.	.60		
+	HYDROGRAPH AT	160	588.	12.30	85.	22.	11.	.78		
+	HYDROGRAPH AT	180	694.	12.33	90.	23.	11.	1.00		
+	4 COMBINED AT	180C	8879.	12.40	1488.	394.	190.	6.54		
+	HYDROGRAPH AT	240	770.	12.30	107.	27.	13.	1.04		
+	ROUTED TO	R240	760.	12.37	107.	27.	13.	1.04		
+	HYDROGRAPH AT	220	1427.	12.23	167.	43.	21.	1.25		
+	2 COMBINED AT	220C	2088.	12.27	271.	69.	33.	2.29		
+	ROUTED TO	R220	2057.	12.30	271.	69.	33.	2.29		
+	HYDROGRAPH AT	200	2059.	12.23	236.	65.	31.	1.81		
+	2 COMBINED AT	200C	3995.	12.27	501.	132.	64.	4.10		
+	ROUTED TO	R200	3967.	12.30	501.	132.	64.	4.10		
+	2 COMBINED AT	C180	12471.	12.37	1965.	521.	251.	10.64		
+	ROUTED TO	180R	12283.	12.40	1963.	520.	251.	10.64		
+	ROUTED TO	R180	12235.	12.43	1963.	520.	251.	10.64		
+	HYDROGRAPH AT	260	401.	12.17	43.	12.	6.	.27		
+	2 COMBINED AT	260C	13209.	12.43	2121.	562.	271.	.27		
+	ROUTED TO	R260	13107.	12.47	2121.	562.	271.	.27		
+	HYDROGRAPH AT	280	452.	12.13	42.	12.	6.	.30		

2 COMBINED AT	280C	13103.	12.47	2142.	569.	274.	.57
ROUTED TO	R280	12968.	12.50	2138.	568.	273.	.57
HYDROGRAPH AT	300	824.	12.30	109.	29.	14.	.99
2 COMBINED AT	300C	13400.	12.50	2214.	589.	284.	1.56
ROUTED TO	R300	13305.	12.53	2214.	589.	284.	1.56
ROUTED TO	RR300	13212.	12.57	2213.	589.	284.	1.56
HYDROGRAPH AT	320	889.	12.43	171.	47.	22.	1.53
DIVERSION TO	BS320	390.	12.07	21.	6.	3.	1.53
HYDROGRAPH AT	D320	889.	12.43	157.	41.	19.	1.53
HYDROGRAPH AT	RT320	390.	12.07	21.	6.	3.	1.53
ROUTED TO	SR320	4.	4.40	4.	4.	3.	1.53
3 COMBINED AT	C320	13892.	12.57	2350.	627.	303.	3.09
ROUTED TO	R320	13451.	12.73	2344.	627.	303.	3.09
HYDROGRAPH AT	340	1381.	12.27	186.	55.	26.	1.45
DIVERSION TO	BS340	1381.	12.27	104.	28.	14.	1.45
HYDROGRAPH AT	D340	1219.	12.40	98.	27.	13.	1.45
HYDROGRAPH AT	RT340	1381.	12.27	104.	28.	14.	1.45
ROUTED TO	SR340	19.	9.03	19.	19.	14.	1.45
3 COMBINED AT	C340	13845.	12.73	2444.	667.	327.	4.53
ROUTED TO	R340	13605.	12.77	2441.	667.	327.	4.53
HYDROGRAPH AT	350	1102.	12.17	103.	27.	13.	.97
ROUTED TO	RR350	941.	12.57	103.	27.	13.	.97
HYDROGRAPH AT	360	668.	12.50	151.	42.	20.	1.33
DIVERSION TO	BS360	655.	12.43	53.	14.	7.	1.33
HYDROGRAPH AT	D360	657.	12.57	106.	28.	13.	1.33
HYDROGRAPH AT	RT360	655.	12.43	53.	14.	7.	1.33
ROUTED TO	SR360	10.	9.47	10.	10.	7.	1.33
4 COMBINED AT	360C	14705.	12.77	2635.	725.	358.	6.83
ROUTED TO	R360	14498.	12.83	2631.	725.	358.	6.83
HYDROGRAPH AT	380	821.	12.50	175.	48.	23.	1.64
DIVERSION TO	BS380	779.	12.40	54.	14.	7.	1.64
HYDROGRAPH AT	D380	821.	12.50	128.	33.	16.	1.64
HYDROGRAPH AT	RT380	779.	12.40	54.	14.	7.	1.64
ROUTED TO	SR380	10.	10.30	10.	10.	7.	1.64
3 COMBINED AT	380C	15047.	12.83	2755.	764.	379.	8.47
ROUTED TO	R380	14422.	12.97	2746.	764.	379.	8.47
HYDROGRAPH AT	390	1179.	12.20	144.	40.	19.	1.09
DIVERSION TO	BS390	7.	8.13	6.	2.	1.	1.09

+	HYDROGRAPH AT D390	1179.	12.20	144.	38.	18.	1.09
+	HYDROGRAPH AT RT390	7.	8.13	6.	2.	1.	1.09
	ROUTED TO SR390	1.	.50	1.	1.	1.	1.09
+	2 COMBINED AT 390C	1180.	12.20	145.	40.	19.	1.09
+	ROUTED TO RR390	1102.	12.40	145.	40.	19.	1.09
+	HYDROGRAPH AT 400	333.	12.37	47.	13.	6.	.62
+	3 COMBINED AT 400C	14801.	12.97	2901.	812.	402.	10.18
+	ROUTED TO R400	14491.	13.07	2895.	812.	402.	10.18
+	HYDROGRAPH AT 420	710.	12.30	92.	26.	12.	.85
+	DIVERSION TO BS420	710.	12.30	74.	19.	9.	.85
+	HYDROGRAPH AT D420	219.	12.80	23.	7.	3.	.85
+	HYDROGRAPH AT RT420	710.	12.30	74.	19.	9.	.85
+	ROUTED TO SR420	13.	11.10	13.	13.	9.	.85
+	3 COMBINED AT 420C	14512.	13.07	2911.	825.	412.	11.03
+	ROUTED TO R420	14192.	13.13	2906.	825.	412.	11.03
+	HYDROGRAPH AT 440	179.	12.00	12.	3.	2.	.08
+	ROUTED TO R70	174.	12.03	12.	3.	2.	.08
+	HYDROGRAPH AT 441	16.	12.07	1.	0.	0.	.01
+	2 COMBINED AT C108	189.	12.03	14.	4.	2.	.09
+	DIVERSION TO SPLIT	95.	12.03	7.	2.	1.	.09
+	HYDROGRAPH AT DIV4	95.	12.03	7.	2.	1.	.09
+	ROUTED TO R108	87.	12.10	7.	2.	1.	.09
+	HYDROGRAPH AT 442	99.	12.13	9.	2.	1.	.10
+	2 COMBINED AT C67	183.	12.13	15.	4.	2.	.19
+	DIVERSION TO BASIN4	115.	12.13	6.	1.	1.	.19
+	HYDROGRAPH AT DIV6	68.	12.13	10.	3.	1.	.19
+	HYDROGRAPH AT RTDIV6	115.	12.13	6.	1.	1.	.19
+	ROUTED TO RFDIV6	1.	11.93	1.	1.	1.	.19
+	2 COMBINED AT CDIV6	69.	12.13	11.	4.	2.	.19
+	HYDROGRAPH AT 443	146.	12.07	14.	4.	2.	.08
+	DIVERSION TO WSH66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT DIV66	68.	12.07	3.	1.	0.	.08
+	ROUTED TO R113	66.	12.10	3.	1.	0.	.08
+	2 COMBINED AT C114	133.	12.10	13.	4.	2.	.27
+	HYDROGRAPH AT 444	81.	12.00	5.	1.	1.	.04
	ROUTED TO R58	78.	12.07	5.	1.	1.	.04
+	HYDROGRAPH AT 445	288.	12.07	18.	5.	2.	.19
+	2 COMBINED AT C107	363.	12.07	22.	6.	3.	.23

+	ROUTED TO	R107	362.	12.07	22.	6.	3.	.23
+	HYDROGRAPH AT	RTB2	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	RSPLIT	94.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT	446	64.	12.07	6.	2.	1.	.04
+	3 COMBINED AT	C109	516.	12.07	35.	9.	4.	.27
+	DIVERSION TO	WSH404	35.	11.73	7.	2.	1.	.27
+	HYDROGRAPH AT	DIV5	481.	12.07	27.	7.	3.	.27
+	ROUTED TO	R109	469.	12.10	27.	7.	3.	.27
+	HYDROGRAPH AT	447	135.	12.07	12.	4.	2.	.09
+	HYDROGRAPH AT	RT404	35.	11.73	7.	2.	1.	.27
+	ROUTED TO	R404	35.	11.90	7.	2.	1.	.27
+	3 COMBINED AT	C110	631.	12.10	46.	13.	6.	.36
+	ROUTED TO	R110	632.	12.10	46.	13.	6.	.36
+	2 COMBINED AT	C115	759.	12.10	59.	17.	8.	.63
+	ROUTED TO	R115	758.	12.10	59.	17.	8.	.63
+	HYDROGRAPH AT	448	87.	12.03	6.	2.	1.	.05
+	HYDROGRAPH AT	449	77.	12.03	5.	1.	1.	.05
+	2 COMBINED AT	C6364	163.	12.03	11.	3.	1.	.09
+	ROUTED TO	R6364	140.	12.20	11.	3.	1.	.09
+	HYDROGRAPH AT	450	58.	12.17	6.	2.	1.	.07
+	HYDROGRAPH AT	451	17.	12.17	2.	1.	0.	.03
+	HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	452	61.	12.07	4.	1.	1.	.04
+	2 COMBINED AT	C6566	139.	12.07	16.	4.	2.	.04
+	ROUTED TO	R6566	134.	12.13	16.	4.	2.	.04
+	4 COMBINED AT	C116	340.	12.17	35.	9.	4.	.23
+	ROUTED TO	BASIN5	153.	12.47	35.	9.	4.	.23
+	ROUTED TO	R116	152.	12.53	35.	9.	4.	.23
+	HYDROGRAPH AT	453	60.	12.13	7.	2.	1.	.06
+	2 COMBINED AT	C117	173.	12.50	41.	11.	5.	.29
+	2 COMBINED AT	C118	837.	12.10	99.	28.	14.	.92
+	ROUTED TO	R118	833.	12.13	99.	28.	14.	.92
+	DIVERSION TO	BASIN6	207.	12.13	12.	3.	1.	.92
+	HYDROGRAPH AT	DIV7	626.	12.13	86.	25.	12.	.92
+	HYDROGRAPH AT	RTDIV7	207.	12.13	12.	3.	1.	.92
+	ROUTED TO	RFDIV7	1.	11.93	1.	1.	1.	.92
+	2 COMBINED AT	CDIV7	627.	12.13	87.	25.	13.	.92
+	HYDROGRAPH AT	454	152.	12.23	21.	6.	3.	.18

+	2 COMBINED AT	C119	761.	12.13	107.	31.	16.	1.10
+	ROUTED TO	R454	676.	12.40	107.	31.	16.	1.10
+	HYDROGRAPH AT	455	1541.	12.23	198.	59.	28.	1.56
+	DIVERSION TO	BS455	1541.	12.23	139.	37.	18.	1.56
+	HYDROGRAPH AT	D455	893.	12.50	77.	22.	10.	1.56
+	HYDROGRAPH AT	RT455	1541.	12.23	139.	37.	18.	1.56
+	ROUTED TO	SR455	25.	9.73	25.	25.	18.	1.56
+	2 COMBINED AT	C455	918.	12.50	102.	47.	28.	1.56
+	3 COMBINED AT	455C	14285.	13.17	3043.	887.	449.	13.68
+	ROUTED TO	RR455	13896.	13.27	3037.	887.	449.	13.68
+	HYDROGRAPH AT	456	458.	12.07	36.	10.	5.	.26
+	DIVERSION TO	BASIN1	198.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV1	259.	12.07	28.	8.	4.	.26
+	DIVERSION TO	WA30	65.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV2	195.	12.07	20.	6.	3.	.26
+	ROUTED TO	R456	191.	12.17	20.	6.	3.	.26
+	HYDROGRAPH AT	457	254.	12.10	20.	5.	3.	.19
+	2 COMBINED AT	C101	438.	12.10	40.	11.	5.	.45
+	DIVERSION TO	BASIN2	136.	12.10	8.	2.	1.	.45
+	HYDROGRAPH AT	DIV3	302.	12.10	32.	9.	4.	.45
+	HYDROGRAPH AT	RTDIV3	136.	12.10	8.	2.	1.	.45
+	ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+	2 COMBINED AT	CDIV3	304.	12.10	33.	10.	5.	.45
+	ROUTED TO	R101	301.	12.13	33.	10.	5.	.45
+	HYDROGRAPH AT	458	347.	12.07	25.	7.	3.	.19
+	2 COMBINED AT	C103	625.	12.07	58.	16.	8.	.64
+	ROUTED TO	R103	624.	12.10	58.	16.	8.	.64
+	HYDROGRAPH AT	RT30	65.	12.07	8.	2.	1.	.26
+	ROUTED TO	R30	64.	12.10	8.	2.	1.	.26
+	HYDROGRAPH AT	RTB1	198.	12.07	8.	2.	1.	.26
+	ROUTED TO	B1	36.	12.23	7.	2.	1.	.26
+	ROUTED TO	RB1	36.	12.30	7.	2.	1.	.26
+	2 COMBINED AT	CDIV	94.	12.23	15.	4.	2.	.12
+	HYDROGRAPH AT	459	43.	12.07	3.	1.	0.	.03
+	2 COMBINED AT	C52	118.	12.17	18.	5.	2.	.15
+	ROUTED TO	R52	116.	12.20	18.	5.	2.	.15
+	HYDROGRAPH AT	460	205.	12.10	19.	6.	3.	.14
+	2 COMBINED AT	C102	310.	12.10	37.	11.	5.	.29

+	ROUTED TO BASIN3	75.	12.60	37.	11.	5.	.29
+	ROUTED TO R3	75.	12.73	37.	11.	5.	.29
+	HYDROGRAPH AT 461	156.	12.13	17.	5.	2.	.12
+	2 COMBINED AT C104	216.	12.13	53.	16.	7.	.41
+	2 COMBINED AT C106	833.	12.10	110.	32.	16.	1.05
+	ROUTED TO R106	799.	12.17	110.	32.	16.	1.05
+	HYDROGRAPH AT 462	523.	12.07	40.	11.	5.	.30
+	2 COMBINED AT C56	1238.	12.13	149.	42.	21.	1.35
+	HYDROGRAPH AT 480	991.	12.13	96.	29.	14.	.73
+	DIVERSION TO BS480	458.	11.93	27.	8.	4.	.73
+	HYDROGRAPH AT D480	991.	12.13	78.	21.	10.	.73
+	HYDROGRAPH AT RT480	458.	11.93	27.	8.	4.	.73
+	ROUTED TO SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT C480	997.	12.13	84.	27.	14.	.73
+	3 COMBINED AT 480C	14832.	13.23	3386.	994.	503.	2.09
+	ROUTED TO RR480	14782.	13.30	3385.	994.	503.	2.09
+	HYDROGRAPH AT 500	988.	12.23	122.	33.	16.	.93
+	2 COMBINED AT 500C	14772.	13.30	3479.	1021.	516.	2.84

*** NORMAL END OF HEC-1 ***

NSTEP Estimation for Spook Hill ADMP 100-YR, 24hr Bipass Conditions

Trial 1

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
60R	6600	0.13	14.10	2.0	3.9
R60	2850	0.04	19.79	2.0	1.2
RR60	3500	0.03	32.41	1.0	0.9
R80	1200	0.01	33.33	1.0	0.3
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.01	58.33	1.0	0.3
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
180R	4400	0.03	40.74	1.0	0.9
R180	1500	0.03	13.89	2.0	0.9
R260	2300	0.04	15.97	2.0	1.2
R280	2500	0.03	23.15	2.0	0.9
R300	2200	0.03	20.37	2.0	0.9
RR300	6050	0.04	42.01	2.0	1.2
R320	6800	0.16	11.81	2.0	4.8
R340	2000	0.04	13.89	2.0	1.2
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.06	12.04	2.0	1.8
R380	4000	0.06	18.52	2.0	1.8
RR390	14890	0.2	20.68	6.0	6.0
R400	3800	0.1	10.56	2.0	3.0
R420	2900	0.06	13.43	2.0	1.8
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	1.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	1.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	1.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	1.0	1.8
R116	1300	0.06	6.02	3.0	1.8
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.1	25.56	2.0	3.0
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	2.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	2.0	0.9
RB1	1720	0.07	6.83	1.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	3.0	3.9
R106	3950	0.07	15.67	1.0	2.1
RR480	6500	0.07	25.79	1.0	2.1

Trial 2

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
60R	6600	0.13	14.10	4.0	3.9
R60	2850	0.04	19.79	1.0	1.2
RR60	3500	0.03	32.41	1.0	0.9
R80	1200	0.01	33.33	1.0	0.3
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.01	58.33	1.0	0.3
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
180R	4400	0.03	40.74	1.0	0.9
R180	1500	0.03	13.89	1.0	0.9
R260	2300	0.04	15.97	1.0	1.2
R280	2500	0.03	23.15	1.0	0.9
R300	2200	0.03	20.37	1.0	0.9
RR300	6050	0.04	42.01	1.0	1.2
R320	6800	0.16	11.81	5.0	4.8
R340	2000	0.04	13.89	1.0	1.2
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.06	12.04	2.0	1.8
R380	4000	0.06	18.52	2.0	1.8
RR390	14890	0.2	20.68	6.0	6.0
R400	3800	0.1	10.56	2.0	3.0
R420	2900	0.06	13.43	2.0	1.8
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.1	3.61	2.0	3.0
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.1	25.56	3.0	3.0
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.07	25.79	2.0	2.1

Trial 3

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
60R	6600	0.13	14.10	4.0	3.9
R60	2850	0.04	19.79	1.0	1.2
RR60	3500	0.03	32.41	1.0	0.9
R80	1200	0.01	33.33	1.0	0.3
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.01	58.33	1.0	0.3
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
180R	4400	0.03	40.74	1.0	0.9
R180	1500	0.03	13.89	1.0	0.9
R260	2300	0.04	15.97	1.0	1.2
R280	2500	0.03	23.15	1.0	0.9
R300	2200	0.03	20.37	1.0	0.9
RR300	6050	0.04	42.01	1.0	1.2
R320	6800	0.16	11.81	5.0	4.8
R340	2000	0.04	13.89	1.0	1.2
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.06	12.04	2.0	1.8
R380	4000	0.06	18.52	2.0	1.8
RR390	14890	0.2	20.68	6.0	6.0
R400	3800	0.1	10.56	3.0	3.0
R420	2900	0.06	13.43	2.0	1.8
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.06	6.02	3.0	1.8
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.1	25.56	3.0	3.0
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.07	25.79	2.0	2.1

Spook Hill Floodway Chan #1
Worksheet for Trapezoidal Channel

Project Description	
Project File	c:\fmw\spook.fm2
Worksheet	Spook Hill Floodway Chan #1
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Discharge

Input Data		
Mannings Coefficient	0.016	
Channel Slope	0.002000	ft/ft
Depth	13.00	ft
Left Side Slope	2.00	H : V
Right Side Slope	2.00	H : V
Bottom Width	30.00	ft

Results		
Discharge	12354.76	ft^3/s
Flow Area	728.00	ft^2
Wetted Perimeter	88.14	ft
Top Width	82.00	ft
Critical Depth	13.03	ft
Critical Slope	0.001983	ft/ft
Velocity	16.97	ft/s
Velocity Head	4.48	ft
Specific Energy	17.48	ft
Froude Number	1.00	
Flow is supercritical.		

Spook Hill FRS Bipass Chan. Alt #1
Worksheet for Rectangular Channel

Project Description	
Project File	c:\fmw\spook.fm2
Worksheet	Spook Hill FRS Bipass Chan #1
Flow Element	Rectangular Channel
Method	Manning's Formula
Solve For	Discharge

Input Data		
Mannings Coefficient	0.016	
Channel Slope	0.002000	ft/ft
Depth	7.00	ft
Bottom Width	140.00	ft

Results		
Discharge	13977.19	ft^3/s
Flow Area	980.00	ft^2
Wetted Perimeter	154.00	ft
Top Width	140.00	ft
Critical Depth	6.77	ft
Critical Slope	0.002230	ft/ft
Velocity	14.26	ft/s
Velocity Head	3.16	ft
Specific Energy	10.16	ft
Froude Number	0.95	
Flow is subcritical.		

Bulldog Floodway Chan #1 - HEC id R60
Worksheet for Rectangular Channel

Project Description	
Project File	c:\fmw\spook.fm2
Worksheet	Bulldog Floodway Channel #1 - HEC ID R60
Flow Element	Rectangular Channel
Method	Manning's Formula
Solve For	Discharge

Input Data		
Mannings Coefficient	0.016	
Channel Slope	0.012000	ft/ft
Depth	3.50	ft
Bottom Width	80.00	ft

Results		
Discharge	6209.40	ft^3/s
Flow Area	280.00	ft^2
Wetted Perimeter	87.00	ft
Top Width	80.00	ft
Critical Depth	5.72	ft
Critical Slope	0.002493	ft/ft
Velocity	22.18	ft/s
Velocity Head	7.64	ft
Specific Energy	11.14	ft
Froude Number	2.09	
Flow is supercritical.		

Bulldog Floodway Chan.#2 - HEC id RR60
Worksheet for Rectangular Channel

Project Description	
Project File	c:\fmw\spook.fm2
Worksheet	Bulldog Floodway Channel #2-HEC ID RR60
Flow Element	Rectangular Channel
Method	Manning's Formula
Solve For	Discharge

Input Data		
Mannings Coefficient	0.016	
Channel Slope	0.005000	ft/ft
Depth	3.50	ft
Bottom Width	100.00	ft

Results		
Discharge	5064.67	ft^3/s
Flow Area	350.00	ft^2
Wetted Perimeter	107.00	ft
Top Width	100.00	ft
Critical Depth	4.30	ft
Critical Slope	0.002560	ft/ft
Velocity	14.47	ft/s
Velocity Head	3.25	ft
Specific Energy	6.75	ft
Froude Number	1.36	
Flow is supercritical.		

Bulldog Floodway Chan. #3 - HEC id R80
Worksheet for Rectangular Channel

Project Description	
Project File	c:\fmw\spook.fm2
Worksheet	Bulldog Floodway Chan.#3 - HEC id R80
Flow Element	Rectangular Channel
Method	Manning's Formula
Solve For	Discharge

Input Data		
Mannings Coefficient	0.016	
Channel Slope	0.005000	ft/ft
Depth	4.50	ft
Bottom Width	100.00	ft

Results		
Discharge	7604.96	ft^3/s
Flow Area	450.00	ft^2
Wetted Perimeter	109.00	ft
Top Width	100.00	ft
Critical Depth	5.64	ft
Critical Slope	0.002416	ft/ft
Velocity	16.90	ft/s
Velocity Head	4.44	ft
Specific Energy	8.94	ft
Froude Number	1.40	
Flow is supercritical.		

Apache FRS Bipass Channel Alt.#1
Worksheet for Irregular Channel

Project Description	
Project File	c:\fmw\spook.fm2
Worksheet	APACHE FRS NEW CHANNEL
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Discharge

Input Data

Channel Slope	0.002500	ft/ft
Water Surface Elevation	4.50	ft

Elevation range: 0.00 ft to 4.50 ft.

Station (ft)	Elevation (ft)	Start Station	End Station	Roughness
0.00	4.50	0.00	8.00	0.025
4.00	2.50	8.00	88.00	0.016
8.00	2.50	88.00	106.00	0.025
8.00	0.00			
88.00	0.00			
88.00	2.50			
102.00	2.50			
106.00	4.50			

Results

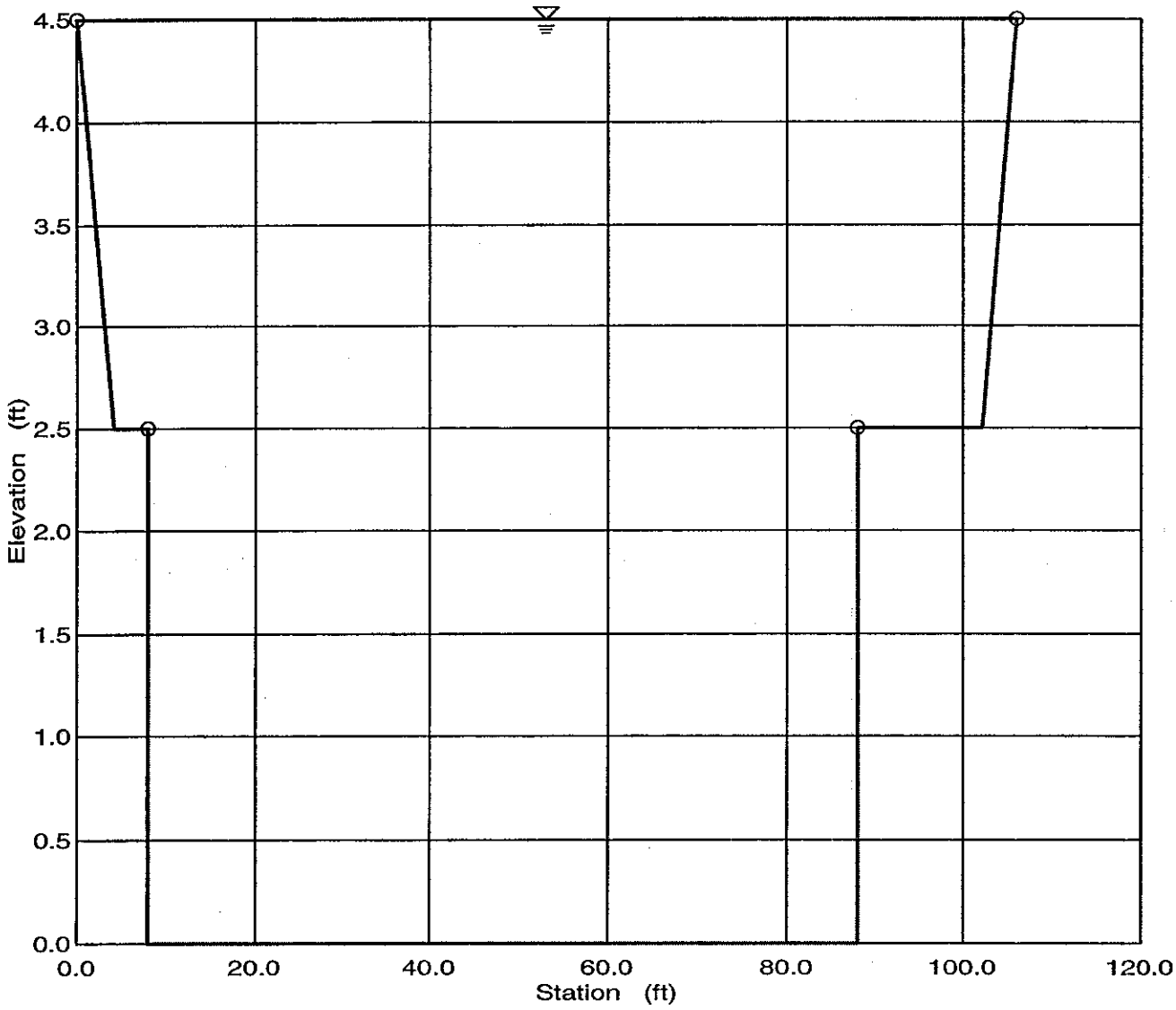
Wtd. Mannings Coefficient	0.015	
Discharge	4558.08	ft^3/s
Flow Area	404.00	ft^2
Wetted Perimeter	111.94	ft
Top Width	106.00	ft
Depth	4.50	ft
Critical Water Elev.	4.55	ft
Critical Slope	0.002408	ft/ft
Velocity	11.28	ft/s
Velocity Head	1.98	ft
Specific Energy	6.48	ft
Froude Number	1.02	
Full Flow Capacity	4558.08	ft^3/s

Flow is supercritical.

Apache FRS Bipass Channel Alt. #1
Cross Section for Irregular Channel

Project Description	
Project File	c:\fmw\spook.fm2
Worksheet	APACHE FRS NEW CHANNEL
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Discharge

Section Data		
Wtd. Mannings Coefficient	0.015	
Channel Slope	0.002500	ft/ft
Water Surface Elevation	4.50	ft
Discharge	4558.08	ft³/s



Apache FRS Bipass Channel Alt. #2\
Worksheet for Trapezoidal Channel

Project Description	
Project File	c:\fmw\spook.fm2
Worksheet	Apache Alt#2
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Channel Depth

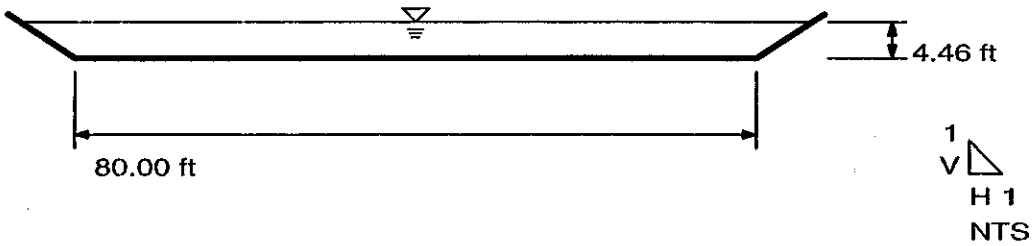
Input Data		
Mannings Coefficient	0.016	
Channel Slope	0.002500	ft/ft
Left Side Slope	1.50	H : V
Right Side Slope	1.50	H : V
Bottom Width	80.00	ft
Discharge	4544.00	ft^3/s

Results		
Depth	4.46	ft
Flow Area	386.74	ft^2
Wetted Perimeter	96.08	ft
Top Width	93.38	ft
Critical Depth	4.51	ft
Critical Slope	0.002405	ft/ft
Velocity	11.75	ft/s
Velocity Head	2.15	ft
Specific Energy	6.61	ft
Froude Number	1.02	
Flow is supercritical.		

Apache FRS Bipass Channel Alt. #2
Cross Section for Trapezoidal Channel

Project Description	
Project File	c:\fmw\spook.fm2
Worksheet	Apache Alt#2
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0.016	
Channel Slope	0.002500	ft/ft
Depth	4.46	ft
Left Side Slope	1.50	H : V
Right Side Slope	1.50	H : V
Bottom Width	80.00	ft
Discharge	4544.00	ft^3/s



Signal Butte FRS Bipass Channel Alt. #1
Worksheet for Rectangular Channel

Project Description	
Project File	c:\fmw\spook.fm2
Worksheet	Signal Butte FRS Bipass Channel Alt. #1
Flow Element	Rectangular Channel
Method	Manning's Formula
Solve For	Discharge

Input Data		
Mannings Coefficient	0.016	
Channel Slope	0.003400	ft/ft
Depth	5.50	ft
Bottom Width	120.00	ft

Results		
Discharge	10503.65	ft^3/s
Flow Area	660.00	ft^2
Wetted Perimeter	131.00	ft
Top Width	120.00	ft
Critical Depth	6.20	ft
Critical Slope	0.002315	ft/ft
Velocity	15.91	ft/s
Velocity Head	3.94	ft
Specific Energy	9.44	ft
Froude Number	1.20	
Flow is supercritical.		

Signal Butte Floodway HEC id RR300
Worksheet for Rectangular Channel

Project Description	
Project File	c:\fmw\spook.fm2
Worksheet	Signal Butte Floodway - HEC id RR300
Flow Element	Rectangular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Mannings Coefficient	0.016	
Channel Slope	0.014600	ft/ft
Bottom Width	50.00	ft
Discharge	12000.00	ft^3/s

Results		
Depth	6.93	ft
Flow Area	346.38	ft^2
Wetted Perimeter	63.86	ft
Top Width	50.00	ft
Critical Depth	12.14	ft
Critical Slope	0.002751	ft/ft
Velocity	34.64	ft/s
Velocity Head	18.65	ft
Specific Energy	25.58	ft
Froude Number	2.32	
Flow is supercritical.		

Signal Butte Floodway HEC id R180-R300
Worksheet for Trapezoidal Channel

Project Description	
Project File	c:\fmw\spook.fm2
Worksheet	Signal Butte Floodway Chan#2
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Discharge

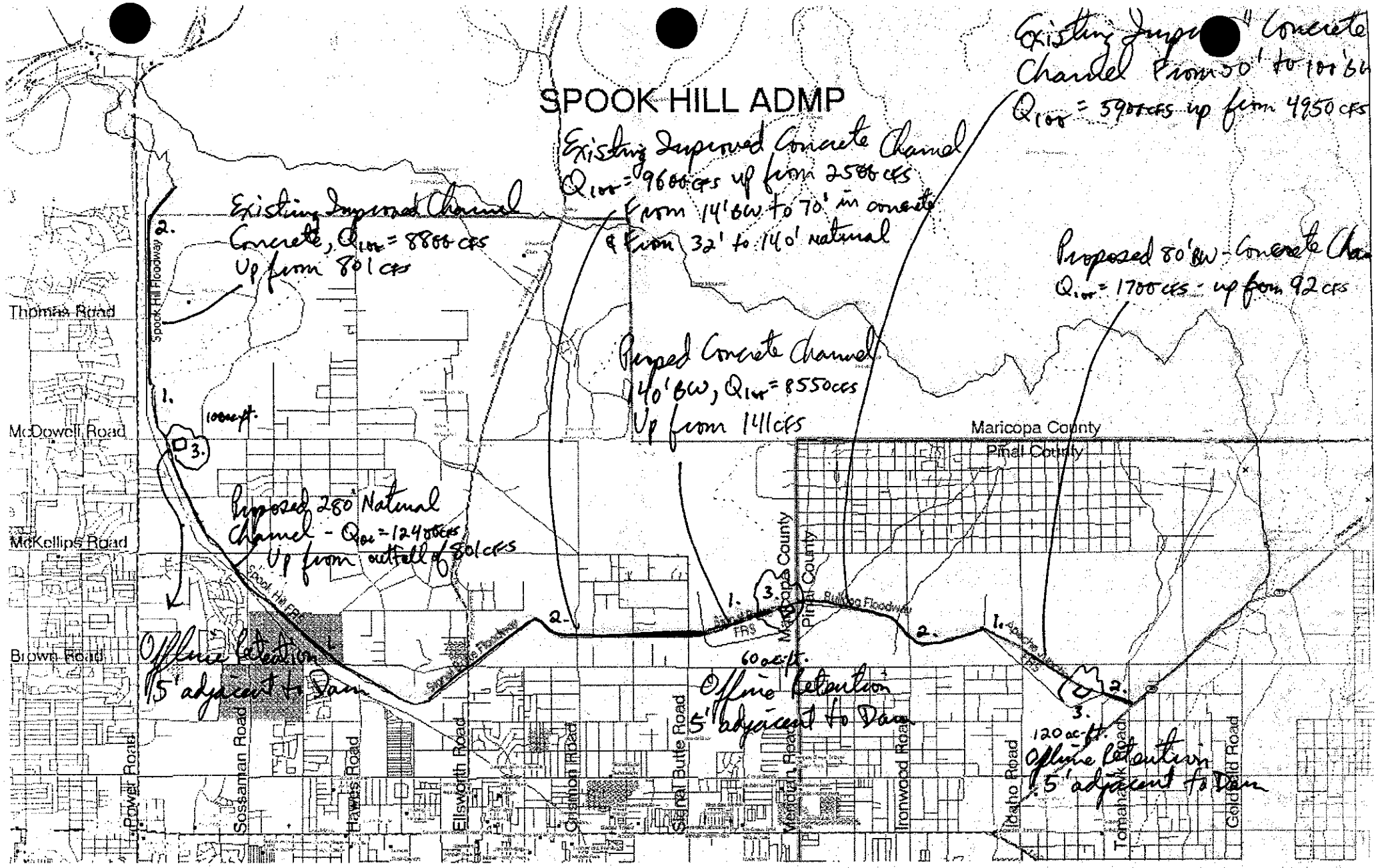
Input Data		
Mannings Coefficient	0.025	
Channel Slope	0.003000	ft/ft
Depth	9.30	ft
Left Side Slope	2.00	H : V
Right Side Slope	2.00	H : V
Bottom Width	80.00	ft

Results		
Discharge	11480.17	ft^3/s
Flow Area	916.98	ft^2
Wetted Perimeter	121.59	ft
Top Width	117.20	ft
Critical Depth	8.03	ft
Critical Slope	0.005005	ft/ft
Velocity	12.52	ft/s
Velocity Head	2.44	ft
Specific Energy	11.74	ft
Froude Number	0.79	
Flow is subcritical.		

SPOOK HILL ADMP
HEC-1 EXISTING CONDITIONS
100-YEAR, 24-HOUR STORM
PROPOSED CHANNELS & IMPROVED CHANNELS
ANALYSIS W/THE EXISTING FRS STRUCTURES
USED FOR RETENTION

This model was developed by bypassing the FRS structures with proposed channels, and increasing the size of the existing channels to handle the additional flow. In addition, the FRS structures were used and modeled as offline basins. From the existing FRS plans, the volume was determined which would allow a maximum of 5' of ponding adjacent to the FRS dam. After this volume was determined, diversions were modeled within the HEC-1 as offline basins, equal to the amount of volume that was determined to exist within the FRS.

File: W:\1999Projects\99989-Spook Hill ADMP Update\Hydrology\HEC-1\SPHEX4.DAT



1. Proposed Channel
2. Existing Improved Channel
3. 5' of Offline Retention

HEC-1 Existing Conditions 100-Year, 24hr Storm
5' Depth of storage within FRS for retention.

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1****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*              JUN  1998               *
*            VERSION 4.1               *
*                                      *
*  RUN DATE   06JAN00  TIME  17:02:00  *
*                                      *
****************************************
```

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****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    HYDROLOGIC ENGINEERING CENTER     *
*          609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616        *
*           (916) 756-1104             *
*                                      *
****************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX        XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                        HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

   1          ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
   2          ID   FOR LAS SENDAS, AND LANDISCOR JAN.1999 AERIAL PHOTOGRAPHS
   3          ID
   4          ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
   5          ID
   6          ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
   7          ID   PRECIPITATION VALUES
   8          ID
   9          ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL, SIGNAL
  10          ID   BUTTE, AND BULLDOG FLOODWAY PLANS
  11          ID
  12          ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE: SPHEX2.DAT
  13          ID
  14          ID   DDM MCUHP1 SPOOK HILL ADMP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
  15          ID
  16          ID   REVISED MODEL BASED ON BYPASSING OF FRS STRUCTURES
  17          ID   AND INCREASING THE EXISTING CHANNELS WIDTHS - MAINTAINING THE SAME DEPTHS
  18          ID   REVISED ON 11/9/99 BY JCD; FILE: SPHEX3.DAT
  19          ID
  20          ID   MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
  21          ID   DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
  22          ID   BY: JCD; 1/4/2000            FILE: SPHEX2RV.DAT
  23          ID
  24          ID   MODEL UPDATE BASED ON BYPASSING OF FRS STRUCTURES AND INCREASING
  25          ID   THE EXISTING CHANNEL WIDTHS WHILE MAINTAINING THE SAME DEPTHS
  26          ID   FILE: SPHEX3RV.DAT           1/4/2000
  27          ID
  28          ID   REVISED MODEL BASED ON USING 5' OF STORAGE WITHIN THE FRS STRUCTURES
  29          ID   AS OFFLINE RETENTION BASINS - VOLUME WAS DETERMINED FROM FRS AS-BUILT
  30          ID   PLANS AND DIVERSIONS WERE PERFORMED FOR THE REMOVAL OF THIS VOLUME
  31          ID   FROM THE PEAK DISCHARGES
  32          ID   REVISED ON 11/11/99 BY JCD; FILE: SPHEX4.DAT
  33          ID   REVISED ON 1/5/2000 BY JCD; FILE: SPHEX4RV.DAT
              *DIAGRAM
  34          IT       2                    1500
  35          IO       3
  36          IN      15
  37          JD    3.81    0.01
  38          PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
  39          PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
  40          PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
  41          PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
  42          PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
  43          PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
  44          PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
  45          PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
  46          PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
  47          PC    .983    .986    .989    .992    .995    .998   1.000
  48          JD    3.58   10.00
  49          JD    3.43   30.00
  50          JD    3.28   60.00
  51          JD    3.22   90.00
  52          JD    3.18  120.00
  53          JD    3.14  150.00
  54          JD    3.05  300.00
1                                        HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  55          JD    2.97  500.00

  56          KK      20
  57          KM   SUB-BASIN 20
  58          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
  59          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
  60          KM     L = 4.58  Kb = .037  Adj. Slope =  118.0
  61          BA   1.821
  62          LG    .350    .360   6.600    .140   7.000
  63          UC    .804    .697

  64          KK      40
  65          KM   SUB-BASIN 40
  66          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
  67          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
  68          KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
```

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 69          BA   2.233
 70          LG    .340    .340   4.900    .280   5.000
 71          UC    .496    .264

 72          KK      60
 73          KM   SUB-BASIN 60
 74          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 75          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 76          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 77          BA   1.746
 78          LG    .330    .350   5.800    .190   9.000
 79          UC    .596    .477

 80          KK     60C
 81          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 82          HC       3

 83          KK     D60
 84          KM   DIVERT FLOW INTO APACHE JUNCTION FRS - VOLUME = 120 ACRE-FEET
 85          KO       1
 86          DT     60D
 87          DI       0    1650    5000
 88          DQ       0       0    3350

 89          KK   RT60D
 90          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
 91          DR     60D

 92          KK   SR60D
 93          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 94          KM     120 ACRE-FEETx43560/36x3600=40cfs
 95          KO       1       2
 96          RS       1    STOR       0
 97          SV       0     120
 98          SQ       0      50
1                                        HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 99          KK    C60D
100          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
101          HC       2

102          KK     60R
103          KM   ROUTE FLOW PAST APACHE JUNCTION FRS
104          RS       1    FLOW      -1
105          RC    .025    .016    .025    6600   .0025
106          RX       0       4       8     8.1    88.1    88.2   102.2   106.2
107          RY     4.5     2.5     2.5       0       0     2.5     2.5     4.5

108          KK     R60
109          KM   ROUTE FLOW FROM APACHE JUNCTION FRS TO START OF BULLDOG FLOODWAY
110          RS       1    FLOW      -1
111          RC    .016    .016    .016    2850    .012
112          RX       0       1       2     2.1    82.1    82.2      83      84
113          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             *      0       1       2     2.1     5.6     5.7       6       7
             *    3.5     3.5     3.5       0       0     3.5     3.5     3.5

114          KK    RR60
115          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
116          RS       1    FLOW      -1
117          RC    .016    .016    .016    3500    .005
118          RX       0       1       2     2.1   102.1   102.2     103     104
119          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             *      0       1       2     2.1     7.1     7.2       8       9
             *    3.5     3.5     3.5       0       0     3.5     3.5     3.5
             *   SR60
             *  APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
             *  OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
             *  EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
             *  STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
             *      1    STOR       0
             *      0     .03     100     200     300     400
             *      0      71      81      87    91.5      94
             *   83.5    93.5      96    97.7      99   99.77

120          KK      80
121          KM   SUB-BASIN 80
122          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
123          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
124          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
125          BA   1.475
126          LG    .330    .330   5.600    .210   4.000
127          UC    .433    .259

128          KK     80C
129          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
130          HC       2   1.475
1                                        HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

131          KK     R80
132          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
133          RS       1    FLOW      -1
134          RC    .016    .016    .016    1200    .005
135          RX       0       1       2     2.1   102.1   102.2     103     104
136          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             *      0       1       2     2.1    37.1    37.2      38      39
             *    4.5     4.5     4.5       0       0     4.5     4.5     4.5

137          KK     100
138          KM   SUB-BASIN 100
139          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
140          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
141          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
142          BA    .484
143          LG    .320    .290   5.100    .260   3.000
144          UC    .533    .473
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145          KK    100C
146          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
147          HC       2

148          KK    R100
149          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
150          RS       1    FLOW      -1
151          RC    .016    .016    .016     940    .005
152          RX       0       1       2     2.1   102.1   102.2     103     104
153          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             *      0       1       2     2.1    52.1    52.2      53      54
             *    4.5     4.5     4.5       0       0     4.5     4.5     4.5

154          KK     120
155          KM   SUB-BASIN 120
156          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
157          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
158          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
159          BA   2.202
160          LG    .330    .280   6.800    .130  11.000
161          UC    .429    .226

162          KK    120C
163          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
164          HC       2

165          KK    R120
166          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
167          RS       1    FLOW      -1
168          RC    .025    .016    .025    2100    .005
169          RX       0       6      10    10.1   110.1   110.2   124.2   128.2
170          RY       8       5       5       0       0       5       5       8
             *      0       6      10    10.1    60.1    60.2    74.2    80.2
             *      8       5       5       0       0       5       5       8
1                                        HEC-1 INPUT                                                    PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

171          KK     140
172          KM   SUB-BASIN 140
173          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
174          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
175          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
176          BA    .598
177          LG    .310    .280   4.200    .440   5.000
178          UC    .421    .278

179          KK     160
180          KM   SUB-BASIN 160
181          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
182          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
183          KM     L = 3.18  Kb = .043  Adj. Slope =  299.2
184          BA    .777
185          LG    .340    .340   4.600    .330   5.000
186          UC    .479    .476

187          KK     180
188          KM   SUB-BASIN 180
189          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
190          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
191          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
192          BA   1.000
193          LG    .350    .350   4.150    .430    .000
194          UC    .571    .403

195          KK    180C
196          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
197          HC       4

198          KK     240
199          KM   SUB-BASIN 240
200          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
201          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
202          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
203          BA   1.036
204          LG    .350    .350   4.600    .330   2.000
205          UC    .500    .458

206          KK    R240
207          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
208          KM   PASS MOUNTAIN DIVERSION
209          RS       2    FLOW      -1
210          RC    .035    .025    .035    2100    .005
211          RX       0       1       2      11      41      50      51      52
212          RY       3       3       3       0       0       3       3       3

213          KK     220
214          KM   SUB-BASIN 220
215          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
216          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
217          KM     L = 3.14  Kb = .040  Adj. Slope =  302.1
218          BA   1.252
1                                        HEC-1 INPUT                                                    PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

219          LG    .350    .350   7.000    .120   3.000
220          UC    .425    .315
             * DDM   ***** Preserved *****

221          KK    220C
222          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
223          HC       2
             * DDM   ***** Preserved *****

224          KK    R220
225          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
226          KM   PASS MOUNTAIN DIVERSION
227          RS       1    FLOW      -1
228          RC    .035    .025    .035    1900    .005
229          RX       0       1       2      14      64      76      77      78
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230          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

231          KK     200
232          KM   SUB-BASIN 200
233          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
234          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
235          KM     L = 3.28  Kb = .038  Adj. Slope =  299.9
236          BA   1.811
237          LG    .350    .390   5.800    .190  11.000
238          UC    .433    .270
             * DDM   ***** Preserved *****

239          KK    200C
240          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
241          HC       2
             * DDM   ***** Preserved *****

242          KK    R200
243          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
244          RS       1    FLOW      -1
245          RC    .035    .025    .035    1300    .005
246          RX       0       1       2      14     114     126     127     128
247          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

248          KK    C180
249          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *      1       2
250          HC       2

251          KK    D180
252          KM   DIVERT FLOW INTO SIGNAL BUTTE FRS - VOLUME = 60 ACRE-FEET
253          KO       1
254          DT    180D
255          DI       0    8500   15000
256          DQ       0       0    6500
1                                    HEC-1 INPUT                                    PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

257          KK   RT180
258          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
259          DR    180D

260          KK  SR180D
261          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
262          KM      60 ACRE-FEETx43560/36x3600=20cfs
             *      1
263          RS       1    STOR       0
264          SV       0      60
265          SQ       0      60

266          KK   C180D
267          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
268          HC       2
             * DDM   ***** Preserved *****

269          KK    180R
270          KM   ROUTE FLOW THROUGH SIGNAL BUTTE FRS
271          RS       1    FLOW      -1
272          RC    .016    .016    .016    4400   .0034
273          RX       0       1       2     2.1   142.1   142.2     143     144
274          RY     5.5     5.5     5.5       0       0     5.5     5.5     5.5

275          KK    R180
276          KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
277          RS       1    FLOW      -1
278          RC    .035    .025    .035    1500    .003
279          RX       0       1       2    22.6   122.6   142.6     143     144
280          RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
             *      0       1       2    22.6    38.6    59.2      60      61
             *    9.3     9.3     9.3       0       0     9.3     9.3     9.3
             *  SR180
             *  SIGNAL BUTTE FRS DATED 1/28/85
             *  OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
             *  EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
             *  STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
             *      1    STOR       0
             *      0     .04     250     500     750    1060
             *      0   106.5   125.5   137.5     146     160
             *     90     101   104.5     107     109   112.4
             * DDM   ***** Updated *****

281          KK     260
282          KM   SUB-BASIN 260
283          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
284          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
285          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
286          BA    .267
287          LG    .300    .170   6.800    .160  15.000
288          UC    .363    .215
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                    PAGE  8

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

289          KK    260C
290          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
291          HC       2    .267

292          KK    R260
293          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
294          RS       2    FLOW      -1
295          RC    .035    .025    .035    2300    .003
296          RX       0       1       2    23.4   123.4   143.4     144     145
297          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             *      0       1       2    23.4    43.4    64.8      65      66
             *    9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****
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298          KK     280
299          KM   SUB-BASIN 280
300          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
301          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
302          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
303          BA    .304
304          LG    .300    .250   5.300    .290  15.000
305          UC    .333    .175
             * DDM   ***** Preserved *****

306          KK    280C
307          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
308          HC       2

309          KK    R280
310          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
311          RS       2    FLOW      -1
312          RC    .035    .025    .035    2500    .003
313          RX       0       1       2    23.4   123.4   143.4     144     145
314          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             *        0       1       2    23.4    43.4    64.8      65      66
             *      9.7     9.7     9.7       0       0     9.7     9.7     9.7

315          KK     300
316          KM   SUB-BASIN 300
317          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
318          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
319          KM     L = 2.28  Kb = .041  Adj. Slope =  127.0
320          BA    .988
321          LG    .340    .320   4.500    .370   7.000
322          UC    .538    .362
             * DDM   ***** Preserved *****

323          KK    300C
324          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
325          HC       2
1                                        HEC-1 INPUT                                          PAGE  9

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

326          KK    R300
327          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
328          RS       2    FLOW      -1
329          RC    .035    .025    .035    2200    .003
330          RX       0       1       2    23.4   143.4   163.4     164     165
331          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             *        0       1       2    23.4    55.4    76.8      77      78
             *      9.7     9.7     9.7       0       0     9.7     9.7     9.7

332          KK   RR300
333          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
334          RS       2    FLOW      -1
335          RC    .016    .016    .016    6050   .0146
336          RX       0       1       2     2.1    72.1    72.2      73      74
337          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
             *        0       1       2     2.1    16.1    16.2      17      18
             *      7.5     7.5     7.5       0       0     7.5     7.5     7.5

338          KK     320
339          KM   SUB-BASIN 320
340          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
341          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
342          KM     L = 4.67  Kb = .039  Adj. Slope =  248.6
             *        1       2
343          BA   1.527
344          LG    .330    .320   4.400    .390   9.000
345          UC    .658    .627

346          KK    D320
347          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
348          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
349          KM   SIERRA HEIGHTS, FALCON RIDGE, & MARBLE CREEK
350          KM       MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *        1
351          DT   BS320   12.27
352          DI       0   10000
353          DQ       0   10000

354          KK   RT320
355          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
356          DR   BS320

357          KK   SR320
358          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
359          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *        1
360          RS       1    STOR       0
361          SV       0     .01    12.3
362          SQ       0     4.2     4.2
1                                        HEC-1 INPUT                                          PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

363          KK    C320
364          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
365          HC       3

366          KK    R320
367          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
368          RS       6    FLOW      -1
369          RC    .025    .025    .025    6800   .0016
370          RX       0       1       2      30     250     278     279     280
371          RY       7       7       7       0       0       7       7       7
             *        0       1       2      30      90     118     119     120
             *        7       7       7       0       0       7       7       7

372          KK     340
373          KM   SUB-BASIN 340
374          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
375          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
376          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
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377          BA   1.449
378          LG    .280    .280   4.150    .520  21.000
379          UC    .512    .287

380          KK    D340
381          KM    ~    DIVERT FLOW INTO ONLINE  DETENTION BASIN
382          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
383          KM   GRANDVIEW ESTATES, BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
384          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *      1
385          DT   BS340      56
386          DI       0   10000
387          DQ       0   10000

388          KK   RT340
389          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
390          DR   BS340

391          KK   SR340
392          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
393          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *      1
394          RS       1    STOR       0
395          SV       0     .01      56
396          SQ       0    18.9    18.9

397          KK    C340
398          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
399          HC       3

400          KK    R340
401          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
402          RS       2    FLOW      -1
403          RC    .025    .025    .025    2000   .0016
404          RX       0       1       2      30     270     298     299     300
405          RY       7       7       7       0       0       7       7       7
             *      0       1       2      30     114     142     143     144
             *      7       7       7       0       0       7       7       7
1                                          HEC-1 INPUT                                                    PAGE 11

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

406          KK     350
407          KM   SUB-BASIN 350
408          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
409          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
410          KM     L = 2.22  Kb = .042  Adj. Slope =  315.0
411          BA    .970
412          LG    .350    .350   4.550    .340   4.000
413          UC    .367    .234

414          KK   RR350
415          KM   FROM SUB-BASIN 350 TO SUB-BASIN 360
416          RS      12    FLOW      -1
417          RC     .05    .035     .05   25600    .049
418          RX    1000    1010    1020    1036    1041    1057    1067    1077
419          RY      15    14.5      14      10      10      14    14.5      15

420          KK     360
421          KM   SUB-BASIN 360
422          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
423          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
424          KM     L = 4.84  Kb = .042  Adj. Slope =  257.5
425          BA   1.329
426          LG    .300    .300   4.250    .460  12.000
427          UC    .712    .763
             * DDM   ***** Preserved *****

428          KK    D360
429          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
430          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
431          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
432          DT   BS360    28.6
433          DI       0   10000
434          DQ       0   10000

435          KK   RT360
436          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
437          DR   BS360

438          KK   SR360
439          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
440          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
441          RS       1    STOR       0
442          SV       0     .01    28.6
443          SQ       0     9.6     9.6

444          KK    360C
445          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
446          HC       4
1                                          HEC-1 INPUT                                                    PAGE 12

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

447          KK    R360
448          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
449          RS       3    FLOW      -1
450          RC    .025    .025    .025    2600   .0016
451          RX       0       1       2      30     300     328     329     330
452          RY       7       7       7       0       0       7       7       7
             *      0       1       2      30     130     158     159     160
             *      7       7       7       0       0       7       7       7

453          KK     380
454          KM   SUB-BASIN 380
455          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
456          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
457          KM     L = 5.05  Kb = .041  Adj. Slope =  255.8
458          BA   1.638
459          LG    .320    .320   4.400    .420   8.000
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460          UC    .733    .723

461          KK    D380
462          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
463          KM    DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
464          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
465          DT    BS380    28.6
466          DI        0   10000
467          DQ        0   10000

468          KK    RT380
469          KM    RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
470          DR    BS380

471          KK    SR380
472          KM    RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
473          KM     28.6 ACRE-FEETx43560/36x3600=9.6cfs
474          RS        1    STOR       0
475          SV        0     .01    28.6
476          SQ        0     9.6     9.6

477          KK    380C
478          KM    HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
479          HC        3

480          KK    R380
481          KM    ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
482          RS        4    FLOW      -1
483          RC     .025    .025    .025    4000   .0016
484          RX        0       1       2      30     300     328     329     330
485          RY        7       7       7       0       0       7       7       7
             *      0       1       2      30     150     178     179     180
             *      7       7       7       0       0       7       7       7
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

486          KK     390
487          KM    SUB-BASIN 390
488          KM    24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
489          KM    THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
490          KM      L = 2.82  Kb = .041  Adj. Slope =  298.1
491          BA    1.089
492          LG     .330    .330   5.200    .260  14.000
493          UC     .41    .306

494          KK    D390
495          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
496          KM    DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
497          KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
             *      1
498          DT    BS390     3.5
499          DI        0   10000
500          DQ        0   10000

501          KK    RT390
502          KM    RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
503          DR    BS390

504          KK    SR390
505          KM    RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
506          KM      3.5 ACRE-FEETx43560/36x3600=1.2cfs
507          RS        1    STOR       0
508          SV        0     .01     3.5
509          SQ        0     1.2     1.2

510          KK    390C
511          KM    HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
512          HC        2

513          KK    RR390
514          KM    FROM SUB-BASIN 390 TO SUB-BASIN 400
515          RS        6    FLOW      -1
516          RC      .05    .035     .05   14890    .056
517          RX     1000    1010    1020    1036    1041    1057    1067    1077
518          RY       15    14.5      14      10      10      14    14.5      15

519          KK     400
520          KM    SUB-BASIN 400
521          KM    24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
522          KM    THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
523          KM      L = 1.64  Kb = .046  Adj. Slope =  110.0
524          BA     .616
525          LG     .320    .320   3.130    .930   6.000
526          UC     .592    .405
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

527          KK    400C
528          KM    HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
529          HC        3

530          KK    R400
531          KM    ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
532          RS        4    FLOW      -1
533          RC     .025    .025    .025    3800   .0016
534          RX        0       1       2      30     310     338     339     340
535          RY        7       7       7       0       0       7       7       7
             *      0       1       2      30     180     208     209     210
             *      7       7       7       0       0       7       7       7

536          KK     420
537          KM    SUB-BASIN 420
538          KM    24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
539          KM    THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
540          KM      L = 1.91  Kb = .042  Adj. Slope =  120.0
541          BA     .849
542          LG     .310    .270   3.880    .580  12.000
543          UC     .512    .325
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            * DDM   ***** Preserved *****

544         KK    D420
545         KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
546         KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
547         KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
            *      1
548         DT   BS420   38.55
549         DI       0   10000
550         DQ       0   10000

551         KK   RT420
552         KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
553         DR   BS420

554         KK   SR420
555         KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
556         KM   38.55 ACRE-FEETx43560/36x3600=13cfs
557         RS       1    STOR       0
558         SV       0   38.55
559         SQ       0      20

560         KK    420C
561         KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
562         HC       3

563         KK    R420
564         KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
565         RS       3    FLOW      -1
566         RC    .025    .025    .025    2900    .0016
567         RX       0       1       2      30     310     338     339     340
568         RY       7       7       7       0       0       7       7       7
1                                        HEC-1 INPUT                                                    PAGE 15

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

569         KK   DD420
570         KM   DIVERT FLOW INTO SPOOK HILL FRS - VOLUME = 100 ACRE-FEET
571         KO       1
572         DT    420D
573         DI       0    8400   20000
574         DQ       0       0   11600

575         KK  RT420D
576         KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
577         DR    420D

578         KK  SR420D
579         KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
580         KM     100 ACRE-FEETx43560/36x3600=34cfs
            *      1
581         RS       1    STOR       0
582         SV       0     .01     100
583         SQ       0      34      34

584         KK   C420D
585         KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
586         HC       2
            * DDM   ***** Updated *****

587         KK     440
588         KM   SUB-BASIN 440
589         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
590         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
591         KM     L =  .40  Kb = .039  Adj. Slope =  315.0
592         BA    .080
593         LG    .190    .380   6.400    .140  13.000
594         UC    .129    .077

595         KK     R70
596         KM        ROUTE FLOW FROM SUB-BASIN 60 TO C108
597         RS       1    FLOW      -1
598         RC     .05    .035     .05    2250     .08
599         RX    1000    1025    1050    1070    1075    1095    1120    1145
600         RY      30    22.9    15.7      10      10    15.7    22.9      30
            * DDM   ***** Updated *****

601         KK     441
602         KM   SUB-BASIN 441
603         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
604         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
605         KM     L =  .28  Kb = .069  Adj. Slope =  315.0
606         BA    .010
607         LG    .300    .250   5.600    .220   5.000
608         UC    .150    .225
            * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 16

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

609         KK    C108
610         KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60 AND 61A
611         HC       2
            * DDM   ***** Preserved *****

612         KK    DIV4
613         KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
            *      1
614         DT   SPLIT
615         DI       0      14      40      82     120     154     180
616         DQ       0       7      20      41      60      77      90
            * DDM   ***** Preserved *****

617         KK    R108
618         KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
619         RS       2    FLOW      -1
620         RC     .05    .035     .05    3200      .1
621         RX    1000    1025    1050    1070    1075    1095    1120    1145
622         RY      30    22.9    15.7      10      10    15.7    22.9      30
            * DDM   ***** Updated *****
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623          KK     442
624          KM   SUB-BASIN 442
625          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
626          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
627          KM     L =  .83  Kb = .055  Adj. Slope =  274.2
628          BA    .100
629          LG    .300    .270   3.290    .770   5.000
630          UC    .258    .264
             * DDM   ***** Preserved *****

631          KK     C67
632          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60, 61 AND 67
633          HC       2
             * DDM   ***** Preserved *****

634          KK    DIV6
635          KM        OFFLINE BASIN WITH 75 FOOT WEIR SET AT 3 FEET ABOVE BOTTOM OF CHANNEL
636          KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
             *      1
637          DT  BASIN4
638          DI       0      10      32      56   136.6   276.5     454   662.8
639          DQ       0       0       0       0    71.6   202.5     372   572.8

640          KK  RTDIV6
641          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
642          DR  BASIN4

643          KK  RFDIV6
644          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
645          KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
             *      1
646          RS       1    STOR       0
647          SV       0     .01     3.3
1                                        HEC-1 INPUT                                          PAGE 17

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

648          SQ       0     1.1     1.1

649          KK   CDIV6
650          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
651          HC       2

652          KK     443
653          KM   SUB-BASIN 443
654          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
655          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
656          KM     L =  .71  Kb = .050  Adj. Slope =  315.0
657          BA    .080
658          LG    .250    .190   8.000    .080  10.000
659          UC    .196    .194

660          KK   DIV66
661          KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
662          KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
663          DT   WSH66
664          DI       0      78     100     200
665          DQ       0      78      78      78

666          KK    R113
667          KM        ROUTE FLOW FROM C113 TO C114
668          RS       1    FLOW      -1
669          RC    .019    .019    .019    1300    .029
670          RX    1000    1004    1008    1012    1018    1022    1026    1030
671          RY      17   15.33   12.67      10      10   12.67   15.33      17

672          KK    C114
673          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
674          HC       2

675          KK     444
676          KM   SUB-BASIN 444
677          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
678          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
679          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
680          BA    .040
681          LG    .130    .350   4.450    .320   1.000
682          UC    .112    .084
             * DDM   ***** Preserved *****

683          KK     R58
684          KM        ROUTE FLOW FROM SUB-BASIN 58 TO C107
685          RS       2    FLOW      -1
686          RC     .05    .035     .05    2370   .0516
687          RX    1000    1010    1020    1050    1055    1085    1095    1105
688          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE 18

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

689          KK     445
690          KM   SUB-BASIN 445
691          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
692          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
693          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
694          BA    .190
695          LG    .170    .320   3.470    .590   3.000
696          UC    .192    .130
             * DDM   ***** Preserved *****

697          KK    C107
698          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 58 AND 59
699          HC       2
             * DDM   ***** Preserved *****

700          KK    R107
701          KM        ROUTE FLOW FROM C107 TO C109
702          RS       1    FLOW      -1
703          RC     .05    .035     .05     700   .0516
704          RX    1000    1010    1020    1050    1055    1085    1095    1105
705          RY      19      18      17      10      10      17      18      19
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            * DDM   ***** Preserved *****

            KK    RTB2
            KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
            *      1
            DR   SPLIT
            * DDM   ***** Preserved *****

            KK  RSPLIT
            KM        ROUTE FLOW FROM SPLIT TO C109
            RS       1    FLOW      -1
            RC     .05    .035     .05     800     .05
            RX    1000    1025    1050    1070    1075    1095    1120    1145
            RY      30    22.9    15.7      10      10    15.7    22.9      30
            * DDM   ***** Updated *****

            KK     446
            KM   SUB-BASIN 446
            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
            KM     L =  .46  Kb = .061  Adj. Slope =  303.9
            BA    .040
            LG    .270    .250   4.500    .400  19.000
            UC    .183    .189
            * DDM   ***** Preserved *****

            KK    C109
            KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
            HC       3
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 19

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            KK    DIV5
            KM        DIVERT FLOW INTO WASHES TOWARDS WEST
            KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
            *      1
            DT  WSH404
            DI       0    40.7    71.2   121.6     190     276   379.4   500.6
            DQ       0      35      35      35      35      35      35      35
            * DDM   ***** Preserved *****

            KK    R109
            KM        ROUTE FLOW FROM C109 TO C110
            RS       1    FLOW      -1
            RC    .019    .019    .019    3080     .05
            RX    1000    1005    1010    1015    1025    1030    1035    1040
            RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
            * DDM   ***** Updated *****

            KK     447
            KM   SUB-BASIN 447
            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
            KM     L =  .49  Kb = .056  Adj. Slope =  221.0
            BA    .090
            LG    .250    .270   3.350    .870  30.000
            UC    .208    .145
            * DDM   ***** Preserved *****

            KK   RT404
            KM        RETRIEVE DIVERTED FLOW FOR WASH 109
            DR  WSH404
            * DDM   ***** Preserved *****

            KK    R404
            KM        ROUTE FLOW FROM C110 TO C110
            RS       5    FLOW      -1
            RC    .019    .019    .019    3540     .03
            RX    1000    1012    1016    1020    1025    1029    1033    1045
            RY      15      12      11      10      10      11      12      15
            * DDM   ***** Preserved *****

            KK    C110
            KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 62 AND C109
            HC       3
            * DDM   ***** Preserved *****

            KK    R110
            KM        ROUTE FLOW FROM C110 TO C115
            RS       1    FLOW      -1
            RC    .019    .019    .019     580    .029
            RX    1000    1012    1016    1020    1035    1039    1043    1055
            RY      15      12      11      10      10      11      12      15
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 20

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            KK    C115
            KM        COMBINE HYDROGRAPHS FROM C114 AND C110
            HC       2
            * DDM   ***** Preserved *****

            KK    R115
            KM        ROUTE FLOW FROM C115 TO C119
            RS       1    FLOW      -1
            RC    .019    .019    .019    2125    .029
            RC    .019    .019    .019     580   .0291
            RX    1000    1012    1016    1020    1035    1039    1043    1055
            RY      15      12      11      10      10      11      12      15
            * DDM   ***** Updated *****

            KK     448
            KM   SUB-BASIN 448
            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
            KM     L =  .36  Kb = .042  Adj. Slope =  315.0
            BA    .045
            LG    .170    .310   4.200    .390  11.000
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781          UC    .133    .102
             * DDM   ***** Updated *****

782          KK     449
783          KM   SUB-BASIN 449
784          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
785          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
786          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
787          BA    .050
788          LG    .260    .280   3.500    .640   6.000
789          UC    .167    .134
             * DDM   ***** Preserved *****

790          KK   C6364
791          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 63 AND 64
792          HC       2
             * DDM   ***** Preserved *****

793          KK   R6364
794          KM        ROUTE FLOW FROM DIVERSIONS 63 AND 64 TO C116
795          RS       5    FLOW      -1
796          RC     .05    .035     .05    4375   .0333
797          RX    1000    1027    1053    1080    1090    1117    1143    1170
798          RY      15   13.33   11.67      10      10   11.67   13.33      15
             * DDM   ***** Updated *****

799          KK     450
800          KM   SUB-BASIN 450
801          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
802          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
803          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
804          BA    .070
805          LG    .340    .350   3.630    .570   4.000
1                                         HEC-1 INPUT                                          PAGE 21

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

806          UC    .296    .383
             * DDM   ***** Updated *****

807          KK     451
808          KM   SUB-BASIN 451
809          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
810          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
811          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
812          BA    .025
813          LG    .340    .340   3.290    .750   3.000
814          UC    .271    .453
             * DDM   ***** Preserved *****

815          KK    RT66
816          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
817          DR   WSH66
             * DDM   ***** Updated *****

818          KK     452
819          KM   SUB-BASIN 452
820          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
821          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
822          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
823          BA    .040
824          LG    .260    .280   3.700    .550   9.000
825          UC    .171    .166
             * DDM   ***** Preserved *****

826          KK   C6566
827          KM        COMBINE HYDROGRAPHS FROM DIVERSIONS 65 AND 66
828          HC       2
             * DDM   ***** Preserved *****

829          KK   R6566
830          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
831          RS       2    FLOW      -1
832          RC     .05    .035     .05    2435   .0282
833          RX    1000    1045    1090    1150    1160    1220    1265    1310
834          RY      25      23      20      10      10      20      23      25
             * DDM   ***** Preserved *****

835          KK    C116
836          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 68 AND 69 AND DIVERTED FLOWS
837          KM        FROM SUB-BASINS 63, 64, 65 AND 66
838          HC       4
             * DDM   ***** Preserved *****

839          KK  BASIN5
840          KM        RESERVOIR WITHIN PARCEL 31, 2-48 INCH PIPES AT OUTFALL
841          KM        BASIN 5 FEET DEEP
842          RS       1    ELEV       0
843          SV       0     4.5     9.9
844          SQ       0      69     190
845          SE       0     2.5       5
             * DDM   ***** Preserved *****
1                                         HEC-1 INPUT                                          PAGE 22

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

846          KK    R116
847          KM        ROUTE FLOW FROM C116 TO C118
848          RS       3    FLOW      -1
849          RC     .05    .035     .05    1300   .0333
850          RX    1000    1100    1200    1300    1320    1420    1520    1620
851          RY      13      12      11      10      10      11      12      13
             * DDM   ***** Updated *****

852          KK     453
853          KM   SUB-BASIN 453
854          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
855          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
856          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
857          BA    .060
858          LG    .290    .300   3.290    .820  18.000
859          UC    .275    .284
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          * DDM   ***** Preserved *****

860       KK    C117
861       KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 70 AND C115
862       HC       2
          * DDM   ***** Preserved *****

863       KK    C118
864       KM        COMBINE HYDROGRAPHS FROM C116 AND C117
865       HC       2
          * DDM   ***** Preserved *****

866       KK    R118
867       KM        ROUTE FLOW FROM C118 TO C119
868       RS       1    FLOW      -1
869       RC    .019    .019    .019    1500    .024
870       RX    1000    1012    1016    1020    1035    1039    1043    1055
871       RY      15      12      11      10      10      11      12      15
          * DDM   ***** Preserved *****

872       KK    DIV7
873       KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE, FLOWS ENTER BASIN OVER
874       KM        60' WEIR SET AT 1.5' ABOVE THE CHANNEL BOTTOM
          *      1
875       DT  BASIN6
876       DI       0    20.4    76.9   176.4   383.8   696.7  1105.8  1611.6
877       DQ       0       0       0       0    57.3     162   297.6   458.2

878       KK  RTDIV7
879       KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
880       DR  BASIN6

881       KK  RFDIV7
882       KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
883       KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
884       RS       1    STOR       0
885       SV       0     .01     3.6
886       SQ       0     1.2     1.2
1                                   HEC-1 INPUT                                    PAGE 23

LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

887       KK   CDIV7
888       KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
889       HC       2

890       KK     454
891       KM   SUB-BASIN 454
892       KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
893       KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
894       KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
895       BA    .180
896       LG    .300    .310   3.780    .560  14.000
897       UC    .379    .395
          * DDM   ***** Preserved *****

898       KK    C119
899       KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 71 AND C119
          *      1       2
900       HC       2
          * DDM   ***** Preserved *****

901       KK    R454
902       KM   FROM SUB-BASIN 454 TO SUB-BASIN 455
903       RS       8    FLOW      -1
904       RC     .05    .035     .05    6000    .005
905       RX    1000    1010    1020    1036    1041    1057    1067    1077
906       RY      15    14.5      14      10      10      14    14.5      15
          * DDM   ***** Updated *****

907       KK     455
908       KM   SUB-BASIN 455
909       KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
910       KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
911       KM     L = 2.92  Kb = .039  Adj. Slope =  269.2
912       BA   1.559
913       LG    .280    .270   3.850    .590  22.000
914       UC    .450    .279

915       KK    D455
916       KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
917       KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
918       KM   FOR BASIN #: 30,34,43,47&58
919       KM        MAXIMUM VOLUME DIVERSION = 74.1 acre-feet
          *      1
920       DT   BS455    74.1
921       DI       0   10000
922       DQ       0   10000

923       KK   RT455
924       KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
925       DR   BS455
1                                   HEC-1 INPUT                                    PAGE 24

LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

926       KK   SR455
927       KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
928       KM    74.1 ACRE-FEETx43560/36x3600=25cfs
929       RS       1    STOR       0
930       SV       0     .01    74.1
931       SQ       0      25      25

932       KK    C455
933       KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
934       HC       2

935       KK    455C
936       KM   HYDROGRAPH COMBINATION AT THE END OF THE SPOOK HILL FRS
          *      1       2
937       HC       3
```

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*  SR440
*  SPOOK HILL FRS PLANS DATED 6/15/77
*  OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
*  EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
*  STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
*      1    STOR       0
*      0     .04     100     300     500     680
*      0     640     720     780     825     860
*     66    77.5      79    80.2    81.2      82

KK   RR455
KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
RS       6    FLOW      -1
RC    .016    .016    .016    9200    .002
RX       0       1       2      15      71      84      85      86
RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
*     11    FLOW      -1
*   .035    .025    .035    9200    .002
*      0       1       2      28      58      84      85      86
*     13      13      13       0       0      13      13      13

KK     456
KM   SUB-BASIN 456
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
KM     L =  .94  Kb = .045  Adj. Slope =  315.0
BA    .260
LG    .300    .380   5.600    .200  12.000
UC    .217    .139

KK    DIV1
KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
*      1
DT  BASIN1
DI       0    24.4    70.8   132.2   194.1   281.1   415.5   571.9   753.2
DQ       0       0       0       0       0    57.3     162   297.6   458.2
* DDM   ***** Preserved *****
```



```
LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK    DIV2
KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
KM        WASHES THAT DRAIN TO THE WEST, SOUTHERN WASHES FED BY 30" AND 18" PIPE
DT    WA30
DI       0    24.4    70.8   132.2   194.1   223.8   253.5  274.25     295
DQ       0     8.4    24.8    40.2    52.1    57.8    63.5    67.3      71
* DDM   ***** Preserved *****

KK    R456
KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
RS       3    FLOW      -1
RC     .05    .035     .05    3800    .044
RX    1000    1010    1020    1036    1041    1057    1067    1077
RY   14.88   14.44      14      10      10      14   14.44   14.88
* DDM   ***** Updated *****

KK     457
KM   SUB-BASIN 457
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
BA    .190
LG    .270    .330   3.950    .460   6.000
UC    .237    .195
* DDM   ***** Preserved *****

KK    C101
KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
HC       2
* DDM   ***** Preserved *****

KK    DIV3
KM        RESERVOIR AT THE EDGE OF THE PROPERTY, FLOW FROM 10' WIDE CHANNEL
KM        DIVERTED INTO OFFLINE BASIN OVER A 150' WEIR SET AT 0.75 FEET
KM        ABOVE CHANNEL
*      1
DT  BASIN2
DI       0      18    59.3   121.6   255.8   454.1   703.1   998.3  1338.4
DQ       0       0       0       0    50.6   143.2   263.1     405     566

KK  RTDIV3
KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
DR  BASIN2

KK  RFDIV3
KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
RS       1    STOR       0
SV       0     .01       5
SQ       0     1.7     1.7
```



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LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK   CDIV3
KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
HC       2
* DDM   ***** Preserved *****

KK    R101
KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
RS       1    FLOW      -1
RC     .05    .035     .05    1450    .05
RX    1000    1010    1020    1036    1041    1057    1067    1077
RY      15    14.5      14      10      10      14    14.5      15
* DDM   ***** Updated *****

KK     458
KM   SUB-BASIN 458
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1008        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1009        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1010        KM     L =  .76  Kb = .048  Adj. Slope =  299.0
1011        BA    .190
1012        LG    .290    .330   5.800    .190   6.000
1013        UC    .204    .131
            * DDM   ***** Preserved *****

1014        KK    C103
1015        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
1016        HC       2
            * DDM   ***** Preserved *****

1017        KK    R103
1018        KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
1019        RS       1    FLOW      -1
1020        RC     .05    .035     .05     900     .03
1021        RX    1000    1010    1020    1030    1050    1060    1070    1080
1022        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Preserved *****

1023        KK    RT30
1024        KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
1025        DR    WA30
            * DDM   ***** Preserved *****

1026        KK     R30
1027        KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
1028        RS       1    FLOW      -1
1029        RC     .05    .035     .05    1630     .05
1030        RX    1000    1010    1020    1036    1041    1057    1067    1077
1031        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                    PAGE 27

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1032        KK    RTB1
1033        KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
            *      1        2
1034        DR  BASIN1
            * DDM   ***** Preserved *****

1035        KK      B1
1036        KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1037        KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
            *      1        2
1038        RS       1    ELEV       0
1039        SV              .7     1.4     2.3     2.7     3.2
1040        SQ       0       5      16      28    32.5      37
1041        SE       0       1       2       3     3.5       4
            * DDM   ***** Preserved *****

1042        KK     RB1
1043        KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
1044        RS       2    FLOW      -1
1045        RC     .05    .035     .05    1720     .05
1046        RX    1000    1010    1020    1036    1041    1057    1067    1077
1047        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Preserved *****

1048        KK    CDIV
1049        KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1050        HC       2     .12
            * DDM   ***** Updated *****

1051        KK     459
1052        KM   SUB-BASIN 459
1053        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1054        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1055        KM     L =  .35  Kb = .052  Adj. Slope =  251.6
1056        BA    .030
1057        LG    .220    .300   3.330    .710   8.000
1058        UC    .162    .157
            * DDM   ***** Preserved *****

1059        KK     C52
1060        KM        COMBINE FLOWS FROM SUB-BASIN 52, WA30 AND BASIN 1
1061        HC       2
            * DDM   ***** Preserved *****

1062        KK     R52
1063        KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1064        RS       1    FLOW      -1
1065        RC     .05    .035     .05    2000     .05
1066        RX    1000    1010    1020    1036    1041    1057    1067    1077
1067        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****
1                                   HEC-1 INPUT                                    PAGE 28

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1068        KK     460
1069        KM   SUB-BASIN 460
1070        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1071        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1072        KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1073        BA    .140
1074        LG    .250    .260   3.740    .690  27.000
1075        UC    .242    .160
            * DDM   ***** Preserved *****

1076        KK    C102
1077        KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1078        HC       2
            * DDM   ***** Preserved *****

1079        KK  BASIN3
1080        KM        RESERVOIR AT CLUBHOUSE LOCATION, 1-30 INCH PIPE AT OUTFALL
1081        KM        BOTTOM OF BASIN AT 6 FEET ABOVE 0 ELEVATION
1082        RS       1    ELEV       0
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1083        SA       0       0       0       0     .21    1.15       2    2.12    2.31    2.65
            *      0       0       0       0    1.14    3.25    5.52    9.23
1084        SE       0     2.5       5       6       7     7.5       8       9    10.5    12.5
1085        SQ       0      22      45      51      57    59.5      62      67      73      81
            * DDM   ***** Preserved *****

1086        KK      R3
1087        KM        ROUTE FLOW FROM C102 to C106
1088        RS       4    FLOW      -1
1089        RC     .05     .03     .05    2750   .0375
1090        RX    1000    1010    1020    1052    1086    1118    1128    1138
1091        RY    19.2    18.4      18      10      10      18    18.4    19.2
            * DDM   ***** Updated *****

1092        KK     461
1093        KM   SUB-BASIN 461
1094        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1095        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1096        KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1097        BA    .120
1098        LG    .270    .250   4.250    .450  21.000
1099        UC    .271    .250
            * DDM   ***** Preserved *****

1100        KK    C104
1101        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1102        HC       2
            * DDM   ***** Preserved *****

1103        KK    C106
1104        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1105        HC       2
            * DDM   ***** Preserved *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1106        KK    R106
1107        KM        ROUTE FLOW FROM C106 TO C49
1108        RS       2    FLOW      -1
1109        RC     .05    .035     .05    3950    .033
1110        RX    1000    1010    1020    1030    1050    1060    1070    1080
1111        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Updated *****

1112        KK     462
1113        KM   SUB-BASIN 462
1114        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1115        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1116        KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1117        BA    .301
1118        LG    .300    .330   5.300    .240  12.000
1119        UC    .225    .137
            * DDM   ***** Preserved *****

1120        KK     C56
1121        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
            *      1       2
1122        HC       2
            * DDM   ***** Updated *****

1123        KK     480
1124        KM   SUB-BASIN 480
1125        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1126        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1127        KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1128        BA    .731
1129        LG    .270    .270   3.580    .730  27.000
1130        UC    .325    .148

1131        KK    D480
1132        KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1133        KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1134        KM   FOR BASIN #: 18 & 26
1135        KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
            *      1
1136        DT   BS480    16.5
1137        DI       0   10000
1138        DQ       0   10000

1139        KK   RT480
1140        KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1141        DR   BS480

1142        KK   SR480
1143        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1144        KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1145        RS       1    STOR       0
1146        SV       0     .01    16.5
1147        SQ       0     5.6     5.6
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1148        KK    C480
1149        KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1150        HC       2
            * DDM   ***** Preserved *****

1151        KK    480C
1152        KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1153        HC       3    2.09
            * DDM   ***** Preserved *****

1154        KK   RR480
1155        KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
1156        RS       2    FLOW      -1
1157        RC    .025    .025    .025    6500     .05
1158        RX       0       1       2      28      58      84      85      86
1159        RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
            * DDM   ***** Updated *****
```

```
KK     500
KM   SUB-BASIN 500
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
BA    .930
LG    .350    .400   6.000    .170   9.000
UC    .421    .333
* DDM   ***** Preserved *****

KK    500C
KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
HC       2    2.84
ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      {V} ROUTING          {--->} DIVERSION OR PUMP FLOW

 NO.       {.} CONNECTOR        {<---} RETURN OF DIVERTED OR PUMPED FLOW

  56         20
              .
              .
  64          .          40
              .           .
              .           .
  72          .           .          60
              .           .           .
              .           .           .
  80        60C.......................
              .
              .
  86          .------->     60D
  83        D60
              .
              .
  91          .           .<-------     60D
  89          .       RT60D
              .           V
              .           V
  92          .       SR60D
              .           .
              .           .
  99       C60D............
             V
             V
 102        60R
             V
             V
 108        R60
             V
             V
 114       RR60
              .
              .
 120          .          80
              .           .
              .           .
 128        80C............
             V
             V
 131        R80
              .
              .
 137          .         100
              .           .
              .           .
 145       100C............
             V
             V
 148       R100
              .
              .
 154          .         120
              .           .
              .           .
 162       120C............
             V
             V
 165       R120
              .
              .
 171          .         140
              .           .
              .           .
 179          .           .         160
              .           .           .
              .           .           .
 187          .           .           .         180
              .           .           .           .
              .           .           .           .
 195       180C...................................
              .
              .
 198          .         240
              .           V
              .           V
 206          .       R240
              .           .
              .           .
 213          .           .         220
              .           .           .
              .           .           .
 221          .       220C............
              .           V
              .           V
 224          .       R220
              .           .
              .           .
 231          .           .         200
              .           .           .
              .           .           .
 239          .       200C............
              .           V
              .           V
 242          .       R200
              .           .
              .           .
 248       C180............
              .
              .
 254          .------->    180D
 251       D180
              .
              .
 259          .           .<-------    180D
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```
257          .       RT180
             .          V
             .          V
260          .      SR180D
             .          .
             .          .
266       C180D............
             V
             V
269        180R
             V
             V
275        R180
             .
             .
281          .         260
             .           .
             .           .
289        260C............
             V
             V
292        R260
             .
             .
298          .         280
             .           .
             .           .
306        280C............
             V
             V
309        R280
             .
             .
315          .         300
             .           .
             .           .
323        300C............
             V
             V
326        R300
             V
             V
332       RR300
             .
             .
338          .         320
             .           .
             .           .
351          .           .-------->   BS320
346          .       D320
             .           .
             .           .
356          .           .          .<-------   BS320
354          .           .      RT320
             .           .          V
             .           .          V
357          .           .      SR320
             .           .          .
             .           .          .
363        C320........................
             V
             V
366        R320
             .
             .
372          .         340
             .           .
             .           .
385          .           .-------->   BS340
380          .       D340
             .           .
             .           .
390          .           .          .<-------   BS340
388          .           .      RT340
             .           .          V
             .           .          V
391          .           .      SR340
             .           .          .
             .           .          .
397        C340........................
             V
             V
400        R340
             .
             .
406          .         350
             .           V
             .           V
414          .       RR350
             .           .
             .           .
420          .           .         360
             .           .           .
             .           .           .
432          .           .           .-------->   BS360
428          .           .       D360
             .           .           .
             .           .           .
437          .           .           .          .<-------   BS360
435          .           .           .      RT360
             .           .           .          V
             .           .           .          V
438          .           .           .      SR360
             .           .           .          .
             .           .           .          .
444        360C...................................
             V
             V
447        R360
             .
             .
453          .         380
             .           .
```

```
465          .          .-------->   BS380
461          .       D380
             .          .
             .          .
470          .          .          .<-------   BS380
468          .          .      RT380
             .          .          V
             .          .          V
471          .          .      SR380
             .          .          .
             .          .          .
477      380C.......................
            V
            V
480      R380
             .
             .
486          .        390
             .          .
             .          .
498          .          .-------->   BS390
494          .       D390
             .          .
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503          .          .          .<-------   BS390
501          .          .      RT390
             .          .          V
             .          .          V
504          .          .      SR390
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510          .       390C............
             .          V
             .          V
513          .      RR390
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519          .          .        400
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527      400C.......................
            V
            V
530      R400
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536          .        420
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             .          .
548          .          .-------->   BS420
544          .       D420
             .          .
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553          .          .          .<-------   BS420
551          .          .      RT420
             .          .          V
             .          .          V
554          .          .      SR420
             .          .          .
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560      420C.......................
            V
            V
563      R420
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572          .-------->    420D
569     DD420
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577          .          .<-------    420D
575          .     RT420D
             .          V
             .          V
578          .     SR420D
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584     C420D............
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587          .        440
             .          V
             .          V
595          .        R70
             .          .
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601          .          .        441
             .          .          .
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609          .       C108............
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             .          .
614          .          .-------->   SPLIT
612          .       DIV4
             .          V
             .          V
617          .       R108
             .          .
             .          .
623          .          .        442
             .          .          .
             .          .          .
631          .        C67............
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637          .          .-------->  BASIN4
634          .       DIV6
             .          .
             .          .
642          .          .          .<-------  BASIN4
640          .          .     RTDIV6
             .          .          V
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                    V
643          RFDIV6
                    .
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649     CDIV6............
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652                 443
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663                 .-------->  WSH66
660          DIV66
                    V
                    V
666          R113
                    .
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672     C114............
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                    .
675                 444
                    V
                    V
683                 R58
                    .
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689                 .        445
                    .          .
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697          C107............
                    V
                    V
700          R107
                    .
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708                 .          .<-------   SPLIT
706                 .       RTB2
                    .          V
                    .          V
709                 .     RSPLIT
                    .          .
                    .          .
715                 .          .        446
                    .          .          .
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723          C109......................
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729                 .-------->  WSH404
726          DIV5
                    V
                    V
732          R109
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738                 .        447
                    .          .
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748                 .          .          .<-------  WSH404
746                 .          .      RT404
                    .          .         V
                    .          .         V
749                 .          .       R404
                    .          .          .
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755          C110......................
                    V
                    V
758          R110
                    .
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764     C115............
           V
           V
767     R115
                    .
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774                 448
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782                 .        449
                    .          .
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790          C6364...........
                    V
                    V
793          R6364
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                    .
799                 .        450
                    .          .
                    .          .
807                 .          .        451
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817                 .          .          .          .<-------   WSH66
815                 .          .          .       RT66
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818                 .          .          .          .        452
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826                 .          .          .     C6566...........
                    .          .          .          V
                    .          .          .          V
829                 .          .          .     R6566
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835          C116.................................
                    V
                    V
839          BASIN5
                    V
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846              .          .       R116
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852              .          .          .         453
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860              .          .       C117............
                 .          .          .
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863              .       C118............
                 .          V
                 .          V
866              .       R118
                 .          .
                 .          .
875              .          .-------> BASIN6
872              .       DIV7
                 .          .
                 .          .
880              .          .          .<-------  BASIN6
878              .          .     RTDIV7
                 .          .          V
                 .          .          V
881              .          .     RFDIV7
                 .          .          .
                 .          .          .
887              .      CDIV7............
                 .          .
                 .          .
890              .          .        454
                 .          .          .
                 .          .          .
898              .       C119............
                 .          V
                 .          V
901              .       R454
                 .          .
                 .          .
907              .          .        455
                 .          .          .
                 .          .          .
920              .          .          .-------> BS455
915              .          .       D455
                 .          .          .
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925              .          .          .          .<-------  BS455
923              .          .          .      RT455
                 .          .          .          V
                 .          .          .          V
926              .          .          .      SR455
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932              .          .       C455............
                 .          .          .
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935          455C........................
                V
                V
938         RR455
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944              .        456
                 .          .
                 .          .
955              .          .-------> BASIN1
952              .       DIV1
                 .          .
                 .          .
961              .          .------->  WA30
958              .       DIV2
                 .          V
                 .          V
964              .       R456
                 .          .
                 .          .
970              .          .        457
                 .          .          .
                 .          .          .
978              .       C101............
                 .          .
                 .          .
985              .          .-------> BASIN2
981              .       DIV3
                 .          .
                 .          .
990              .          .          .<-------  BASIN2
988              .          .     RTDIV3
                 .          .          V
                 .          .          V
991              .          .     RFDIV3
                 .          .          .
                 .          .          .
997              .      CDIV3............
                 .          V
                 .          V
1000             .       R101
                 .          .
                 .          .
1006             .          .        458
                 .          .          .
                 .          .          .
1014             .       C103............
                 .          V
                 .          V
1017             .       R103
                 .          .
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1025             .          .          .<-------  WA30
1023             .          .       RT30
                 .          .          V
                 .          .          V
1026             .          .       R30
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1034            .          .          .          .<-------  BASIN1
1032            .          .          .       RTB1
                .          .          .          V
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1035            .          .          .         B1
                .          .          .          V
                .          .          .          V
1042            .          .          .        RB1
                .          .          .          .
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1048            .          .       CDIV...........
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1051            .          .          .        459
                .          .          .          .
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1059            .          .        C52...........
                .          .          V
                .          .          V
1062            .          .        R52
                .          .          .
                .          .          .
1068            .          .          .        460
                .          .          .          .
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1076            .          .       C102...........
                .          .          V
                .          .          V
1079            .          .     BASIN3
                .          .          V
                .          .          V
1086            .          .         R3
                .          .          .
                .          .          .
1092            .          .          .        461
                .          .          .          .
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1100            .          .       C104...........
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1103            .       C106...........
                .          V
                .          V
1106            .       R106
                .          .
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1112            .          .        462
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                .          .          .
1120            .        C56...........
                .          .
                .          .
1123            .          .        480
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1136            .          .          .-------->  BS480
1131            .          .       D480
                .          .          .
                .          .          .
1141            .          .          .          .<-------  BS480
1139            .          .          .      RT480
                .          .          .          V
                .          .          .          V
1142            .          .          .      SR480
                .          .          .          .
                .          .          .          .
1148            .          .       C480...........
                .          .          .
                .          .          .
1151         480C.......................
                V
                V
1154        RR480
                .
                .
1160            .        500
                .          .
                .          .
1168         500C...........
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

INTERPOLATED DIVERSION HYDROGRAPH AT 60D

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		1230	376	1858.	2		0100	751	0.	2		1330	1126	0.
1		0002	2	0.	1		1232	377	1654.	2		0102	752	0.	2		1332	1127	0.
1		0004	3	0.	1		1234	378	1456.	2		0104	753	0.	2		1334	1128	0.
1		0006	4	0.	1		1236	379	1266.	2		0106	754	0.	2		1336	1129	0.
1		0008	5	0.	1		1238	380	1086.	2		0108	755	0.	2		1338	1130	0.
1		0010	6	0.	1		1240	381	917.	2		0110	756	0.	2		1340	1131	0.
1		0012	7	0.	1		1242	382	756.	2		0112	757	0.	2		1342	1132	0.
1		0014	8	0.	1		1244	383	603.	2		0114	758	0.	2		1344	1133	0.
1		0016	9	0.	1		1246	384	458.	2		0116	759	0.	2		1346	1134	0.
1		0018	10	0.	1		1248	385	322.	2		0118	760	0.	2		1348	1135	0.
1		0020	11	0.	1		1250	386	195.	2		0120	761	0.	2		1350	1136	0.
1		0022	12	0.	1		1252	387	78.	2		0122	762	0.	2		1352	1137	0.
1		0024	13	0.	1		1254	388	9.	2		0124	763	0.	2		1354	1138	0.
1		0026	14	0.	1		1256	389	1.	2		0126	764	0.	2		1356	1139	0.
1		0028	15	0.	1		1258	390	0.	2		0128	765	0.	2		1358	1140	0.
1		0030	16	0.	1		1300	391	0.	2		0130	766	0.	2		1400	1141	0.
1		0032	17	0.	1		1302	392	0.	2		0132	767	0.	2		1402	1142	0.
1		0034	18	0.	1		1304	393	0.	2		0134	768	0.	2		1404	1143	0.
1		0036	19	0.	1		1306	394	0.	2		0136	769	0.	2		1406	1144	0.
1		0038	20	0.	1		1308	395	0.	2		0138	770	0.	2		1408	1145	0.
1		0040	21	0.	1		1310	396	0.	2		0140	771	0.	2		1410	1146	0.
1		0042	22	0.	1		1312	397	0.	2		0142	772	0.	2		1412	1147	0.
1		0044	23	0.	1		1314	398	0.	2		0144	773	0.	2		1414	1148	0.
1		0046	24	0.	1		1316	399	0.	2		0146	774	0.	2		1416	1149	0.
1		0048	25	0.	1		1318	400	0.	2		0148	775	0.	2		1418	1150	0.
1		0050	26	0.	1		1320	401	0.	2		0150	776	0.	2		1420	1151	0.
1		0052	27	0.	1		1322	402	0.	2		0152	777	0.	2		1422	1152	0.
1		0054	28	0.	1		1324	403	0.	2		0154	778	0.	2		1424	1153	0.
1		0056	29	0.	1		1326	404	0.	2		0156	779	0.	2		1426	1154	0.
1		0058	30	0.	1		1328	405	0.	2		0158	780	0.	2		1428	1155	0.
1		0100	31	0.	1		1330	406	0.	2		0200	781	0.	2		1430	1156	0.
1		0102	32	0.	1		1332	407	0.	2		0202	782	0.	2		1432	1157	0.
1		0104	33	0.	1		1334	408	0.	2		0204	783	0.	2		1434	1158	0.
1		0106	34	0.	1		1336	409	0.	2		0206	784	0.	2		1436	1159	0.
1		0108	35	0.	1		1338	410	0.	2		0208	785	0.	2		1438	1160	0.
1		0110	36	0.	1		1340	411	0.	2		0210	786	0.	2		1440	1161	0.
1		0112	37	0.	1		1342	412	0.	2		0212	787	0.	2		1442	1162	0.
1		0114	38	0.	1		1344	413	0.	2		0214	788	0.	2		1444	1163	0.
1		0116	39	0.	1		1346	414	0.	2		0216	789	0.	2		1446	1164	0.
1		0118	40	0.	1		1348	415	0.	2		0218	790	0.	2		1448	1165	0.
1		0120	41	0.	1		1350	416	0.	2		0220	791	0.	2		1450	1166	0.
1		0122	42	0.	1		1352	417	0.	2		0222	792	0.	2		1452	1167	0.
1		0124	43	0.	1		1354	418	0.	2		0224	793	0.	2		1454	1168	0.
1		0126	44	0.	1		1356	419	0.	2		0226	794	0.	2		1456	1169	0.
1		0128	45	0.	1		1358	420	0.	2		0228	795	0.	2		1458	1170	0.
1		0130	46	0.	1		1400	421	0.	2		0230	796	0.	2		1500	1171	0.
1		0132	47	0.	1		1402	422	0.	2		0232	797	0.	2		1502	1172	0.
1		0134	48	0.	1		1404	423	0.	2		0234	798	0.	2		1504	1173	0.
1		0136	49	0.	1		1406	424	0.	2		0236	799	0.	2		1506	1174	0.
1		0138	50	0.	1		1408	425	0.	2		0238	800	0.	2		1508	1175	0.
1		0140	51	0.	1		1410	426	0.	2		0240	801	0.	2		1510	1176	0.
1		0142	52	0.	1		1412	427	0.	2		0242	802	0.	2		1512	1177	0.
1		0144	53	0.	1		1414	428	0.	2		0244	803	0.	2		1514	1178	0.
1		0146	54	0.	1		1416	429	0.	2		0246	804	0.	2		1516	1179	0.
1		0148	55	0.	1		1418	430	0.	2		0248	805	0.	2		1518	1180	0.
1		0150	56	0.	1		1420	431	0.	2		0250	806	0.	2		1520	1181	0.
1		0152	57	0.	1		1422	432	0.	2		0252	807	0.	2		1522	1182	0.
1		0154	58	0.	1		1424	433	0.	2		0254	808	0.	2		1524	1183	0.
1		0156	59	0.	1		1426	434	0.	2		0256	809	0.	2		1526	1184	0.
1		0158	60	0.	1		1428	435	0.	2		0258	810	0.	2		1528	1185	0.
1		0200	61	0.	1		1430	436	0.	2		0300	811	0.	2		1530	1186	0.
1		0202	62	0.	1		1432	437	0.	2		0302	812	0.	2		1532	1187	0.
1		0204	63	0.	1		1434	438	0.	2		0304	813	0.	2		1534	1188	0.
1		0206	64	0.	1		1436	439	0.	2		0306	814	0.	2		1536	1189	0.
1		0208	65	0.	1		1438	440	0.	2		0308	815	0.	2		1538	1190	0.
1		0210	66	0.	1		1440	441	0.	2		0310	816	0.	2		1540	1191	0.
1		0212	67	0.	1		1442	442	0.	2		0312	817	0.	2		1542	1192	0.
1		0214	68	0.	1		1444	443	0.	2		0314	818	0.	2		1544	1193	0.
1		0216	69	0.	1		1446	444	0.	2		0316	819	0.	2		1546	1194	0.
1		0218	70	0.	1		1448	445	0.	2		0318	820	0.	2		1548	1195	0.
1		0220	71	0.	1		1450	446	0.	2		0320	821	0.	2		1550	1196	0.
1		0222	72	0.	1		1452	447	0.	2		0322	822	0.	2		1552	1197	0.
1		0224	73	0.	1		1454	448	0.	2		0324	823	0.	2		1554	1198	0.
1		0226	74	0.	1		1456	449	0.	2		0326	824	0.	2		1556	1199	0.
1		0228	75	0.	1		1458	450	0.	2		0328	825	0.	2		1558	1200	0.
1		0230	76	0.	1		1500	451	0.	2		0330	826	0.	2		1600	1201	0.
1		0232	77	0.	1		1502	452	0.	2		0332	827	0.	2		1602	1202	0.
1		0234	78	0.	1		1504	453	0.	2		0334	828	0.	2		1604	1203	0.
1		0236	79	0.	1		1506	454	0.	2		0336	829	0.	2		1606	1204	0.
1		0238	80	0.	1		1508	455	0.	2		0338	830	0.	2		1608	1205	0.
1		0240	81	0.	1		1510	456	0.	2		0340	831	0.	2		1610	1206	0.
1		0242	82	0.	1		1512	457	0.	2		0342	832	0.	2		1612	1207	0.
1		0244	83	0.	1		1514	458	0.	2		0344	833	0.	2		1614	1208	0.
1		0246	84	0.	1		1516	459	0.	2		0346	834	0.	2		1616	1209	0.
1		0248	85	0.	1		1518	460	0.	2		0348	835	0.	2		1618	1210	0.
1		0250	86	0.	1		1520	461	0.	2		0350	836	0.	2		1620	1211	0.
1		0252	87	0.	1		1522	462	0.	2		0352	837	0.	2		1622	1212	0.
1		0254	88	0.	1		1524	463	0.	2		0354	838	0.	2		1624	1213	0.
1		0256	89	0.	1		1526	464	0.	2		0356	839	0.	2		1626	1214	0.
1		0258	90	0.	1		1528	465	0.	2		0358	840	0.	2		1628	1215	0.
1		0300	91	0.	1		1530	466	0.	2		0400	841	0.	2		1630	1216	0.
1		0302	92	0.	1		1532	467	0.	2		0402	842	0.	2		1632	1217	0.
1		0304	93	0.	1		1534	468	0.	2		0404	843	0.	2		1634	1218	0.
1		0306	94	0.	1		1536	469	0.	2		0406	844	0.	2		1636	1219	0.
1		0308	95	0.	1		1538	470	0.	2		0408	845	0.	2		1638	1220	0.
1		0310	96	0.	1		1540	471	0.	2		0410	846	0.	2		1640	1221	0.
1		0312	97	0.	1		1542	472	0.	2		0412	847	0.	2		1642	1222	0.
1		0314	98	0.	1		1544	473	0.	2		0414	848	0.	2		1644	1223	0.
1		0316	99	0.	1		1546	474	0.	2		0416	849	0.	2		1646	1224	0.
1		0318	100	0.	1		1548	475	0.	2		0418	850	0.	2		1648	1225	0.
1		0320	101	0.	1		1550	476	0.	2		0420	851	0.	2		1650	1226	0.
1		0322	102	0.	1		1552	477	0.	2		0422	852	0.	2		1652	1227	0.
1		0324	103	0.	1		1554	478	0.	2		0424	853	0.	2		1654	1228	0.
1		0326	104	0.	1		1556	479	0.	2		0426	854	0.	2		1656	1229	0.
1		0328	105	0.	1		1558	480	0.	2		0428	855	0.	2		1658	1230	0.

1	0330	106	0.	*	1	1600	481	0.	*	2	0430	856	0.	*	2	1700	1231	0.
1	0332	107	0.	*	1	1602	482	0.	*	2	0432	857	0.	*	2	1702	1232	0.
1	0334	108	0.	*	1	1604	483	0.	*	2	0434	858	0.	*	2	1704	1233	0.
1	0336	109	0.	*	1	1606	484	0.	*	2	0436	859	0.	*	2	1706	1234	0.
1	0338	110	0.	*	1	1608	485	0.	*	2	0438	860	0.	*	2	1708	1235	0.
1	0340	111	0.	*	1	1610	486	0.	*	2	0440	861	0.	*	2	1710	1236	0.
1	0342	112	0.	*	1	1612	487	0.	*	2	0442	862	0.	*	2	1712	1237	0.
1	0344	113	0.	*	1	1614	488	0.	*	2	0444	863	0.	*	2	1714	1238	0.
1	0346	114	0.	*	1	1616	489	0.	*	2	0446	864	0.	*	2	1716	1239	0.
1	0348	115	0.	*	1	1618	490	0.	*	2	0448	865	0.	*	2	1718	1240	0.
1	0350	116	0.	*	1	1620	491	0.	*	2	0450	866	0.	*	2	1720	1241	0.
1	0352	117	0.	*	1	1622	492	0.	*	2	0452	867	0.	*	2	1722	1242	0.
1	0354	118	0.	*	1	1624	493	0.	*	2	0454	868	0.	*	2	1724	1243	0.
1	0356	119	0.	*	1	1626	494	0.	*	2	0456	869	0.	*	2	1726	1244	0.
1	0358	120	0.	*	1	1628	495	0.	*	2	0458	870	0.	*	2	1728	1245	0.
1	0400	121	0.	*	1	1630	496	0.	*	2	0500	871	0.	*	2	1730	1246	0.
1	0402	122	0.	*	1	1632	497	0.	*	2	0502	872	0.	*	2	1732	1247	0.
1	0404	123	0.	*	1	1634	498	0.	*	2	0504	873	0.	*	2	1734	1248	0.
1	0406	124	0.	*	1	1636	499	0.	*	2	0506	874	0.	*	2	1736	1249	0.
1	0408	125	0.	*	1	1638	500	0.	*	2	0508	875	0.	*	2	1738	1250	0.
1	0410	126	0.	*	1	1640	501	0.	*	2	0510	876	0.	*	2	1740	1251	0.
1	0412	127	0.	*	1	1642	502	0.	*	2	0512	877	0.	*	2	1742	1252	0.
1	0414	128	0.	*	1	1644	503	0.	*	2	0514	878	0.	*	2	1744	1253	0.
1	0416	129	0.	*	1	1646	504	0.	*	2	0516	879	0.	*	2	1746	1254	0.
1	0418	130	0.	*	1	1648	505	0.	*	2	0518	880	0.	*	2	1748	1255	0.
1	0420	131	0.	*	1	1650	506	0.	*	2	0520	881	0.	*	2	1750	1256	0.
1	0422	132	0.	*	1	1652	507	0.	*	2	0522	882	0.	*	2	1752	1257	0.
1	0424	133	0.	*	1	1654	508	0.	*	2	0524	883	0.	*	2	1754	1258	0.
1	0426	134	0.	*	1	1656	509	0.	*	2	0526	884	0.	*	2	1756	1259	0.
1	0428	135	0.	*	1	1658	510	0.	*	2	0528	885	0.	*	2	1758	1260	0.
1	0430	136	0.	*	1	1700	511	0.	*	2	0530	886	0.	*	2	1800	1261	0.
1	0432	137	0.	*	1	1702	512	0.	*	2	0532	887	0.	*	2	1802	1262	0.
1	0434	138	0.	*	1	1704	513	0.	*	2	0534	888	0.	*	2	1804	1263	0.
1	0436	139	0.	*	1	1706	514	0.	*	2	0536	889	0.	*	2	1806	1264	0.
1	0438	140	0.	*	1	1708	515	0.	*	2	0538	890	0.	*	2	1808	1265	0.
1	0440	141	0.	*	1	1710	516	0.	*	2	0540	891	0.	*	2	1810	1266	0.
1	0442	142	0.	*	1	1712	517	0.	*	2	0542	892	0.	*	2	1812	1267	0.
1	0444	143	0.	*	1	1714	518	0.	*	2	0544	893	0.	*	2	1814	1268	0.
1	0446	144	0.	*	1	1716	519	0.	*	2	0546	894	0.	*	2	1816	1269	0.
1	0448	145	0.	*	1	1718	520	0.	*	2	0548	895	0.	*	2	1818	1270	0.
1	0450	146	0.	*	1	1720	521	0.	*	2	0550	896	0.	*	2	1820	1271	0.
1	0452	147	0.	*	1	1722	522	0.	*	2	0552	897	0.	*	2	1822	1272	0.
1	0454	148	0.	*	1	1724	523	0.	*	2	0554	898	0.	*	2	1824	1273	0.
1	0456	149	0.	*	1	1726	524	0.	*	2	0556	899	0.	*	2	1826	1274	0.
1	0458	150	0.	*	1	1728	525	0.	*	2	0558	900	0.	*	2	1828	1275	0.
1	0500	151	0.	*	1	1730	526	0.	*	2	0600	901	0.	*	2	1830	1276	0.
1	0502	152	0.	*	1	1732	527	0.	*	2	0602	902	0.	*	2	1832	1277	0.
1	0504	153	0.	*	1	1734	528	0.	*	2	0604	903	0.	*	2	1834	1278	0.
1	0506	154	0.	*	1	1736	529	0.	*	2	0606	904	0.	*	2	1836	1279	0.
1	0508	155	0.	*	1	1738	530	0.	*	2	0608	905	0.	*	2	1838	1280	0.
1	0510	156	0.	*	1	1740	531	0.	*	2	0610	906	0.	*	2	1840	1281	0.
1	0512	157	0.	*	1	1742	532	0.	*	2	0612	907	0.	*	2	1842	1282	0.
1	0514	158	0.	*	1	1744	533	0.	*	2	0614	908	0.	*	2	1844	1283	0.
1	0516	159	0.	*	1	1746	534	0.	*	2	0616	909	0.	*	2	1846	1284	0.
1	0518	160	0.	*	1	1748	535	0.	*	2	0618	910	0.	*	2	1848	1285	0.
1	0520	161	0.	*	1	1750	536	0.	*	2	0620	911	0.	*	2	1850	1286	0.
1	0522	162	0.	*	1	1752	537	0.	*	2	0622	912	0.	*	2	1852	1287	0.
1	0524	163	0.	*	1	1754	538	0.	*	2	0624	913	0.	*	2	1854	1288	0.
1	0526	164	0.	*	1	1756	539	0.	*	2	0626	914	0.	*	2	1856	1289	0.
1	0528	165	0.	*	1	1758	540	0.	*	2	0628	915	0.	*	2	1858	1290	0.
1	0530	166	0.	*	1	1800	541	0.	*	2	0630	916	0.	*	2	1900	1291	0.
1	0532	167	0.	*	1	1802	542	0.	*	2	0632	917	0.	*	2	1902	1292	0.
1	0534	168	0.	*	1	1804	543	0.	*	2	0634	918	0.	*	2	1904	1293	0.
1	0536	169	0.	*	1	1806	544	0.	*	2	0636	919	0.	*	2	1906	1294	0.
1	0538	170	0.	*	1	1808	545	0.	*	2	0638	920	0.	*	2	1908	1295	0.
1	0540	171	0.	*	1	1810	546	0.	*	2	0640	921	0.	*	2	1910	1296	0.
1	0542	172	0.	*	1	1812	547	0.	*	2	0642	922	0.	*	2	1912	1297	0.
1	0544	173	0.	*	1	1814	548	0.	*	2	0644	923	0.	*	2	1914	1298	0.
1	0546	174	0.	*	1	1816	549	0.	*	2	0646	924	0.	*	2	1916	1299	0.
1	0548	175	0.	*	1	1818	550	0.	*	2	0648	925	0.	*	2	1918	1300	0.
1	0550	176	0.	*	1	1820	551	0.	*	2	0650	926	0.	*	2	1920	1301	0.
1	0552	177	0.	*	1	1822	552	0.	*	2	0652	927	0.	*	2	1922	1302	0.
1	0554	178	0.	*	1	1824	553	0.	*	2	0654	928	0.	*	2	1924	1303	0.
1	0556	179	0.	*	1	1826	554	0.	*	2	0656	929	0.	*	2	1926	1304	0.
1	0558	180	0.	*	1	1828	555	0.	*	2	0658	930	0.	*	2	1928	1305	0.
1	0600	181	0.	*	1	1830	556	0.	*	2	0700	931	0.	*	2	1930	1306	0.
1	0602	182	0.	*	1	1832	557	0.	*	2	0702	932	0.	*	2	1932	1307	0.
1	0604	183	0.	*	1	1834	558	0.	*	2	0704	933	0.	*	2	1934	1308	0.
1	0606	184	0.	*	1	1836	559	0.	*	2	0706	934	0.	*	2	1936	1309	0.
1	0608	185	0.	*	1	1838	560	0.	*	2	0708	935	0.	*	2	1938	1310	0.
1	0610	186	0.	*	1	1840	561	0.	*	2	0710	936	0.	*	2	1940	1311	0.
1	0612	187	0.	*	1	1842	562	0.	*	2	0712	937	0.	*	2	1942	1312	0.
1	0614	188	0.	*	1	1844	563	0.	*	2	0714	938	0.	*	2	1944	1313	0.
1	0616	189	0.	*	1	1846	564	0.	*	2	0716	939	0.	*	2	1946	1314	0.
1	0618	190	0.	*	1	1848	565	0.	*	2	0718	940	0.	*	2	1948	1315	0.
1	0620	191	0.	*	1	1850	566	0.	*	2	0720	941	0.	*	2	1950	1316	0.
1	0622	192	0.	*	1	1852	567	0.	*	2	0722	942	0.	*	2	1952	1317	0.
1	0624	193	0.	*	1	1854	568	0.	*	2	0724	943	0.	*	2	1954	1318	0.
1	0626	194	0.	*	1	1856	569	0.	*	2	0726	944	0.	*	2	1956	1319	0.
1	0628	195	0.	*	1	1858	570	0.	*	2	0728	945	0.	*	2	1958	1320	0.
1	0630	196	0.	*	1	1900	571	0.	*	2	0730	946	0.	*	2	2000	1321	0.
1	0632	197	0.	*	1	1902	572	0.	*	2	0732	947	0.	*	2	2002	1322	0.
1	0634	198	0.	*	1	1904	573	0.	*	2	0734	948	0.	*	2	2004	1323	0.
1	0636	199	0.	*	1	1906	574	0.	*	2	0736	949	0.	*	2	2006	1324	0.
1	0638	200	0.	*	1	1908	575	0.	*	2	0738	950	0.	*	2	2008	1325	0.
1	0640	201	0.	*	1	1910	576	0.	*	2	0740	951	0.	*	2	2010	1326	0.
1	0642	202	0.	*	1	1912	577	0.	*	2	0742	952	0.	*	2	2012	1327	0.
1	0644	203	0.	*	1	1914	578	0.	*	2	0744	953	0.	*	2	2014	1328	0.
1	0646	204	0.	*	1	1916	579	0.	*	2	0746	954	0.	*	2	2016	1329	0.
1	0648	205	0.	*	1	1918	580	0.	*	2	0748	955	0.	*	2	2018	1330	0.
1	0650	206	0.	*	1	1920	581	0.	*	2	0750	956	0.	*	2	2020	1331	0.
1	0652	207	0.	*	1	1922	582	0.	*	2	0752	957	0.	*	2	2022	1332	0.
1	0654	208	0.	*	1	1924	583	0.	*	2	0754	958	0.	*	2	2024	1333	0.
1	0656	209	0.	*	1	1926	584	0.	*	2	0756	959	0.	*	2	2026	1334	0.
1	0658	210	0.	*	1	1928	585	0.	*	2	0758	960	0.	*	2	2028	1335	0.
1	0700	211	0.	*	1	1930	586	0.	*	2	0800	961	0.	*	2	2030	1336	0.
1	0702	212	0.	*	1	1932	587	0.	*	2	0802	962	0.	*	2	2032	1337	0.
1	0704	213	0.	*	1	1934	588	0.	*	2	0804	963	0.	*	2	2034	1338	0.
1	0706	214	0.	*	1	1936	589	0.	*	2	0806	964	0.	*	2	2036	1339	0.
1	0708	215	0.	*	1	1938	590	0.	*	2	0808	965	0.	*	2	2038	1340	0.
1	0710	216	0.	*	1	1940	591	0.	*	2	0810	966	0.	*	2	2040	1341	0.
1	0712	217	0.	*	1	1942	592	0.	*	2	0812	967	0.	*	2	2042	1342	0.
1	0714	218	0.	*	1	1944	593	0.	*	2	0814	968	0.	*	2	2044	1343	0.

1	0716	219	0.	*	1	1946	594	0.	*	2	0816	969	0.	*	2	2046	1344	0.
1	0718	220	0.	*	1	1948	595	0.	*	2	0818	970	0.	*	2	2048	1345	0.
1	0720	221	0.	*	1	1950	596	0.	*	2	0820	971	0.	*	2	2050	1346	0.
1	0722	222	0.	*	1	1952	597	0.	*	2	0822	972	0.	*	2	2052	1347	0.
1	0724	223	0.	*	1	1954	598	0.	*	2	0824	973	0.	*	2	2054	1348	0.
1	0726	224	0.	*	1	1956	599	0.	*	2	0826	974	0.	*	2	2056	1349	0.
1	0728	225	0.	*	1	1958	600	0.	*	2	0828	975	0.	*	2	2058	1350	0.
1	0730	226	0.	*	1	2000	601	0.	*	2	0830	976	0.	*	2	2100	1351	0.
1	0732	227	0.	*	1	2002	602	0.	*	2	0832	977	0.	*	2	2102	1352	0.
1	0734	228	0.	*	1	2004	603	0.	*	2	0834	978	0.	*	2	2104	1353	0.
1	0736	229	0.	*	1	2006	604	0.	*	2	0836	979	0.	*	2	2106	1354	0.
1	0738	230	0.	*	1	2008	605	0.	*	2	0838	980	0.	*	2	2108	1355	0.
1	0740	231	0.	*	1	2010	606	0.	*	2	0840	981	0.	*	2	2110	1356	0.
1	0742	232	0.	*	1	2012	607	0.	*	2	0842	982	0.	*	2	2112	1357	0.
1	0744	233	0.	*	1	2014	608	0.	*	2	0844	983	0.	*	2	2114	1358	0.
1	0746	234	0.	*	1	2016	609	0.	*	2	0846	984	0.	*	2	2116	1359	0.
1	0748	235	0.	*	1	2018	610	0.	*	2	0848	985	0.	*	2	2118	1360	0.
1	0750	236	0.	*	1	2020	611	0.	*	2	0850	986	0.	*	2	2120	1361	0.
1	0752	237	0.	*	1	2022	612	0.	*	2	0852	987	0.	*	2	2122	1362	0.
1	0754	238	0.	*	1	2024	613	0.	*	2	0854	988	0.	*	2	2124	1363	0.
1	0756	239	0.	*	1	2026	614	0.	*	2	0856	989	0.	*	2	2126	1364	0.
1	0758	240	0.	*	1	2028	615	0.	*	2	0858	990	0.	*	2	2128	1365	0.
1	0800	241	0.	*	1	2030	616	0.	*	2	0900	991	0.	*	2	2130	1366	0.
1	0802	242	0.	*	1	2032	617	0.	*	2	0902	992	0.	*	2	2132	1367	0.
1	0804	243	0.	*	1	2034	618	0.	*	2	0904	993	0.	*	2	2134	1368	0.
1	0806	244	0.	*	1	2036	619	0.	*	2	0906	994	0.	*	2	2136	1369	0.
1	0808	245	0.	*	1	2038	620	0.	*	2	0908	995	0.	*	2	2138	1370	0.
1	0810	246	0.	*	1	2040	621	0.	*	2	0910	996	0.	*	2	2140	1371	0.
1	0812	247	0.	*	1	2042	622	0.	*	2	0912	997	0.	*	2	2142	1372	0.
1	0814	248	0.	*	1	2044	623	0.	*	2	0914	998	0.	*	2	2144	1373	0.
1	0816	249	0.	*	1	2046	624	0.	*	2	0916	999	0.	*	2	2146	1374	0.
1	0818	250	0.	*	1	2048	625	0.	*	2	0918	1000	0.	*	2	2148	1375	0.
1	0820	251	0.	*	1	2050	626	0.	*	2	0920	1001	0.	*	2	2150	1376	0.
1	0822	252	0.	*	1	2052	627	0.	*	2	0922	1002	0.	*	2	2152	1377	0.
1	0824	253	0.	*	1	2054	628	0.	*	2	0924	1003	0.	*	2	2154	1378	0.
1	0826	254	0.	*	1	2056	629	0.	*	2	0926	1004	0.	*	2	2156	1379	0.
1	0828	255	0.	*	1	2058	630	0.	*	2	0928	1005	0.	*	2	2158	1380	0.
1	0830	256	0.	*	1	2100	631	0.	*	2	0930	1006	0.	*	2	2200	1381	0.
1	0832	257	0.	*	1	2102	632	0.	*	2	0932	1007	0.	*	2	2202	1382	0.
1	0834	258	0.	*	1	2104	633	0.	*	2	0934	1008	0.	*	2	2204	1383	0.
1	0836	259	0.	*	1	2106	634	0.	*	2	0936	1009	0.	*	2	2206	1384	0.
1	0838	260	0.	*	1	2108	635	0.	*	2	0938	1010	0.	*	2	2208	1385	0.
1	0840	261	0.	*	1	2110	636	0.	*	2	0940	1011	0.	*	2	2210	1386	0.
1	0842	262	0.	*	1	2112	637	0.	*	2	0942	1012	0.	*	2	2212	1387	0.
1	0844	263	0.	*	1	2114	638	0.	*	2	0944	1013	0.	*	2	2214	1388	0.
1	0846	264	0.	*	1	2116	639	0.	*	2	0946	1014	0.	*	2	2216	1389	0.
1	0848	265	0.	*	1	2118	640	0.	*	2	0948	1015	0.	*	2	2218	1390	0.
1	0850	266	0.	*	1	2120	641	0.	*	2	0950	1016	0.	*	2	2220	1391	0.
1	0852	267	0.	*	1	2122	642	0.	*	2	0952	1017	0.	*	2	2222	1392	0.
1	0854	268	0.	*	1	2124	643	0.	*	2	0954	1018	0.	*	2	2224	1393	0.
1	0856	269	0.	*	1	2126	644	0.	*	2	0956	1019	0.	*	2	2226	1394	0.
1	0858	270	0.	*	1	2128	645	0.	*	2	0958	1020	0.	*	2	2228	1395	0.
1	0900	271	0.	*	1	2130	646	0.	*	2	1000	1021	0.	*	2	2230	1396	0.
1	0902	272	0.	*	1	2132	647	0.	*	2	1002	1022	0.	*	2	2232	1397	0.
1	0904	273	0.	*	1	2134	648	0.	*	2	1004	1023	0.	*	2	2234	1398	0.
1	0906	274	0.	*	1	2136	649	0.	*	2	1006	1024	0.	*	2	2236	1399	0.
1	0908	275	0.	*	1	2138	650	0.	*	2	1008	1025	0.	*	2	2238	1400	0.
1	0910	276	0.	*	1	2140	651	0.	*	2	1010	1026	0.	*	2	2240	1401	0.
1	0912	277	0.	*	1	2142	652	0.	*	2	1012	1027	0.	*	2	2242	1402	0.
1	0914	278	0.	*	1	2144	653	0.	*	2	1014	1028	0.	*	2	2244	1403	0.
1	0916	279	0.	*	1	2146	654	0.	*	2	1016	1029	0.	*	2	2246	1404	0.
1	0918	280	0.	*	1	2148	655	0.	*	2	1018	1030	0.	*	2	2248	1405	0.
1	0920	281	0.	*	1	2150	656	0.	*	2	1020	1031	0.	*	2	2250	1406	0.
1	0922	282	0.	*	1	2152	657	0.	*	2	1022	1032	0.	*	2	2252	1407	0.
1	0924	283	0.	*	1	2154	658	0.	*	2	1024	1033	0.	*	2	2254	1408	0.
1	0926	284	0.	*	1	2156	659	0.	*	2	1026	1034	0.	*	2	2256	1409	0.
1	0928	285	0.	*	1	2158	660	0.	*	2	1028	1035	0.	*	2	2258	1410	0.
1	0930	286	0.	*	1	2200	661	0.	*	2	1030	1036	0.	*	2	2300	1411	0.
1	0932	287	0.	*	1	2202	662	0.	*	2	1032	1037	0.	*	2	2302	1412	0.
1	0934	288	0.	*	1	2204	663	0.	*	2	1034	1038	0.	*	2	2304	1413	0.
1	0936	289	0.	*	1	2206	664	0.	*	2	1036	1039	0.	*	2	2306	1414	0.
1	0938	290	0.	*	1	2208	665	0.	*	2	1038	1040	0.	*	2	2308	1415	0.
1	0940	291	0.	*	1	2210	666	0.	*	2	1040	1041	0.	*	2	2310	1416	0.
1	0942	292	0.	*	1	2212	667	0.	*	2	1042	1042	0.	*	2	2312	1417	0.
1	0944	293	0.	*	1	2214	668	0.	*	2	1044	1043	0.	*	2	2314	1418	0.
1	0946	294	0.	*	1	2216	669	0.	*	2	1046	1044	0.	*	2	2316	1419	0.
1	0948	295	0.	*	1	2218	670	0.	*	2	1048	1045	0.	*	2	2318	1420	0.
1	0950	296	0.	*	1	2220	671	0.	*	2	1050	1046	0.	*	2	2320	1421	0.
1	0952	297	0.	*	1	2222	672	0.	*	2	1052	1047	0.	*	2	2322	1422	0.
1	0954	298	0.	*	1	2224	673	0.	*	2	1054	1048	0.	*	2	2324	1423	0.
1	0956	299	0.	*	1	2226	674	0.	*	2	1056	1049	0.	*	2	2326	1424	0.
1	0958	300	0.	*	1	2228	675	0.	*	2	1058	1050	0.	*	2	2328	1425	0.
1	1000	301	0.	*	1	2230	676	0.	*	2	1100	1051	0.	*	2	2330	1426	0.
1	1002	302	0.	*	1	2232	677	0.	*	2	1102	1052	0.	*	2	2332	1427	0.
1	1004	303	0.	*	1	2234	678	0.	*	2	1104	1053	0.	*	2	2334	1428	0.
1	1006	304	0.	*	1	2236	679	0.	*	2	1106	1054	0.	*	2	2336	1429	0.
1	1008	305	0.	*	1	2238	680	0.	*	2	1108	1055	0.	*	2	2338	1430	0.
1	1010	306	0.	*	1	2240	681	0.	*	2	1110	1056	0.	*	2	2340	1431	0.
1	1012	307	0.	*	1	2242	682	0.	*	2	1112	1057	0.	*	2	2342	1432	0.
1	1014	308	0.	*	1	2244	683	0.	*	2	1114	1058	0.	*	2	2344	1433	0.
1	1016	309	0.	*	1	2246	684	0.	*	2	1116	1059	0.	*	2	2346	1434	0.
1	1018	310	0.	*	1	2248	685	0.	*	2	1118	1060	0.	*	2	2348	1435	0.
1	1020	311	0.	*	1	2250	686	0.	*	2	1120	1061	0.	*	2	2350	1436	0.
1	1022	312	0.	*	1	2252	687	0.	*	2	1122	1062	0.	*	2	2352	1437	0.
1	1024	313	0.	*	1	2254	688	0.	*	2	1124	1063	0.	*	2	2354	1438	0.
1	1026	314	0.	*	1	2256	689	0.	*	2	1126	1064	0.	*	2	2356	1439	0.
1	1028	315	0.	*	1	2258	690	0.	*	2	1128	1065	0.	*	2	2358	1440	0.
1	1030	316	0.	*	1	2300	691	0.	*	2	1130	1066	0.	*	3	0000	1441	0.
1	1032	317	0.	*	1	2302	692	0.	*	2	1132	1067	0.	*	3	0002	1442	0.
1	1034	318	0.	*	1	2304	693	0.	*	2	1134	1068	0.	*	3	0004	1443	0.
1	1036	319	0.	*	1	2306	694	0.	*	2	1136	1069	0.	*	3	0006	1444	0.
1	1038	320	0.	*	1	2308	695	0.	*	2	1138	1070	0.	*	3	0008	1445	0.
1	1040	321	0.	*	1	2310	696	0.	*	2	1140	1071	0.	*	3	0010	1446	0.
1	1042	322	0.	*	1	2312	697	0.	*	2	1142	1072	0.	*	3	0012	1447	0.
1	1044	323	0.	*	1	2314	698	0.	*	2	1144	1073	0.	*	3	0014	1448	0.
1	1046	324	0.	*	1	2316	699	0.	*	2	1146	1074	0.	*	3	0016	1449	0.
1	1048	325	0.	*	1	2318	700	0.	*	2	1148	1075	0.	*	3	0018	1450	0.
1	1050	326	0.	*	1	2320	701	0.	*	2	1150	1076	0.	*	3	0020	1451	0.
1	1052	327	0.	*	1	2322	702	0.	*	2	1152	1077	0.	*	3	0022	1452	0.
1	1054	328	0.	*	1	2324	703	0.	*	2	1154	1078	0.	*	3	0024	1453	0.
1	1056	329	0.	*	1	2326	704	0.	*	2	1156	1079	0.	*	3	0026	1454	0.
1	1058	330	0.	*	1	2328	705	0.	*	2	1158	1080	0.	*	3	0028	1455	0.
1	1100	331	0.	*	1	2330	706	0.	*	2	1200	1081	0.	*	3	0030	1456	0.

1	1102	332	0.	*	1	2332	707	0.	*	2	1202	1082	0.	*	3	0032	1457	0.
1	1104	333	0.	*	1	2334	708	0.	*	2	1204	1083	0.	*	3	0034	1458	0.
1	1106	334	0.	*	1	2336	709	0.	*	2	1206	1084	0.	*	3	0036	1459	0.
1	1108	335	0.	*	1	2338	710	0.	*	2	1208	1085	0.	*	3	0038	1460	0.
1	1110	336	0.	*	1	2340	711	0.	*	2	1210	1086	0.	*	3	0040	1461	0.
1	1112	337	0.	*	1	2342	712	0.	*	2	1212	1087	0.	*	3	0042	1462	0.
1	1114	338	0.	*	1	2344	713	0.	*	2	1214	1088	0.	*	3	0044	1463	0.
1	1116	339	0.	*	1	2346	714	0.	*	2	1216	1089	0.	*	3	0046	1464	0.
1	1118	340	0.	*	1	2348	715	0.	*	2	1218	1090	0.	*	3	0048	1465	0.
1	1120	341	0.	*	1	2350	716	0.	*	2	1220	1091	0.	*	3	0050	1466	0.
1	1122	342	0.	*	1	2352	717	0.	*	2	1222	1092	0.	*	3	0052	1467	0.
1	1124	343	0.	*	1	2354	718	0.	*	2	1224	1093	0.	*	3	0054	1468	0.
1	1126	344	0.	*	1	2356	719	0.	*	2	1226	1094	0.	*	3	0056	1469	0.
1	1128	345	0.	*	1	2358	720	0.	*	2	1228	1095	0.	*	3	0058	1470	0.
1	1130	346	0.	*	2	0000	721	0.	*	2	1230	1096	0.	*	3	0100	1471	0.
1	1132	347	0.	*	2	0002	722	0.	*	2	1232	1097	0.	*	3	0102	1472	0.
1	1134	348	0.	*	2	0004	723	0.	*	2	1234	1098	0.	*	3	0104	1473	0.
1	1136	349	0.	*	2	0006	724	0.	*	2	1236	1099	0.	*	3	0106	1474	0.
1	1138	350	0.	*	2	0008	725	0.	*	2	1238	1100	0.	*	3	0108	1475	0.
1	1140	351	0.	*	2	0010	726	0.	*	2	1240	1101	0.	*	3	0110	1476	0.
1	1142	352	0.	*	2	0012	727	0.	*	2	1242	1102	0.	*	3	0112	1477	0.
1	1144	353	0.	*	2	0014	728	0.	*	2	1244	1103	0.	*	3	0114	1478	0.
1	1146	354	0.	*	2	0016	729	0.	*	2	1246	1104	0.	*	3	0116	1479	0.
1	1148	355	0.	*	2	0018	730	0.	*	2	1248	1105	0.	*	3	0118	1480	0.
1	1150	356	0.	*	2	0020	731	0.	*	2	1250	1106	0.	*	3	0120	1481	0.
1	1152	357	0.	*	2	0022	732	0.	*	2	1252	1107	0.	*	3	0122	1482	0.
1	1154	358	0.	*	2	0024	733	0.	*	2	1254	1108	0.	*	3	0124	1483	0.
1	1156	359	0.	*	2	0026	734	0.	*	2	1256	1109	0.	*	3	0126	1484	0.
1	1158	360	124.	*	2	0028	735	0.	*	2	1258	1110	0.	*	3	0128	1485	0.
1	1200	361	528.	*	2	0030	736	0.	*	2	1300	1111	0.	*	3	0130	1486	0.
1	1202	362	959.	*	2	0032	737	0.	*	2	1302	1112	0.	*	3	0132	1487	0.
1	1204	363	1386.	*	2	0034	738	0.	*	2	1304	1113	0.	*	3	0134	1488	0.
1	1206	364	1787.	*	2	0036	739	0.	*	2	1306	1114	0.	*	3	0136	1489	0.
1	1208	365	2145.	*	2	0038	740	0.	*	2	1308	1115	0.	*	3	0138	1490	0.
1	1210	366	2448.	*	2	0040	741	0.	*	2	1310	1116	0.	*	3	0140	1491	0.
1	1212	367	2680.	*	2	0042	742	0.	*	2	1312	1117	0.	*	3	0142	1492	0.
1	1214	368	2830.	*	2	0044	743	0.	*	2	1314	1118	0.	*	3	0144	1493	0.
1	1216	369	2894.	*	2	0046	744	0.	*	2	1316	1119	0.	*	3	0146	1494	0.
1	1218	370	2883.	*	2	0048	745	0.	*	2	1318	1120	0.	*	3	0148	1495	0.
1	1220	371	2805.	*	2	0050	746	0.	*	2	1320	1121	0.	*	3	0150	1496	0.
1	1222	372	2671.	*	2	0052	747	0.	*	2	1322	1122	0.	*	3	0152	1497	0.
1	1224	373	2494.	*	2	0054	748	0.	*	2	1324	1123	0.	*	3	0154	1498	0.
1	1226	374	2287.	*	2	0056	749	0.	*	2	1326	1124	0.	*	3	0156	1499	0.
1	1228	375	2070.	*	2	0058	750	0.	*	2	1328	1125	0.	*	3	0158	1500	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)	(CFS)				
+ 2894.	12.27		242.	61.	29.	29.
		(INCHES)	.389	.389	.389	.389
		(AC-FT)	120.	120.	120.	120.

CUMULATIVE AREA = 5.80 SQ MI

INTERPOLATED HYDROGRAPH AT D60

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		1230	376	1650.	2		0100	751	2.	2		1330	1126	0.
1		0002	2	0.	1		1232	377	1650.	2		0102	752	2.	2		1332	1127	0.
1		0004	3	0.	1		1234	378	1650.	2		0104	753	2.	2		1334	1128	0.
1		0006	4	0.	1		1236	379	1650.	2		0106	754	2.	2		1336	1129	0.
1		0008	5	0.	1		1238	380	1650.	2		0108	755	2.	2		1338	1130	0.
1		0010	6	0.	1		1240	381	1650.	2		0110	756	2.	2		1340	1131	0.
1		0012	7	0.	1		1242	382	1650.	2		0112	757	2.	2		1342	1132	0.
1		0014	8	1.	1		1244	383	1650.	2		0114	758	2.	2		1344	1133	0.
1		0016	9	1.	1		1246	384	1650.	2		0116	759	1.	2		1346	1134	0.
1		0018	10	1.	1		1248	385	1650.	2		0118	760	1.	2		1348	1135	0.
1		0020	11	1.	1		1250	386	1650.	2		0120	761	1.	2		1350	1136	0.
1		0022	12	2.	1		1252	387	1650.	2		0122	762	1.	2		1352	1137	0.
1		0024	13	2.	1		1254	388	1610.	2		0124	763	1.	2		1354	1138	0.
1		0026	14	2.	1		1256	389	1519.	2		0126	764	1.	2		1356	1139	0.
1		0028	15	3.	1		1258	390	1426.	2		0128	765	1.	2		1358	1140	0.
1		0030	16	3.	1		1300	391	1340.	2		0130	766	1.	2		1400	1141	0.
1		0032	17	3.	1		1302	392	1260.	2		0132	767	1.	2		1402	1142	0.
1		0034	18	4.	1		1304	393	1185.	2		0134	768	1.	2		1404	1143	0.
1		0036	19	4.	1		1306	394	1116.	2		0136	769	1.	2		1406	1144	0.
1		0038	20	4.	1		1308	395	1052.	2		0138	770	1.	2		1408	1145	0.
1		0040	21	5.	1		1310	396	990.	2		0140	771	1.	2		1410	1146	0.
1		0042	22	5.	1		1312	397	932.	2		0142	772	1.	2		1412	1147	0.
1		0044	23	5.	1		1314	398	878.	2		0144	773	1.	2		1414	1148	0.
1		0046	24	6.	1		1316	399	827.	2		0146	774	1.	2		1416	1149	0.
1		0048	25	6.	1		1318	400	780.	2		0148	775	1.	2		1418	1150	0.
1		0050	26	6.	1		1320	401	736.	2		0150	776	1.	2		1420	1151	0.
1		0052	27	7.	1		1322	402	694.	2		0152	777	1.	2		1422	1152	0.
1		0054	28	7.	1		1324	403	656.	2		0154	778	0.	2		1424	1153	0.
1		0056	29	7.	1		1326	404	623.	2		0156	779	0.	2		1426	1154	0.
1		0058	30	7.	1		1328	405	591.	2		0158	780	0.	2		1428	1155	0.
1		0100	31	8.	1		1330	406	562.	2		0200	781	0.	2		1430	1156	0.
1		0102	32	8.	1		1332	407	534.	2		0202	782	0.	2		1432	1157	0.
1		0104	33	8.	1		1334	408	508.	2		0204	783	0.	2		1434	1158	0.
1		0106	34	8.	1		1336	409	483.	2		0206	784	0.	2		1436	1159	0.
1		0108	35	8.	1		1338	410	459.	2		0208	785	0.	2		1438	1160	0.
1		0110	36	8.	1		1340	411	437.	2		0210	786	0.	2		1440	1161	0.
1		0112	37	9.	1		1342	412	416.	2		0212	787	0.	2		1442	1162	0.
1		0114	38	9.	1		1344	413	396.	2		0214	788	0.	2		1444	1163	0.
1		0116	39	9.	1		1346	414	377.	2		0216	789	0.	2		1446	1164	0.
1		0118	40	9.	1		1348	415	359.	2		0218	790	0.	2		1448	1165	0.
1		0120	41	9.	1		1350	416	342.	2		0220	791	0.	2		1450	1166	0.
1		0122	42	9.	1		1352	417	326.	2		0222	792	0.	2		1452	1167	0.
1		0124	43	9.	1		1354	418	311.	2		0224	793	0.	2		1454	1168	0.
1		0126	44	9.	1		1356	419	296.	2		0226	794	0.	2		1456	1169	0.
1		0128	45	9.	1		1358	420	283.	2		0228	795	0.	2		1458	1170	0.
1		0130	46	10.	1		1400	421	270.	2		0230	796	0.	2		1500	1171	0.
1		0132	47	10.	1		1402	422	257.	2		0232	797	0.	2		1502	1172	0.
1		0134	48	10.	1		1404	423	246.	2		0234	798	0.	2		1504	1173	0.
1		0136	49	10.	1		1406	424	235.	2		0236	799	0.	2		1506	1174	0.
1		0138	50	10.	1		1408	425	224.	2		0238	800	0.	2		1508	1175	0.
1		0140	51	10.	1		1410	426	214.	2		0240	801	0.	2		1510	1176	0.
1		0142	52	10.	1		1412	427	205.	2		0242	802	0.	2		1512	1177	0.
1		0144	53	10.	1		1414	428	196.	2		0244	803	0.	2		1514	1178	0.
1		0146	54	10.	1		1416	429	187.	2		0246	804	0.	2		1516	1179	0.
1		0148	55	10.	1		1418	430	179.	2		0248	805	0.	2		1518	1180	0.
1		0150	56	10.	1		1420	431	171.	2		0250	806	0.	2		1520	1181	0.
1		0152	57	10.	1		1422	432	164.	2		0252	807	0.	2		1522	1182	0.
1		0154	58	10.	1		1424	433	157.	2		0254	808	0.	2		1524	1183	0.
1		0156	59	10.	1		1426	434	150.	2		0256	809	0.	2		1526	1184	0.
1		0158	60	10.	1		1428	435	143.	2		0258	810	0.	2		1528	1185	0.
1		0200	61	10.	1		1430	436	137.	2		0300	811	0.	2		1530	1186	0.
1		0202	62	10.	1		1432	437	131.	2		0302	812	0.	2		1532	1187	0.
1		0204	63	10.	1		1434	438	125.	2		0304	813	0.	2		1534	1188	0.
1		0206	64	10.	1		1436	439	119.	2		0306	814	0.	2		1536	1189	0.
1		0208	65	10.	1		1438	440	113.	2		0308	815	0.	2		1538	1190	0.
1		0210	66	10.	1		1440	441	108.	2		0310	816	0.	2		1540	1191	0.
1		0212	67	10.	1		1442	442	102.	2		0312	817	0.	2		1542	1192	0.
1		0214	68	11.	1		1444	443	97.	2		0314	818	0.	2		1544	1193	0.
1		0216	69	11.	1		1446	444	92.	2		0316	819	0.	2		1546	1194	0.
1		0218	70	11.	1		1448	445	88.	2		0318	820	0.	2		1548	1195	0.
1		0220	71	11.	1		1450	446	85.	2		0320	821	0.	2		1550	1196	0.
1		0222	72	11.	1		1452	447	82.	2		0322	822	0.	2		1552	1197	0.
1		0224	73	11.	1		1454	448	79.	2		0324	823	0.	2		1554	1198	0.
1		0226	74	11.	1		1456	449	76.	2		0326	824	0.	2		1556	1199	0.
1		0228	75	11.	1		1458	450	74.	2		0328	825	0.	2		1558	1200	0.
1		0230	76	11.	1		1500	451	71.	2		0330	826	0.	2		1600	1201	0.
1		0232	77	11.	1		1502	452	69.	2		0332	827	0.	2		1602	1202	0.
1		0234	78	11.	1		1504	453	67.	2		0334	828	0.	2		1604	1203	0.
1		0236	79	11.	1		1506	454	65.	2		0336	829	0.	2		1606	1204	0.
1		0238	80	11.	1		1508	455	63.	2		0338	830	0.	2		1608	1205	0.
1		0240	81	11.	1		1510	456	61.	2		0340	831	0.	2		1610	1206	0.
1		0242	82	11.	1		1512	457	59.	2		0342	832	0.	2		1612	1207	0.
1		0244	83	11.	1		1514	458	58.	2		0344	833	0.	2		1614	1208	0.
1		0246	84	11.	1		1516	459	56.	2		0346	834	0.	2		1616	1209	0.
1		0248	85	11.	1		1518	460	55.	2		0348	835	0.	2		1618	1210	0.
1		0250	86	11.	1		1520	461	53.	2		0350	836	0.	2		1620	1211	0.
1		0252	87	11.	1		1522	462	52.	2		0352	837	0.	2		1622	1212	0.
1		0254	88	11.	1		1524	463	50.	2		0354	838	0.	2		1624	1213	0.
1		0256	89	11.	1		1526	464	49.	2		0356	839	0.	2		1626	1214	0.
1		0258	90	11.	1		1528	465	48.	2		0358	840	0.	2		1628	1215	0.
1		0300	91	11.	1		1530	466	47.	2		0400	841	0.	2		1630	1216	0.
1		0302	92	11.	1		1532	467	45.	2		0402	842	0.	2		1632	1217	0.
1		0304	93	11.	1		1534	468	44.	2		0404	843	0.	2		1634	1218	0.
1		0306	94	11.	1		1536	469	43.	2		0406	844	0.	2		1636	1219	0.
1		0308	95	11.	1		1538	470	42.	2		0408	845	0.	2		1638	1220	0.
1		0310	96	11.	1		1540	471	41.	2		0410	846	0.	2		1640	1221	0.
1		0312	97	11.	1		1542	472	40.	2		0412	847	0.	2		1642	1222	0.
1		0314	98	11.	1		1544	473	38.	2		0414	848	0.	2		1644	1223	0.
1		0316	99	11.	1		1546	474	37.	2		0416	849	0.	2		1646	1224	0.
1		0318	100	11.	1		1548	475	36.	2		0418	850	0.	2		1648	1225	0.
1		0320	101	11.	1		1550	476	35.	2		0420	851	0.	2		1650	1226	0.
1		0322	102	11.	1		1552	477	34.	2		0422	852	0.	2		1652	1227	0.
1		0324	103	11.	1		1554	478	32.	2		0424	853	0.	2		1654	1228	0.
1		0326	104	11.	1		1556	479	31.	2		0426	854	0.	2		1656	1229	0.
1		0328	105	11.	1		1558	480	29.	2		0428	855	0.	2		1658	1230	0.

1	0330	106	11.	*	1	1600	481	28.	*	2	0430	856	0.	*	2	1700	1231	0.
1	0332	107	11.	*	1	1602	482	27.	*	2	0432	857	0.	*	2	1702	1232	0.
1	0334	108	11.	*	1	1604	483	26.	*	2	0434	858	0.	*	2	1704	1233	0.
1	0336	109	11.	*	1	1606	484	24.	*	2	0436	859	0.	*	2	1706	1234	0.
1	0338	110	11.	*	1	1608	485	24.	*	2	0438	860	0.	*	2	1708	1235	0.
1	0340	111	11.	*	1	1610	486	24.	*	2	0440	861	0.	*	2	1710	1236	0.
1	0342	112	11.	*	1	1612	487	24.	*	2	0442	862	0.	*	2	1712	1237	0.
1	0344	113	11.	*	1	1614	488	24.	*	2	0444	863	0.	*	2	1714	1238	0.
1	0346	114	11.	*	1	1616	489	23.	*	2	0446	864	0.	*	2	1716	1239	0.
1	0348	115	11.	*	1	1618	490	23.	*	2	0448	865	0.	*	2	1718	1240	0.
1	0350	116	11.	*	1	1620	491	23.	*	2	0450	866	0.	*	2	1720	1241	0.
1	0352	117	11.	*	1	1622	492	23.	*	2	0452	867	0.	*	2	1722	1242	0.
1	0354	118	11.	*	1	1624	493	23.	*	2	0454	868	0.	*	2	1724	1243	0.
1	0356	119	11.	*	1	1626	494	23.	*	2	0456	869	0.	*	2	1726	1244	0.
1	0358	120	11.	*	1	1628	495	23.	*	2	0458	870	0.	*	2	1728	1245	0.
1	0400	121	11.	*	1	1630	496	23.	*	2	0500	871	0.	*	2	1730	1246	0.
1	0402	122	11.	*	1	1632	497	23.	*	2	0502	872	0.	*	2	1732	1247	0.
1	0404	123	11.	*	1	1634	498	23.	*	2	0504	873	0.	*	2	1734	1248	0.
1	0406	124	12.	*	1	1636	499	23.	*	2	0506	874	0.	*	2	1736	1249	0.
1	0408	125	12.	*	1	1638	500	22.	*	2	0508	875	0.	*	2	1738	1250	0.
1	0410	126	12.	*	1	1640	501	22.	*	2	0510	876	0.	*	2	1740	1251	0.
1	0412	127	12.	*	1	1642	502	22.	*	2	0512	877	0.	*	2	1742	1252	0.
1	0414	128	12.	*	1	1644	503	22.	*	2	0514	878	0.	*	2	1744	1253	0.
1	0416	129	12.	*	1	1646	504	22.	*	2	0516	879	0.	*	2	1746	1254	0.
1	0418	130	12.	*	1	1648	505	22.	*	2	0518	880	0.	*	2	1748	1255	0.
1	0420	131	12.	*	1	1650	506	22.	*	2	0520	881	0.	*	2	1750	1256	0.
1	0422	132	13.	*	1	1652	507	22.	*	2	0522	882	0.	*	2	1752	1257	0.
1	0424	133	13.	*	1	1654	508	21.	*	2	0524	883	0.	*	2	1754	1258	0.
1	0426	134	13.	*	1	1656	509	21.	*	2	0526	884	0.	*	2	1756	1259	0.
1	0428	135	13.	*	1	1658	510	21.	*	2	0528	885	0.	*	2	1758	1260	0.
1	0430	136	13.	*	1	1700	511	21.	*	2	0530	886	0.	*	2	1800	1261	0.
1	0432	137	13.	*	1	1702	512	21.	*	2	0532	887	0.	*	2	1802	1262	0.
1	0434	138	13.	*	1	1704	513	21.	*	2	0534	888	0.	*	2	1804	1263	0.
1	0436	139	13.	*	1	1706	514	20.	*	2	0536	889	0.	*	2	1806	1264	0.
1	0438	140	13.	*	1	1708	515	20.	*	2	0538	890	0.	*	2	1808	1265	0.
1	0440	141	13.	*	1	1710	516	20.	*	2	0540	891	0.	*	2	1810	1266	0.
1	0442	142	13.	*	1	1712	517	20.	*	2	0542	892	0.	*	2	1812	1267	0.
1	0444	143	14.	*	1	1714	518	20.	*	2	0544	893	0.	*	2	1814	1268	0.
1	0446	144	14.	*	1	1716	519	20.	*	2	0546	894	0.	*	2	1816	1269	0.
1	0448	145	14.	*	1	1718	520	20.	*	2	0548	895	0.	*	2	1818	1270	0.
1	0450	146	14.	*	1	1720	521	20.	*	2	0550	896	0.	*	2	1820	1271	0.
1	0452	147	14.	*	1	1722	522	19.	*	2	0552	897	0.	*	2	1822	1272	0.
1	0454	148	14.	*	1	1724	523	19.	*	2	0554	898	0.	*	2	1824	1273	0.
1	0456	149	14.	*	1	1726	524	19.	*	2	0556	899	0.	*	2	1826	1274	0.
1	0458	150	14.	*	1	1728	525	19.	*	2	0558	900	0.	*	2	1828	1275	0.
1	0500	151	14.	*	1	1730	526	19.	*	2	0600	901	0.	*	2	1830	1276	0.
1	0502	152	14.	*	1	1732	527	19.	*	2	0602	902	0.	*	2	1832	1277	0.
1	0504	153	14.	*	1	1734	528	19.	*	2	0604	903	0.	*	2	1834	1278	0.
1	0506	154	14.	*	1	1736	529	19.	*	2	0606	904	0.	*	2	1836	1279	0.
1	0508	155	14.	*	1	1738	530	19.	*	2	0608	905	0.	*	2	1838	1280	0.
1	0510	156	14.	*	1	1740	531	19.	*	2	0610	906	0.	*	2	1840	1281	0.
1	0512	157	14.	*	1	1742	532	19.	*	2	0612	907	0.	*	2	1842	1282	0.
1	0514	158	14.	*	1	1744	533	19.	*	2	0614	908	0.	*	2	1844	1283	0.
1	0516	159	14.	*	1	1746	534	19.	*	2	0616	909	0.	*	2	1846	1284	0.
1	0518	160	14.	*	1	1748	535	19.	*	2	0618	910	0.	*	2	1848	1285	0.
1	0520	161	14.	*	1	1750	536	19.	*	2	0620	911	0.	*	2	1850	1286	0.
1	0522	162	14.	*	1	1752	537	19.	*	2	0622	912	0.	*	2	1852	1287	0.
1	0524	163	14.	*	1	1754	538	19.	*	2	0624	913	0.	*	2	1854	1288	0.
1	0526	164	14.	*	1	1756	539	18.	*	2	0626	914	0.	*	2	1856	1289	0.
1	0528	165	14.	*	1	1758	540	18.	*	2	0628	915	0.	*	2	1858	1290	0.
1	0530	166	14.	*	1	1800	541	18.	*	2	0630	916	0.	*	2	1900	1291	0.
1	0532	167	14.	*	1	1802	542	18.	*	2	0632	917	0.	*	2	1902	1292	0.
1	0534	168	14.	*	1	1804	543	18.	*	2	0634	918	0.	*	2	1904	1293	0.
1	0536	169	14.	*	1	1806	544	18.	*	2	0636	919	0.	*	2	1906	1294	0.
1	0538	170	14.	*	1	1808	545	18.	*	2	0638	920	0.	*	2	1908	1295	0.
1	0540	171	14.	*	1	1810	546	17.	*	2	0640	921	0.	*	2	1910	1296	0.
1	0542	172	14.	*	1	1812	547	17.	*	2	0642	922	0.	*	2	1912	1297	0.
1	0544	173	14.	*	1	1814	548	17.	*	2	0644	923	0.	*	2	1914	1298	0.
1	0546	174	14.	*	1	1816	549	17.	*	2	0646	924	0.	*	2	1916	1299	0.
1	0548	175	14.	*	1	1818	550	17.	*	2	0648	925	0.	*	2	1918	1300	0.
1	0550	176	14.	*	1	1820	551	17.	*	2	0650	926	0.	*	2	1920	1301	0.
1	0552	177	14.	*	1	1822	552	17.	*	2	0652	927	0.	*	2	1922	1302	0.
1	0554	178	14.	*	1	1824	553	16.	*	2	0654	928	0.	*	2	1924	1303	0.
1	0556	179	14.	*	1	1826	554	16.	*	2	0656	929	0.	*	2	1926	1304	0.
1	0558	180	14.	*	1	1828	555	16.	*	2	0658	930	0.	*	2	1928	1305	0.
1	0600	181	14.	*	1	1830	556	16.	*	2	0700	931	0.	*	2	1930	1306	0.
1	0602	182	14.	*	1	1832	557	16.	*	2	0702	932	0.	*	2	1932	1307	0.
1	0604	183	14.	*	1	1834	558	16.	*	2	0704	933	0.	*	2	1934	1308	0.
1	0606	184	14.	*	1	1836	559	16.	*	2	0706	934	0.	*	2	1936	1309	0.
1	0608	185	14.	*	1	1838	560	16.	*	2	0708	935	0.	*	2	1938	1310	0.
1	0610	186	15.	*	1	1840	561	16.	*	2	0710	936	0.	*	2	1940	1311	0.
1	0612	187	15.	*	1	1842	562	16.	*	2	0712	937	0.	*	2	1942	1312	0.
1	0614	188	15.	*	1	1844	563	16.	*	2	0714	938	0.	*	2	1944	1313	0.
1	0616	189	15.	*	1	1846	564	15.	*	2	0716	939	0.	*	2	1946	1314	0.
1	0618	190	15.	*	1	1848	565	15.	*	2	0718	940	0.	*	2	1948	1315	0.
1	0620	191	15.	*	1	1850	566	15.	*	2	0720	941	0.	*	2	1950	1316	0.
1	0622	192	15.	*	1	1852	567	15.	*	2	0722	942	0.	*	2	1952	1317	0.
1	0624	193	15.	*	1	1854	568	15.	*	2	0724	943	0.	*	2	1954	1318	0.
1	0626	194	15.	*	1	1856	569	15.	*	2	0726	944	0.	*	2	1956	1319	0.
1	0628	195	16.	*	1	1858	570	15.	*	2	0728	945	0.	*	2	1958	1320	0.
1	0630	196	16.	*	1	1900	571	15.	*	2	0730	946	0.	*	2	2000	1321	0.
1	0632	197	16.	*	1	1902	572	15.	*	2	0732	947	0.	*	2	2002	1322	0.
1	0634	198	16.	*	1	1904	573	15.	*	2	0734	948	0.	*	2	2004	1323	0.
1	0636	199	16.	*	1	1906	574	15.	*	2	0736	949	0.	*	2	2006	1324	0.
1	0638	200	16.	*	1	1908	575	15.	*	2	0738	950	0.	*	2	2008	1325	0.
1	0640	201	16.	*	1	1910	576	15.	*	2	0740	951	0.	*	2	2010	1326	0.
1	0642	202	16.	*	1	1912	577	15.	*	2	0742	952	0.	*	2	2012	1327	0.
1	0644	203	17.	*	1	1914	578	15.	*	2	0744	953	0.	*	2	2014	1328	0.
1	0646	204	17.	*	1	1916	579	15.	*	2	0746	954	0.	*	2	2016	1329	0.
1	0648	205	17.	*	1	1918	580	15.	*	2	0748	955	0.	*	2	2018	1330	0.
1	0650	206	17.	*	1	1920	581	15.	*	2	0750	956	0.	*	2	2020	1331	0.
1	0652	207	17.	*	1	1922	582	15.	*	2	0752	957	0.	*	2	2022	1332	0.
1	0654	208	17.	*	1	1924	583	15.	*	2	0754	958	0.	*	2	2024	1333	0.
1	0656	209	17.	*	1	1926	584	15.	*	2	0756	959	0.	*	2	2026	1334	0.
1	0658	210	17.	*	1	1928	585	15.	*	2	0758	960	0.	*	2	2028	1335	0.
1	0700	211	17.	*	1	1930	586	15.	*	2	0800	961	0.	*	2	2030	1336	0.
1	0702	212	17.	*	1	1932	587	15.	*	2	0802	962	0.	*	2	2032	1337	0.
1	0704	213	17.	*	1	1934	588	15.	*	2	0804	963	0.	*	2	2034	1338	0.
1	0706	214	17.	*	1	1936	589	15.	*	2	0806	964	0.	*	2	2036	1339	0.
1	0708	215	17.	*	1	1938	590	15.	*	2	0808	965	0.	*	2	2038	1340	0.
1	0710	216	17.	*	1	1940	591	15.	*	2	0810	966	0.	*	2	2040	1341	0.
1	0712	217	17.	*	1	1942	592	15.	*	2	0812	967	0.	*	2	2042	1342	0.
1	0714	218	18.	*	1	1944	593	15.	*	2	0814	968	0.	*	2	2044	1343	0.

1	0716	219	18.	*	1	1946	594	15.	*	2	0816	969	0.	*	2	2046	1344	0.
1	0718	220	18.	*	1	1948	595	15.	*	2	0818	970	0.	*	2	2048	1345	0.
1	0720	221	18.	*	1	1950	596	15.	*	2	0820	971	0.	*	2	2050	1346	0.
1	0722	222	18.	*	1	1952	597	15.	*	2	0822	972	0.	*	2	2052	1347	0.
1	0724	223	18.	*	1	1954	598	15.	*	2	0824	973	0.	*	2	2054	1348	0.
1	0726	224	18.	*	1	1956	599	14.	*	2	0826	974	0.	*	2	2056	1349	0.
1	0728	225	18.	*	1	1958	600	14.	*	2	0828	975	0.	*	2	2058	1350	0.
1	0730	226	18.	*	1	2000	601	14.	*	2	0830	976	0.	*	2	2100	1351	0.
1	0732	227	18.	*	1	2002	602	14.	*	2	0832	977	0.	*	2	2102	1352	0.
1	0734	228	18.	*	1	2004	603	14.	*	2	0834	978	0.	*	2	2104	1353	0.
1	0736	229	18.	*	1	2006	604	14.	*	2	0836	979	0.	*	2	2106	1354	0.
1	0738	230	18.	*	1	2008	605	14.	*	2	0838	980	0.	*	2	2108	1355	0.
1	0740	231	18.	*	1	2010	606	14.	*	2	0840	981	0.	*	2	2110	1356	0.
1	0742	232	18.	*	1	2012	607	13.	*	2	0842	982	0.	*	2	2112	1357	0.
1	0744	233	18.	*	1	2014	608	13.	*	2	0844	983	0.	*	2	2114	1358	0.
1	0746	234	18.	*	1	2016	609	13.	*	2	0846	984	0.	*	2	2116	1359	0.
1	0748	235	18.	*	1	2018	610	13.	*	2	0848	985	0.	*	2	2118	1360	0.
1	0750	236	18.	*	1	2020	611	13.	*	2	0850	986	0.	*	2	2120	1361	0.
1	0752	237	18.	*	1	2022	612	13.	*	2	0852	987	0.	*	2	2122	1362	0.
1	0754	238	18.	*	1	2024	613	13.	*	2	0854	988	0.	*	2	2124	1363	0.
1	0756	239	18.	*	1	2026	614	13.	*	2	0856	989	0.	*	2	2126	1364	0.
1	0758	240	18.	*	1	2028	615	12.	*	2	0858	990	0.	*	2	2128	1365	0.
1	0800	241	18.	*	1	2030	616	12.	*	2	0900	991	0.	*	2	2130	1366	0.
1	0802	242	18.	*	1	2032	617	12.	*	2	0902	992	0.	*	2	2132	1367	0.
1	0804	243	18.	*	1	2034	618	12.	*	2	0904	993	0.	*	2	2134	1368	0.
1	0806	244	18.	*	1	2036	619	12.	*	2	0906	994	0.	*	2	2136	1369	0.
1	0808	245	18.	*	1	2038	620	12.	*	2	0908	995	0.	*	2	2138	1370	0.
1	0810	246	18.	*	1	2040	621	12.	*	2	0910	996	0.	*	2	2140	1371	0.
1	0812	247	18.	*	1	2042	622	12.	*	2	0912	997	0.	*	2	2142	1372	0.
1	0814	248	18.	*	1	2044	623	12.	*	2	0914	998	0.	*	2	2144	1373	0.
1	0816	249	18.	*	1	2046	624	12.	*	2	0916	999	0.	*	2	2146	1374	0.
1	0818	250	19.	*	1	2048	625	12.	*	2	0918	1000	0.	*	2	2148	1375	0.
1	0820	251	19.	*	1	2050	626	12.	*	2	0920	1001	0.	*	2	2150	1376	0.
1	0822	252	19.	*	1	2052	627	12.	*	2	0922	1002	0.	*	2	2152	1377	0.
1	0824	253	19.	*	1	2054	628	12.	*	2	0924	1003	0.	*	2	2154	1378	0.
1	0826	254	19.	*	1	2056	629	12.	*	2	0926	1004	0.	*	2	2156	1379	0.
1	0828	255	19.	*	1	2058	630	11.	*	2	0928	1005	0.	*	2	2158	1380	0.
1	0830	256	20.	*	1	2100	631	11.	*	2	0930	1006	0.	*	2	2200	1381	0.
1	0832	257	20.	*	1	2102	632	11.	*	2	0932	1007	0.	*	2	2202	1382	0.
1	0834	258	20.	*	1	2104	633	11.	*	2	0934	1008	0.	*	2	2204	1383	0.
1	0836	259	20.	*	1	2106	634	11.	*	2	0936	1009	0.	*	2	2206	1384	0.
1	0838	260	21.	*	1	2108	635	11.	*	2	0938	1010	0.	*	2	2208	1385	0.
1	0840	261	21.	*	1	2110	636	11.	*	2	0940	1011	0.	*	2	2210	1386	0.
1	0842	262	21.	*	1	2112	637	11.	*	2	0942	1012	0.	*	2	2212	1387	0.
1	0844	263	21.	*	1	2114	638	11.	*	2	0944	1013	0.	*	2	2214	1388	0.
1	0846	264	22.	*	1	2116	639	11.	*	2	0946	1014	0.	*	2	2216	1389	0.
1	0848	265	22.	*	1	2118	640	11.	*	2	0948	1015	0.	*	2	2218	1390	0.
1	0850	266	22.	*	1	2120	641	11.	*	2	0950	1016	0.	*	2	2220	1391	0.
1	0852	267	22.	*	1	2122	642	11.	*	2	0952	1017	0.	*	2	2222	1392	0.
1	0854	268	22.	*	1	2124	643	11.	*	2	0954	1018	0.	*	2	2224	1393	0.
1	0856	269	23.	*	1	2126	644	11.	*	2	0956	1019	0.	*	2	2226	1394	0.
1	0858	270	23.	*	1	2128	645	11.	*	2	0958	1020	0.	*	2	2228	1395	0.
1	0900	271	23.	*	1	2130	646	11.	*	2	1000	1021	0.	*	2	2230	1396	0.
1	0902	272	23.	*	1	2132	647	11.	*	2	1002	1022	0.	*	2	2232	1397	0.
1	0904	273	23.	*	1	2134	648	11.	*	2	1004	1023	0.	*	2	2234	1398	0.
1	0906	274	23.	*	1	2136	649	11.	*	2	1006	1024	0.	*	2	2236	1399	0.
1	0908	275	24.	*	1	2138	650	11.	*	2	1008	1025	0.	*	2	2238	1400	0.
1	0910	276	24.	*	1	2140	651	11.	*	2	1010	1026	0.	*	2	2240	1401	0.
1	0912	277	24.	*	1	2142	652	11.	*	2	1012	1027	0.	*	2	2242	1402	0.
1	0914	278	24.	*	1	2144	653	11.	*	2	1014	1028	0.	*	2	2244	1403	0.
1	0916	279	24.	*	1	2146	654	11.	*	2	1016	1029	0.	*	2	2246	1404	0.
1	0918	280	24.	*	1	2148	655	11.	*	2	1018	1030	0.	*	2	2248	1405	0.
1	0920	281	25.	*	1	2150	656	11.	*	2	1020	1031	0.	*	2	2250	1406	0.
1	0922	282	25.	*	1	2152	657	11.	*	2	1022	1032	0.	*	2	2252	1407	0.
1	0924	283	25.	*	1	2154	658	11.	*	2	1024	1033	0.	*	2	2254	1408	0.
1	0926	284	25.	*	1	2156	659	11.	*	2	1026	1034	0.	*	2	2256	1409	0.
1	0928	285	26.	*	1	2158	660	11.	*	2	1028	1035	0.	*	2	2258	1410	0.
1	0930	286	26.	*	1	2200	661	11.	*	2	1030	1036	0.	*	2	2300	1411	0.
1	0932	287	26.	*	1	2202	662	11.	*	2	1032	1037	0.	*	2	2302	1412	0.
1	0934	288	26.	*	1	2204	663	11.	*	2	1034	1038	0.	*	2	2304	1413	0.
1	0936	289	26.	*	1	2206	664	11.	*	2	1036	1039	0.	*	2	2306	1414	0.
1	0938	290	26.	*	1	2208	665	11.	*	2	1038	1040	0.	*	2	2308	1415	0.
1	0940	291	27.	*	1	2210	666	11.	*	2	1040	1041	0.	*	2	2310	1416	0.
1	0942	292	27.	*	1	2212	667	11.	*	2	1042	1042	0.	*	2	2312	1417	0.
1	0944	293	27.	*	1	2214	668	11.	*	2	1044	1043	0.	*	2	2314	1418	0.
1	0946	294	27.	*	1	2216	669	11.	*	2	1046	1044	0.	*	2	2316	1419	0.
1	0948	295	28.	*	1	2218	670	11.	*	2	1048	1045	0.	*	2	2318	1420	0.
1	0950	296	28.	*	1	2220	671	11.	*	2	1050	1046	0.	*	2	2320	1421	0.
1	0952	297	28.	*	1	2222	672	11.	*	2	1052	1047	0.	*	2	2322	1422	0.
1	0954	298	28.	*	1	2224	673	11.	*	2	1054	1048	0.	*	2	2324	1423	0.
1	0956	299	29.	*	1	2226	674	11.	*	2	1056	1049	0.	*	2	2326	1424	0.
1	0958	300	29.	*	1	2228	675	11.	*	2	1058	1050	0.	*	2	2328	1425	0.
1	1000	301	29.	*	1	2230	676	11.	*	2	1100	1051	0.	*	2	2330	1426	0.
1	1002	302	29.	*	1	2232	677	11.	*	2	1102	1052	0.	*	2	2332	1427	0.
1	1004	303	29.	*	1	2234	678	11.	*	2	1104	1053	0.	*	2	2334	1428	0.
1	1006	304	30.	*	1	2236	679	11.	*	2	1106	1054	0.	*	2	2336	1429	0.
1	1008	305	30.	*	1	2238	680	11.	*	2	1108	1055	0.	*	2	2338	1430	0.
1	1010	306	30.	*	1	2240	681	11.	*	2	1110	1056	0.	*	2	2340	1431	0.
1	1012	307	30.	*	1	2242	682	11.	*	2	1112	1057	0.	*	2	2342	1432	0.
1	1014	308	31.	*	1	2244	683	11.	*	2	1114	1058	0.	*	2	2344	1433	0.
1	1016	309	31.	*	1	2246	684	11.	*	2	1116	1059	0.	*	2	2346	1434	0.
1	1018	310	31.	*	1	2248	685	11.	*	2	1118	1060	0.	*	2	2348	1435	0.
1	1020	311	31.	*	1	2250	686	11.	*	2	1120	1061	0.	*	2	2350	1436	0.
1	1022	312	32.	*	1	2252	687	11.	*	2	1122	1062	0.	*	2	2352	1437	0.
1	1024	313	32.	*	1	2254	688	11.	*	2	1124	1063	0.	*	2	2354	1438	0.
1	1026	314	32.	*	1	2256	689	11.	*	2	1126	1064	0.	*	2	2356	1439	0.
1	1028	315	33.	*	1	2258	690	11.	*	2	1128	1065	0.	*	2	2358	1440	0.
1	1030	316	33.	*	1	2300	691	11.	*	2	1130	1066	0.	*	3	0000	1441	0.
1	1032	317	34.	*	1	2302	692	11.	*	2	1132	1067	0.	*	3	0002	1442	0.
1	1034	318	34.	*	1	2304	693	11.	*	2	1134	1068	0.	*	3	0004	1443	0.
1	1036	319	35.	*	1	2306	694	11.	*	2	1136	1069	0.	*	3	0006	1444	0.
1	1038	320	35.	*	1	2308	695	11.	*	2	1138	1070	0.	*	3	0008	1445	0.
1	1040	321	36.	*	1	2310	696	11.	*	2	1140	1071	0.	*	3	0010	1446	0.
1	1042	322	36.	*	1	2312	697	11.	*	2	1142	1072	0.	*	3	0012	1447	0.
1	1044	323	37.	*	1	2314	698	11.	*	2	1144	1073	0.	*	3	0014	1448	0.
1	1046	324	38.	*	1	2316	699	11.	*	2	1146	1074	0.	*	3	0016	1449	0.
1	1048	325	39.	*	1	2318	700	11.	*	2	1148	1075	0.	*	3	0018	1450	0.
1	1050	326	39.	*	1	2320	701	11.	*	2	1150	1076	0.	*	3	0020	1451	0.
1	1052	327	40.	*	1	2322	702	11.	*	2	1152	1077	0.	*	3	0022	1452	0.
1	1054	328	41.	*	1	2324	703	11.	*	2	1154	1078	0.	*	3	0024	1453	0.
1	1056	329	42.	*	1	2326	704	11.	*	2	1156	1079	0.	*	3	0026	1454	0.
1	1058	330	43.	*	1	2328	705	11.	*	2	1158	1080	0.	*	3	0028	1455	0.
1	1100	331	44.	*	1	2330	706	11.	*	2	1200	1081	0.	*	3	0030	1456	0.

1	1102	332	45.	*	1	2332	707	11.	*	2	1202	1082	0.	*	3	0032	1457	0.
1	1104	333	46.	*	1	2334	708	11.	*	2	1204	1083	0.	*	3	0034	1458	0.
1	1106	334	47.	*	1	2336	709	11.	*	2	1206	1084	0.	*	3	0036	1459	0.
1	1108	335	48.	*	1	2338	710	11.	*	2	1208	1085	0.	*	3	0038	1460	0.
1	1110	336	49.	*	1	2340	711	11.	*	2	1210	1086	0.	*	3	0040	1461	0.
1	1112	337	50.	*	1	2342	712	11.	*	2	1212	1087	0.	*	3	0042	1462	0.
1	1114	338	52.	*	1	2344	713	11.	*	2	1214	1088	0.	*	3	0044	1463	0.
1	1116	339	53.	*	1	2346	714	11.	*	2	1216	1089	0.	*	3	0046	1464	0.
1	1118	340	54.	*	1	2348	715	11.	*	2	1218	1090	0.	*	3	0048	1465	0.
1	1120	341	55.	*	1	2350	716	11.	*	2	1220	1091	0.	*	3	0050	1466	0.
1	1122	342	56.	*	1	2352	717	11.	*	2	1222	1092	0.	*	3	0052	1467	0.
1	1124	343	58.	*	1	2354	718	11.	*	2	1224	1093	0.	*	3	0054	1468	0.
1	1126	344	59.	*	1	2356	719	11.	*	2	1226	1094	0.	*	3	0056	1469	0.
1	1128	345	60.	*	1	2358	720	11.	*	2	1228	1095	0.	*	3	0058	1470	0.
1	1130	346	62.	*	2	0000	721	11.	*	2	1230	1096	0.	*	3	0100	1471	0.
1	1132	347	66.	*	2	0002	722	10.	*	2	1232	1097	0.	*	3	0102	1472	0.
1	1134	348	76.	*	2	0004	723	10.	*	2	1234	1098	0.	*	3	0104	1473	0.
1	1136	349	94.	*	2	0006	724	10.	*	2	1236	1099	0.	*	3	0106	1474	0.
1	1138	350	124.	*	2	0008	725	10.	*	2	1238	1100	0.	*	3	0108	1475	0.
1	1140	351	165.	*	2	0010	726	10.	*	2	1240	1101	0.	*	3	0110	1476	0.
1	1142	352	218.	*	2	0012	727	9.	*	2	1242	1102	0.	*	3	0112	1477	0.
1	1144	353	285.	*	2	0014	728	9.	*	2	1244	1103	0.	*	3	0114	1478	0.
1	1146	354	370.	*	2	0016	729	9.	*	2	1246	1104	0.	*	3	0116	1479	0.
1	1148	355	485.	*	2	0018	730	8.	*	2	1248	1105	0.	*	3	0118	1480	0.
1	1150	356	643.	*	2	0020	731	8.	*	2	1250	1106	0.	*	3	0120	1481	0.
1	1152	357	850.	*	2	0022	732	8.	*	2	1252	1107	0.	*	3	0122	1482	0.
1	1154	358	1107.	*	2	0024	733	7.	*	2	1254	1108	0.	*	3	0124	1483	0.
1	1156	359	1416.	*	2	0026	734	7.	*	2	1256	1109	0.	*	3	0126	1484	0.
1	1158	360	1650.	*	2	0028	735	6.	*	2	1258	1110	0.	*	3	0128	1485	0.
1	1200	361	1650.	*	2	0030	736	6.	*	2	1300	1111	0.	*	3	0130	1486	0.
1	1202	362	1650.	*	2	0032	737	6.	*	2	1302	1112	0.	*	3	0132	1487	0.
1	1204	363	1650.	*	2	0034	738	5.	*	2	1304	1113	0.	*	3	0134	1488	0.
1	1206	364	1650.	*	2	0036	739	5.	*	2	1306	1114	0.	*	3	0136	1489	0.
1	1208	365	1650.	*	2	0038	740	5.	*	2	1308	1115	0.	*	3	0138	1490	0.
1	1210	366	1650.	*	2	0040	741	4.	*	2	1310	1116	0.	*	3	0140	1491	0.
1	1212	367	1650.	*	2	0042	742	4.	*	2	1312	1117	0.	*	3	0142	1492	0.
1	1214	368	1650.	*	2	0044	743	4.	*	2	1314	1118	0.	*	3	0144	1493	0.
1	1216	369	1650.	*	2	0046	744	4.	*	2	1316	1119	0.	*	3	0146	1494	0.
1	1218	370	1650.	*	2	0048	745	3.	*	2	1318	1120	0.	*	3	0148	1495	0.
1	1220	371	1650.	*	2	0050	746	3.	*	2	1320	1121	0.	*	3	0150	1496	0.
1	1222	372	1650.	*	2	0052	747	3.	*	2	1322	1122	0.	*	3	0152	1497	0.
1	1224	373	1650.	*	2	0054	748	3.	*	2	1324	1123	0.	*	3	0154	1498	0.
1	1226	374	1650.	*	2	0056	749	3.	*	2	1326	1124	0.	*	3	0156	1499	0.
1	1228	375	1650.	*	2	0058	750	3.	*	2	1328	1125	0.	*	3	0158	1500	0.
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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)	(CFS)				
+ 1650.	11.97		468.	128.	62.	62.
		(INCHES)	.751	.821	.822	.822
		(AC-FT)	232.	254.	254.	254.

CUMULATIVE AREA = 5.80 SQ MI

INTERPOLATED DIVERSION HYDROGRAPH AT 180D

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		1230	376	121.	2		0100	751	0.	2		1330	1126	0.
1		0002	2	0.	1		1232	377	0.	2		0102	752	0.	2		1332	1127	0.
1		0004	3	0.	1		1234	378	0.	2		0104	753	0.	2		1334	1128	0.
1		0006	4	0.	1		1236	379	0.	2		0106	754	0.	2		1336	1129	0.
1		0008	5	0.	1		1238	380	0.	2		0108	755	0.	2		1338	1130	0.
1		0010	6	0.	1		1240	381	0.	2		0110	756	0.	2		1340	1131	0.
1		0012	7	0.	1		1242	382	0.	2		0112	757	0.	2		1342	1132	0.
1		0014	8	0.	1		1244	383	0.	2		0114	758	0.	2		1344	1133	0.
1		0016	9	0.	1		1246	384	0.	2		0116	759	0.	2		1346	1134	0.
1		0018	10	0.	1		1248	385	0.	2		0118	760	0.	2		1348	1135	0.
1		0020	11	0.	1		1250	386	0.	2		0120	761	0.	2		1350	1136	0.
1		0022	12	0.	1		1252	387	0.	2		0122	762	0.	2		1352	1137	0.
1		0024	13	0.	1		1254	388	0.	2		0124	763	0.	2		1354	1138	0.
1		0026	14	0.	1		1256	389	0.	2		0126	764	0.	2		1356	1139	0.
1		0028	15	0.	1		1258	390	0.	2		0128	765	0.	2		1358	1140	0.
1		0030	16	0.	1		1300	391	0.	2		0130	766	0.	2		1400	1141	0.
1		0032	17	0.	1		1302	392	0.	2		0132	767	0.	2		1402	1142	0.
1		0034	18	0.	1		1304	393	0.	2		0134	768	0.	2		1404	1143	0.
1		0036	19	0.	1		1306	394	0.	2		0136	769	0.	2		1406	1144	0.
1		0038	20	0.	1		1308	395	0.	2		0138	770	0.	2		1408	1145	0.
1		0040	21	0.	1		1310	396	0.	2		0140	771	0.	2		1410	1146	0.
1		0042	22	0.	1		1312	397	0.	2		0142	772	0.	2		1412	1147	0.
1		0044	23	0.	1		1314	398	0.	2		0144	773	0.	2		1414	1148	0.
1		0046	24	0.	1		1316	399	0.	2		0146	774	0.	2		1416	1149	0.
1		0048	25	0.	1		1318	400	0.	2		0148	775	0.	2		1418	1150	0.
1		0050	26	0.	1		1320	401	0.	2		0150	776	0.	2		1420	1151	0.
1		0052	27	0.	1		1322	402	0.	2		0152	777	0.	2		1422	1152	0.
1		0054	28	0.	1		1324	403	0.	2		0154	778	0.	2		1424	1153	0.
1		0056	29	0.	1		1326	404	0.	2		0156	779	0.	2		1426	1154	0.
1		0058	30	0.	1		1328	405	0.	2		0158	780	0.	2		1428	1155	0.
1		0100	31	0.	1		1330	406	0.	2		0200	781	0.	2		1430	1156	0.
1		0102	32	0.	1		1332	407	0.	2		0202	782	0.	2		1432	1157	0.
1		0104	33	0.	1		1334	408	0.	2		0204	783	0.	2		1434	1158	0.
1		0106	34	0.	1		1336	409	0.	2		0206	784	0.	2		1436	1159	0.
1		0108	35	0.	1		1338	410	0.	2		0208	785	0.	2		1438	1160	0.
1		0110	36	0.	1		1340	411	0.	2		0210	786	0.	2		1440	1161	0.
1		0112	37	0.	1		1342	412	0.	2		0212	787	0.	2		1442	1162	0.
1		0114	38	0.	1		1344	413	0.	2		0214	788	0.	2		1444	1163	0.
1		0116	39	0.	1		1346	414	0.	2		0216	789	0.	2		1446	1164	0.
1		0118	40	0.	1		1348	415	0.	2		0218	790	0.	2		1448	1165	0.
1		0120	41	0.	1		1350	416	0.	2		0220	791	0.	2		1450	1166	0.
1		0122	42	0.	1		1352	417	0.	2		0222	792	0.	2		1452	1167	0.
1		0124	43	0.	1		1354	418	0.	2		0224	793	0.	2		1454	1168	0.
1		0126	44	0.	1		1356	419	0.	2		0226	794	0.	2		1456	1169	0.
1		0128	45	0.	1		1358	420	0.	2		0228	795	0.	2		1458	1170	0.
1		0130	46	0.	1		1400	421	0.	2		0230	796	0.	2		1500	1171	0.
1		0132	47	0.	1		1402	422	0.	2		0232	797	0.	2		1502	1172	0.
1		0134	48	0.	1		1404	423	0.	2		0234	798	0.	2		1504	1173	0.
1		0136	49	0.	1		1406	424	0.	2		0236	799	0.	2		1506	1174	0.
1		0138	50	0.	1		1408	425	0.	2		0238	800	0.	2		1508	1175	0.
1		0140	51	0.	1		1410	426	0.	2		0240	801	0.	2		1510	1176	0.
1		0142	52	0.	1		1412	427	0.	2		0242	802	0.	2		1512	1177	0.
1		0144	53	0.	1		1414	428	0.	2		0244	803	0.	2		1514	1178	0.
1		0146	54	0.	1		1416	429	0.	2		0246	804	0.	2		1516	1179	0.
1		0148	55	0.	1		1418	430	0.	2		0248	805	0.	2		1518	1180	0.
1		0150	56	0.	1		1420	431	0.	2		0250	806	0.	2		1520	1181	0.
1		0152	57	0.	1		1422	432	0.	2		0252	807	0.	2		1522	1182	0.
1		0154	58	0.	1		1424	433	0.	2		0254	808	0.	2		1524	1183	0.
1		0156	59	0.	1		1426	434	0.	2		0256	809	0.	2		1526	1184	0.
1		0158	60	0.	1		1428	435	0.	2		0258	810	0.	2		1528	1185	0.
1		0200	61	0.	1		1430	436	0.	2		0300	811	0.	2		1530	1186	0.
1		0202	62	0.	1		1432	437	0.	2		0302	812	0.	2		1532	1187	0.
1		0204	63	0.	1		1434	438	0.	2		0304	813	0.	2		1534	1188	0.
1		0206	64	0.	1		1436	439	0.	2		0306	814	0.	2		1536	1189	0.
1		0208	65	0.	1		1438	440	0.	2		0308	815	0.	2		1538	1190	0.
1		0210	66	0.	1		1440	441	0.	2		0310	816	0.	2		1540	1191	0.
1		0212	67	0.	1		1442	442	0.	2		0312	817	0.	2		1542	1192	0.
1		0214	68	0.	1		1444	443	0.	2		0314	818	0.	2		1544	1193	0.
1		0216	69	0.	1		1446	444	0.	2		0316	819	0.	2		1546	1194	0.
1		0218	70	0.	1		1448	445	0.	2		0318	820	0.	2		1548	1195	0.
1		0220	71	0.	1		1450	446	0.	2		0320	821	0.	2		1550	1196	0.
1		0222	72	0.	1		1452	447	0.	2		0322	822	0.	2		1552	1197	0.
1		0224	73	0.	1		1454	448	0.	2		0324	823	0.	2		1554	1198	0.
1		0226	74	0.	1		1456	449	0.	2		0326	824	0.	2		1556	1199	0.
1		0228	75	0.	1		1458	450	0.	2		0328	825	0.	2		1558	1200	0.
1		0230	76	0.	1		1500	451	0.	2		0330	826	0.	2		1600	1201	0.
1		0232	77	0.	1		1502	452	0.	2		0332	827	0.	2		1602	1202	0.
1		0234	78	0.	1		1504	453	0.	2		0334	828	0.	2		1604	1203	0.
1		0236	79	0.	1		1506	454	0.	2		0336	829	0.	2		1606	1204	0.
1		0238	80	0.	1		1508	455	0.	2		0338	830	0.	2		1608	1205	0.
1		0240	81	0.	1		1510	456	0.	2		0340	831	0.	2		1610	1206	0.
1		0242	82	0.	1		1512	457	0.	2		0342	832	0.	2		1612	1207	0.
1		0244	83	0.	1		1514	458	0.	2		0344	833	0.	2		1614	1208	0.
1		0246	84	0.	1		1516	459	0.	2		0346	834	0.	2		1616	1209	0.
1		0248	85	0.	1		1518	460	0.	2		0348	835	0.	2		1618	1210	0.
1		0250	86	0.	1		1520	461	0.	2		0350	836	0.	2		1620	1211	0.
1		0252	87	0.	1		1522	462	0.	2		0352	837	0.	2		1622	1212	0.
1		0254	88	0.	1		1524	463	0.	2		0354	838	0.	2		1624	1213	0.
1		0256	89	0.	1		1526	464	0.	2		0356	839	0.	2		1626	1214	0.
1		0258	90	0.	1		1528	465	0.	2		0358	840	0.	2		1628	1215	0.
1		0300	91	0.	1		1530	466	0.	2		0400	841	0.	2		1630	1216	0.
1		0302	92	0.	1		1532	467	0.	2		0402	842	0.	2		1632	1217	0.
1		0304	93	0.	1		1534	468	0.	2		0404	843	0.	2		1634	1218	0.
1		0306	94	0.	1		1536	469	0.	2		0406	844	0.	2		1636	1219	0.
1		0308	95	0.	1		1538	470	0.	2		0408	845	0.	2		1638	1220	0.
1		0310	96	0.	1		1540	471	0.	2		0410	846	0.	2		1640	1221	0.
1		0312	97	0.	1		1542	472	0.	2		0412	847	0.	2		1642	1222	0.
1		0314	98	0.	1		1544	473	0.	2		0414	848	0.	2		1644	1223	0.
1		0316	99	0.	1		1546	474	0.	2		0416	849	0.	2		1646	1224	0.
1		0318	100	0.	1		1548	475	0.	2		0418	850	0.	2		1648	1225	0.
1		0320	101	0.	1		1550	476	0.	2		0420	851	0.	2		1650	1226	0.
1		0322	102	0.	1		1552	477	0.	2		0422	852	0.	2		1652	1227	0.
1		0324	103	0.	1		1554	478	0.	2		0424	853	0.	2		1654	1228	0.
1		0326	104	0.	1		1556	479	0.	2		0426	854	0.	2		1656	1229	0.
1		0328	105	0.	1		1558	480	0.	2		0428	855	0.	2		1658	1230	0.

1	0330	106	0.	*	1	1600	481	0.	*	2	0430	856	0.	*	2	1700	1231	0.
1	0332	107	0.	*	1	1602	482	0.	*	2	0432	857	0.	*	2	1702	1232	0.
1	0334	108	0.	*	1	1604	483	0.	*	2	0434	858	0.	*	2	1704	1233	0.
1	0336	109	0.	*	1	1606	484	0.	*	2	0436	859	0.	*	2	1706	1234	0.
1	0338	110	0.	*	1	1608	485	0.	*	2	0438	860	0.	*	2	1708	1235	0.
1	0340	111	0.	*	1	1610	486	0.	*	2	0440	861	0.	*	2	1710	1236	0.
1	0342	112	0.	*	1	1612	487	0.	*	2	0442	862	0.	*	2	1712	1237	0.
1	0344	113	0.	*	1	1614	488	0.	*	2	0444	863	0.	*	2	1714	1238	0.
1	0346	114	0.	*	1	1616	489	0.	*	2	0446	864	0.	*	2	1716	1239	0.
1	0348	115	0.	*	1	1618	490	0.	*	2	0448	865	0.	*	2	1718	1240	0.
1	0350	116	0.	*	1	1620	491	0.	*	2	0450	866	0.	*	2	1720	1241	0.
1	0352	117	0.	*	1	1622	492	0.	*	2	0452	867	0.	*	2	1722	1242	0.
1	0354	118	0.	*	1	1624	493	0.	*	2	0454	868	0.	*	2	1724	1243	0.
1	0356	119	0.	*	1	1626	494	0.	*	2	0456	869	0.	*	2	1726	1244	0.
1	0358	120	0.	*	1	1628	495	0.	*	2	0458	870	0.	*	2	1728	1245	0.
1	0400	121	0.	*	1	1630	496	0.	*	2	0500	871	0.	*	2	1730	1246	0.
1	0402	122	0.	*	1	1632	497	0.	*	2	0502	872	0.	*	2	1732	1247	0.
1	0404	123	0.	*	1	1634	498	0.	*	2	0504	873	0.	*	2	1734	1248	0.
1	0406	124	0.	*	1	1636	499	0.	*	2	0506	874	0.	*	2	1736	1249	0.
1	0408	125	0.	*	1	1638	500	0.	*	2	0508	875	0.	*	2	1738	1250	0.
1	0410	126	0.	*	1	1640	501	0.	*	2	0510	876	0.	*	2	1740	1251	0.
1	0412	127	0.	*	1	1642	502	0.	*	2	0512	877	0.	*	2	1742	1252	0.
1	0414	128	0.	*	1	1644	503	0.	*	2	0514	878	0.	*	2	1744	1253	0.
1	0416	129	0.	*	1	1646	504	0.	*	2	0516	879	0.	*	2	1746	1254	0.
1	0418	130	0.	*	1	1648	505	0.	*	2	0518	880	0.	*	2	1748	1255	0.
1	0420	131	0.	*	1	1650	506	0.	*	2	0520	881	0.	*	2	1750	1256	0.
1	0422	132	0.	*	1	1652	507	0.	*	2	0522	882	0.	*	2	1752	1257	0.
1	0424	133	0.	*	1	1654	508	0.	*	2	0524	883	0.	*	2	1754	1258	0.
1	0426	134	0.	*	1	1656	509	0.	*	2	0526	884	0.	*	2	1756	1259	0.
1	0428	135	0.	*	1	1658	510	0.	*	2	0528	885	0.	*	2	1758	1260	0.
1	0430	136	0.	*	1	1700	511	0.	*	2	0530	886	0.	*	2	1800	1261	0.
1	0432	137	0.	*	1	1702	512	0.	*	2	0532	887	0.	*	2	1802	1262	0.
1	0434	138	0.	*	1	1704	513	0.	*	2	0534	888	0.	*	2	1804	1263	0.
1	0436	139	0.	*	1	1706	514	0.	*	2	0536	889	0.	*	2	1806	1264	0.
1	0438	140	0.	*	1	1708	515	0.	*	2	0538	890	0.	*	2	1808	1265	0.
1	0440	141	0.	*	1	1710	516	0.	*	2	0540	891	0.	*	2	1810	1266	0.
1	0442	142	0.	*	1	1712	517	0.	*	2	0542	892	0.	*	2	1812	1267	0.
1	0444	143	0.	*	1	1714	518	0.	*	2	0544	893	0.	*	2	1814	1268	0.
1	0446	144	0.	*	1	1716	519	0.	*	2	0546	894	0.	*	2	1816	1269	0.
1	0448	145	0.	*	1	1718	520	0.	*	2	0548	895	0.	*	2	1818	1270	0.
1	0450	146	0.	*	1	1720	521	0.	*	2	0550	896	0.	*	2	1820	1271	0.
1	0452	147	0.	*	1	1722	522	0.	*	2	0552	897	0.	*	2	1822	1272	0.
1	0454	148	0.	*	1	1724	523	0.	*	2	0554	898	0.	*	2	1824	1273	0.
1	0456	149	0.	*	1	1726	524	0.	*	2	0556	899	0.	*	2	1826	1274	0.
1	0458	150	0.	*	1	1728	525	0.	*	2	0558	900	0.	*	2	1828	1275	0.
1	0500	151	0.	*	1	1730	526	0.	*	2	0600	901	0.	*	2	1830	1276	0.
1	0502	152	0.	*	1	1732	527	0.	*	2	0602	902	0.	*	2	1832	1277	0.
1	0504	153	0.	*	1	1734	528	0.	*	2	0604	903	0.	*	2	1834	1278	0.
1	0506	154	0.	*	1	1736	529	0.	*	2	0606	904	0.	*	2	1836	1279	0.
1	0508	155	0.	*	1	1738	530	0.	*	2	0608	905	0.	*	2	1838	1280	0.
1	0510	156	0.	*	1	1740	531	0.	*	2	0610	906	0.	*	2	1840	1281	0.
1	0512	157	0.	*	1	1742	532	0.	*	2	0612	907	0.	*	2	1842	1282	0.
1	0514	158	0.	*	1	1744	533	0.	*	2	0614	908	0.	*	2	1844	1283	0.
1	0516	159	0.	*	1	1746	534	0.	*	2	0616	909	0.	*	2	1846	1284	0.
1	0518	160	0.	*	1	1748	535	0.	*	2	0618	910	0.	*	2	1848	1285	0.
1	0520	161	0.	*	1	1750	536	0.	*	2	0620	911	0.	*	2	1850	1286	0.
1	0522	162	0.	*	1	1752	537	0.	*	2	0622	912	0.	*	2	1852	1287	0.
1	0524	163	0.	*	1	1754	538	0.	*	2	0624	913	0.	*	2	1854	1288	0.
1	0526	164	0.	*	1	1756	539	0.	*	2	0626	914	0.	*	2	1856	1289	0.
1	0528	165	0.	*	1	1758	540	0.	*	2	0628	915	0.	*	2	1858	1290	0.
1	0530	166	0.	*	1	1800	541	0.	*	2	0630	916	0.	*	2	1900	1291	0.
1	0532	167	0.	*	1	1802	542	0.	*	2	0632	917	0.	*	2	1902	1292	0.
1	0534	168	0.	*	1	1804	543	0.	*	2	0634	918	0.	*	2	1904	1293	0.
1	0536	169	0.	*	1	1806	544	0.	*	2	0636	919	0.	*	2	1906	1294	0.
1	0538	170	0.	*	1	1808	545	0.	*	2	0638	920	0.	*	2	1908	1295	0.
1	0540	171	0.	*	1	1810	546	0.	*	2	0640	921	0.	*	2	1910	1296	0.
1	0542	172	0.	*	1	1812	547	0.	*	2	0642	922	0.	*	2	1912	1297	0.
1	0544	173	0.	*	1	1814	548	0.	*	2	0644	923	0.	*	2	1914	1298	0.
1	0546	174	0.	*	1	1816	549	0.	*	2	0646	924	0.	*	2	1916	1299	0.
1	0548	175	0.	*	1	1818	550	0.	*	2	0648	925	0.	*	2	1918	1300	0.
1	0550	176	0.	*	1	1820	551	0.	*	2	0650	926	0.	*	2	1920	1301	0.
1	0552	177	0.	*	1	1822	552	0.	*	2	0652	927	0.	*	2	1922	1302	0.
1	0554	178	0.	*	1	1824	553	0.	*	2	0654	928	0.	*	2	1924	1303	0.
1	0556	179	0.	*	1	1826	554	0.	*	2	0656	929	0.	*	2	1926	1304	0.
1	0558	180	0.	*	1	1828	555	0.	*	2	0658	930	0.	*	2	1928	1305	0.
1	0600	181	0.	*	1	1830	556	0.	*	2	0700	931	0.	*	2	1930	1306	0.
1	0602	182	0.	*	1	1832	557	0.	*	2	0702	932	0.	*	2	1932	1307	0.
1	0604	183	0.	*	1	1834	558	0.	*	2	0704	933	0.	*	2	1934	1308	0.
1	0606	184	0.	*	1	1836	559	0.	*	2	0706	934	0.	*	2	1936	1309	0.
1	0608	185	0.	*	1	1838	560	0.	*	2	0708	935	0.	*	2	1938	1310	0.
1	0610	186	0.	*	1	1840	561	0.	*	2	0710	936	0.	*	2	1940	1311	0.
1	0612	187	0.	*	1	1842	562	0.	*	2	0712	937	0.	*	2	1942	1312	0.
1	0614	188	0.	*	1	1844	563	0.	*	2	0714	938	0.	*	2	1944	1313	0.
1	0616	189	0.	*	1	1846	564	0.	*	2	0716	939	0.	*	2	1946	1314	0.
1	0618	190	0.	*	1	1848	565	0.	*	2	0718	940	0.	*	2	1948	1315	0.
1	0620	191	0.	*	1	1850	566	0.	*	2	0720	941	0.	*	2	1950	1316	0.
1	0622	192	0.	*	1	1852	567	0.	*	2	0722	942	0.	*	2	1952	1317	0.
1	0624	193	0.	*	1	1854	568	0.	*	2	0724	943	0.	*	2	1954	1318	0.
1	0626	194	0.	*	1	1856	569	0.	*	2	0726	944	0.	*	2	1956	1319	0.
1	0628	195	0.	*	1	1858	570	0.	*	2	0728	945	0.	*	2	1958	1320	0.
1	0630	196	0.	*	1	1900	571	0.	*	2	0730	946	0.	*	2	2000	1321	0.
1	0632	197	0.	*	1	1902	572	0.	*	2	0732	947	0.	*	2	2002	1322	0.
1	0634	198	0.	*	1	1904	573	0.	*	2	0734	948	0.	*	2	2004	1323	0.
1	0636	199	0.	*	1	1906	574	0.	*	2	0736	949	0.	*	2	2006	1324	0.
1	0638	200	0.	*	1	1908	575	0.	*	2	0738	950	0.	*	2	2008	1325	0.
1	0640	201	0.	*	1	1910	576	0.	*	2	0740	951	0.	*	2	2010	1326	0.
1	0642	202	0.	*	1	1912	577	0.	*	2	0742	952	0.	*	2	2012	1327	0.
1	0644	203	0.	*	1	1914	578	0.	*	2	0744	953	0.	*	2	2014	1328	0.
1	0646	204	0.	*	1	1916	579	0.	*	2	0746	954	0.	*	2	2016	1329	0.
1	0648	205	0.	*	1	1918	580	0.	*	2	0748	955	0.	*	2	2018	1330	0.
1	0650	206	0.	*	1	1920	581	0.	*	2	0750	956	0.	*	2	2020	1331	0.
1	0652	207	0.	*	1	1922	582	0.	*	2	0752	957	0.	*	2	2022	1332	0.
1	0654	208	0.	*	1	1924	583	0.	*	2	0754	958	0.	*	2	2024	1333	0.
1	0656	209	0.	*	1	1926	584	0.	*	2	0756	959	0.	*	2	2026	1334	0.
1	0658	210	0.	*	1	1928	585	0.	*	2	0758	960	0.	*	2	2028	1335	0.
1	0700	211	0.	*	1	1930	586	0.	*	2	0800	961	0.	*	2	2030	1336	0.
1	0702	212	0.	*	1	1932	587	0.	*	2	0802	962	0.	*	2	2032	1337	0.
1	0704	213	0.	*	1	1934	588	0.	*	2	0804	963	0.	*	2	2034	1338	0.
1	0706	214	0.	*	1	1936	589	0.	*	2	0806	964	0.	*	2	2036	1339	0.
1	0708	215	0.	*	1	1938	590	0.	*	2	0808	965	0.	*	2	2038	1340	0.
1	0710	216	0.	*	1	1940	591	0.	*	2	0810	966	0.	*	2	2040	1341	0.
1	0712	217	0.	*	1	1942	592	0.	*	2	0812	967	0.	*	2	2042	1342	0.
1	0714	218	0.	*	1	1944	593	0.	*	2	0814	968	0.	*	2	2044	1343	0.

1	0716	219	0.	*	1	1946	594	0.	*	2	0816	969	0.	*	2	2046	1344	0.
1	0718	220	0.	*	1	1948	595	0.	*	2	0818	970	0.	*	2	2048	1345	0.
1	0720	221	0.	*	1	1950	596	0.	*	2	0820	971	0.	*	2	2050	1346	0.
1	0722	222	0.	*	1	1952	597	0.	*	2	0822	972	0.	*	2	2052	1347	0.
1	0724	223	0.	*	1	1954	598	0.	*	2	0824	973	0.	*	2	2054	1348	0.
1	0726	224	0.	*	1	1956	599	0.	*	2	0826	974	0.	*	2	2056	1349	0.
1	0728	225	0.	*	1	1958	600	0.	*	2	0828	975	0.	*	2	2058	1350	0.
1	0730	226	0.	*	1	2000	601	0.	*	2	0830	976	0.	*	2	2100	1351	0.
1	0732	227	0.	*	1	2002	602	0.	*	2	0832	977	0.	*	2	2102	1352	0.
1	0734	228	0.	*	1	2004	603	0.	*	2	0834	978	0.	*	2	2104	1353	0.
1	0736	229	0.	*	1	2006	604	0.	*	2	0836	979	0.	*	2	2106	1354	0.
1	0738	230	0.	*	1	2008	605	0.	*	2	0838	980	0.	*	2	2108	1355	0.
1	0740	231	0.	*	1	2010	606	0.	*	2	0840	981	0.	*	2	2110	1356	0.
1	0742	232	0.	*	1	2012	607	0.	*	2	0842	982	0.	*	2	2112	1357	0.
1	0744	233	0.	*	1	2014	608	0.	*	2	0844	983	0.	*	2	2114	1358	0.
1	0746	234	0.	*	1	2016	609	0.	*	2	0846	984	0.	*	2	2116	1359	0.
1	0748	235	0.	*	1	2018	610	0.	*	2	0848	985	0.	*	2	2118	1360	0.
1	0750	236	0.	*	1	2020	611	0.	*	2	0850	986	0.	*	2	2120	1361	0.
1	0752	237	0.	*	1	2022	612	0.	*	2	0852	987	0.	*	2	2122	1362	0.
1	0754	238	0.	*	1	2024	613	0.	*	2	0854	988	0.	*	2	2124	1363	0.
1	0756	239	0.	*	1	2026	614	0.	*	2	0856	989	0.	*	2	2126	1364	0.
1	0758	240	0.	*	1	2028	615	0.	*	2	0858	990	0.	*	2	2128	1365	0.
1	0800	241	0.	*	1	2030	616	0.	*	2	0900	991	0.	*	2	2130	1366	0.
1	0802	242	0.	*	1	2032	617	0.	*	2	0902	992	0.	*	2	2132	1367	0.
1	0804	243	0.	*	1	2034	618	0.	*	2	0904	993	0.	*	2	2134	1368	0.
1	0806	244	0.	*	1	2036	619	0.	*	2	0906	994	0.	*	2	2136	1369	0.
1	0808	245	0.	*	1	2038	620	0.	*	2	0908	995	0.	*	2	2138	1370	0.
1	0810	246	0.	*	1	2040	621	0.	*	2	0910	996	0.	*	2	2140	1371	0.
1	0812	247	0.	*	1	2042	622	0.	*	2	0912	997	0.	*	2	2142	1372	0.
1	0814	248	0.	*	1	2044	623	0.	*	2	0914	998	0.	*	2	2144	1373	0.
1	0816	249	0.	*	1	2046	624	0.	*	2	0916	999	0.	*	2	2146	1374	0.
1	0818	250	0.	*	1	2048	625	0.	*	2	0918	1000	0.	*	2	2148	1375	0.
1	0820	251	0.	*	1	2050	626	0.	*	2	0920	1001	0.	*	2	2150	1376	0.
1	0822	252	0.	*	1	2052	627	0.	*	2	0922	1002	0.	*	2	2152	1377	0.
1	0824	253	0.	*	1	2054	628	0.	*	2	0924	1003	0.	*	2	2154	1378	0.
1	0826	254	0.	*	1	2056	629	0.	*	2	0926	1004	0.	*	2	2156	1379	0.
1	0828	255	0.	*	1	2058	630	0.	*	2	0928	1005	0.	*	2	2158	1380	0.
1	0830	256	0.	*	1	2100	631	0.	*	2	0930	1006	0.	*	2	2200	1381	0.
1	0832	257	0.	*	1	2102	632	0.	*	2	0932	1007	0.	*	2	2202	1382	0.
1	0834	258	0.	*	1	2104	633	0.	*	2	0934	1008	0.	*	2	2204	1383	0.
1	0836	259	0.	*	1	2106	634	0.	*	2	0936	1009	0.	*	2	2206	1384	0.
1	0838	260	0.	*	1	2108	635	0.	*	2	0938	1010	0.	*	2	2208	1385	0.
1	0840	261	0.	*	1	2110	636	0.	*	2	0940	1011	0.	*	2	2210	1386	0.
1	0842	262	0.	*	1	2112	637	0.	*	2	0942	1012	0.	*	2	2212	1387	0.
1	0844	263	0.	*	1	2114	638	0.	*	2	0944	1013	0.	*	2	2214	1388	0.
1	0846	264	0.	*	1	2116	639	0.	*	2	0946	1014	0.	*	2	2216	1389	0.
1	0848	265	0.	*	1	2118	640	0.	*	2	0948	1015	0.	*	2	2218	1390	0.
1	0850	266	0.	*	1	2120	641	0.	*	2	0950	1016	0.	*	2	2220	1391	0.
1	0852	267	0.	*	1	2122	642	0.	*	2	0952	1017	0.	*	2	2222	1392	0.
1	0854	268	0.	*	1	2124	643	0.	*	2	0954	1018	0.	*	2	2224	1393	0.
1	0856	269	0.	*	1	2126	644	0.	*	2	0956	1019	0.	*	2	2226	1394	0.
1	0858	270	0.	*	1	2128	645	0.	*	2	0958	1020	0.	*	2	2228	1395	0.
1	0900	271	0.	*	1	2130	646	0.	*	2	1000	1021	0.	*	2	2230	1396	0.
1	0902	272	0.	*	1	2132	647	0.	*	2	1002	1022	0.	*	2	2232	1397	0.
1	0904	273	0.	*	1	2134	648	0.	*	2	1004	1023	0.	*	2	2234	1398	0.
1	0906	274	0.	*	1	2136	649	0.	*	2	1006	1024	0.	*	2	2236	1399	0.
1	0908	275	0.	*	1	2138	650	0.	*	2	1008	1025	0.	*	2	2238	1400	0.
1	0910	276	0.	*	1	2140	651	0.	*	2	1010	1026	0.	*	2	2240	1401	0.
1	0912	277	0.	*	1	2142	652	0.	*	2	1012	1027	0.	*	2	2242	1402	0.
1	0914	278	0.	*	1	2144	653	0.	*	2	1014	1028	0.	*	2	2244	1403	0.
1	0916	279	0.	*	1	2146	654	0.	*	2	1016	1029	0.	*	2	2246	1404	0.
1	0918	280	0.	*	1	2148	655	0.	*	2	1018	1030	0.	*	2	2248	1405	0.
1	0920	281	0.	*	1	2150	656	0.	*	2	1020	1031	0.	*	2	2250	1406	0.
1	0922	282	0.	*	1	2152	657	0.	*	2	1022	1032	0.	*	2	2252	1407	0.
1	0924	283	0.	*	1	2154	658	0.	*	2	1024	1033	0.	*	2	2254	1408	0.
1	0926	284	0.	*	1	2156	659	0.	*	2	1026	1034	0.	*	2	2256	1409	0.
1	0928	285	0.	*	1	2158	660	0.	*	2	1028	1035	0.	*	2	2258	1410	0.
1	0930	286	0.	*	1	2200	661	0.	*	2	1030	1036	0.	*	2	2300	1411	0.
1	0932	287	0.	*	1	2202	662	0.	*	2	1032	1037	0.	*	2	2302	1412	0.
1	0934	288	0.	*	1	2204	663	0.	*	2	1034	1038	0.	*	2	2304	1413	0.
1	0936	289	0.	*	1	2206	664	0.	*	2	1036	1039	0.	*	2	2306	1414	0.
1	0938	290	0.	*	1	2208	665	0.	*	2	1038	1040	0.	*	2	2308	1415	0.
1	0940	291	0.	*	1	2210	666	0.	*	2	1040	1041	0.	*	2	2310	1416	0.
1	0942	292	0.	*	1	2212	667	0.	*	2	1042	1042	0.	*	2	2312	1417	0.
1	0944	293	0.	*	1	2214	668	0.	*	2	1044	1043	0.	*	2	2314	1418	0.
1	0946	294	0.	*	1	2216	669	0.	*	2	1046	1044	0.	*	2	2316	1419	0.
1	0948	295	0.	*	1	2218	670	0.	*	2	1048	1045	0.	*	2	2318	1420	0.
1	0950	296	0.	*	1	2220	671	0.	*	2	1050	1046	0.	*	2	2320	1421	0.
1	0952	297	0.	*	1	2222	672	0.	*	2	1052	1047	0.	*	2	2322	1422	0.
1	0954	298	0.	*	1	2224	673	0.	*	2	1054	1048	0.	*	2	2324	1423	0.
1	0956	299	0.	*	1	2226	674	0.	*	2	1056	1049	0.	*	2	2326	1424	0.
1	0958	300	0.	*	1	2228	675	0.	*	2	1058	1050	0.	*	2	2328	1425	0.
1	1000	301	0.	*	1	2230	676	0.	*	2	1100	1051	0.	*	2	2330	1426	0.
1	1002	302	0.	*	1	2232	677	0.	*	2	1102	1052	0.	*	2	2332	1427	0.
1	1004	303	0.	*	1	2234	678	0.	*	2	1104	1053	0.	*	2	2334	1428	0.
1	1006	304	0.	*	1	2236	679	0.	*	2	1106	1054	0.	*	2	2336	1429	0.
1	1008	305	0.	*	1	2238	680	0.	*	2	1108	1055	0.	*	2	2338	1430	0.
1	1010	306	0.	*	1	2240	681	0.	*	2	1110	1056	0.	*	2	2340	1431	0.
1	1012	307	0.	*	1	2242	682	0.	*	2	1112	1057	0.	*	2	2342	1432	0.
1	1014	308	0.	*	1	2244	683	0.	*	2	1114	1058	0.	*	2	2344	1433	0.
1	1016	309	0.	*	1	2246	684	0.	*	2	1116	1059	0.	*	2	2346	1434	0.
1	1018	310	0.	*	1	2248	685	0.	*	2	1118	1060	0.	*	2	2348	1435	0.
1	1020	311	0.	*	1	2250	686	0.	*	2	1120	1061	0.	*	2	2350	1436	0.
1	1022	312	0.	*	1	2252	687	0.	*	2	1122	1062	0.	*	2	2352	1437	0.
1	1024	313	0.	*	1	2254	688	0.	*	2	1124	1063	0.	*	2	2354	1438	0.
1	1026	314	0.	*	1	2256	689	0.	*	2	1126	1064	0.	*	2	2356	1439	0.
1	1028	315	0.	*	1	2258	690	0.	*	2	1128	1065	0.	*	2	2358	1440	0.
1	1030	316	0.	*	1	2300	691	0.	*	2	1130	1066	0.	*	3	0000	1441	0.
1	1032	317	0.	*	1	2302	692	0.	*	2	1132	1067	0.	*	3	0002	1442	0.
1	1034	318	0.	*	1	2304	693	0.	*	2	1134	1068	0.	*	3	0004	1443	0.
1	1036	319	0.	*	1	2306	694	0.	*	2	1136	1069	0.	*	3	0006	1444	0.
1	1038	320	0.	*	1	2308	695	0.	*	2	1138	1070	0.	*	3	0008	1445	0.
1	1040	321	0.	*	1	2310	696	0.	*	2	1140	1071	0.	*	3	0010	1446	0.
1	1042	322	0.	*	1	2312	697	0.	*	2	1142	1072	0.	*	3	0012	1447	0.
1	1044	323	0.	*	1	2314	698	0.	*	2	1144	1073	0.	*	3	0014	1448	0.
1	1046	324	0.	*	1	2316	699	0.	*	2	1146	1074	0.	*	3	0016	1449	0.
1	1048	325	0.	*	1	2318	700	0.	*	2	1148	1075	0.	*	3	0018	1450	0.
1	1050	326	0.	*	1	2320	701	0.	*	2	1150	1076	0.	*	3	0020	1451	0.
1	1052	327	0.	*	1	2322	702	0.	*	2	1152	1077	0.	*	3	0022	1452	0.
1	1054	328	0.	*	1	2324	703	0.	*	2	1154	1078	0.	*	3	0024	1453	0.
1	1056	329	0.	*	1	2326	704	0.	*	2	1156	1079	0.	*	3	0026	1454	0.
1	1058	330	0.	*	1	2328	705	0.	*	2	1158	1080	0.	*	3	0028	1455	0.
1	1100	331	0.	*	1	2330	706	0.	*	2	1200	1081	0.	*	3	0030	1456	0.

1	1102	332	0.	*	1	2332	707	0.	*	2	1202	1082	0.	*	3	0032	1457	0.
1	1104	333	0.	*	1	2334	708	0.	*	2	1204	1083	0.	*	3	0034	1458	0.
1	1106	334	0.	*	1	2336	709	0.	*	2	1206	1084	0.	*	3	0036	1459	0.
1	1108	335	0.	*	1	2338	710	0.	*	2	1208	1085	0.	*	3	0038	1460	0.
1	1110	336	0.	*	1	2340	711	0.	*	2	1210	1086	0.	*	3	0040	1461	0.
1	1112	337	0.	*	1	2342	712	0.	*	2	1212	1087	0.	*	3	0042	1462	0.
1	1114	338	0.	*	1	2344	713	0.	*	2	1214	1088	0.	*	3	0044	1463	0.
1	1116	339	0.	*	1	2346	714	0.	*	2	1216	1089	0.	*	3	0046	1464	0.
1	1118	340	0.	*	1	2348	715	0.	*	2	1218	1090	0.	*	3	0048	1465	0.
1	1120	341	0.	*	1	2350	716	0.	*	2	1220	1091	0.	*	3	0050	1466	0.
1	1122	342	0.	*	1	2352	717	0.	*	2	1222	1092	0.	*	3	0052	1467	0.
1	1124	343	0.	*	1	2354	718	0.	*	2	1224	1093	0.	*	3	0054	1468	0.
1	1126	344	0.	*	1	2356	719	0.	*	2	1226	1094	0.	*	3	0056	1469	0.
1	1128	345	0.	*	1	2358	720	0.	*	2	1228	1095	0.	*	3	0058	1470	0.
1	1130	346	0.	*	2	0000	721	0.	*	2	1230	1096	0.	*	3	0100	1471	0.
1	1132	347	0.	*	2	0002	722	0.	*	2	1232	1097	0.	*	3	0102	1472	0.
1	1134	348	0.	*	2	0004	723	0.	*	2	1234	1098	0.	*	3	0104	1473	0.
1	1136	349	0.	*	2	0006	724	0.	*	2	1236	1099	0.	*	3	0106	1474	0.
1	1138	350	0.	*	2	0008	725	0.	*	2	1238	1100	0.	*	3	0108	1475	0.
1	1140	351	0.	*	2	0010	726	0.	*	2	1240	1101	0.	*	3	0110	1476	0.
1	1142	352	0.	*	2	0012	727	0.	*	2	1242	1102	0.	*	3	0112	1477	0.
1	1144	353	0.	*	2	0014	728	0.	*	2	1244	1103	0.	*	3	0114	1478	0.
1	1146	354	0.	*	2	0016	729	0.	*	2	1246	1104	0.	*	3	0116	1479	0.
1	1148	355	0.	*	2	0018	730	0.	*	2	1248	1105	0.	*	3	0118	1480	0.
1	1150	356	0.	*	2	0020	731	0.	*	2	1250	1106	0.	*	3	0120	1481	0.
1	1152	357	0.	*	2	0022	732	0.	*	2	1252	1107	0.	*	3	0122	1482	0.
1	1154	358	0.	*	2	0024	733	0.	*	2	1254	1108	0.	*	3	0124	1483	0.
1	1156	359	0.	*	2	0026	734	0.	*	2	1256	1109	0.	*	3	0126	1484	0.
1	1158	360	0.	*	2	0028	735	0.	*	2	1258	1110	0.	*	3	0128	1485	0.
1	1200	361	0.	*	2	0030	736	0.	*	2	1300	1111	0.	*	3	0130	1486	0.
1	1202	362	0.	*	2	0032	737	0.	*	2	1302	1112	0.	*	3	0132	1487	0.
1	1204	363	0.	*	2	0034	738	0.	*	2	1304	1113	0.	*	3	0134	1488	0.
1	1206	364	0.	*	2	0036	739	0.	*	2	1306	1114	0.	*	3	0136	1489	0.
1	1208	365	270.	*	2	0038	740	0.	*	2	1308	1115	0.	*	3	0138	1490	0.
1	1210	366	1205.	*	2	0040	741	0.	*	2	1310	1116	0.	*	3	0140	1491	0.
1	1212	367	2015.	*	2	0042	742	0.	*	2	1312	1117	0.	*	3	0142	1492	0.
1	1214	368	2597.	*	2	0044	743	0.	*	2	1314	1118	0.	*	3	0144	1493	0.
1	1216	369	2925.	*	2	0046	744	0.	*	2	1316	1119	0.	*	3	0146	1494	0.
1	1218	370	2999.	*	2	0048	745	0.	*	2	1318	1120	0.	*	3	0148	1495	0.
1	1220	371	2836.	*	2	0050	746	0.	*	2	1320	1121	0.	*	3	0150	1496	0.
1	1222	372	2481.	*	2	0052	747	0.	*	2	1322	1122	0.	*	3	0152	1497	0.
1	1224	373	1977.	*	2	0054	748	0.	*	2	1324	1123	0.	*	3	0154	1498	0.
1	1226	374	1373.	*	2	0056	749	0.	*	2	1326	1124	0.	*	3	0156	1499	0.
1	1228	375	730.	*	2	0058	750	0.	*	2	1328	1125	0.	*	3	0158	1500	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)	(CFS)				
+ 2999.	12.30		120.	30.	14.	14.
		(INCHES)	.105	.105	.105	.105
		(AC-FT)	59.	59.	59.	59.

CUMULATIVE AREA = 10.64 SQ MI

INTERPOLATED HYDROGRAPH AT D180

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		1230	376	8480.	2		0100	751	46.	2		1330	1126	22.
1		0002	2	0.	1		1232	377	7991.	2		0102	752	46.	2		1332	1127	22.
1		0004	3	0.	1		1234	378	7419.	2		0104	753	46.	2		1334	1128	22.
1		0006	4	0.	1		1236	379	6898.	2		0106	754	45.	2		1336	1129	22.
1		0008	5	0.	1		1238	380	6420.	2		0108	755	45.	2		1338	1130	22.
1		0010	6	0.	1		1240	381	5982.	2		0110	756	45.	2		1340	1131	22.
1		0012	7	0.	1		1242	382	5581.	2		0112	757	44.	2		1342	1132	22.
1		0014	8	1.	1		1244	383	5220.	2		0114	758	44.	2		1344	1133	22.
1		0016	9	1.	1		1246	384	4903.	2		0116	759	44.	2		1346	1134	22.
1		0018	10	1.	1		1248	385	4610.	2		0118	760	43.	2		1348	1135	22.
1		0020	11	2.	1		1250	386	4346.	2		0120	761	43.	2		1350	1136	22.
1		0022	12	2.	1		1252	387	4107.	2		0122	762	43.	2		1352	1137	22.
1		0024	13	2.	1		1254	388	3891.	2		0124	763	42.	2		1354	1138	22.
1		0026	14	3.	1		1256	389	3698.	2		0126	764	42.	2		1356	1139	22.
1		0028	15	4.	1		1258	390	3521.	2		0128	765	42.	2		1358	1140	22.
1		0030	16	4.	1		1300	391	3362.	2		0130	766	41.	2		1400	1141	22.
1		0032	17	5.	1		1302	392	3219.	2		0132	767	41.	2		1402	1142	22.
1		0034	18	6.	1		1304	393	3080.	2		0134	768	41.	2		1404	1143	22.
1		0036	19	6.	1		1306	394	2947.	2		0136	769	41.	2		1406	1144	22.
1		0038	20	7.	1		1308	395	2816.	2		0138	770	40.	2		1408	1145	22.
1		0040	21	8.	1		1310	396	2685.	2		0140	771	40.	2		1410	1146	22.
1		0042	22	8.	1		1312	397	2554.	2		0142	772	40.	2		1412	1147	22.
1		0044	23	9.	1		1314	398	2426.	2		0144	773	40.	2		1414	1148	22.
1		0046	24	10.	1		1316	399	2301.	2		0146	774	39.	2		1416	1149	22.
1		0048	25	10.	1		1318	400	2178.	2		0148	775	39.	2		1418	1150	22.
1		0050	26	11.	1		1320	401	2060.	2		0150	776	39.	2		1420	1151	22.
1		0052	27	11.	1		1322	402	1954.	2		0152	777	39.	2		1422	1152	21.
1		0054	28	12.	1		1324	403	1851.	2		0154	778	39.	2		1424	1153	21.
1		0056	29	12.	1		1326	404	1752.	2		0156	779	38.	2		1426	1154	21.
1		0058	30	13.	1		1328	405	1656.	2		0158	780	38.	2		1428	1155	21.
1		0100	31	13.	1		1330	406	1566.	2		0200	781	38.	2		1430	1156	21.
1		0102	32	13.	1		1332	407	1481.	2		0202	782	38.	2		1432	1157	21.
1		0104	33	14.	1		1334	408	1402.	2		0204	783	38.	2		1434	1158	21.
1		0106	34	14.	1		1336	409	1328.	2		0206	784	37.	2		1436	1159	21.
1		0108	35	14.	1		1338	410	1259.	2		0208	785	37.	2		1438	1160	21.
1		0110	36	15.	1		1340	411	1196.	2		0210	786	37.	2		1440	1161	21.
1		0112	37	15.	1		1342	412	1142.	2		0212	787	37.	2		1442	1162	21.
1		0114	38	15.	1		1344	413	1090.	2		0214	788	37.	2		1444	1163	21.
1		0116	39	15.	1		1346	414	1041.	2		0216	789	37.	2		1446	1164	21.
1		0118	40	16.	1		1348	415	994.	2		0218	790	36.	2		1448	1165	21.
1		0120	41	16.	1		1350	416	950.	2		0220	791	36.	2		1450	1166	21.
1		0122	42	16.	1		1352	417	908.	2		0222	792	36.	2		1452	1167	21.
1		0124	43	16.	1		1354	418	867.	2		0224	793	36.	2		1454	1168	21.
1		0126	44	17.	1		1356	419	829.	2		0226	794	36.	2		1456	1169	21.
1		0128	45	17.	1		1358	420	795.	2		0228	795	36.	2		1458	1170	21.
1		0130	46	17.	1		1400	421	763.	2		0230	796	36.	2		1500	1171	21.
1		0132	47	17.	1		1402	422	734.	2		0232	797	35.	2		1502	1172	21.
1		0134	48	17.	1		1404	423	706.	2		0234	798	35.	2		1504	1173	21.
1		0136	49	17.	1		1406	424	679.	2		0236	799	35.	2		1506	1174	21.
1		0138	50	18.	1		1408	425	653.	2		0238	800	35.	2		1508	1175	21.
1		0140	51	18.	1		1410	426	628.	2		0240	801	35.	2		1510	1176	21.
1		0142	52	18.	1		1412	427	605.	2		0242	802	35.	2		1512	1177	21.
1		0144	53	18.	1		1414	428	582.	2		0244	803	35.	2		1514	1178	21.
1		0146	54	18.	1		1416	429	562.	2		0246	804	34.	2		1516	1179	21.
1		0148	55	18.	1		1418	430	544.	2		0248	805	34.	2		1518	1180	21.
1		0150	56	18.	1		1420	431	525.	2		0250	806	34.	2		1520	1181	21.
1		0152	57	19.	1		1422	432	507.	2		0252	807	34.	2		1522	1182	21.
1		0154	58	19.	1		1424	433	489.	2		0254	808	34.	2		1524	1183	21.
1		0156	59	19.	1		1426	434	473.	2		0256	809	34.	2		1526	1184	21.
1		0158	60	19.	1		1428	435	458.	2		0258	810	34.	2		1528	1185	21.
1		0200	61	19.	1		1430	436	443.	2		0300	811	34.	2		1530	1186	21.
1		0202	62	19.	1		1432	437	430.	2		0302	812	34.	2		1532	1187	21.
1		0204	63	19.	1		1434	438	416.	2		0304	813	34.	2		1534	1188	21.
1		0206	64	20.	1		1436	439	403.	2		0306	814	33.	2		1536	1189	21.
1		0208	65	20.	1		1438	440	389.	2		0308	815	33.	2		1538	1190	21.
1		0210	66	20.	1		1440	441	376.	2		0310	816	33.	2		1540	1191	21.
1		0212	67	20.	1		1442	442	364.	2		0312	817	33.	2		1542	1192	21.
1		0214	68	20.	1		1444	443	352.	2		0314	818	33.	2		1544	1193	21.
1		0216	69	20.	1		1446	444	340.	2		0316	819	33.	2		1546	1194	20.
1		0218	70	21.	1		1448	445	329.	2		0318	820	33.	2		1548	1195	20.
1		0220	71	21.	1		1450	446	319.	2		0320	821	33.	2		1550	1196	20.
1		0222	72	21.	1		1452	447	309.	2		0322	822	33.	2		1552	1197	20.
1		0224	73	21.	1		1454	448	301.	2		0324	823	33.	2		1554	1198	20.
1		0226	74	21.	1		1456	449	293.	2		0326	824	33.	2		1556	1199	20.
1		0228	75	21.	1		1458	450	286.	2		0328	825	33.	2		1558	1200	20.
1		0230	76	21.	1		1500	451	278.	2		0330	826	32.	2		1600	1201	20.
1		0232	77	22.	1		1502	452	271.	2		0332	827	32.	2		1602	1202	20.
1		0234	78	22.	1		1504	453	264.	2		0334	828	32.	2		1604	1203	20.
1		0236	79	22.	1		1506	454	258.	2		0336	829	32.	2		1606	1204	20.
1		0238	80	22.	1		1508	455	251.	2		0338	830	32.	2		1608	1205	20.
1		0240	81	22.	1		1510	456	245.	2		0340	831	32.	2		1610	1206	20.
1		0242	82	22.	1		1512	457	240.	2		0342	832	32.	2		1612	1207	20.
1		0244	83	23.	1		1514	458	235.	2		0344	833	32.	2		1614	1208	20.
1		0246	84	23.	1		1516	459	230.	2		0346	834	32.	2		1616	1209	20.
1		0248	85	23.	1		1518	460	225.	2		0348	835	32.	2		1618	1210	20.
1		0250	86	23.	1		1520	461	220.	2		0350	836	32.	2		1620	1211	20.
1		0252	87	23.	1		1522	462	215.	2		0352	837	32.	2		1622	1212	20.
1		0254	88	23.	1		1524	463	211.	2		0354	838	32.	2		1624	1213	20.
1		0256	89	23.	1		1526	464	206.	2		0356	839	32.	2		1626	1214	20.
1		0258	90	24.	1		1528	465	202.	2		0358	840	32.	2		1628	1215	20.
1		0300	91	24.	1		1530	466	197.	2		0400	841	31.	2		1630	1216	20.
1		0302	92	24.	1		1532	467	193.	2		0402	842	31.	2		1632	1217	20.
1		0304	93	24.	1		1534	468	189.	2		0404	843	31.	2		1634	1218	20.
1		0306	94	24.	1		1536	469	185.	2		0406	844	31.	2		1636	1219	20.
1		0308	95	24.	1		1538	470	181.	2		0408	845	31.	2		1638	1220	20.
1		0310	96	24.	1		1540	471	178.	2		0410	846	31.	2		1640	1221	20.
1		0312	97	24.	1		1542	472	176.	2		0412	847	31.	2		1642	1222	20.
1		0314	98	25.	1		1544	473	174.	2		0414	848	31.	2		1644	1223	20.
1		0316	99	25.	1		1546	474	172.	2		0416	849	31.	2		1646	1224	20.
1		0318	100	25.	1		1548	475	169.	2		0418	850	31.	2		1648	1225	20.
1		0320	101	25.	1		1550	476	167.	2		0420	851	31.	2		1650	1226	20.
1		0322	102	25.	1		1552	477	165.	2		0422	852	31.	2		1652	1227	20.
1		0324	103	25.	1		1554	478	162.	2		0424	853	31.	2		1654	1228	20.
1		0326	104	25.	1		1556	479	160.	2		0426	854	31.	2		1656	1229	20.
1		0328	105	25.	1		1558	480	158.	2		0428	855	31.	2		1658	1230	20.

1	0330	106	25.	*	1	1600	481	156.	*	2	0430	856	31.	*	2	1700	1231	20.
1	0332	107	26.	*	1	1602	482	154.	*	2	0432	857	31.	*	2	1702	1232	20.
1	0334	108	26.	*	1	1604	483	152.	*	2	0434	858	31.	*	2	1704	1233	20.
1	0336	109	26.	*	1	1606	484	150.	*	2	0436	859	30.	*	2	1706	1234	20.
1	0338	110	26.	*	1	1608	485	148.	*	2	0438	860	30.	*	2	1708	1235	20.
1	0340	111	26.	*	1	1610	486	146.	*	2	0440	861	30.	*	2	1710	1236	20.
1	0342	112	26.	*	1	1612	487	145.	*	2	0442	862	30.	*	2	1712	1237	19.
1	0344	113	26.	*	1	1614	488	143.	*	2	0444	863	30.	*	2	1714	1238	19.
1	0346	114	26.	*	1	1616	489	141.	*	2	0446	864	30.	*	2	1716	1239	19.
1	0348	115	26.	*	1	1618	490	140.	*	2	0448	865	30.	*	2	1718	1240	19.
1	0350	116	26.	*	1	1620	491	138.	*	2	0450	866	30.	*	2	1720	1241	19.
1	0352	117	26.	*	1	1622	492	136.	*	2	0452	867	30.	*	2	1722	1242	19.
1	0354	118	27.	*	1	1624	493	135.	*	2	0454	868	30.	*	2	1724	1243	19.
1	0356	119	27.	*	1	1626	494	133.	*	2	0456	869	30.	*	2	1726	1244	19.
1	0358	120	27.	*	1	1628	495	132.	*	2	0458	870	30.	*	2	1728	1245	19.
1	0400	121	27.	*	1	1630	496	130.	*	2	0500	871	30.	*	2	1730	1246	19.
1	0402	122	27.	*	1	1632	497	129.	*	2	0502	872	30.	*	2	1732	1247	19.
1	0404	123	27.	*	1	1634	498	128.	*	2	0504	873	30.	*	2	1734	1248	19.
1	0406	124	28.	*	1	1636	499	126.	*	2	0506	874	30.	*	2	1736	1249	19.
1	0408	125	28.	*	1	1638	500	125.	*	2	0508	875	30.	*	2	1738	1250	19.
1	0410	126	28.	*	1	1640	501	124.	*	2	0510	876	30.	*	2	1740	1251	19.
1	0412	127	29.	*	1	1642	502	122.	*	2	0512	877	30.	*	2	1742	1252	19.
1	0414	128	29.	*	1	1644	503	121.	*	2	0514	878	30.	*	2	1744	1253	19.
1	0416	129	29.	*	1	1646	504	120.	*	2	0516	879	30.	*	2	1746	1254	19.
1	0418	130	30.	*	1	1648	505	118.	*	2	0518	880	30.	*	2	1748	1255	19.
1	0420	131	30.	*	1	1650	506	117.	*	2	0520	881	30.	*	2	1750	1256	19.
1	0422	132	30.	*	1	1652	507	116.	*	2	0522	882	29.	*	2	1752	1257	19.
1	0424	133	30.	*	1	1654	508	114.	*	2	0524	883	29.	*	2	1754	1258	19.
1	0426	134	31.	*	1	1656	509	113.	*	2	0526	884	29.	*	2	1756	1259	19.
1	0428	135	31.	*	1	1658	510	112.	*	2	0528	885	29.	*	2	1758	1260	19.
1	0430	136	31.	*	1	1700	511	111.	*	2	0530	886	29.	*	2	1800	1261	19.
1	0432	137	31.	*	1	1702	512	110.	*	2	0532	887	29.	*	2	1802	1262	19.
1	0434	138	32.	*	1	1704	513	108.	*	2	0534	888	29.	*	2	1804	1263	19.
1	0436	139	32.	*	1	1706	514	107.	*	2	0536	889	29.	*	2	1806	1264	19.
1	0438	140	32.	*	1	1708	515	106.	*	2	0538	890	29.	*	2	1808	1265	19.
1	0440	141	32.	*	1	1710	516	106.	*	2	0540	891	29.	*	2	1810	1266	19.
1	0442	142	32.	*	1	1712	517	105.	*	2	0542	892	29.	*	2	1812	1267	19.
1	0444	143	32.	*	1	1714	518	104.	*	2	0544	893	29.	*	2	1814	1268	19.
1	0446	144	32.	*	1	1716	519	103.	*	2	0546	894	29.	*	2	1816	1269	19.
1	0448	145	33.	*	1	1718	520	102.	*	2	0548	895	29.	*	2	1818	1270	19.
1	0450	146	33.	*	1	1720	521	102.	*	2	0550	896	29.	*	2	1820	1271	19.
1	0452	147	33.	*	1	1722	522	101.	*	2	0552	897	29.	*	2	1822	1272	19.
1	0454	148	33.	*	1	1724	523	100.	*	2	0554	898	29.	*	2	1824	1273	19.
1	0456	149	33.	*	1	1726	524	100.	*	2	0556	899	29.	*	2	1826	1274	19.
1	0458	150	33.	*	1	1728	525	99.	*	2	0558	900	29.	*	2	1828	1275	19.
1	0500	151	33.	*	1	1730	526	99.	*	2	0600	901	29.	*	2	1830	1276	19.
1	0502	152	33.	*	1	1732	527	98.	*	2	0602	902	29.	*	2	1832	1277	19.
1	0504	153	33.	*	1	1734	528	98.	*	2	0604	903	29.	*	2	1834	1278	19.
1	0506	154	34.	*	1	1736	529	97.	*	2	0606	904	29.	*	2	1836	1279	19.
1	0508	155	34.	*	1	1738	530	97.	*	2	0608	905	29.	*	2	1838	1280	19.
1	0510	156	34.	*	1	1740	531	96.	*	2	0610	906	29.	*	2	1840	1281	19.
1	0512	157	34.	*	1	1742	532	96.	*	2	0612	907	29.	*	2	1842	1282	19.
1	0514	158	34.	*	1	1744	533	96.	*	2	0614	908	28.	*	2	1844	1283	18.
1	0516	159	34.	*	1	1746	534	95.	*	2	0616	909	28.	*	2	1846	1284	18.
1	0518	160	34.	*	1	1748	535	95.	*	2	0618	910	28.	*	2	1848	1285	18.
1	0520	161	34.	*	1	1750	536	95.	*	2	0620	911	28.	*	2	1850	1286	18.
1	0522	162	34.	*	1	1752	537	94.	*	2	0622	912	28.	*	2	1852	1287	18.
1	0524	163	34.	*	1	1754	538	94.	*	2	0624	913	28.	*	2	1854	1288	18.
1	0526	164	34.	*	1	1756	539	94.	*	2	0626	914	28.	*	2	1856	1289	18.
1	0528	165	34.	*	1	1758	540	93.	*	2	0628	915	28.	*	2	1858	1290	18.
1	0530	166	34.	*	1	1800	541	93.	*	2	0630	916	28.	*	2	1900	1291	18.
1	0532	167	34.	*	1	1802	542	92.	*	2	0632	917	28.	*	2	1902	1292	18.
1	0534	168	34.	*	1	1804	543	92.	*	2	0634	918	28.	*	2	1904	1293	18.
1	0536	169	35.	*	1	1806	544	92.	*	2	0636	919	28.	*	2	1906	1294	18.
1	0538	170	35.	*	1	1808	545	91.	*	2	0638	920	28.	*	2	1908	1295	18.
1	0540	171	35.	*	1	1810	546	91.	*	2	0640	921	28.	*	2	1910	1296	18.
1	0542	172	35.	*	1	1812	547	90.	*	2	0642	922	28.	*	2	1912	1297	18.
1	0544	173	35.	*	1	1814	548	90.	*	2	0644	923	28.	*	2	1914	1298	18.
1	0546	174	35.	*	1	1816	549	89.	*	2	0646	924	28.	*	2	1916	1299	18.
1	0548	175	35.	*	1	1818	550	89.	*	2	0648	925	28.	*	2	1918	1300	18.
1	0550	176	35.	*	1	1820	551	88.	*	2	0650	926	28.	*	2	1920	1301	18.
1	0552	177	35.	*	1	1822	552	88.	*	2	0652	927	28.	*	2	1922	1302	18.
1	0554	178	35.	*	1	1824	553	88.	*	2	0654	928	28.	*	2	1924	1303	18.
1	0556	179	35.	*	1	1826	554	87.	*	2	0656	929	28.	*	2	1926	1304	18.
1	0558	180	35.	*	1	1828	555	87.	*	2	0658	930	28.	*	2	1928	1305	18.
1	0600	181	35.	*	1	1830	556	87.	*	2	0700	931	28.	*	2	1930	1306	18.
1	0602	182	35.	*	1	1832	557	86.	*	2	0702	932	28.	*	2	1932	1307	18.
1	0604	183	35.	*	1	1834	558	86.	*	2	0704	933	28.	*	2	1934	1308	18.
1	0606	184	35.	*	1	1836	559	86.	*	2	0706	934	28.	*	2	1936	1309	18.
1	0608	185	36.	*	1	1838	560	85.	*	2	0708	935	28.	*	2	1938	1310	18.
1	0610	186	36.	*	1	1840	561	85.	*	2	0710	936	28.	*	2	1940	1311	18.
1	0612	187	36.	*	1	1842	562	85.	*	2	0712	937	28.	*	2	1942	1312	18.
1	0614	188	36.	*	1	1844	563	84.	*	2	0714	938	27.	*	2	1944	1313	18.
1	0616	189	36.	*	1	1846	564	84.	*	2	0716	939	27.	*	2	1946	1314	18.
1	0618	190	36.	*	1	1848	565	84.	*	2	0718	940	27.	*	2	1948	1315	18.
1	0620	191	37.	*	1	1850	566	84.	*	2	0720	941	27.	*	2	1950	1316	18.
1	0622	192	37.	*	1	1852	567	83.	*	2	0722	942	27.	*	2	1952	1317	18.
1	0624	193	37.	*	1	1854	568	83.	*	2	0724	943	27.	*	2	1954	1318	18.
1	0626	194	37.	*	1	1856	569	83.	*	2	0726	944	27.	*	2	1956	1319	18.
1	0628	195	38.	*	1	1858	570	83.	*	2	0728	945	27.	*	2	1958	1320	18.
1	0630	196	38.	*	1	1900	571	83.	*	2	0730	946	27.	*	2	2000	1321	18.
1	0632	197	38.	*	1	1902	572	82.	*	2	0732	947	27.	*	2	2002	1322	18.
1	0634	198	39.	*	1	1904	573	82.	*	2	0734	948	27.	*	2	2004	1323	18.
1	0636	199	39.	*	1	1906	574	82.	*	2	0736	949	27.	*	2	2006	1324	18.
1	0638	200	39.	*	1	1908	575	82.	*	2	0738	950	27.	*	2	2008	1325	18.
1	0640	201	39.	*	1	1910	576	82.	*	2	0740	951	27.	*	2	2010	1326	18.
1	0642	202	40.	*	1	1912	577	81.	*	2	0742	952	27.	*	2	2012	1327	18.
1	0644	203	40.	*	1	1914	578	81.	*	2	0744	953	27.	*	2	2014	1328	18.
1	0646	204	40.	*	1	1916	579	81.	*	2	0746	954	27.	*	2	2016	1329	18.
1	0648	205	40.	*	1	1918	580	81.	*	2	0748	955	27.	*	2	2018	1330	18.
1	0650	206	41.	*	1	1920	581	81.	*	2	0750	956	27.	*	2	2020	1331	18.
1	0652	207	41.	*	1	1922	582	81.	*	2	0752	957	27.	*	2	2022	1332	17.
1	0654	208	41.	*	1	1924	583	81.	*	2	0754	958	27.	*	2	2024	1333	17.
1	0656	209	41.	*	1	1926	584	80.	*	2	0756	959	27.	*	2	2026	1334	17.
1	0658	210	41.	*	1	1928	585	80.	*	2	0758	960	27.	*	2	2028	1335	17.
1	0700	211	41.	*	1	1930	586	80.	*	2	0800	961	27.	*	2	2030	1336	17.
1	0702	212	42.	*	1	1932	587	80.	*	2	0802	962	27.	*	2	2032	1337	17.
1	0704	213	42.	*	1	1934	588	80.	*	2	0804	963	27.	*	2	2034	1338	17.
1	0706	214	42.	*	1	1936	589	80.	*	2	0806	964	27.	*	2	2036	1339	17.
1	0708	215	42.	*	1	1938	590	80.	*	2	0808	965	27.	*	2	2038	1340	17.
1	0710	216	42.	*	1	1940	591	80.	*	2	0810	966	27.	*	2	2040	1341	17.
1	0712	217	42.	*	1	1942	592	79.	*	2	0812	967	27.	*	2	2042	1342	17.
1	0714	218	42.	*	1	1944	593	79.	*	2	0814	968	27.	*	2	2044	1343	17.

1	0716.	219	42.	*	1	1946	594	79.	*	2	0816	969	27.	*	2	2046	1344	17.
1	0718	220	42.	*	1	1948	595	79.	*	2	0818	970	26.	*	2	2048	1345	17.
1	0720	221	43.	*	1	1950	596	79.	*	2	0820	971	26.	*	2	2050	1346	17.
1	0722	222	43.	*	1	1952	597	79.	*	2	0822	972	26.	*	2	2052	1347	17.
1	0724	223	43.	*	1	1954	598	79.	*	2	0824	973	26.	*	2	2054	1348	17.
1	0726	224	43.	*	1	1956	599	78.	*	2	0826	974	26.	*	2	2056	1349	17.
1	0728	225	43.	*	1	1958	600	78.	*	2	0828	975	26.	*	2	2058	1350	17.
1	0730	226	43.	*	1	2000	601	78.	*	2	0830	976	26.	*	2	2100	1351	17.
1	0732	227	43.	*	1	2002	602	78.	*	2	0832	977	26.	*	2	2102	1352	17.
1	0734	228	43.	*	1	2004	603	78.	*	2	0834	978	26.	*	2	2104	1353	17.
1	0736	229	43.	*	1	2006	604	77.	*	2	0836	979	26.	*	2	2106	1354	17.
1	0738	230	43.	*	1	2008	605	77.	*	2	0838	980	26.	*	2	2108	1355	17.
1	0740	231	43.	*	1	2010	606	77.	*	2	0840	981	26.	*	2	2110	1356	17.
1	0742	232	43.	*	1	2012	607	76.	*	2	0842	982	26.	*	2	2112	1357	17.
1	0744	233	43.	*	1	2014	608	76.	*	2	0844	983	26.	*	2	2114	1358	17.
1	0746	234	44.	*	1	2016	609	76.	*	2	0846	984	26.	*	2	2116	1359	17.
1	0748	235	44.	*	1	2018	610	75.	*	2	0848	985	26.	*	2	2118	1360	17.
1	0750	236	44.	*	1	2020	611	75.	*	2	0850	986	26.	*	2	2120	1361	17.
1	0752	237	44.	*	1	2022	612	75.	*	2	0852	987	26.	*	2	2122	1362	17.
1	0754	238	44.	*	1	2024	613	74.	*	2	0854	988	26.	*	2	2124	1363	17.
1	0756	239	44.	*	1	2026	614	74.	*	2	0856	989	26.	*	2	2126	1364	17.
1	0758	240	44.	*	1	2028	615	74.	*	2	0858	990	26.	*	2	2128	1365	17.
1	0800	241	44.	*	1	2030	616	73.	*	2	0900	991	26.	*	2	2130	1366	17.
1	0802	242	44.	*	1	2032	617	73.	*	2	0902	992	26.	*	2	2132	1367	17.
1	0804	243	44.	*	1	2034	618	73.	*	2	0904	993	26.	*	2	2134	1368	17.
1	0806	244	44.	*	1	2036	619	73.	*	2	0906	994	26.	*	2	2136	1369	17.
1	0808	245	44.	*	1	2038	620	72.	*	2	0908	995	26.	*	2	2138	1370	17.
1	0810	246	44.	*	1	2040	621	72.	*	2	0910	996	26.	*	2	2140	1371	17.
1	0812	247	45.	*	1	2042	622	72.	*	2	0912	997	26.	*	2	2142	1372	17.
1	0814	248	45.	*	1	2044	623	72.	*	2	0914	998	26.	*	2	2144	1373	17.
1	0816	249	45.	*	1	2046	624	72.	*	2	0916	999	26.	*	2	2146	1374	17.
1	0818	250	45.	*	1	2048	625	71.	*	2	0918	1000	26.	*	2	2148	1375	17.
1	0820	251	45.	*	1	2050	626	71.	*	2	0920	1001	26.	*	2	2150	1376	17.
1	0822	252	46.	*	1	2052	627	71.	*	2	0922	1002	26.	*	2	2152	1377	17.
1	0824	253	46.	*	1	2054	628	71.	*	2	0924	1003	26.	*	2	2154	1378	17.
1	0826	254	46.	*	1	2056	629	71.	*	2	0926	1004	25.	*	2	2156	1379	17.
1	0828	255	47.	*	1	2058	630	70.	*	2	0928	1005	25.	*	2	2158	1380	17.
1	0830	256	47.	*	1	2100	631	70.	*	2	0930	1006	25.	*	2	2200	1381	17.
1	0832	257	48.	*	1	2102	632	70.	*	2	0932	1007	25.	*	2	2202	1382	17.
1	0834	258	48.	*	1	2104	633	70.	*	2	0934	1008	25.	*	2	2204	1383	16.
1	0836	259	49.	*	1	2106	634	70.	*	2	0936	1009	25.	*	2	2206	1384	16.
1	0838	260	49.	*	1	2108	635	70.	*	2	0938	1010	25.	*	2	2208	1385	16.
1	0840	261	50.	*	1	2110	636	69.	*	2	0940	1011	25.	*	2	2210	1386	16.
1	0842	262	50.	*	1	2112	637	69.	*	2	0942	1012	25.	*	2	2212	1387	16.
1	0844	263	51.	*	1	2114	638	69.	*	2	0944	1013	25.	*	2	2214	1388	16.
1	0846	264	51.	*	1	2116	639	69.	*	2	0946	1014	25.	*	2	2216	1389	16.
1	0848	265	52.	*	1	2118	640	69.	*	2	0948	1015	25.	*	2	2218	1390	16.
1	0850	266	52.	*	1	2120	641	69.	*	2	0950	1016	25.	*	2	2220	1391	16.
1	0852	267	53.	*	1	2122	642	69.	*	2	0952	1017	25.	*	2	2222	1392	16.
1	0854	268	53.	*	1	2124	643	68.	*	2	0954	1018	25.	*	2	2224	1393	16.
1	0856	269	53.	*	1	2126	644	68.	*	2	0956	1019	25.	*	2	2226	1394	16.
1	0858	270	54.	*	1	2128	645	68.	*	2	0958	1020	25.	*	2	2228	1395	16.
1	0900	271	54.	*	1	2130	646	68.	*	2	1000	1021	25.	*	2	2230	1396	16.
1	0902	272	54.	*	1	2132	647	68.	*	2	1002	1022	25.	*	2	2232	1397	16.
1	0904	273	55.	*	1	2134	648	68.	*	2	1004	1023	25.	*	2	2234	1398	16.
1	0906	274	55.	*	1	2136	649	68.	*	2	1006	1024	25.	*	2	2236	1399	16.
1	0908	275	55.	*	1	2138	650	67.	*	2	1008	1025	25.	*	2	2238	1400	16.
1	0910	276	56.	*	1	2140	651	67.	*	2	1010	1026	25.	*	2	2240	1401	16.
1	0912	277	56.	*	1	2142	652	67.	*	2	1012	1027	25.	*	2	2242	1402	16.
1	0914	278	56.	*	1	2144	653	67.	*	2	1014	1028	25.	*	2	2244	1403	16.
1	0916	279	57.	*	1	2146	654	67.	*	2	1016	1029	25.	*	2	2246	1404	16.
1	0918	280	57.	*	1	2148	655	67.	*	2	1018	1030	25.	*	2	2248	1405	16.
1	0920	281	57.	*	1	2150	656	67.	*	2	1020	1031	25.	*	2	2250	1406	16.
1	0922	282	58.	*	1	2152	657	67.	*	2	1022	1032	25.	*	2	2252	1407	16.
1	0924	283	58.	*	1	2154	658	67.	*	2	1024	1033	25.	*	2	2254	1408	16.
1	0926	284	59.	*	1	2156	659	66.	*	2	1026	1034	25.	*	2	2256	1409	16.
1	0928	285	59.	*	1	2158	660	66.	*	2	1028	1035	25.	*	2	2258	1410	16.
1	0930	286	59.	*	1	2200	661	66.	*	2	1030	1036	25.	*	2	2300	1411	16.
1	0932	287	60.	*	1	2202	662	66.	*	2	1032	1037	25.	*	2	2302	1412	16.
1	0934	288	60.	*	1	2204	663	66.	*	2	1034	1038	24.	*	2	2304	1413	16.
1	0936	289	61.	*	1	2206	664	66.	*	2	1036	1039	24.	*	2	2306	1414	16.
1	0938	290	61.	*	1	2208	665	66.	*	2	1038	1040	24.	*	2	2308	1415	16.
1	0940	291	61.	*	1	2210	666	66.	*	2	1040	1041	24.	*	2	2310	1416	16.
1	0942	292	62.	*	1	2212	667	66.	*	2	1042	1042	24.	*	2	2312	1417	16.
1	0944	293	62.	*	1	2214	668	66.	*	2	1044	1043	24.	*	2	2314	1418	16.
1	0946	294	63.	*	1	2216	669	66.	*	2	1046	1044	24.	*	2	2316	1419	16.
1	0948	295	63.	*	1	2218	670	66.	*	2	1048	1045	24.	*	2	2318	1420	16.
1	0950	296	64.	*	1	2220	671	65.	*	2	1050	1046	24.	*	2	2320	1421	16.
1	0952	297	64.	*	1	2222	672	65.	*	2	1052	1047	24.	*	2	2322	1422	16.
1	0954	298	65.	*	1	2224	673	65.	*	2	1054	1048	24.	*	2	2324	1423	16.
1	0956	299	65.	*	1	2226	674	65.	*	2	1056	1049	24.	*	2	2326	1424	16.
1	0958	300	66.	*	1	2228	675	65.	*	2	1058	1050	24.	*	2	2328	1425	16.
1	1000	301	66.	*	1	2230	676	65.	*	2	1100	1051	24.	*	2	2330	1426	16.
1	1002	302	67.	*	1	2232	677	65.	*	2	1102	1052	24.	*	2	2332	1427	16.
1	1004	303	67.	*	1	2234	678	65.	*	2	1104	1053	24.	*	2	2334	1428	16.
1	1006	304	68.	*	1	2236	679	65.	*	2	1106	1054	24.	*	2	2336	1429	16.
1	1008	305	68.	*	1	2238	680	65.	*	2	1108	1055	24.	*	2	2338	1430	16.
1	1010	306	69.	*	1	2240	681	65.	*	2	1110	1056	24.	*	2	2340	1431	16.
1	1012	307	69.	*	1	2242	682	65.	*	2	1112	1057	24.	*	2	2342	1432	16.
1	1014	308	69.	*	1	2244	683	65.	*	2	1114	1058	24.	*	2	2344	1433	16.
1	1016	309	70.	*	1	2246	684	65.	*	2	1116	1059	24.	*	2	2346	1434	16.
1	1018	310	70.	*	1	2248	685	65.	*	2	1118	1060	24.	*	2	2348	1435	16.
1	1020	311	71.	*	1	2250	686	65.	*	2	1120	1061	24.	*	2	2350	1436	16.
1	1022	312	72.	*	1	2252	687	64.	*	2	1122	1062	24.	*	2	2352	1437	15.
1	1024	313	72.	*	1	2254	688	64.	*	2	1124	1063	24.	*	2	2354	1438	15.
1	1026	314	73.	*	1	2256	689	64.	*	2	1126	1064	24.	*	2	2356	1439	15.
1	1028	315	74.	*	1	2258	690	64.	*	2	1128	1065	24.	*	2	2358	1440	15.
1	1030	316	74.	*	1	2300	691	64.	*	2	1130	1066	24.	*	3	0000	1441	15.
1	1032	317	75.	*	1	2302	692	64.	*	2	1132	1067	24.	*	3	0002	1442	15.
1	1034	318	76.	*	1	2304	693	64.	*	2	1134	1068	24.	*	3	0004	1443	15.
1	1036	319	77.	*	1	2306	694	64.	*	2	1136	1069	24.	*	3	0006	1444	15.
1	1038	320	78.	*	1	2308	695	64.	*	2	1138	1070	24.	*	3	0008	1445	15.
1	1040	321	79.	*	1	2310	696	64.	*	2	1140	1071	24.	*	3	0010	1446	15.
1	1042	322	80.	*	1	2312	697	64.	*	2	1142	1072	24.	*	3	0012	1447	15.
1	1044	323	81.	*	1	2314	698	64.	*	2	1144	1073	24.	*	3	0014	1448	15.
1	1046	324	83.	*	1	2316	699	64.	*	2	1146	1074	24.	*	3	0016	1449	15.
1	1048	325	84.	*	1	2318	700	64.	*	2	1148	1075	23.	*	3	0018	1450	15.
1	1050	326	86.	*	1	2320	701	64.	*	2	1150	1076	23.	*	3	0020	1451	15.
1	1052	327	87.	*	1	2322	702	64.	*	2	1152	1077	23.	*	3	0022	1452	15.
1	1054	328	89.	*	1	2324	703	64.	*	2	1154	1078	23.	*	3	0024	1453	15.
1	1056	329	90.	*	1	2326	704	64.	*	2	1156	1079	23.	*	3	0026	1454	15.
1	1058	330	92.	*	1	2328	705	64.	*	2	1158	1080	23.	*	3	0028	1455	15.
1	1100	331	94.	*	1	2330	706	63.	*	2	1200	1081	23.	*	3	0030	1456	15.

1	1102	332	96.	*	1	2332	707	63.	*	2	1202	1082	23.	*	3	0032	1457	15.
1	1104	333	98.	*	1	2334	708	63.	*	2	1204	1083	23.	*	3	0034	1458	15.
1	1106	334	100.	*	1	2336	709	63.	*	2	1206	1084	23.	*	3	0036	1459	15.
1	1108	335	102.	*	1	2338	710	63.	*	2	1208	1085	23.	*	3	0038	1460	15.
1	1110	336	104.	*	1	2340	711	63.	*	2	1210	1086	23.	*	3	0040	1461	15.
1	1112	337	106.	*	1	2342	712	63.	*	2	1212	1087	23.	*	3	0042	1462	15.
1	1114	338	108.	*	1	2344	713	63.	*	2	1214	1088	23.	*	3	0044	1463	15.
1	1116	339	111.	*	1	2346	714	63.	*	2	1216	1089	23.	*	3	0046	1464	15.
1	1118	340	114.	*	1	2348	715	63.	*	2	1218	1090	23.	*	3	0048	1465	15.
1	1120	341	116.	*	1	2350	716	63.	*	2	1220	1091	23.	*	3	0050	1466	15.
1	1122	342	119.	*	1	2352	717	63.	*	2	1222	1092	23.	*	3	0052	1467	15.
1	1124	343	122.	*	1	2354	718	63.	*	2	1224	1093	23.	*	3	0054	1468	15.
1	1126	344	124.	*	1	2356	719	63.	*	2	1226	1094	23.	*	3	0056	1469	15.
1	1128	345	127.	*	1	2358	720	63.	*	2	1228	1095	23.	*	3	0058	1470	15.
1	1130	346	130.	*	2	0000	721	62.	*	2	1230	1096	23.	*	3	0100	1471	15.
1	1132	347	134.	*	2	0002	722	62.	*	2	1232	1097	23.	*	3	0102	1472	15.
1	1134	348	141.	*	2	0004	723	62.	*	2	1234	1098	23.	*	3	0104	1473	15.
1	1136	349	156.	*	2	0006	724	62.	*	2	1236	1099	23.	*	3	0106	1474	15.
1	1138	350	182.	*	2	0008	725	61.	*	2	1238	1100	23.	*	3	0108	1475	15.
1	1140	351	222.	*	2	0010	726	61.	*	2	1240	1101	23.	*	3	0110	1476	15.
1	1142	352	281.	*	2	0012	727	61.	*	2	1242	1102	23.	*	3	0112	1477	15.
1	1144	353	392.	*	2	0014	728	60.	*	2	1244	1103	23.	*	3	0114	1478	15.
1	1146	354	554.	*	2	0016	729	60.	*	2	1246	1104	23.	*	3	0116	1479	15.
1	1148	355	762.	*	2	0018	730	59.	*	2	1248	1105	23.	*	3	0118	1480	15.
1	1150	356	1054.	*	2	0020	731	58.	*	2	1250	1106	23.	*	3	0120	1481	15.
1	1152	357	1467.	*	2	0022	732	58.	*	2	1252	1107	23.	*	3	0122	1482	15.
1	1154	358	1988.	*	2	0024	733	57.	*	2	1254	1108	23.	*	3	0124	1483	15.
1	1156	359	2659.	*	2	0026	734	56.	*	2	1256	1109	23.	*	3	0126	1484	15.
1	1158	360	3463.	*	2	0028	735	55.	*	2	1258	1110	23.	*	3	0128	1485	15.
1	1200	361	4394.	*	2	0030	736	55.	*	2	1300	1111	23.	*	3	0130	1486	15.
1	1202	362	5454.	*	2	0032	737	54.	*	2	1302	1112	23.	*	3	0132	1487	15.
1	1204	363	6563.	*	2	0034	738	53.	*	2	1304	1113	22.	*	3	0134	1488	15.
1	1206	364	7675.	*	2	0036	739	53.	*	2	1306	1114	22.	*	3	0136	1489	15.
1	1208	365	8479.	*	2	0038	740	52.	*	2	1308	1115	22.	*	3	0138	1490	15.
1	1210	366	8500.	*	2	0040	741	51.	*	2	1310	1116	22.	*	3	0140	1491	15.
1	1212	367	8500.	*	2	0042	742	51.	*	2	1312	1117	22.	*	3	0142	1492	15.
1	1214	368	8500.	*	2	0044	743	50.	*	2	1314	1118	22.	*	3	0144	1493	15.
1	1216	369	8500.	*	2	0046	744	50.	*	2	1316	1119	22.	*	3	0146	1494	15.
1	1218	370	8500.	*	2	0048	745	49.	*	2	1318	1120	22.	*	3	0148	1495	14.
1	1220	371	8500.	*	2	0050	746	49.	*	2	1320	1121	22.	*	3	0150	1496	14.
1	1222	372	8500.	*	2	0052	747	48.	*	2	1322	1122	22.	*	3	0152	1497	14.
1	1224	373	8500.	*	2	0054	748	48.	*	2	1324	1123	22.	*	3	0154	1498	14.
1	1226	374	8500.	*	2	0056	749	47.	*	2	1326	1124	22.	*	3	0156	1499	14.
1	1228	375	8500.	*	2	0058	750	47.	*	2	1328	1125	22.	*	3	0158	1500	14.

****

PEAK FLOW (CFS)	TIME (HR)
+ 8500.	12.17

MAXIMUM AVERAGE FLOW

	6-HR	24-HR	72-HR	49.97-HR
(CFS)	1633.	451.	228.	228.
(INCHES)	1.428	1.578	1.657	1.657
(AC-FT)	810.	895.	940.	940.

CUMULATIVE AREA = 10.64 SQ MI

INTERPOLATED DIVERSION HYDROGRAPH AT 420D

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		1230	376	0.	2		0100	751	0.	2		1330	1126	0.
1		0002	2	0.	1		1232	377	0.	2		0102	752	0.	2		1332	1127	0.
1		0004	3	0.	1		1234	378	0.	2		0104	753	0.	2		1334	1128	0.
1		0006	4	0.	1		1236	379	0.	2		0106	754	0.	2		1336	1129	0.
1		0008	5	0.	1		1238	380	0.	2		0108	755	0.	2		1338	1130	0.
1		0010	6	0.	1		1240	381	0.	2		0110	756	0.	2		1340	1131	0.
1		0012	7	0.	1		1242	382	0.	2		0112	757	0.	2		1342	1132	0.
1		0014	8	0.	1		1244	383	0.	2		0114	758	0.	2		1344	1133	0.
1		0016	9	0.	1		1246	384	0.	2		0116	759	0.	2		1346	1134	0.
1		0018	10	0.	1		1248	385	0.	2		0118	760	0.	2		1348	1135	0.
1		0020	11	0.	1		1250	386	0.	2		0120	761	0.	2		1350	1136	0.
1		0022	12	0.	1		1252	387	0.	2		0122	762	0.	2		1352	1137	0.
1		0024	13	0.	1		1254	388	0.	2		0124	763	0.	2		1354	1138	0.
1		0026	14	0.	1		1256	389	0.	2		0126	764	0.	2		1356	1139	0.
1		0028	15	0.	1		1258	390	0.	2		0128	765	0.	2		1358	1140	0.
1		0030	16	0.	1		1300	391	0.	2		0130	766	0.	2		1400	1141	0.
1		0032	17	0.	1		1302	392	1436.	2		0132	767	0.	2		1402	1142	0.
1		0034	18	0.	1		1304	393	2854.	2		0134	768	0.	2		1404	1143	0.
1		0036	19	0.	1		1306	394	3599.	2		0136	769	0.	2		1406	1144	0.
1		0038	20	0.	1		1308	395	3827.	2		0138	770	0.	2		1408	1145	0.
1		0040	21	0.	1		1310	396	3765.	2		0140	771	0.	2		1410	1146	0.
1		0042	22	0.	1		1312	397	3558.	2		0142	772	0.	2		1412	1147	0.
1		0044	23	0.	1		1314	398	3279.	2		0144	773	0.	2		1414	1148	0.
1		0046	24	0.	1		1316	399	2957.	2		0146	774	0.	2		1416	1149	0.
1		0048	25	0.	1		1318	400	2601.	2		0148	775	0.	2		1418	1150	0.
1		0050	26	0.	1		1320	401	2231.	2		0150	776	0.	2		1420	1151	0.
1		0052	27	0.	1		1322	402	1862.	2		0152	777	0.	2		1422	1152	0.
1		0054	28	0.	1		1324	403	1487.	2		0154	778	0.	2		1424	1153	0.
1		0056	29	0.	1		1326	404	1109.	2		0156	779	0.	2		1426	1154	0.
1		0058	30	0.	1		1328	405	744.	2		0158	780	0.	2		1428	1155	0.
1		0100	31	0.	1		1330	406	391.	2		0200	781	0.	2		1430	1156	0.
1		0102	32	0.	1		1332	407	60.	2		0202	782	0.	2		1432	1157	0.
1		0104	33	0.	1		1334	408	0.	2		0204	783	0.	2		1434	1158	0.
1		0106	34	0.	1		1336	409	0.	2		0206	784	0.	2		1436	1159	0.
1		0108	35	0.	1		1338	410	0.	2		0208	785	0.	2		1438	1160	0.
1		0110	36	0.	1		1340	411	0.	2		0210	786	0.	2		1440	1161	0.
1		0112	37	0.	1		1342	412	0.	2		0212	787	0.	2		1442	1162	0.
1		0114	38	0.	1		1344	413	0.	2		0214	788	0.	2		1444	1163	0.
1		0116	39	0.	1		1346	414	0.	2		0216	789	0.	2		1446	1164	0.
1		0118	40	0.	1		1348	415	0.	2		0218	790	0.	2		1448	1165	0.
1		0120	41	0.	1		1350	416	0.	2		0220	791	0.	2		1450	1166	0.
1		0122	42	0.	1		1352	417	0.	2		0222	792	0.	2		1452	1167	0.
1		0124	43	0.	1		1354	418	0.	2		0224	793	0.	2		1454	1168	0.
1		0126	44	0.	1		1356	419	0.	2		0226	794	0.	2		1456	1169	0.
1		0128	45	0.	1		1358	420	0.	2		0228	795	0.	2		1458	1170	0.
1		0130	46	0.	1		1400	421	0.	2		0230	796	0.	2		1500	1171	0.
1		0132	47	0.	1		1402	422	0.	2		0232	797	0.	2		1502	1172	0.
1		0134	48	0.	1		1404	423	0.	2		0234	798	0.	2		1504	1173	0.
1		0136	49	0.	1		1406	424	0.	2		0236	799	0.	2		1506	1174	0.
1		0138	50	0.	1		1408	425	0.	2		0238	800	0.	2		1508	1175	0.
1		0140	51	0.	1		1410	426	0.	2		0240	801	0.	2		1510	1176	0.
1		0142	52	0.	1		1412	427	0.	2		0242	802	0.	2		1512	1177	0.
1		0144	53	0.	1		1414	428	0.	2		0244	803	0.	2		1514	1178	0.
1		0146	54	0.	1		1416	429	0.	2		0246	804	0.	2		1516	1179	0.
1		0148	55	0.	1		1418	430	0.	2		0248	805	0.	2		1518	1180	0.
1		0150	56	0.	1		1420	431	0.	2		0250	806	0.	2		1520	1181	0.
1		0152	57	0.	1		1422	432	0.	2		0252	807	0.	2		1522	1182	0.
1		0154	58	0.	1		1424	433	0.	2		0254	808	0.	2		1524	1183	0.
1		0156	59	0.	1		1426	434	0.	2		0256	809	0.	2		1526	1184	0.
1		0158	60	0.	1		1428	435	0.	2		0258	810	0.	2		1528	1185	0.
1		0200	61	0.	1		1430	436	0.	2		0300	811	0.	2		1530	1186	0.
1		0202	62	0.	1		1432	437	0.	2		0302	812	0.	2		1532	1187	0.
1		0204	63	0.	1		1434	438	0.	2		0304	813	0.	2		1534	1188	0.
1		0206	64	0.	1		1436	439	0.	2		0306	814	0.	2		1536	1189	0.
1		0208	65	0.	1		1438	440	0.	2		0308	815	0.	2		1538	1190	0.
1		0210	66	0.	1		1440	441	0.	2		0310	816	0.	2		1540	1191	0.
1		0212	67	0.	1		1442	442	0.	2		0312	817	0.	2		1542	1192	0.
1		0214	68	0.	1		1444	443	0.	2		0314	818	0.	2		1544	1193	0.
1		0216	69	0.	1		1446	444	0.	2		0316	819	0.	2		1546	1194	0.
1		0218	70	0.	1		1448	445	0.	2		0318	820	0.	2		1548	1195	0.
1		0220	71	0.	1		1450	446	0.	2		0320	821	0.	2		1550	1196	0.
1		0222	72	0.	1		1452	447	0.	2		0322	822	0.	2		1552	1197	0.
1		0224	73	0.	1		1454	448	0.	2		0324	823	0.	2		1554	1198	0.
1		0226	74	0.	1		1456	449	0.	2		0326	824	0.	2		1556	1199	0.
1		0228	75	0.	1		1458	450	0.	2		0328	825	0.	2		1558	1200	0.
1		0230	76	0.	1		1500	451	0.	2		0330	826	0.	2		1600	1201	0.
1		0232	77	0.	1		1502	452	0.	2		0332	827	0.	2		1602	1202	0.
1		0234	78	0.	1		1504	453	0.	2		0334	828	0.	2		1604	1203	0.
1		0236	79	0.	1		1506	454	0.	2		0336	829	0.	2		1606	1204	0.
1		0238	80	0.	1		1508	455	0.	2		0338	830	0.	2		1608	1205	0.
1		0240	81	0.	1		1510	456	0.	2		0340	831	0.	2		1610	1206	0.
1		0242	82	0.	1		1512	457	0.	2		0342	832	0.	2		1612	1207	0.
1		0244	83	0.	1		1514	458	0.	2		0344	833	0.	2		1614	1208	0.
1		0246	84	0.	1		1516	459	0.	2		0346	834	0.	2		1616	1209	0.
1		0248	85	0.	1		1518	460	0.	2		0348	835	0.	2		1618	1210	0.
1		0250	86	0.	1		1520	461	0.	2		0350	836	0.	2		1620	1211	0.
1		0252	87	0.	1		1522	462	0.	2		0352	837	0.	2		1622	1212	0.
1		0254	88	0.	1		1524	463	0.	2		0354	838	0.	2		1624	1213	0.
1		0256	89	0.	1		1526	464	0.	2		0356	839	0.	2		1626	1214	0.
1		0258	90	0.	1		1528	465	0.	2		0358	840	0.	2		1628	1215	0.
1		0300	91	0.	1		1530	466	0.	2		0400	841	0.	2		1630	1216	0.
1		0302	92	0.	1		1532	467	0.	2		0402	842	0.	2		1632	1217	0.
1		0304	93	0.	1		1534	468	0.	2		0404	843	0.	2		1634	1218	0.
1		0306	94	0.	1		1536	469	0.	2		0406	844	0.	2		1636	1219	0.
1		0308	95	0.	1		1538	470	0.	2		0408	845	0.	2		1638	1220	0.
1		0310	96	0.	1		1540	471	0.	2		0410	846	0.	2		1640	1221	0.
1		0312	97	0.	1		1542	472	0.	2		0412	847	0.	2		1642	1222	0.
1		0314	98	0.	1		1544	473	0.	2		0414	848	0.	2		1644	1223	0.
1		0316	99	0.	1		1546	474	0.	2		0416	849	0.	2		1646	1224	0.
1		0318	100	0.	1		1548	475	0.	2		0418	850	0.	2		1648	1225	0.
1		0320	101	0.	1		1550	476	0.	2		0420	851	0.	2		1650	1226	0.
1		0322	102	0.	1		1552	477	0.	2		0422	852	0.	2		1652	1227	0.
1		0324	103	0.	1		1554	478	0.	2		0424	853	0.	2		1654	1228	0.
1		0326	104	0.	1		1556	479	0.	2		0426	854	0.	2		1656	1229	0.
1		0328	105	0.	1		1558	480	0.	2		0428	855	0.	2		1658	1230	0.

1	0330	106	0.	*	1	1600	481	0.	*	2	0430	856	0.	*	2	1700	1231	0.
1	0332	107	0.	*	1	1602	482	0.	*	2	0432	857	0.	*	2	1702	1232	0.
1	0334	108	0.	*	1	1604	483	0.	*	2	0434	858	0.	*	2	1704	1233	0.
1	0336	109	0.	*	1	1606	484	0.	*	2	0436	859	0.	*	2	1706	1234	0.
1	0338	110	0.	*	1	1608	485	0.	*	2	0438	860	0.	*	2	1708	1235	0.
1	0340	111	0.	*	1	1610	486	0.	*	2	0440	861	0.	*	2	1710	1236	0.
1	0342	112	0.	*	1	1612	487	0.	*	2	0442	862	0.	*	2	1712	1237	0.
1	0344	113	0.	*	1	1614	488	0.	*	2	0444	863	0.	*	2	1714	1238	0.
1	0346	114	0.	*	1	1616	489	0.	*	2	0446	864	0.	*	2	1716	1239	0.
1	0348	115	0.	*	1	1618	490	0.	*	2	0448	865	0.	*	2	1718	1240	0.
1	0350	116	0.	*	1	1620	491	0.	*	2	0450	866	0.	*	2	1720	1241	0.
1	0352	117	0.	*	1	1622	492	0.	*	2	0452	867	0.	*	2	1722	1242	0.
1	0354	118	0.	*	1	1624	493	0.	*	2	0454	868	0.	*	2	1724	1243	0.
1	0356	119	0.	*	1	1626	494	0.	*	2	0456	869	0.	*	2	1726	1244	0.
1	0358	120	0.	*	1	1628	495	0.	*	2	0458	870	0.	*	2	1728	1245	0.
1	0400	121	0.	*	1	1630	496	0.	*	2	0500	871	0.	*	2	1730	1246	0.
1	0402	122	0.	*	1	1632	497	0.	*	2	0502	872	0.	*	2	1732	1247	0.
1	0404	123	0.	*	1	1634	498	0.	*	2	0504	873	0.	*	2	1734	1248	0.
1	0406	124	0.	*	1	1636	499	0.	*	2	0506	874	0.	*	2	1736	1249	0.
1	0408	125	0.	*	1	1638	500	0.	*	2	0508	875	0.	*	2	1738	1250	0.
1	0410	126	0.	*	1	1640	501	0.	*	2	0510	876	0.	*	2	1740	1251	0.
1	0412	127	0.	*	1	1642	502	0.	*	2	0512	877	0.	*	2	1742	1252	0.
1	0414	128	0.	*	1	1644	503	0.	*	2	0514	878	0.	*	2	1744	1253	0.
1	0416	129	0.	*	1	1646	504	0.	*	2	0516	879	0.	*	2	1746	1254	0.
1	0418	130	0.	*	1	1648	505	0.	*	2	0518	880	0.	*	2	1748	1255	0.
1	0420	131	0.	*	1	1650	506	0.	*	2	0520	881	0.	*	2	1750	1256	0.
1	0422	132	0.	*	1	1652	507	0.	*	2	0522	882	0.	*	2	1752	1257	0.
1	0424	133	0.	*	1	1654	508	0.	*	2	0524	883	0.	*	2	1754	1258	0.
1	0426	134	0.	*	1	1656	509	0.	*	2	0526	884	0.	*	2	1756	1259	0.
1	0428	135	0.	*	1	1658	510	0.	*	2	0528	885	0.	*	2	1758	1260	0.
1	0430	136	0.	*	1	1700	511	0.	*	2	0530	886	0.	*	2	1800	1261	0.
1	0432	137	0.	*	1	1702	512	0.	*	2	0532	887	0.	*	2	1802	1262	0.
1	0434	138	0.	*	1	1704	513	0.	*	2	0534	888	0.	*	2	1804	1263	0.
1	0436	139	0.	*	1	1706	514	0.	*	2	0536	889	0.	*	2	1806	1264	0.
1	0438	140	0.	*	1	1708	515	0.	*	2	0538	890	0.	*	2	1808	1265	0.
1	0440	141	0.	*	1	1710	516	0.	*	2	0540	891	0.	*	2	1810	1266	0.
1	0442	142	0.	*	1	1712	517	0.	*	2	0542	892	0.	*	2	1812	1267	0.
1	0444	143	0.	*	1	1714	518	0.	*	2	0544	893	0.	*	2	1814	1268	0.
1	0446	144	0.	*	1	1716	519	0.	*	2	0546	894	0.	*	2	1816	1269	0.
1	0448	145	0.	*	1	1718	520	0.	*	2	0548	895	0.	*	2	1818	1270	0.
1	0450	146	0.	*	1	1720	521	0.	*	2	0550	896	0.	*	2	1820	1271	0.
1	0452	147	0.	*	1	1722	522	0.	*	2	0552	897	0.	*	2	1822	1272	0.
1	0454	148	0.	*	1	1724	523	0.	*	2	0554	898	0.	*	2	1824	1273	0.
1	0456	149	0.	*	1	1726	524	0.	*	2	0556	899	0.	*	2	1826	1274	0.
1	0458	150	0.	*	1	1728	525	0.	*	2	0558	900	0.	*	2	1828	1275	0.
1	0500	151	0.	*	1	1730	526	0.	*	2	0600	901	0.	*	2	1830	1276	0.
1	0502	152	0.	*	1	1732	527	0.	*	2	0602	902	0.	*	2	1832	1277	0.
1	0504	153	0.	*	1	1734	528	0.	*	2	0604	903	0.	*	2	1834	1278	0.
1	0506	154	0.	*	1	1736	529	0.	*	2	0606	904	0.	*	2	1836	1279	0.
1	0508	155	0.	*	1	1738	530	0.	*	2	0608	905	0.	*	2	1838	1280	0.
1	0510	156	0.	*	1	1740	531	0.	*	2	0610	906	0.	*	2	1840	1281	0.
1	0512	157	0.	*	1	1742	532	0.	*	2	0612	907	0.	*	2	1842	1282	0.
1	0514	158	0.	*	1	1744	533	0.	*	2	0614	908	0.	*	2	1844	1283	0.
1	0516	159	0.	*	1	1746	534	0.	*	2	0616	909	0.	*	2	1846	1284	0.
1	0518	160	0.	*	1	1748	535	0.	*	2	0618	910	0.	*	2	1848	1285	0.
1	0520	161	0.	*	1	1750	536	0.	*	2	0620	911	0.	*	2	1850	1286	0.
1	0522	162	0.	*	1	1752	537	0.	*	2	0622	912	0.	*	2	1852	1287	0.
1	0524	163	0.	*	1	1754	538	0.	*	2	0624	913	0.	*	2	1854	1288	0.
1	0526	164	0.	*	1	1756	539	0.	*	2	0626	914	0.	*	2	1856	1289	0.
1	0528	165	0.	*	1	1758	540	0.	*	2	0628	915	0.	*	2	1858	1290	0.
1	0530	166	0.	*	1	1800	541	0.	*	2	0630	916	0.	*	2	1900	1291	0.
1	0532	167	0.	*	1	1802	542	0.	*	2	0632	917	0.	*	2	1902	1292	0.
1	0534	168	0.	*	1	1804	543	0.	*	2	0634	918	0.	*	2	1904	1293	0.
1	0536	169	0.	*	1	1806	544	0.	*	2	0636	919	0.	*	2	1906	1294	0.
1	0538	170	0.	*	1	1808	545	0.	*	2	0638	920	0.	*	2	1908	1295	0.
1	0540	171	0.	*	1	1810	546	0.	*	2	0640	921	0.	*	2	1910	1296	0.
1	0542	172	0.	*	1	1812	547	0.	*	2	0642	922	0.	*	2	1912	1297	0.
1	0544	173	0.	*	1	1814	548	0.	*	2	0644	923	0.	*	2	1914	1298	0.
1	0546	174	0.	*	1	1816	549	0.	*	2	0646	924	0.	*	2	1916	1299	0.
1	0548	175	0.	*	1	1818	550	0.	*	2	0648	925	0.	*	2	1918	1300	0.
1	0550	176	0.	*	1	1820	551	0.	*	2	0650	926	0.	*	2	1920	1301	0.
1	0552	177	0.	*	1	1822	552	0.	*	2	0652	927	0.	*	2	1922	1302	0.
1	0554	178	0.	*	1	1824	553	0.	*	2	0654	928	0.	*	2	1924	1303	0.
1	0556	179	0.	*	1	1826	554	0.	*	2	0656	929	0.	*	2	1926	1304	0.
1	0558	180	0.	*	1	1828	555	0.	*	2	0658	930	0.	*	2	1928	1305	0.
1	0600	181	0.	*	1	1830	556	0.	*	2	0700	931	0.	*	2	1930	1306	0.
1	0602	182	0.	*	1	1832	557	0.	*	2	0702	932	0.	*	2	1932	1307	0.
1	0604	183	0.	*	1	1834	558	0.	*	2	0704	933	0.	*	2	1934	1308	0.
1	0606	184	0.	*	1	1836	559	0.	*	2	0706	934	0.	*	2	1936	1309	0.
1	0608	185	0.	*	1	1838	560	0.	*	2	0708	935	0.	*	2	1938	1310	0.
1	0610	186	0.	*	1	1840	561	0.	*	2	0710	936	0.	*	2	1940	1311	0.
1	0612	187	0.	*	1	1842	562	0.	*	2	0712	937	0.	*	2	1942	1312	0.
1	0614	188	0.	*	1	1844	563	0.	*	2	0714	938	0.	*	2	1944	1313	0.
1	0616	189	0.	*	1	1846	564	0.	*	2	0716	939	0.	*	2	1946	1314	0.
1	0618	190	0.	*	1	1848	565	0.	*	2	0718	940	0.	*	2	1948	1315	0.
1	0620	191	0.	*	1	1850	566	0.	*	2	0720	941	0.	*	2	1950	1316	0.
1	0622	192	0.	*	1	1852	567	0.	*	2	0722	942	0.	*	2	1952	1317	0.
1	0624	193	0.	*	1	1854	568	0.	*	2	0724	943	0.	*	2	1954	1318	0.
1	0626	194	0.	*	1	1856	569	0.	*	2	0726	944	0.	*	2	1956	1319	0.
1	0628	195	0.	*	1	1858	570	0.	*	2	0728	945	0.	*	2	1958	1320	0.
1	0630	196	0.	*	1	1900	571	0.	*	2	0730	946	0.	*	2	2000	1321	0.
1	0632	197	0.	*	1	1902	572	0.	*	2	0732	947	0.	*	2	2002	1322	0.
1	0634	198	0.	*	1	1904	573	0.	*	2	0734	948	0.	*	2	2004	1323	0.
1	0636	199	0.	*	1	1906	574	0.	*	2	0736	949	0.	*	2	2006	1324	0.
1	0638	200	0.	*	1	1908	575	0.	*	2	0738	950	0.	*	2	2008	1325	0.
1	0640	201	0.	*	1	1910	576	0.	*	2	0740	951	0.	*	2	2010	1326	0.
1	0642	202	0.	*	1	1912	577	0.	*	2	0742	952	0.	*	2	2012	1327	0.
1	0644	203	0.	*	1	1914	578	0.	*	2	0744	953	0.	*	2	2014	1328	0.
1	0646	204	0.	*	1	1916	579	0.	*	2	0746	954	0.	*	2	2016	1329	0.
1	0648	205	0.	*	1	1918	580	0.	*	2	0748	955	0.	*	2	2018	1330	0.
1	0650	206	0.	*	1	1920	581	0.	*	2	0750	956	0.	*	2	2020	1331	0.
1	0652	207	0.	*	1	1922	582	0.	*	2	0752	957	0.	*	2	2022	1332	0.
1	0654	208	0.	*	1	1924	583	0.	*	2	0754	958	0.	*	2	2024	1333	0.
1	0656	209	0.	*	1	1926	584	0.	*	2	0756	959	0.	*	2	2026	1334	0.
1	0658	210	0.	*	1	1928	585	0.	*	2	0758	960	0.	*	2	2028	1335	0.
1	0700	211	0.	*	1	1930	586	0.	*	2	0800	961	0.	*	2	2030	1336	0.
1	0702	212	0.	*	1	1932	587	0.	*	2	0802	962	0.	*	2	2032	1337	0.
1	0704	213	0.	*	1	1934	588	0.	*	2	0804	963	0.	*	2	2034	1338	0.
1	0706	214	0.	*	1	1936	589	0.	*	2	0806	964	0.	*	2	2036	1339	0.
1	0708	215	0.	*	1	1938	590	0.	*	2	0808	965	0.	*	2	2038	1340	0.
1	0710	216	0.	*	1	1940	591	0.	*	2	0810	966	0.	*	2	2040	1341	0.
1	0712	217	0.	*	1	1942	592	0.	*	2	0812	967	0.	*	2	2042	1342	0.
1	0714	218	0.	*	1	1944	593	0.	*	2	0814	968	0.	*	2	2044	1343	0.

1	0716	219	0.	*	1	1946	594	0.	*	2	0816	969	0.	*	2	2046	1344	0.
1	0718	220	0.	*	1	1948	595	0.	*	2	0818	970	0.	*	2	2048	1345	0.
1	0720	221	0.	*	1	1950	596	0.	*	2	0820	971	0.	*	2	2050	1346	0.
1	0722	222	0.	*	1	1952	597	0.	*	2	0822	972	0.	*	2	2052	1347	0.
1	0724	223	0.	*	1	1954	598	0.	*	2	0824	973	0.	*	2	2054	1348	0.
1	0726	224	0.	*	1	1956	599	0.	*	2	0826	974	0.	*	2	2056	1349	0.
1	0728	225	0.	*	1	1958	600	0.	*	2	0828	975	0.	*	2	2058	1350	0.
1	0730	226	0.	*	1	2000	601	0.	*	2	0830	976	0.	*	2	2100	1351	0.
1	0732	227	0.	*	1	2002	602	0.	*	2	0832	977	0.	*	2	2102	1352	0.
1	0734	228	0.	*	1	2004	603	0.	*	2	0834	978	0.	*	2	2104	1353	0.
1	0736	229	0.	*	1	2006	604	0.	*	2	0836	979	0.	*	2	2106	1354	0.
1	0738	230	0.	*	1	2008	605	0.	*	2	0838	980	0.	*	2	2108	1355	0.
1	0740	231	0.	*	1	2010	606	0.	*	2	0840	981	0.	*	2	2110	1356	0.
1	0742	232	0.	*	1	2012	607	0.	*	2	0842	982	0.	*	2	2112	1357	0.
1	0744	233	0.	*	1	2014	608	0.	*	2	0844	983	0.	*	2	2114	1358	0.
1	0746	234	0.	*	1	2016	609	0.	*	2	0846	984	0.	*	2	2116	1359	0.
1	0748	235	0.	*	1	2018	610	0.	*	2	0848	985	0.	*	2	2118	1360	0.
1	0750	236	0.	*	1	2020	611	0.	*	2	0850	986	0.	*	2	2120	1361	0.
1	0752	237	0.	*	1	2022	612	0.	*	2	0852	987	0.	*	2	2122	1362	0.
1	0754	238	0.	*	1	2024	613	0.	*	2	0854	988	0.	*	2	2124	1363	0.
1	0756	239	0.	*	1	2026	614	0.	*	2	0856	989	0.	*	2	2126	1364	0.
1	0758	240	0.	*	1	2028	615	0.	*	2	0858	990	0.	*	2	2128	1365	0.
1	0800	241	0.	*	1	2030	616	0.	*	2	0900	991	0.	*	2	2130	1366	0.
1	0802	242	0.	*	1	2032	617	0.	*	2	0902	992	0.	*	2	2132	1367	0.
1	0804	243	0.	*	1	2034	618	0.	*	2	0904	993	0.	*	2	2134	1368	0.
1	0806	244	0.	*	1	2036	619	0.	*	2	0906	994	0.	*	2	2136	1369	0.
1	0808	245	0.	*	1	2038	620	0.	*	2	0908	995	0.	*	2	2138	1370	0.
1	0810	246	0.	*	1	2040	621	0.	*	2	0910	996	0.	*	2	2140	1371	0.
1	0812	247	0.	*	1	2042	622	0.	*	2	0912	997	0.	*	2	2142	1372	0.
1	0814	248	0.	*	1	2044	623	0.	*	2	0914	998	0.	*	2	2144	1373	0.
1	0816	249	0.	*	1	2046	624	0.	*	2	0916	999	0.	*	2	2146	1374	0.
1	0818	250	0.	*	1	2048	625	0.	*	2	0918	1000	0.	*	2	2148	1375	0.
1	0820	251	0.	*	1	2050	626	0.	*	2	0920	1001	0.	*	2	2150	1376	0.
1	0822	252	0.	*	1	2052	627	0.	*	2	0922	1002	0.	*	2	2152	1377	0.
1	0824	253	0.	*	1	2054	628	0.	*	2	0924	1003	0.	*	2	2154	1378	0.
1	0826	254	0.	*	1	2056	629	0.	*	2	0926	1004	0.	*	2	2156	1379	0.
1	0828	255	0.	*	1	2058	630	0.	*	2	0928	1005	0.	*	2	2158	1380	0.
1	0830	256	0.	*	1	2100	631	0.	*	2	0930	1006	0.	*	2	2200	1381	0.
1	0832	257	0.	*	1	2102	632	0.	*	2	0932	1007	0.	*	2	2202	1382	0.
1	0834	258	0.	*	1	2104	633	0.	*	2	0934	1008	0.	*	2	2204	1383	0.
1	0836	259	0.	*	1	2106	634	0.	*	2	0936	1009	0.	*	2	2206	1384	0.
1	0838	260	0.	*	1	2108	635	0.	*	2	0938	1010	0.	*	2	2208	1385	0.
1	0840	261	0.	*	1	2110	636	0.	*	2	0940	1011	0.	*	2	2210	1386	0.
1	0842	262	0.	*	1	2112	637	0.	*	2	0942	1012	0.	*	2	2212	1387	0.
1	0844	263	0.	*	1	2114	638	0.	*	2	0944	1013	0.	*	2	2214	1388	0.
1	0846	264	0.	*	1	2116	639	0.	*	2	0946	1014	0.	*	2	2216	1389	0.
1	0848	265	0.	*	1	2118	640	0.	*	2	0948	1015	0.	*	2	2218	1390	0.
1	0850	266	0.	*	1	2120	641	0.	*	2	0950	1016	0.	*	2	2220	1391	0.
1	0852	267	0.	*	1	2122	642	0.	*	2	0952	1017	0.	*	2	2222	1392	0.
1	0854	268	0.	*	1	2124	643	0.	*	2	0954	1018	0.	*	2	2224	1393	0.
1	0856	269	0.	*	1	2126	644	0.	*	2	0956	1019	0.	*	2	2226	1394	0.
1	0858	270	0.	*	1	2128	645	0.	*	2	0958	1020	0.	*	2	2228	1395	0.
1	0900	271	0.	*	1	2130	646	0.	*	2	1000	1021	0.	*	2	2230	1396	0.
1	0902	272	0.	*	1	2132	647	0.	*	2	1002	1022	0.	*	2	2232	1397	0.
1	0904	273	0.	*	1	2134	648	0.	*	2	1004	1023	0.	*	2	2234	1398	0.
1	0906	274	0.	*	1	2136	649	0.	*	2	1006	1024	0.	*	2	2236	1399	0.
1	0908	275	0.	*	1	2138	650	0.	*	2	1008	1025	0.	*	2	2238	1400	0.
1	0910	276	0.	*	1	2140	651	0.	*	2	1010	1026	0.	*	2	2240	1401	0.
1	0912	277	0.	*	1	2142	652	0.	*	2	1012	1027	0.	*	2	2242	1402	0.
1	0914	278	0.	*	1	2144	653	0.	*	2	1014	1028	0.	*	2	2244	1403	0.
1	0916	279	0.	*	1	2146	654	0.	*	2	1016	1029	0.	*	2	2246	1404	0.
1	0918	280	0.	*	1	2148	655	0.	*	2	1018	1030	0.	*	2	2248	1405	0.
1	0920	281	0.	*	1	2150	656	0.	*	2	1020	1031	0.	*	2	2250	1406	0.
1	0922	282	0.	*	1	2152	657	0.	*	2	1022	1032	0.	*	2	2252	1407	0.
1	0924	283	0.	*	1	2154	658	0.	*	2	1024	1033	0.	*	2	2254	1408	0.
1	0926	284	0.	*	1	2156	659	0.	*	2	1026	1034	0.	*	2	2256	1409	0.
1	0928	285	0.	*	1	2158	660	0.	*	2	1028	1035	0.	*	2	2258	1410	0.
1	0930	286	0.	*	1	2200	661	0.	*	2	1030	1036	0.	*	2	2300	1411	0.
1	0932	287	0.	*	1	2202	662	0.	*	2	1032	1037	0.	*	2	2302	1412	0.
1	0934	288	0.	*	1	2204	663	0.	*	2	1034	1038	0.	*	2	2304	1413	0.
1	0936	289	0.	*	1	2206	664	0.	*	2	1036	1039	0.	*	2	2306	1414	0.
1	0938	290	0.	*	1	2208	665	0.	*	2	1038	1040	0.	*	2	2308	1415	0.
1	0940	291	0.	*	1	2210	666	0.	*	2	1040	1041	0.	*	2	2310	1416	0.
1	0942	292	0.	*	1	2212	667	0.	*	2	1042	1042	0.	*	2	2312	1417	0.
1	0944	293	0.	*	1	2214	668	0.	*	2	1044	1043	0.	*	2	2314	1418	0.
1	0946	294	0.	*	1	2216	669	0.	*	2	1046	1044	0.	*	2	2316	1419	0.
1	0948	295	0.	*	1	2218	670	0.	*	2	1048	1045	0.	*	2	2318	1420	0.
1	0950	296	0.	*	1	2220	671	0.	*	2	1050	1046	0.	*	2	2320	1421	0.
1	0952	297	0.	*	1	2222	672	0.	*	2	1052	1047	0.	*	2	2322	1422	0.
1	0954	298	0.	*	1	2224	673	0.	*	2	1054	1048	0.	*	2	2324	1423	0.
1	0956	299	0.	*	1	2226	674	0.	*	2	1056	1049	0.	*	2	2326	1424	0.
1	0958	300	0.	*	1	2228	675	0.	*	2	1058	1050	0.	*	2	2328	1425	0.
1	1000	301	0.	*	1	2230	676	0.	*	2	1100	1051	0.	*	2	2330	1426	0.
1	1002	302	0.	*	1	2232	677	0.	*	2	1102	1052	0.	*	2	2332	1427	0.
1	1004	303	0.	*	1	2234	678	0.	*	2	1104	1053	0.	*	2	2334	1428	0.
1	1006	304	0.	*	1	2236	679	0.	*	2	1106	1054	0.	*	2	2336	1429	0.
1	1008	305	0.	*	1	2238	680	0.	*	2	1108	1055	0.	*	2	2338	1430	0.
1	1010	306	0.	*	1	2240	681	0.	*	2	1110	1056	0.	*	2	2340	1431	0.
1	1012	307	0.	*	1	2242	682	0.	*	2	1112	1057	0.	*	2	2342	1432	0.
1	1014	308	0.	*	1	2244	683	0.	*	2	1114	1058	0.	*	2	2344	1433	0.
1	1016	309	0.	*	1	2246	684	0.	*	2	1116	1059	0.	*	2	2346	1434	0.
1	1018	310	0.	*	1	2248	685	0.	*	2	1118	1060	0.	*	2	2348	1435	0.
1	1020	311	0.	*	1	2250	686	0.	*	2	1120	1061	0.	*	2	2350	1436	0.
1	1022	312	0.	*	1	2252	687	0.	*	2	1122	1062	0.	*	2	2352	1437	0.
1	1024	313	0.	*	1	2254	688	0.	*	2	1124	1063	0.	*	2	2354	1438	0.
1	1026	314	0.	*	1	2256	689	0.	*	2	1126	1064	0.	*	2	2356	1439	0.
1	1028	315	0.	*	1	2258	690	0.	*	2	1128	1065	0.	*	2	2358	1440	0.
1	1030	316	0.	*	1	2300	691	0.	*	2	1130	1066	0.	*	3	0000	1441	0.
1	1032	317	0.	*	1	2302	692	0.	*	2	1132	1067	0.	*	3	0002	1442	0.
1	1034	318	0.	*	1	2304	693	0.	*	2	1134	1068	0.	*	3	0004	1443	0.
1	1036	319	0.	*	1	2306	694	0.	*	2	1136	1069	0.	*	3	0006	1444	0.
1	1038	320	0.	*	1	2308	695	0.	*	2	1138	1070	0.	*	3	0008	1445	0.
1	1040	321	0.	*	1	2310	696	0.	*	2	1140	1071	0.	*	3	0010	1446	0.
1	1042	322	0.	*	1	2312	697	0.	*	2	1142	1072	0.	*	3	0012	1447	0.
1	1044	323	0.	*	1	2314	698	0.	*	2	1144	1073	0.	*	3	0014	1448	0.
1	1046	324	0.	*	1	2316	699	0.	*	2	1146	1074	0.	*	3	0016	1449	0.
1	1048	325	0.	*	1	2318	700	0.	*	2	1148	1075	0.	*	3	0018	1450	0.
1	1050	326	0.	*	1	2320	701	0.	*	2	1150	1076	0.	*	3	0020	1451	0.
1	1052	327	0.	*	1	2322	702	0.	*	2	1152	1077	0.	*	3	0022	1452	0.
1	1054	328	0.	*	1	2324	703	0.	*	2	1154	1078	0.	*	3	0024	1453	0.
1	1056	329	0.	*	1	2326	704	0.	*	2	1156	1079	0.	*	3	0026	1454	0.
1	1058	330	0.	*	1	2328	705	0.	*	2	1158	1080	0.	*	3	0028	1455	0.
1	1100	331	0.	*	1	2330	706	0.	*	2	1200	1081	0.	*	3	0030	1456	0.

1	1102	332	0.	*	1	2332	707	0.	*	2	1202	1082	0.	*	3	0032	1457	0.
1	1104	333	0.	*	1	2334	708	0.	*	2	1204	1083	0.	*	3	0034	1458	0.
1	1106	334	0.	*	1	2336	709	0.	*	2	1206	1084	0.	*	3	0036	1459	0.
1	1108	335	0.	*	1	2338	710	0.	*	2	1208	1085	0.	*	3	0038	1460	0.
1	1110	336	0.	*	1	2340	711	0.	*	2	1210	1086	0.	*	3	0040	1461	0.
1	1112	337	0.	*	1	2342	712	0.	*	2	1212	1087	0.	*	3	0042	1462	0.
1	1114	338	0.	*	1	2344	713	0.	*	2	1214	1088	0.	*	3	0044	1463	0.
1	1116	339	0.	*	1	2346	714	0.	*	2	1216	1089	0.	*	3	0046	1464	0.
1	1118	340	0.	*	1	2348	715	0.	*	2	1218	1090	0.	*	3	0048	1465	0.
1	1120	341	0.	*	1	2350	716	0.	*	2	1220	1091	0.	*	3	0050	1466	0.
1	1122	342	0.	*	1	2352	717	0.	*	2	1222	1092	0.	*	3	0052	1467	0.
1	1124	343	0.	*	1	2354	718	0.	*	2	1224	1093	0.	*	3	0054	1468	0.
1	1126	344	0.	*	1	2356	719	0.	*	2	1226	1094	0.	*	3	0056	1469	0.
1	1128	345	0.	*	1	2358	720	0.	*	2	1228	1095	0.	*	3	0058	1470	0.
1	1130	346	0.	*	2	0000	721	0.	*	2	1230	1096	0.	*	3	0100	1471	0.
1	1132	347	0.	*	2	0002	722	0.	*	2	1232	1097	0.	*	3	0102	1472	0.
1	1134	348	0.	*	2	0004	723	0.	*	2	1234	1098	0.	*	3	0104	1473	0.
1	1136	349	0.	*	2	0006	724	0.	*	2	1236	1099	0.	*	3	0106	1474	0.
1	1138	350	0.	*	2	0008	725	0.	*	2	1238	1100	0.	*	3	0108	1475	0.
1	1140	351	0.	*	2	0010	726	0.	*	2	1240	1101	0.	*	3	0110	1476	0.
1	1142	352	0.	*	2	0012	727	0.	*	2	1242	1102	0.	*	3	0112	1477	0.
1	1144	353	0.	*	2	0014	728	0.	*	2	1244	1103	0.	*	3	0114	1478	0.
1	1146	354	0.	*	2	0016	729	0.	*	2	1246	1104	0.	*	3	0116	1479	0.
1	1148	355	0.	*	2	0018	730	0.	*	2	1248	1105	0.	*	3	0118	1480	0.
1	1150	356	0.	*	2	0020	731	0.	*	2	1250	1106	0.	*	3	0120	1481	0.
1	1152	357	0.	*	2	0022	732	0.	*	2	1252	1107	0.	*	3	0122	1482	0.
1	1154	358	0.	*	2	0024	733	0.	*	2	1254	1108	0.	*	3	0124	1483	0.
1	1156	359	0.	*	2	0026	734	0.	*	2	1256	1109	0.	*	3	0126	1484	0.
1	1158	360	0.	*	2	0028	735	0.	*	2	1258	1110	0.	*	3	0128	1485	0.
1	1200	361	0.	*	2	0030	736	0.	*	2	1300	1111	0.	*	3	0130	1486	0.
1	1202	362	0.	*	2	0032	737	0.	*	2	1302	1112	0.	*	3	0132	1487	0.
1	1204	363	0.	*	2	0034	738	0.	*	2	1304	1113	0.	*	3	0134	1488	0.
1	1206	364	0.	*	2	0036	739	0.	*	2	1306	1114	0.	*	3	0136	1489	0.
1	1208	365	0.	*	2	0038	740	0.	*	2	1308	1115	0.	*	3	0138	1490	0.
1	1210	366	0.	*	2	0040	741	0.	*	2	1310	1116	0.	*	3	0140	1491	0.
1	1212	367	0.	*	2	0042	742	0.	*	2	1312	1117	0.	*	3	0142	1492	0.
1	1214	368	0.	*	2	0044	743	0.	*	2	1314	1118	0.	*	3	0144	1493	0.
1	1216	369	0.	*	2	0046	744	0.	*	2	1316	1119	0.	*	3	0146	1494	0.
1	1218	370	0.	*	2	0048	745	0.	*	2	1318	1120	0.	*	3	0148	1495	0.
1	1220	371	0.	*	2	0050	746	0.	*	2	1320	1121	0.	*	3	0150	1496	0.
1	1222	372	0.	*	2	0052	747	0.	*	2	1322	1122	0.	*	3	0152	1497	0.
1	1224	373	0.	*	2	0054	748	0.	*	2	1324	1123	0.	*	3	0154	1498	0.
1	1226	374	0.	*	2	0056	749	0.	*	2	1326	1124	0.	*	3	0156	1499	0.
1	1228	375	0.	*	2	0058	750	0.	*	2	1328	1125	0.	*	3	0158	1500	0.
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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)	(CFS)				
+ 3827.	13.13		199.	50.	24.	24.
		(INCHES)	.168	.168	.168	.168
		(AC-FT)	99.	99.	99.	99.

CUMULATIVE AREA = 11.03 SQ MI

INTERPOLATED HYDROGRAPH AT DD420

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		1230	376	245.	2		0100	751	185.	2		1330	1126	91.
1		0002	2	0.	1		1232	377	317.	2		0102	752	184.	2		1332	1127	91.
1		0004	3	0.	1		1234	378	412.	2		0104	753	184.	2		1334	1128	91.
1		0006	4	0.	1		1236	379	551.	2		0106	754	184.	2		1336	1129	91.
1		0008	5	0.	1		1238	380	693.	2		0108	755	183.	2		1338	1130	91.
1		0010	6	0.	1		1240	381	836.	2		0110	756	183.	2		1340	1131	91.
1		0012	7	0.	1		1242	382	973.	2		0112	757	183.	2		1342	1132	91.
1		0014	8	0.	1		1244	383	1079.	2		0114	758	182.	2		1344	1133	91.
1		0016	9	0.	1		1246	384	1159.	2		0116	759	182.	2		1346	1134	91.
1		0018	10	0.	1		1248	385	1231.	2		0118	760	181.	2		1348	1135	91.
1		0020	11	0.	1		1250	386	1334.	2		0120	761	181.	2		1350	1136	90.
1		0022	12	0.	1		1252	387	1541.	2		0122	762	180.	2		1352	1137	90.
1		0024	13	0.	1		1254	388	2015.	2		0124	763	180.	2		1354	1138	90.
1		0026	14	0.	1		1256	389	3072.	2		0126	764	180.	2		1356	1139	90.
1		0028	15	0.	1		1258	390	4976.	2		0128	765	179.	2		1358	1140	90.
1		0030	16	0.	1		1300	391	7455.	2		0130	766	178.	2		1400	1141	90.
1		0032	17	0.	1		1302	392	8300.	2		0132	767	178.	2		1402	1142	90.
1		0034	18	0.	1		1304	393	8400.	2		0134	768	177.	2		1404	1143	90.
1		0036	19	0.	1		1306	394	8400.	2		0136	769	177.	2		1406	1144	90.
1		0038	20	0.	1		1308	395	8400.	2		0138	770	176.	2		1408	1145	90.
1		0040	21	0.	1		1310	396	8400.	2		0140	771	176.	2		1410	1146	89.
1		0042	22	0.	1		1312	397	8400.	2		0142	772	175.	2		1412	1147	89.
1		0044	23	0.	1		1314	398	8400.	2		0144	773	174.	2		1414	1148	89.
1		0046	24	0.	1		1316	399	8400.	2		0146	774	174.	2		1416	1149	89.
1		0048	25	0.	1		1318	400	8400.	2		0148	775	173.	2		1418	1150	89.
1		0050	26	0.	1		1320	401	8400.	2		0150	776	173.	2		1420	1151	89.
1		0052	27	0.	1		1322	402	8400.	2		0152	777	172.	2		1422	1152	89.
1		0054	28	0.	1		1324	403	8400.	2		0154	778	171.	2		1424	1153	89.
1		0056	29	0.	1		1326	404	8400.	2		0156	779	171.	2		1426	1154	89.
1		0058	30	0.	1		1328	405	8400.	2		0158	780	170.	2		1428	1155	89.
1		0100	31	0.	1		1330	406	8400.	2		0200	781	169.	2		1430	1156	88.
1		0102	32	0.	1		1332	407	8379.	2		0202	782	169.	2		1432	1157	88.
1		0104	33	0.	1		1334	408	8104.	2		0204	783	168.	2		1434	1158	88.
1		0106	34	0.	1		1336	409	7791.	2		0206	784	167.	2		1436	1159	88.
1		0108	35	0.	1		1338	410	7483.	2		0208	785	167.	2		1438	1160	88.
1		0110	36	0.	1		1340	411	7188.	2		0210	786	166.	2		1440	1161	88.
1		0112	37	0.	1		1342	412	6914.	2		0212	787	165.	2		1442	1162	88.
1		0114	38	0.	1		1344	413	6656.	2		0214	788	165.	2		1444	1163	88.
1		0116	39	0.	1		1346	414	6403.	2		0216	789	164.	2		1446	1164	88.
1		0118	40	0.	1		1348	415	6162.	2		0218	790	163.	2		1448	1165	88.
1		0120	41	0.	1		1350	416	5939.	2		0220	791	163.	2		1450	1166	88.
1		0122	42	0.	1		1352	417	5734.	2		0222	792	162.	2		1452	1167	87.
1		0124	43	0.	1		1354	418	5530.	2		0224	793	162.	2		1454	1168	87.
1		0126	44	0.	1		1356	419	5332.	2		0226	794	161.	2		1456	1169	87.
1		0128	45	0.	1		1358	420	5146.	2		0228	795	160.	2		1458	1170	87.
1		0130	46	0.	1		1400	421	4973.	2		0230	796	160.	2		1500	1171	87.
1		0132	47	0.	1		1402	422	4816.	2		0232	797	159.	2		1502	1172	87.
1		0134	48	0.	1		1404	423	4657.	2		0234	798	159.	2		1504	1173	87.
1		0136	49	0.	1		1406	424	4501.	2		0236	799	158.	2		1506	1174	87.
1		0138	50	0.	1		1408	425	4351.	2		0238	800	158.	2		1508	1175	87.
1		0140	51	0.	1		1410	426	4211.	2		0240	801	157.	2		1510	1176	87.
1		0142	52	0.	1		1412	427	4080.	2		0242	802	157.	2		1512	1177	87.
1		0144	53	0.	1		1414	428	3961.	2		0244	803	157.	2		1514	1178	87.
1		0146	54	0.	1		1416	429	3839.	2		0246	804	156.	2		1516	1179	86.
1		0148	55	0.	1		1418	430	3718.	2		0248	805	156.	2		1518	1180	86.
1		0150	56	0.	1		1420	431	3599.	2		0250	806	155.	2		1520	1181	86.
1		0152	57	1.	1		1422	432	3485.	2		0252	807	155.	2		1522	1182	86.
1		0154	58	1.	1		1424	433	3377.	2		0254	808	155.	2		1524	1183	86.
1		0156	59	1.	1		1426	434	3278.	2		0256	809	154.	2		1526	1184	86.
1		0158	60	1.	1		1428	435	3188.	2		0258	810	154.	2		1528	1185	86.
1		0200	61	1.	1		1430	436	3096.	2		0300	811	153.	2		1530	1186	86.
1		0202	62	1.	1		1432	437	3003.	2		0302	812	153.	2		1532	1187	86.
1		0204	63	1.	1		1434	438	2910.	2		0304	813	153.	2		1534	1188	86.
1		0206	64	1.	1		1436	439	2820.	2		0306	814	153.	2		1536	1189	86.
1		0208	65	1.	1		1438	440	2734.	2		0308	815	152.	2		1538	1190	86.
1		0210	66	1.	1		1440	441	2653.	2		0310	816	152.	2		1540	1191	86.
1		0212	67	1.	1		1442	442	2578.	2		0312	817	152.	2		1542	1192	85.
1		0214	68	1.	1		1444	443	2509.	2		0314	818	151.	2		1544	1193	85.
1		0216	69	1.	1		1446	444	2445.	2		0316	819	151.	2		1546	1194	85.
1		0218	70	1.	1		1448	445	2379.	2		0318	820	151.	2		1548	1195	85.
1		0220	71	1.	1		1450	446	2312.	2		0320	821	151.	2		1550	1196	85.
1		0222	72	2.	1		1452	447	2246.	2		0322	822	150.	2		1552	1197	85.
1		0224	73	2.	1		1454	448	2180.	2		0324	823	150.	2		1554	1198	85.
1		0226	74	2.	1		1456	449	2116.	2		0326	824	150.	2		1556	1199	85.
1		0228	75	2.	1		1458	450	2055.	2		0328	825	150.	2		1558	1200	85.
1		0230	76	2.	1		1500	451	1998.	2		0330	826	149.	2		1600	1201	85.
1		0232	77	2.	1		1502	452	1945.	2		0332	827	149.	2		1602	1202	85.
1		0234	78	2.	1		1504	453	1897.	2		0334	828	149.	2		1604	1203	85.
1		0236	79	2.	1		1506	454	1852.	2		0336	829	149.	2		1606	1204	84.
1		0238	80	2.	1		1508	455	1812.	2		0338	830	149.	2		1608	1205	84.
1		0240	81	3.	1		1510	456	1770.	2		0340	831	148.	2		1610	1206	84.
1		0242	82	3.	1		1512	457	1727.	2		0342	832	148.	2		1612	1207	84.
1		0244	83	3.	1		1514	458	1683.	2		0344	833	148.	2		1614	1208	84.
1		0246	84	3.	1		1516	459	1639.	2		0346	834	148.	2		1616	1209	84.
1		0248	85	3.	1		1518	460	1595.	2		0348	835	147.	2		1618	1210	84.
1		0250	86	3.	1		1520	461	1553.	2		0350	836	147.	2		1620	1211	84.
1		0252	87	3.	1		1522	462	1511.	2		0352	837	147.	2		1622	1212	84.
1		0254	88	4.	1		1524	463	1472.	2		0354	838	147.	2		1624	1213	84.
1		0256	89	4.	1		1526	464	1434.	2		0356	839	146.	2		1626	1214	84.
1		0258	90	4.	1		1528	465	1399.	2		0358	840	146.	2		1628	1215	83.
1		0300	91	4.	1		1530	466	1367.	2		0400	841	146.	2		1630	1216	83.
1		0302	92	4.	1		1532	467	1338.	2		0402	842	146.	2		1632	1217	83.
1		0304	93	5.	1		1534	468	1311.	2		0404	843	145.	2		1634	1218	83.
1		0306	94	5.	1		1536	469	1286.	2		0406	844	145.	2		1636	1219	83.
1		0308	95	5.	1		1538	470	1264.	2		0408	845	145.	2		1638	1220	83.
1		0310	96	5.	1		1540	471	1242.	2		0410	846	145.	2		1640	1221	83.
1		0312	97	5.	1		1542	472	1219.	2		0412	847	144.	2		1642	1222	83.
1		0314	98	6.	1		1544	473	1196.	2		0414	848	144.	2		1644	1223	83.
1		0316	99	6.	1		1546	474	1171.	2		0416	849	144.	2		1646	1224	83.
1		0318	100	6.	1		1548	475	1147.	2		0418	850	144.	2		1648	1225	82.
1		0320	101	6.	1		1550	476	1122.	2		0420	851	144.	2		1650	1226	82.
1		0322	102	7.	1		1552	477	1097.	2		0422	852	143.	2		1652	1227	82.
1		0324	103	7.	1		1554	478	1072.	2		0424	853	143.	2		1654	1228	82.
1		0326	104	7.	1		1556	479	1048.	2		0426	854	143.	2		1656	1229	82.
1		0328	105	7.	1		1558	480	1024.	2		0428	855	143.	2		1658	1230	82.

1	0330	106	7.	*	1	1600	481	1001.	*	2	0430	856	142.	*	2	1700	1231	82.
1	0332	107	8.	*	1	1602	482	978.	*	2	0432	857	142.	*	2	1702	1232	82.
1	0334	108	8.	*	1	1604	483	956.	*	2	0434	858	142.	*	2	1704	1233	82.
1	0336	109	8.	*	1	1606	484	936.	*	2	0436	859	142.	*	2	1706	1234	81.
1	0338	110	8.	*	1	1608	485	916.	*	2	0438	860	142.	*	2	1708	1235	81.
1	0340	111	9.	*	1	1610	486	898.	*	2	0440	861	141.	*	2	1710	1236	81.
1	0342	112	9.	*	1	1612	487	881.	*	2	0442	862	141.	*	2	1712	1237	81.
1	0344	113	9.	*	1	1614	488	865.	*	2	0444	863	141.	*	2	1714	1238	81.
1	0346	114	9.	*	1	1616	489	850.	*	2	0446	864	141.	*	2	1716	1239	81.
1	0348	115	10.	*	1	1618	490	837.	*	2	0448	865	141.	*	2	1718	1240	81.
1	0350	116	10.	*	1	1620	491	825.	*	2	0450	866	140.	*	2	1720	1241	81.
1	0352	117	10.	*	1	1622	492	814.	*	2	0452	867	140.	*	2	1722	1242	81.
1	0354	118	10.	*	1	1624	493	803.	*	2	0454	868	140.	*	2	1724	1243	80.
1	0356	119	11.	*	1	1626	494	794.	*	2	0456	869	140.	*	2	1726	1244	80.
1	0358	120	11.	*	1	1628	495	785.	*	2	0458	870	139.	*	2	1728	1245	80.
1	0400	121	11.	*	1	1630	496	777.	*	2	0500	871	139.	*	2	1730	1246	80.
1	0402	122	11.	*	1	1632	497	767.	*	2	0502	872	139.	*	2	1732	1247	80.
1	0404	123	12.	*	1	1634	498	758.	*	2	0504	873	139.	*	2	1734	1248	80.
1	0406	124	12.	*	1	1636	499	747.	*	2	0506	874	138.	*	2	1736	1249	80.
1	0408	125	12.	*	1	1638	500	737.	*	2	0508	875	138.	*	2	1738	1250	80.
1	0410	126	12.	*	1	1640	501	726.	*	2	0510	876	138.	*	2	1740	1251	79.
1	0412	127	13.	*	1	1642	502	715.	*	2	0512	877	138.	*	2	1742	1252	79.
1	0414	128	13.	*	1	1644	503	703.	*	2	0514	878	138.	*	2	1744	1253	79.
1	0416	129	13.	*	1	1646	504	692.	*	2	0516	879	137.	*	2	1746	1254	79.
1	0418	130	13.	*	1	1648	505	680.	*	2	0518	880	137.	*	2	1748	1255	79.
1	0420	131	14.	*	1	1650	506	668.	*	2	0520	881	137.	*	2	1750	1256	79.
1	0422	132	14.	*	1	1652	507	657.	*	2	0522	882	137.	*	2	1752	1257	78.
1	0424	133	14.	*	1	1654	508	645.	*	2	0524	883	136.	*	2	1754	1258	78.
1	0426	134	14.	*	1	1656	509	633.	*	2	0526	884	136.	*	2	1756	1259	78.
1	0428	135	15.	*	1	1658	510	622.	*	2	0528	885	136.	*	2	1758	1260	78.
1	0430	136	15.	*	1	1700	511	611.	*	2	0530	886	136.	*	2	1800	1261	78.
1	0432	137	15.	*	1	1702	512	600.	*	2	0532	887	136.	*	2	1802	1262	78.
1	0434	138	15.	*	1	1704	513	589.	*	2	0534	888	136.	*	2	1804	1263	77.
1	0436	139	15.	*	1	1706	514	578.	*	2	0536	889	135.	*	2	1806	1264	77.
1	0438	140	16.	*	1	1708	515	568.	*	2	0538	890	135.	*	2	1808	1265	77.
1	0440	141	16.	*	1	1710	516	558.	*	2	0540	891	135.	*	2	1810	1266	77.
1	0442	142	16.	*	1	1712	517	548.	*	2	0542	892	135.	*	2	1812	1267	76.
1	0444	143	16.	*	1	1714	518	539.	*	2	0544	893	135.	*	2	1814	1268	76.
1	0446	144	17.	*	1	1716	519	530.	*	2	0546	894	135.	*	2	1816	1269	76.
1	0448	145	17.	*	1	1718	520	521.	*	2	0548	895	135.	*	2	1818	1270	76.
1	0450	146	17.	*	1	1720	521	513.	*	2	0550	896	134.	*	2	1820	1271	75.
1	0452	147	17.	*	1	1722	522	505.	*	2	0552	897	134.	*	2	1822	1272	75.
1	0454	148	17.	*	1	1724	523	498.	*	2	0554	898	134.	*	2	1824	1273	75.
1	0456	149	18.	*	1	1726	524	491.	*	2	0556	899	134.	*	2	1826	1274	74.
1	0458	150	18.	*	1	1728	525	484.	*	2	0558	900	134.	*	2	1828	1275	74.
1	0500	151	18.	*	1	1730	526	477.	*	2	0600	901	134.	*	2	1830	1276	74.
1	0502	152	18.	*	1	1732	527	471.	*	2	0602	902	134.	*	2	1832	1277	73.
1	0504	153	18.	*	1	1734	528	466.	*	2	0604	903	133.	*	2	1834	1278	73.
1	0506	154	19.	*	1	1736	529	460.	*	2	0606	904	133.	*	2	1836	1279	72.
1	0508	155	19.	*	1	1738	530	455.	*	2	0608	905	133.	*	2	1838	1280	72.
1	0510	156	19.	*	1	1740	531	451.	*	2	0610	906	133.	*	2	1840	1281	72.
1	0512	157	19.	*	1	1742	532	447.	*	2	0612	907	133.	*	2	1842	1282	71.
1	0514	158	19.	*	1	1744	533	443.	*	2	0614	908	133.	*	2	1844	1283	71.
1	0516	159	20.	*	1	1746	534	439.	*	2	0616	909	132.	*	2	1846	1284	70.
1	0518	160	20.	*	1	1748	535	436.	*	2	0618	910	132.	*	2	1848	1285	70.
1	0520	161	20.	*	1	1750	536	433.	*	2	0620	911	132.	*	2	1850	1286	69.
1	0522	162	20.	*	1	1752	537	430.	*	2	0622	912	132.	*	2	1852	1287	69.
1	0524	163	20.	*	1	1754	538	427.	*	2	0624	913	132.	*	2	1854	1288	68.
1	0526	164	21.	*	1	1756	539	425.	*	2	0626	914	131.	*	2	1856	1289	67.
1	0528	165	21.	*	1	1758	540	423.	*	2	0628	915	131.	*	2	1858	1290	67.
1	0530	166	21.	*	1	1800	541	420.	*	2	0630	916	131.	*	2	1900	1291	66.
1	0532	167	21.	*	1	1802	542	418.	*	2	0632	917	131.	*	2	1902	1292	66.
1	0534	168	22.	*	1	1804	543	416.	*	2	0634	918	131.	*	2	1904	1293	65.
1	0536	169	22.	*	1	1806	544	414.	*	2	0636	919	130.	*	2	1906	1294	64.
1	0538	170	22.	*	1	1808	545	412.	*	2	0638	920	130.	*	2	1908	1295	64.
1	0540	171	22.	*	1	1810	546	410.	*	2	0640	921	130.	*	2	1910	1296	63.
1	0542	172	22.	*	1	1812	547	407.	*	2	0642	922	130.	*	2	1912	1297	62.
1	0544	173	23.	*	1	1814	548	405.	*	2	0644	923	129.	*	2	1914	1298	62.
1	0546	174	23.	*	1	1816	549	403.	*	2	0646	924	129.	*	2	1916	1299	61.
1	0548	175	23.	*	1	1818	550	401.	*	2	0648	925	129.	*	2	1918	1300	60.
1	0550	176	23.	*	1	1820	551	400.	*	2	0650	926	129.	*	2	1920	1301	60.
1	0552	177	24.	*	1	1822	552	398.	*	2	0652	927	128.	*	2	1922	1302	59.
1	0554	178	24.	*	1	1824	553	396.	*	2	0654	928	128.	*	2	1924	1303	58.
1	0556	179	24.	*	1	1826	554	393.	*	2	0656	929	128.	*	2	1926	1304	58.
1	0558	180	24.	*	1	1828	555	391.	*	2	0658	930	127.	*	2	1928	1305	57.
1	0600	181	25.	*	1	1830	556	389.	*	2	0700	931	127.	*	2	1930	1306	56.
1	0602	182	25.	*	1	1832	557	386.	*	2	0702	932	127.	*	2	1932	1307	56.
1	0604	183	25.	*	1	1834	558	383.	*	2	0704	933	127.	*	2	1934	1308	55.
1	0606	184	25.	*	1	1836	559	381.	*	2	0706	934	126.	*	2	1936	1309	54.
1	0608	185	26.	*	1	1838	560	378.	*	2	0708	935	126.	*	2	1938	1310	54.
1	0610	186	26.	*	1	1840	561	375.	*	2	0710	936	126.	*	2	1940	1311	53.
1	0612	187	26.	*	1	1842	562	372.	*	2	0712	937	126.	*	2	1942	1312	52.
1	0614	188	26.	*	1	1844	563	369.	*	2	0714	938	126.	*	2	1944	1313	52.
1	0616	189	27.	*	1	1846	564	366.	*	2	0716	939	126.	*	2	1946	1314	51.
1	0618	190	27.	*	1	1848	565	363.	*	2	0718	940	125.	*	2	1948	1315	50.
1	0620	191	27.	*	1	1850	566	360.	*	2	0720	941	125.	*	2	1950	1316	50.
1	0622	192	27.	*	1	1852	567	357.	*	2	0722	942	125.	*	2	1952	1317	49.
1	0624	193	28.	*	1	1854	568	354.	*	2	0724	943	125.	*	2	1954	1318	49.
1	0626	194	28.	*	1	1856	569	351.	*	2	0726	944	125.	*	2	1956	1319	48.
1	0628	195	28.	*	1	1858	570	348.	*	2	0728	945	125.	*	2	1958	1320	47.
1	0630	196	29.	*	1	1900	571	345.	*	2	0730	946	124.	*	2	2000	1321	47.
1	0632	197	29.	*	1	1902	572	342.	*	2	0732	947	124.	*	2	2002	1322	46.
1	0634	198	29.	*	1	1904	573	340.	*	2	0734	948	124.	*	2	2004	1323	46.
1	0636	199	29.	*	1	1906	574	337.	*	2	0736	949	124.	*	2	2006	1324	45.
1	0638	200	30.	*	1	1908	575	334.	*	2	0738	950	123.	*	2	2008	1325	45.
1	0640	201	30.	*	1	1910	576	331.	*	2	0740	951	123.	*	2	2010	1326	44.
1	0642	202	30.	*	1	1912	577	328.	*	2	0742	952	123.	*	2	2012	1327	44.
1	0644	203	31.	*	1	1914	578	326.	*	2	0744	953	123.	*	2	2014	1328	43.
1	0646	204	31.	*	1	1916	579	323.	*	2	0746	954	122.	*	2	2016	1329	43.
1	0648	205	31.	*	1	1918	580	321.	*	2	0748	955	122.	*	2	2018	1330	42.
1	0650	206	32.	*	1	1920	581	318.	*	2	0750	956	122.	*	2	2020	1331	42.
1	0652	207	32.	*	1	1922	582	315.	*	2	0752	957	122.	*	2	2022	1332	42.
1	0654	208	32.	*	1	1924	583	313.	*	2	0754	958	121.	*	2	2024	1333	41.
1	0656	209	33.	*	1	1926	584	311.	*	2	0756	959	121.	*	2	2026	1334	41.
1	0658	210	33.	*	1	1928	585	308.	*	2	0758	960	121.	*	2	2028	1335	40.
1	0700	211	33.	*	1	1930	586	306.	*	2	0800	961	120.	*	2	2030	1336	40.
1	0702	212	34.	*	1	1932	587	304.	*	2	0802	962	120.	*	2	2032	1337	40.
1	0704	213	34.	*	1	1934	588	301.	*	2	0804	963	120.	*	2	2034	1338	39.
1	0706	214	34.	*	1	1936	589	299.	*	2	0806	964	119.	*	2	2036	1339	39.
1	0708	215	35.	*	1	1938	590	297.	*	2	0808	965	119.	*	2	2038	1340	39.
1	0710	216	35.	*	1	1940	591	295.	*	2	0810	966	119.	*	2	2040	1341	38.
1	0712	217	35.	*	1	1942	592	293.	*	2	0812	967	119.	*	2	2042	1342	38.
1	0714	218	36.	*	1	1944	593	291.	*	2	0814	968	118.	*	2	2044	1343	38.

1	0716	219	36.	*	1	1946	594	289.	*	2	0816	969	118.	*	2	2046	1344	38.
1	0718	220	36.	*	1	1948	595	287.	*	2	0818	970	118.	*	2	2048	1345	37.
1	0720	221	37.	*	1	1950	596	285.	*	2	0820	971	117.	*	2	2050	1346	37.
1	0722	222	37.	*	1	1952	597	283.	*	2	0822	972	117.	*	2	2052	1347	37.
1	0724	223	37.	*	1	1954	598	281.	*	2	0824	973	117.	*	2	2054	1348	37.
1	0726	224	38.	*	1	1956	599	280.	*	2	0826	974	116.	*	2	2056	1349	36.
1	0728	225	38.	*	1	1958	600	278.	*	2	0828	975	116.	*	2	2058	1350	36.
1	0730	226	38.	*	1	2000	601	276.	*	2	0830	976	116.	*	2	2100	1351	36.
1	0732	227	39.	*	1	2002	602	275.	*	2	0832	977	115.	*	2	2102	1352	36.
1	0734	228	39.	*	1	2004	603	273.	*	2	0834	978	115.	*	2	2104	1353	36.
1	0736	229	39.	*	1	2006	604	272.	*	2	0836	979	115.	*	2	2106	1354	35.
1	0738	230	40.	*	1	2008	605	270.	*	2	0838	980	115.	*	2	2108	1355	35.
1	0740	231	40.	*	1	2010	606	269.	*	2	0840	981	114.	*	2	2110	1356	35.
1	0742	232	40.	*	1	2012	607	267.	*	2	0842	982	114.	*	2	2112	1357	35.
1	0744	233	41.	*	1	2014	608	266.	*	2	0844	983	114.	*	2	2114	1358	35.
1	0746	234	41.	*	1	2016	609	265.	*	2	0846	984	113.	*	2	2116	1359	35.
1	0748	235	41.	*	1	2018	610	263.	*	2	0848	985	113.	*	2	2118	1360	34.
1	0750	236	42.	*	1	2020	611	262.	*	2	0850	986	113.	*	2	2120	1361	34.
1	0752	237	42.	*	1	2022	612	261.	*	2	0852	987	113.	*	2	2122	1362	34.
1	0754	238	43.	*	1	2024	613	259.	*	2	0854	988	112.	*	2	2124	1363	34.
1	0756	239	43.	*	1	2026	614	258.	*	2	0856	989	112.	*	2	2126	1364	34.
1	0758	240	43.	*	1	2028	615	257.	*	2	0858	990	112.	*	2	2128	1365	34.
1	0800	241	44.	*	1	2030	616	256.	*	2	0900	991	111.	*	2	2130	1366	34.
1	0802	242	44.	*	1	2032	617	255.	*	2	0902	992	111.	*	2	2132	1367	34.
1	0804	243	44.	*	1	2034	618	254.	*	2	0904	993	111.	*	2	2134	1368	34.
1	0806	244	45.	*	1	2036	619	252.	*	2	0906	994	111.	*	2	2136	1369	33.
1	0808	245	45.	*	1	2038	620	251.	*	2	0908	995	110.	*	2	2138	1370	33.
1	0810	246	45.	*	1	2040	621	250.	*	2	0910	996	110.	*	2	2140	1371	33.
1	0812	247	46.	*	1	2042	622	249.	*	2	0912	997	110.	*	2	2142	1372	33.
1	0814	248	46.	*	1	2044	623	248.	*	2	0914	998	110.	*	2	2144	1373	33.
1	0816	249	46.	*	1	2046	624	247.	*	2	0916	999	109.	*	2	2146	1374	33.
1	0818	250	47.	*	1	2048	625	246.	*	2	0918	1000	109.	*	2	2148	1375	33.
1	0820	251	47.	*	1	2050	626	245.	*	2	0920	1001	109.	*	2	2150	1376	33.
1	0822	252	47.	*	1	2052	627	244.	*	2	0922	1002	109.	*	2	2152	1377	33.
1	0824	253	48.	*	1	2054	628	243.	*	2	0924	1003	108.	*	2	2154	1378	33.
1	0826	254	48.	*	1	2056	629	242.	*	2	0926	1004	108.	*	2	2156	1379	33.
1	0828	255	48.	*	1	2058	630	242.	*	2	0928	1005	108.	*	2	2158	1380	33.
1	0830	256	49.	*	1	2100	631	241.	*	2	0930	1006	108.	*	2	2200	1381	32.
1	0832	257	49.	*	1	2102	632	240.	*	2	0932	1007	107.	*	2	2202	1382	32.
1	0834	258	49.	*	1	2104	633	239.	*	2	0934	1008	107.	*	2	2204	1383	32.
1	0836	259	50.	*	1	2106	634	238.	*	2	0936	1009	107.	*	2	2206	1384	32.
1	0838	260	50.	*	1	2108	635	237.	*	2	0938	1010	107.	*	2	2208	1385	32.
1	0840	261	50.	*	1	2110	636	236.	*	2	0940	1011	106.	*	2	2210	1386	32.
1	0842	262	50.	*	1	2112	637	236.	*	2	0942	1012	106.	*	2	2212	1387	32.
1	0844	263	51.	*	1	2114	638	235.	*	2	0944	1013	106.	*	2	2214	1388	32.
1	0846	264	51.	*	1	2116	639	234.	*	2	0946	1014	106.	*	2	2216	1389	32.
1	0848	265	51.	*	1	2118	640	233.	*	2	0948	1015	106.	*	2	2218	1390	32.
1	0850	266	52.	*	1	2120	641	232.	*	2	0950	1016	105.	*	2	2220	1391	32.
1	0852	267	52.	*	1	2122	642	232.	*	2	0952	1017	105.	*	2	2222	1392	32.
1	0854	268	52.	*	1	2124	643	231.	*	2	0954	1018	105.	*	2	2224	1393	32.
1	0856	269	53.	*	1	2126	644	230.	*	2	0956	1019	105.	*	2	2226	1394	32.
1	0858	270	53.	*	1	2128	645	229.	*	2	0958	1020	105.	*	2	2228	1395	32.
1	0900	271	53.	*	1	2130	646	229.	*	2	1000	1021	104.	*	2	2230	1396	32.
1	0902	272	54.	*	1	2132	647	228.	*	2	1002	1022	104.	*	2	2232	1397	31.
1	0904	273	54.	*	1	2134	648	227.	*	2	1004	1023	104.	*	2	2234	1398	31.
1	0906	274	54.	*	1	2136	649	226.	*	2	1006	1024	104.	*	2	2236	1399	31.
1	0908	275	55.	*	1	2138	650	226.	*	2	1008	1025	104.	*	2	2238	1400	31.
1	0910	276	55.	*	1	2140	651	225.	*	2	1010	1026	103.	*	2	2240	1401	31.
1	0912	277	55.	*	1	2142	652	224.	*	2	1012	1027	103.	*	2	2242	1402	31.
1	0914	278	56.	*	1	2144	653	224.	*	2	1014	1028	103.	*	2	2244	1403	31.
1	0916	279	56.	*	1	2146	654	223.	*	2	1016	1029	103.	*	2	2246	1404	31.
1	0918	280	56.	*	1	2148	655	222.	*	2	1018	1030	103.	*	2	2248	1405	31.
1	0920	281	56.	*	1	2150	656	222.	*	2	1020	1031	103.	*	2	2250	1406	31.
1	0922	282	57.	*	1	2152	657	221.	*	2	1022	1032	102.	*	2	2252	1407	31.
1	0924	283	57.	*	1	2154	658	220.	*	2	1024	1033	102.	*	2	2254	1408	31.
1	0926	284	57.	*	1	2156	659	220.	*	2	1026	1034	102.	*	2	2256	1409	31.
1	0928	285	58.	*	1	2158	660	219.	*	2	1028	1035	102.	*	2	2258	1410	31.
1	0930	286	58.	*	1	2200	661	219.	*	2	1030	1036	102.	*	2	2300	1411	31.
1	0932	287	58.	*	1	2202	662	218.	*	2	1032	1037	102.	*	2	2302	1412	31.
1	0934	288	59.	*	1	2204	663	218.	*	2	1034	1038	101.	*	2	2304	1413	31.
1	0936	289	59.	*	1	2206	664	217.	*	2	1036	1039	101.	*	2	2306	1414	31.
1	0938	290	59.	*	1	2208	665	216.	*	2	1038	1040	101.	*	2	2308	1415	31.
1	0940	291	60.	*	1	2210	666	216.	*	2	1040	1041	101.	*	2	2310	1416	31.
1	0942	292	60.	*	1	2212	667	215.	*	2	1042	1042	101.	*	2	2312	1417	30.
1	0944	293	60.	*	1	2214	668	215.	*	2	1044	1043	101.	*	2	2314	1418	30.
1	0946	294	61.	*	1	2216	669	214.	*	2	1046	1044	100.	*	2	2316	1419	30.
1	0948	295	61.	*	1	2218	670	214.	*	2	1048	1045	100.	*	2	2318	1420	30.
1	0950	296	61.	*	1	2220	671	213.	*	2	1050	1046	100.	*	2	2320	1421	30.
1	0952	297	62.	*	1	2222	672	213.	*	2	1052	1047	100.	*	2	2322	1422	30.
1	0954	298	62.	*	1	2224	673	212.	*	2	1054	1048	100.	*	2	2324	1423	30.
1	0956	299	62.	*	1	2226	674	212.	*	2	1056	1049	100.	*	2	2326	1424	30.
1	0958	300	63.	*	1	2228	675	212.	*	2	1058	1050	100.	*	2	2328	1425	30.
1	1000	301	63.	*	1	2230	676	211.	*	2	1100	1051	99.	*	2	2330	1426	30.
1	1002	302	63.	*	1	2232	677	211.	*	2	1102	1052	99.	*	2	2332	1427	30.
1	1004	303	64.	*	1	2234	678	210.	*	2	1104	1053	99.	*	2	2334	1428	30.
1	1006	304	64.	*	1	2236	679	210.	*	2	1106	1054	99.	*	2	2336	1429	30.
1	1008	305	65.	*	1	2238	680	209.	*	2	1108	1055	99.	*	2	2338	1430	30.
1	1010	306	65.	*	1	2240	681	209.	*	2	1110	1056	99.	*	2	2340	1431	30.
1	1012	307	65.	*	1	2242	682	209.	*	2	1112	1057	99.	*	2	2342	1432	30.
1	1014	308	66.	*	1	2244	683	208.	*	2	1114	1058	99.	*	2	2344	1433	30.
1	1016	309	66.	*	1	2246	684	208.	*	2	1116	1059	98.	*	2	2346	1434	30.
1	1018	310	67.	*	1	2248	685	207.	*	2	1118	1060	98.	*	2	2348	1435	30.
1	1020	311	67.	*	1	2250	686	207.	*	2	1120	1061	98.	*	2	2350	1436	30.
1	1022	312	68.	*	1	2252	687	207.	*	2	1122	1062	98.	*	2	2352	1437	30.
1	1024	313	68.	*	1	2254	688	206.	*	2	1124	1063	98.	*	2	2354	1438	30.
1	1026	314	69.	*	1	2256	689	206.	*	2	1126	1064	98.	*	2	2356	1439	29.
1	1028	315	69.	*	1	2258	690	205.	*	2	1128	1065	98.	*	2	2358	1440	29.
1	1030	316	70.	*	1	2300	691	205.	*	2	1130	1066	98.	*	3	0000	1441	29.
1	1032	317	70.	*	1	2302	692	205.	*	2	1132	1067	97.	*	3	0002	1442	29.
1	1034	318	71.	*	1	2304	693	204.	*	2	1134	1068	97.	*	3	0004	1443	29.
1	1036	319	71.	*	1	2306	694	204.	*	2	1136	1069	97.	*	3	0006	1444	29.
1	1038	320	72.	*	1	2308	695	203.	*	2	1138	1070	97.	*	3	0008	1445	29.
1	1040	321	72.	*	1	2310	696	203.	*	2	1140	1071	97.	*	3	0010	1446	29.
1	1042	322	73.	*	1	2312	697	203.	*	2	1142	1072	97.	*	3	0012	1447	29.
1	1044	323	74.	*	1	2314	698	202.	*	2	1144	1073	97.	*	3	0014	1448	29.
1	1046	324	74.	*	1	2316	699	202.	*	2	1146	1074	97.	*	3	0016	1449	29.
1	1048	325	75.	*	1	2318	700	202.	*	2	1148	1075	96.	*	3	0018	1450	29.
1	1050	326	75.	*	1	2320	701	201.	*	2	1150	1076	96.	*	3	0020	1451	29.
1	1052	327	76.	*	1	2322	702	201.	*	2	1152	1077	96.	*	3	0022	1452	29.
1	1054	328	76.	*	1	2324	703	200.	*	2	1154	1078	96.	*	3	0024	1453	29.
1	1056	329	77.	*	1	2326	704	200.	*	2	1156	1079	96.	*	3	0026	1454	29.
1	1058	330	78.	*	1	2328	705	200.	*	2	1158	1080	96.	*	3	0028	1455	29.
1	1100	331	78.	*	1	2330	706	199.	*	2	1200	1081	96.	*	3	0030	1456	29.

1	1102	332	79.	*	1	2332	707	199.	*	2	1202	1082	96.	*	3	0032	1457	29.
1	1104	333	79.	*	1	2334	708	199.	*	2	1204	1083	96.	*	3	0034	1458	29.
1	1106	334	80.	*	1	2336	709	198.	*	2	1206	1084	96.	*	3	0036	1459	29.
1	1108	335	80.	*	1	2338	710	198.	*	2	1208	1085	95.	*	3	0038	1460	29.
1	1110	336	81.	*	1	2340	711	198.	*	2	1210	1086	95.	*	3	0040	1461	29.
1	1112	337	82.	*	1	2342	712	197.	*	2	1212	1087	95.	*	3	0042	1462	29.
1	1114	338	82.	*	1	2344	713	197.	*	2	1214	1088	95.	*	3	0044	1463	28.
1	1116	339	83.	*	1	2346	714	197.	*	2	1216	1089	95.	*	3	0046	1464	28.
1	1118	340	83.	*	1	2348	715	197.	*	2	1218	1090	95.	*	3	0048	1465	28.
1	1120	341	84.	*	1	2350	716	196.	*	2	1220	1091	95.	*	3	0050	1466	28.
1	1122	342	84.	*	1	2352	717	196.	*	2	1222	1092	95.	*	3	0052	1467	28.
1	1124	343	85.	*	1	2354	718	196.	*	2	1224	1093	95.	*	3	0054	1468	28.
1	1126	344	86.	*	1	2356	719	195.	*	2	1226	1094	94.	*	3	0056	1469	28.
1	1128	345	86.	*	1	2358	720	195.	*	2	1228	1095	94.	*	3	0058	1470	28.
1	1130	346	87.	*	2	0000	721	195.	*	2	1230	1096	94.	*	3	0100	1471	28.
1	1132	347	87.	*	2	0002	722	194.	*	2	1232	1097	94.	*	3	0102	1472	28.
1	1134	348	88.	*	2	0004	723	194.	*	2	1234	1098	94.	*	3	0104	1473	28.
1	1136	349	88.	*	2	0006	724	194.	*	2	1236	1099	94.	*	3	0106	1474	28.
1	1138	350	89.	*	2	0008	725	194.	*	2	1238	1100	94.	*	3	0108	1475	28.
1	1140	351	90.	*	2	0010	726	193.	*	2	1240	1101	94.	*	3	0110	1476	28.
1	1142	352	90.	*	2	0012	727	193.	*	2	1242	1102	94.	*	3	0112	1477	28.
1	1144	353	91.	*	2	0014	728	193.	*	2	1244	1103	94.	*	3	0114	1478	28.
1	1146	354	91.	*	2	0016	729	192.	*	2	1246	1104	94.	*	3	0116	1479	28.
1	1148	355	92.	*	2	0018	730	192.	*	2	1248	1105	93.	*	3	0118	1480	28.
1	1150	356	92.	*	2	0020	731	192.	*	2	1250	1106	93.	*	3	0120	1481	28.
1	1152	357	93.	*	2	0022	732	191.	*	2	1252	1107	93.	*	3	0122	1482	28.
1	1154	358	94.	*	2	0024	733	191.	*	2	1254	1108	93.	*	3	0124	1483	28.
1	1156	359	94.	*	2	0026	734	191.	*	2	1256	1109	93.	*	3	0126	1484	28.
1	1158	360	95.	*	2	0028	735	190.	*	2	1258	1110	93.	*	3	0128	1485	28.
1	1200	361	95.	*	2	0030	736	190.	*	2	1300	1111	93.	*	3	0130	1486	28.
1	1202	362	96.	*	2	0032	737	190.	*	2	1302	1112	93.	*	3	0132	1487	27.
1	1204	363	97.	*	2	0034	738	189.	*	2	1304	1113	93.	*	3	0134	1488	27.
1	1206	364	97.	*	2	0036	739	189.	*	2	1306	1114	93.	*	3	0136	1489	27.
1	1208	365	98.	*	2	0038	740	189.	*	2	1308	1115	93.	*	3	0138	1490	27.
1	1210	366	99.	*	2	0040	741	188.	*	2	1310	1116	92.	*	3	0140	1491	27.
1	1212	367	99.	*	2	0042	742	188.	*	2	1312	1117	92.	*	3	0142	1492	27.
1	1214	368	100.	*	2	0044	743	188.	*	2	1314	1118	92.	*	3	0144	1493	27.
1	1216	369	102.	*	2	0046	744	187.	*	2	1316	1119	92.	*	3	0146	1494	27.
1	1218	370	104.	*	2	0048	745	187.	*	2	1318	1120	92.	*	3	0148	1495	27.
1	1220	371	107.	*	2	0050	746	187.	*	2	1320	1121	92.	*	3	0150	1496	27.
1	1222	372	113.	*	2	0052	747	186.	*	2	1322	1122	92.	*	3	0152	1497	27.
1	1224	373	123.	*	2	0054	748	186.	*	2	1324	1123	92.	*	3	0154	1498	27.
1	1226	374	150.	*	2	0056	749	186.	*	2	1326	1124	92.	*	3	0156	1499	27.
1	1228	375	191.	*	2	0058	750	185.	*	2	1328	1125	92.	*	3	0158	1500	27.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)	(CFS)				
+ 8400.	13.07		2403.	729.	375.	375.
		(INCHES)	2.026	2.459	2.630	2.630
		(AC-FT)	1192.	1446.	1547.	1547.

CUMULATIVE AREA = 11.03 SQ MI

+	8867.	13.40	(CFS)	2494.	789.	409.	409.
			(INCHES)	8.166	10.339	11.157	11.157
			(AC-FT)	1237.	1566.	1690.	1690.

CUMULATIVE AREA = 2.84 SQ MI

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HYDROGRAPH AT STATION 500C
TRANSPOSITION AREA 150.0 SQ MI

	PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+	(CFS)	(HR)					
			(CFS)				
+	8852.	13.43		2451.	773.	401.	401.
			(INCHES)	8.023	10.126	10.932	10.932
			(AC-FT)	1215.	1534.	1656.	1656.

CUMULATIVE AREA = 2.84 SQ MI

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HYDROGRAPH AT STATION 500C
TRANSPOSITION AREA 300.0 SQ MI

	PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+	(CFS)	(HR)					
			(CFS)				
+	8820.	13.47		2351.	737.	383.	383.
			(INCHES)	7.696	9.653	10.433	10.433
			(AC-FT)	1166.	1462.	1580.	1580.

CUMULATIVE AREA = 2.84 SQ MI

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HYDROGRAPH AT STATION 500C
TRANSPOSITION AREA 500.0 SQ MI

	PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+	(CFS)	(HR)					
			(CFS)				
+	8748.	13.47		2248.	705.	367.	367.
			(INCHES)	7.360	9.238	9.995	9.995
			(AC-FT)	1115.	1399.	1514.	1514.

CUMULATIVE AREA = 2.84 SQ MI

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INTERPOLATED HYDROGRAPH AT 500C

	PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+	(CFS)	(HR)					
			(CFS)				
+	9017.	13.27		2948.	945.	499.	499.
			(INCHES)	9.652	12.370	13.614	13.614
			(AC-FT)	1462.	1874.	2062.	2062.

CUMULATIVE AREA = 2.84 SQ MI

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	20	1130.	12.57	243.	64.	31.	1.82		
+	HYDROGRAPH AT	40	2286.	12.27	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1405.	12.37	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	4438.	12.30	712.	189.	91.	5.80		
+	DIVERSION TO	60D	2788.	12.30	241.	60.	29.	5.80		
+	HYDROGRAPH AT	D60	1650.	12.00	471.	129.	62.	5.80		
+	HYDROGRAPH AT	RT60D	2788.	12.30	241.	60.	29.	5.80		
+	ROUTED TO	SR60D	49.	12.90	44.	34.	21.	5.80		
+	2 COMBINED AT	C60D	1699.	12.90	505.	155.	83.	5.80		
+	ROUTED TO	60R	1693.	12.90	504.	155.	83.	5.80		
+	ROUTED TO	R60	1691.	12.90	504.	155.	83.	5.80		
+	ROUTED TO	RR60	1689.	12.93	503.	155.	82.	5.80		
+	HYDROGRAPH AT	80	1693.	12.20	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	2866.	12.30	685.	202.	106.	1.48		
+	ROUTED TO	R80	2854.	12.30	685.	202.	106.	1.48		
+	HYDROGRAPH AT	100	389.	12.33	58.	15.	7.	.48		
+	2 COMBINED AT	100C	3227.	12.33	739.	216.	113.	1.96		
+	ROUTED TO	R100	3229.	12.33	739.	216.	113.	1.96		
+	HYDROGRAPH AT	120	2960.	12.20	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	5907.	12.27	1051.	299.	154.	4.16		
+	ROUTED TO	R120	5870.	12.30	1051.	299.	154.	4.16		
+	HYDROGRAPH AT	140	598.	12.23	64.	17.	8.	.60		
+	HYDROGRAPH AT	160	588.	12.30	85.	22.	11.	.78		
+	HYDROGRAPH AT	180	694.	12.33	90.	23.	11.	1.00		
+	4 COMBINED AT	180C	7606.	12.30	1276.	356.	181.	6.54		
+	HYDROGRAPH AT	240	770.	12.30	107.	27.	13.	1.04		
+	ROUTED TO	R240	760.	12.37	107.	27.	13.	1.04		
+	HYDROGRAPH AT	220	1427.	12.23	167.	43.	21.	1.25		
+	2 COMBINED AT	220C	2088.	12.27	271.	69.	33.	2.29		
+	ROUTED TO	R220	2057.	12.30	271.	69.	33.	2.29		
+	HYDROGRAPH AT	200	2059.	12.23	236.	65.	31.	1.81		
+	2 COMBINED AT	200C	3995.	12.27	501.	132.	64.	4.10		
+	ROUTED TO	R200	3967.	12.30	501.	132.	64.	4.10		
+	2 COMBINED AT	C180	11440.	12.30	1755.	482.	242.	10.64		
+	DIVERSION TO	180D	2940.	12.30	118.	29.	14.	10.64		

+ HYDROGRAPH AT	D180	8500.	12.17	1638.	452.	228.	10.64
+ HYDROGRAPH AT	RT180	2940.	12.30	118.	29.	14.	10.64
+ ROUTED TO	SR180D	57.	12.50	46.	25.	13.	10.64
+ 2 COMBINED AT	C180D	8556.	12.47	1678.	475.	242.	10.64
+ ROUTED TO	180R	8547.	12.47	1677.	475.	241.	10.64
+ ROUTED TO	R180	8545.	12.50	1677.	475.	241.	10.64
+ HYDROGRAPH AT	260	401.	12.17	43.	12.	6.	.27
+ 2 COMBINED AT	260C	8756.	12.37	1785.	510.	260.	.27
+ ROUTED TO	R260	8751.	12.43	1784.	510.	260.	.27
+ HYDROGRAPH AT	280	452.	12.13	42.	12.	6.	.30
+ 2 COMBINED AT	280C	8931.	12.37	1810.	517.	263.	.57
+ ROUTED TO	R280	8916.	12.43	1810.	517.	263.	.57
+ HYDROGRAPH AT	300	824.	12.30	109.	29.	14.	.99
+ 2 COMBINED AT	300C	9662.	12.40	1898.	539.	273.	1.56
+ ROUTED TO	R300	9640.	12.43	1897.	539.	273.	1.56
+ ROUTED TO	RR300	9617.	12.50	1895.	539.	273.	1.56
+ HYDROGRAPH AT	320	889.	12.43	171.	47.	22.	1.53
+ DIVERSION TO	BS320	390.	12.07	21.	6.	3.	1.53
+ HYDROGRAPH AT	D320	889.	12.43	157.	41.	19.	1.53
+ HYDROGRAPH AT	RT320	390.	12.07	21.	6.	3.	1.53
+ ROUTED TO	SR320	4.	4.40	4.	4.	3.	1.53
+ 3 COMBINED AT	C320	10470.	12.50	2041.	578.	293.	3.09
+ ROUTED TO	R320	10260.	12.70	2032.	578.	292.	3.09
+ HYDROGRAPH AT	340	1381.	12.27	186.	55.	26.	1.45
+ DIVERSION TO	BS340	1381.	12.27	104.	28.	14.	1.45
+ HYDROGRAPH AT	D340	1219.	12.40	98.	27.	13.	1.45
+ HYDROGRAPH AT	RT340	1381.	12.27	104.	28.	14.	1.45
+ ROUTED TO	SR340	19.	9.03	19.	19.	14.	1.45
+ 3 COMBINED AT	C340	10771.	12.70	2136.	620.	317.	4.53
+ ROUTED TO	R340	10692.	12.77	2132.	620.	317.	4.53
+ HYDROGRAPH AT	350	1102.	12.17	103.	27.	13.	.97
+ ROUTED TO	RR350	941.	12.57	103.	27.	13.	.97
+ HYDROGRAPH AT	360	668.	12.50	151.	42.	20.	1.33
+ DIVERSION TO	BS360	655.	12.43	53.	14.	7.	1.33
+ HYDROGRAPH AT	D360	657.	12.57	106.	28.	13.	1.33
+ HYDROGRAPH AT	RT360	655.	12.43	53.	14.	7.	1.33
+ ROUTED TO	SR360	10.	9.47	10.	10.	7.	1.33
+ 4 COMBINED AT	360C	11940.	12.73	2330.	679.	347.	6.83

+	ROUTED TO	R360	11822.	12.80	2326.	679.	347.	6.83
+	HYDROGRAPH AT	380	821.	12.50	175.	48.	23.	1.64
+	DIVERSION TO	BS380	779.	12.40	54.	14.	7.	1.64
+	HYDROGRAPH AT	D380	821.	12.50	128.	33.	16.	1.64
+	HYDROGRAPH AT	RT380	779.	12.40	54.	14.	7.	1.64
+	ROUTED TO	SR380	10.	10.30	10.	10.	7.	1.64
+	3 COMBINED AT	380C	12434.	12.80	2452.	719.	368.	8.47
+	ROUTED TO	R380	12186.	12.93	2442.	718.	368.	8.47
+	HYDROGRAPH AT	390	1179.	12.20	144.	40.	19.	1.09
+	DIVERSION TO	BS390	7.	8.13	6.	2.	1.	1.09
+	HYDROGRAPH AT	D390	1179.	12.20	144.	38.	18.	1.09
+	HYDROGRAPH AT	RT390	7.	8.13	6.	2.	1.	1.09
+	ROUTED TO	SR390	1.	.50	1.	1.	1.	1.09
+	2 COMBINED AT	390C	1180.	12.20	145.	40.	19.	1.09
+	ROUTED TO	RR390	1102.	12.40	145.	40.	19.	1.09
+	HYDROGRAPH AT	400	333.	12.37	47.	13.	6.	.62
+	3 COMBINED AT	400C	12641.	12.93	2592.	766.	391.	10.18
+	ROUTED TO	R400	12364.	13.03	2586.	766.	391.	10.18
+	HYDROGRAPH AT	420	710.	12.30	92.	26.	12.	.85
+	DIVERSION TO	BS420	710.	12.30	74.	19.	9.	.85
+	HYDROGRAPH AT	D420	219.	12.80	23.	7.	3.	.85
+	HYDROGRAPH AT	RT420	710.	12.30	74.	19.	9.	.85
+	ROUTED TO	SR420	19.	12.80	17.	12.	8.	.85
+	3 COMBINED AT	420C	12442.	13.03	2611.	779.	399.	11.03
+	ROUTED TO	R420	12230.	13.13	2605.	779.	399.	11.03
+	DIVERSION TO	420D	3830.	13.13	198.	50.	24.	11.03
+	HYDROGRAPH AT	DD420	8400.	13.07	2407.	730.	375.	11.03
+	HYDROGRAPH AT	RT420D	3830.	13.13	198.	50.	24.	11.03
+	ROUTED TO	SR420D	34.	13.07	34.	34.	24.	11.03
+	2 COMBINED AT	C420D	8434.	13.07	2439.	763.	399.	11.03
+	HYDROGRAPH AT	440	179.	12.00	12.	3.	2.	.08
+	ROUTED TO	R70	174.	12.03	12.	3.	2.	.08
+	HYDROGRAPH AT	441	16.	12.07	1.	0.	0.	.01
+	2 COMBINED AT	C108	189.	12.03	14.	4.	2.	.09
+	DIVERSION TO	SPLIT	95.	12.03	7.	2.	1.	.09
+	HYDROGRAPH AT	DIV4	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	R108	87.	12.10	7.	2.	1.	.09
+	HYDROGRAPH AT	442	99.	12.13	9.	2.	1.	.10

+	2 COMBINED AT	C67	183.	12.13	15.	4.	2.	.19
+	DIVERSION TO	BASIN4	115.	12.13	6.	1.	1.	.19
+	HYDROGRAPH AT	DIV6	68.	12.13	10.	3.	1.	.19
+	HYDROGRAPH AT	RTDIV6	115.	12.13	6.	1.	1.	.19
+	ROUTED TO	RFDIV6	1.	11.93	1.	1.	1.	.19
+	2 COMBINED AT	CDIV6	69.	12.13	11.	4.	2.	.19
+	HYDROGRAPH AT	443	146.	12.07	14.	4.	2.	.08
+	DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	DIV66	68.	12.07	3.	1.	0.	.08
+	ROUTED TO	R113	66.	12.10	3.	1.	0.	.08
+	2 COMBINED AT	C114	133.	12.10	13.	4.	2.	.27
+	HYDROGRAPH AT	444	81.	12.00	5.	1.	1.	.04
+	ROUTED TO	R58	78.	12.07	5.	1.	1.	.04
+	HYDROGRAPH AT	445	288.	12.07	18.	5.	2.	.19
+	2 COMBINED AT	C107	363.	12.07	22.	6.	3.	.23
+	ROUTED TO	R107	362.	12.07	22.	6.	3.	.23
+	HYDROGRAPH AT	RTB2	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	RSPLIT	94.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT	446	64.	12.07	6.	2.	1.	.04
+	3 COMBINED AT	C109	516.	12.07	35.	9.	4.	.27
+	DIVERSION TO	WSH404	35.	11.73	7.	2.	1.	.27
+	HYDROGRAPH AT	DIV5	481.	12.07	27.	7.	3.	.27
+	ROUTED TO	R109	469.	12.10	27.	7.	3.	.27
+	HYDROGRAPH AT	447	135.	12.07	12.	4.	2.	.09
+	HYDROGRAPH AT	RT404	35.	11.73	7.	2.	1.	.27
+	ROUTED TO	R404	35.	11.90	7.	2.	1.	.27
+	3 COMBINED AT	C110	631.	12.10	46.	13.	6.	.36
+	ROUTED TO	R110	632.	12.10	46.	13.	6.	.36
+	2 COMBINED AT	C115	759.	12.10	59.	17.	8.	.63
+	ROUTED TO	R115	758.	12.10	59.	17.	8.	.63
+	HYDROGRAPH AT	448	87.	12.03	6.	2.	1.	.05
+	HYDROGRAPH AT	449	77.	12.03	5.	1.	1.	.05
+	2 COMBINED AT	C6364	163.	12.03	11.	3.	1.	.09
+	ROUTED TO	R6364	140.	12.20	11.	3.	1.	.09
+	HYDROGRAPH AT	450	58.	12.17	6.	2.	1.	.07
+	HYDROGRAPH AT	451	17.	12.17	2.	1.	0.	.03
+	HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	452	61.	12.07	4.	1.	1.	.04

+	2 COMBINED AT	C6566	139.	12.07	16.	4.	2.	.04
+	ROUTED TO	R6566	134.	12.13	16.	4.	2.	.04
+	4 COMBINED AT	C116	340.	12.17	35.	9.	4.	.23
+	ROUTED TO	BASIN5	153.	12.47	35.	9.	4.	.23
+	ROUTED TO	R116	152.	12.53	35.	9.	4.	.23
+	HYDROGRAPH AT	453	60.	12.13	7.	2.	1.	.06
+	2 COMBINED AT	C117	173.	12.50	41.	11.	5.	.29
+	2 COMBINED AT	C118	837.	12.10	99.	28.	14.	.92
+	ROUTED TO	R118	833.	12.13	99.	28.	14.	.92
+	DIVERSION TO	BASIN6	207.	12.13	12.	3.	1.	.92
+	HYDROGRAPH AT	DIV7	626.	12.13	86.	25.	12.	.92
+	HYDROGRAPH AT	RTDIV7	207.	12.13	12.	3.	1.	.92
+	ROUTED TO	RFDIV7	1.	11.93	1.	1.	1.	.92
+	2 COMBINED AT	CDIV7	627.	12.13	87.	25.	13.	.92
+	HYDROGRAPH AT	454	152.	12.23	21.	6.	3.	.18
+	2 COMBINED AT	C119	761.	12.13	107.	31.	16.	1.10
+	ROUTED TO	R454	676.	12.40	107.	31.	16.	1.10
+	HYDROGRAPH AT	455	1541.	12.23	198.	59.	28.	1.56
+	DIVERSION TO	BS455	1541.	12.23	139.	37.	18.	1.56
+	HYDROGRAPH AT	D455	893.	12.50	77.	22.	10.	1.56
+	HYDROGRAPH AT	RT455	1541.	12.23	139.	37.	18.	1.56
+	ROUTED TO	SR455	25.	9.73	25.	25.	18.	1.56
+	2 COMBINED AT	C455	918.	12.50	102.	47.	28.	1.56
+	3 COMBINED AT	455C	8863.	13.07	2591.	828.	436.	13.68
+	ROUTED TO	RR455	8797.	13.27	2587.	828.	436.	13.68
+	HYDROGRAPH AT	456	458.	12.07	36.	10.	5.	.26
+	DIVERSION TO	BASIN1	198.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV1	259.	12.07	28.	8.	4.	.26
+	DIVERSION TO	WA30	65.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV2	195.	12.07	20.	6.	3.	.26
+	ROUTED TO	R456	191.	12.17	20.	6.	3.	.26
+	HYDROGRAPH AT	457	254.	12.10	20.	5.	3.	.19
+	2 COMBINED AT	C101	438.	12.10	40.	11.	5.	.45
+	DIVERSION TO	BASIN2	136.	12.10	8.	2.	1.	.45
+	HYDROGRAPH AT	DIV3	302.	12.10	32.	9.	4.	.45
+	HYDROGRAPH AT	RTDIV3	136.	12.10	8.	2.	1.	.45
+	ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+	2 COMBINED AT	CDIV3	304.	12.10	33.	10.	5.	.45

+	ROUTED TO R101	301.	12.13	33.	10.	5.	.45
+	HYDROGRAPH AT 458	347.	12.07	25.	7.	3.	.19
+	2 COMBINED AT C103	625.	12.07	58.	16.	8.	.64
+	ROUTED TO R103	624.	12.10	58.	16.	8.	.64
+	HYDROGRAPH AT RT30	65.	12.07	8.	2.	1.	.26
+	ROUTED TO R30	64.	12.10	8.	2.	1.	.26
+	HYDROGRAPH AT RTB1	198.	12.07	8.	2.	1.	.26
+	ROUTED TO B1	36.	12.23	7.	2.	1.	.26
+	ROUTED TO RB1	36.	12.30	7.	2.	1.	.26
+	2 COMBINED AT CDIV	94.	12.23	15.	4.	2.	.12
+	HYDROGRAPH AT 459	43.	12.07	3.	1.	0.	.03
+	2 COMBINED AT C52	118.	12.17	18.	5.	2.	.15
+	ROUTED TO R52	116.	12.20	18.	5.	2.	.15
+	HYDROGRAPH AT 460	205.	12.10	19.	6.	3.	.14
+	2 COMBINED AT C102	310.	12.10	37.	11.	5.	.29
+	ROUTED TO BASIN3	75.	12.60	37.	11.	5.	.29
+	ROUTED TO R3	75.	12.73	37.	11.	5.	.29
+	HYDROGRAPH AT 461	156.	12.13	17.	5.	2.	.12
+	2 COMBINED AT C104	216.	12.13	53.	16.	7.	.41
+	2 COMBINED AT C106	833.	12.10	110.	32.	16.	1.05
+	ROUTED TO R106	799.	12.17	110.	32.	16.	1.05
+	HYDROGRAPH AT 462	523.	12.07	40.	11.	5.	.30
+	2 COMBINED AT C56	1238.	12.13	149.	42.	21.	1.35
+	HYDROGRAPH AT 480	991.	12.13	96.	29.	14.	.73
+	DIVERSION TO BS480	458.	11.93	27.	8.	4.	.73
+	HYDROGRAPH AT D480	991.	12.13	78.	21.	10.	.73
+	HYDROGRAPH AT RT480	458.	11.93	27.	8.	4.	.73
+	ROUTED TO SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT C480	997.	12.13	84.	27.	14.	.73
+	3 COMBINED AT 480C	8968.	13.23	2852.	919.	486.	2.09
+	ROUTED TO RR480	8952.	13.30	2851.	918.	486.	2.09
+	HYDROGRAPH AT 500	988.	12.23	122.	33.	16.	.93
+	2 COMBINED AT 500C	9019.	13.27	2952.	946.	500.	2.84

*** NORMAL END OF HEC-1 ***

NSTEP Estimation for Spook Hill ADMP 100-YR, 24hr Bipass Conditions + 5' FRS Detention

Trial 1

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
60R	6600	0.03	61.11	4.0	0.9
R60	2850	0.01	79.17	1.0	0.3
RR60	3500	0.03	32.41	1.0	0.9
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.01	58.33	1.0	0.3
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
180R	4400	0.03	40.74	1.0	0.9
R180	1500	0.01	41.67	1.0	0.3
R260	2300	0.06	10.65	1.0	1.8
R280	2500	0.07	9.92	1.0	2.1
R300	2200	0.04	15.28	1.0	1.2
RR300	6050	0.06	28.01	1.0	1.8
R320	6800	0.2	9.44	5.0	6.0
R340	2000	0.1	5.56	1.0	3.0
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.06	12.04	2.0	1.8
R380	4000	0.14	7.94	2.0	4.2
RR390	14890	0.2	20.68	6.0	6.0
R400	3800	0.13	8.12	2.0	3.9
R420	2900	0.07	11.51	2.0	2.1
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.1	3.61	2.0	3.0
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.26	9.83	3.0	7.8
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.16	2.99	2.0	4.8
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.03	60.19	2.0	0.9

Trial 2

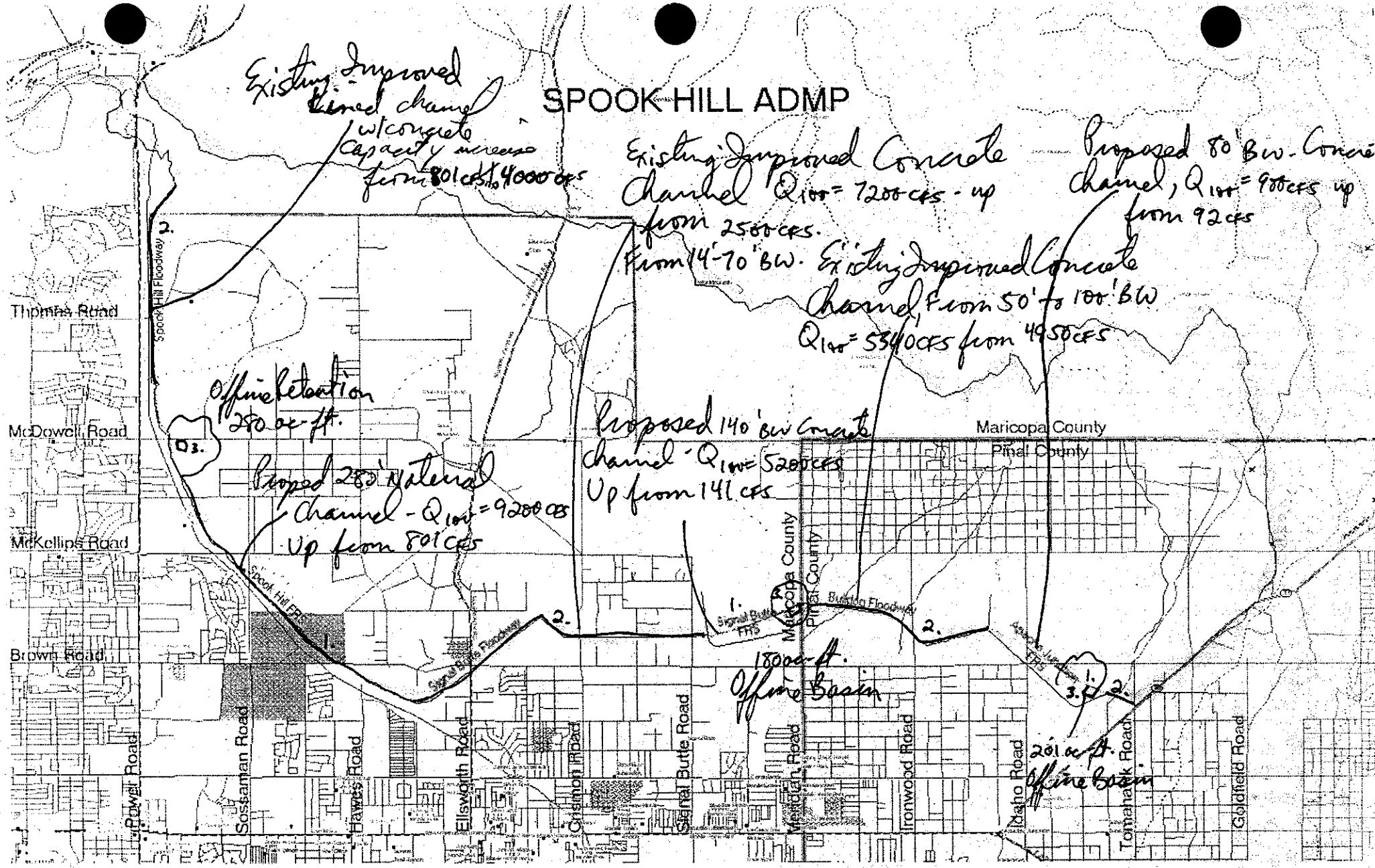
$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
60R	6600	0.03	61.11	1.0	0.9
R60	2850	0.01	79.17	1.0	0.3
RR60	3500	0.03	32.41	1.0	0.9
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.01	58.33	1.0	0.3
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
180R	4400	0.03	40.74	1.0	0.9
R180	1500	0.01	41.67	1.0	0.3
R260	2300	0.06	10.65	2.0	1.8
R280	2500	0.06	11.57	2.0	1.8
R300	2200	0.07	8.73	1.0	2.1
RR300	6050	0.03	56.02	2.0	0.9
R320	6800	0.2	9.44	6.0	6.0
R340	2000	0.03	18.52	3.0	0.9
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.1	11.11	4.0	3.0
RR390	14890	0.2	20.68	6.0	6.0
R400	3800	0.14	7.54	4.0	4.2
R420	2900	0.1	8.06	3.0	3.0
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.1	3.61	3.0	3.0
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.16	15.97	8.0	4.8
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	5.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.07	25.79	1.0	2.1

Trial 3

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
60R	6600	0.01	183.33	1.0	0.3
R60	2850	0.01	79.17	1.0	0.3
RR60	3500	0.03	32.41	1.0	0.9
R80	1200	0.01	33.33	1.0	0.3
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.03	19.44	1.0	0.9
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
180R	4400	0.01	122.22	1.0	0.3
R180	1500	0.03	13.89	1.0	0.9
R260	2300	0.06	10.65	2.0	1.8
R280	2500	0.06	11.57	2.0	1.8
R300	2200	0.03	20.37	2.0	0.9
RR300	6050	0.06	28.01	2.0	1.8
R320	6800	0.2	9.44	6.0	6.0
R340	2000	0.07	7.94	2.0	2.1
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.07	10.32	3.0	2.1
R380	4000	0.13	8.55	4.0	3.9
RR390	14890	0.2	20.68	6.0	6.0
R400	3800	0.1	10.56	4.0	3.0
R420	2900	0.1	8.06	3.0	3.0
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.1	3.61	3.0	3.0
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.2	12.78	6.0	6.0
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.04	45.14	2.0	1.2



1. Proposed Channel
2. Existing Improved Channel
3. Offline Retention

HEC-1 Existing Conditions 100-Year, 24hr Storm
FRS Storage of all Q100 for max. Spook Hill Floodway

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1****************************************                    ****************************************
*                                      *                    *                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *   U.S. ARMY CORPS OF ENGINEERS       *
*             JUN  1998                *                    *   HYDROLOGIC ENGINEERING CENTER      *
*           VERSION 4.1                *                    *         609 SECOND STREET            *
*                                      *                    *      DAVIS, CALIFORNIA 95616         *
*  RUN DATE   06JAN00  TIME  17:21:28  *                    *          (916) 756-1104              *
*                                      *                    *                                      *
****************************************                    ****************************************

X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                          HEC-1 INPUT                                          PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS, AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL, SIGNAL
 10           ID   BUTTE, AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE: SPHEX2.DAT
 13           ID
 14           ID   DDM MCUHP1 SPOOK HILL ADMP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
 15           ID
 16           ID   REVISED MODEL BASED ON BYPASSING OF FRS STRUCTURES
 17           ID   AND INCREASING THE EXISTING CHANNELS WIDTHS - MAINTAINING THE SAME DEPTHS
 18           ID   REVISED ON 11/9/99 BY JCD; FILE: SPHEX3.DAT
 19           ID
 20           ID   MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
 21           ID   DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
 22           ID   BY: JCD; 1/4/2000            FILE: SPHEX2RV.DAT
 23           ID
 24           ID   MODEL UPDATE BASED ON BYPASSING OF FRS STRUCTURES AND INCREASING
 25           ID   THE EXISTING CHANNEL WIDTHS WHILE MAINTAINING THE SAME DEPTHS
 26           ID   FILE: SPHEX3RV.DAT           1/4/2000
 27           ID
 28           ID   REVISED MODEL BASED ON USING 5' OF STORAGE WITHIN THE FRS STRUCTURES
 29           ID   AS OFFLINE RETENTION BASINS - VOLUME WAS DETERMINED FROM FRS AS-BUILT
 30           ID   PLANS AND DIVERSIONS WERE PERFORMED FOR THE REMOVAL OF THIS VOLUME
 31           ID   FROM THE PEAK DISCHARGES
 32           ID   REVISED ON 11/11/99 BY JCD; FILE: SPHEX4.DAT
 33           ID   REVISED ON 1/5/2000 BY JCD; FILE: SPHEX4RV.DAT
 34           ID
 35           ID   REDUCE Q100 TO 3700 CFS MAXIMUM OUTFALL FROM SPOOK HILL FRS
 36           ID   LIMITATION IS DUE TO THOMAS ROADWAY CROSSING: 3-12'x 8'RCBCs
 37           ID   MAXIMUM CHANNEL DISCHARGE WITH IMPROVED CONCRETE CHANNEL FOR
 38           ID   SPOOK HILL FLOODWAY = 3700cfs
 39           ID   REVISED ON 11/16/99 BY JCD; FILE: SPHEX5.DAT
 40           ID   REVISED ON 1/6/2000 BY JCD; FILE: SPHEX5RV.DAT
 41           ID
              *DIAGRAM
 42           IT       2                    1500
 43           IO       3
 44           IN      15
 45           JD    3.81    0.01
 46           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 47           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 48           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 49           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 50           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 51           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 52           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 53           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 54           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
1                                          HEC-1 INPUT                                          PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 55           PC    .983    .986    .989    .992    .995    .998   1.000
 56           JD    3.58   10.00
 57           JD    3.43   30.00
 58           JD    3.28   60.00
 59           JD    3.22   90.00
 60           JD    3.18  120.00
 61           JD    3.14  150.00
 62           JD    3.05  300.00
 63           JD    2.97  500.00

 64           KK      20
 65           KM   SUB-BASIN 20
 66           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 67           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
 68           KM     L = 4.58  Kb = .037  Adj. Slope =  118.0
 69           BA   1.821
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 70          LG    .350    .360   6.600    .140   7.000
 71          UC    .804    .697

 72          KK      40
 73          KM   SUB-BASIN 40
 74          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 75          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 76          KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 77          BA   2.233
 78          LG    .340    .340   4.900    .280   5.000
 79          UC    .496    .264

 80          KK      60
 81          KM   SUB-BASIN 60
 82          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 83          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 84          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 85          BA   1.746
 86          LG    .330    .350   5.800    .190   9.000
 87          UC    .596    .477

 88          KK     60C
 89          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 90          HC       3

 91          KK     D60
 92          KM   DIVERT FLOW INTO APACHE JUNCTION FRS - VOLUME = 120 ACRE-FEET
 93          KM   NOW INCREASE DIVERTED FLOW TO 200 ACRE-FEET
 94          KO       1
 95          DT     60D
 96          DI       0     800    5000
 97          DQ       0       0    4200
1                                        HEC-1 INPUT                                                    PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 98          KK   RT60D
 99          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
100          DR     60D

101          KK   SR60D
102          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
103          KM     120 ACRE-FEETx43560/36x3600=40cfs
104          KO       1       2
105          RS       1    STOR       0
106          SV       0     200
107          SQ       0     100

108          KK    C60D
109          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
110          HC       2

111          KK     60R
112          KM   ROUTE FLOW PAST APACHE JUNCTION FRS
113          RS       2    FLOW      -1
114          RC    .025    .016    .025    6600   .0025
115          RX       0       4       8     8.1    88.1    88.2   102.2   106.2
116          RY     4.5     2.5     2.5       0       0     2.5     2.5     4.5

117          KK     R60
118          KM   ROUTE FLOW FROM APACHE JUNCTION FRS TO START OF BULLDOG FLOODWAY
119          RS       1    FLOW      -1
120          RC    .016    .016    .016    2850    .012
121          RX       0       1       2     2.1    82.1    82.2      83      84
122          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             *      0       1       2     2.1     5.6     5.7       6       7
             *    3.5     3.5     3.5       0       0     3.5     3.5     3.5

123          KK    RR60
124          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
125          RS       1    FLOW      -1
126          RC    .016    .016    .016    3500    .005
127          RX       0       1       2     2.1   102.1   102.2     103     104
128          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             *      0       1       2     2.1     7.1     7.2       8       9
             *    3.5     3.5     3.5       0       0     3.5     3.5     3.5
             *   SR60
             *  APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
             *  OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
             *  EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
             *  STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
             *      1    STOR       0
             *      0     .03     100     200     300     400
             *      0      71      81      87    91.5      94
             *   83.5    93.5      96    97.7      99   99.77
1                                        HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

129          KK      80
130          KM   SUB-BASIN 80
131          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
132          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
133          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
134          BA   1.475
135          LG    .330    .330   5.600    .210   4.000
136          UC    .433    .259

137          KK     80C
138          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
139          HC       2   1.475

140          KK     R80
141          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
142          RS       1    FLOW      -1
143          RC    .016    .016    .016    1200    .005
144          RX       0       1       2     2.1   102.1   102.2     103     104
145          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             *      0       1       2     2.1    37.1    37.2      38      39
             *    4.5     4.5     4.5       0       0     4.5     4.5     4.5
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146          KK     100
147          KM   SUB-BASIN 100
148          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
149          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
150          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
151          BA    .484
152          LG    .320    .290   5.100    .260   3.000
153          UC    .533    .473

154          KK    100C
155          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
156          HC       2

157          KK    R100
158          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
159          RS       1    FLOW      -1
160          RC    .016    .016    .016     940    .005
161          RX       0       1       2     2.1   102.1   102.2     103     104
162          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             *      0       1       2     2.1    52.1    52.2      53      54
             *    4.5     4.5     4.5       0       0     4.5     4.5     4.5

163          KK     120
164          KM   SUB-BASIN 120
165          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
166          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
167          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
168          BA   2.202
169          LG    .330    .280   6.800    .130  11.000
170          UC    .429    .226
```



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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

171          KK    120C
172          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
173          HC       2

174          KK    R120
175          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
176          RS       1    FLOW      -1
177          RC    .025    .016    .025    2100    .005
178          RX       0       6      10    10.1   110.1   110.2   124.2   128.2
179          RY       8       5       5       0       0       5       5       8
             *      0       6      10    10.1    60.1    60.2    74.2    80.2
             *      8       5       5       0       0       5       5       8

180          KK     140
181          KM   SUB-BASIN 140
182          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
183          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
184          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
185          BA    .598
186          LG    .310    .280   4.200    .440   5.000
187          UC    .421    .278

188          KK     160
189          KM   SUB-BASIN 160
190          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
191          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
192          KM     L = 3.18  Kb = .043  Adj. Slope =  299.2
193          BA    .777
194          LG    .340    .340   4.600    .330   5.000
195          UC    .479    .476

196          KK     180
197          KM   SUB-BASIN 180
198          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
199          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
200          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
201          BA   1.000
202          LG    .350    .350   4.150    .430    .000
203          UC    .571    .403

204          KK    180C
205          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
206          HC       4

207          KK     240
208          KM   SUB-BASIN 240
209          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
210          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
211          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
212          BA   1.036
213          LG    .350    .350   4.600    .330   2.000
214          UC    .500    .458
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

215          KK    R240
216          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
217          KM   PASS MOUNTAIN DIVERSION
218          RS       2    FLOW      -1
219          RC    .035    .025    .035    2100    .005
220          RX       0       1       2      11      41      50      51      52
221          RY       3       3       3       0       0       3       3       3

222          KK     220
223          KM   SUB-BASIN 220
224          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
225          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
226          KM     L = 3.14  Kb = .040  Adj. Slope =  302.1
227          BA   1.252
228          LG    .350    .350   7.000    .120   3.000
229          UC    .425    .315
             * DDM   ***** Preserved *****

230          KK    220C
231          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
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232          HC       2
             * DDM   ***** Preserved *****

233          KK    R220
234          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
235          KM   PASS MOUNTAIN DIVERSION
236          RS       1    FLOW      -1
237          RC    .035    .025    .035    1900    .005
238          RX       0       1       2      14      64      76      77      78
239          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

240          KK     200
241          KM   SUB-BASIN 200
242          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
243          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
244          KM     L = 3.28  Kb = .038  Adj. Slope =  299.9
245          BA   1.811
246          LG    .350    .390   5.800    .190  11.000
247          UC    .433    .270
             * DDM   ***** Preserved *****

248          KK    200C
249          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
250          HC       2
             * DDM   ***** Preserved *****

251          KK    R200
252          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
253          RS       1    FLOW      -1
254          RC    .035    .025    .035    1300    .005
255          RX       0       1       2      14     114     126     127     128
256          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

257          KK    C180
258          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *      1       2
259          HC       2

260          KK    D180
261          KM   DIVERT FLOW INTO SIGNAL BUTTE FRS - VOLUME = 60 ACRE-FEET
262          KM   NOW INCREASE DIVERTED FLOW TO 180 ACRE-FEET
263          KO       1
264          DT    180D
265          DI       0    5100   15000
266          DQ       0       0    9900

267          KK   RT180
268          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
269          DR    180D

270          KK  SR180D
271          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
272          KM      60 ACRE-FEETx43560/36x3600=20cfs
             *      1
273          RS       1    STOR       0
274          SV       0     180
275          SQ       0     105

276          KK   C180D
277          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
278          HC       2
             * DDM   ***** Preserved *****

279          KK    180R
280          KM   ROUTE FLOW THROUGH SIGNAL BUTTE FRS
281          RS       1    FLOW      -1
282          RC    .016    .016    .016    4400   .0034
283          RX       0       1       2     2.1   142.1   142.2     143     144
284          RY     5.5     5.5     5.5       0       0     5.5     5.5     5.5

285          KK    R180
286          KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
287          RS       1    FLOW      -1
288          RC    .035    .025    .035    1500    .003
289          RX       0       1       2    22.6   122.6   142.6     143     144
290          RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
             *      0       1       2    22.6    38.6    59.2      60      61
             *    9.3     9.3     9.3       0       0     9.3     9.3     9.3
             *  SR180
             *  SIGNAL BUTTE FRS DATED 1/28/85
             *  OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
             *  EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
             *  STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
             *      1    STOR       0
             *      0     .04     250     500     750    1060
             *      0   106.5   125.5   137.5     146     160
             *     90     101   104.5     107     109   112.4
             * DDM   ***** Updated *****
1                                          HEC-1 INPUT                                                    PAGE  8

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

291          KK     260
292          KM   SUB-BASIN 260
293          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
294          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
295          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
296          BA    .267
297          LG    .300    .170   6.800    .160  15.000
298          UC    .363    .215
             * DDM   ***** Preserved *****

299          KK    260C
300          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
301          HC       2    .267
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302          KK    R260
303          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
304          RS       2    FLOW      -1
305          RC    .035    .025    .035    2300    .003
306          RX       0       1       2    23.4   123.4   143.4     144     145
307          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             *      0       1       2    23.4    43.4    64.8      65      66
             *    9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****

308          KK     280
309          KM   SUB-BASIN 280
310          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
311          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
312          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
313          BA    .304
314          LG    .300    .250   5.300    .290  15.000
315          UC    .333    .175
             * DDM   ***** Preserved *****

316          KK    280C
317          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
318          HC       2

319          KK    R280
320          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
321          RS       2    FLOW      -1
322          RC    .035    .025    .035    2500    .003
323          RX       0       1       2    23.4   123.4   143.4     144     145
324          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             *      0       1       2    23.4    43.4    64.8      65      66
             *    9.7     9.7     9.7       0       0     9.7     9.7     9.7

325          KK     300
326          KM   SUB-BASIN 300
327          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
328          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
329          KM     L = 2.28  Kb = .041  Adj. Slope =  127.0
330          BA    .988
331          LG    .340    .320   4.500    .370   7.000
1                                        HEC-1 INPUT                                                    PAGE  9

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

332          UC    .538    .362
             * DDM   ***** Preserved *****

333          KK    300C
334          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
335          HC       2

336          KK    R300
337          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
338          RS       2    FLOW      -1
339          RC    .035    .025    .035    2200    .003
340          RX       0       1       2    23.4   143.4   163.4     164     165
341          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             *      0       1       2    23.4    55.4    76.8      77      78
             *    9.7     9.7     9.7       0       0     9.7     9.7     9.7

342          KK   RR300
343          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
344          RS       2    FLOW      -1
345          RC    .016    .016    .016    6050   .0146
346          RX       0       1       2     2.1    72.1    72.2      73      74
347          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
             *      0       1       2     2.1    16.1    16.2      17      18
             *    7.5     7.5     7.5       0       0     7.5     7.5     7.5

348          KK     320
349          KM   SUB-BASIN 320
350          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
351          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
352          KM     L = 4.67  Kb = .039  Adj. Slope =  248.6
             *      1       2
353          BA   1.527
354          LG    .330    .320   4.400    .390   9.000
355          UC    .658    .627

356          KK    D320
357          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
358          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
359          KM   SIERRA HEIGHTS, FALCON RIDGE, & MARBLE CREEK
360          KM       MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *      1
361          DT   BS320   12.27
362          DI       0   10000
363          DQ       0   10000

364          KK   RT320
365          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
366          DR   BS320

367          KK   SR320
368          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
369          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *      1
370          RS       1    STOR       0
371          SV       0     .01    12.3
1                                        HEC-1 INPUT                                                    PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

372          SQ       0     4.2     4.2

373          KK    C320
374          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
375          HC       3

376          KK    R320
377          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
378          RS       7    FLOW      -1
379          RC    .025    .025    .025    6800   .0016
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380          RX       0       1       2      30     250     278     279     280
381          RY       7       7       7       0       0       7       7       7
             *      0       1       2      30      90     118     119     120
             *      7       7       7       0       0       7       7       7

382          KK     340
383          KM   SUB-BASIN 340
384          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
385          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
386          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
387          BA   1.449
388          LG    .280    .280   4.150    .520  21.000
389          UC    .512    .287

390          KK    D340
391          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
392          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
393          KM   GRANDVIEW ESTATES, BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
394          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *      1
395          DT   BS340      56
396          DI       0   10000
397          DQ       0   10000

398          KK   RT340
399          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
400          DR   BS340

401          KK   SR340
402          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
403          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *      1
404          RS       1    STOR       0
405          SV       0     .01      56
406          SQ       0    18.9    18.9

407          KK    C340
408          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
409          HC       3
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

410          KK    R340
411          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
412          RS       2    FLOW      -1
413          RC    .025    .025    .025    2000   .0016
414          RX       0       1       2      30     270     298     299     300
415          RY       7       7       7       0       0       7       7       7
             *      0       1       2      30     114     142     143     144
             *      7       7       7       0       0       7       7       7

416          KK     350
417          KM   SUB-BASIN 350
418          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
419          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
420          KM     L = 2.22  Kb = .042  Adj. Slope =  315.0
421          BA    .970
422          LG    .350    .350   4.550    .340   4.000
423          UC    .367    .234

424          KK   RR350
425          KM   FROM SUB-BASIN 350 TO SUB-BASIN 360
426          RS      12    FLOW      -1
427          RC     .05    .035     .05   25600    .049
428          RX    1000    1010    1020    1036    1041    1057    1067    1077
429          RY      15    14.5      14      10      10      14    14.5      15

430          KK     360
431          KM   SUB-BASIN 360
432          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
433          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
434          KM     L = 4.84  Kb = .042  Adj. Slope =  257.5
435          BA   1.329
436          LG    .300    .300   4.250    .460  12.000
437          UC    .712    .763
             * DDM   ***** Preserved *****

438          KK    D360
439          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
440          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
441          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
442          DT   BS360    28.6
443          DI       0   10000
444          DQ       0   10000

445          KK   RT360
446          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
447          DR   BS360

448          KK   SR360
449          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
450          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
451          RS       1    STOR       0
452          SV       0     .01    28.6
453          SQ       0     9.6     9.6
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

454          KK    360C
455          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
456          HC       4

457          KK    R360
458          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
459          RS       3    FLOW      -1
460          RC    .025    .025    .025    2600   .0016
461          RX       0       1       2      30     300     328     329     330
462          RY       7       7       7       0       0       7       7       7
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            *      0       1       2      30     130     158     159     160
            *      7       7       7       0       0       7       7       7

463         KK     380
464         KM   SUB-BASIN 380
465         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
466         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
467         KM     L = 5.05  Kb = .041  Adj. Slope =  255.8
468         BA   1.638
469         LG    .320    .320   4.400    .420   8.000
470         UC    .733    .723

471         KK    D380
472         KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
473         KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
474         KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
            *      1
475         DT   BS380    28.6
476         DI       0   10000
477         DQ       0   10000

478         KK   RT380
479         KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
480         DR   BS380

481         KK   SR380
482         KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
483         KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
484         RS       1    STOR       0
485         SV       0     .01    28.6
486         SQ       0     9.6     9.6

487         KK    380C
488         KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
489         HC       3

490         KK    R380
491         KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
492         RS       4    FLOW      -1
493         RC    .025    .025    .025    4000   .0016
494         RX       0       1       2      30     300     328     329     330
495         RY       7       7       7       0       0       7       7       7
            *      0       1       2      30     150     178     179     180
            *      7       7       7       0       0       7       7       7
1                                        HEC-1 INPUT                                                          PAGE 13

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

496         KK     390
497         KM   SUB-BASIN 390
498         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
499         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
500         KM     L = 2.82  Kb = .041  Adj. Slope =  298.1
501         BA   1.089
502         LG    .330    .330   5.200    .260  14.000
503         UC     .41    .306

504         KK    D390
505         KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
506         KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
507         KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
            *      1
508         DT   BS390     3.5
509         DI       0   10000
510         DQ       0   10000

511         KK   RT390
512         KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
513         DR   BS390

514         KK   SR390
515         KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
516         KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
517         RS       1    STOR       0
518         SV       0     .01     3.5
519         SQ       0     1.2     1.2

520         KK    390C
521         KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
522         HC       2

523         KK   RR390
524         KM   FROM SUB-BASIN 390 TO SUB-BASIN 400
525         RS       6    FLOW      -1
526         RC     .05    .035     .05   14890    .056
527         RX    1000    1010    1020    1036    1041    1057    1067    1077
528         RY      15    14.5      14      10      10      14    14.5      15

529         KK     400
530         KM   SUB-BASIN 400
531         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
532         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
533         KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
534         BA    .616
535         LG    .320    .320   3.130    .930   6.000
536         UC    .592    .405
1                                        HEC-1 INPUT                                                          PAGE 14

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

537         KK    400C
538         KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
539         HC       3

540         KK    R400
541         KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
542         RS       4    FLOW      -1
543         RC    .025    .025    .025    3800   .0016
544         RX       0       1       2      30     310     338     339     340
545         RY       7       7       7       0       0       7       7       7
            *      0       1       2      30     180     208     209     210
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                *      7       7       7       0       0       7       7       7

546             KK     420
547             KM   SUB-BASIN 420
548             KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
549             KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
550             KM     L = 1.91  Kb = .042  Adj. Slope =  120.0
551             BA    .849
552             LG    .310    .270   3.880    .580  12.000
553             UC    .512    .325
                * DDM   ***** Preserved *****

554             KK    D420
555             KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
556             KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
557             KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
                *      1
558             DT   BS420   38.55
559             DI       0   10000
560             DQ       0   10000

561             KK   RT420
562             KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
563             DR   BS420

564             KK   SR420
565             KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
566             KM   38.55 ACRE-FEETx43560/36x3600=13cfs
567             RS       1    STOR       0
568             SV       0   38.55
569             SQ       0      20

570             KK    420C
571             KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
572             HC       3

573             KK   R420
574             KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
575             RS       3    FLOW      -1
576             RC    .025    .025    .025    2900   .0016
577             RX       0       1       2      30     310     338     339     340
578             RY       7       7       7       0       0       7       7       7
1                                          HEC-1 INPUT                                                    PAGE 15

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


579             KK   DD420
580             KM   DIVERT FLOW INTO SPOOK HILL FRS - VOLUME = 100 ACRE-FEET
581             KM   NOW INCREASE DIVERTED FLOW TO MAINTAIN 3700cfs OUTFLOW
582             KO       1
583             DT    420D
584             DI       0    3600   20000
585             DQ       0       0   16300

586             KK  RT420D
587             KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
588             DR    420D

589             KK  SR420D
590             KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
591             KM     100 ACRE-FEETx43560/36x3600=34cfs
                *      1
592             RS       1    STOR       0
593             SV       0     300
594             SQ       0     100

595             KK   C420D
596             KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
597             HC       2
                * DDM   ***** Updated *****

598             KK     440
599             KM   SUB-BASIN 440
600             KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
601             KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
602             KM     L =  .40  Kb = .039  Adj. Slope =  315.0
603             BA    .080
604             LG    .190    .380   6.400    .140  13.000
605             UC    .129    .077

606             KK     R70
607             KM        ROUTE FLOW FROM SUB-BASIN 60 TO C108
608             RS       1    FLOW      -1
609             RC     .05    .035     .05    2250     .08
610             RX    1000    1025    1050    1070    1075    1095    1120    1145
611             RY      30    22.9    15.7      10      10    15.7    22.9      30
                * DDM   ***** Updated *****

612             KK     441
613             KM   SUB-BASIN 441
614             KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
615             KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
616             KM     L =  .28  Kb = .069  Adj. Slope =  315.0
617             BA    .010
618             LG    .300    .250   5.600    .220   5.000
619             UC    .150    .225
                * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE 16

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


620             KK    C108
621             KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60 AND 61A
622             HC       2
                * DDM   ***** Preserved *****

623             KK    DIV4
624             KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
                *      1
625             DT   SPLIT
626             DI       0      14      40      82     120     154     180
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627          DQ       0       7      20      41      60      77      90
             * DDM   ***** Preserved *****

628          KK    R108
629          KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
630          RS       2    FLOW      -1
631          RC     .05    .035     .05    3200      .1
632          RX    1000    1025    1050    1070    1075    1095    1120    1145
633          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

634          KK     442
635          KM   SUB-BASIN 442
636          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
637          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
638          KM     L =  .83  Kb = .055  Adj. Slope =  274.2
639          BA    .100
640          LG    .300    .270   3.290    .770   5.000
641          UC    .258    .264
             * DDM   ***** Preserved *****

642          KK     C67
643          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60, 61 AND 67
644          HC       2
             * DDM   ***** Preserved *****

645          KK    DIV6
646          KM        OFFLINE BASIN WITH 75 FOOT WEIR SET AT 3 FEET ABOVE BOTTOM OF CHANNEL
647          KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
             *      1
648          DT  BASIN4
649          DI       0      10      32      56   136.6   276.5     454   662.8
650          DQ       0       0       0       0    71.6   202.5     372   572.8

651          KK  RTDIV6
652          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
653          DR  BASIN4

654          KK  RFDIV6
655          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
656          KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
             *      1
657          RS       1    STOR       0
658          SV       0     .01     3.3
1                                    HEC-1 INPUT                                          PAGE 17

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

659          SQ       0     1.1     1.1

660          KK   CDIV6
661          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
662          HC       2

663          KK     443
664          KM   SUB-BASIN 443
665          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
666          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
667          KM     L =  .71  Kb = .050  Adj. Slope =  315.0
668          BA    .080
669          LG    .250    .190   8.000    .080  10.000
670          UC    .196    .194

671          KK   DIV66
672          KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
673          KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
674          DT   WSH66
675          DI       0      78     100     200
676          DQ       0      78      78      78

677          KK    R113
678          KM        ROUTE FLOW FROM C113 TO C114
679          RS       1    FLOW      -1
680          RC    .019    .019    .019    1300    .029
681          RX    1000    1004    1008    1012    1018    1022    1026    1030
682          RY      17   15.33   12.67      10      10   12.67   15.33      17

683          KK    C114
684          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
685          HC       2

686          KK     444
687          KM   SUB-BASIN 444
688          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
689          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
690          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
691          BA    .040
692          LG    .130    .350   4.450    .320   1.000
693          UC    .112    .084
             * DDM   ***** Preserved *****

694          KK     R58
695          KM        ROUTE FLOW FROM SUB-BASIN 58 TO C107
696          RS       2    FLOW      -1
697          RC     .05    .035     .05    2370   .0516
698          RX    1000    1010    1020    1050    1055    1085    1095    1105
699          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                          PAGE 18

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

700          KK     445
701          KM   SUB-BASIN 445
702          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
703          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
704          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
705          BA    .190
706          LG    .170    .320   3.470    .590   3.000
707          UC    .192    .130
             * DDM   ***** Preserved *****
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708          KK    C107
709          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 58 AND 59
710          HC       2
             * DDM   ***** Preserved *****

711          KK    R107
712          KM        ROUTE FLOW FROM C107 TO C109
713          RS       1    FLOW      -1
714          RC     .05    .035     .05     700   .0516
715          RX    1000    1010    1020    1050    1055    1085    1095    1105
716          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

717          KK    RTB2
718          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
719          DR   SPLIT
             * DDM   ***** Preserved *****

720          KK  RSPLIT
721          KM        ROUTE FLOW FROM SPLIT TO C109
722          RS       1    FLOW      -1
723          RC     .05    .035     .05     800     .05
724          RX    1000    1025    1050    1070    1075    1095    1120    1145
725          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

726          KK     446
727          KM   SUB-BASIN 446
728          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
729          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
730          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
731          BA    .040
732          LG    .270    .250   4.500    .400  19.000
733          UC    .183    .189
             * DDM   ***** Preserved *****

734          KK    C109
735          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
736          HC       3
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 19

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

737          KK    DIV5
738          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
739          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
740          DT  WSH404
741          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
742          DQ       0      35      35      35      35      35      35      35
             * DDM   ***** Preserved *****

743          KK    R109
744          KM        ROUTE FLOW FROM C109 TO C110
745          RS       1    FLOW      -1
746          RC    .019    .019    .019    3080     .05
747          RX    1000    1005    1010    1015    1025    1030    1035    1040
748          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
             * DDM   ***** Updated *****

749          KK     447
750          KM   SUB-BASIN 447
751          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
752          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
753          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
754          BA    .090
755          LG    .250    .270   3.350    .870  30.000
756          UC    .208    .145
             * DDM   ***** Preserved *****

757          KK   RT404
758          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
759          DR  WSH404
             * DDM   ***** Preserved *****

760          KK    R404
761          KM        ROUTE FLOW FROM C110 TO C110
762          RS       5    FLOW      -1
763          RC    .019    .019    .019    3540     .03
764          RX    1000    1012    1016    1020    1025    1029    1033    1045
765          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

766          KK    C110
767          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 62 AND C109
768          HC       3
             * DDM   ***** Preserved *****

769          KK    R110
770          KM        ROUTE FLOW FROM C110 TO C115
771          RS       1    FLOW      -1
772          RC    .019    .019    .019     580    .029
773          RX    1000    1012    1016    1020    1035    1039    1043    1055
774          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 20

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

775          KK    C115
776          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
777          HC       2
             * DDM   ***** Preserved *****

778          KK    R115
779          KM        ROUTE FLOW FROM C115 TO C119
780          RS       1    FLOW      -1
781          RC    .019    .019    .019    2125    .029
782          RC    .019    .019    .019     580   .0291
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783          RX    1000    1012    1016    1020    1035    1039    1043    1055
784          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Updated *****

785          KK     448
786          KM   SUB-BASIN 448
787          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
788          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
789          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
790          BA    .045
791          LG    .170    .310   4.200    .390  11.000
792          UC    .133    .102
             * DDM   ***** Updated *****

793          KK     449
794          KM   SUB-BASIN 449
795          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
796          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
797          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
798          BA    .050
799          LG    .260    .280   3.500    .640   6.000
800          UC    .167    .134
             * DDM   ***** Preserved *****

801          KK   C6364
802          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 63 AND 64
803          HC       2
             * DDM   ***** Preserved *****

804          KK   R6364
805          KM        ROUTE FLOW FROM DIVERSIONS 63 AND 64 TO C116
806          RS       5    FLOW      -1
807          RC     .05    .035     .05    4375   .0333
808          RX    1000    1027    1053    1080    1090    1117    1143    1170
809          RY      15   13.33   11.67      10      10   11.67   13.33      15
             * DDM   ***** Updated *****

810          KK     450
811          KM   SUB-BASIN 450
812          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
813          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
814          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
815          BA    .070
816          LG    .340    .350   3.630    .570   4.000
1                                      HEC-1 INPUT                                          PAGE 21

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

817          UC    .296    .383
             * DDM   ***** Updated *****

818          KK     451
819          KM   SUB-BASIN 451
820          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
821          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
822          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
823          BA    .025
824          LG    .340    .340   3.290    .750   3.000
825          UC    .271    .453
             * DDM   ***** Preserved *****

826          KK    RT66
827          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
828          DR   WSH66
             * DDM   ***** Updated *****

829          KK     452
830          KM   SUB-BASIN 452
831          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
832          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
833          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
834          BA    .040
835          LG    .260    .280   3.700    .550   9.000
836          UC    .171    .166
             * DDM   ***** Preserved *****

837          KK   C6566
838          KM        COMBINE HYDROGRAPHS FROM DIVERSIONS 65 AND 66
839          HC       2
             * DDM   ***** Preserved *****

840          KK   R6566
841          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
842          RS       2    FLOW      -1
843          RC     .05    .035     .05    2435   .0282
844          RX    1000    1045    1090    1150    1160    1220    1265    1310
845          RY      25      23      20      10      10      20      23      25
             * DDM   ***** Preserved *****

846          KK    C116
847          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 68 AND 69 AND DIVERTED FLOWS
848          KM        FROM SUB-BASINS 63, 64, 65 AND 66
849          HC       4
             * DDM   ***** Preserved *****

850          KK  BASIN5
851          KM        RESERVOIR WITHIN PARCEL 31, 2-48 INCH PIPES AT OUTFALL
852          KM        BASIN 5 FEET DEEP
853          RS       1    ELEV       0
854          SV       0     4.5     9.9
855          SQ       0      69     190
856          SE       0     2.5       5
             * DDM   ***** Preserved *****
1                                      HEC-1 INPUT                                          PAGE 22

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

857          KK    R116
858          KM        ROUTE FLOW FROM C116 TO C118
859          RS       3    FLOW      -1
860          RC     .05    .035     .05    1300   .0333
861          RX    1000    1100    1200    1300    1320    1420    1520    1620
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862          RY      13      12      11      10      10      11      12      13
             * DDM   ***** Updated *****

863          KK     453
864          KM   SUB-BASIN 453
865          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
866          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
867          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
868          BA    .060
869          LG    .290    .300   3.290    .820  18.000
870          UC    .275    .284
             * DDM   ***** Preserved *****

871          KK    C117
872          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 70 AND C115
873          HC       2
             * DDM   ***** Preserved *****

874          KK    C118
875          KM        COMBINE HYDROGRAPHS FROM C116 AND C117
876          HC       2
             * DDM   ***** Preserved *****

877          KK    R118
878          KM        ROUTE FLOW FROM C118 TO C119
879          RS       1    FLOW      -1
880          RC    .019    .019    .019    1500    .024
881          RX    1000    1012    1016    1020    1035    1039    1043    1055
882          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

883          KK    DIV7
884          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE, FLOWS ENTER BASIN OVER
885          KM        60' WEIR SET AT 1.5' ABOVE THE CHANNEL BOTTOM
             *      1
886          DT  BASIN6
887          DI       0    20.4    76.9   176.4   383.8   696.7  1105.8  1611.6
888          DQ       0       0       0       0    57.3     162   297.6   458.2

889          KK  RTDIV7
890          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
891          DR  BASIN6

892          KK  RFDIV7
893          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
894          KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
895          RS       1    STOR       0
896          SV       0     .01     3.6
897          SQ       0     1.2     1.2
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

898          KK   CDIV7
899          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
900          HC       2

901          KK     454
902          KM   SUB-BASIN 454
903          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
904          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
905          KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
906          BA    .180
907          LG    .300    .310   3.780    .560  14.000
908          UC    .379    .395
             * DDM   ***** Preserved *****

909          KK    C119
910          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 71 AND C119
             *      1       2
911          HC       2
             * DDM   ***** Preserved *****

912          KK    R454
913          KM   FROM SUB-BASIN 454 TO SUB-BASIN 455
914          RS       8    FLOW      -1
915          RC     .05    .035     .05    6000    .005
916          RX    1000    1010    1020    1036    1041    1057    1067    1077
917          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Updated *****

918          KK     455
919          KM   SUB-BASIN 455
920          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
921          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
922          KM     L = 2.92  Kb = .039  Adj. Slope =  269.2
923          BA   1.559
924          LG    .280    .270   3.850    .590  22.000
925          UC    .450    .279

926          KK    D455
927          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
928          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
929          KM   FOR BASIN #: 30,34,43,47&58
930          KM        MAXIMUM VOLUME DIVERSION = 74.1 acre-feet
             *      1
931          DT   BS455    74.1
932          DI       0   10000
933          DQ       0   10000

934          KK   RT455
935          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
936          DR   BS455
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

937          KK   SR455
938          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
939          KM    74.1 ACRE-FEETx43560/36x3600=25cfs
940          RS       1    STOR       0
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941          SV       0      .01     74.1
942          SQ       0       25       25

943          KK    C455
944          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
945          HC       2

946          KK    455C
947          KM   HYDROGRAPH COMBINATION AT THE END OF THE SPOOK HILL FRS
             *      1        2
948          HC       3
             *  SR440
             *  SPOOK HILL FRS PLANS DATED 6/15/77
             *  OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
             *  EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
             *  STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
             *      1    STOR       0
             *      0     .04      100      300      500      680
             *      0     640      720      780      825      860
             *     66    77.5       79     80.2     81.2       82

949          KK   RR455
950          KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
951          RS       7    FLOW      -1
952          RC    .016    .016    .016     9200     .002
953          RX       0       1       2       15       71       84       85       86
954          RY    13.5    13.5    13.5        0        0     13.5     13.5     13.5
             *     11    FLOW      -1
             *   .035    .025    .035     9200     .002
             *      0       1       2       28       58       84       85       86
             *     13      13      13        0        0       13       13       13

955          KK     456
956          KM   SUB-BASIN 456
957          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
958          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
959          KM     L =  .94  Kb = .045  Adj. Slope =  315.0
960          BA    .260
961          LG    .300    .380   5.600    .200  12.000
962          UC    .217    .139

963          KK    DIV1
964          KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
965          KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
             *      1
966          DT  BASIN1
967          DI       0    24.4    70.8   132.2   194.1   281.1   415.5   571.9   753.2
968          DQ       0       0       0       0       0    57.3     162   297.6   458.2
             * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                          PAGE 25

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

969          KK    DIV2
970          KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
971          KM        WASHES THAT DRAIN TO THE WEST, SOUTHERN WASHES FED BY 30" AND 18" PIPE
972          DT    WA30
973          DI       0    24.4    70.8   132.2   194.1   223.8   253.5  274.25     295
974          DQ       0     8.4    24.8    40.2    52.1    57.8    63.5    67.3      71
             * DDM   ***** Preserved *****

975          KK    R456
976          KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
977          RS       3    FLOW      -1
978          RC     .05    .035     .05    3800    .044
979          RX    1000    1010    1020    1036    1041    1057    1067    1077
980          RY   14.88   14.44      14      10      10      14   14.44   14.88
             * DDM   ***** Updated *****

981          KK     457
982          KM   SUB-BASIN 457
983          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
984          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
985          KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
986          BA    .190
987          LG    .270    .330   3.950    .460   6.000
988          UC    .237    .195
             * DDM   ***** Preserved *****

989          KK    C101
990          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
991          HC       2
             * DDM   ***** Preserved *****

992          KK    DIV3
993          KM        RESERVOIR AT THE EDGE OF THE PROPERTY, FLOW FROM 10' WIDE CHANNEL
994          KM        DIVERTED INTO OFFLINE BASIN OVER A 150' WEIR SET AT 0.75 FEET
995          KM        ABOVE CHANNEL
             *      1
996          DT  BASIN2
997          DI       0      18    59.3   121.6   255.8   454.1   703.1   998.3  1338.4
998          DQ       0       0       0       0    50.6   143.2   263.1     405     566

999          KK  RTDIV3
1000         KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1001         DR  BASIN2

1002         KK  RFDIV3
1003         KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1004         KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
1005         RS       1    STOR       0
1006         SV       0     .01       5
1007         SQ       0     1.7     1.7
                                           HEC-1 INPUT                                          PAGE 26

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1008         KK   CDIV3
1009         KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1010         HC       2
             * DDM   ***** Preserved *****
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1011          KK    R101
1012          KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
1013          RS       1    FLOW      -1
1014          RC     .05    .035     .05    1450     .05
1015          RX    1000    1010    1020    1036    1041    1057    1067    1077
1016          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Updated *****

1017          KK     458
1018          KM   SUB-BASIN 458
1019          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1020          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1021          KM     L =  .76  Kb = .048  Adj. Slope =  299.0
1022          BA    .190
1023          LG    .290    .330   5.800    .190   6.000
1024          UC    .204    .131
              * DDM   ***** Preserved *****

1025          KK    C103
1026          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
1027          HC       2
              * DDM   ***** Preserved *****

1028          KK    R103
1029          KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
1030          RS       1    FLOW      -1
1031          RC     .05    .035     .05     900     .03
1032          RX    1000    1010    1020    1030    1050    1060    1070    1080
1033          RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
              * DDM   ***** Preserved *****

1034          KK    RT30
1035          KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
1036          DR    WA30
              * DDM   ***** Preserved *****

1037          KK     R30
1038          KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
1039          RS       1    FLOW      -1
1040          RC     .05    .035     .05    1630     .05
1041          RX    1000    1010    1020    1036    1041    1057    1067    1077
1042          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1043          KK    RTB1
1044          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
              *      1       2
1045          DR  BASIN1
              * DDM   ***** Preserved *****

1046          KK      B1
1047          KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1048          KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
              *      1       2
1049          RS       1    ELEV       0
1050          SV              .7     1.4     2.3     2.7     3.2
1051          SQ       0       5      16      28    32.5      37
1052          SE       0       1       2       3     3.5       4
              * DDM   ***** Preserved *****

1053          KK     RB1
1054          KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
1055          RS       2    FLOW      -1
1056          RC     .05    .035     .05    1720     .05
1057          RX    1000    1010    1020    1036    1041    1057    1067    1077
1058          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****

1059          KK    CDIV
1060          KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1061          HC       2     .12
              * DDM   ***** Updated *****

1062          KK     459
1063          KM   SUB-BASIN 459
1064          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1065          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1066          KM     L =  .35  Kb = .052  Adj. Slope =  251.6
1067          BA    .030
1068          LG    .220    .300   3.330    .710   8.000
1069          UC    .162    .157
              * DDM   ***** Preserved *****

1070          KK     C52
1071          KM        COMBINE FLOWS FROM SUB-BASIN 52, WA30 AND BASIN 1
1072          HC       2
              * DDM   ***** Preserved *****

1073          KK     R52
1074          KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1075          RS       1    FLOW      -1
1076          RC     .05    .035     .05    2000     .05
1077          RX    1000    1010    1020    1036    1041    1057    1067    1077
1078          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Updated *****
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1079          KK     460
1080          KM   SUB-BASIN 460
1081          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1082          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1083          KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1084          BA    .140
1085          LG    .250    .260   3.740    .690  27.000
1086          UC    .242    .160
```

```
                * DDM   ***** Preserved *****

1087            KK    C102
1088            KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1089            HC       2
                * DDM   ***** Preserved *****

1090            KK  BASIN3
1091            KM        RESERVOIR AT CLUBHOUSE LOCATION, 1-30 INCH PIPE AT OUTFALL
1092            KM        BOTTOM OF BASIN AT 6 FEET ABOVE 0 ELEVATION
1093            RS       1    ELEV       0
1094            SA       0       0       0       0     .21    1.15       2    2.12    2.31    2.65
                *      0       0       0       0    1.14    3.25    5.52    9.23
1095            SE       0     2.5       5       6       7     7.5       8       9    10.5    12.5
1096            SQ       0      22      45      51      57    59.5      62      67      73      81
                * DDM   ***** Preserved *****

1097            KK      R3
1098            KM        ROUTE FLOW FROM C102 to C106
1099            RS       4    FLOW      -1
1100            RC     .05     .03     .05    2750   .0375
1101            RX    1000    1010    1020    1052    1086    1118    1128    1138
1102            RY    19.2    18.4      18      10      10      18    18.4    19.2
                * DDM   ***** Updated *****

1103            KK     461
1104            KM   SUB-BASIN 461
1105            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1106            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1107            KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1108            BA    .120
1109            LG    .270    .250   4.250    .450  21.000
1110            UC    .271    .250
                * DDM   ***** Preserved *****

1111            KK    C104
1112            KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1113            HC       2
                * DDM   ***** Preserved *****

1114            KK    C106
1115            KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1116            HC       2
                * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 29

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1117            KK    R106
1118            KM        ROUTE FLOW FROM C106 TO C49
1119            RS       2    FLOW      -1
1120            RC     .05    .035     .05    3950    .033
1121            RX    1000    1010    1020    1030    1050    1060    1070    1080
1122            RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
                * DDM   ***** Updated *****

1123            KK     462
1124            KM   SUB-BASIN 462
1125            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1126            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1127            KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1128            BA    .301
1129            LG    .300    .330   5.300    .240  12.000
1130            UC    .225    .137
                * DDM   ***** Preserved *****

1131            KK     C56
1132            KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
                *      1       2
1133            HC       2
                * DDM   ***** Updated *****

1134            KK     480
1135            KM   SUB-BASIN 480
1136            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1137            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1138            KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1139            BA    .731
1140            LG    .270    .270   3.580    .730  27.000
1141            UC    .325    .148

1142            KK    D480
1143            KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1144            KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1145            KM   FOR BASIN #: 18 & 26
1146            KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
                *      1
1147            DT   BS480    16.5
1148            DI       0   10000
1149            DQ       0   10000

1150            KK   RT480
1151            KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1152            DR   BS480

1153            KK   SR480
1154            KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1155            KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1156            RS       1    STOR       0
1157            SV       0     .01    16.5
1158            SQ       0     5.6     5.6
1                                        HEC-1 INPUT                                          PAGE 30

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1159            KK    C480
1160            KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1161            HC       2
                * DDM   ***** Preserved *****

1162            KK    480C
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KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
HC       3     2.09
* DDM    ***** Preserved *****

KK   RR480
KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
RS       2    FLOW      -1
RC    .025     .025     .025     6500      .05
RX       0        1        2       28       58       84       85       86
RY    13.5     13.5     13.5        0        0     13.5     13.5     13.5
* DDM    ***** Updated *****

KK     500
KM   SUB-BASIN 500
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
BA    .930
LG    .350     .400    6.000     .170    9.000
UC    .421     .333
* DDM    ***** Preserved *****

KK    500C
KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
HC       2     2.84
ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  64          20
               .
               .
  72           .          40
               .           .
               .           .
  80           .           .          60
               .           .           .
               .           .           .
  88         60C.......................
               .
               .
  95           .------->     60D
  91         D60
               .
               .
 100           .           .<-------     60D
  98           .       RT60D
               .           V
               .           V
 101           .       SR60D
               .           .
               .           .
 108       C60D............
             V
             V
 111        60R
             V
             V
 117        R60
             V
             V
 123       RR60
               .
               .
 129           .          80
               .           .
               .           .
 137        80C............
             V
             V
 140        R80
               .
               .
 146           .         100
               .           .
               .           .
 154       100C............
             V
             V
 157       R100
               .
               .
 163           .         120
               .           .
               .           .
 171       120C............
             V
             V
 174       R120
               .
               .
 180           .         140
               .           .
               .           .
 188           .           .         160
               .           .           .
               .           .           .
 196           .           .           .         180
               .           .           .           .
               .           .           .           .
 204       180C...................................
               .
               .
 207           .         240
               .           V
               .           V
 215           .       R240
               .           .
               .           .
 222           .           .         220
               .           .           .
               .           .           .
 230           .       220C............
               .           V
               .           V
 233           .       R220
               .           .
               .           .
 240           .           .         200
               .           .           .
               .           .           .
 248           .       200C............
               .           V
               .           V
 251           .       R200
               .           .
               .           .
 257       C180............
               .
               .
 264           .------->    180D
 260       D180
               .
               .
 269           .           .<-------    180D
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267          .       RT180
             .          V
             .          V
270          .      SR180D
             .          .
             .          .
276       C180D............
             V
             V
279        180R
             V
             V
285        R180
             .
             .
291          .         260
             .           .
             .           .
299        260C............
             V
             V
302        R260
             .
             .
308          .         280
             .           .
             .           .
316        280C............
             V
             V
319        R280
             .
             .
325          .         300
             .           .
             .           .
333        300C............
             V
             V
336        R300
             V
             V
342       RR300
             .
             .
348          .         320
             .           .
             .           .
361          .           .-------->   BS320
356          .        D320
             .           .
             .           .
366          .           .          .<--------   BS320
364          .           .       RT320
             .           .          V
             .           .          V
367          .           .       SR320
             .           .          .
             .           .          .
373        C320........................
             V
             V
376        R320
             .
             .
382          .         340
             .           .
             .           .
395          .           .-------->   BS340
390          .        D340
             .           .
             .           .
400          .           .          .<--------   BS340
398          .           .       RT340
             .           .          V
             .           .          V
401          .           .       SR340
             .           .          .
             .           .          .
407        C340........................
             V
             V
410        R340
             .
             .
416          .         350
             .           V
             .           V
424          .       RR350
             .           .
             .           .
430          .           .         360
             .           .          .
             .           .          .
442          .           .          .-------->   BS360
438          .           .       D360
             .           .          .
             .           .          .
447          .           .          .          .<--------   BS360
445          .           .          .       RT360
             .           .          .          V
             .           .          .          V
448          .           .          .       SR360
             .           .          .          .
             .           .          .          .
454        360C...................................
             V
             V
457        R360
             .
             .
463          .         380
             .           .
```

```
475          .          .-------->   BS380
471          .       D380
             .          .
             .          .
480          .          .          .<-------   BS380
478          .          .      RT380
             .          .          V
             .          .          V
481          .          .      SR380
             .          .          .
             .          .          .
487       380C.......................
             V
             V
490       R380
             .
             .
496          .        390
             .          .
             .          .
508          .          .-------->   BS390
504          .       D390
             .          .
             .          .
513          .          .          .<-------   BS390
511          .          .      RT390
             .          .          V
             .          .          V
514          .          .      SR390
             .          .          .
             .          .          .
520          .       390C............
             .          V
             .          V
523          .      RR390
             .          .
             .          .
529          .          .        400
             .          .          .
             .          .          .
537       400C.......................
             V
             V
540       R400
             .
             .
546          .        420
             .          .
             .          .
558          .          .-------->   BS420
554          .       D420
             .          .
             .          .
563          .          .          .<-------   BS420
561          .          .      RT420
             .          .          V
             .          .          V
564          .          .      SR420
             .          .          .
             .          .          .
570       420C.......................
             V
             V
573       R420
             .
             .
583          .-------->    420D
579      DD420
             .
             .
588          .          .<-------    420D
586          .     RT420D
             .          V
             .          V
589          .     SR420D
             .          .
             .          .
595      C420D............
             .
             .
598          .        440
             .          V
             .          V
606          .        R70
             .          .
             .          .
612          .          .        441
             .          .          .
             .          .          .
620          .       C108............
             .          .
             .          .
625          .          .-------->   SPLIT
623          .       DIV4
             .          V
             .          V
628          .       R108
             .          .
             .          .
634          .          .        442
             .          .          .
             .          .          .
642          .        C67............
             .          .
             .          .
648          .          .-------->  BASIN4
645          .       DIV6
             .          .
             .          .
653          .          .          .<-------  BASIN4
651          .          .     RTDIV6
             .          .          V
```

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                                  V
654                           RFDIV6
                                  .
                                  .
660                     CDIV6............
                                  .
                                  .
663                             443
                                  .
                                  .
674                               .-------->   WSH66
671                           DIV66
                                  V
                                  V
677                            R113
                                  .
                                  .
683                     C114............
                                  .
                                  .
686                             444
                                  V
                                  V
694                             R58
                                  .
                                  .
700                               .         445
                                  .           .
                                  .           .
708                            C107............
                                  V
                                  V
711                            R107
                                  .
                                  .
719                               .           .<-------   SPLIT
717                               .       RTB2
                                  .          V
                                  .          V
720                               .     RSPLIT
                                  .           .
                                  .           .
726                               .           .         446
                                  .           .           .
                                  .           .           .
734                            C109........................
                                  .
                                  .
740                               .-------->  WSH404
737                           DIV5
                                  V
                                  V
743                            R109
                                  .
                                  .
749                               .         447
                                  .           .
                                  .           .
759                               .           .           .<-------  WSH404
757                               .           .       RT404
                                  .           .          V
                                  .           .          V
760                               .           .       R404
                                  .           .           .
                                  .           .           .
766                            C110........................
                                  V
                                  V
769                            R110
                                  .
                                  .
775                     C115............
                           V
                           V
778                     R115
                                  .
                                  .
785                             448
                                  .
                                  .
793                               .         449
                                  .           .
                                  .           .
801                           C6364............
                                  V
                                  V
804                           R6364
                                  .
                                  .
810                               .         450
                                  .           .
                                  .           .
818                               .           .         451
                                  .           .           .
                                  .           .           .
828                               .           .           .           .<-------   WSH66
826                               .           .           .        RT66
                                  .           .           .           .
                                  .           .           .           .
829                               .           .           .           .         452
                                  .           .           .           .           .
                                  .           .           .           .           .
837                               .           .           .      C6566............
                                  .           .           .           V
                                  .           .           .           V
840                               .           .           .      R6566
                                  .           .           .           .
                                  .           .           .           .
846                            C116.................................
                                  V
                                  V
850                           BASIN5
                                  V
```

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                .          .          V
857             .          .       R116
                .          .          .
                .          .          .
863             .          .          .         453
                .          .          .           .
                .          .          .           .
871             .          .       C117............
                .          .          .
                .          .          .
874             .      C118............
                .          V
                .          V
877             .      R118
                .          .
                .          .
886             .          .-------->  BASIN6
883             .      DIV7
                .          .
                .          .
891             .          .          .<-------  BASIN6
889             .          .     RTDIV7
                .          .          V
                .          .          V
892             .          .     RFDIV7
                .          .          .
                .          .          .
898             .     CDIV7............
                .          .
                .          .
901             .          .         454
                .          .          .
                .          .          .
909             .      C119............
                .          V
                .          V
912             .      R454
                .          .
                .          .
918             .          .         455
                .          .          .
                .          .          .
931             .          .          .-------->   BS455
926             .          .       D455
                .          .          .
                .          .          .
936             .          .          .          .<-------   BS455
934             .          .          .      RT455
                .          .          .          V
                .          .          .          V
937             .          .          .      SR455
                .          .          .           .
                .          .          .           .
943             .          .       C455............
                .          .          .
                .          .          .
946         455C........................
                V
                V
949         RR455
                .
                .
955             .        456
                .          .
                .          .
966             .          .-------->  BASIN1
963             .      DIV1
                .          .
                .          .
972             .          .-------->    WA30
969             .      DIV2
                .          V
                .          V
975             .      R456
                .          .
                .          .
981             .          .         457
                .          .          .
                .          .          .
989             .      C101............
                .          .
                .          .
996             .          .-------->  BASIN2
992             .      DIV3
                .          .
                .          .
1001            .          .          .<-------  BASIN2
999             .          .     RTDIV3
                .          .          V
                .          .          V
1002            .          .     RFDIV3
                .          .          .
                .          .          .
1008            .     CDIV3............
                .          V
                .          V
1011            .      R101
                .          .
                .          .
1017            .          .         458
                .          .          .
                .          .          .
1025            .      C103............
                .          V
                .          V
1028            .      R103
                .          .
                .          .
1036            .          .          .<--------    WA30
1034            .          .       RT30
                .          .          V
                .          .          V
1037            .          .         R30
```

```
                .          .          .
                .          .          .
1045            .          .          .          .<-------  BASIN1
1043            .          .          .       RTB1
                .          .          .          V
                .          .          .          V
1046            .          .          .         B1
                .          .          .          V
                .          .          .          V
1053            .          .          .        RB1
                .          .          .          .
                .          .          .          .
1059            .          .       CDIV...........
                .          .          .
                .          .          .
1062            .          .          .        459
                .          .          .          .
                .          .          .          .
1070            .          .        C52...........
                .          .          V
                .          .          V
1073            .          .        R52
                .          .          .
                .          .          .
1079            .          .          .        460
                .          .          .          .
                .          .          .          .
1087            .          .      C102...........
                .          .          V
                .          .          V
1090            .          .     BASIN3
                .          .          V
                .          .          V
1097            .          .         R3
                .          .          .
                .          .          .
1103            .          .          .        461
                .          .          .          .
                .          .          .          .
1111            .          .      C104...........
                .          .          .
                .          .          .
1114            .       C106...........
                .          V
                .          V
1117            .       R106
                .          .
                .          .
1123            .          .        462
                .          .          .
                .          .          .
1131            .        C56...........
                .          .
                .          .
1134            .          .        480
                .          .          .
                .          .          .
1147            .          .          .-------->  BS480
1142            .          .      D480
                .          .          .
                .          .          .
1152            .          .          .          .<-------  BS480
1150            .          .          .      RT480
                .          .          .          V
                .          .          .          V
1153            .          .          .      SR480
                .          .          .          .
                .          .          .          .
1159            .          .      C480...........
                .          .          .
                .          .          .
1162        480C.......................
               V
               V
1165       RR480
               .
               .
1171            .        500
                .          .
                .          .
1179        500C...........
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

INTERPOLATED DIVERSION HYDROGRAPH AT 60D

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		1230	376	2708.	2		0100	751	0.	2		1330	1126	0.
1		0002	2	0.	1		1232	377	2504.	2		0102	752	0.	2		1332	1127	0.
1		0004	3	0.	1		1234	378	2306.	2		0104	753	0.	2		1334	1128	0.
1		0006	4	0.	1		1236	379	2116.	2		0106	754	0.	2		1336	1129	0.
1		0008	5	0.	1		1238	380	1936.	2		0108	755	0.	2		1338	1130	0.
1		0010	6	0.	1		1240	381	1767.	2		0110	756	0.	2		1340	1131	0.
1		0012	7	0.	1		1242	382	1606.	2		0112	757	0.	2		1342	1132	0.
1		0014	8	0.	1		1244	383	1453.	2		0114	758	0.	2		1344	1133	0.
1		0016	9	0.	1		1246	384	1308.	2		0116	759	0.	2		1346	1134	0.
1		0018	10	0.	1		1248	385	1172.	2		0118	760	0.	2		1348	1135	0.
1		0020	11	0.	1		1250	386	1045.	2		0120	761	0.	2		1350	1136	0.
1		0022	12	0.	1		1252	387	928.	2		0122	762	0.	2		1352	1137	0.
1		0024	13	0.	1		1254	388	820.	2		0124	763	0.	2		1354	1138	0.
1		0026	14	0.	1		1256	389	719.	2		0126	764	0.	2		1356	1139	0.
1		0028	15	0.	1		1258	390	626.	2		0128	765	0.	2		1358	1140	0.
1		0030	16	0.	1		1300	391	540.	2		0130	766	0.	2		1400	1141	0.
1		0032	17	0.	1		1302	392	460.	2		0132	767	0.	2		1402	1142	0.
1		0034	18	0.	1		1304	393	385.	2		0134	768	0.	2		1404	1143	0.
1		0036	19	0.	1		1306	394	316.	2		0136	769	0.	2		1406	1144	0.
1		0038	20	0.	1		1308	395	252.	2		0138	770	0.	2		1408	1145	0.
1		0040	21	0.	1		1310	396	190.	2		0140	771	0.	2		1410	1146	0.
1		0042	22	0.	1		1312	397	132.	2		0142	772	0.	2		1412	1147	0.
1		0044	23	0.	1		1314	398	78.	2		0144	773	0.	2		1414	1148	0.
1		0046	24	0.	1		1316	399	27.	2		0146	774	0.	2		1416	1149	0.
1		0048	25	0.	1		1318	400	4.	2		0148	775	0.	2		1418	1150	0.
1		0050	26	0.	1		1320	401	0.	2		0150	776	0.	2		1420	1151	0.
1		0052	27	0.	1		1322	402	0.	2		0152	777	0.	2		1422	1152	0.
1		0054	28	0.	1		1324	403	0.	2		0154	778	0.	2		1424	1153	0.
1		0056	29	0.	1		1326	404	0.	2		0156	779	0.	2		1426	1154	0.
1		0058	30	0.	1		1328	405	0.	2		0158	780	0.	2		1428	1155	0.
1		0100	31	0.	1		1330	406	0.	2		0200	781	0.	2		1430	1156	0.
1		0102	32	0.	1		1332	407	0.	2		0202	782	0.	2		1432	1157	0.
1		0104	33	0.	1		1334	408	0.	2		0204	783	0.	2		1434	1158	0.
1		0106	34	0.	1		1336	409	0.	2		0206	784	0.	2		1436	1159	0.
1		0108	35	0.	1		1338	410	0.	2		0208	785	0.	2		1438	1160	0.
1		0110	36	0.	1		1340	411	0.	2		0210	786	0.	2		1440	1161	0.
1		0112	37	0.	1		1342	412	0.	2		0212	787	0.	2		1442	1162	0.
1		0114	38	0.	1		1344	413	0.	2		0214	788	0.	2		1444	1163	0.
1		0116	39	0.	1		1346	414	0.	2		0216	789	0.	2		1446	1164	0.
1		0118	40	0.	1		1348	415	0.	2		0218	790	0.	2		1448	1165	0.
1		0120	41	0.	1		1350	416	0.	2		0220	791	0.	2		1450	1166	0.
1		0122	42	0.	1		1352	417	0.	2		0222	792	0.	2		1452	1167	0.
1		0124	43	0.	1		1354	418	0.	2		0224	793	0.	2		1454	1168	0.
1		0126	44	0.	1		1356	419	0.	2		0226	794	0.	2		1456	1169	0.
1		0128	45	0.	1		1358	420	0.	2		0228	795	0.	2		1458	1170	0.
1		0130	46	0.	1		1400	421	0.	2		0230	796	0.	2		1500	1171	0.
1		0132	47	0.	1		1402	422	0.	2		0232	797	0.	2		1502	1172	0.
1		0134	48	0.	1		1404	423	0.	2		0234	798	0.	2		1504	1173	0.
1		0136	49	0.	1		1406	424	0.	2		0236	799	0.	2		1506	1174	0.
1		0138	50	0.	1		1408	425	0.	2		0238	800	0.	2		1508	1175	0.
1		0140	51	0.	1		1410	426	0.	2		0240	801	0.	2		1510	1176	0.
1		0142	52	0.	1		1412	427	0.	2		0242	802	0.	2		1512	1177	0.
1		0144	53	0.	1		1414	428	0.	2		0244	803	0.	2		1514	1178	0.
1		0146	54	0.	1		1416	429	0.	2		0246	804	0.	2		1516	1179	0.
1		0148	55	0.	1		1418	430	0.	2		0248	805	0.	2		1518	1180	0.
1		0150	56	0.	1		1420	431	0.	2		0250	806	0.	2		1520	1181	0.
1		0152	57	0.	1		1422	432	0.	2		0252	807	0.	2		1522	1182	0.
1		0154	58	0.	1		1424	433	0.	2		0254	808	0.	2		1524	1183	0.
1		0156	59	0.	1		1426	434	0.	2		0256	809	0.	2		1526	1184	0.
1		0158	60	0.	1		1428	435	0.	2		0258	810	0.	2		1528	1185	0.
1		0200	61	0.	1		1430	436	0.	2		0300	811	0.	2		1530	1186	0.
1		0202	62	0.	1		1432	437	0.	2		0302	812	0.	2		1532	1187	0.
1		0204	63	0.	1		1434	438	0.	2		0304	813	0.	2		1534	1188	0.
1		0206	64	0.	1		1436	439	0.	2		0306	814	0.	2		1536	1189	0.
1		0208	65	0.	1		1438	440	0.	2		0308	815	0.	2		1538	1190	0.
1		0210	66	0.	1		1440	441	0.	2		0310	816	0.	2		1540	1191	0.
1		0212	67	0.	1		1442	442	0.	2		0312	817	0.	2		1542	1192	0.
1		0214	68	0.	1		1444	443	0.	2		0314	818	0.	2		1544	1193	0.
1		0216	69	0.	1		1446	444	0.	2		0316	819	0.	2		1546	1194	0.
1		0218	70	0.	1		1448	445	0.	2		0318	820	0.	2		1548	1195	0.
1		0220	71	0.	1		1450	446	0.	2		0320	821	0.	2		1550	1196	0.
1		0222	72	0.	1		1452	447	0.	2		0322	822	0.	2		1552	1197	0.
1		0224	73	0.	1		1454	448	0.	2		0324	823	0.	2		1554	1198	0.
1		0226	74	0.	1		1456	449	0.	2		0326	824	0.	2		1556	1199	0.
1		0228	75	0.	1		1458	450	0.	2		0328	825	0.	2		1558	1200	0.
1		0230	76	0.	1		1500	451	0.	2		0330	826	0.	2		1600	1201	0.
1		0232	77	0.	1		1502	452	0.	2		0332	827	0.	2		1602	1202	0.
1		0234	78	0.	1		1504	453	0.	2		0334	828	0.	2		1604	1203	0.
1		0236	79	0.	1		1506	454	0.	2		0336	829	0.	2		1606	1204	0.
1		0238	80	0.	1		1508	455	0.	2		0338	830	0.	2		1608	1205	0.
1		0240	81	0.	1		1510	456	0.	2		0340	831	0.	2		1610	1206	0.
1		0242	82	0.	1		1512	457	0.	2		0342	832	0.	2		1612	1207	0.
1		0244	83	0.	1		1514	458	0.	2		0344	833	0.	2		1614	1208	0.
1		0246	84	0.	1		1516	459	0.	2		0346	834	0.	2		1616	1209	0.
1		0248	85	0.	1		1518	460	0.	2		0348	835	0.	2		1618	1210	0.
1		0250	86	0.	1		1520	461	0.	2		0350	836	0.	2		1620	1211	0.
1		0252	87	0.	1		1522	462	0.	2		0352	837	0.	2		1622	1212	0.
1		0254	88	0.	1		1524	463	0.	2		0354	838	0.	2		1624	1213	0.
1		0256	89	0.	1		1526	464	0.	2		0356	839	0.	2		1626	1214	0.
1		0258	90	0.	1		1528	465	0.	2		0358	840	0.	2		1628	1215	0.
1		0300	91	0.	1		1530	466	0.	2		0400	841	0.	2		1630	1216	0.
1		0302	92	0.	1		1532	467	0.	2		0402	842	0.	2		1632	1217	0.
1		0304	93	0.	1		1534	468	0.	2		0404	843	0.	2		1634	1218	0.
1		0306	94	0.	1		1536	469	0.	2		0406	844	0.	2		1636	1219	0.
1		0308	95	0.	1		1538	470	0.	2		0408	845	0.	2		1638	1220	0.
1		0310	96	0.	1		1540	471	0.	2		0410	846	0.	2		1640	1221	0.
1		0312	97	0.	1		1542	472	0.	2		0412	847	0.	2		1642	1222	0.
1		0314	98	0.	1		1544	473	0.	2		0414	848	0.	2		1644	1223	0.
1		0316	99	0.	1		1546	474	0.	2		0416	849	0.	2		1646	1224	0.
1		0318	100	0.	1		1548	475	0.	2		0418	850	0.	2		1648	1225	0.
1		0320	101	0.	1		1550	476	0.	2		0420	851	0.	2		1650	1226	0.
1		0322	102	0.	1		1552	477	0.	2		0422	852	0.	2		1652	1227	0.
1		0324	103	0.	1		1554	478	0.	2		0424	853	0.	2		1654	1228	0.
1		0326	104	0.	1		1556	479	0.	2		0426	854	0.	2		1656	1229	0.
1		0328	105	0.	1		1558	480	0.	2		0428	855	0.	2		1658	1230	0.

1	0330	106	0.	*	1	1600	481	0.	*	2	0430	856	0.	*	2	1700	1231	0.
1	0332	107	0.	*	1	1602	482	0.	*	2	0432	857	0.	*	2	1702	1232	0.
1	0334	108	0.	*	1	1604	483	0.	*	2	0434	858	0.	*	2	1704	1233	0.
1	0336	109	0.	*	1	1606	484	0.	*	2	0436	859	0.	*	2	1706	1234	0.
1	0338	110	0.	*	1	1608	485	0.	*	2	0438	860	0.	*	2	1708	1235	0.
1	0340	111	0.	*	1	1610	486	0.	*	2	0440	861	0.	*	2	1710	1236	0.
1	0342	112	0.	*	1	1612	487	0.	*	2	0442	862	0.	*	2	1712	1237	0.
1	0344	113	0.	*	1	1614	488	0.	*	2	0444	863	0.	*	2	1714	1238	0.
1	0346	114	0.	*	1	1616	489	0.	*	2	0446	864	0.	*	2	1716	1239	0.
1	0348	115	0.	*	1	1618	490	0.	*	2	0448	865	0.	*	2	1718	1240	0.
1	0350	116	0.	*	1	1620	491	0.	*	2	0450	866	0.	*	2	1720	1241	0.
1	0352	117	0.	*	1	1622	492	0.	*	2	0452	867	0.	*	2	1722	1242	0.
1	0354	118	0.	*	1	1624	493	0.	*	2	0454	868	0.	*	2	1724	1243	0.
1	0356	119	0.	*	1	1626	494	0.	*	2	0456	869	0.	*	2	1726	1244	0.
1	0358	120	0.	*	1	1628	495	0.	*	2	0458	870	0.	*	2	1728	1245	0.
1	0400	121	0.	*	1	1630	496	0.	*	2	0500	871	0.	*	2	1730	1246	0.
1	0402	122	0.	*	1	1632	497	0.	*	2	0502	872	0.	*	2	1732	1247	0.
1	0404	123	0.	*	1	1634	498	0.	*	2	0504	873	0.	*	2	1734	1248	0.
1	0406	124	0.	*	1	1636	499	0.	*	2	0506	874	0.	*	2	1736	1249	0.
1	0408	125	0.	*	1	1638	500	0.	*	2	0508	875	0.	*	2	1738	1250	0.
1	0410	126	0.	*	1	1640	501	0.	*	2	0510	876	0.	*	2	1740	1251	0.
1	0412	127	0.	*	1	1642	502	0.	*	2	0512	877	0.	*	2	1742	1252	0.
1	0414	128	0.	*	1	1644	503	0.	*	2	0514	878	0.	*	2	1744	1253	0.
1	0416	129	0.	*	1	1646	504	0.	*	2	0516	879	0.	*	2	1746	1254	0.
1	0418	130	0.	*	1	1648	505	0.	*	2	0518	880	0.	*	2	1748	1255	0.
1	0420	131	0.	*	1	1650	506	0.	*	2	0520	881	0.	*	2	1750	1256	0.
1	0422	132	0.	*	1	1652	507	0.	*	2	0522	882	0.	*	2	1752	1257	0.
1	0424	133	0.	*	1	1654	508	0.	*	2	0524	883	0.	*	2	1754	1258	0.
1	0426	134	0.	*	1	1656	509	0.	*	2	0526	884	0.	*	2	1756	1259	0.
1	0428	135	0.	*	1	1658	510	0.	*	2	0528	885	0.	*	2	1758	1260	0.
1	0430	136	0.	*	1	1700	511	0.	*	2	0530	886	0.	*	2	1800	1261	0.
1	0432	137	0.	*	1	1702	512	0.	*	2	0532	887	0.	*	2	1802	1262	0.
1	0434	138	0.	*	1	1704	513	0.	*	2	0534	888	0.	*	2	1804	1263	0.
1	0436	139	0.	*	1	1706	514	0.	*	2	0536	889	0.	*	2	1806	1264	0.
1	0438	140	0.	*	1	1708	515	0.	*	2	0538	890	0.	*	2	1808	1265	0.
1	0440	141	0.	*	1	1710	516	0.	*	2	0540	891	0.	*	2	1810	1266	0.
1	0442	142	0.	*	1	1712	517	0.	*	2	0542	892	0.	*	2	1812	1267	0.
1	0444	143	0.	*	1	1714	518	0.	*	2	0544	893	0.	*	2	1814	1268	0.
1	0446	144	0.	*	1	1716	519	0.	*	2	0546	894	0.	*	2	1816	1269	0.
1	0448	145	0.	*	1	1718	520	0.	*	2	0548	895	0.	*	2	1818	1270	0.
1	0450	146	0.	*	1	1720	521	0.	*	2	0550	896	0.	*	2	1820	1271	0.
1	0452	147	0.	*	1	1722	522	0.	*	2	0552	897	0.	*	2	1822	1272	0.
1	0454	148	0.	*	1	1724	523	0.	*	2	0554	898	0.	*	2	1824	1273	0.
1	0456	149	0.	*	1	1726	524	0.	*	2	0556	899	0.	*	2	1826	1274	0.
1	0458	150	0.	*	1	1728	525	0.	*	2	0558	900	0.	*	2	1828	1275	0.
1	0500	151	0.	*	1	1730	526	0.	*	2	0600	901	0.	*	2	1830	1276	0.
1	0502	152	0.	*	1	1732	527	0.	*	2	0602	902	0.	*	2	1832	1277	0.
1	0504	153	0.	*	1	1734	528	0.	*	2	0604	903	0.	*	2	1834	1278	0.
1	0506	154	0.	*	1	1736	529	0.	*	2	0606	904	0.	*	2	1836	1279	0.
1	0508	155	0.	*	1	1738	530	0.	*	2	0608	905	0.	*	2	1838	1280	0.
1	0510	156	0.	*	1	1740	531	0.	*	2	0610	906	0.	*	2	1840	1281	0.
1	0512	157	0.	*	1	1742	532	0.	*	2	0612	907	0.	*	2	1842	1282	0.
1	0514	158	0.	*	1	1744	533	0.	*	2	0614	908	0.	*	2	1844	1283	0.
1	0516	159	0.	*	1	1746	534	0.	*	2	0616	909	0.	*	2	1846	1284	0.
1	0518	160	0.	*	1	1748	535	0.	*	2	0618	910	0.	*	2	1848	1285	0.
1	0520	161	0.	*	1	1750	536	0.	*	2	0620	911	0.	*	2	1850	1286	0.
1	0522	162	0.	*	1	1752	537	0.	*	2	0622	912	0.	*	2	1852	1287	0.
1	0524	163	0.	*	1	1754	538	0.	*	2	0624	913	0.	*	2	1854	1288	0.
1	0526	164	0.	*	1	1756	539	0.	*	2	0626	914	0.	*	2	1856	1289	0.
1	0528	165	0.	*	1	1758	540	0.	*	2	0628	915	0.	*	2	1858	1290	0.
1	0530	166	0.	*	1	1800	541	0.	*	2	0630	916	0.	*	2	1900	1291	0.
1	0532	167	0.	*	1	1802	542	0.	*	2	0632	917	0.	*	2	1902	1292	0.
1	0534	168	0.	*	1	1804	543	0.	*	2	0634	918	0.	*	2	1904	1293	0.
1	0536	169	0.	*	1	1806	544	0.	*	2	0636	919	0.	*	2	1906	1294	0.
1	0538	170	0.	*	1	1808	545	0.	*	2	0638	920	0.	*	2	1908	1295	0.
1	0540	171	0.	*	1	1810	546	0.	*	2	0640	921	0.	*	2	1910	1296	0.
1	0542	172	0.	*	1	1812	547	0.	*	2	0642	922	0.	*	2	1912	1297	0.
1	0544	173	0.	*	1	1814	548	0.	*	2	0644	923	0.	*	2	1914	1298	0.
1	0546	174	0.	*	1	1816	549	0.	*	2	0646	924	0.	*	2	1916	1299	0.
1	0548	175	0.	*	1	1818	550	0.	*	2	0648	925	0.	*	2	1918	1300	0.
1	0550	176	0.	*	1	1820	551	0.	*	2	0650	926	0.	*	2	1920	1301	0.
1	0552	177	0.	*	1	1822	552	0.	*	2	0652	927	0.	*	2	1922	1302	0.
1	0554	178	0.	*	1	1824	553	0.	*	2	0654	928	0.	*	2	1924	1303	0.
1	0556	179	0.	*	1	1826	554	0.	*	2	0656	929	0.	*	2	1926	1304	0.
1	0558	180	0.	*	1	1828	555	0.	*	2	0658	930	0.	*	2	1928	1305	0.
1	0600	181	0.	*	1	1830	556	0.	*	2	0700	931	0.	*	2	1930	1306	0.
1	0602	182	0.	*	1	1832	557	0.	*	2	0702	932	0.	*	2	1932	1307	0.
1	0604	183	0.	*	1	1834	558	0.	*	2	0704	933	0.	*	2	1934	1308	0.
1	0606	184	0.	*	1	1836	559	0.	*	2	0706	934	0.	*	2	1936	1309	0.
1	0608	185	0.	*	1	1838	560	0.	*	2	0708	935	0.	*	2	1938	1310	0.
1	0610	186	0.	*	1	1840	561	0.	*	2	0710	936	0.	*	2	1940	1311	0.
1	0612	187	0.	*	1	1842	562	0.	*	2	0712	937	0.	*	2	1942	1312	0.
1	0614	188	0.	*	1	1844	563	0.	*	2	0714	938	0.	*	2	1944	1313	0.
1	0616	189	0.	*	1	1846	564	0.	*	2	0716	939	0.	*	2	1946	1314	0.
1	0618	190	0.	*	1	1848	565	0.	*	2	0718	940	0.	*	2	1948	1315	0.
1	0620	191	0.	*	1	1850	566	0.	*	2	0720	941	0.	*	2	1950	1316	0.
1	0622	192	0.	*	1	1852	567	0.	*	2	0722	942	0.	*	2	1952	1317	0.
1	0624	193	0.	*	1	1854	568	0.	*	2	0724	943	0.	*	2	1954	1318	0.
1	0626	194	0.	*	1	1856	569	0.	*	2	0726	944	0.	*	2	1956	1319	0.
1	0628	195	0.	*	1	1858	570	0.	*	2	0728	945	0.	*	2	1958	1320	0.
1	0630	196	0.	*	1	1900	571	0.	*	2	0730	946	0.	*	2	2000	1321	0.
1	0632	197	0.	*	1	1902	572	0.	*	2	0732	947	0.	*	2	2002	1322	0.
1	0634	198	0.	*	1	1904	573	0.	*	2	0734	948	0.	*	2	2004	1323	0.
1	0636	199	0.	*	1	1906	574	0.	*	2	0736	949	0.	*	2	2006	1324	0.
1	0638	200	0.	*	1	1908	575	0.	*	2	0738	950	0.	*	2	2008	1325	0.
1	0640	201	0.	*	1	1910	576	0.	*	2	0740	951	0.	*	2	2010	1326	0.
1	0642	202	0.	*	1	1912	577	0.	*	2	0742	952	0.	*	2	2012	1327	0.
1	0644	203	0.	*	1	1914	578	0.	*	2	0744	953	0.	*	2	2014	1328	0.
1	0646	204	0.	*	1	1916	579	0.	*	2	0746	954	0.	*	2	2016	1329	0.
1	0648	205	0.	*	1	1918	580	0.	*	2	0748	955	0.	*	2	2018	1330	0.
1	0650	206	0.	*	1	1920	581	0.	*	2	0750	956	0.	*	2	2020	1331	0.
1	0652	207	0.	*	1	1922	582	0.	*	2	0752	957	0.	*	2	2022	1332	0.
1	0654	208	0.	*	1	1924	583	0.	*	2	0754	958	0.	*	2	2024	1333	0.
1	0656	209	0.	*	1	1926	584	0.	*	2	0756	959	0.	*	2	2026	1334	0.
1	0658	210	0.	*	1	1928	585	0.	*	2	0758	960	0.	*	2	2028	1335	0.
1	0700	211	0.	*	1	1930	586	0.	*	2	0800	961	0.	*	2	2030	1336	0.
1	0702	212	0.	*	1	1932	587	0.	*	2	0802	962	0.	*	2	2032	1337	0.
1	0704	213	0.	*	1	1934	588	0.	*	2	0804	963	0.	*	2	2034	1338	0.
1	0706	214	0.	*	1	1936	589	0.	*	2	0806	964	0.	*	2	2036	1339	0.
1	0708	215	0.	*	1	1938	590	0.	*	2	0808	965	0.	*	2	2038	1340	0.
1	0710	216	0.	*	1	1940	591	0.	*	2	0810	966	0.	*	2	2040	1341	0.
1	0712	217	0.	*	1	1942	592	0.	*	2	0812	967	0.	*	2	2042	1342	0.
1	0714	218	0.	*	1	1944	593	0.	*	2	0814	968	0.	*	2	2044	1343	0.

1	0716	219	0.	*	1	1946	594	0.	*	2	0816	969	0.	*	2	2046	1344	0.
1	0718	220	0.	*	1	1948	595	0.	*	2	0818	970	0.	*	2	2048	1345	0.
1	0720	221	0.	*	1	1950	596	0.	*	2	0820	971	0.	*	2	2050	1346	0.
1	0722	222	0.	*	1	1952	597	0.	*	2	0822	972	0.	*	2	2052	1347	0.
1	0724	223	0.	*	1	1954	598	0.	*	2	0824	973	0.	*	2	2054	1348	0.
1	0726	224	0.	*	1	1956	599	0.	*	2	0826	974	0.	*	2	2056	1349	0.
1	0728	225	0.	*	1	1958	600	0.	*	2	0828	975	0.	*	2	2058	1350	0.
1	0730	226	0.	*	1	2000	601	0.	*	2	0830	976	0.	*	2	2100	1351	0.
1	0732	227	0.	*	1	2002	602	0.	*	2	0832	977	0.	*	2	2102	1352	0.
1	0734	228	0.	*	1	2004	603	0.	*	2	0834	978	0.	*	2	2104	1353	0.
1	0736	229	0.	*	1	2006	604	0.	*	2	0836	979	0.	*	2	2106	1354	0.
1	0738	230	0.	*	1	2008	605	0.	*	2	0838	980	0.	*	2	2108	1355	0.
1	0740	231	0.	*	1	2010	606	0.	*	2	0840	981	0.	*	2	2110	1356	0.
1	0742	232	0.	*	1	2012	607	0.	*	2	0842	982	0.	*	2	2112	1357	0.
1	0744	233	0.	*	1	2014	608	0.	*	2	0844	983	0.	*	2	2114	1358	0.
1	0746	234	0.	*	1	2016	609	0.	*	2	0846	984	0.	*	2	2116	1359	0.
1	0748	235	0.	*	1	2018	610	0.	*	2	0848	985	0.	*	2	2118	1360	0.
1	0750	236	0.	*	1	2020	611	0.	*	2	0850	986	0.	*	2	2120	1361	0.
1	0752	237	0.	*	1	2022	612	0.	*	2	0852	987	0.	*	2	2122	1362	0.
1	0754	238	0.	*	1	2024	613	0.	*	2	0854	988	0.	*	2	2124	1363	0.
1	0756	239	0.	*	1	2026	614	0.	*	2	0856	989	0.	*	2	2126	1364	0.
1	0758	240	0.	*	1	2028	615	0.	*	2	0858	990	0.	*	2	2128	1365	0.
1	0800	241	0.	*	1	2030	616	0.	*	2	0900	991	0.	*	2	2130	1366	0.
1	0802	242	0.	*	1	2032	617	0.	*	2	0902	992	0.	*	2	2132	1367	0.
1	0804	243	0.	*	1	2034	618	0.	*	2	0904	993	0.	*	2	2134	1368	0.
1	0806	244	0.	*	1	2036	619	0.	*	2	0906	994	0.	*	2	2136	1369	0.
1	0808	245	0.	*	1	2038	620	0.	*	2	0908	995	0.	*	2	2138	1370	0.
1	0810	246	0.	*	1	2040	621	0.	*	2	0910	996	0.	*	2	2140	1371	0.
1	0812	247	0.	*	1	2042	622	0.	*	2	0912	997	0.	*	2	2142	1372	0.
1	0814	248	0.	*	1	2044	623	0.	*	2	0914	998	0.	*	2	2144	1373	0.
1	0816	249	0.	*	1	2046	624	0.	*	2	0916	999	0.	*	2	2146	1374	0.
1	0818	250	0.	*	1	2048	625	0.	*	2	0918	1000	0.	*	2	2148	1375	0.
1	0820	251	0.	*	1	2050	626	0.	*	2	0920	1001	0.	*	2	2150	1376	0.
1	0822	252	0.	*	1	2052	627	0.	*	2	0922	1002	0.	*	2	2152	1377	0.
1	0824	253	0.	*	1	2054	628	0.	*	2	0924	1003	0.	*	2	2154	1378	0.
1	0826	254	0.	*	1	2056	629	0.	*	2	0926	1004	0.	*	2	2156	1379	0.
1	0828	255	0.	*	1	2058	630	0.	*	2	0928	1005	0.	*	2	2158	1380	0.
1	0830	256	0.	*	1	2100	631	0.	*	2	0930	1006	0.	*	2	2200	1381	0.
1	0832	257	0.	*	1	2102	632	0.	*	2	0932	1007	0.	*	2	2202	1382	0.
1	0834	258	0.	*	1	2104	633	0.	*	2	0934	1008	0.	*	2	2204	1383	0.
1	0836	259	0.	*	1	2106	634	0.	*	2	0936	1009	0.	*	2	2206	1384	0.
1	0838	260	0.	*	1	2108	635	0.	*	2	0938	1010	0.	*	2	2208	1385	0.
1	0840	261	0.	*	1	2110	636	0.	*	2	0940	1011	0.	*	2	2210	1386	0.
1	0842	262	0.	*	1	2112	637	0.	*	2	0942	1012	0.	*	2	2212	1387	0.
1	0844	263	0.	*	1	2114	638	0.	*	2	0944	1013	0.	*	2	2214	1388	0.
1	0846	264	0.	*	1	2116	639	0.	*	2	0946	1014	0.	*	2	2216	1389	0.
1	0848	265	0.	*	1	2118	640	0.	*	2	0948	1015	0.	*	2	2218	1390	0.
1	0850	266	0.	*	1	2120	641	0.	*	2	0950	1016	0.	*	2	2220	1391	0.
1	0852	267	0.	*	1	2122	642	0.	*	2	0952	1017	0.	*	2	2222	1392	0.
1	0854	268	0.	*	1	2124	643	0.	*	2	0954	1018	0.	*	2	2224	1393	0.
1	0856	269	0.	*	1	2126	644	0.	*	2	0956	1019	0.	*	2	2226	1394	0.
1	0858	270	0.	*	1	2128	645	0.	*	2	0958	1020	0.	*	2	2228	1395	0.
1	0900	271	0.	*	1	2130	646	0.	*	2	1000	1021	0.	*	2	2230	1396	0.
1	0902	272	0.	*	1	2132	647	0.	*	2	1002	1022	0.	*	2	2232	1397	0.
1	0904	273	0.	*	1	2134	648	0.	*	2	1004	1023	0.	*	2	2234	1398	0.
1	0906	274	0.	*	1	2136	649	0.	*	2	1006	1024	0.	*	2	2236	1399	0.
1	0908	275	0.	*	1	2138	650	0.	*	2	1008	1025	0.	*	2	2238	1400	0.
1	0910	276	0.	*	1	2140	651	0.	*	2	1010	1026	0.	*	2	2240	1401	0.
1	0912	277	0.	*	1	2142	652	0.	*	2	1012	1027	0.	*	2	2242	1402	0.
1	0914	278	0.	*	1	2144	653	0.	*	2	1014	1028	0.	*	2	2244	1403	0.
1	0916	279	0.	*	1	2146	654	0.	*	2	1016	1029	0.	*	2	2246	1404	0.
1	0918	280	0.	*	1	2148	655	0.	*	2	1018	1030	0.	*	2	2248	1405	0.
1	0920	281	0.	*	1	2150	656	0.	*	2	1020	1031	0.	*	2	2250	1406	0.
1	0922	282	0.	*	1	2152	657	0.	*	2	1022	1032	0.	*	2	2252	1407	0.
1	0924	283	0.	*	1	2154	658	0.	*	2	1024	1033	0.	*	2	2254	1408	0.
1	0926	284	0.	*	1	2156	659	0.	*	2	1026	1034	0.	*	2	2256	1409	0.
1	0928	285	0.	*	1	2158	660	0.	*	2	1028	1035	0.	*	2	2258	1410	0.
1	0930	286	0.	*	1	2200	661	0.	*	2	1030	1036	0.	*	2	2300	1411	0.
1	0932	287	0.	*	1	2202	662	0.	*	2	1032	1037	0.	*	2	2302	1412	0.
1	0934	288	0.	*	1	2204	663	0.	*	2	1034	1038	0.	*	2	2304	1413	0.
1	0936	289	0.	*	1	2206	664	0.	*	2	1036	1039	0.	*	2	2306	1414	0.
1	0938	290	0.	*	1	2208	665	0.	*	2	1038	1040	0.	*	2	2308	1415	0.
1	0940	291	0.	*	1	2210	666	0.	*	2	1040	1041	0.	*	2	2310	1416	0.
1	0942	292	0.	*	1	2212	667	0.	*	2	1042	1042	0.	*	2	2312	1417	0.
1	0944	293	0.	*	1	2214	668	0.	*	2	1044	1043	0.	*	2	2314	1418	0.
1	0946	294	0.	*	1	2216	669	0.	*	2	1046	1044	0.	*	2	2316	1419	0.
1	0948	295	0.	*	1	2218	670	0.	*	2	1048	1045	0.	*	2	2318	1420	0.
1	0950	296	0.	*	1	2220	671	0.	*	2	1050	1046	0.	*	2	2320	1421	0.
1	0952	297	0.	*	1	2222	672	0.	*	2	1052	1047	0.	*	2	2322	1422	0.
1	0954	298	0.	*	1	2224	673	0.	*	2	1054	1048	0.	*	2	2324	1423	0.
1	0956	299	0.	*	1	2226	674	0.	*	2	1056	1049	0.	*	2	2326	1424	0.
1	0958	300	0.	*	1	2228	675	0.	*	2	1058	1050	0.	*	2	2328	1425	0.
1	1000	301	0.	*	1	2230	676	0.	*	2	1100	1051	0.	*	2	2330	1426	0.
1	1002	302	0.	*	1	2232	677	0.	*	2	1102	1052	0.	*	2	2332	1427	0.
1	1004	303	0.	*	1	2234	678	0.	*	2	1104	1053	0.	*	2	2334	1428	0.
1	1006	304	0.	*	1	2236	679	0.	*	2	1106	1054	0.	*	2	2336	1429	0.
1	1008	305	0.	*	1	2238	680	0.	*	2	1108	1055	0.	*	2	2338	1430	0.
1	1010	306	0.	*	1	2240	681	0.	*	2	1110	1056	0.	*	2	2340	1431	0.
1	1012	307	0.	*	1	2242	682	0.	*	2	1112	1057	0.	*	2	2342	1432	0.
1	1014	308	0.	*	1	2244	683	0.	*	2	1114	1058	0.	*	2	2344	1433	0.
1	1016	309	0.	*	1	2246	684	0.	*	2	1116	1059	0.	*	2	2346	1434	0.
1	1018	310	0.	*	1	2248	685	0.	*	2	1118	1060	0.	*	2	2348	1435	0.
1	1020	311	0.	*	1	2250	686	0.	*	2	1120	1061	0.	*	2	2350	1436	0.
1	1022	312	0.	*	1	2252	687	0.	*	2	1122	1062	0.	*	2	2352	1437	0.
1	1024	313	0.	*	1	2254	688	0.	*	2	1124	1063	0.	*	2	2354	1438	0.
1	1026	314	0.	*	1	2256	689	0.	*	2	1126	1064	0.	*	2	2356	1439	0.
1	1028	315	0.	*	1	2258	690	0.	*	2	1128	1065	0.	*	2	2358	1440	0.
1	1030	316	0.	*	1	2300	691	0.	*	2	1130	1066	0.	*	3	0000	1441	0.
1	1032	317	0.	*	1	2302	692	0.	*	2	1132	1067	0.	*	3	0002	1442	0.
1	1034	318	0.	*	1	2304	693	0.	*	2	1134	1068	0.	*	3	0004	1443	0.
1	1036	319	0.	*	1	2306	694	0.	*	2	1136	1069	0.	*	3	0006	1444	0.
1	1038	320	0.	*	1	2308	695	0.	*	2	1138	1070	0.	*	3	0008	1445	0.
1	1040	321	0.	*	1	2310	696	0.	*	2	1140	1071	0.	*	3	0010	1446	0.
1	1042	322	0.	*	1	2312	697	0.	*	2	1142	1072	0.	*	3	0012	1447	0.
1	1044	323	0.	*	1	2314	698	0.	*	2	1144	1073	0.	*	3	0014	1448	0.
1	1046	324	0.	*	1	2316	699	0.	*	2	1146	1074	0.	*	3	0016	1449	0.
1	1048	325	0.	*	1	2318	700	0.	*	2	1148	1075	0.	*	3	0018	1450	0.
1	1050	326	0.	*	1	2320	701	0.	*	2	1150	1076	0.	*	3	0020	1451	0.
1	1052	327	0.	*	1	2322	702	0.	*	2	1152	1077	0.	*	3	0022	1452	0.
1	1054	328	0.	*	1	2324	703	0.	*	2	1154	1078	0.	*	3	0024	1453	0.
1	1056	329	0.	*	1	2326	704	0.	*	2	1156	1079	0.	*	3	0026	1454	0.
1	1058	330	0.	*	1	2328	705	0.	*	2	1158	1080	0.	*	3	0028	1455	0.
1	1100	331	0.	*	1	2330	706	0.	*	2	1200	1081	0.	*	3	0030	1456	0.

1	1102	332	0.	*	1	2332	707	0.	*	2	1202	1082	0.	*	3	0032	1457	0.
1	1104	333	0.	*	1	2334	708	0.	*	2	1204	1083	0.	*	3	0034	1458	0.
1	1106	334	0.	*	1	2336	709	0.	*	2	1206	1084	0.	*	3	0036	1459	0.
1	1108	335	0.	*	1	2338	710	0.	*	2	1208	1085	0.	*	3	0038	1460	0.
1	1110	336	0.	*	1	2340	711	0.	*	2	1210	1086	0.	*	3	0040	1461	0.
1	1112	337	0.	*	1	2342	712	0.	*	2	1212	1087	0.	*	3	0042	1462	0.
1	1114	338	0.	*	1	2344	713	0.	*	2	1214	1088	0.	*	3	0044	1463	0.
1	1116	339	0.	*	1	2346	714	0.	*	2	1216	1089	0.	*	3	0046	1464	0.
1	1118	340	0.	*	1	2348	715	0.	*	2	1218	1090	0.	*	3	0048	1465	0.
1	1120	341	0.	*	1	2350	716	0.	*	2	1220	1091	0.	*	3	0050	1466	0.
1	1122	342	0.	*	1	2352	717	0.	*	2	1222	1092	0.	*	3	0052	1467	0.
1	1124	343	0.	*	1	2354	718	0.	*	2	1224	1093	0.	*	3	0054	1468	0.
1	1126	344	0.	*	1	2356	719	0.	*	2	1226	1094	0.	*	3	0056	1469	0.
1	1128	345	0.	*	1	2358	720	0.	*	2	1228	1095	0.	*	3	0058	1470	0.
1	1130	346	0.	*	2	0000	721	0.	*	2	1230	1096	0.	*	3	0100	1471	0.
1	1132	347	0.	*	2	0002	722	0.	*	2	1232	1097	0.	*	3	0102	1472	0.
1	1134	348	0.	*	2	0004	723	0.	*	2	1234	1098	0.	*	3	0104	1473	0.
1	1136	349	0.	*	2	0006	724	0.	*	2	1236	1099	0.	*	3	0106	1474	0.
1	1138	350	0.	*	2	0008	725	0.	*	2	1238	1100	0.	*	3	0108	1475	0.
1	1140	351	0.	*	2	0010	726	0.	*	2	1240	1101	0.	*	3	0110	1476	0.
1	1142	352	0.	*	2	0012	727	0.	*	2	1242	1102	0.	*	3	0112	1477	0.
1	1144	353	0.	*	2	0014	728	0.	*	2	1244	1103	0.	*	3	0114	1478	0.
1	1146	354	0.	*	2	0016	729	0.	*	2	1246	1104	0.	*	3	0116	1479	0.
1	1148	355	0.	*	2	0018	730	0.	*	2	1248	1105	0.	*	3	0118	1480	0.
1	1150	356	0.	*	2	0020	731	0.	*	2	1250	1106	0.	*	3	0120	1481	0.
1	1152	357	50.	*	2	0022	732	0.	*	2	1252	1107	0.	*	3	0122	1482	0.
1	1154	358	307.	*	2	0024	733	0.	*	2	1254	1108	0.	*	3	0124	1483	0.
1	1156	359	616.	*	2	0026	734	0.	*	2	1256	1109	0.	*	3	0126	1484	0.
1	1158	360	974.	*	2	0028	735	0.	*	2	1258	1110	0.	*	3	0128	1485	0.
1	1200	361	1378.	*	2	0030	736	0.	*	2	1300	1111	0.	*	3	0130	1486	0.
1	1202	362	1809.	*	2	0032	737	0.	*	2	1302	1112	0.	*	3	0132	1487	0.
1	1204	363	2236.	*	2	0034	738	0.	*	2	1304	1113	0.	*	3	0134	1488	0.
1	1206	364	2637.	*	2	0036	739	0.	*	2	1306	1114	0.	*	3	0136	1489	0.
1	1208	365	2995.	*	2	0038	740	0.	*	2	1308	1115	0.	*	3	0138	1490	0.
1	1210	366	3298.	*	2	0040	741	0.	*	2	1310	1116	0.	*	3	0140	1491	0.
1	1212	367	3530.	*	2	0042	742	0.	*	2	1312	1117	0.	*	3	0142	1492	0.
1	1214	368	3680.	*	2	0044	743	0.	*	2	1314	1118	0.	*	3	0144	1493	0.
1	1216	369	3744.	*	2	0046	744	0.	*	2	1316	1119	0.	*	3	0146	1494	0.
1	1218	370	3733.	*	2	0048	745	0.	*	2	1318	1120	0.	*	3	0148	1495	0.
1	1220	371	3655.	*	2	0050	746	0.	*	2	1320	1121	0.	*	3	0150	1496	0.
1	1222	372	3521.	*	2	0052	747	0.	*	2	1322	1122	0.	*	3	0152	1497	0.
1	1224	373	3344.	*	2	0054	748	0.	*	2	1324	1123	0.	*	3	0154	1498	0.
1	1226	374	3137.	*	2	0056	749	0.	*	2	1326	1124	0.	*	3	0156	1499	0.
1	1228	375	2920.	*	2	0058	750	0.	*	2	1328	1125	0.	*	3	0158	1500	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)	(CFS)				
+ 3744.	12.27		405.	101.	49.	49.
		(INCHES)	.650	.650	.650	.650
		(AC-FT)	201.	201.	201.	201.

CUMULATIVE AREA = 5.80 SQ MI

INTERPOLATED DIVERSION HYDROGRAPH AT 180D

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		1230	376	2687.	2		0100	751	0.	2		1330	1126	0.
1		0002	2	0.	1		1232	377	2078.	2		0102	752	0.	2		1332	1127	0.
1		0004	3	0.	1		1234	378	1506.	2		0104	753	0.	2		1334	1128	0.
1		0006	4	0.	1		1236	379	984.	2		0106	754	0.	2		1336	1129	0.
1		0008	5	0.	1		1238	380	509.	2		0108	755	0.	2		1338	1130	0.
1		0010	6	0.	1		1240	381	84.	2		0110	756	0.	2		1340	1131	0.
1		0012	7	0.	1		1242	382	0.	2		0112	757	0.	2		1342	1132	0.
1		0014	8	0.	1		1244	383	0.	2		0114	758	0.	2		1344	1133	0.
1		0016	9	0.	1		1246	384	0.	2		0116	759	0.	2		1346	1134	0.
1		0018	10	0.	1		1248	385	0.	2		0118	760	0.	2		1348	1135	0.
1		0020	11	0.	1		1250	386	0.	2		0120	761	0.	2		1350	1136	0.
1		0022	12	0.	1		1252	387	0.	2		0122	762	0.	2		1352	1137	0.
1		0024	13	0.	1		1254	388	0.	2		0124	763	0.	2		1354	1138	0.
1		0026	14	0.	1		1256	389	0.	2		0126	764	0.	2		1356	1139	0.
1		0028	15	0.	1		1258	390	0.	2		0128	765	0.	2		1358	1140	0.
1		0030	16	0.	1		1300	391	0.	2		0130	766	0.	2		1400	1141	0.
1		0032	17	0.	1		1302	392	0.	2		0132	767	0.	2		1402	1142	0.
1		0034	18	0.	1		1304	393	0.	2		0134	768	0.	2		1404	1143	0.
1		0036	19	0.	1		1306	394	0.	2		0136	769	0.	2		1406	1144	0.
1		0038	20	0.	1		1308	395	0.	2		0138	770	0.	2		1408	1145	0.
1		0040	21	0.	1		1310	396	0.	2		0140	771	0.	2		1410	1146	0.
1		0042	22	0.	1		1312	397	0.	2		0142	772	0.	2		1412	1147	0.
1		0044	23	0.	1		1314	398	0.	2		0144	773	0.	2		1414	1148	0.
1		0046	24	0.	1		1316	399	0.	2		0146	774	0.	2		1416	1149	0.
1		0048	25	0.	1		1318	400	0.	2		0148	775	0.	2		1418	1150	0.
1		0050	26	0.	1		1320	401	0.	2		0150	776	0.	2		1420	1151	0.
1		0052	27	0.	1		1322	402	0.	2		0152	777	0.	2		1422	1152	0.
1		0054	28	0.	1		1324	403	0.	2		0154	778	0.	2		1424	1153	0.
1		0056	29	0.	1		1326	404	0.	2		0156	779	0.	2		1426	1154	0.
1		0058	30	0.	1		1328	405	0.	2		0158	780	0.	2		1428	1155	0.
1		0100	31	0.	1		1330	406	0.	2		0200	781	0.	2		1430	1156	0.
1		0102	32	0.	1		1332	407	0.	2		0202	782	0.	2		1432	1157	0.
1		0104	33	0.	1		1334	408	0.	2		0204	783	0.	2		1434	1158	0.
1		0106	34	0.	1		1336	409	0.	2		0206	784	0.	2		1436	1159	0.
1		0108	35	0.	1		1338	410	0.	2		0208	785	0.	2		1438	1160	0.
1		0110	36	0.	1		1340	411	0.	2		0210	786	0.	2		1440	1161	0.
1		0112	37	0.	1		1342	412	0.	2		0212	787	0.	2		1442	1162	0.
1		0114	38	0.	1		1344	413	0.	2		0214	788	0.	2		1444	1163	0.
1		0116	39	0.	1		1346	414	0.	2		0216	789	0.	2		1446	1164	0.
1		0118	40	0.	1		1348	415	0.	2		0218	790	0.	2		1448	1165	0.
1		0120	41	0.	1		1350	416	0.	2		0220	791	0.	2		1450	1166	0.
1		0122	42	0.	1		1352	417	0.	2		0222	792	0.	2		1452	1167	0.
1		0124	43	0.	1		1354	418	0.	2		0224	793	0.	2		1454	1168	0.
1		0126	44	0.	1		1356	419	0.	2		0226	794	0.	2		1456	1169	0.
1		0128	45	0.	1		1358	420	0.	2		0228	795	0.	2		1458	1170	0.
1		0130	46	0.	1		1400	421	0.	2		0230	796	0.	2		1500	1171	0.
1		0132	47	0.	1		1402	422	0.	2		0232	797	0.	2		1502	1172	0.
1		0134	48	0.	1		1404	423	0.	2		0234	798	0.	2		1504	1173	0.
1		0136	49	0.	1		1406	424	0.	2		0236	799	0.	2		1506	1174	0.
1		0138	50	0.	1		1408	425	0.	2		0238	800	0.	2		1508	1175	0.
1		0140	51	0.	1		1410	426	0.	2		0240	801	0.	2		1510	1176	0.
1		0142	52	0.	1		1412	427	0.	2		0242	802	0.	2		1512	1177	0.
1		0144	53	0.	1		1414	428	0.	2		0244	803	0.	2		1514	1178	0.
1		0146	54	0.	1		1416	429	0.	2		0246	804	0.	2		1516	1179	0.
1		0148	55	0.	1		1418	430	0.	2		0248	805	0.	2		1518	1180	0.
1		0150	56	0.	1		1420	431	0.	2		0250	806	0.	2		1520	1181	0.
1		0152	57	0.	1		1422	432	0.	2		0252	807	0.	2		1522	1182	0.
1		0154	58	0.	1		1424	433	0.	2		0254	808	0.	2		1524	1183	0.
1		0156	59	0.	1		1426	434	0.	2		0256	809	0.	2		1526	1184	0.
1		0158	60	0.	1		1428	435	0.	2		0258	810	0.	2		1528	1185	0.
1		0200	61	0.	1		1430	436	0.	2		0300	811	0.	2		1530	1186	0.
1		0202	62	0.	1		1432	437	0.	2		0302	812	0.	2		1532	1187	0.
1		0204	63	0.	1		1434	438	0.	2		0304	813	0.	2		1534	1188	0.
1		0206	64	0.	1		1436	439	0.	2		0306	814	0.	2		1536	1189	0.
1		0208	65	0.	1		1438	440	0.	2		0308	815	0.	2		1538	1190	0.
1		0210	66	0.	1		1440	441	0.	2		0310	816	0.	2		1540	1191	0.
1		0212	67	0.	1		1442	442	0.	2		0312	817	0.	2		1542	1192	0.
1		0214	68	0.	1		1444	443	0.	2		0314	818	0.	2		1544	1193	0.
1		0216	69	0.	1		1446	444	0.	2		0316	819	0.	2		1546	1194	0.
1		0218	70	0.	1		1448	445	0.	2		0318	820	0.	2		1548	1195	0.
1		0220	71	0.	1		1450	446	0.	2		0320	821	0.	2		1550	1196	0.
1		0222	72	0.	1		1452	447	0.	2		0322	822	0.	2		1552	1197	0.
1		0224	73	0.	1		1454	448	0.	2		0324	823	0.	2		1554	1198	0.
1		0226	74	0.	1		1456	449	0.	2		0326	824	0.	2		1556	1199	0.
1		0228	75	0.	1		1458	450	0.	2		0328	825	0.	2		1558	1200	0.
1		0230	76	0.	1		1500	451	0.	2		0330	826	0.	2		1600	1201	0.
1		0232	77	0.	1		1502	452	0.	2		0332	827	0.	2		1602	1202	0.
1		0234	78	0.	1		1504	453	0.	2		0334	828	0.	2		1604	1203	0.
1		0236	79	0.	1		1506	454	0.	2		0336	829	0.	2		1606	1204	0.
1		0238	80	0.	1		1508	455	0.	2		0338	830	0.	2		1608	1205	0.
1		0240	81	0.	1		1510	456	0.	2		0340	831	0.	2		1610	1206	0.
1		0242	82	0.	1		1512	457	0.	2		0342	832	0.	2		1612	1207	0.
1		0244	83	0.	1		1514	458	0.	2		0344	833	0.	2		1614	1208	0.
1		0246	84	0.	1		1516	459	0.	2		0346	834	0.	2		1616	1209	0.
1		0248	85	0.	1		1518	460	0.	2		0348	835	0.	2		1618	1210	0.
1		0250	86	0.	1		1520	461	0.	2		0350	836	0.	2		1620	1211	0.
1		0252	87	0.	1		1522	462	0.	2		0352	837	0.	2		1622	1212	0.
1		0254	88	0.	1		1524	463	0.	2		0354	838	0.	2		1624	1213	0.
1		0256	89	0.	1		1526	464	0.	2		0356	839	0.	2		1626	1214	0.
1		0258	90	0.	1		1528	465	0.	2		0358	840	0.	2		1628	1215	0.
1		0300	91	0.	1		1530	466	0.	2		0400	841	0.	2		1630	1216	0.
1		0302	92	0.	1		1532	467	0.	2		0402	842	0.	2		1632	1217	0.
1		0304	93	0.	1		1534	468	0.	2		0404	843	0.	2		1634	1218	0.
1		0306	94	0.	1		1536	469	0.	2		0406	844	0.	2		1636	1219	0.
1		0308	95	0.	1		1538	470	0.	2		0408	845	0.	2		1638	1220	0.
1		0310	96	0.	1		1540	471	0.	2		0410	846	0.	2		1640	1221	0.
1		0312	97	0.	1		1542	472	0.	2		0412	847	0.	2		1642	1222	0.
1		0314	98	0.	1		1544	473	0.	2		0414	848	0.	2		1644	1223	0.
1		0316	99	0.	1		1546	474	0.	2		0416	849	0.	2		1646	1224	0.
1		0318	100	0.	1		1548	475	0.	2		0418	850	0.	2		1648	1225	0.
1		0320	101	0.	1		1550	476	0.	2		0420	851	0.	2		1650	1226	0.
1		0322	102	0.	1		1552	477	0.	2		0422	852	0.	2		1652	1227	0.
1		0324	103	0.	1		1554	478	0.	2		0424	853	0.	2		1654	1228	0.
1		0326	104	0.	1		1556	479	0.	2		0426	854	0.	2		1656	1229	0.
1		0328	105	0.	1		1558	480	0.	2		0428	855	0.	2		1658	1230	0.

1	0330	106	0.	*	1	1600	481	0.	*	2	0430	856	0.	*	2	1700	1231	0.
1	0332	107	0.	*	1	1602	482	0.	*	2	0432	857	0.	*	2	1702	1232	0.
1	0334	108	0.	*	1	1604	483	0.	*	2	0434	858	0.	*	2	1704	1233	0.
1	0336	109	0.	*	1	1606	484	0.	*	2	0436	859	0.	*	2	1706	1234	0.
1	0338	110	0.	*	1	1608	485	0.	*	2	0438	860	0.	*	2	1708	1235	0.
1	0340	111	0.	*	1	1610	486	0.	*	2	0440	861	0.	*	2	1710	1236	0.
1	0342	112	0.	*	1	1612	487	0.	*	2	0442	862	0.	*	2	1712	1237	0.
1	0344	113	0.	*	1	1614	488	0.	*	2	0444	863	0.	*	2	1714	1238	0.
1	0346	114	0.	*	1	1616	489	0.	*	2	0446	864	0.	*	2	1716	1239	0.
1	0348	115	0.	*	1	1618	490	0.	*	2	0448	865	0.	*	2	1718	1240	0.
1	0350	116	0.	*	1	1620	491	0.	*	2	0450	866	0.	*	2	1720	1241	0.
1	0352	117	0.	*	1	1622	492	0.	*	2	0452	867	0.	*	2	1722	1242	0.
1	0354	118	0.	*	1	1624	493	0.	*	2	0454	868	0.	*	2	1724	1243	0.
1	0356	119	0.	*	1	1626	494	0.	*	2	0456	869	0.	*	2	1726	1244	0.
1	0358	120	0.	*	1	1628	495	0.	*	2	0458	870	0.	*	2	1728	1245	0.
1	0400	121	0.	*	1	1630	496	0.	*	2	0500	871	0.	*	2	1730	1246	0.
1	0402	122	0.	*	1	1632	497	0.	*	2	0502	872	0.	*	2	1732	1247	0.
1	0404	123	0.	*	1	1634	498	0.	*	2	0504	873	0.	*	2	1734	1248	0.
1	0406	124	0.	*	1	1636	499	0.	*	2	0506	874	0.	*	2	1736	1249	0.
1	0408	125	0.	*	1	1638	500	0.	*	2	0508	875	0.	*	2	1738	1250	0.
1	0410	126	0.	*	1	1640	501	0.	*	2	0510	876	0.	*	2	1740	1251	0.
1	0412	127	0.	*	1	1642	502	0.	*	2	0512	877	0.	*	2	1742	1252	0.
1	0414	128	0.	*	1	1644	503	0.	*	2	0514	878	0.	*	2	1744	1253	0.
1	0416	129	0.	*	1	1646	504	0.	*	2	0516	879	0.	*	2	1746	1254	0.
1	0418	130	0.	*	1	1648	505	0.	*	2	0518	880	0.	*	2	1748	1255	0.
1	0420	131	0.	*	1	1650	506	0.	*	2	0520	881	0.	*	2	1750	1256	0.
1	0422	132	0.	*	1	1652	507	0.	*	2	0522	882	0.	*	2	1752	1257	0.
1	0424	133	0.	*	1	1654	508	0.	*	2	0524	883	0.	*	2	1754	1258	0.
1	0426	134	0.	*	1	1656	509	0.	*	2	0526	884	0.	*	2	1756	1259	0.
1	0428	135	0.	*	1	1658	510	0.	*	2	0528	885	0.	*	2	1758	1260	0.
1	0430	136	0.	*	1	1700	511	0.	*	2	0530	886	0.	*	2	1800	1261	0.
1	0432	137	0.	*	1	1702	512	0.	*	2	0532	887	0.	*	2	1802	1262	0.
1	0434	138	0.	*	1	1704	513	0.	*	2	0534	888	0.	*	2	1804	1263	0.
1	0436	139	0.	*	1	1706	514	0.	*	2	0536	889	0.	*	2	1806	1264	0.
1	0438	140	0.	*	1	1708	515	0.	*	2	0538	890	0.	*	2	1808	1265	0.
1	0440	141	0.	*	1	1710	516	0.	*	2	0540	891	0.	*	2	1810	1266	0.
1	0442	142	0.	*	1	1712	517	0.	*	2	0542	892	0.	*	2	1812	1267	0.
1	0444	143	0.	*	1	1714	518	0.	*	2	0544	893	0.	*	2	1814	1268	0.
1	0446	144	0.	*	1	1716	519	0.	*	2	0546	894	0.	*	2	1816	1269	0.
1	0448	145	0.	*	1	1718	520	0.	*	2	0548	895	0.	*	2	1818	1270	0.
1	0450	146	0.	*	1	1720	521	0.	*	2	0550	896	0.	*	2	1820	1271	0.
1	0452	147	0.	*	1	1722	522	0.	*	2	0552	897	0.	*	2	1822	1272	0.
1	0454	148	0.	*	1	1724	523	0.	*	2	0554	898	0.	*	2	1824	1273	0.
1	0456	149	0.	*	1	1726	524	0.	*	2	0556	899	0.	*	2	1826	1274	0.
1	0458	150	0.	*	1	1728	525	0.	*	2	0558	900	0.	*	2	1828	1275	0.
1	0500	151	0.	*	1	1730	526	0.	*	2	0600	901	0.	*	2	1830	1276	0.
1	0502	152	0.	*	1	1732	527	0.	*	2	0602	902	0.	*	2	1832	1277	0.
1	0504	153	0.	*	1	1734	528	0.	*	2	0604	903	0.	*	2	1834	1278	0.
1	0506	154	0.	*	1	1736	529	0.	*	2	0606	904	0.	*	2	1836	1279	0.
1	0508	155	0.	*	1	1738	530	0.	*	2	0608	905	0.	*	2	1838	1280	0.
1	0510	156	0.	*	1	1740	531	0.	*	2	0610	906	0.	*	2	1840	1281	0.
1	0512	157	0.	*	1	1742	532	0.	*	2	0612	907	0.	*	2	1842	1282	0.
1	0514	158	0.	*	1	1744	533	0.	*	2	0614	908	0.	*	2	1844	1283	0.
1	0516	159	0.	*	1	1746	534	0.	*	2	0616	909	0.	*	2	1846	1284	0.
1	0518	160	0.	*	1	1748	535	0.	*	2	0618	910	0.	*	2	1848	1285	0.
1	0520	161	0.	*	1	1750	536	0.	*	2	0620	911	0.	*	2	1850	1286	0.
1	0522	162	0.	*	1	1752	537	0.	*	2	0622	912	0.	*	2	1852	1287	0.
1	0524	163	0.	*	1	1754	538	0.	*	2	0624	913	0.	*	2	1854	1288	0.
1	0526	164	0.	*	1	1756	539	0.	*	2	0626	914	0.	*	2	1856	1289	0.
1	0528	165	0.	*	1	1758	540	0.	*	2	0628	915	0.	*	2	1858	1290	0.
1	0530	166	0.	*	1	1800	541	0.	*	2	0630	916	0.	*	2	1900	1291	0.
1	0532	167	0.	*	1	1802	542	0.	*	2	0632	917	0.	*	2	1902	1292	0.
1	0534	168	0.	*	1	1804	543	0.	*	2	0634	918	0.	*	2	1904	1293	0.
1	0536	169	0.	*	1	1806	544	0.	*	2	0636	919	0.	*	2	1906	1294	0.
1	0538	170	0.	*	1	1808	545	0.	*	2	0638	920	0.	*	2	1908	1295	0.
1	0540	171	0.	*	1	1810	546	0.	*	2	0640	921	0.	*	2	1910	1296	0.
1	0542	172	0.	*	1	1812	547	0.	*	2	0642	922	0.	*	2	1912	1297	0.
1	0544	173	0.	*	1	1814	548	0.	*	2	0644	923	0.	*	2	1914	1298	0.
1	0546	174	0.	*	1	1816	549	0.	*	2	0646	924	0.	*	2	1916	1299	0.
1	0548	175	0.	*	1	1818	550	0.	*	2	0648	925	0.	*	2	1918	1300	0.
1	0550	176	0.	*	1	1820	551	0.	*	2	0650	926	0.	*	2	1920	1301	0.
1	0552	177	0.	*	1	1822	552	0.	*	2	0652	927	0.	*	2	1922	1302	0.
1	0554	178	0.	*	1	1824	553	0.	*	2	0654	928	0.	*	2	1924	1303	0.
1	0556	179	0.	*	1	1826	554	0.	*	2	0656	929	0.	*	2	1926	1304	0.
1	0558	180	0.	*	1	1828	555	0.	*	2	0658	930	0.	*	2	1928	1305	0.
1	0600	181	0.	*	1	1830	556	0.	*	2	0700	931	0.	*	2	1930	1306	0.
1	0602	182	0.	*	1	1832	557	0.	*	2	0702	932	0.	*	2	1932	1307	0.
1	0604	183	0.	*	1	1834	558	0.	*	2	0704	933	0.	*	2	1934	1308	0.
1	0606	184	0.	*	1	1836	559	0.	*	2	0706	934	0.	*	2	1936	1309	0.
1	0608	185	0.	*	1	1838	560	0.	*	2	0708	935	0.	*	2	1938	1310	0.
1	0610	186	0.	*	1	1840	561	0.	*	2	0710	936	0.	*	2	1940	1311	0.
1	0612	187	0.	*	1	1842	562	0.	*	2	0712	937	0.	*	2	1942	1312	0.
1	0614	188	0.	*	1	1844	563	0.	*	2	0714	938	0.	*	2	1944	1313	0.
1	0616	189	0.	*	1	1846	564	0.	*	2	0716	939	0.	*	2	1946	1314	0.
1	0618	190	0.	*	1	1848	565	0.	*	2	0718	940	0.	*	2	1948	1315	0.
1	0620	191	0.	*	1	1850	566	0.	*	2	0720	941	0.	*	2	1950	1316	0.
1	0622	192	0.	*	1	1852	567	0.	*	2	0722	942	0.	*	2	1952	1317	0.
1	0624	193	0.	*	1	1854	568	0.	*	2	0724	943	0.	*	2	1954	1318	0.
1	0626	194	0.	*	1	1856	569	0.	*	2	0726	944	0.	*	2	1956	1319	0.
1	0628	195	0.	*	1	1858	570	0.	*	2	0728	945	0.	*	2	1958	1320	0.
1	0630	196	0.	*	1	1900	571	0.	*	2	0730	946	0.	*	2	2000	1321	0.
1	0632	197	0.	*	1	1902	572	0.	*	2	0732	947	0.	*	2	2002	1322	0.
1	0634	198	0.	*	1	1904	573	0.	*	2	0734	948	0.	*	2	2004	1323	0.
1	0636	199	0.	*	1	1906	574	0.	*	2	0736	949	0.	*	2	2006	1324	0.
1	0638	200	0.	*	1	1908	575	0.	*	2	0738	950	0.	*	2	2008	1325	0.
1	0640	201	0.	*	1	1910	576	0.	*	2	0740	951	0.	*	2	2010	1326	0.
1	0642	202	0.	*	1	1912	577	0.	*	2	0742	952	0.	*	2	2012	1327	0.
1	0644	203	0.	*	1	1914	578	0.	*	2	0744	953	0.	*	2	2014	1328	0.
1	0646	204	0.	*	1	1916	579	0.	*	2	0746	954	0.	*	2	2016	1329	0.
1	0648	205	0.	*	1	1918	580	0.	*	2	0748	955	0.	*	2	2018	1330	0.
1	0650	206	0.	*	1	1920	581	0.	*	2	0750	956	0.	*	2	2020	1331	0.
1	0652	207	0.	*	1	1922	582	0.	*	2	0752	957	0.	*	2	2022	1332	0.
1	0654	208	0.	*	1	1924	583	0.	*	2	0754	958	0.	*	2	2024	1333	0.
1	0656	209	0.	*	1	1926	584	0.	*	2	0756	959	0.	*	2	2026	1334	0.
1	0658	210	0.	*	1	1928	585	0.	*	2	0758	960	0.	*	2	2028	1335	0.
1	0700	211	0.	*	1	1930	586	0.	*	2	0800	961	0.	*	2	2030	1336	0.
1	0702	212	0.	*	1	1932	587	0.	*	2	0802	962	0.	*	2	2032	1337	0.
1	0704	213	0.	*	1	1934	588	0.	*	2	0804	963	0.	*	2	2034	1338	0.
1	0706	214	0.	*	1	1936	589	0.	*	2	0806	964	0.	*	2	2036	1339	0.
1	0708	215	0.	*	1	1938	590	0.	*	2	0808	965	0.	*	2	2038	1340	0.
1	0710	216	0.	*	1	1940	591	0.	*	2	0810	966	0.	*	2	2040	1341	0.
1	0712	217	0.	*	1	1942	592	0.	*	2	0812	967	0.	*	2	2042	1342	0.
1	0714	218	0.	*	1	1944	593	0.	*	2	0814	968	0.	*	2	2044	1343	0.

1	0716	219	0.	*	1	1946	594	0.	*	2	0816	969	0.	*	2	2046	1344	0.
1	0718	220	0.	*	1	1948	595	0.	*	2	0818	970	0.	*	2	2048	1345	0.
1	0720	221	0.	*	1	1950	596	0.	*	2	0820	971	0.	*	2	2050	1346	0.
1	0722	222	0.	*	1	1952	597	0.	*	2	0822	972	0.	*	2	2052	1347	0.
1	0724	223	0.	*	1	1954	598	0.	*	2	0824	973	0.	*	2	2054	1348	0.
1	0726	224	0.	*	1	1956	599	0.	*	2	0826	974	0.	*	2	2056	1349	0.
1	0728	225	0.	*	1	1958	600	0.	*	2	0828	975	0.	*	2	2058	1350	0.
1	0730	226	0.	*	1	2000	601	0.	*	2	0830	976	0.	*	2	2100	1351	0.
1	0732	227	0.	*	1	2002	602	0.	*	2	0832	977	0.	*	2	2102	1352	0.
1	0734	228	0.	*	1	2004	603	0.	*	2	0834	978	0.	*	2	2104	1353	0.
1	0736	229	0.	*	1	2006	604	0.	*	2	0836	979	0.	*	2	2106	1354	0.
1	0738	230	0.	*	1	2008	605	0.	*	2	0838	980	0.	*	2	2108	1355	0.
1	0740	231	0.	*	1	2010	606	0.	*	2	0840	981	0.	*	2	2110	1356	0.
1	0742	232	0.	*	1	2012	607	0.	*	2	0842	982	0.	*	2	2112	1357	0.
1	0744	233	0.	*	1	2014	608	0.	*	2	0844	983	0.	*	2	2114	1358	0.
1	0746	234	0.	*	1	2016	609	0.	*	2	0846	984	0.	*	2	2116	1359	0.
1	0748	235	0.	*	1	2018	610	0.	*	2	0848	985	0.	*	2	2118	1360	0.
1	0750	236	0.	*	1	2020	611	0.	*	2	0850	986	0.	*	2	2120	1361	0.
1	0752	237	0.	*	1	2022	612	0.	*	2	0852	987	0.	*	2	2122	1362	0.
1	0754	238	0.	*	1	2024	613	0.	*	2	0854	988	0.	*	2	2124	1363	0.
1	0756	239	0.	*	1	2026	614	0.	*	2	0856	989	0.	*	2	2126	1364	0.
1	0758	240	0.	*	1	2028	615	0.	*	2	0858	990	0.	*	2	2128	1365	0.
1	0800	241	0.	*	1	2030	616	0.	*	2	0900	991	0.	*	2	2130	1366	0.
1	0802	242	0.	*	1	2032	617	0.	*	2	0902	992	0.	*	2	2132	1367	0.
1	0804	243	0.	*	1	2034	618	0.	*	2	0904	993	0.	*	2	2134	1368	0.
1	0806	244	0.	*	1	2036	619	0.	*	2	0906	994	0.	*	2	2136	1369	0.
1	0808	245	0.	*	1	2038	620	0.	*	2	0908	995	0.	*	2	2138	1370	0.
1	0810	246	0.	*	1	2040	621	0.	*	2	0910	996	0.	*	2	2140	1371	0.
1	0812	247	0.	*	1	2042	622	0.	*	2	0912	997	0.	*	2	2142	1372	0.
1	0814	248	0.	*	1	2044	623	0.	*	2	0914	998	0.	*	2	2144	1373	0.
1	0816	249	0.	*	1	2046	624	0.	*	2	0916	999	0.	*	2	2146	1374	0.
1	0818	250	0.	*	1	2048	625	0.	*	2	0918	1000	0.	*	2	2148	1375	0.
1	0820	251	0.	*	1	2050	626	0.	*	2	0920	1001	0.	*	2	2150	1376	0.
1	0822	252	0.	*	1	2052	627	0.	*	2	0922	1002	0.	*	2	2152	1377	0.
1	0824	253	0.	*	1	2054	628	0.	*	2	0924	1003	0.	*	2	2154	1378	0.
1	0826	254	0.	*	1	2056	629	0.	*	2	0926	1004	0.	*	2	2156	1379	0.
1	0828	255	0.	*	1	2058	630	0.	*	2	0928	1005	0.	*	2	2158	1380	0.
1	0830	256	0.	*	1	2100	631	0.	*	2	0930	1006	0.	*	2	2200	1381	0.
1	0832	257	0.	*	1	2102	632	0.	*	2	0932	1007	0.	*	2	2202	1382	0.
1	0834	258	0.	*	1	2104	633	0.	*	2	0934	1008	0.	*	2	2204	1383	0.
1	0836	259	0.	*	1	2106	634	0.	*	2	0936	1009	0.	*	2	2206	1384	0.
1	0838	260	0.	*	1	2108	635	0.	*	2	0938	1010	0.	*	2	2208	1385	0.
1	0840	261	0.	*	1	2110	636	0.	*	2	0940	1011	0.	*	2	2210	1386	0.
1	0842	262	0.	*	1	2112	637	0.	*	2	0942	1012	0.	*	2	2212	1387	0.
1	0844	263	0.	*	1	2114	638	0.	*	2	0944	1013	0.	*	2	2214	1388	0.
1	0846	264	0.	*	1	2116	639	0.	*	2	0946	1014	0.	*	2	2216	1389	0.
1	0848	265	0.	*	1	2118	640	0.	*	2	0948	1015	0.	*	2	2218	1390	0.
1	0850	266	0.	*	1	2120	641	0.	*	2	0950	1016	0.	*	2	2220	1391	0.
1	0852	267	0.	*	1	2122	642	0.	*	2	0952	1017	0.	*	2	2222	1392	0.
1	0854	268	0.	*	1	2124	643	0.	*	2	0954	1018	0.	*	2	2224	1393	0.
1	0856	269	0.	*	1	2126	644	0.	*	2	0956	1019	0.	*	2	2226	1394	0.
1	0858	270	0.	*	1	2128	645	0.	*	2	0958	1020	0.	*	2	2228	1395	0.
1	0900	271	0.	*	1	2130	646	0.	*	2	1000	1021	0.	*	2	2230	1396	0.
1	0902	272	0.	*	1	2132	647	0.	*	2	1002	1022	0.	*	2	2232	1397	0.
1	0904	273	0.	*	1	2134	648	0.	*	2	1004	1023	0.	*	2	2234	1398	0.
1	0906	274	0.	*	1	2136	649	0.	*	2	1006	1024	0.	*	2	2236	1399	0.
1	0908	275	0.	*	1	2138	650	0.	*	2	1008	1025	0.	*	2	2238	1400	0.
1	0910	276	0.	*	1	2140	651	0.	*	2	1010	1026	0.	*	2	2240	1401	0.
1	0912	277	0.	*	1	2142	652	0.	*	2	1012	1027	0.	*	2	2242	1402	0.
1	0914	278	0.	*	1	2144	653	0.	*	2	1014	1028	0.	*	2	2244	1403	0.
1	0916	279	0.	*	1	2146	654	0.	*	2	1016	1029	0.	*	2	2246	1404	0.
1	0918	280	0.	*	1	2148	655	0.	*	2	1018	1030	0.	*	2	2248	1405	0.
1	0920	281	0.	*	1	2150	656	0.	*	2	1020	1031	0.	*	2	2250	1406	0.
1	0922	282	0.	*	1	2152	657	0.	*	2	1022	1032	0.	*	2	2252	1407	0.
1	0924	283	0.	*	1	2154	658	0.	*	2	1024	1033	0.	*	2	2254	1408	0.
1	0926	284	0.	*	1	2156	659	0.	*	2	1026	1034	0.	*	2	2256	1409	0.
1	0928	285	0.	*	1	2158	660	0.	*	2	1028	1035	0.	*	2	2258	1410	0.
1	0930	286	0.	*	1	2200	661	0.	*	2	1030	1036	0.	*	2	2300	1411	0.
1	0932	287	0.	*	1	2202	662	0.	*	2	1032	1037	0.	*	2	2302	1412	0.
1	0934	288	0.	*	1	2204	663	0.	*	2	1034	1038	0.	*	2	2304	1413	0.
1	0936	289	0.	*	1	2206	664	0.	*	2	1036	1039	0.	*	2	2306	1414	0.
1	0938	290	0.	*	1	2208	665	0.	*	2	1038	1040	0.	*	2	2308	1415	0.
1	0940	291	0.	*	1	2210	666	0.	*	2	1040	1041	0.	*	2	2310	1416	0.
1	0942	292	0.	*	1	2212	667	0.	*	2	1042	1042	0.	*	2	2312	1417	0.
1	0944	293	0.	*	1	2214	668	0.	*	2	1044	1043	0.	*	2	2314	1418	0.
1	0946	294	0.	*	1	2216	669	0.	*	2	1046	1044	0.	*	2	2316	1419	0.
1	0948	295	0.	*	1	2218	670	0.	*	2	1048	1045	0.	*	2	2318	1420	0.
1	0950	296	0.	*	1	2220	671	0.	*	2	1050	1046	0.	*	2	2320	1421	0.
1	0952	297	0.	*	1	2222	672	0.	*	2	1052	1047	0.	*	2	2322	1422	0.
1	0954	298	0.	*	1	2224	673	0.	*	2	1054	1048	0.	*	2	2324	1423	0.
1	0956	299	0.	*	1	2226	674	0.	*	2	1056	1049	0.	*	2	2326	1424	0.
1	0958	300	0.	*	1	2228	675	0.	*	2	1058	1050	0.	*	2	2328	1425	0.
1	1000	301	0.	*	1	2230	676	0.	*	2	1100	1051	0.	*	2	2330	1426	0.
1	1002	302	0.	*	1	2232	677	0.	*	2	1102	1052	0.	*	2	2332	1427	0.
1	1004	303	0.	*	1	2234	678	0.	*	2	1104	1053	0.	*	2	2334	1428	0.
1	1006	304	0.	*	1	2236	679	0.	*	2	1106	1054	0.	*	2	2336	1429	0.
1	1008	305	0.	*	1	2238	680	0.	*	2	1108	1055	0.	*	2	2338	1430	0.
1	1010	306	0.	*	1	2240	681	0.	*	2	1110	1056	0.	*	2	2340	1431	0.
1	1012	307	0.	*	1	2242	682	0.	*	2	1112	1057	0.	*	2	2342	1432	0.
1	1014	308	0.	*	1	2244	683	0.	*	2	1114	1058	0.	*	2	2344	1433	0.
1	1016	309	0.	*	1	2246	684	0.	*	2	1116	1059	0.	*	2	2346	1434	0.
1	1018	310	0.	*	1	2248	685	0.	*	2	1118	1060	0.	*	2	2348	1435	0.
1	1020	311	0.	*	1	2250	686	0.	*	2	1120	1061	0.	*	2	2350	1436	0.
1	1022	312	0.	*	1	2252	687	0.	*	2	1122	1062	0.	*	2	2352	1437	0.
1	1024	313	0.	*	1	2254	688	0.	*	2	1124	1063	0.	*	2	2354	1438	0.
1	1026	314	0.	*	1	2256	689	0.	*	2	1126	1064	0.	*	2	2356	1439	0.
1	1028	315	0.	*	1	2258	690	0.	*	2	1128	1065	0.	*	2	2358	1440	0.
1	1030	316	0.	*	1	2300	691	0.	*	2	1130	1066	0.	*	3	0000	1441	0.
1	1032	317	0.	*	1	2302	692	0.	*	2	1132	1067	0.	*	3	0002	1442	0.
1	1034	318	0.	*	1	2304	693	0.	*	2	1134	1068	0.	*	3	0004	1443	0.
1	1036	319	0.	*	1	2306	694	0.	*	2	1136	1069	0.	*	3	0006	1444	0.
1	1038	320	0.	*	1	2308	695	0.	*	2	1138	1070	0.	*	3	0008	1445	0.
1	1040	321	0.	*	1	2310	696	0.	*	2	1140	1071	0.	*	3	0010	1446	0.
1	1042	322	0.	*	1	2312	697	0.	*	2	1142	1072	0.	*	3	0012	1447	0.
1	1044	323	0.	*	1	2314	698	0.	*	2	1144	1073	0.	*	3	0014	1448	0.
1	1046	324	0.	*	1	2316	699	0.	*	2	1146	1074	0.	*	3	0016	1449	0.
1	1048	325	0.	*	1	2318	700	0.	*	2	1148	1075	0.	*	3	0018	1450	0.
1	1050	326	0.	*	1	2320	701	0.	*	2	1150	1076	0.	*	3	0020	1451	0.
1	1052	327	0.	*	1	2322	702	0.	*	2	1152	1077	0.	*	3	0022	1452	0.
1	1054	328	0.	*	1	2324	703	0.	*	2	1154	1078	0.	*	3	0024	1453	0.
1	1056	329	0.	*	1	2326	704	0.	*	2	1156	1079	0.	*	3	0026	1454	0.
1	1058	330	0.	*	1	2328	705	0.	*	2	1158	1080	0.	*	3	0028	1455	0.
1	1100	331	0.	*	1	2330	706	0.	*	2	1200	1081	0.	*	3	0030	1456	0.

1	1102	332	0.	*	1	2332	707	0.	*	2	1202	1082	0.	*	3	0032	1457	0.
1	1104	333	0.	*	1	2334	708	0.	*	2	1204	1083	0.	*	3	0034	1458	0.
1	1106	334	0.	*	1	2336	709	0.	*	2	1206	1084	0.	*	3	0036	1459	0.
1	1108	335	0.	*	1	2338	710	0.	*	2	1208	1085	0.	*	3	0038	1460	0.
1	1110	336	0.	*	1	2340	711	0.	*	2	1210	1086	0.	*	3	0040	1461	0.
1	1112	337	0.	*	1	2342	712	0.	*	2	1212	1087	0.	*	3	0042	1462	0.
1	1114	338	0.	*	1	2344	713	0.	*	2	1214	1088	0.	*	3	0044	1463	0.
1	1116	339	0.	*	1	2346	714	0.	*	2	1216	1089	0.	*	3	0046	1464	0.
1	1118	340	0.	*	1	2348	715	0.	*	2	1218	1090	0.	*	3	0048	1465	0.
1	1120	341	0.	*	1	2350	716	0.	*	2	1220	1091	0.	*	3	0050	1466	0.
1	1122	342	0.	*	1	2352	717	0.	*	2	1222	1092	0.	*	3	0052	1467	0.
1	1124	343	0.	*	1	2354	718	0.	*	2	1224	1093	0.	*	3	0054	1468	0.
1	1126	344	0.	*	1	2356	719	0.	*	2	1226	1094	0.	*	3	0056	1469	0.
1	1128	345	0.	*	1	2358	720	0.	*	2	1228	1095	0.	*	3	0058	1470	0.
1	1130	346	0.	*	2	0000	721	0.	*	2	1230	1096	0.	*	3	0100	1471	0.
1	1132	347	0.	*	2	0002	722	0.	*	2	1232	1097	0.	*	3	0102	1472	0.
1	1134	348	0.	*	2	0004	723	0.	*	2	1234	1098	0.	*	3	0104	1473	0.
1	1136	349	0.	*	2	0006	724	0.	*	2	1236	1099	0.	*	3	0106	1474	0.
1	1138	350	0.	*	2	0008	725	0.	*	2	1238	1100	0.	*	3	0108	1475	0.
1	1140	351	0.	*	2	0010	726	0.	*	2	1240	1101	0.	*	3	0110	1476	0.
1	1142	352	0.	*	2	0012	727	0.	*	2	1242	1102	0.	*	3	0112	1477	0.
1	1144	353	0.	*	2	0014	728	0.	*	2	1244	1103	0.	*	3	0114	1478	0.
1	1146	354	0.	*	2	0016	729	0.	*	2	1246	1104	0.	*	3	0116	1479	0.
1	1148	355	0.	*	2	0018	730	0.	*	2	1248	1105	0.	*	3	0118	1480	0.
1	1150	356	0.	*	2	0020	731	0.	*	2	1250	1106	0.	*	3	0120	1481	0.
1	1152	357	0.	*	2	0022	732	0.	*	2	1252	1107	0.	*	3	0122	1482	0.
1	1154	358	0.	*	2	0024	733	0.	*	2	1254	1108	0.	*	3	0124	1483	0.
1	1156	359	0.	*	2	0026	734	0.	*	2	1256	1109	0.	*	3	0126	1484	0.
1	1158	360	0.	*	2	0028	735	0.	*	2	1258	1110	0.	*	3	0128	1485	0.
1	1200	361	0.	*	2	0030	736	0.	*	2	1300	1111	0.	*	3	0130	1486	0.
1	1202	362	354.	*	2	0032	737	0.	*	2	1302	1112	0.	*	3	0132	1487	0.
1	1204	363	1446.	*	2	0034	738	0.	*	2	1304	1113	0.	*	3	0134	1488	0.
1	1206	364	2530.	*	2	0036	739	0.	*	2	1306	1114	0.	*	3	0136	1489	0.
1	1208	365	3548.	*	2	0038	740	0.	*	2	1308	1115	0.	*	3	0138	1490	0.
1	1210	366	4421.	*	2	0040	741	0.	*	2	1310	1116	0.	*	3	0140	1491	0.
1	1212	367	5114.	*	2	0042	742	0.	*	2	1312	1117	0.	*	3	0142	1492	0.
1	1214	368	5578.	*	2	0044	743	0.	*	2	1314	1118	0.	*	3	0144	1493	0.
1	1216	369	5792.	*	2	0046	744	0.	*	2	1316	1119	0.	*	3	0146	1494	0.
1	1218	370	5767.	*	2	0048	745	0.	*	2	1318	1120	0.	*	3	0148	1495	0.
1	1220	371	5533.	*	2	0050	746	0.	*	2	1320	1121	0.	*	3	0150	1496	0.
1	1222	372	5127.	*	2	0052	747	0.	*	2	1322	1122	0.	*	3	0152	1497	0.
1	1224	373	4597.	*	2	0054	748	0.	*	2	1324	1123	0.	*	3	0154	1498	0.
1	1226	374	3979.	*	2	0056	749	0.	*	2	1326	1124	0.	*	3	0156	1499	0.
1	1228	375	3325.	*	2	0058	750	0.	*	2	1328	1125	0.	*	3	0158	1500	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)	(CFS)				
+ 5792.	12.27		361.	90.	43.	43.
		(INCHES)	.316	.316	.316	.316
		(AC-FT)	179.	179.	179.	179.

CUMULATIVE AREA = 10.64 SQ MI

INTERPOLATED DIVERSION HYDROGRAPH AT 420D

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		1230	376	0.	2		0100	751	0.	2		1330	1126	0.
1		0002	2	0.	1		1232	377	0.	2		0102	752	0.	2		1332	1127	0.
1		0004	3	0.	1		1234	378	0.	2		0104	753	0.	2		1334	1128	0.
1		0006	4	0.	1		1236	379	0.	2		0106	754	0.	2		1336	1129	0.
1		0008	5	0.	1		1238	380	0.	2		0108	755	0.	2		1338	1130	0.
1		0010	6	0.	1		1240	381	0.	2		0110	756	0.	2		1340	1131	0.
1		0012	7	0.	1		1242	382	0.	2		0112	757	0.	2		1342	1132	0.
1		0014	8	0.	1		1244	383	0.	2		0114	758	0.	2		1344	1133	0.
1		0016	9	0.	1		1246	384	0.	2		0116	759	0.	2		1346	1134	0.
1		0018	10	0.	1		1248	385	0.	2		0118	760	0.	2		1348	1135	0.
1		0020	11	0.	1		1250	386	0.	2		0120	761	0.	2		1350	1136	0.
1		0022	12	0.	1		1252	387	0.	2		0122	762	0.	2		1352	1137	0.
1		0024	13	0.	1		1254	388	0.	2		0124	763	0.	2		1354	1138	0.
1		0026	14	0.	1		1256	389	0.	2		0126	764	0.	2		1356	1139	0.
1		0028	15	0.	1		1258	390	0.	2		0128	765	0.	2		1358	1140	0.
1		0030	16	0.	1		1300	391	265.	2		0130	766	0.	2		1400	1141	0.
1		0032	17	0.	1		1302	392	1659.	2		0132	767	0.	2		1402	1142	0.
1		0034	18	0.	1		1304	393	3122.	2		0134	768	0.	2		1404	1143	0.
1		0036	19	0.	1		1306	394	4276.	2		0136	769	0.	2		1406	1144	0.
1		0038	20	0.	1		1308	395	4974.	2		0138	770	0.	2		1408	1145	0.
1		0040	21	0.	1		1310	396	5287.	2		0140	771	0.	2		1410	1146	0.
1		0042	22	0.	1		1312	397	5364.	2		0142	772	0.	2		1412	1147	0.
1		0044	23	0.	1		1314	398	5304.	2		0144	773	0.	2		1414	1148	0.
1		0046	24	0.	1		1316	399	5170.	2		0146	774	0.	2		1416	1149	0.
1		0048	25	0.	1		1318	400	4999.	2		0148	775	0.	2		1418	1150	0.
1		0050	26	0.	1		1320	401	4812.	2		0150	776	0.	2		1420	1151	0.
1		0052	27	0.	1		1322	402	4621.	2		0152	777	0.	2		1422	1152	0.
1		0054	28	0.	1		1324	403	4432.	2		0154	778	0.	2		1424	1153	0.
1		0056	29	0.	1		1326	404	4243.	2		0156	779	0.	2		1426	1154	0.
1		0058	30	0.	1		1328	405	4043.	2		0158	780	0.	2		1428	1155	0.
1		0100	31	0.	1		1330	406	3837.	2		0200	781	0.	2		1430	1156	0.
1		0102	32	0.	1		1332	407	3628.	2		0202	782	0.	2		1432	1157	0.
1		0104	33	0.	1		1334	408	3421.	2		0204	783	0.	2		1434	1158	0.
1		0106	34	0.	1		1336	409	3219.	2		0206	784	0.	2		1436	1159	0.
1		0108	35	0.	1		1338	410	3010.	2		0208	785	0.	2		1438	1160	0.
1		0110	36	0.	1		1340	411	2795.	2		0210	786	0.	2		1440	1161	0.
1		0112	37	0.	1		1342	412	2580.	2		0212	787	0.	2		1442	1162	0.
1		0114	38	0.	1		1344	413	2372.	2		0214	788	0.	2		1444	1163	0.
1		0116	39	0.	1		1346	414	2174.	2		0216	789	0.	2		1446	1164	0.
1		0118	40	0.	1		1348	415	1975.	2		0218	790	0.	2		1448	1165	0.
1		0120	41	0.	1		1350	416	1775.	2		0220	791	0.	2		1450	1166	0.
1		0122	42	0.	1		1352	417	1581.	2		0222	792	0.	2		1452	1167	0.
1		0124	43	0.	1		1354	418	1399.	2		0224	793	0.	2		1454	1168	0.
1		0126	44	0.	1		1356	419	1231.	2		0226	794	0.	2		1456	1169	0.
1		0128	45	0.	1		1358	420	1062.	2		0228	795	0.	2		1458	1170	0.
1		0130	46	0.	1		1400	421	896.	2		0230	796	0.	2		1500	1171	0.
1		0132	47	0.	1		1402	422	736.	2		0232	797	0.	2		1502	1172	0.
1		0134	48	0.	1		1404	423	587.	2		0234	798	0.	2		1504	1173	0.
1		0136	49	0.	1		1406	424	449.	2		0236	799	0.	2		1506	1174	0.
1		0138	50	0.	1		1408	425	321.	2		0238	800	0.	2		1508	1175	0.
1		0140	51	0.	1		1410	426	192.	2		0240	801	0.	2		1510	1176	0.
1		0142	52	0.	1		1412	427	71.	2		0242	802	0.	2		1512	1177	0.
1		0144	53	0.	1		1414	428	0.	2		0244	803	0.	2		1514	1178	0.
1		0146	54	0.	1		1416	429	0.	2		0246	804	0.	2		1516	1179	0.
1		0148	55	0.	1		1418	430	0.	2		0248	805	0.	2		1518	1180	0.
1		0150	56	0.	1		1420	431	0.	2		0250	806	0.	2		1520	1181	0.
1		0152	57	0.	1		1422	432	0.	2		0252	807	0.	2		1522	1182	0.
1		0154	58	0.	1		1424	433	0.	2		0254	808	0.	2		1524	1183	0.
1		0156	59	0.	1		1426	434	0.	2		0256	809	0.	2		1526	1184	0.
1		0158	60	0.	1		1428	435	0.	2		0258	810	0.	2		1528	1185	0.
1		0200	61	0.	1		1430	436	0.	2		0300	811	0.	2		1530	1186	0.
1		0202	62	0.	1		1432	437	0.	2		0302	812	0.	2		1532	1187	0.
1		0204	63	0.	1		1434	438	0.	2		0304	813	0.	2		1534	1188	0.
1		0206	64	0.	1		1436	439	0.	2		0306	814	0.	2		1536	1189	0.
1		0208	65	0.	1		1438	440	0.	2		0308	815	0.	2		1538	1190	0.
1		0210	66	0.	1		1440	441	0.	2		0310	816	0.	2		1540	1191	0.
1		0212	67	0.	1		1442	442	0.	2		0312	817	0.	2		1542	1192	0.
1		0214	68	0.	1		1444	443	0.	2		0314	818	0.	2		1544	1193	0.
1		0216	69	0.	1		1446	444	0.	2		0316	819	0.	2		1546	1194	0.
1		0218	70	0.	1		1448	445	0.	2		0318	820	0.	2		1548	1195	0.
1		0220	71	0.	1		1450	446	0.	2		0320	821	0.	2		1550	1196	0.
1		0222	72	0.	1		1452	447	0.	2		0322	822	0.	2		1552	1197	0.
1		0224	73	0.	1		1454	448	0.	2		0324	823	0.	2		1554	1198	0.
1		0226	74	0.	1		1456	449	0.	2		0326	824	0.	2		1556	1199	0.
1		0228	75	0.	1		1458	450	0.	2		0328	825	0.	2		1558	1200	0.
1		0230	76	0.	1		1500	451	0.	2		0330	826	0.	2		1600	1201	0.
1		0232	77	0.	1		1502	452	0.	2		0332	827	0.	2		1602	1202	0.
1		0234	78	0.	1		1504	453	0.	2		0334	828	0.	2		1604	1203	0.
1		0236	79	0.	1		1506	454	0.	2		0336	829	0.	2		1606	1204	0.
1		0238	80	0.	1		1508	455	0.	2		0338	830	0.	2		1608	1205	0.
1		0240	81	0.	1		1510	456	0.	2		0340	831	0.	2		1610	1206	0.
1		0242	82	0.	1		1512	457	0.	2		0342	832	0.	2		1612	1207	0.
1		0244	83	0.	1		1514	458	0.	2		0344	833	0.	2		1614	1208	0.
1		0246	84	0.	1		1516	459	0.	2		0346	834	0.	2		1616	1209	0.
1		0248	85	0.	1		1518	460	0.	2		0348	835	0.	2		1618	1210	0.
1		0250	86	0.	1		1520	461	0.	2		0350	836	0.	2		1620	1211	0.
1		0252	87	0.	1		1522	462	0.	2		0352	837	0.	2		1622	1212	0.
1		0254	88	0.	1		1524	463	0.	2		0354	838	0.	2		1624	1213	0.
1		0256	89	0.	1		1526	464	0.	2		0356	839	0.	2		1626	1214	0.
1		0258	90	0.	1		1528	465	0.	2		0358	840	0.	2		1628	1215	0.
1		0300	91	0.	1		1530	466	0.	2		0400	841	0.	2		1630	1216	0.
1		0302	92	0.	1		1532	467	0.	2		0402	842	0.	2		1632	1217	0.
1		0304	93	0.	1		1534	468	0.	2		0404	843	0.	2		1634	1218	0.
1		0306	94	0.	1		1536	469	0.	2		0406	844	0.	2		1636	1219	0.
1		0308	95	0.	1		1538	470	0.	2		0408	845	0.	2		1638	1220	0.
1		0310	96	0.	1		1540	471	0.	2		0410	846	0.	2		1640	1221	0.
1		0312	97	0.	1		1542	472	0.	2		0412	847	0.	2		1642	1222	0.
1		0314	98	0.	1		1544	473	0.	2		0414	848	0.	2		1644	1223	0.
1		0316	99	0.	1		1546	474	0.	2		0416	849	0.	2		1646	1224	0.
1		0318	100	0.	1		1548	475	0.	2		0418	850	0.	2		1648	1225	0.
1		0320	101	0.	1		1550	476	0.	2		0420	851	0.	2		1650	1226	0.
1		0322	102	0.	1		1552	477	0.	2		0422	852	0.	2		1652	1227	0.
1		0324	103	0.	1		1554	478	0.	2		0424	853	0.	2		1654	1228	0.
1		0326	104	0.	1		1556	479	0.	2		0426	854	0.	2		1656	1229	0.
1		0328	105	0.	1		1558	480	0.	2		0428	855	0.	2		1658	1230	0.

1	0330	106	0.	*	1	1600	481	0.	*	2	0430	856	0.	*	2	1700	1231	0.
1	0332	107	0.	*	1	1602	482	0.	*	2	0432	857	0.	*	2	1702	1232	0.
1	0334	108	0.	*	1	1604	483	0.	*	2	0434	858	0.	*	2	1704	1233	0.
1	0336	109	0.	*	1	1606	484	0.	*	2	0436	859	0.	*	2	1706	1234	0.
1	0338	110	0.	*	1	1608	485	0.	*	2	0438	860	0.	*	2	1708	1235	0.
1	0340	111	0.	*	1	1610	486	0.	*	2	0440	861	0.	*	2	1710	1236	0.
1	0342	112	0.	*	1	1612	487	0.	*	2	0442	862	0.	*	2	1712	1237	0.
1	0344	113	0.	*	1	1614	488	0.	*	2	0444	863	0.	*	2	1714	1238	0.
1	0346	114	0.	*	1	1616	489	0.	*	2	0446	864	0.	*	2	1716	1239	0.
1	0348	115	0.	*	1	1618	490	0.	*	2	0448	865	0.	*	2	1718	1240	0.
1	0350	116	0.	*	1	1620	491	0.	*	2	0450	866	0.	*	2	1720	1241	0.
1	0352	117	0.	*	1	1622	492	0.	*	2	0452	867	0.	*	2	1722	1242	0.
1	0354	118	0.	*	1	1624	493	0.	*	2	0454	868	0.	*	2	1724	1243	0.
1	0356	119	0.	*	1	1626	494	0.	*	2	0456	869	0.	*	2	1726	1244	0.
1	0358	120	0.	*	1	1628	495	0.	*	2	0458	870	0.	*	2	1728	1245	0.
1	0400	121	0.	*	1	1630	496	0.	*	2	0500	871	0.	*	2	1730	1246	0.
1	0402	122	0.	*	1	1632	497	0.	*	2	0502	872	0.	*	2	1732	1247	0.
1	0404	123	0.	*	1	1634	498	0.	*	2	0504	873	0.	*	2	1734	1248	0.
1	0406	124	0.	*	1	1636	499	0.	*	2	0506	874	0.	*	2	1736	1249	0.
1	0408	125	0.	*	1	1638	500	0.	*	2	0508	875	0.	*	2	1738	1250	0.
1	0410	126	0.	*	1	1640	501	0.	*	2	0510	876	0.	*	2	1740	1251	0.
1	0412	127	0.	*	1	1642	502	0.	*	2	0512	877	0.	*	2	1742	1252	0.
1	0414	128	0.	*	1	1644	503	0.	*	2	0514	878	0.	*	2	1744	1253	0.
1	0416	129	0.	*	1	1646	504	0.	*	2	0516	879	0.	*	2	1746	1254	0.
1	0418	130	0.	*	1	1648	505	0.	*	2	0518	880	0.	*	2	1748	1255	0.
1	0420	131	0.	*	1	1650	506	0.	*	2	0520	881	0.	*	2	1750	1256	0.
1	0422	132	0.	*	1	1652	507	0.	*	2	0522	882	0.	*	2	1752	1257	0.
1	0424	133	0.	*	1	1654	508	0.	*	2	0524	883	0.	*	2	1754	1258	0.
1	0426	134	0.	*	1	1656	509	0.	*	2	0526	884	0.	*	2	1756	1259	0.
1	0428	135	0.	*	1	1658	510	0.	*	2	0528	885	0.	*	2	1758	1260	0.
1	0430	136	0.	*	1	1700	511	0.	*	2	0530	886	0.	*	2	1800	1261	0.
1	0432	137	0.	*	1	1702	512	0.	*	2	0532	887	0.	*	2	1802	1262	0.
1	0434	138	0.	*	1	1704	513	0.	*	2	0534	888	0.	*	2	1804	1263	0.
1	0436	139	0.	*	1	1706	514	0.	*	2	0536	889	0.	*	2	1806	1264	0.
1	0438	140	0.	*	1	1708	515	0.	*	2	0538	890	0.	*	2	1808	1265	0.
1	0440	141	0.	*	1	1710	516	0.	*	2	0540	891	0.	*	2	1810	1266	0.
1	0442	142	0.	*	1	1712	517	0.	*	2	0542	892	0.	*	2	1812	1267	0.
1	0444	143	0.	*	1	1714	518	0.	*	2	0544	893	0.	*	2	1814	1268	0.
1	0446	144	0.	*	1	1716	519	0.	*	2	0546	894	0.	*	2	1816	1269	0.
1	0448	145	0.	*	1	1718	520	0.	*	2	0548	895	0.	*	2	1818	1270	0.
1	0450	146	0.	*	1	1720	521	0.	*	2	0550	896	0.	*	2	1820	1271	0.
1	0452	147	0.	*	1	1722	522	0.	*	2	0552	897	0.	*	2	1822	1272	0.
1	0454	148	0.	*	1	1724	523	0.	*	2	0554	898	0.	*	2	1824	1273	0.
1	0456	149	0.	*	1	1726	524	0.	*	2	0556	899	0.	*	2	1826	1274	0.
1	0458	150	0.	*	1	1728	525	0.	*	2	0558	900	0.	*	2	1828	1275	0.
1	0500	151	0.	*	1	1730	526	0.	*	2	0600	901	0.	*	2	1830	1276	0.
1	0502	152	0.	*	1	1732	527	0.	*	2	0602	902	0.	*	2	1832	1277	0.
1	0504	153	0.	*	1	1734	528	0.	*	2	0604	903	0.	*	2	1834	1278	0.
1	0506	154	0.	*	1	1736	529	0.	*	2	0606	904	0.	*	2	1836	1279	0.
1	0508	155	0.	*	1	1738	530	0.	*	2	0608	905	0.	*	2	1838	1280	0.
1	0510	156	0.	*	1	1740	531	0.	*	2	0610	906	0.	*	2	1840	1281	0.
1	0512	157	0.	*	1	1742	532	0.	*	2	0612	907	0.	*	2	1842	1282	0.
1	0514	158	0.	*	1	1744	533	0.	*	2	0614	908	0.	*	2	1844	1283	0.
1	0516	159	0.	*	1	1746	534	0.	*	2	0616	909	0.	*	2	1846	1284	0.
1	0518	160	0.	*	1	1748	535	0.	*	2	0618	910	0.	*	2	1848	1285	0.
1	0520	161	0.	*	1	1750	536	0.	*	2	0620	911	0.	*	2	1850	1286	0.
1	0522	162	0.	*	1	1752	537	0.	*	2	0622	912	0.	*	2	1852	1287	0.
1	0524	163	0.	*	1	1754	538	0.	*	2	0624	913	0.	*	2	1854	1288	0.
1	0526	164	0.	*	1	1756	539	0.	*	2	0626	914	0.	*	2	1856	1289	0.
1	0528	165	0.	*	1	1758	540	0.	*	2	0628	915	0.	*	2	1858	1290	0.
1	0530	166	0.	*	1	1800	541	0.	*	2	0630	916	0.	*	2	1900	1291	0.
1	0532	167	0.	*	1	1802	542	0.	*	2	0632	917	0.	*	2	1902	1292	0.
1	0534	168	0.	*	1	1804	543	0.	*	2	0634	918	0.	*	2	1904	1293	0.
1	0536	169	0.	*	1	1806	544	0.	*	2	0636	919	0.	*	2	1906	1294	0.
1	0538	170	0.	*	1	1808	545	0.	*	2	0638	920	0.	*	2	1908	1295	0.
1	0540	171	0.	*	1	1810	546	0.	*	2	0640	921	0.	*	2	1910	1296	0.
1	0542	172	0.	*	1	1812	547	0.	*	2	0642	922	0.	*	2	1912	1297	0.
1	0544	173	0.	*	1	1814	548	0.	*	2	0644	923	0.	*	2	1914	1298	0.
1	0546	174	0.	*	1	1816	549	0.	*	2	0646	924	0.	*	2	1916	1299	0.
1	0548	175	0.	*	1	1818	550	0.	*	2	0648	925	0.	*	2	1918	1300	0.
1	0550	176	0.	*	1	1820	551	0.	*	2	0650	926	0.	*	2	1920	1301	0.
1	0552	177	0.	*	1	1822	552	0.	*	2	0652	927	0.	*	2	1922	1302	0.
1	0554	178	0.	*	1	1824	553	0.	*	2	0654	928	0.	*	2	1924	1303	0.
1	0556	179	0.	*	1	1826	554	0.	*	2	0656	929	0.	*	2	1926	1304	0.
1	0558	180	0.	*	1	1828	555	0.	*	2	0658	930	0.	*	2	1928	1305	0.
1	0600	181	0.	*	1	1830	556	0.	*	2	0700	931	0.	*	2	1930	1306	0.
1	0602	182	0.	*	1	1832	557	0.	*	2	0702	932	0.	*	2	1932	1307	0.
1	0604	183	0.	*	1	1834	558	0.	*	2	0704	933	0.	*	2	1934	1308	0.
1	0606	184	0.	*	1	1836	559	0.	*	2	0706	934	0.	*	2	1936	1309	0.
1	0608	185	0.	*	1	1838	560	0.	*	2	0708	935	0.	*	2	1938	1310	0.
1	0610	186	0.	*	1	1840	561	0.	*	2	0710	936	0.	*	2	1940	1311	0.
1	0612	187	0.	*	1	1842	562	0.	*	2	0712	937	0.	*	2	1942	1312	0.
1	0614	188	0.	*	1	1844	563	0.	*	2	0714	938	0.	*	2	1944	1313	0.
1	0616	189	0.	*	1	1846	564	0.	*	2	0716	939	0.	*	2	1946	1314	0.
1	0618	190	0.	*	1	1848	565	0.	*	2	0718	940	0.	*	2	1948	1315	0.
1	0620	191	0.	*	1	1850	566	0.	*	2	0720	941	0.	*	2	1950	1316	0.
1	0622	192	0.	*	1	1852	567	0.	*	2	0722	942	0.	*	2	1952	1317	0.
1	0624	193	0.	*	1	1854	568	0.	*	2	0724	943	0.	*	2	1954	1318	0.
1	0626	194	0.	*	1	1856	569	0.	*	2	0726	944	0.	*	2	1956	1319	0.
1	0628	195	0.	*	1	1858	570	0.	*	2	0728	945	0.	*	2	1958	1320	0.
1	0630	196	0.	*	1	1900	571	0.	*	2	0730	946	0.	*	2	2000	1321	0.
1	0632	197	0.	*	1	1902	572	0.	*	2	0732	947	0.	*	2	2002	1322	0.
1	0634	198	0.	*	1	1904	573	0.	*	2	0734	948	0.	*	2	2004	1323	0.
1	0636	199	0.	*	1	1906	574	0.	*	2	0736	949	0.	*	2	2006	1324	0.
1	0638	200	0.	*	1	1908	575	0.	*	2	0738	950	0.	*	2	2008	1325	0.
1	0640	201	0.	*	1	1910	576	0.	*	2	0740	951	0.	*	2	2010	1326	0.
1	0642	202	0.	*	1	1912	577	0.	*	2	0742	952	0.	*	2	2012	1327	0.
1	0644	203	0.	*	1	1914	578	0.	*	2	0744	953	0.	*	2	2014	1328	0.
1	0646	204	0.	*	1	1916	579	0.	*	2	0746	954	0.	*	2	2016	1329	0.
1	0648	205	0.	*	1	1918	580	0.	*	2	0748	955	0.	*	2	2018	1330	0.
1	0650	206	0.	*	1	1920	581	0.	*	2	0750	956	0.	*	2	2020	1331	0.
1	0652	207	0.	*	1	1922	582	0.	*	2	0752	957	0.	*	2	2022	1332	0.
1	0654	208	0.	*	1	1924	583	0.	*	2	0754	958	0.	*	2	2024	1333	0.
1	0656	209	0.	*	1	1926	584	0.	*	2	0756	959	0.	*	2	2026	1334	0.
1	0658	210	0.	*	1	1928	585	0.	*	2	0758	960	0.	*	2	2028	1335	0.
1	0700	211	0.	*	1	1930	586	0.	*	2	0800	961	0.	*	2	2030	1336	0.
1	0702	212	0.	*	1	1932	587	0.	*	2	0802	962	0.	*	2	2032	1337	0.
1	0704	213	0.	*	1	1934	588	0.	*	2	0804	963	0.	*	2	2034	1338	0.
1	0706	214	0.	*	1	1936	589	0.	*	2	0806	964	0.	*	2	2036	1339	0.
1	0708	215	0.	*	1	1938	590	0.	*	2	0808	965	0.	*	2	2038	1340	0.
1	0710	216	0.	*	1	1940	591	0.	*	2	0810	966	0.	*	2	2040	1341	0.
1	0712	217	0.	*	1	1942	592	0.	*	2	0812	967	0.	*	2	2042	1342	0.
1	0714	218	0.	*	1	1944	593	0.	*	2	0814	968	0.	*	2	2044	1343	0.

1	0716	219	0.	*	1	1946	594	0.	*	2	0816	969	0.	*	2	2046	1344	0.
1	0718	220	0.	*	1	1948	595	0.	*	2	0818	970	0.	*	2	2048	1345	0.
1	0720	221	0.	*	1	1950	596	0.	*	2	0820	971	0.	*	2	2050	1346	0.
1	0722	222	0.	*	1	1952	597	0.	*	2	0822	972	0.	*	2	2052	1347	0.
1	0724	223	0.	*	1	1954	598	0.	*	2	0824	973	0.	*	2	2054	1348	0.
1	0726	224	0.	*	1	1956	599	0.	*	2	0826	974	0.	*	2	2056	1349	0.
1	0728	225	0.	*	1	1958	600	0.	*	2	0828	975	0.	*	2	2058	1350	0.
1	0730	226	0.	*	1	2000	601	0.	*	2	0830	976	0.	*	2	2100	1351	0.
1	0732	227	0.	*	1	2002	602	0.	*	2	0832	977	0.	*	2	2102	1352	0.
1	0734	228	0.	*	1	2004	603	0.	*	2	0834	978	0.	*	2	2104	1353	0.
1	0736	229	0.	*	1	2006	604	0.	*	2	0836	979	0.	*	2	2106	1354	0.
1	0738	230	0.	*	1	2008	605	0.	*	2	0838	980	0.	*	2	2108	1355	0.
1	0740	231	0.	*	1	2010	606	0.	*	2	0840	981	0.	*	2	2110	1356	0.
1	0742	232	0.	*	1	2012	607	0.	*	2	0842	982	0.	*	2	2112	1357	0.
1	0744	233	0.	*	1	2014	608	0.	*	2	0844	983	0.	*	2	2114	1358	0.
1	0746	234	0.	*	1	2016	609	0.	*	2	0846	984	0.	*	2	2116	1359	0.
1	0748	235	0.	*	1	2018	610	0.	*	2	0848	985	0.	*	2	2118	1360	0.
1	0750	236	0.	*	1	2020	611	0.	*	2	0850	986	0.	*	2	2120	1361	0.
1	0752	237	0.	*	1	2022	612	0.	*	2	0852	987	0.	*	2	2122	1362	0.
1	0754	238	0.	*	1	2024	613	0.	*	2	0854	988	0.	*	2	2124	1363	0.
1	0756	239	0.	*	1	2026	614	0.	*	2	0856	989	0.	*	2	2126	1364	0.
1	0758	240	0.	*	1	2028	615	0.	*	2	0858	990	0.	*	2	2128	1365	0.
1	0800	241	0.	*	1	2030	616	0.	*	2	0900	991	0.	*	2	2130	1366	0.
1	0802	242	0.	*	1	2032	617	0.	*	2	0902	992	0.	*	2	2132	1367	0.
1	0804	243	0.	*	1	2034	618	0.	*	2	0904	993	0.	*	2	2134	1368	0.
1	0806	244	0.	*	1	2036	619	0.	*	2	0906	994	0.	*	2	2136	1369	0.
1	0808	245	0.	*	1	2038	620	0.	*	2	0908	995	0.	*	2	2138	1370	0.
1	0810	246	0.	*	1	2040	621	0.	*	2	0910	996	0.	*	2	2140	1371	0.
1	0812	247	0.	*	1	2042	622	0.	*	2	0912	997	0.	*	2	2142	1372	0.
1	0814	248	0.	*	1	2044	623	0.	*	2	0914	998	0.	*	2	2144	1373	0.
1	0816	249	0.	*	1	2046	624	0.	*	2	0916	999	0.	*	2	2146	1374	0.
1	0818	250	0.	*	1	2048	625	0.	*	2	0918	1000	0.	*	2	2148	1375	0.
1	0820	251	0.	*	1	2050	626	0.	*	2	0920	1001	0.	*	2	2150	1376	0.
1	0822	252	0.	*	1	2052	627	0.	*	2	0922	1002	0.	*	2	2152	1377	0.
1	0824	253	0.	*	1	2054	628	0.	*	2	0924	1003	0.	*	2	2154	1378	0.
1	0826	254	0.	*	1	2056	629	0.	*	2	0926	1004	0.	*	2	2156	1379	0.
1	0828	255	0.	*	1	2058	630	0.	*	2	0928	1005	0.	*	2	2158	1380	0.
1	0830	256	0.	*	1	2100	631	0.	*	2	0930	1006	0.	*	2	2200	1381	0.
1	0832	257	0.	*	1	2102	632	0.	*	2	0932	1007	0.	*	2	2202	1382	0.
1	0834	258	0.	*	1	2104	633	0.	*	2	0934	1008	0.	*	2	2204	1383	0.
1	0836	259	0.	*	1	2106	634	0.	*	2	0936	1009	0.	*	2	2206	1384	0.
1	0838	260	0.	*	1	2108	635	0.	*	2	0938	1010	0.	*	2	2208	1385	0.
1	0840	261	0.	*	1	2110	636	0.	*	2	0940	1011	0.	*	2	2210	1386	0.
1	0842	262	0.	*	1	2112	637	0.	*	2	0942	1012	0.	*	2	2212	1387	0.
1	0844	263	0.	*	1	2114	638	0.	*	2	0944	1013	0.	*	2	2214	1388	0.
1	0846	264	0.	*	1	2116	639	0.	*	2	0946	1014	0.	*	2	2216	1389	0.
1	0848	265	0.	*	1	2118	640	0.	*	2	0948	1015	0.	*	2	2218	1390	0.
1	0850	266	0.	*	1	2120	641	0.	*	2	0950	1016	0.	*	2	2220	1391	0.
1	0852	267	0.	*	1	2122	642	0.	*	2	0952	1017	0.	*	2	2222	1392	0.
1	0854	268	0.	*	1	2124	643	0.	*	2	0954	1018	0.	*	2	2224	1393	0.
1	0856	269	0.	*	1	2126	644	0.	*	2	0956	1019	0.	*	2	2226	1394	0.
1	0858	270	0.	*	1	2128	645	0.	*	2	0958	1020	0.	*	2	2228	1395	0.
1	0900	271	0.	*	1	2130	646	0.	*	2	1000	1021	0.	*	2	2230	1396	0.
1	0902	272	0.	*	1	2132	647	0.	*	2	1002	1022	0.	*	2	2232	1397	0.
1	0904	273	0.	*	1	2134	648	0.	*	2	1004	1023	0.	*	2	2234	1398	0.
1	0906	274	0.	*	1	2136	649	0.	*	2	1006	1024	0.	*	2	2236	1399	0.
1	0908	275	0.	*	1	2138	650	0.	*	2	1008	1025	0.	*	2	2238	1400	0.
1	0910	276	0.	*	1	2140	651	0.	*	2	1010	1026	0.	*	2	2240	1401	0.
1	0912	277	0.	*	1	2142	652	0.	*	2	1012	1027	0.	*	2	2242	1402	0.
1	0914	278	0.	*	1	2144	653	0.	*	2	1014	1028	0.	*	2	2244	1403	0.
1	0916	279	0.	*	1	2146	654	0.	*	2	1016	1029	0.	*	2	2246	1404	0.
1	0918	280	0.	*	1	2148	655	0.	*	2	1018	1030	0.	*	2	2248	1405	0.
1	0920	281	0.	*	1	2150	656	0.	*	2	1020	1031	0.	*	2	2250	1406	0.
1	0922	282	0.	*	1	2152	657	0.	*	2	1022	1032	0.	*	2	2252	1407	0.
1	0924	283	0.	*	1	2154	658	0.	*	2	1024	1033	0.	*	2	2254	1408	0.
1	0926	284	0.	*	1	2156	659	0.	*	2	1026	1034	0.	*	2	2256	1409	0.
1	0928	285	0.	*	1	2158	660	0.	*	2	1028	1035	0.	*	2	2258	1410	0.
1	0930	286	0.	*	1	2200	661	0.	*	2	1030	1036	0.	*	2	2300	1411	0.
1	0932	287	0.	*	1	2202	662	0.	*	2	1032	1037	0.	*	2	2302	1412	0.
1	0934	288	0.	*	1	2204	663	0.	*	2	1034	1038	0.	*	2	2304	1413	0.
1	0936	289	0.	*	1	2206	664	0.	*	2	1036	1039	0.	*	2	2306	1414	0.
1	0938	290	0.	*	1	2208	665	0.	*	2	1038	1040	0.	*	2	2308	1415	0.
1	0940	291	0.	*	1	2210	666	0.	*	2	1040	1041	0.	*	2	2310	1416	0.
1	0942	292	0.	*	1	2212	667	0.	*	2	1042	1042	0.	*	2	2312	1417	0.
1	0944	293	0.	*	1	2214	668	0.	*	2	1044	1043	0.	*	2	2314	1418	0.
1	0946	294	0.	*	1	2216	669	0.	*	2	1046	1044	0.	*	2	2316	1419	0.
1	0948	295	0.	*	1	2218	670	0.	*	2	1048	1045	0.	*	2	2318	1420	0.
1	0950	296	0.	*	1	2220	671	0.	*	2	1050	1046	0.	*	2	2320	1421	0.
1	0952	297	0.	*	1	2222	672	0.	*	2	1052	1047	0.	*	2	2322	1422	0.
1	0954	298	0.	*	1	2224	673	0.	*	2	1054	1048	0.	*	2	2324	1423	0.
1	0956	299	0.	*	1	2226	674	0.	*	2	1056	1049	0.	*	2	2326	1424	0.
1	0958	300	0.	*	1	2228	675	0.	*	2	1058	1050	0.	*	2	2328	1425	0.
1	1000	301	0.	*	1	2230	676	0.	*	2	1100	1051	0.	*	2	2330	1426	0.
1	1002	302	0.	*	1	2232	677	0.	*	2	1102	1052	0.	*	2	2332	1427	0.
1	1004	303	0.	*	1	2234	678	0.	*	2	1104	1053	0.	*	2	2334	1428	0.
1	1006	304	0.	*	1	2236	679	0.	*	2	1106	1054	0.	*	2	2336	1429	0.
1	1008	305	0.	*	1	2238	680	0.	*	2	1108	1055	0.	*	2	2338	1430	0.
1	1010	306	0.	*	1	2240	681	0.	*	2	1110	1056	0.	*	2	2340	1431	0.
1	1012	307	0.	*	1	2242	682	0.	*	2	1112	1057	0.	*	2	2342	1432	0.
1	1014	308	0.	*	1	2244	683	0.	*	2	1114	1058	0.	*	2	2344	1433	0.
1	1016	309	0.	*	1	2246	684	0.	*	2	1116	1059	0.	*	2	2346	1434	0.
1	1018	310	0.	*	1	2248	685	0.	*	2	1118	1060	0.	*	2	2348	1435	0.
1	1020	311	0.	*	1	2250	686	0.	*	2	1120	1061	0.	*	2	2350	1436	0.
1	1022	312	0.	*	1	2252	687	0.	*	2	1122	1062	0.	*	2	2352	1437	0.
1	1024	313	0.	*	1	2254	688	0.	*	2	1124	1063	0.	*	2	2354	1438	0.
1	1026	314	0.	*	1	2256	689	0.	*	2	1126	1064	0.	*	2	2356	1439	0.
1	1028	315	0.	*	1	2258	690	0.	*	2	1128	1065	0.	*	2	2358	1440	0.
1	1030	316	0.	*	1	2300	691	0.	*	2	1130	1066	0.	*	3	0000	1441	0.
1	1032	317	0.	*	1	2302	692	0.	*	2	1132	1067	0.	*	3	0002	1442	0.
1	1034	318	0.	*	1	2304	693	0.	*	2	1134	1068	0.	*	3	0004	1443	0.
1	1036	319	0.	*	1	2306	694	0.	*	2	1136	1069	0.	*	3	0006	1444	0.
1	1038	320	0.	*	1	2308	695	0.	*	2	1138	1070	0.	*	3	0008	1445	0.
1	1040	321	0.	*	1	2310	696	0.	*	2	1140	1071	0.	*	3	0010	1446	0.
1	1042	322	0.	*	1	2312	697	0.	*	2	1142	1072	0.	*	3	0012	1447	0.
1	1044	323	0.	*	1	2314	698	0.	*	2	1144	1073	0.	*	3	0014	1448	0.
1	1046	324	0.	*	1	2316	699	0.	*	2	1146	1074	0.	*	3	0016	1449	0.
1	1048	325	0.	*	1	2318	700	0.	*	2	1148	1075	0.	*	3	0018	1450	0.
1	1050	326	0.	*	1	2320	701	0.	*	2	1150	1076	0.	*	3	0020	1451	0.
1	1052	327	0.	*	1	2322	702	0.	*	2	1152	1077	0.	*	3	0022	1452	0.
1	1054	328	0.	*	1	2324	703	0.	*	2	1154	1078	0.	*	3	0024	1453	0.
1	1056	329	0.	*	1	2326	704	0.	*	2	1156	1079	0.	*	3	0026	1454	0.
1	1058	330	0.	*	1	2328	705	0.	*	2	1158	1080	0.	*	3	0028	1455	0.
1	1100	331	0.	*	1	2330	706	0.	*	2	1200	1081	0.	*	3	0030	1456	0.

1	1102	332	0.	*	1	2332	707	0.	*	2	1202	1082	0.	*	3	0032	1457	0.
1	1104	333	0.	*	1	2334	708	0.	*	2	1204	1083	0.	*	3	0034	1458	0.
1	1106	334	0.	*	1	2336	709	0.	*	2	1206	1084	0.	*	3	0036	1459	0.
1	1108	335	0.	*	1	2338	710	0.	*	2	1208	1085	0.	*	3	0038	1460	0.
1	1110	336	0.	*	1	2340	711	0.	*	2	1210	1086	0.	*	3	0040	1461	0.
1	1112	337	0.	*	1	2342	712	0.	*	2	1212	1087	0.	*	3	0042	1462	0.
1	1114	338	0.	*	1	2344	713	0.	*	2	1214	1088	0.	*	3	0044	1463	0.
1	1116	339	0.	*	1	2346	714	0.	*	2	1216	1089	0.	*	3	0046	1464	0.
1	1118	340	0.	*	1	2348	715	0.	*	2	1218	1090	0.	*	3	0048	1465	0.
1	1120	341	0.	*	1	2350	716	0.	*	2	1220	1091	0.	*	3	0050	1466	0.
1	1122	342	0.	*	1	2352	717	0.	*	2	1222	1092	0.	*	3	0052	1467	0.
1	1124	343	0.	*	1	2354	718	0.	*	2	1224	1093	0.	*	3	0054	1468	0.
1	1126	344	0.	*	1	2356	719	0.	*	2	1226	1094	0.	*	3	0056	1469	0.
1	1128	345	0.	*	1	2358	720	0.	*	2	1228	1095	0.	*	3	0058	1470	0.
1	1130	346	0.	*	2	0000	721	0.	*	2	1230	1096	0.	*	3	0100	1471	0.
1	1132	347	0.	*	2	0002	722	0.	*	2	1232	1097	0.	*	3	0102	1472	0.
1	1134	348	0.	*	2	0004	723	0.	*	2	1234	1098	0.	*	3	0104	1473	0.
1	1136	349	0.	*	2	0006	724	0.	*	2	1236	1099	0.	*	3	0106	1474	0.
1	1138	350	0.	*	2	0008	725	0.	*	2	1238	1100	0.	*	3	0108	1475	0.
1	1140	351	0.	*	2	0010	726	0.	*	2	1240	1101	0.	*	3	0110	1476	0.
1	1142	352	0.	*	2	0012	727	0.	*	2	1242	1102	0.	*	3	0112	1477	0.
1	1144	353	0.	*	2	0014	728	0.	*	2	1244	1103	0.	*	3	0114	1478	0.
1	1146	354	0.	*	2	0016	729	0.	*	2	1246	1104	0.	*	3	0116	1479	0.
1	1148	355	0.	*	2	0018	730	0.	*	2	1248	1105	0.	*	3	0118	1480	0.
1	1150	356	0.	*	2	0020	731	0.	*	2	1250	1106	0.	*	3	0120	1481	0.
1	1152	357	0.	*	2	0022	732	0.	*	2	1252	1107	0.	*	3	0122	1482	0.
1	1154	358	0.	*	2	0024	733	0.	*	2	1254	1108	0.	*	3	0124	1483	0.
1	1156	359	0.	*	2	0026	734	0.	*	2	1256	1109	0.	*	3	0126	1484	0.
1	1158	360	0.	*	2	0028	735	0.	*	2	1258	1110	0.	*	3	0128	1485	0.
1	1200	361	0.	*	2	0030	736	0.	*	2	1300	1111	0.	*	3	0130	1486	0.
1	1202	362	0.	*	2	0032	737	0.	*	2	1302	1112	0.	*	3	0132	1487	0.
1	1204	363	0.	*	2	0034	738	0.	*	2	1304	1113	0.	*	3	0134	1488	0.
1	1206	364	0.	*	2	0036	739	0.	*	2	1306	1114	0.	*	3	0136	1489	0.
1	1208	365	0.	*	2	0038	740	0.	*	2	1308	1115	0.	*	3	0138	1490	0.
1	1210	366	0.	*	2	0040	741	0.	*	2	1310	1116	0.	*	3	0140	1491	0.
1	1212	367	0.	*	2	0042	742	0.	*	2	1312	1117	0.	*	3	0142	1492	0.
1	1214	368	0.	*	2	0044	743	0.	*	2	1314	1118	0.	*	3	0144	1493	0.
1	1216	369	0.	*	2	0046	744	0.	*	2	1316	1119	0.	*	3	0146	1494	0.
1	1218	370	0.	*	2	0048	745	0.	*	2	1318	1120	0.	*	3	0148	1495	0.
1	1220	371	0.	*	2	0050	746	0.	*	2	1320	1121	0.	*	3	0150	1496	0.
1	1222	372	0.	*	2	0052	747	0.	*	2	1322	1122	0.	*	3	0152	1497	0.
1	1224	373	0.	*	2	0054	748	0.	*	2	1324	1123	0.	*	3	0154	1498	0.
1	1226	374	0.	*	2	0056	749	0.	*	2	1326	1124	0.	*	3	0156	1499	0.
1	1228	375	0.	*	2	0058	750	0.	*	2	1328	1125	0.	*	3	0158	1500	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)	(CFS)				
+ 5364.	13.20		566.	142.	68.	68.
		(INCHES)	.477	.477	.477	.477
		(AC-FT)	281.	281.	281.	281.

CUMULATIVE AREA = 11.03 SQ MI

HYDROGRAPH AT STATION 500C
TRANSPOSITION AREA 150.0 SQ MI

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+		(CFS)				
4038.	13.47		1887.	685.	376.	376.
		(INCHES)	6.176	8.971	10.241	10.241
		(AC-FT)	935.	1359.	1551.	1551.

CUMULATIVE AREA = 2.84 SQ MI

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HYDROGRAPH AT STATION 500C
TRANSPOSITION AREA 300.0 SQ MI

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+		(CFS)				
+ 4008.	13.53		1821.	658.	360.	360.
		(INCHES)	5.960	8.611	9.814	9.814
		(AC-FT)	903.	1304.	1487.	1487.

CUMULATIVE AREA = 2.84 SQ MI

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HYDROGRAPH AT STATION 500C
TRANSPOSITION AREA 500.0 SQ MI

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+		(CFS)				
+ 3973.	13.57		1761.	634.	346.	346.
		(INCHES)	5.766	8.296	9.439	9.439
		(AC-FT)	873.	1257.	1430.	1430.

CUMULATIVE AREA = 2.84 SQ MI

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INTERPOLATED HYDROGRAPH AT 500C

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+		(CFS)				
+ 4228.	13.30		2236.	834.	461.	461.
		(INCHES)	7.320	10.915	12.555	12.555
		(AC-FT)	1109.	1653.	1902.	1902.

CUMULATIVE AREA = 2.84 SQ MI

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	20	1130.	12.57	243.	64.	31.	1.82		
+	HYDROGRAPH AT	40	2286.	12.27	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1405.	12.37	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	4438.	12.30	712.	189.	91.	5.80		
+	DIVERSION TO	60D	3638.	12.30	406.	101.	49.	5.80		
+	HYDROGRAPH AT	D60	800.	11.90	306.	88.	42.	5.80		
+	HYDROGRAPH AT	RT60D	3638.	12.30	406.	101.	49.	5.80		
+	ROUTED TO	SR60D	97.	13.23	88.	63.	38.	5.80		
+	2 COMBINED AT	C60D	897.	13.23	379.	142.	81.	5.80		
+	ROUTED TO	60R	896.	13.30	376.	142.	80.	5.80		
+	ROUTED TO	R60	895.	13.33	376.	142.	80.	5.80		
+	ROUTED TO	RR60	894.	13.37	375.	142.	80.	5.80		
+	HYDROGRAPH AT	80	1693.	12.20	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	2208.	12.27	553.	189.	104.	1.48		
+	ROUTED TO	R80	2196.	12.30	552.	189.	103.	1.48		
+	HYDROGRAPH AT	100	389.	12.33	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2569.	12.30	607.	203.	110.	1.96		
+	ROUTED TO	R100	2567.	12.30	607.	203.	110.	1.96		
+	HYDROGRAPH AT	120	2960.	12.20	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	5338.	12.23	918.	284.	151.	4.16		
+	ROUTED TO	R120	5313.	12.27	918.	284.	151.	4.16		
+	HYDROGRAPH AT	140	598.	12.23	64.	17.	8.	.60		
+	HYDROGRAPH AT	160	588.	12.30	85.	22.	11.	.78		
+	HYDROGRAPH AT	180	694.	12.33	90.	23.	11.	1.00		
+	4 COMBINED AT	180C	7052.	12.27	1142.	341.	179.	6.54		
+	HYDROGRAPH AT	240	770.	12.30	107.	27.	13.	1.04		
+	ROUTED TO	R240	760.	12.37	107.	27.	13.	1.04		
+	HYDROGRAPH AT	220	1427.	12.23	167.	43.	21.	1.25		
+	2 COMBINED AT	220C	2088.	12.27	271.	69.	33.	2.29		
+	ROUTED TO	R220	2057.	12.30	271.	69.	33.	2.29		
+	HYDROGRAPH AT	200	2059.	12.23	236.	65.	31.	1.81		
+	2 COMBINED AT	200C	3995.	12.27	501.	132.	64.	4.10		
+	ROUTED TO	R200	3967.	12.30	501.	132.	64.	4.10		
+	2 COMBINED AT	C180	10876.	12.27	1621.	465.	239.	10.64		
+	DIVERSION TO	180D	5776.	12.27	360.	90.	43.	10.64		

+	HYDROGRAPH AT	D180	5100.	12.07	1262.	375.	196.	10.64
+	HYDROGRAPH AT	RT180	5776.	12.27	360.	90.	43.	10.64
+	ROUTED TO	SR180D	102.	12.67	90.	61.	36.	10.64
+	2 COMBINED AT	C180D	5202.	12.63	1343.	432.	232.	10.64
+	ROUTED TO	180R	5197.	12.63	1340.	432.	232.	10.64
+	ROUTED TO	R180	5196.	12.67	1340.	432.	232.	10.64
+	HYDROGRAPH AT	260	401.	12.17	43.	12.	6.	.27
+	2 COMBINED AT	260C	5396.	12.33	1426.	465.	250.	.27
+	ROUTED TO	R260	5391.	12.37	1425.	465.	250.	.27
+	HYDROGRAPH AT	280	452.	12.13	42.	12.	6.	.30
+	2 COMBINED AT	280C	5634.	12.30	1454.	471.	253.	.57
+	ROUTED TO	R280	5612.	12.37	1453.	471.	253.	.57
+	HYDROGRAPH AT	300	824.	12.30	109.	29.	14.	.99
+	2 COMBINED AT	300C	6397.	12.37	1545.	493.	263.	1.56
+	ROUTED TO	R300	6373.	12.40	1544.	493.	263.	1.56
+	ROUTED TO	RR300	6347.	12.47	1543.	493.	263.	1.56
+	HYDROGRAPH AT	320	889.	12.43	171.	47.	22.	1.53
+	DIVERSION TO	BS320	390.	12.07	21.	6.	3.	1.53
+	HYDROGRAPH AT	D320	889.	12.43	157.	41.	19.	1.53
+	HYDROGRAPH AT	RT320	390.	12.07	21.	6.	3.	1.53
+	ROUTED TO	SR320	4.	4.40	4.	4.	3.	1.53
+	3 COMBINED AT	C320	7211.	12.47	1692.	533.	282.	3.09
+	ROUTED TO	R320	7011.	12.70	1678.	532.	281.	3.09
+	HYDROGRAPH AT	340	1381.	12.27	186.	55.	26.	1.45
+	DIVERSION TO	BS340	1381.	12.27	104.	28.	14.	1.45
+	HYDROGRAPH AT	D340	1219.	12.40	98.	27.	13.	1.45
+	HYDROGRAPH AT	RT340	1381.	12.27	104.	28.	14.	1.45
+	ROUTED TO	SR340	19.	9.03	19.	19.	14.	1.45
+	3 COMBINED AT	C340	7526.	12.67	1783.	575.	306.	4.53
+	ROUTED TO	R340	7480.	12.73	1778.	574.	305.	4.53
+	HYDROGRAPH AT	350	1102.	12.17	103.	27.	13.	.97
+	ROUTED TO	RR350	941.	12.57	103.	27.	13.	.97
+	HYDROGRAPH AT	360	668.	12.50	151.	42.	20.	1.33
+	DIVERSION TO	BS360	655.	12.43	53.	14.	7.	1.33
+	HYDROGRAPH AT	D360	657.	12.57	106.	28.	13.	1.33
+	HYDROGRAPH AT	RT360	655.	12.43	53.	14.	7.	1.33
+	ROUTED TO	SR360	10.	9.47	10.	10.	7.	1.33
+	4 COMBINED AT	360C	8731.	12.73	1977.	633.	336.	6.83

+	ROUTED TO	R360	8587.	12.83	1971.	632.	335.	6.83
+	HYDROGRAPH AT	380	821.	12.50	175.	48.	23.	1.64
+	DIVERSION TO	BS380	779.	12.40	54.	14.	7.	1.64
+	HYDROGRAPH AT	D380	821.	12.50	128.	33.	16.	1.64
+	HYDROGRAPH AT	RT380	779.	12.40	54.	14.	7.	1.64
+	ROUTED TO	SR380	10.	10.30	10.	10.	7.	1.64
+	3 COMBINED AT	380C	9176.	12.80	2098.	672.	357.	8.47
+	ROUTED TO	R380	8929.	12.97	2086.	671.	356.	8.47
+	HYDROGRAPH AT	390	1179.	12.20	144.	40.	19.	1.09
+	DIVERSION TO	BS390	7.	8.13	6.	2.	1.	1.09
+	HYDROGRAPH AT	D390	1179.	12.20	144.	38.	18.	1.09
+	HYDROGRAPH AT	RT390	7.	8.13	6.	2.	1.	1.09
+	ROUTED TO	SR390	1.	.50	1.	1.	1.	1.09
+	2 COMBINED AT	390C	1180.	12.20	145.	40.	19.	1.09
+	ROUTED TO	RR390	1102.	12.40	145.	40.	19.	1.09
+	HYDROGRAPH AT	400	333.	12.37	47.	13.	6.	.62
+	3 COMBINED AT	400C	9349.	12.97	2230.	716.	379.	10.18
+	ROUTED TO	R400	9115.	13.10	2224.	716.	378.	10.18
+	HYDROGRAPH AT	420	710.	12.30	92.	26.	12.	.85
+	DIVERSION TO	BS420	710.	12.30	74.	19.	9.	.85
+	HYDROGRAPH AT	D420	219.	12.80	23.	7.	3.	.85
+	HYDROGRAPH AT	RT420	710.	12.30	74.	19.	9.	.85
+	ROUTED TO	SR420	19.	12.80	17.	12.	8.	.85
+	3 COMBINED AT	420C	9194.	13.10	2250.	730.	387.	11.03
+	ROUTED TO	R420	9019.	13.20	2245.	730.	386.	11.03
+	DIVERSION TO	420D	5386.	13.20	567.	142.	68.	11.03
+	HYDROGRAPH AT	DD420	3633.	13.20	1678.	588.	318.	11.03
+	HYDROGRAPH AT	RT420D	5386.	13.20	567.	142.	68.	11.03
+	ROUTED TO	SR420D	92.	14.20	85.	68.	43.	11.03
+	2 COMBINED AT	C420D	3695.	13.93	1753.	655.	361.	11.03
+	HYDROGRAPH AT	440	179.	12.00	12.	3.	2.	.08
+	ROUTED TO	R70	174.	12.03	12.	3.	2.	.08
+	HYDROGRAPH AT	441	16.	12.07	1.	0.	0.	.01
+	2 COMBINED AT	C108	189.	12.03	14.	4.	2.	.09
+	DIVERSION TO	SPLIT	95.	12.03	7.	2.	1.	.09
	HYDROGRAPH AT	DIV4	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	R108	87.	12.10	7.	2.	1.	.09
+	HYDROGRAPH AT	442	99.	12.13	9.	2.	1.	.10

+	2 COMBINED AT	C67	183.	12.13	15.	4.	2.	.19
+	DIVERSION TO	BASIN4	115.	12.13	6.	1.	1.	.19
+	HYDROGRAPH AT	DIV6	68.	12.13	10.	3.	1.	.19
+	HYDROGRAPH AT	RTDIV6	115.	12.13	6.	1.	1.	.19
+	ROUTED TO	RPDIV6	1.	11.93	1.	1.	1.	.19
+	2 COMBINED AT	CDIV6	69.	12.13	11.	4.	2.	.19
+	HYDROGRAPH AT	443	146.	12.07	14.	4.	2.	.08
+	DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	DIV66	68.	12.07	3.	1.	0.	.08
+	ROUTED TO	R113	66.	12.10	3.	1.	0.	.08
+	2 COMBINED AT	C114	133.	12.10	13.	4.	2.	.27
+	HYDROGRAPH AT	444	81.	12.00	5.	1.	1.	.04
+	ROUTED TO	R58	78.	12.07	5.	1.	1.	.04
+	HYDROGRAPH AT	445	288.	12.07	18.	5.	2.	.19
+	2 COMBINED AT	C107	363.	12.07	22.	6.	3.	.23
+	ROUTED TO	R107	362.	12.07	22.	6.	3.	.23
+	HYDROGRAPH AT	RTB2	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	RSPLIT	94.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT	446	64.	12.07	6.	2.	1.	.04
+	3 COMBINED AT	C109	516.	12.07	35.	9.	4.	.27
+	DIVERSION TO	WSH404	35.	11.73	7.	2.	1.	.27
+	HYDROGRAPH AT	DIV5	481.	12.07	27.	7.	3.	.27
+	ROUTED TO	R109	469.	12.10	27.	7.	3.	.27
+	HYDROGRAPH AT	447	135.	12.07	12.	4.	2.	.09
+	HYDROGRAPH AT	RT404	35.	11.73	7.	2.	1.	.27
+	ROUTED TO	R404	35.	11.90	7.	2.	1.	.27
+	3 COMBINED AT	C110	631.	12.10	46.	13.	6.	.36
+	ROUTED TO	R110	632.	12.10	46.	13.	6.	.36
+	2 COMBINED AT	C115	759.	12.10	59.	17.	8.	.63
+	ROUTED TO	R115	758.	12.10	59.	17.	8.	.63
+	HYDROGRAPH AT	448	87.	12.03	6.	2.	1.	.05
+	HYDROGRAPH AT	449	77.	12.03	5.	1.	1.	.05
+	2 COMBINED AT	C6364	163.	12.03	11.	3.	1.	.09
+	ROUTED TO	R6364	140.	12.20	11.	3.	1.	.09
+	HYDROGRAPH AT	450	58.	12.17	6.	2.	1.	.07
	HYDROGRAPH AT	451	17.	12.17	2.	1.	0.	.03
+	HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	452	61.	12.07	4.	1.	1.	.04

+	2 COMBINED AT	C6566	139.	12.07	16.	4.	2.	.04
+	ROUTED TO	R6566	134.	12.13	16.	4.	2.	.04
+	4 COMBINED AT	C116	340.	12.17	35.	9.	4.	.23
+	ROUTED TO	BASIN5	153.	12.47	35.	9.	4.	.23
+	ROUTED TO	R116	152.	12.53	35.	9.	4.	.23
+	HYDROGRAPH AT	453	60.	12.13	7.	2.	1.	.06
+	2 COMBINED AT	C117	173.	12.50	41.	11.	5.	.29
+	2 COMBINED AT	C118	837.	12.10	99.	28.	14.	.92
+	ROUTED TO	R118	833.	12.13	99.	28.	14.	.92
+	DIVERSION TO	BASIN6	207.	12.13	12.	3.	1.	.92
+	HYDROGRAPH AT	DIV7	626.	12.13	86.	25.	12.	.92
+	HYDROGRAPH AT	RTDIV7	207.	12.13	12.	3.	1.	.92
+	ROUTED TO	RFDIV7	1.	11.93	1.	1.	1.	.92
+	2 COMBINED AT	CDIV7	627.	12.13	87.	25.	13.	.92
+	HYDROGRAPH AT	454	152.	12.23	21.	6.	3.	.18
+	2 COMBINED AT	C119	761.	12.13	107.	31.	16.	1.10
+	ROUTED TO	R454	676.	12.40	107.	31.	16.	1.10
+	HYDROGRAPH AT	455	1541.	12.23	198.	59.	28.	1.56
+	DIVERSION TO	BS455	1541.	12.23	139.	37.	18.	1.56
+	HYDROGRAPH AT	D455	893.	12.50	77.	22.	10.	1.56
+	HYDROGRAPH AT	RT455	1541.	12.23	139.	37.	18.	1.56
+	ROUTED TO	SR455	25.	9.73	25.	25.	18.	1.56
+	2 COMBINED AT	C455	918.	12.50	102.	47.	28.	1.56
+	3 COMBINED AT	455C	4048.	13.07	1909.	719.	399.	13.68
+	ROUTED TO	RR455	4005.	13.30	1906.	719.	398.	13.68
+	HYDROGRAPH AT	456	458.	12.07	36.	10.	5.	.26
+	DIVERSION TO	BASIN1	198.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV1	259.	12.07	28.	8.	4.	.26
+	DIVERSION TO	WA30	65.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV2	195.	12.07	20.	6.	3.	.26
+	ROUTED TO	R456	191.	12.17	20.	6.	3.	.26
+	HYDROGRAPH AT	457	254.	12.10	20.	5.	3.	.19
+	2 COMBINED AT	C101	438.	12.10	40.	11.	5.	.45
+	DIVERSION TO	BASIN2	136.	12.10	8.	2.	1.	.45
+	HYDROGRAPH AT	DIV3	302.	12.10	32.	9.	4.	.45
+	HYDROGRAPH AT	RTDIV3	136.	12.10	8.	2.	1.	.45
+	ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+	2 COMBINED AT	CDIV3	304.	12.10	33.	10.	5.	.45

+	ROUTED TO	R101	301.	12.13	33.	10.	5.	.45
+	HYDROGRAPH AT	458	347.	12.07	25.	7.	3.	.19
+	2 COMBINED AT	C103	625.	12.07	58.	16.	8.	.64
+	ROUTED TO	R103	624.	12.10	58.	16.	8.	.64
+	HYDROGRAPH AT	RT30	65.	12.07	8.	2.	1.	.26
+	ROUTED TO	R30	64.	12.10	8.	2.	1.	.26
+	HYDROGRAPH AT	RTB1	198.	12.07	8.	2.	1.	.26
+	ROUTED TO	B1	36.	12.23	7.	2.	1.	.26
+	ROUTED TO	RB1	36.	12.30	7.	2.	1.	.26
+	2 COMBINED AT	CDIV	94.	12.23	15.	4.	2.	.12
+	HYDROGRAPH AT	459	43.	12.07	3.	1.	0.	.03
+	2 COMBINED AT	C52	118.	12.17	18.	5.	2.	.15
+	ROUTED TO	R52	116.	12.20	18.	5.	2.	.15
+	HYDROGRAPH AT	460	205.	12.10	19.	6.	3.	.14
+	2 COMBINED AT	C102	310.	12.10	37.	11.	5.	.29
+	ROUTED TO	BASIN3	75.	12.60	37.	11.	5.	.29
+	ROUTED TO	R3	75.	12.73	37.	11.	5.	.29
+	HYDROGRAPH AT	461	156.	12.13	17.	5.	2.	.12
+	2 COMBINED AT	C104	216.	12.13	53.	16.	7.	.41
+	2 COMBINED AT	C106	833.	12.10	110.	32.	16.	1.05
+	ROUTED TO	R106	799.	12.17	110.	32.	16.	1.05
+	HYDROGRAPH AT	462	523.	12.07	40.	11.	5.	.30
+	2 COMBINED AT	C56	1238.	12.13	149.	42.	21.	1.35
+	HYDROGRAPH AT	480	991.	12.13	96.	29.	14.	.73
+	DIVERSION TO	BS480	458.	11.93	27.	8.	4.	.73
+	HYDROGRAPH AT	D480	991.	12.13	78.	21.	10.	.73
+	HYDROGRAPH AT	RT480	458.	11.93	27.	8.	4.	.73
+	ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT	C480	997.	12.13	84.	27.	14.	.73
+	3 COMBINED AT	480C	4177.	13.27	2136.	807.	447.	2.09
+	ROUTED TO	RR480	4166.	13.33	2134.	807.	447.	2.09
+	HYDROGRAPH AT	500	988.	12.23	122.	33.	16.	.93
+	2 COMBINED AT	500C	4228.	13.30	2237.	834.	461.	2.84

*** NORMAL END OF HEC-1 ***

NSTEP Estimation for Spook Hill ADMP 100-YR, 24hr Bipass Conditions + FRS Detention for 3700cfs in Spook Hill Floodway

Trial 1

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
60R	6600	0.04	45.83	1.0	1.2
R60	2850	0.03	26.39	1.0	0.9
RR60	3500	0.03	32.41	1.0	0.9
R80	1200	0.01	33.33	1.0	0.3
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
180R	4400	0.01	122.22	1.0	0.3
R180	1500	0.04	10.42	1.0	1.2
R260	2300	0.04	15.97	2.0	1.2
R280	2500	0.07	9.92	2.0	2.1
R300	2200	0.03	20.37	2.0	0.9
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.23	8.21	6.0	6.9
R340	2000	0.07	7.94	2.0	2.1
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.14	7.94	4.0	4.2
RR390	14890	0.2	20.68	6.0	6.0
R400	3800	0.13	8.12	4.0	3.9
R420	2900	0.1	8.06	3.0	3.0
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.06	6.02	3.0	1.8
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.23	11.11	6.0	6.9
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.06	30.09	2.0	1.8

Trial 2

$time_{min}$ = 2

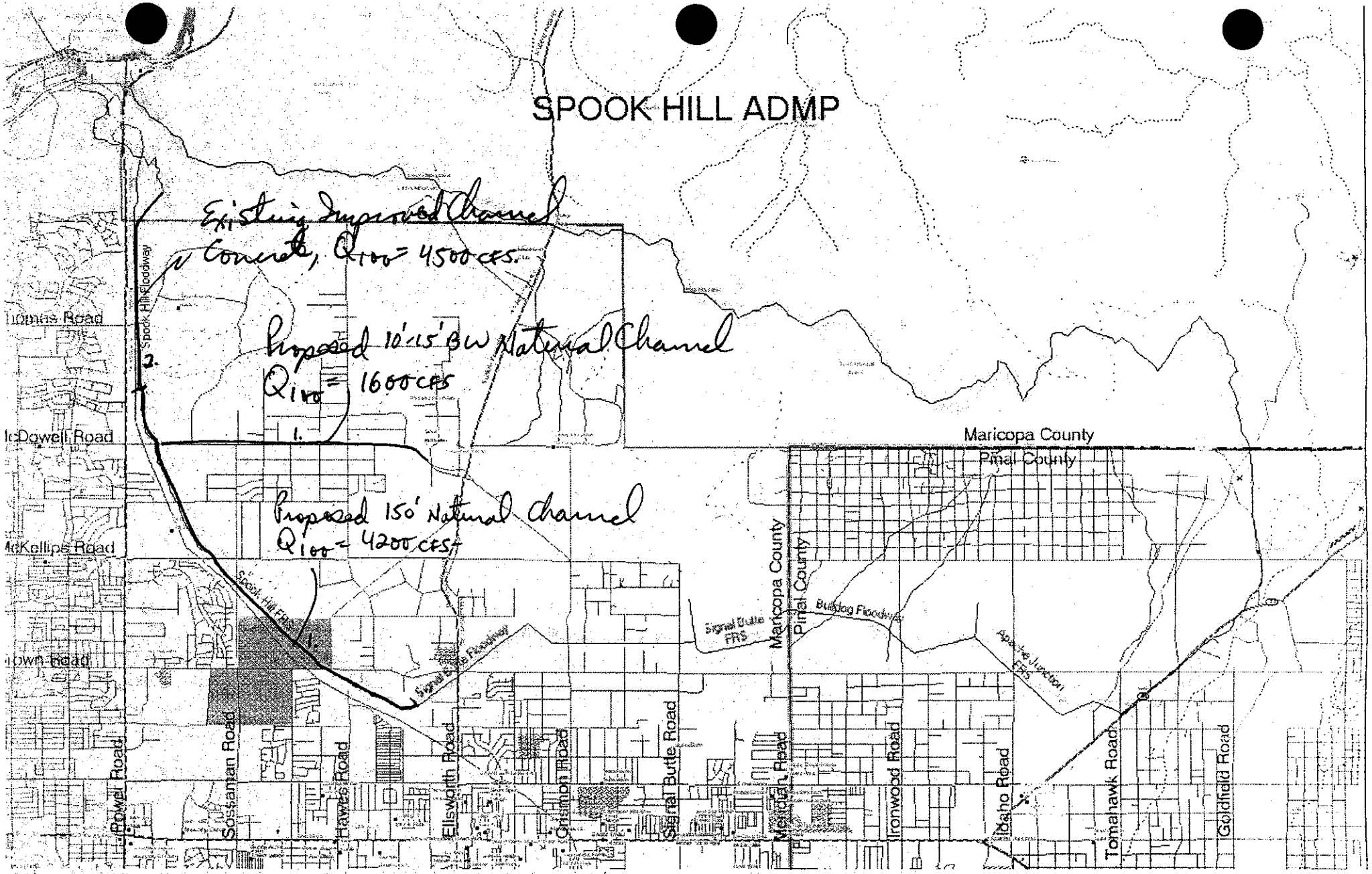
Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
60R	6600	0.04	45.83	1.0	1.2
R60	2850	0.03	26.39	1.0	0.9
RR60	3500	0.03	32.41	1.0	0.9
R80	1200	0.01	33.33	1.0	0.3
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
180R	4400	0.01	122.22	1.0	0.3
R180	1500	0.04	10.42	1.0	1.2
R260	2300	0.04	15.97	1.0	1.2
R280	2500	0.07	9.92	2.0	2.1
R300	2200	0.06	10.19	1.0	1.8
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.23	8.21	7.0	6.9
R340	2000	0.07	7.94	2.0	2.1
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.14	7.94	4.0	4.2
RR390	14890	0.2	20.68	6.0	6.0
R400	3800	0.13	8.12	4.0	3.9
R420	2900	0.1	8.06	3.0	3.0
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.1	3.61	2.0	3.0
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.23	11.11	7.0	6.9
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.06	30.09	1.0	1.8

Trial 3

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
60R	6600	0.07	26.19	2.0	2.1
R60	2850	0.03	26.39	1.0	0.9
RR60	3500	0.04	24.31	1.0	1.2
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
180R	4400	0.01	122.22	1.0	0.3
R180	1500	0.04	10.42	1.0	1.2
R260	2300	0.04	15.97	2.0	1.2
R280	2500	0.07	9.92	2.0	2.1
R300	2200	0.03	20.37	2.0	0.9
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.23	8.21	7.0	6.9
R340	2000	0.07	7.94	3.0	2.1
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.14	7.94	4.0	4.2
RR390	14890	0.2	20.68	6.0	6.0
R400	3800	0.13	8.12	4.0	3.9
R420	2900	0.1	8.06	3.0	3.0
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.06	6.02	3.0	1.8
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.23	11.11	7.0	6.9
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.03	60.19	2.0	0.9

SPOOK HILL ADMP



Proposed
1. Channel
2. Improved Channel
Existing

HEC-1 Existing Conditions 100-Year, 24hr Storm
Maintain Apache & Signal FRS & Eliminate Spook Hill FRS
Use an improved channel along McDowell Rd.

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1****************************************                                    ****************************************
*                                      *                                    *                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
*              JUN  1998               *                                    *   HYDROLOGIC ENGINEERING CENTER      *
*            VERSION 4.1               *                                    *         609 SECOND STREET            *
*                                      *                                    *      DAVIS, CALIFORNIA 95616         *
*  RUN DATE   07JAN00  TIME  08:27:26  *                                    *          (916) 756-1104              *
*                                      *                                    *                                      *
****************************************                                    ****************************************

                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X                X
                                        XXXXXXX  XXXX     X        XXXXX   X
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX         XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS, AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL, SIGNAL
 10           ID   BUTTE, AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE: SPHEX2.DAT
 13           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
 14           ID
 15           ID
 16           ID   REVISED MODEL BASED ON BYPASSING OF FRS STRUCTURES
 17           ID   AND INCREASING THE EXISTING CHANNELS WIDTHS - MAINTAINING THE SAME DEPTHS
 18           ID   REVISED ON 11/9/99 BY JCD; FILE: SPHEX3.DAT
 19           ID
 20           ID   MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
 21           ID   DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
 22           ID   BY: JCD; 1/4/2000            FILE: SPHEX2RV.DAT
 23           ID
 24           ID   MODEL UPDATE BASED ON BYPASSING OF FRS STRUCTURES AND INCREASING
 25           ID   THE EXISTING CHANNEL WIDTHS WHILE MAINTAINING THE SAME DEPTHS
 26           ID   FILE: SPHEX3RV.DAT           1/4/2000
 27           ID
 28           ID   MODEL UPDATE BASED ON KEEPING THE APACHE JUNCTION FRS & SIGNAL BUTTE FRS
 29           ID   ELIMINATING THE SPOOK HILL FRS AND INCLUDING AN IMPROVED CHANNEL ALONG
 30           ID   MCDOWELL TO RAVENS ROOST MOUNTAIN LOCATED JUST WEST OF ELLSWORTH ROAD
 31           ID   FILE: SPHEX6RV.DAT           JCD; 1/6/2000
 32           ID
              *DIAGRAM
 33           IT       2                    1500
 34           IO       3
 35           IN      15
 36           JD    3.81    0.01
 37           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 38           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 39           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 40           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 41           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 42           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 43           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 44           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 45           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 46           PC    .983    .986    .989    .992    .995    .998   1.000
 47           JD    3.58   10.00
 48           JD    3.43   30.00
 49           JD    3.28   60.00
 50           JD    3.22   90.00
 51           JD    3.18  120.00
 52           JD    3.14  150.00
 53           JD    3.05  300.00
 54           JD    2.97  500.00
1                                                HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 55           KK      20
 56           KM   SUB-BASIN 20
 57           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 58           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
 59           KM     L = 4.58  Kb = .037  Adj. Slope =  118.0
 60           BA   1.821
 61           LG    .350    .360   6.600    .140   7.000
 62           UC    .804    .697

 63           KK      40
 64           KM   SUB-BASIN 40
 65           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 66           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 67           KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 68           BA   2.233
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 69          LG    .340    .340   4.900    .280   5.000
 70          UC    .496    .264

 71          KK      60
 72          KM   SUB-BASIN 60
 73          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 74          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 75          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 76          BA   1.746
 77          LG    .330    .350   5.800    .190   9.000
 78          UC    .596    .477

 79          KK     60C
 80          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 81          HC       3

 82          KK    SR60
 83          KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
 84          KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
 85          KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
 86          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
 87          RS       1    STOR       0
 88          SV       0       1     100     200     300     400
 89          SQ       0      71      81      87    91.5      94
 90          SE    83.5    93.5      96    97.7      99   99.77

 91          KK     R60
 92          KM        ROUTE FLOW THROUGH BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
 93          RS       2    FLOW      -1
 94          RC    .016    .016    .016    2850    .012
 95          RX       0       1       2     2.1     5.6     5.7       6       7
 96          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
                                          HEC-1 INPUT                                                    PAGE  3
1
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 97          KK    RR60
 98          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
 99          RS       3    FLOW      -1
100          RC    .016    .016    .016    3500    .005
101          RX       0       1       2     2.1     7.1     7.2       8       9
102          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5

103          KK      80
104          KM   SUB-BASIN 80
105          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
106          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
107          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
108          BA   1.475
109          LG    .330    .330   5.600    .210   4.000
110          UC    .433    .259

111          KK     80C
112          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
113          HC       2   1.475

114          KK     R80
115          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
116          RS       1    FLOW      -1
117          RC    .016    .016    .016    1200    .003
118          RX       0       1       2     2.1    37.1    37.2      38      39
119          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5

120          KK     100
121          KM   SUB-BASIN 100
122          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
123          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
124          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
125          BA    .484
126          LG    .320    .290   5.100    .260   3.000
127          UC    .533    .473

128          KK    100C
129          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
130          HC       2

131          KK    R100
132          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
133          RS       1    FLOW      -1
134          RC    .016    .016    .016     940    .005
135          RX       0       1       2     2.1    52.1    52.2      53      54
136          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5

137          KK     120
138          KM   SUB-BASIN 120
139          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
140          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
141          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
142          BA   2.202
143          LG    .330    .280   6.800    .130  11.000                                                   PAGE  4
1                                         HEC-1 INPUT
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

144          UC    .429    .226

145          KK    120C
146          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
147          HC       2

148          KK    R120
149          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
150          RS       1    FLOW      -1
151          RC    .025    .016    .025    2100    .005
152          RX       0       6      10    10.1    60.1    60.2    74.2    80.2
153          RY       8       5       5       0       0       5       5       8

154          KK     140
155          KM   SUB-BASIN 140
156          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
157          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
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158          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
159          BA    .598
160          LG    .310    .280   4.200    .440   5.000
161          UC    .421    .278

162          KK     160
163          KM   SUB-BASIN 160
164          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
165          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
166          KM     L = 3.18  Kb = .043  Adj. Slope =  299.2
167          BA    .777
168          LG    .340    .340   4.600    .330   5.000
169          UC    .479    .476

170          KK     180
171          KM   SUB-BASIN 180
172          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
173          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
174          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
175          BA   1.000
176          LG    .350    .350   4.150    .430    .000
177          UC    .571    .403

178          KK    180C
179          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
180          HC       4

181          KK     240
182          KM   SUB-BASIN 240
183          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
184          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
185          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
186          BA   1.036
187          LG    .350    .350   4.600    .330   2.000
188          UC    .500    .458
1                                    HEC-1 INPUT                                    PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

189          KK    R240
190          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
191          KM   PASS MOUNTAIN DIVERSION
192          RS       2    FLOW      -1
193          RC    .035    .025    .035    2100    .005
194          RX       0       1       2      11      41      50      51      52
195          RY       3       3       3       0       0       3       3       3

196          KK     220
197          KM   SUB-BASIN 220
198          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
199          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
200          KM     L = 3.14  Kb = .040  Adj. Slope =  302.1
201          BA   1.252
202          LG    .350    .350   7.000    .120   3.000
203          UC    .425    .315
             * DDM   ***** Preserved *****

204          KK    220C
205          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
206          HC       2
             * DDM   ***** Preserved *****

207          KK    R220
208          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
209          KM   PASS MOUNTAIN DIVERSION
210          RS       1    FLOW      -1
211          RC    .035    .025    .035    1900    .005
212          RX       0       1       2      14      64      76      77      78
213          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

214          KK     200
215          KM   SUB-BASIN 200
216          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
217          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
218          KM     L = 3.28  Kb = .038  Adj. Slope =  299.9
219          BA   1.811
220          LG    .350    .390   5.800    .190  11.000
221          UC    .433    .270
             * DDM   ***** Preserved *****

222          KK    200C
223          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
224          HC       2
             * DDM   ***** Preserved *****

225          KK    R200
226          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
227          RS       1    FLOW      -1
228          RC    .035    .025    .035    1300    .005
229          RX       0       1       2      14     114     126     127     128
230          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                    PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

231          KK    C180
232          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *      1       2
233          HC       2
             * DDM   ***** Preserved *****

234          KK   SR180
235          KM   SIGNAL BUTTE FRS DATED 1/28/85
236          KM   OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
237          KM   EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
238          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
239          RS       1    STOR       0
240          SV       0       1     250     500     750    1060
241          SQ       0   106.5   125.5   137.5     146     160
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 242          SE      90     101   104.5     107     109   112.4
              * DDM   ***** Preserved *****

 243          KK    R180
 244          KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
 245          RS       2    FLOW      -1
 246          RC    .035    .025    .035    1500    .003
 247          RX       0       1       2    22.6    38.6    59.2      60      61
 248          RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
              * DDM   ***** Updated *****

 249          KK     260
 250          KM   SUB-BASIN 260
 251          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 252          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
 253          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
 254          BA    .267
 255          LG    .300    .170   6.800    .160  15.000
 256          UC    .363    .215
              * DDM   ***** Preserved *****

 257          KK    260C
 258          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
 259          HC       2    .267
              * DDM   ***** Preserved *****

 260          KK    R260
 261          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
 262          RS       2    FLOW      -1
 263          RC    .035    .025    .035    2300    .003
 264          RX       0       1       2    23.4    43.4    64.8      65      66
 265          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
              * DDM   ***** Updated *****

 266          KK     280
 267          KM   SUB-BASIN 280
 268          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 269          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
 270          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
 271          BA    .304
1                                        HEC-1 INPUT                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 272          LG    .300    .250   5.300    .290  15.000
 273          UC    .333    .175
              * DDM   ***** Preserved *****

 274          KK    280C
 275          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
 276          HC       2
              * DDM   ***** Preserved *****

 277          KK    R280
 278          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
 279          RS       3    FLOW      -1
 280          RC    .035    .025    .035    2500    .003
 281          RX       0       1       2    23.4    43.4    64.8      65      66
 282          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
              * DDM   ***** Updated *****

 283          KK     300
 284          KM   SUB-BASIN 300
 285          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 286          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
 287          KM     L = 2.28  Kb = .041  Adj. Slope =  127.0
 288          BA    .988
 289          LG    .340    .320   4.500    .370   7.000
 290          UC    .538    .362
              * DDM   ***** Preserved *****

 291          KK    300C
 292          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
 293          HC       2
              * DDM   ***** Preserved *****

 294          KK    R300
 295          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
 296          RS       2    FLOW      -1
 297          RC    .035    .025    .035    2200    .003
 298          RX       0       1       2    23.4    55.4    76.8      77      78
 299          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
              * DDM   ***** Preserved *****

 300          KK   RR300
 301          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
 302          RS       2    FLOW      -1
 303          RC    .016    .016    .016    6050   .0146
 304          RX       0       1       2     2.1    16.1    16.2      17      18
 305          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
              * DDM   ***** Updated *****

 306          KK     320
 307          KM   SUB-BASIN 320
 308          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 309          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
 310          KM     L = 4.67  Kb = .039  Adj. Slope =  248.6
              *      1       2
 311          BA   1.527
1                                        HEC-1 INPUT                                          PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 312          LG    .330    .320   4.400    .390   9.000
 313          UC    .658    .627
              * DDM   ***** Preserved *****

 314          KK    D320
 315          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 316          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
 317          KM   SIERRA HEIGHTS, FALCON RIDGE, & MARBLE CREEK
 318          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
              *      1
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```
319          DT   BS320   12.27
320          DI       0   10000
321          DQ       0   10000

322          KK   RT320
323          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
324          DR   BS320

325          KK   SR320
326          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
327          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *      1
328          RS       1    STOR       0
329          SV       0     .01    12.3
330          SQ       0     4.2     4.2

331          KK    C320
332          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
333          HC       3

334          KK    R320
335          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
336          RS       8    FLOW      -1
337          RC    .025    .025    .025    6800   .0016
338          RX       0       1       2      15     165     180     181     182
339          RY       5       5       5       0       0       5       5       5
             *      0       1       2      30      90     118     119     120
             *      7       7       7       0       0       7       7       7

340          KK     340
341          KM   SUB-BASIN 340
342          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
343          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
344          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
345          BA   1.449
346          LG    .280    .280   4.150    .520  21.000
347          UC    .512    .287

348          KK    D340
349          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
350          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
351          KM   GRANDVIEW ESTATES, BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
352          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *      1
353          DT   BS340      56
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

354          DI       0   10000
355          DQ       0   10000

356          KK   RT340
357          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
358          DR   BS340

359          KK   SR340
360          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
361          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *      1
362          RS       1    STOR       0
363          SV       0     .01      56
364          SQ       0    18.9    18.9

365          KK    C340
366          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
367          HC       3

368          KK    R340
369          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
370          RS       2    FLOW      -1
371          RC    .025    .025    .025    2000   .0016
372          RX       0       1       2      15     165     180     181     182
373          RY       5       5       5       0       0       5       5       5
             *      0       1       2      30     114     142     143     144
             *      7       7       7       0       0       7       7       7

374          KK     350
375          KM   SUB-BASIN 350
376          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
377          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
378          KM     L = 2.22  Kb = .042  Adj. Slope =  315.0
379          BA    .970
380          LG    .350    .350   4.550    .340   4.000
381          UC    .367    .234

382          KK   RR350
383          KM   FROM SUB-BASIN 350 TO SUB-BASIN 360
384          RS      12    FLOW      -1
385          RC     .05    .035     .05   25600    .049
386          RX    1000    1010    1020    1036    1041    1057    1067    1077
387          RY      15    14.5      14      10      10      14    14.5      15

388          KK     360
389          KM   SUB-BASIN 360
390          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
391          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
392          KM     L = 4.84  Kb = .042  Adj. Slope =  257.5
393          BA   1.329
394          LG    .300    .300   4.250    .460  12.000
395          UC    .712    .763
             * DDM    ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

396          KK    D360
397          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
398          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
399          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
400          DT   BS360    28.6
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401          DI       0   10000
402          DQ       0   10000

403          KK   RT360
404          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
405          DR   BS360

406          KK   SR360
407          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
408          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
409          RS       1    STOR       0
410          SV       0     .01    28.6
411          SQ       0     9.6     9.6

412          KK    360C
413          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
414          HC       4

415          KK    R360
416          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
417          RS       2    FLOW      -1
418          RC    .025    .025    .025    2600   .0016
419          RX       0       1       2      15     165     180     181     182
420          RY       5       5       5       0       0       5       5       5
             *      0       1       2      30     130     158     159     160
             *      7       7       7       0       0       7       7       7

421          KK     380
422          KM   SUB-BASIN 380
423          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
424          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
425          KM     L = 2.02  Kb = .048  Adj. Slope =  124.0
426          BA    .982
427          LG    .300    .310   4.150    .500   7.000
428          UC    .592    .366

429          KK    D380
430          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
431          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
432          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
433          DT   BS380    28.6
434          DI       0   10000
435          DQ       0   10000
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

436          KK   RT380
437          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
438          DR   BS380

439          KK   SR380
440          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
441          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
442          RS       1    STOR       0
443          SV       0     .01    28.6
444          SQ       0     9.6     9.6

445          KK    380C
446          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
447          HC       3

448          KK    R380
449          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
450          RS       4    FLOW      -1
451          RC    .025    .025    .025    4000   .0016
452          RX       0       1       2      15     165     180     181     182
453          RY       5       5       5       0       0       5       5       5
             *      0       1       2      30     150     178     179     180
             *      7       7       7       0       0       7       7       7

454          KK     400
455          KM   SUB-BASIN 400
456          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
457          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
458          KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
459          BA    .616
460          LG    .320    .320   3.130    .930   6.000
461          UC    .592    .405

462          KK    400C
463          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
464          HC       2

465          KK    R400
466          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
467          RS       4    FLOW      -1
468          RC    .025    .025    .025    3800   .0016
469          RX       0       1       2      15     165     180     181     182
470          RY       5       5       5       0       0       5       5       5
             *      0       1       2      30     180     208     209     210
             *      7       7       7       0       0       7       7       7

471          KK     420
472          KM   SUB-BASIN 420
473          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
474          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
475          KM     L = 1.39  Kb = .045  Adj. Slope =  101.0
476          BA    .579
477          LG    .320    .280   4.300    .460  10.000
478          UC    .454    .274
             * DDM    ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

479          KK    D420
480          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
481          KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
482          KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
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            *      1
483         DT   BS420   38.55
484         DI       0   10000
485         DQ       0   10000

486         KK   RT420
487         KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
488         DR   BS420

489         KK   SR420
490         KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
491         KM   38.55 ACRE-FEETx43560/36x3600=13cfs
492         RS       1     STOR       0
493         SV       0      .01   38.55
494         SQ       0       13      13

495         KK    420C
496         KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
497         HC       3

498         KK    R420
499         KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
500         RS       3     FLOW      -1
501         RC    .025     .025    .025    2900   .0016
502         RX       0        1       2      15     165     180     181     182
503         RY       5        5       5       0       0       5       5       5

504         KK     370
505         KM   SUB-BASIN 370
506         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
507         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
508         KM     L = 3.03  Kb = .044  Adj. Slope =  285.0
509         BA    .656
510         LG    .340     .320   4.700    .320   9.000
511         UC    .475     .500

512         KK   RR370
513         KM   FROM SUB-BASIN 370 TO SUB-BASIN 390
514         RS       1     FLOW      -1
515         RC    .025     .025    .025    2600    .027
516         RX    1000     1010    1020    1032    1042    1054    1064    1074
517         RY      14     13.5      13      10      10      13    13.5      14

518         KK     390
519         KM   SUB-BASIN 390
520         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
521         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
522         KM     L = 2.82  Kb = .041  Adj. Slope =  298.1
523         BA   1.089
524         LG    .330     .330   5.200    .260  14.000
1                                         HEC-1 INPUT                                                    PAGE 13

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

525         UC     .41     .306

526         KK    D390
527         KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
528         KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
529         KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
            *      1
530         DT   BS390     3.5
531         DI       0   10000
532         DQ       0   10000

533         KK   RT390
534         KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
535         DR   BS390

536         KK   SR390
537         KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
538         KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
539         RS       1     STOR       0
540         SV       0      .01     3.5
541         SQ       0      1.2     1.2

542         KK    390C
543         KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
544         HC       3

545         KK   RR390
546         KM   FROM SUB-BASIN 390 TP SUB-BASIN 410
547         RS       3     FLOW      -1
548         RC    .025     .025    .025    5400    .019
549         RX    1000     1010    1020    1032    1042    1054    1064    1074
550         RY      14     13.5      13      10      10      13    13.5      14

551         KK     410
552         KM   SUB-BASIN 410
553         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
554         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
555         KM     L =  .52  Kb = .049  Adj. Slope =  173.0
556         BA    .270
557         LG    .300     .250   3.950    .580  15.000
558         UC    .213     .083

559         KK    410C
560         KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
561         HC       2

562         KK   RR410
563         KM   FROM SUB-BASIN 410 TO SUB-BASIN 420
564         RS       4     FLOW      -1
565         RC    .025     .025    .025    6000   .0133
566         RX    1000     1010    1020    1032    1047    1059    1069    1079
567         RY      14     13.5      13      10      10      13    13.5      14
                                          HEC-1 INPUT                                                    PAGE 14

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

568         KK   420CC
569         KM   HYDROGRAPH COMBINATION FOR SUB-BASINS 410 & 420
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570          HC       2
             * DDM   ***** Updated *****

571          KK     440
572          KM   SUB-BASIN 440
573          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
574          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
575          KM     L =  .40  Kb = .039  Adj. Slope =  315.0
576          BA    .080
577          LG    .190    .380   6.400    .140  13.000
578          UC    .129    .077

579          KK     R70
580          KM        ROUTE FLOW FROM SUB-BASIN 60 TO C108
581          RS       1    FLOW      -1
582          RC     .05    .035     .05    2250     .08
583          RX    1000    1025    1050    1070    1075    1095    1120    1145
584          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

585          KK     441
586          KM   SUB-BASIN 441
587          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
588          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
589          KM     L =  .28  Kb = .069  Adj. Slope =  315.0
590          BA    .010
591          LG    .300    .250   5.600    .220   5.000
592          UC    .150    .225
             * DDM   ***** Preserved *****

593          KK    C108
594          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60 AND 61A
595          HC       2
             * DDM   ***** Preserved *****

596          KK    DIV4
597          KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
             *      1
598          DT   SPLIT
599          DI       0      14      40      82     120     154     180
600          DQ       0       7      20      41      60      77      90
             * DDM   ***** Preserved *****

601          KK    R108
602          KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
603          RS       2    FLOW      -1
604          RC     .05    .035     .05    3200      .1
605          RX    1000    1025    1050    1070    1075    1095    1120    1145
606          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

607          KK     442
608          KM   SUB-BASIN 442
609          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
610          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
611          KM     L =  .83  Kb = .055  Adj. Slope =  274.2
612          BA    .100
613          LG    .300    .270   3.290    .770   5.000
614          UC    .258    .264
             * DDM   ***** Preserved *****

615          KK     C67
616          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60, 61 AND 67
617          HC       2
             * DDM   ***** Preserved *****

618          KK    DIV6
619          KM        OFFLINE BASIN WITH 75 FOOT WEIR SET AT 3 FEET ABOVE BOTTOM OF CHANNEL
620          KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
             *      1
621          DT  BASIN4
622          DI       0      10      32      56   136.6   276.5     454   662.8
623          DQ       0       0       0       0    71.6   202.5     372   572.8

624          KK  RTDIV6
625          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
626          DR  BASIN4

627          KK  RFDIV6
628          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
629          KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
             *      1
630          RS       1    STOR       0
631          SV       0     .01     3.3
632          SQ       0     1.1     1.1

633          KK   CDIV6
634          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
635          HC       2

636          KK     443
637          KM   SUB-BASIN 443
638          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
639          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
640          KM     L =  .71  Kb = .050  Adj. Slope =  315.0
641          BA    .080
642          LG    .250    .190   8.000    .080  10.000
643          UC    .196    .194

644          KK   DIV66
645          KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
646          KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
647          DT   WSH66
648          DI       0      78     100     200
649          DQ       0      78      78      78
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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650          KK    R113
651          KM        ROUTE FLOW FROM C113 TO C114
652          RS       1    FLOW      -1
653          RC    .019    .019    .019    1300    .029
654          RX    1000    1004    1008    1012    1018    1022    1026    1030
655          RY      17   15.33   12.67      10      10   12.67   15.33      17

656          KK    C114
657          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
658          HC       2

659          KK     444
660          KM   SUB-BASIN 444
661          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
662          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
663          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
664          BA    .040
665          LG    .130    .350   4.450    .320   1.000
666          UC    .112    .084
             * DDM   ***** Preserved *****

667          KK     R58
668          KM        ROUTE FLOW FROM SUB-BASIN 58 TO C107
669          RS       2    FLOW      -1
670          RC     .05    .035     .05    2370   .0516
671          RX    1000    1010    1020    1050    1055    1085    1095    1105
672          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Updated *****

673          KK     445
674          KM   SUB-BASIN 445
675          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
676          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
677          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
678          BA    .190
679          LG    .170    .320   3.470    .590   3.000
680          UC    .192    .130
             * DDM   ***** Preserved *****

681          KK    C107
682          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 58 AND 59
683          HC       2
             * DDM   ***** Preserved *****

684          KK    R107
685          KM        ROUTE FLOW FROM C107 TO C109
686          RS       1    FLOW      -1
687          RC     .05    .035     .05     700   .0516
688          RX    1000    1010    1020    1050    1055    1085    1095    1105
689          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                    PAGE 17

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

690          KK    RTB2
691          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
692          DR   SPLIT
             * DDM   ***** Preserved *****

693          KK  RSPLIT
694          KM        ROUTE FLOW FROM SPLIT TO C109
695          RS       1    FLOW      -1
696          RC     .05    .035     .05     800     .05
697          RX    1000    1025    1050    1070    1075    1095    1120    1145
698          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

699          KK     446
700          KM   SUB-BASIN 446
701          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
702          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
703          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
704          BA    .040
705          LG    .270    .250   4.500    .400  19.000
706          UC    .183    .189
             * DDM   ***** Preserved *****

707          KK    C109
708          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
709          HC       3
             * DDM   ***** Preserved *****

710          KK    DIV5
711          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
712          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
713          DT  WSH404
714          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
715          DQ       0      35      35      35      35      35      35      35
             * DDM   ***** Preserved *****

716          KK    R109
717          KM        ROUTE FLOW FROM C109 TO C110
718          RS       1    FLOW      -1
719          RC    .019    .019    .019    3080     .05
720          RX    1000    1005    1010    1015    1025    1030    1035    1040
721          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
             * DDM   ***** Updated *****

722          KK     447
723          KM   SUB-BASIN 447
724          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
725          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
726          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
727          BA    .090
728          LG    .250    .270   3.350    .870  30.000
729          UC    .208    .145
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                    PAGE 18
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 730          KK   RT404
 731          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
 732          DR  WSH404
              * DDM   ***** Preserved *****

 733          KK    R404
 734          KM        ROUTE FLOW FROM C110 TO C110
 735          RS       5    FLOW      -1
 736          RC    .019    .019    .019    3540     .03
 737          RX    1000    1012    1016    1020    1025    1029    1033    1045
 738          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

 739          KK    C110
 740          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 62 AND C109
 741          HC       3
              * DDM   ***** Preserved *****

 742          KK    R110
 743          KM        ROUTE FLOW FROM C110 TO C115
 744          RS       1    FLOW      -1
 745          RC    .019    .019    .019     580    .029
 746          RX    1000    1012    1016    1020    1035    1039    1043    1055
 747          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

 748          KK    C115
 749          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
 750          HC       2
              * DDM   ***** Preserved *****

 751          KK    R115
 752          KM        ROUTE FLOW FROM C115 TO C119
 753          RS       1    FLOW      -1
 754          RC    .019    .019    .019    2125    .029
 755          RC    .019    .019    .019     580   .0291
 756          RX    1000    1012    1016    1020    1035    1039    1043    1055
 757          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Updated *****

 758          KK     448
 759          KM   SUB-BASIN 448
 760          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 761          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 762          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
 763          BA    .045
 764          LG    .170    .310   4.200    .390  11.000
 765          UC    .133    .102
              * DDM   ***** Updated *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 766          KK     449
 767          KM   SUB-BASIN 449
 768          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 769          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 770          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
 771          BA    .050
 772          LG    .260    .280   3.500    .640   6.000
 773          UC    .167    .134
              * DDM   ***** Preserved *****

 774          KK   C6364
 775          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 63 AND 64
 776          HC       2
              * DDM   ***** Preserved *****

 777          KK   R6364
 778          KM        ROUTE FLOW FROM DIVERSIONS 63 AND 64 TO C116
 779          RS       5    FLOW      -1
 780          RC     .05     .035     .05    4375   .0333
 781          RX    1000    1027    1053    1080    1090    1117    1143    1170
 782          RY      15   13.33   11.67      10      10   11.67   13.33      15
              * DDM   ***** Updated *****

 783          KK     450
 784          KM   SUB-BASIN 450
 785          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 786          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 787          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
 788          BA    .070
 789          LG    .340    .350   3.630    .570   4.000
 790          UC    .296    .383
              * DDM   ***** Updated *****

 791          KK     451
 792          KM   SUB-BASIN 451
 793          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 794          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 795          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
 796          BA    .025
 797          LG    .340    .340   3.290    .750   3.000
 798          UC    .271    .453
              * DDM   ***** Preserved *****

 799          KK    RT66
 800          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
 801          DR   WSH66
              * DDM   ***** Updated *****

 802          KK     452
 803          KM   SUB-BASIN 452
 804          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 805          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 806          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
 807          BA    .040
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 808          LG    .260    .280   3.700    .550   9.000
 809          UC    .171    .166
              * DDM    ***** Preserved *****

 810          KK   C6566
 811          KM        COMBINE HYDROGRAPHS FROM DIVERSIONS 65 AND 66
 812          HC       2
              * DDM    ***** Preserved *****

 813          KK   R6566
 814          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
 815          RS       2    FLOW      -1
 816          RC     .05    .035     .05    2435   .0282
 817          RX    1000    1045    1090    1150    1160    1220    1265    1310
 818          RY      25      23      20      10      10      20      23      25
              * DDM    ***** Preserved *****

 819          KK    C116
 820          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 68 AND 69 AND DIVERTED FLOWS
 821          KM        FROM SUB-BASINS 63, 64, 65 AND 66
 822          HC       4
              * DDM    ***** Preserved *****

 823          KK  BASIN5
 824          KM        RESERVOIR WITHIN PARCEL 31, 2-48 INCH PIPES AT OUTFALL
 825          KM        BASIN 5 FEET DEEP
 826          RS       1    ELEV       0
 827          SV       0     4.5     9.9
 828          SQ       0      69     190
 829          SE       0     2.5       5
              * DDM    ***** Preserved *****

 830          KK    R116
 831          KM        ROUTE FLOW FROM C116 TO C118
 832          RS       3    FLOW      -1
 833          RC     .05    .035     .05    1300   .0333
 834          RX    1000    1100    1200    1300    1320    1420    1520    1620
 835          RY      13      12      11      10      10      11      12      13
              * DDM    ***** Updated *****

 836          KK     453
 837          KM   SUB-BASIN 453
 838          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 839          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 840          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
 841          BA    .060
 842          LG    .290    .300   3.290    .820  18.000
 843          UC    .275    .284
              * DDM    ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 21

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 844          KK    C117
 845          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 70 AND C115
 846          HC       2
              * DDM    ***** Preserved *****

 847          KK    C118
 848          KM        COMBINE HYDROGRAPHS FROM C116 AND C117
 849          HC       2
              * DDM    ***** Preserved *****

 850          KK    R118
 851          KM        ROUTE FLOW FROM C118 TO C119
 852          RS       1    FLOW      -1
 853          RC    .019    .019    .019    1500    .024
 854          RX    1000    1012    1016    1020    1035    1039    1043    1055
 855          RY      15      12      11      10      10      11      12      15
              * DDM    ***** Preserved *****

 856          KK    DIV7
 857          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE, FLOWS ENTER BASIN OVER
 858          KM        60' WEIR SET AT 1.5' ABOVE THE CHANNEL BOTTOM
              *      1
 859          DT  BASIN6
 860          DI       0    20.4    76.9   176.4   383.8   696.7  1105.8  1611.6
 861          DQ       0       0       0       0    57.3     162   297.6   458.2

 862          KK  RTDIV7
 863          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
 864          DR  BASIN6

 865          KK  RPDIV7
 866          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 867          KM     3.6 ACRE-FEETxA3560/36x3600=1.2cfs
 868          RS       1    STOR       0
 869          SV       0     .01     3.6
 870          SQ       0     1.2     1.2

 871          KK   CDIV7
 872          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
 873          HC       2

 874          KK     454
 875          KM   SUB-BASIN 454
 876          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 877          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
 878          KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
 879          BA    .180
 880          LG    .300    .310   3.780    .560  14.000
 881          UC    .379    .395
              * DDM    ***** Preserved *****
                                     HEC-1 INPUT                                          PAGE 22

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 882          KK    C119
 883          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 71 AND C119
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            *      1       2
884         HC       2
            * DDM   ***** Preserved *****

885         KK    R454
886         KM   FROM SUB-BASIN 454 TO SUB-BASIN 455
887         RS       8    FLOW      -1
888         RC     .05    .035     .05    6000    .005
889         RX    1000    1010    1020    1036    1041    1057    1067    1077
890         RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

891         KK     455
892         KM   SUB-BASIN 455
893         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
894         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
895         KM     L = 2.92  Kb = .039  Adj. Slope =  269.2
896         BA   1.559
897         LG    .280    .270   3.850    .590  22.000
898         UC    .450    .279

899         KK    C455
900         KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
901         HC       2

902         KK    455C
903         KM   HYDROGRAPH COMBINATION AT THE END OF THE SPOOK HILL FRS
            *      1       2
904         HC       2
            *  SR440
            *  SPOOK HILL FRS PLANS DATED 6/15/77
            *  OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
            *  EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
            *  STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
            *      1    STOR       0
            *      0     .04     100     300     500     680
            *      0     640     720     780     825     860
            *     66    77.5      79    80.2    81.2      82

905         KK   RR455
906         KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
907         RS       5    FLOW      -1
908         RC    .016    .016    .016    9200    .002
909         RX       0       1       2      15      71      84      85      86
910         RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
            *     11    FLOW      -1
            *   .035    .025    .035    9200    .002
            *      0       1       2      28      58      84      85      86
            *     13      13      13       0       0      13      13      13
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

911         KK     456
912         KM   SUB-BASIN 456
913         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
914         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
915         KM     L =  .94  Kb = .045  Adj. Slope =  315.0
916         BA    .260
917         LG    .300    .380   5.600    .200  12.000
918         UC    .217    .139

919         KK    DIV1
920         KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
921         KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
            *      1
922         DT  BASIN1
923         DI       0    24.4    70.8   132.2   194.1   281.1   415.5   571.9   753.2
924         DQ       0       0       0       0       0    57.3     162   297.6   458.2
            * DDM   ***** Preserved *****

925         KK    DIV2
926         KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
927         KM        WASHES THAT DRAIN TO THE WEST, SOUTHERN WASHES FED BY 30" AND 18" PIPE
928         DT    WA30
929         DI       0    24.4    70.8   132.2   194.1   223.8   253.5  274.25     295
930         DQ       0     8.4    24.8    40.2    52.1    57.8    63.5    67.3      71
            * DDM   ***** Preserved *****

931         KK    R456
932         KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
933         RS       3    FLOW      -1
934         RC     .05    .035     .05    3800    .044
935         RX    1000    1010    1020    1036    1041    1057    1067    1077
936         RY   14.88   14.44      14      10      10      14   14.44   14.88
            * DDM   ***** Updated *****

937         KK     457
938         KM   SUB-BASIN 457
939         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
940         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
941         KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
942         BA    .190
943         LG    .270    .330   3.950    .460   6.000
944         UC    .237    .195
            * DDM   ***** Preserved *****

945         KK    C101
946         KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
947         HC       2
            * DDM   ***** Preserved *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

948         KK    DIV3
949         KM        RESERVOIR AT THE EDGE OF THE PROPERTY, FLOW FROM 10' WIDE CHANNEL
950         KM        DIVERTED INTO OFFLINE BASIN OVER A 150' WEIR SET AT 0.75 FEET
951         KM        ABOVE CHANNEL
            *      1
952         DT  BASIN2
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 953          DI       0      18    59.3   121.6   255.8   454.1   703.1   998.3  1338.4
 954          DQ       0       0       0       0    50.6   143.2   263.1     405     566

 955          KK  RTDIV3
 956          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
 957          DR  BASIN2

 958          KK  RFDIV3
 959          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 960          KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
 961          RS       1    STOR       0
 962          SV       0     .01       5
 963          SQ       0     1.7     1.7

 964          KK   CDIV3
 965          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
 966          HC       2
              * DDM   ***** Preserved *****

 967          KK    R101
 968          KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
 969          RS       1    FLOW      -1
 970          RC     .05    .035     .05    1450     .05
 971          RX    1000    1010    1020    1036    1041    1057    1067    1077
 972          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Updated *****

 973          KK     458
 974          KM   SUB-BASIN 458
 975          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 976          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
 977          KM     L =  .76  Kb = .048  Adj. Slope =  299.0
 978          BA    .190
 979          LG    .290    .330   5.800    .190   6.000
 980          UC    .204    .131
              * DDM   ***** Preserved *****

 981          KK    C103
 982          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
 983          HC       2
              * DDM   ***** Preserved *****

 984          KK    R103
 985          KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
 986          RS       1    FLOW      -1
 987          RC     .05    .035     .05     900     .03
 988          RX    1000    1010    1020    1030    1050    1060    1070    1080
 989          RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
              * DDM   ***** Preserved *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 990          KK    RT30
 991          KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
 992          DR    WA30
              * DDM   ***** Preserved *****

 993          KK     R30
 994          KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
 995          RS       1    FLOW      -1
 996          RC     .05    .035     .05    1630     .05
 997          RX    1000    1010    1020    1036    1041    1057    1067    1077
 998          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****

 999          KK    RTB1
1000          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
              *      1       2
1001          DR  BASIN1
              * DDM   ***** Preserved *****

1002          KK      B1
1003          KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1004          KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
              *      1       2
1005          RS       1    ELEV       0
1006          SV              .7     1.4     2.3     2.7     3.2
1007          SQ       0       5      16      28    32.5      37
1008          SE       0       1       2       3     3.5       4
              * DDM   ***** Preserved *****

1009          KK     RB1
1010          KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
1011          RS       2    FLOW      -1
1012          RC     .05    .035     .05    1720     .05
1013          RX    1000    1010    1020    1036    1041    1057    1067    1077
1014          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****

1015          KK    CDIV
1016          KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1017          HC       2     .12
              * DDM   ***** Updated *****

1018          KK     459
1019          KM   SUB-BASIN 459
1020          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1021          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1022          KM     L =  .35  Kb = .052  Adj. Slope =  251.6
1023          BA    .030
1024          LG    .220    .300   3.330    .710   8.000
1025          UC    .162    .157
              * DDM   ***** Preserved *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1026          KK     C52
1027          KM        COMBINE FLOWS FROM SUB-BASIN 52, WA30 AND BASIN 1
1028          HC       2
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            * DDM   ***** Preserved *****

1029        KK     R52
1030        KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1031        RS       1    FLOW      -1
1032        RC     .05    .035     .05    2000     .05
1033        RX    1000    1010    1020    1036    1041    1057    1067    1077
1034        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

1035        KK     460
1036        KM   SUB-BASIN 460
1037        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1038        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1039        KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1040        BA    .140
1041        LG    .250    .260   3.740    .690  27.000
1042        UC    .242    .160
            * DDM   ***** Preserved *****

1043        KK    C102
1044        KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1045        HC       2
            * DDM   ***** Preserved *****

1046        KK  BASIN3
1047        KM        RESERVOIR AT CLUBHOUSE LOCATION, 1-30 INCH PIPE AT OUTFALL
1048        KM        BOTTOM OF BASIN AT 6 FEET ABOVE 0 ELEVATION
1049        RS       1    ELEV       0
1050        SA       0       0       0       0     .21    1.15       2    2.12    2.31    2.65
            *      0       0       0       0    1.14    3.25    5.52    9.23
1051        SE       0     2.5       5       6       7     7.5       8       9    10.5    12.5
1052        SQ       0      22      45      51      57    59.5      62      67      73      81
            * DDM   ***** Preserved *****

1053        KK      R3
1054        KM        ROUTE FLOW FROM C102 to C106
1055        RS       4    FLOW      -1
1056        RC     .05     .03     .05    2750   .0375
1057        RX    1000    1010    1020    1052    1086    1118    1128    1138
1058        RY    19.2    18.4      18      10      10      18    18.4    19.2
            * DDM   ***** Updated *****

1059        KK     461
1060        KM   SUB-BASIN 461
1061        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1062        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1063        KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1064        BA    .120
1065        LG    .270    .250   4.250    .450  21.000
1066        UC    .271    .250
            * DDM   ***** Preserved *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1067        KK    C104
1068        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1069        HC       2
            * DDM   ***** Preserved *****

1070        KK    C106
1071        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1072        HC       2
            * DDM   ***** Preserved *****

1073        KK    R106
1074        KM        ROUTE FLOW FROM C106 TO C49
1075        RS       2    FLOW      -1
1076        RC     .05    .035     .05    3950    .033
1077        RX    1000    1010    1020    1030    1050    1060    1070    1080
1078        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Updated *****

1079        KK     462
1080        KM   SUB-BASIN 462
1081        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1082        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1083        KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1084        BA    .301
1085        LG    .300    .330   5.300    .240  12.000
1086        UC    .225    .137
            * DDM   ***** Preserved *****

1087        KK     C56
1088        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
            *      1       2
1089        HC       2
            * DDM   ***** Updated *****

1090        KK     480
1091        KM   SUB-BASIN 480
1092        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1093        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1094        KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1095        BA    .731
1096        LG    .270    .270   3.580    .730  27.000
1097        UC    .325    .148

1098        KK    D480
1099        KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1100        KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1101        KM   FOR BASIN #: 18 & 26
1102        KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
            *      1
1103        DT   BS480    16.5
1104        DI       0   10000
1105        DQ       0   10000
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
KK   RT480
KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
DR   BS480

KK   SR480
KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
RS       1    STOR       0
SV       0     .01    16.5
SQ       0     5.6     5.6

KK    C480
KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
HC       2
* DDM   ***** Preserved *****

KK    480C
KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
HC       3    2.09
* DDM   ***** Preserved *****

KK   RR480
KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
RS       2    FLOW      -1
RC    .025    .025    .025    6500     .05
RX       0       1       2      28      58      84      85      86
RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
* DDM   ***** Updated *****

KK     500
KM   SUB-BASIN 500
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
BA    .930
LG    .350    .400   6.000    .170   9.000
UC    .421    .333
* DDM   ***** Preserved *****

KK    500C
KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
HC       2    2.84
ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   55          20
               .
               .
   63          .          40
               .           .
               .           .
   71          .           .          60
               .           .           .
               .           .           .
   79        60C.......................
              V
              V
   82       SR60
              V
              V
   91        R60
              V
              V
   97       RR60
               .
               .
  103          .          80
               .           .
               .           .
  111        80C............
              V
              V
  114        R80
               .
               .
  120          .         100
               .           .
               .           .
  128       100C............
              V
              V
  131       R100
               .
               .
  137          .         120
               .           .
               .           .
  145       120C............
              V
              V
  148       R120
               .
               .
  154          .         140
               .           .
               .           .
  162          .           .         160
               .           .           .
               .           .           .
  170          .           .           .         180
               .           .           .           .
               .           .           .           .
  178       180C...................................
               .
               .
  181          .         240
               .           V
               .           V
  189          .        R240
               .           .
               .           .
  196          .           .         220
               .           .           .
               .           .           .
  204          .        220C............
               .           V
               .           V
  207          .        R220
               .           .
               .           .
  214          .           .         200
               .           .           .
               .           .           .
  222          .        200C............
               .           V
               .           V
  225          .        R200
               .           .
               .           .
  231       C180............
              V
              V
  234      SR180
              V
              V
  243       R180
               .
               .
  249          .         260
               .           .
               .           .
  257       260C............
              V
              V
  260       R260
               .
               .
  266          .         280
               .           .
               .           .
  274       280C............
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```
            V
            V
277       R280
            .
            .
283         .         300
            .           .
            .           .
291       300C............
            V
            V
294       R300
            V
            V
300      RR300
            .
            .
306         .         320
            .           .
            .           .
319         .           .-------->   BS320
314         .       D320
            .           .
            .           .
324         .           .          .<--------   BS320
322         .           .      RT320
            .           .          V
            .           .          V
325         .           .      SR320
            .           .          .
            .           .          .
331       C320......................
            V
            V
334       R320
            .
            .
340         .         340
            .           .
            .           .
353         .           .-------->   BS340
348         .       D340
            .           .
            .           .
358         .           .          .<--------   BS340
356         .           .      RT340
            .           .          V
            .           .          V
359         .           .      SR340
            .           .          .
            .           .          .
365       C340......................
            V
            V
368       R340
            .
            .
374         .         350
            .           V
            .           V
382         .      RR350
            .           .
            .           .
388         .           .        360
            .           .          .
            .           .          .
400         .           .          .-------->   BS360
396         .           .       D360
            .           .          .
            .           .          .
405         .           .          .          .<--------   BS360
403         .           .          .      RT360
            .           .          .          V
            .           .          .          V
406         .           .          .      SR360
            .           .          .          .
            .           .          .          .
412       360C.................................
            V
            V
415       R360
            .
            .
421         .         380
            .           .
            .           .
433         .           .-------->   BS380
429         .       D380
            .           .
            .           .
438         .           .          .<--------   BS380
436         .           .      RT380
            .           .          V
            .           .          V
439         .           .      SR380
            .           .          .
            .           .          .
445       380C......................
            V
            V
448       R380
            .
            .
454         .         400
            .           .
            .           .
462       400C............
            V
            V
465       R400
            .
            .
471         .         420
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                .          .
                .          .
483             .          .-------->   BS420
479             .       D420
                .          .
                .          .
488             .          .          .<-------   BS420
486             .          .      RT420
                .          .          V
                .          .          V
489             .          .      SR420
                .          .          .
                .          .          .
495          420C.......................
                V
                V
498          R420
                .
                .
504             .        370
                .          V
                .          V
512             .      RR370
                .          .
                .          .
518             .          .        390
                .          .          .
                .          .          .
530             .          .          .-------->   BS390
526             .          .       D390
                .          .          .
                .          .          .
535             .          .          .          .<-------   BS390
533             .          .          .      RT390
                .          .          .          V
                .          .          .          V
536             .          .          .      SR390
                .          .          .          .
                .          .          .          .
542             .       390C.......................
                .          V
                .          V
545             .      RR390
                .          .
                .          .
551             .          .        410
                .          .          .
                .          .          .
559             .       410C............
                .          V
                .          V
562             .      RR410
                .          .
                .          .
568          420CC............
                .
                .
571             .        440
                .          V
                .          V
579             .        R70
                .          .
                .          .
585             .          .        441
                .          .          .
                .          .          .
593             .       C108............
                .          .
                .          .
598             .          .-------->   SPLIT
596             .       DIV4
                .          V
                .          V
601             .       R108
                .          .
                .          .
607             .          .        442
                .          .          .
                .          .          .
615             .        C67............
                .          .
                .          .
621             .          .-------->  BASIN4
618             .       DIV6
                .          .
                .          .
626             .          .          .<-------  BASIN4
624             .          .     RTDIV6
                .          .          V
                .          .          V
627             .          .     RFDIV6
                .          .          .
                .          .          .
633             .      CDIV6............
                .          .
                .          .
636             .          .        443
                .          .          .
                .          .          .
647             .          .          .-------->   WSH66
644             .          .      DIV66
                .          .          V
                .          .          V
650             .          .       R113
                .          .          .
                .          .          .
656             .       C114............
                .          .
                .          .
659             .          .        444
                .          .          V
                .          .          V
667             .          .        R58
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                .          .          .
673             .          .          .        445
                .          .          .          .
                .          .          .          .
681             .          .       C107............
                .          .          V
                .          .          V
684             .          .       R107
                .          .          .
                .          .          .
692             .          .          .<-------   SPLIT
690             .          .          .      RTB2
                .          .          .         V
                .          .          .         V
693             .          .          .    RSPLIT
                .          .          .          .
                .          .          .          .
699             .          .          .          .        446
                .          .          .          .          .
                .          .          .          .          .
707             .          .       C109......................
                .          .          .
                .          .          .
713             .          .          .-------> WSH404
710             .          .       DIV5
                .          .          V
                .          .          V
716             .          .       R109
                .          .          .
                .          .          .
722             .          .          .        447
                .          .          .          .
                .          .          .          .
732             .          .          .          .          .<-------  WSH404
730             .          .          .          .      RT404
                .          .          .          .         V
                .          .          .          .         V
733             .          .          .          .       R404
                .          .          .          .          .
                .          .          .          .          .
739             .          .       C110......................
                .          .          V
                .          .          V
742             .          .       R110
                .          .          .
                .          .          .
748             .       C115............
                .          V
                .          V
751             .       R115
                .          .
                .          .
758             .          .        448
                .          .          .
                .          .          .
766             .          .          .        449
                .          .          .          .
                .          .          .          .
774             .          .      C6364...........
                .          .          V
                .          .          V
777             .          .      R6364
                .          .          .
                .          .          .
783             .          .          .        450
                .          .          .          .
                .          .          .          .
791             .          .          .          .        451
                .          .          .          .          .
                .          .          .          .          .
801             .          .          .          .          .          .<-------   WSH66
799             .          .          .          .          .       RT66
                .          .          .          .          .          .
                .          .          .          .          .          .
802             .          .          .          .          .          .         452
                .          .          .          .          .          .          .
                .          .          .          .          .          .          .
810             .          .          .          .          .      C6566............
                .          .          .          .          .          V
                .          .          .          .          .          V
813             .          .          .          .          .      R6566
                .          .          .          .          .          .
                .          .          .          .          .          .
819             .          .       C116...................................
                .          .          V
                .          .          V
823             .          .     BASIN5
                .          .          V
                .          .          V
830             .          .       R116
                .          .          .
                .          .          .
836             .          .          .        453
                .          .          .          .
                .          .          .          .
844             .          .       C117............
                .          .          .
                .          .          .
847             .       C118............
                .          V
                .          V
850             .       R118
                .          .
                .          .
859             .          .-------> BASIN6
856             .       DIV7
                .          .
                .          .
864             .          .          .<-------  BASIN6
862             .          .     RTDIV7
                .          .          V
                .          .          V
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865          .           .      RFDIV7
             .           .           .
             .           .           .
871          .       CDIV7............
             .           .
             .           .
874          .           .         454
             .           .           .
             .           .           .
882          .       C119............
             .          V
             .          V
885          .       R454
             .           .
             .           .
891          .           .         455
             .           .           .
             .           .           .
899          .       C455............
             .           .
             .           .
902       455C............
            V
            V
905      RR455
             .
             .
911          .        456
             .           .
             .           .
922          .           .-------> BASIN1
919          .       DIV1
             .           .
             .           .
928          .           .------->   WA30
925          .       DIV2
             .          V
             .          V
931          .       R456
             .           .
             .           .
937          .           .         457
             .           .           .
             .           .           .
945          .       C101............
             .           .
             .           .
952          .           .-------> BASIN2
948          .       DIV3
             .           .
             .           .
957          .           .          .<------- BASIN2
955          .           .     RTDIV3
             .           .          V
             .           .          V
958          .           .     RFDIV3
             .           .           .
             .           .           .
964          .       CDIV3............
             .          V
             .          V
967          .       R101
             .           .
             .           .
973          .           .         458
             .           .           .
             .           .           .
981          .       C103............
             .          V
             .          V
984          .       R103
             .           .
             .           .
992          .           .          .<-------   WA30
990          .           .       RT30
             .           .          V
             .           .          V
993          .           .        R30
             .           .           .
             .           .           .
1001         .           .           .          .<------- BASIN1
999          .           .           .       RTB1
             .           .           .          V
             .           .           .          V
1002         .           .           .         B1
             .           .           .          V
             .           .           .          V
1009         .           .           .        RB1
             .           .           .           .
             .           .           .           .
1015         .           .       CDIV............
             .           .           .
             .           .           .
1018         .           .           .        459
             .           .           .           .
             .           .           .           .
1026         .           .        C52............
             .           .          V
             .           .          V
1029         .           .        R52
             .           .           .
             .           .           .
1035         .           .           .        460
             .           .           .           .
             .           .           .           .
1043         .           .       C102............
             .           .          V
             .           .          V
1046         .           .     BASIN3
             .           .          V
             .           .          V
1053         .           .         R3
             .           .           .
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1059          .          .          .        461
              .          .          .          .
              .          .          .          .
1067          .          .       C104............
              .          .          .
              .          .          .
1070          .       C106............
              .          V
              .          V
1073          .       R106
              .          .
              .          .
1079          .          .        462
              .          .          .
              .          .          .
1087          .        C56...........
              .          .
              .          .
1090          .          .        480
              .          .          .
              .          .          .
1103          .          .          .-------->   BS480
1098          .          .       D480
              .          .          .
              .          .          .
1108          .          .          .          .<-------   BS480
1106          .          .          .      RT480
              .          .          .          V
              .          .          .          V
1109          .          .          .      SR480
              .          .          .          .
              .          .          .          .
1115          .          .       C480............
              .          .          .
              .          .          .
1118       480C......................
              V
              V
1121      RR480
              .
              .
1127          .        500
              .          .
              .          .
1135       500C...........
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

          **************
          *            *
498 KK    *     R420   *
          *            *
          **************
                    ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD

             HYDROGRAPH ROUTING DATA

500 RS          STORAGE ROUTING
                     NSTPS          3  NUMBER OF SUBREACHES
                      ITYP       FLOW  TYPE OF INITIAL CONDITION
                    RSVRIC      -1.00  INITIAL CONDITION
                         X        .00 WORKING R AND D COEFFICIENT

501 RC          NORMAL DEPTH CHANNEL
                       ANL       .025  LEFT OVERBANK N-VALUE
                      ANCH       .025  MAIN CHANNEL N-VALUE
                       ANR       .025  RIGHT OVERBANK N-VALUE
                     RLNTH      2900.  REACH LENGTH
                       SEL      .0016  ENERGY SLOPE
                     ELMAX         .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                   CROSS-SECTION DATA
                          --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
503 RY        ELEVATION     5.00      5.00      5.00       .00       .00      5.00      5.00      5.00
502 RX        DISTANCE       .00      1.00      2.00     15.00    165.00    180.00    181.00    182.00

                                                   ***

                                   COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00      2.64      5.31      8.00     10.72     13.46     16.23     19.03     21.85     24.70
          OUTFLOW        .00     38.69    123.00    242.08    391.53    568.70    771.71    999.19   1250.05   1523.42
        ELEVATION        .00       .26       .53       .79      1.05      1.32      1.58      1.84      2.11      2.37

          STORAGE      27.57     30.47     33.39     36.35     39.32     42.32     45.35     48.41     51.49     54.59
          OUTFLOW    1818.57   2134.90   2471.87   2829.05   3206.03   3602.48   4018.08   4452.58   4905.74   5377.33
        ELEVATION       2.63      2.89      3.16      3.42      3.68      3.95      4.21      4.47      4.74      5.00

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION     R420
                   TRANSPOSITION AREA        .0 SQ MI

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     49.97-HR
+   (CFS)       (HR)
                          (CFS)
+    4728.     13.10                988.        406.        250.        250.
                        (INCHES)   1.020       1.677       2.150       2.150
                         (AC-FT)    490.        806.       1033.       1033.

 PEAK STORAGE   TIME                      MAXIMUM AVERAGE STORAGE
                                   6-HR       24-HR       72-HR     49.97-HR
+  (AC-FT)      (HR)
      17.      13.10                  6.          3.          2.          2.

  PEAK STAGE    TIME                      MAXIMUM AVERAGE STAGE
                                   6-HR       24-HR       72-HR     49.97-HR
+   (FEET)      (HR)
      4.63     13.10                1.62         .95         .67         .67

                     CUMULATIVE AREA =    9.01 SQ MI

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION     R420
                   TRANSPOSITION AREA      10.0 SQ MI

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     49.97-HR
+   (CFS)       (HR)
                          (CFS)
+    4093.     13.13                884.        378.        235.        235.
                        (INCHES)   .912       1.559       2.015       2.015
                         (AC-FT)    438.        749.        968.        968.

 PEAK STORAGE   TIME                      MAXIMUM AVERAGE STORAGE
                                   6-HR       24-HR       72-HR     49.97-HR
+  (AC-FT)      (HR)
      15.      13.13                  5.          3.          2.          2.

  PEAK STAGE    TIME                      MAXIMUM AVERAGE STAGE
                                   6-HR       24-HR       72-HR     49.97-HR
+   (FEET)      (HR)
      4.26     13.13                1.53         .92         .66         .66

                     CUMULATIVE AREA =    9.01 SQ MI

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION     R420
                   TRANSPOSITION AREA      30.0 SQ MI

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     49.97-HR
+   (CFS)       (HR)
                          (CFS)
     3672.     13.20                815.        359.        224.        224.
                        (INCHES)   .841       1.481       1.926       1.926
                         (AC-FT)    404.        712.        925.        925.

 PEAK STORAGE   TIME                      MAXIMUM AVERAGE STORAGE
                                   6-HR       24-HR       72-HR     49.97-HR
+  (AC-FT)      (HR)
      14.      13.20                  5.          3.          2.          2.
```

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (FEET)	(HR)				
3.99	13.20	1.47	.90	.64	.64

CUMULATIVE AREA = 9.01 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION R420
TRANSPOSITION AREA 60.0 SQ MI

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)				
		(CFS)			
+ 3239.	13.27	746.	340.	214.	214.
		(INCHES) .770	1.403	1.835	1.835
		(AC-FT) 370.	674.	882.	882.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (AC-FT)	(HR)				
13.	13.27	5.	3.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (FEET)	(HR)				
3.71	13.27	1.40	.88	.63	.63

CUMULATIVE AREA = 9.01 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION R420
TRANSPOSITION AREA 90.0 SQ MI

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)				
		(CFS)			
+ 3074.	13.27	719.	332.	209.	209.
		(INCHES) .742	1.371	1.799	1.799
		(AC-FT) 356.	659.	865.	865.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (AC-FT)	(HR)				
13.	13.27	5.	3.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (FEET)	(HR)				
3.59	13.27	1.38	.87	.62	.62

CUMULATIVE AREA = 9.01 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION R420
TRANSPOSITION AREA 120.0 SQ MI

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)				
		(CFS)			
+ 2964.	13.30	701.	327.	207.	207.
		(INCHES) .723	1.349	1.775	1.775
		(AC-FT) 347.	648.	853.	853.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (AC-FT)	(HR)				
12.	13.30	5.	3.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (FEET)	(HR)				
3.52	13.30	1.36	.87	.62	.62

CUMULATIVE AREA = 9.01 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION R420
TRANSPOSITION AREA 150.0 SQ MI

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)				
		(CFS)			
+ 2846.	13.30	683.	322.	204.	204.
		(INCHES) .704	1.327	1.751	1.751
		(AC-FT) 339.	638.	842.	842.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (AC-FT)	(HR)				
12.	13.30	5.	3.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	49.97-HR
(FEET)	(HR)				
3.43	13.30	1.34	.86	.62	.62

CUMULATIVE AREA = 9.01 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION R420
TRANSPOSITION AREA 300.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)					
		(CFS)				
+ 2606.	13.37		644.	310.	198.	198.
		(INCHES)	.664	1.279	1.699	1.699
		(AC-FT)	319.	615.	816.	816.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (AC-FT)	(HR)				
12.	13.37	4.	3.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (FEET)	(HR)				
3.26	13.37	1.30	.85	.61	.61

CUMULATIVE AREA = 9.01 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION R420
TRANSPOSITION AREA 500.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)					
		(CFS)				
+ 2393.	13.40		610.	300.	192.	192.
		(INCHES)	.629	1.238	1.653	1.653
		(AC-FT)	302.	595.	795.	795.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (AC-FT)	(HR)				
11.	13.40	4.	3.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (FEET)	(HR)				
3.10	13.40	1.27	.83	.60	.60

CUMULATIVE AREA = 9.01 SQ MI

*** *** *** *** ***

INTERPOLATED HYDROGRAPH AT R420

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.97-HR
(CFS)	(HR)					
		(CFS)				
+ 4102.	13.13		885.	378.	235.	235.
		(INCHES)	.913	1.560	2.017	2.017
		(AC-FT)	439.	750.	969.	969.

CUMULATIVE AREA = 9.01 SQ MI

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                *            *
562 KK          *    RR410   *
                *            *
                **************
                          FROM SUB-BASIN 410 TO SUB-BASIN 420

              HYDROGRAPH ROUTING DATA

564 RS          STORAGE ROUTING
                     NSTPS          4  NUMBER OF SUBREACHES
                      ITYP       FLOW  TYPE OF INITIAL CONDITION
                    RSVRIC      -1.00  INITIAL CONDITION
                         X        .00 WORKING R AND D COEFFICIENT

565 RC          NORMAL DEPTH CHANNEL
                       ANL       .025  LEFT OVERBANK N-VALUE
                      ANCH       .025  MAIN CHANNEL N-VALUE
                       ANR       .025  RIGHT OVERBANK N-VALUE
                     RLNTH      6000.  REACH LENGTH
                       SEL      .0133  ENERGY SLOPE
                     ELMAX         .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                  CROSS-SECTION DATA
                        --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
567 RY        ELEVATION     14.00     13.50     13.00     10.00     10.00     13.00     13.50     14.00
566 RX        DISTANCE    1000.00   1010.00   1020.00   1032.00   1047.00   1059.00   1069.00   1079.00

                                                                  ***

                                  COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00       .46       .97      1.52      2.13      2.79      3.49      4.24      5.04      5.89
          OUTFLOW        .00      7.82     25.35     50.94     84.21    125.11    173.71    230.16    294.68    367.46
        ELEVATION      10.00     10.21     10.42     10.63     10.84     11.05     11.26     11.47     11.68     11.89

          STORAGE       6.79      7.74      8.74      9.78     10.88     12.07     13.51     15.19     17.12     19.28
          OUTFLOW     448.76    538.82    637.88    746.21    864.05   1011.92   1181.04   1368.54   1577.27   1809.72
        ELEVATION      12.11     12.32     12.53     12.74     12.95     13.16     13.37     13.58     13.79     14.00

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION    RR410
                   TRANSPOSITION AREA        .0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     49.97-HR
+   (CFS)       (HR)
                          (CFS)
+   1721.      12.43                270.         74.         36.         36.
                        (INCHES)   1.248      1.369       1.381       1.381
                         (AC-FT)    134.       147.        148.        148.

 PEAK STORAGE   TIME                        MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     49.97-HR
+  (AC-FT)      (HR)
      5.       12.43                  1.          0.          0.          0.

  PEAK STAGE    TIME                        MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     49.97-HR
+   (FEET)      (HR)
    13.92      12.43               11.15       10.44       10.22       10.22

                     CUMULATIVE AREA =    2.02 SQ MI

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION    RR410
                   TRANSPOSITION AREA      10.0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     49.97-HR
+   (CFS)       (HR)
                          (CFS)
+   1569.      12.43                246.         68.         33.         33.
                        (INCHES)   1.133      1.246       1.258       1.258
                         (AC-FT)    122.       134.        135.        135.

 PEAK STORAGE   TIME                        MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     49.97-HR
+  (AC-FT)      (HR)
      4.       12.43                  1.          0.          0.          0.

  PEAK STAGE    TIME                        MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     49.97-HR
+   (FEET)      (HR)
    13.78      12.43               11.10       10.42       10.21       10.21

                     CUMULATIVE AREA =    2.02 SQ MI

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION    RR410
                   TRANSPOSITION AREA      30.0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     49.97-HR
+   (CFS)       (HR)
                          (CFS)
+   1471.      12.43                230.         63.         31.         31.
                        (INCHES)   1.060      1.168       1.180       1.180
                         (AC-FT)    114.       126.        127.        127.

 PEAK STORAGE   TIME                        MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     49.97-HR
+  (AC-FT)      (HR)
      4.       12.43                  1.          0.          0.          0.

  PEAK STAGE    TIME                        MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     49.97-HR
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+   (FEET)      (HR)
     13.68      12.43                11.07       10.41       10.20        10.20

                          CUMULATIVE AREA =    2.02 SQ MI

      ***              ***              ***             ***             ***

                          HYDROGRAPH AT STATION    RR410
                        TRANSPOSITION AREA     60.0 SQ MI

  PEAK FLOW     TIME                              MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR     49.97-HR
+   (CFS)       (HR)
                            (CFS)
+    1372.      12.43                214.          59.         29.          29.
                          (INCHES)   .987        1.089       1.101        1.101
                           (AC-FT)   106.         117.        118.         118.

 PEAK STORAGE   TIME                              MAXIMUM AVERAGE STORAGE
                                     6-HR        24-HR       72-HR     49.97-HR
+  (AC-FT)      (HR)
        4.      12.43                  1.           0.          0.           0.

  PEAK STAGE    TIME                              MAXIMUM AVERAGE STAGE
                                     6-HR        24-HR       72-HR     49.97-HR
+   (FEET)      (HR)
     13.58      12.43                11.03       10.39       10.20        10.20

                          CUMULATIVE AREA =    2.02 SQ MI

      ***              ***              ***             ***             ***

                          HYDROGRAPH AT STATION    RR410
                        TRANSPOSITION AREA     90.0 SQ MI

  PEAK FLOW     TIME                              MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR     49.97-HR
+   (CFS)       (HR)
                            (CFS)
+    1332.      12.43                208.          57.         28.          28.
                          (INCHES)   .958        1.058       1.070        1.070
                           (AC-FT)   103.         114.        115.         115.

 PEAK STORAGE   TIME                              MAXIMUM AVERAGE STORAGE
                                     6-HR        24-HR       72-HR     49.97-HR
+  (AC-FT)      (HR)
        4.      12.43                  1.           0.          0.           0.

  PEAK STAGE    TIME                              MAXIMUM AVERAGE STAGE
                                     6-HR        24-HR       72-HR     49.97-HR
+   (FEET)      (HR)
     13.54      12.43                11.02       10.39       10.19        10.19

                          CUMULATIVE AREA =    2.02 SQ MI

      ***              ***              ***             ***             ***

                          HYDROGRAPH AT STATION    RR410
                        TRANSPOSITION AREA    120.0 SQ MI

  PEAK FLOW     TIME                              MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR     49.97-HR
+   (CFS)       (HR)
                            (CFS)
+    1305.      12.43                203.          56.         27.          27.
                          (INCHES)   .938        1.037       1.049        1.049
                           (AC-FT)   101.         111.        113.         113.

 PEAK STORAGE   TIME                              MAXIMUM AVERAGE STORAGE
                                     6-HR        24-HR       72-HR     49.97-HR
+  (AC-FT)      (HR)
        4.      12.43                  1.           0.          0.           0.

  PEAK STAGE    TIME                              MAXIMUM AVERAGE STAGE
                                     6-HR        24-HR       72-HR     49.97-HR
+   (FEET)      (HR)
     13.51      12.43                11.01       10.38       10.19        10.19

                          CUMULATIVE AREA =    2.02 SQ MI

      ***              ***              ***             ***             ***

                          HYDROGRAPH AT STATION    RR410
                        TRANSPOSITION AREA    150.0 SQ MI

  PEAK FLOW     TIME                              MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR     49.97-HR
+   (CFS)       (HR)
                            (CFS)
+    1279.      12.43                199.          55.         27.          27.
                          (INCHES)   .918        1.016       1.028        1.028
                           (AC-FT)   99.          109.        110.         110.

 PEAK STORAGE   TIME                              MAXIMUM AVERAGE STORAGE
                                     6-HR        24-HR       72-HR     49.97-HR
+  (AC-FT)      (HR)
        4.      12.43                  1.           0.          0.           0.

  PEAK STAGE    TIME                              MAXIMUM AVERAGE STAGE
                                     6-HR        24-HR       72-HR     49.97-HR
+   (FEET)      (HR)
     13.48      12.43                11.00       10.38       10.19        10.19

                          CUMULATIVE AREA =    2.02 SQ MI

      ***              ***              ***             ***             ***

                          HYDROGRAPH AT STATION    RR410
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TRANSPOSITION AREA 300.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)	(CFS)				
+ 1218.	12.43		189.	52.	26.	26.
		(INCHES)	.874	.968	.980	.980
		(AC-FT)	94.	104.	105.	105.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	49.97-HR
+ (AC-FT)	(HR)				
3.	12.43	1.	0.	0.	0.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	49.97-HR
+ (FEET)	(HR)				
13.41	12.43	10.98	10.37	10.19	10.19

CUMULATIVE AREA = 2.02 SQ MI

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HYDROGRAPH AT STATION RR410
TRANSPOSITION AREA 500.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)	(CFS)				
+ 1165.	12.43		181.	50.	24.	24.
		(INCHES)	.835	.926	.938	.938
		(AC-FT)	90.	100.	101.	101.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	49.97-HR
+ (AC-FT)	(HR)				
3.	12.40	1.	0.	0.	0.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	49.97-HR
+ (FEET)	(HR)				
13.35	12.43	10.96	10.36	10.18	10.18

CUMULATIVE AREA = 2.02 SQ MI

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INTERPOLATED HYDROGRAPH AT RR410

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
(CFS)	(HR)	(CFS)				
1604.	12.43		251.	69.	33.	33.
		(INCHES)	1.160	1.275	1.287	1.287
		(AC-FT)	125.	137.	138.	138.

CUMULATIVE AREA = 2.02 SQ MI

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*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***
          **************
          *            *
905 KK    *     RR455  *
          *            *
          **************
                    ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462

            HYDROGRAPH ROUTING DATA

907 RS        STORAGE ROUTING
                 NSTPS          5  NUMBER OF SUBREACHES
                  ITYP       FLOW  TYPE OF INITIAL CONDITION
                RSVRIC      -1.00  INITIAL CONDITION
                     X        .00 WORKING R AND D COEFFICIENT

908 RC        NORMAL DEPTH CHANNEL
                   ANL       .016  LEFT OVERBANK N-VALUE
                  ANCH       .016  MAIN CHANNEL N-VALUE
                   ANR       .016  RIGHT OVERBANK N-VALUE
                 RLNTH      9200.  REACH LENGTH
                   SEL      .0020  ENERGY SLOPE
                 ELMAX         .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                CROSS-SECTION DATA
                      --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
910 RY     ELEVATION   13.50    13.50    13.50      .00      .00    13.50    13.50    13.50
909 RX     DISTANCE      .00     1.00     2.00    15.00    71.00    84.00    85.00    86.00

                                                  ***

                                COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

        STORAGE      .00     8.51    17.22    26.14    35.26    44.59    54.12    63.86    73.80    83.95
        OUTFLOW      .00   131.57   416.76   817.66  1318.88  1911.17  2588.28  3345.66  4179.92  5088.44
      ELEVATION      .00      .71     1.42     2.13     2.84     3.55     4.26     4.97     5.68     6.39

        STORAGE    94.30   104.86   115.63   126.60   137.78   149.16   160.74   172.54   184.53   196.74
        OUTFLOW  6069.16  7120.46  8241.08  9429.99 10686.40 12009.68 13399.36 14855.08 16376.60 17963.74
      ELEVATION     7.11     7.82     8.53     9.24     9.95    10.66    11.37    12.08    12.79    13.50

    ***          ***          ***          ***          ***

                  HYDROGRAPH AT STATION    RR455
                TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                    MAXIMUM AVERAGE FLOW
                                  6-HR      24-HR      72-HR     49.97-HR
+   (CFS)       (HR)
                         (CFS)
+    5466.     13.23      1556.      561.       331.       331.
                      (INCHES)     1.057     1.525      1.873      1.873
                       (AC-FT)      771.      1113.      1367.      1367.

 PEAK STORAGE   TIME                    MAXIMUM AVERAGE STORAGE
                                  6-HR      24-HR      72-HR     49.97-HR
  (AC-FT)       (HR)
     18.      13.23                 7.         4.         2.         2.

  PEAK STAGE    TIME                    MAXIMUM AVERAGE STAGE
                                  6-HR      24-HR      72-HR     49.97-HR
+   (FEET)      (HR)
     6.67      13.23                2.83       1.42       .98        .98

                  CUMULATIVE AREA =   13.68 SQ MI

    ***          ***          ***          ***          ***

                  HYDROGRAPH AT STATION    RR455
                TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                    MAXIMUM AVERAGE FLOW
                                  6-HR      24-HR      72-HR     49.97-HR
+   (CFS)       (HR)
                         (CFS)
+    4676.     13.30      1398.      518.       308.       308.
                      (INCHES)      .950     1.409      1.744      1.744
                       (AC-FT)      693.      1028.      1273.      1273.

 PEAK STORAGE   TIME                    MAXIMUM AVERAGE STORAGE
                                  6-HR      24-HR      72-HR     49.97-HR
+  (AC-FT)      (HR)
     16.      13.30                 7.         3.         2.         2.

  PEAK STAGE    TIME                    MAXIMUM AVERAGE STAGE
                                  6-HR      24-HR      72-HR     49.97-HR
+   (FEET)      (HR)
     6.07      13.30                2.67       1.38       .95        .95

                  CUMULATIVE AREA =   13.68 SQ MI

    ***          ***          ***          ***          ***

                  HYDROGRAPH AT STATION    RR455
                TRANSPOSITION AREA     30.0 SQ MI

  PEAK FLOW     TIME                    MAXIMUM AVERAGE FLOW
                                  6-HR      24-HR      72-HR     49.97-HR
+   (CFS)       (HR)
                         (CFS)
+    4154.     13.33      1294.      491.       293.       293.
                      (INCHES)      .879     1.333      1.659      1.659
                       (AC-FT)      642.      973.       1211.      1211.

 PEAK STORAGE   TIME                    MAXIMUM AVERAGE STORAGE
                                  6-HR      24-HR      72-HR     49.97-HR
+  (AC-FT)      (HR)
     15.      13.33                 6.         3.         2.         2.

  PEAK STAGE    TIME                    MAXIMUM AVERAGE STAGE
```

			6-HR	24-HR	72-HR	49.97-HR
+	(FEET)	(HR)				
	5.66	13.33	2.56	1.34	.93	.93

CUMULATIVE AREA = 13.68 SQ MI

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HYDROGRAPH AT STATION RR455
TRANSPOSITION AREA 60.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)					
		(CFS)				
+ 3649.	13.40		1191.	463.	278.	278.
		(INCHES)	.809	1.257	1.574	1.574
		(AC-FT)	591.	918.	1149.	1149.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	49.97-HR
+ (AC-FT)	(HR)				
13.	13.40	6.	3.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	49.97-HR
+ (FEET)	(HR)				
5.23	13.40	2.45	1.31	.91	.91

CUMULATIVE AREA = 13.68 SQ MI

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HYDROGRAPH AT STATION RR455
TRANSPOSITION AREA 90.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)					
		(CFS)				
+ 3447.	13.43		1151.	452.	272.	272.
		(INCHES)	.782	1.227	1.540	1.540
		(AC-FT)	571.	896.	1124.	1124.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	49.97-HR
+ (AC-FT)	(HR)				
13.	13.43	6.	3.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	49.97-HR
+ (FEET)	(HR)				
5.06	13.43	2.41	1.30	.90	.90

CUMULATIVE AREA = 13.68 SQ MI

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HYDROGRAPH AT STATION RR455
TRANSPOSITION AREA 120.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)					
		(CFS)				
+ 3311.	13.47		1124.	444.	268.	268.
		(INCHES)	.763	1.207	1.517	1.517
		(AC-FT)	557.	881.	1107.	1107.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	49.97-HR
+ (AC-FT)	(HR)				
13.	13.47	6.	3.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	49.97-HR
+ (FEET)	(HR)				
4.94	13.47	2.38	1.29	.89	.89

CUMULATIVE AREA = 13.68 SQ MI

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HYDROGRAPH AT STATION RR455
TRANSPOSITION AREA 150.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)					
		(CFS)				
+ 3177.	13.50		1097.	437.	264.	264.
		(INCHES)	.745	1.187	1.495	1.495
		(AC-FT)	544.	866.	1091.	1091.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	49.97-HR
+ (AC-FT)	(HR)				
12.	13.50	6.	3.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	49.97-HR
(FEET)	(HR)				
4.82	13.50	2.35	1.28	.89	.89

CUMULATIVE AREA = 13.68 SQ MI

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HYDROGRAPH AT STATION RR455
TRANSPOSITION AREA 300.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)					
		(CFS)				
+ 2900.	13.53		1039.	420.	255.	255.
		(INCHES)	.706	1.141	1.445	1.445
		(AC-FT)	515.	833.	1055.	1055.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (AC-FT)	(HR)				
12.	13.53	6.	3.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (FEET)	(HR)				
4.56	13.53	2.28	1.26	.87	.87

CUMULATIVE AREA = 13.68 SQ MI

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HYDROGRAPH AT STATION RR455
TRANSPOSITION AREA 500.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)					
		(CFS)				
+ 2651.	13.57		988.	405.	248.	248.
		(INCHES)	.671	1.101	1.402	1.402
		(AC-FT)	490.	804.	1023.	1023.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (AC-FT)	(HR)				
11.	13.57	5.	3.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	49.97-HR
+ (FEET)	(HR)				
4.32	13.57	2.22	1.24	.86	.86

CUMULATIVE AREA = 13.68 SQ MI

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INTERPOLATED HYDROGRAPH AT RR455

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.97-HR
(CFS)	(HR)					
		(CFS)				
+ 4504.	13.30		1368.	510.	304.	304.
		(INCHES)	.929	1.387	1.720	1.720
		(AC-FT)	678.	1013.	1255.	1255.

CUMULATIVE AREA = 13.68 SQ MI

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
HYDROGRAPH AT	20	1130.	12.57	243.	64.	31.	1.82		
HYDROGRAPH AT	40	2286.	12.27	252.	66.	32.	2.23		
HYDROGRAPH AT	60	1405.	12.37	228.	61.	29.	1.75		
3 COMBINED AT	60C	4438.	12.30	712.	189.	91.	5.80		
ROUTED TO	SR60	92.	14.77	92.	89.	71.	5.80		
ROUTED TO	R60	92.	14.83	92.	89.	70.	5.80		
ROUTED TO	RR60	92.	14.93	92.	89.	70.	5.80		
HYDROGRAPH AT	80	1693.	12.20	179.	46.	22.	1.48		
2 COMBINED AT	80C	1767.	12.20	266.	134.	93.	1.48		
ROUTED TO	R80	1765.	12.23	266.	134.	93.	1.48		
HYDROGRAPH AT	100	389.	12.33	58.	15.	7.	.48		
2 COMBINED AT	100C	2117.	12.23	321.	148.	99.	1.96		
ROUTED TO	R100	2116.	12.27	321.	148.	99.	1.96		
HYDROGRAPH AT	120	2960.	12.20	326.	88.	42.	2.20		
2 COMBINED AT	120C	4993.	12.23	636.	229.	141.	4.16		
ROUTED TO	R120	4949.	12.27	636.	229.	141.	4.16		
HYDROGRAPH AT	140	598.	12.23	64.	17.	8.	.60		
HYDROGRAPH AT	160	588.	12.30	85.	22.	11.	.78		
HYDROGRAPH AT	180	694.	12.33	90.	23.	11.	1.00		
4 COMBINED AT	180C	6691.	12.27	863.	286.	169.	6.54		
HYDROGRAPH AT	240	770.	12.30	107.	27.	13.	1.04		
ROUTED TO	R240	760.	12.37	107.	27.	13.	1.04		
HYDROGRAPH AT	220	1427.	12.23	167.	43.	21.	1.25		
2 COMBINED AT	220C	2088.	12.27	271.	69.	33.	2.29		
ROUTED TO	R220	2057.	12.30	271.	69.	33.	2.29		
HYDROGRAPH AT	200	2059.	12.23	236.	65.	31.	1.81		
2 COMBINED AT	200C	3995.	12.27	501.	132.	64.	4.10		
ROUTED TO	R200	3967.	12.30	501.	132.	64.	4.10		
2 COMBINED AT	C180	10520.	12.27	1345.	410.	230.	10.64		
ROUTED TO	SR180	141.	15.23	141.	140.	116.	10.64		
ROUTED TO	R180	141.	15.30	141.	140.	116.	10.64		
HYDROGRAPH AT	260	401.	12.17	43.	12.	6.	.27		
2 COMBINED AT	260C	515.	12.17	180.	151.	123.	.27		
ROUTED TO	R260	500.	12.23	180.	151.	122.	.27		
HYDROGRAPH AT	280	452.	12.13	42.	12.	6.	.30		

+	2 COMBINED AT	280C	908.	12.17	219.	161.	128.	.57
+	ROUTED TO	R280	889.	12.27	219.	161.	127.	.57
+	HYDROGRAPH AT	300	824.	12.30	109.	29.	14.	.99
+	2 COMBINED AT	300C	1686.	12.27	325.	188.	141.	1.56
+	ROUTED TO	R300	1664.	12.33	325.	188.	140.	1.56
+	ROUTED TO	RR300	1641.	12.40	325.	188.	140.	1.56
+	HYDROGRAPH AT	320	889.	12.43	171.	47.	22.	1.53
+	DIVERSION TO	BS320	390.	12.07	21.	6.	3.	1.53
+	HYDROGRAPH AT	D320	889.	12.43	157.	41.	19.	1.53
+	HYDROGRAPH AT	RT320	390.	12.07	21.	6.	3.	1.53
+	ROUTED TO	SR320	4.	4.40	4.	4.	3.	1.53
+	3 COMBINED AT	C320	2503.	12.40	482.	232.	162.	3.09
+	ROUTED TO	R320	2356.	12.67	480.	231.	158.	3.09
+	HYDROGRAPH AT	340	1381.	12.27	186.	55.	26.	1.45
+	DIVERSION TO	BS340	1381.	12.27	104.	28.	14.	1.45
+	HYDROGRAPH AT	D340	1219.	12.40	98.	27.	13.	1.45
+	HYDROGRAPH AT	RT340	1381.	12.27	104.	28.	14.	1.45
+	ROUTED TO	SR340	19.	9.03	19.	19.	14.	1.45
+	3 COMBINED AT	C340	2952.	12.63	591.	276.	184.	4.53
+	ROUTED TO	R340	2887.	12.70	590.	276.	183.	4.53
+	HYDROGRAPH AT	350	1102.	12.17	103.	27.	13.	.97
+	ROUTED TO	RR350	941.	12.57	103.	27.	13.	.97
+	HYDROGRAPH AT	360	668.	12.50	151.	42.	20.	1.33
+	DIVERSION TO	BS360	655.	12.43	53.	14.	7.	1.33
+	HYDROGRAPH AT	D360	657.	12.57	106.	28.	13.	1.33
+	HYDROGRAPH AT	RT360	655.	12.43	53.	14.	7.	1.33
+	ROUTED TO	SR360	10.	9.47	10.	10.	7.	1.33
+	4 COMBINED AT	360C	4244.	12.67	797.	336.	215.	6.83
+	ROUTED TO	R360	4107.	12.77	795.	336.	214.	6.83
+	HYDROGRAPH AT	380	724.	12.37	99.	27.	13.	.98
+	DIVERSION TO	BS380	724.	12.37	56.	14.	7.	.98
+	HYDROGRAPH AT	D380	584.	12.53	47.	12.	6.	.98
+	HYDROGRAPH AT	RT380	724.	12.37	56.	14.	7.	.98
+	ROUTED TO	SR380	10.	11.30	10.	10.	7.	.98
+	3 COMBINED AT	380C	4419.	12.77	847.	357.	226.	7.82
+	ROUTED TO	R380	4262.	12.90	844.	356.	224.	7.82
+	HYDROGRAPH AT	400	333.	12.37	47.	13.	6.	.62
+	2 COMBINED AT	400C	4372.	12.90	876.	366.	230.	8.43

+	ROUTED TO	R400	4220.	13.03	875.	366.	228.	8.43
+	HYDROGRAPH AT	420	574.	12.23	65.	18.	9.	.58
+	DIVERSION TO	BS420	574.	12.23	65.	18.	9.	.58
+	HYDROGRAPH AT	D420	0.	.00	0.	0.	0.	.58
+	HYDROGRAPH AT	RT420	574.	12.23	65.	18.	9.	.58
+	ROUTED TO	SR420	13.	11.60	13.	13.	9.	.58
+	3 COMBINED AT	420C	4228.	13.03	887.	378.	236.	9.01
+	ROUTED TO	R420	4102.	13.13	885.	378.	235.	9.01
+	HYDROGRAPH AT	370	504.	12.30	78.	21.	10.	.66
+	ROUTED TO	RR370	497.	12.33	78.	21.	10.	.66
+	HYDROGRAPH AT	390	1179.	12.20	144.	40.	19.	1.09
+	DIVERSION TO	BS390	7.	8.13	6.	2.	1.	1.09
+	HYDROGRAPH AT	D390	1179.	12.20	144.	38.	18.	1.09
+	HYDROGRAPH AT	RT390	7.	8.13	6.	2.	1.	1.09
+	ROUTED TO	SR390	1.	.50	1.	1.	1.	1.09
+	3 COMBINED AT	390C	1618.	12.23	221.	60.	29.	1.75
+	ROUTED TO	RR390	1579.	12.33	221.	60.	29.	1.75
+	HYDROGRAPH AT	410	478.	12.03	32.	9.	4.	.27
+	2 COMBINED AT	410C	1633.	12.30	251.	69.	33.	2.02
+	ROUTED TO	RR410	1604.	12.43	251.	69.	33.	2.02
+	2 COMBINED AT	420CC	4447.	13.13	1106.	438.	266.	11.03
+	HYDROGRAPH AT	440	179.	12.00	12.	3.	2.	.08
+	ROUTED TO	R70	174.	12.03	12.	3.	2.	.08
+	HYDROGRAPH AT	441	16.	12.07	1.	0.	0.	.01
+	2 COMBINED AT	C108	189.	12.03	14.	4.	2.	.09
+	DIVERSION TO	SPLIT	95.	12.03	7.	2.	1.	.09
+	HYDROGRAPH AT	DIV4	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	R108	87.	12.10	7.	2.	1.	.09
+	HYDROGRAPH AT	442	99.	12.13	9.	2.	1.	.10
+	2 COMBINED AT	C67	183.	12.13	15.	4.	2.	.19
+	DIVERSION TO	BASIN4	115.	12.13	6.	1.	1.	.19
+	HYDROGRAPH AT	DIV6	68.	12.13	10.	3.	1.	.19
+	HYDROGRAPH AT	RTDIV6	115.	12.13	6.	1.	1.	.19
+	ROUTED TO	RFDIV6	1.	11.93	1.	1.	1.	.19
+	2 COMBINED AT	CDIV6	69.	12.13	11.	4.	2.	.19
+	HYDROGRAPH AT	443	146.	12.07	14.	4.	2.	.08
+	DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	DIV66	68.	12.07	3.	1.	0.	.08

+	ROUTED TO R113	66.	12.10	3.	1.	0.	.08
+	2 COMBINED AT C114	133.	12.10	13.	4.	2.	.27
+	HYDROGRAPH AT 444	81.	12.00	5.	1.	1.	.04
+	ROUTED TO R58	78.	12.07	5.	1.	1.	.04
+	HYDROGRAPH AT 445	288.	12.07	18.	5.	2.	.19
+	2 COMBINED AT C107	363.	12.07	22.	6.	3.	.23
+	ROUTED TO R107	362.	12.07	22.	6.	3.	.23
+	HYDROGRAPH AT RTB2	95.	12.03	7.	2.	1.	.09
+	ROUTED TO RSPLIT	94.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT 446	64.	12.07	6.	2.	1.	.04
+	3 COMBINED AT C109	516.	12.07	35.	9.	4.	.27
+	DIVERSION TO WSH404	35.	11.73	7.	2.	1.	.27
+	HYDROGRAPH AT DIV5	481.	12.07	27.	7.	3.	.27
+	ROUTED TO R109	469.	12.10	27.	7.	3.	.27
+	HYDROGRAPH AT 447	135.	12.07	12.	4.	2.	.09
+	HYDROGRAPH AT RT404	35.	11.73	7.	2.	1.	.27
+	ROUTED TO R404	35.	11.90	7.	2.	1.	.27
+	3 COMBINED AT C110	631.	12.10	46.	13.	6.	.36
+	ROUTED TO R110	632.	12.10	46.	13.	6.	.36
+	2 COMBINED AT C115	759.	12.10	59.	17.	8.	.63
+	ROUTED TO R115	758.	12.10	59.	17.	8.	.63
+	HYDROGRAPH AT 448	87.	12.03	6.	2.	1.	.05
+	HYDROGRAPH AT 449	77.	12.03	5.	1.	1.	.05
+	2 COMBINED AT C6364	163.	12.03	11.	3.	1.	.09
+	ROUTED TO R6364	140.	12.20	11.	3.	1.	.09
+	HYDROGRAPH AT 450	58.	12.17	6.	2.	1.	.07
+	HYDROGRAPH AT 451	17.	12.17	2.	1.	0.	.03
+	HYDROGRAPH AT RT66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT 452	61.	12.07	4.	1.	1.	.04
+	2 COMBINED AT C6566	139.	12.07	16.	4.	2.	.04
+	ROUTED TO R6566	134.	12.13	16.	4.	2.	.04
+	4 COMBINED AT C116	340.	12.17	35.	9.	4.	.23
+	ROUTED TO BASIN5	153.	12.47	35.	9.	4.	.23
+	ROUTED TO R116	152.	12.53	35.	9.	4.	.23
+	HYDROGRAPH AT 453	60.	12.13	7.	2.	1.	.06
+	2 COMBINED AT C117	173.	12.50	41.	11.	5.	.29
+	2 COMBINED AT C118	837.	12.10	99.	28.	14.	.92
+	ROUTED TO R118	833.	12.13	99.	28.	14.	.92

+ DIVERSION TO	BASIN6	207.	12.13	12.	3.	1.	.92
+ HYDROGRAPH AT	DIV7	626.	12.13	86.	25.	12.	.92
+ HYDROGRAPH AT	RTDIV7	207.	12.13	12.	3.	1.	.92
+ ROUTED TO	RFDIV7	1.	11.93	1.	1.	1.	.92
+ 2 COMBINED AT	CDIV7	627.	12.13	87.	25.	13.	.92
+ HYDROGRAPH AT	454	152.	12.23	21.	6.	3.	.18
+ 2 COMBINED AT	C119	761.	12.13	107.	31.	16.	1.10
+ ROUTED TO	R454	676.	12.40	107.	31.	16.	1.10
+ HYDROGRAPH AT	455	1541.	12.23	198.	59.	28.	1.56
+ 2 COMBINED AT	C455	2058.	12.30	301.	89.	44.	2.66
+ 2 COMBINED AT	455C	4686.	13.13	1370.	511.	306.	13.68
+ ROUTED TO	RR455	4504.	13.30	1368.	510.	304.	13.68
+ HYDROGRAPH AT	456	458.	12.07	36.	10.	5.	.26
+ DIVERSION TO	BASIN1	198.	12.07	8.	2.	1.	.26
+ HYDROGRAPH AT	DIV1	259.	12.07	28.	8.	4.	.26
+ DIVERSION TO	WA30	65.	12.07	8.	2.	1.	.26
+ HYDROGRAPH AT	DIV2	195.	12.07	20.	6.	3.	.26
+ ROUTED TO	R456	191.	12.17	20.	6.	3.	.26
+ HYDROGRAPH AT	457	254.	12.10	20.	5.	3.	.19
+ 2 COMBINED AT	C101	438.	12.10	40.	11.	5.	.45
+ DIVERSION TO	BASIN2	136.	12.10	8.	2.	1.	.45
+ HYDROGRAPH AT	DIV3	302.	12.10	32.	9.	4.	.45
+ HYDROGRAPH AT	RTDIV3	136.	12.10	8.	2.	1.	.45
+ ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+ 2 COMBINED AT	CDIV3	304.	12.10	33.	10.	5.	.45
+ ROUTED TO	R101	301.	12.13	33.	10.	5.	.45
+ HYDROGRAPH AT	458	347.	12.07	25.	7.	3.	.19
+ 2 COMBINED AT	C103	625.	12.07	58.	16.	8.	.64
+ ROUTED TO	R103	624.	12.10	58.	16.	8.	.64
+ HYDROGRAPH AT	RT30	65.	12.07	8.	2.	1.	.26
+ ROUTED TO	R30	64.	12.10	8.	2.	1.	.26
+ HYDROGRAPH AT	RTB1	198.	12.07	8.	2.	1.	.26
+ ROUTED TO	B1	36.	12.23	7.	2.	1.	.26
+ ROUTED TO	RB1	36.	12.30	7.	2.	1.	.26
+ 2 COMBINED AT	CDIV	94.	12.23	15.	4.	2.	.12
+ HYDROGRAPH AT	459	43.	12.07	3.	1.	0.	.03
+ 2 COMBINED AT	C52	118.	12.17	18.	5.	2.	.15
+ ROUTED TO	R52	116.	12.20	18.	5.	2.	.15

+	HYDROGRAPH AT	460	205.	12.10	19.	6.	3.	.14
+	2 COMBINED AT	C102	310.	12.10	37.	11.	5.	.29
+	ROUTED TO	BASIN3	75.	12.60	37.	11.	5.	.29
+	ROUTED TO	R3	75.	12.73	37.	11.	5.	.29
+	HYDROGRAPH AT	461	156.	12.13	17.	5.	2.	.12
+	2 COMBINED AT	C104	216.	12.13	53.	16.	7.	.41
+	2 COMBINED AT	C106	833.	12.10	110.	32.	16.	1.05
+	ROUTED TO	R106	799.	12.17	110.	32.	16.	1.05
+	HYDROGRAPH AT	462	523.	12.07	40.	11.	5.	.30
+	2 COMBINED AT	C56	1238.	12.13	149.	42.	21.	1.35
+	HYDROGRAPH AT	480	991.	12.13	96.	29.	14.	.73
+	DIVERSION TO	BS480	458.	11.93	27.	8.	4.	.73
+	HYDROGRAPH AT	D480	991.	12.13	78.	21.	10.	.73
+	HYDROGRAPH AT	RT480	458.	11.93	27.	8.	4.	.73
+	ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT	C480	997.	12.13	84.	27.	14.	.73
+	3 COMBINED AT	480C	4963.	13.27	1657.	594.	348.	2.09
+	ROUTED TO	RR480	4919.	13.33	1657.	594.	348.	2.09
+	HYDROGRAPH AT	500	988.	12.23	122.	33.	16.	.93
+	2 COMBINED AT	500C	4952.	13.33	1765.	622.	362.	2.84

*** NORMAL END OF HEC-1 ***

NSTEP Estimation for Spook Hill ADMP 100-YR, 24hr Spook Hill Bipass Conditions + 4600cfs in Spook Hill Floodway

Trial 1

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.03	26.39	1.0	0.9
RR60	3500	0.03	32.41	1.0	0.9
R80	1200	0.01	33.33	1.0	0.3
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.04	10.42	1.0	1.2
R260	2300	0.04	15.97	2.0	1.2
R280	2500	0.07	9.92	2.0	2.1
R300	2200	0.03	20.37	2.0	0.9
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.23	8.21	7.0	6.9
R340	2000	0.1	5.56	2.0	3.0
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.14	7.94	4.0	4.2
R400	3800	0.13	8.12	4.0	3.9
R420	2900	0.1	8.06	3.0	3.0
RR370	2600	0.03	24.07	1.0	0.9
RR390	5400	0.1	15.00	3.0	3.0
RR410	6000	0.13	12.82	4.0	3.9
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.06	6.02	3.0	1.8
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.23	11.11	7.0	6.9
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.03	60.19	2.0	0.9

Trial 2

$time_{min}$ = 2

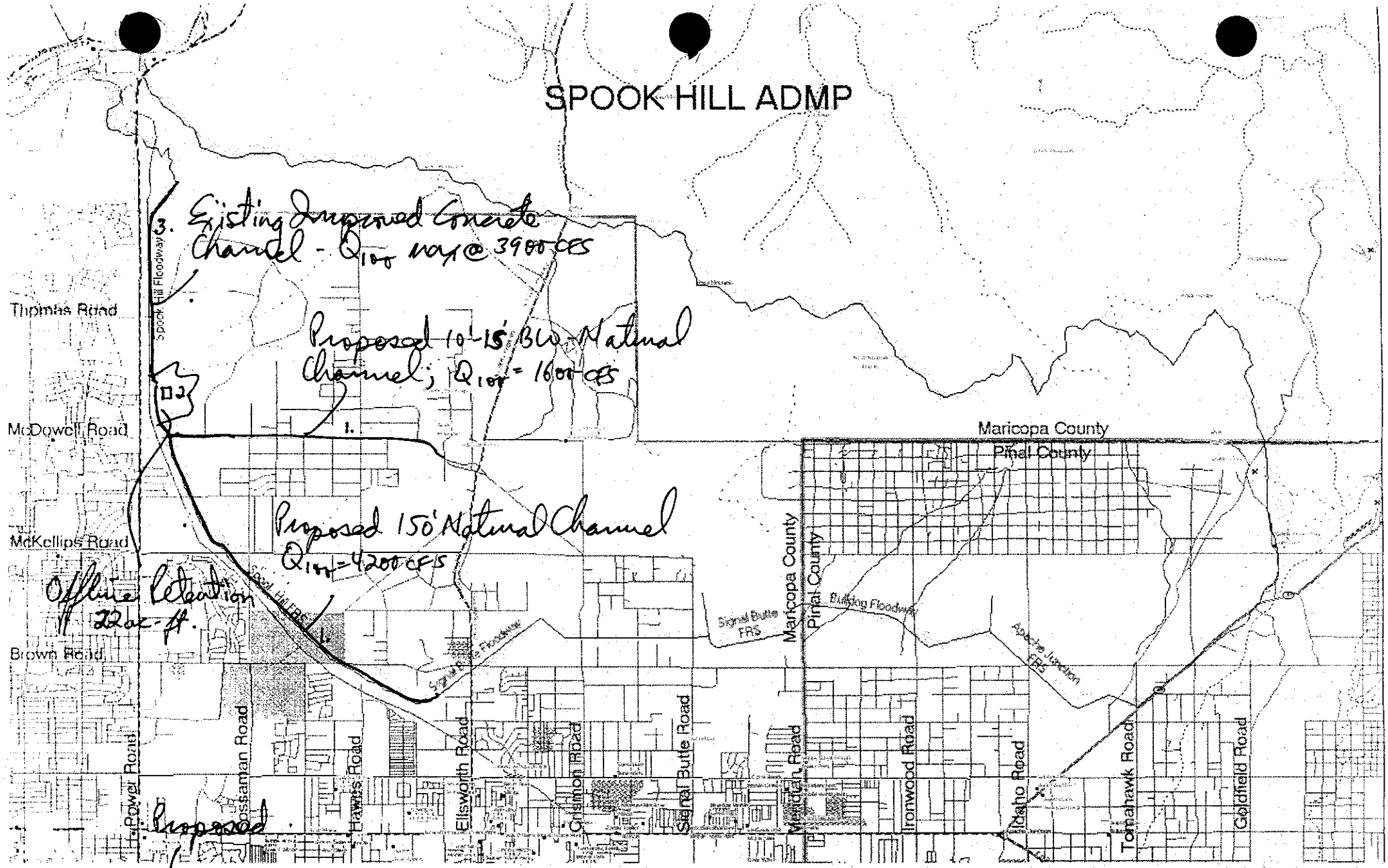
Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.06	13.19	2.0	1.8
RR60	3500	0.1	9.72	1.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.04	6.53	1.0	1.2
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.07	5.95	1.0	2.1
R260	2300	0.06	10.65	2.0	1.8
R280	2500	0.1	6.94	3.0	3.0
R300	2200	0.06	10.19	1.0	1.8
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.33	5.72	10.0	9.9
R340	2000	0.07	7.94	3.0	2.1
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.2	5.56	6.0	6.0
R400	3800	0.13	8.12	4.0	3.9
R420	2900	0.1	8.06	3.0	3.0
RR370	2600	0.03	24.07	1.0	0.9
RR390	5400	0.1	15.00	3.0	3.0
RR410	6000	0.13	12.82	4.0	3.9
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.1	3.61	2.0	3.0
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.16	15.97	5.0	4.8
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.07	25.79	2.0	2.1

Trial 3

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.06	13.19	2.0	1.8
RR60	3500	0.1	9.72	3.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.04	6.53	1.0	1.2
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.07	5.95	2.0	2.1
R260	2300	0.06	10.65	2.0	1.8
R280	2500	0.1	6.94	3.0	3.0
R300	2200	0.06	10.19	2.0	1.8
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.27	7.00	8.0	8.1
R340	2000	0.06	9.26	2.0	1.8
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.13	8.55	4.0	3.9
R400	3800	0.13	8.12	4.0	3.9
R420	2900	0.1	8.06	3.0	3.0
RR370	2600	0.03	24.07	1.0	0.9
RR390	5400	0.1	15.00	3.0	3.0
RR410	6000	0.13	12.82	4.0	3.9
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.1	3.61	3.0	3.0
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.17	15.03	5.0	5.1
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.06	30.09	2.0	1.8

SPOOK HILL ADMP



1. Channel
2. Offline Detention Basin
3. Improved Channel

Existing

- HEC-1 Existing Conditions 100-Year, 24hr Storm
- Maintain Apache & Signal FRS & Eliminate Spook Hill FRS
- Add an Offline Basin & maintain Spook Hill Floodway @ 3700cfs
- Use an improved channel along McDowell Rd.

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*            JUN  1998                  *
*          VERSION 4.1                  *
*                                       *
*  RUN DATE   07JAN00  TIME  09:29:28   *
*                                       *
*****************************************
```

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

```
X     X  XXXXXXX   XXXXX           X
X     X  X        X     X         XX
X     X  X        X                X
XXXXXXX  XXXX     X        XXXXX   X
X     X  X        X                X
X     X  X        X     X          X
X     X  XXXXXXX   XXXXX          XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                   HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

   1          ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
   2          ID   FOR LAS SENDAS, AND LANDISCOR JAN.1999 AERIAL PHOTOGRAPHS
   3          ID
   4          ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
   5          ID
   6          ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
   7          ID   PRECIPITATION VALUES
   8          ID
   9          ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL, SIGNAL
  10          ID   BUTTE, AND BULLDOG FLOODWAY PLANS
  11          ID
  12          ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE: SPHEX2.DAT
  13          ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
  14          ID
  15          ID
  16          ID   REVISED MODEL BASED ON BYPASSING OF FRS STRUCTURES
  17          ID   AND INCREASING THE EXISTING CHANNELS WIDTHS - MAINTAINING THE SAME DEPTHS
  18          ID   REVISED ON 11/9/99 BY JCD; FILE: SPHEX3.DAT
  19          ID
  20          ID   MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
  21          ID   DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
  22          ID   BY: JCD; 1/4/2000            FILE: SPHEX2RV.DAT
  23          ID
  24          ID   MODEL UPDATE BASED ON BYPASSING OF FRS STRUCTURES AND INCREASING
  25          ID   THE EXISTING CHANNEL WIDTHS WHILE MAINTAINING THE SAME DEPTHS
  26          ID   FILE: SPHEX3RV.DAT           1/4/2000
  27          ID
  28          ID   MODEL UPDATE BASED ON KEEPING THE APACHE JUNCTION FRS & SIGNAL BUTTE FRS
  29          ID   ELIMINATING THE SPOOK HILL FRS AND INCLUDING AN IMPROVED CHANNEL ALONG
  30          ID   MCDOWELL TO RAVENS ROOST MOUNTAIN LOCATED JUST WEST OF ELLSWORTH ROAD
  31          ID   FILE: SPHEX6RV.DAT           JCD; 1/6/2000
  32          ID
  33          ID   MODEL UPDATE BASED ON SAME MODEL HOWEVER MAINTAIN 3700cfs IN
  34          ID   IMPROVED SPOOK HILL FLOODWAY BY USING AN OFFLINE BASIN
  35          ID   FILE: SPHEX7RV.DAT           JCD; 1/7/2000
  36          ID
              *DIAGRAM
  37          IT       2                    1500
  38          IO       3
  39          IN      15
  40          JD    3.81    0.01
  41          PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
  42          PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
  43          PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
  44          PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
  45          PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
  46          PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
  47          PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
  48          PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
  49          PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
  50          PC    .983    .986    .989    .992    .995    .998   1.000
  51          JD    3.58   10.00
  52          JD    3.43   30.00
  53          JD    3.28   60.00
  54          JD    3.22   90.00
1                                   HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  55          JD    3.18  120.00
  56          JD    3.14  150.00
  57          JD    3.05  300.00
  58          JD    2.97  500.00

  59          KK      20
  60          KM   SUB-BASIN 20
  61          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
  62          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
  63          KM     L = 4.58  Kb = .037  Adj. Slope =  118.0
  64          BA   1.821
  65          LG    .350    .360   6.600    .140   7.000
  66          UC    .804    .697

  67          KK      40
  68          KM   SUB-BASIN 40
```

SPHEX6 RV2 DAT

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886          KK    C119
887          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 71 AND C119
             *      1       2
888          HC       2
             * DDM   ***** Preserved *****

889          KK    R454
890          KM   FROM SUB-BASIN 454 TO SUB-BASIN 455
891          RS       8    FLOW      -1
892          RC     .05    .035     .05    6000    .005
893          RX    1000    1010    1020    1036    1041    1057    1067    1077
894          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Updated *****

895          KK     455
896          KM   SUB-BASIN 455
897          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
898          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
899          KM     L = 2.92  Kb = .039  Adj. Slope =  269.2
900          BA   1.559
901          LG    .280    .270   3.850    .590  22.000
902          UC    .450    .279

903          KK    C455
904          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
905          HC       2

906          KK    455C
907          KM   HYDROGRAPH COMBINATION AT THE END OF THE SPOOK HILL FRS
             *      1       2
908          HC       2

909          KK   DD455
910          KM   DIVERT FLOW INTO SPOOK HILL FRS - VOLUME = 100 ACRE-FEET
911          KM   NOW INCREASE DIVERTED FLOW TO MAINTAIN 3700cfs OUTFLOW
912          KO       1
913          DT    455D
914          DI       0    3600   20000
915          DQ       0       0   16400

916          KK  RT455D
917          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
918          DR    455D

919          KK  SR455D
920          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
921          KM     100 ACRE-FEETx43560/36x3600=34cfs
             *      1
922          RS       1    STOR       0
923          SV       0      25
924          SQ       0     100
```



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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

925          KK   C455D
926          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
927          HC       2
             *  SR440
             *  SPOOK HILL FRS PLANS DATED 6/15/77
             *  OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
             *  EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
             *  STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
             *      1    STOR       0
             *      0     .04     100     300     500     680
             *      0     640     720     780     825     860
             *     66    77.5      79    80.2    81.2      82

928          KK   RR455
929          KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
930          RS       1    FLOW      -1
931          RC    .016    .016    .016    9200    .002
932          RX       0       1       2      15      71      84      85      86
933          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
             *     11    FLOW      -1
             *   .035    .025    .035    9200    .002
             *      0       1       2      28      58      84      85      86
             *     13      13      13       0       0      13      13      13

934          KK     456
935          KM   SUB-BASIN 456
936          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
937          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
938          KM     L =  .94  Kb = .045  Adj. Slope =  315.0
939          BA    .260
940          LG    .300    .380   5.600    .200  12.000
941          UC    .217    .139

942          KK    DIV1
943          KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
944          KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
             *      1
945          DT  BASIN1
946          DI       0    24.4    70.8   132.2   194.1   281.1   415.5   571.9   753.2
947          DQ       0       0       0       0       0    57.3     162   297.6   458.2
             * DDM   ***** Preserved *****

948          KK    DIV2
949          KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
950          KM        WASHES THAT DRAIN TO THE WEST, SOUTHERN WASHES FED BY 30" AND 18" PIPE
951          DT    WA30
952          DI       0    24.4    70.8   132.2   194.1   223.8   253.5  274.25     295
953          DQ       0     8.4    24.8    40.2    52.1    57.8    63.5    67.3      71
             * DDM   ***** Preserved *****
```



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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

954          KK    R456
955          KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
```

```
869          .           .      RFDIV7
             .           .          .
             .           .          .
875          .       CDIV7............
             .           .
             .           .
878          .           .         454
             .           .          .
             .           .          .
886          .        C119............
             .           V
             .           V
889          .        R454
             .           .
             .           .
895          .           .         455
             .           .          .
             .           .          .
903          .        C455............
             .           .
             .           .
906       455C............
             .
             .
913          .-------->    455D
909      DD455
             .
             .
918          .           .<-------    455D
916          .      RT455D
             .           V
             .           V
919          .      SR455D
             .           .
             .           .
925      C455D............
             V
             V
928      RR455
             .
             .
934          .         456
             .           .
             .           .
945          .           .-------->  BASIN1
942          .        DIV1
             .           .
             .           .
951          .           .-------->    WA30
948          .        DIV2
             .           V
             .           V
954          .        R456
             .           .
             .           .
960          .           .         457
             .           .          .
             .           .          .
968          .        C101............
             .           .
             .           .
975          .           .-------->  BASIN2
971          .        DIV3
             .           .
             .           .
980          .           .           .<-------  BASIN2
978          .           .      RTDIV3
             .           .           V
             .           .           V
981          .           .      RFDIV3
             .           .           .
             .           .           .
987          .       CDIV3............
             .           V
             .           V
990          .        R101
             .           .
             .           .
996          .           .         458
             .           .          .
             .           .          .
1004         .        C103............
             .           V
             .           V
1007         .        R103
             .           .
             .           .
1015         .           .           .<-------    WA30
1013         .           .        RT30
             .           .           V
             .           .           V
1016         .           .         R30
             .           .           .
             .           .           .
1024         .           .           .          .<-------  BASIN1
1022         .           .           .        RTB1
             .           .           .           V
             .           .           .           V
1025         .           .           .          B1
             .           .           .           V
             .           .           .           V
1032         .           .           .         RB1
             .           .           .           .
             .           .           .           .
1038         .           .        CDIV............
             .           .           .
             .           .           .
1041         .           .           .         459
             .           .           .           .
             .           .           .           .
1049         .           .         C52............
             .           .           V
             .           .           V
```

INTERPOLATED DIVERSION HYDROGRAPH AT 455D

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		1230	376	0.	2		0100	751	0.	2		1330	1126	0.
1		0002	2	0.	1		1232	377	0.	2		0102	752	0.	2		1332	1127	0.
1		0004	3	0.	1		1234	378	0.	2		0104	753	0.	2		1334	1128	0.
1		0006	4	0.	1		1236	379	0.	2		0106	754	0.	2		1336	1129	0.
1		0008	5	0.	1		1238	380	0.	2		0108	755	0.	2		1338	1130	0.
1		0010	6	0.	1		1240	381	0.	2		0110	756	0.	2		1340	1131	0.
1		0012	7	0.	1		1242	382	0.	2		0112	757	0.	2		1342	1132	0.
1		0014	8	0.	1		1244	383	0.	2		0114	758	0.	2		1344	1133	0.
1		0016	9	0.	1		1246	384	0.	2		0116	759	0.	2		1346	1134	0.
1		0018	10	0.	1		1248	385	0.	2		0118	760	0.	2		1348	1135	0.
1		0020	11	0.	1		1250	386	0.	2		0120	761	0.	2		1350	1136	0.
1		0022	12	0.	1		1252	387	0.	2		0122	762	0.	2		1352	1137	0.
1		0024	13	0.	1		1254	388	0.	2		0124	763	0.	2		1354	1138	0.
1		0026	14	0.	1		1256	389	0.	2		0126	764	0.	2		1356	1139	0.
1		0028	15	0.	1		1258	390	0.	2		0128	765	0.	2		1358	1140	0.
1		0030	16	0.	1		1300	391	30.	2		0130	766	0.	2		1400	1141	0.
1		0032	17	0.	1		1302	392	454.	2		0132	767	0.	2		1402	1142	0.
1		0034	18	0.	1		1304	393	737.	2		0134	768	0.	2		1404	1143	0.
1		0036	19	0.	1		1306	394	984.	2		0136	769	0.	2		1406	1144	0.
1		0038	20	0.	1		1308	395	1086.	2		0138	770	0.	2		1408	1145	0.
1		0040	21	0.	1		1310	396	1070.	2		0140	771	0.	2		1410	1146	0.
1		0042	22	0.	1		1312	397	982.	2		0142	772	0.	2		1412	1147	0.
1		0044	23	0.	1		1314	398	854.	2		0144	773	0.	2		1414	1148	0.
1		0046	24	0.	1		1316	399	700.	2		0146	774	0.	2		1416	1149	0.
1		0048	25	0.	1		1318	400	536.	2		0148	775	0.	2		1418	1150	0.
1		0050	26	0.	1		1320	401	371.	2		0150	776	0.	2		1420	1151	0.
1		0052	27	0.	1		1322	402	204.	2		0152	777	0.	2		1422	1152	0.
1		0054	28	0.	1		1324	403	64.	2		0154	778	0.	2		1424	1153	0.
1		0056	29	0.	1		1326	404	0.	2		0156	779	0.	2		1426	1154	0.
1		0058	30	0.	1		1328	405	0.	2		0158	780	0.	2		1428	1155	0.
1		0100	31	0.	1		1330	406	0.	2		0200	781	0.	2		1430	1156	0.
1		0102	32	0.	1		1332	407	0.	2		0202	782	0.	2		1432	1157	0.
1		0104	33	0.	1		1334	408	0.	2		0204	783	0.	2		1434	1158	0.
1		0106	34	0.	1		1336	409	0.	2		0206	784	0.	2		1436	1159	0.
1		0108	35	0.	1		1338	410	0.	2		0208	785	0.	2		1438	1160	0.
1		0110	36	0.	1		1340	411	0.	2		0210	786	0.	2		1440	1161	0.
1		0112	37	0.	1		1342	412	0.	2		0212	787	0.	2		1442	1162	0.
1		0114	38	0.	1		1344	413	0.	2		0214	788	0.	2		1444	1163	0.
1		0116	39	0.	1		1346	414	0.	2		0216	789	0.	2		1446	1164	0.
1		0118	40	0.	1		1348	415	0.	2		0218	790	0.	2		1448	1165	0.
1		0120	41	0.	1		1350	416	0.	2		0220	791	0.	2		1450	1166	0.
1		0122	42	0.	1		1352	417	0.	2		0222	792	0.	2		1452	1167	0.
1		0124	43	0.	1		1354	418	0.	2		0224	793	0.	2		1454	1168	0.
1		0126	44	0.	1		1356	419	0.	2		0226	794	0.	2		1456	1169	0.
1		0128	45	0.	1		1358	420	0.	2		0228	795	0.	2		1458	1170	0.
1		0130	46	0.	1		1400	421	0.	2		0230	796	0.	2		1500	1171	0.
1		0132	47	0.	1		1402	422	0.	2		0232	797	0.	2		1502	1172	0.
1		0134	48	0.	1		1404	423	0.	2		0234	798	0.	2		1504	1173	0.
1		0136	49	0.	1		1406	424	0.	2		0236	799	0.	2		1506	1174	0.
1		0138	50	0.	1		1408	425	0.	2		0238	800	0.	2		1508	1175	0.
1		0140	51	0.	1		1410	426	0.	2		0240	801	0.	2		1510	1176	0.
1		0142	52	0.	1		1412	427	0.	2		0242	802	0.	2		1512	1177	0.
1		0144	53	0.	1		1414	428	0.	2		0244	803	0.	2		1514	1178	0.
1		0146	54	0.	1		1416	429	0.	2		0246	804	0.	2		1516	1179	0.
1		0148	55	0.	1		1418	430	0.	2		0248	805	0.	2		1518	1180	0.
1		0150	56	0.	1		1420	431	0.	2		0250	806	0.	2		1520	1181	0.
1		0152	57	0.	1		1422	432	0.	2		0252	807	0.	2		1522	1182	0.
1		0154	58	0.	1		1424	433	0.	2		0254	808	0.	2		1524	1183	0.
1		0156	59	0.	1		1426	434	0.	2		0256	809	0.	2		1526	1184	0.
1		0158	60	0.	1		1428	435	0.	2		0258	810	0.	2		1528	1185	0.
1		0200	61	0.	1		1430	436	0.	2		0300	811	0.	2		1530	1186	0.
1		0202	62	0.	1		1432	437	0.	2		0302	812	0.	2		1532	1187	0.
1		0204	63	0.	1		1434	438	0.	2		0304	813	0.	2		1534	1188	0.
1		0206	64	0.	1		1436	439	0.	2		0306	814	0.	2		1536	1189	0.
1		0208	65	0.	1		1438	440	0.	2		0308	815	0.	2		1538	1190	0.
1		0210	66	0.	1		1440	441	0.	2		0310	816	0.	2		1540	1191	0.
1		0212	67	0.	1		1442	442	0.	2		0312	817	0.	2		1542	1192	0.
1		0214	68	0.	1		1444	443	0.	2		0314	818	0.	2		1544	1193	0.
1		0216	69	0.	1		1446	444	0.	2		0316	819	0.	2		1546	1194	0.
1		0218	70	0.	1		1448	445	0.	2		0318	820	0.	2		1548	1195	0.
1		0220	71	0.	1		1450	446	0.	2		0320	821	0.	2		1550	1196	0.
1		0222	72	0.	1		1452	447	0.	2		0322	822	0.	2		1552	1197	0.
1		0224	73	0.	1		1454	448	0.	2		0324	823	0.	2		1554	1198	0.
1		0226	74	0.	1		1456	449	0.	2		0326	824	0.	2		1556	1199	0.
1		0228	75	0.	1		1458	450	0.	2		0328	825	0.	2		1558	1200	0.
1		0230	76	0.	1		1500	451	0.	2		0330	826	0.	2		1600	1201	0.
1		0232	77	0.	1		1502	452	0.	2		0332	827	0.	2		1602	1202	0.
1		0234	78	0.	1		1504	453	0.	2		0334	828	0.	2		1604	1203	0.
1		0236	79	0.	1		1506	454	0.	2		0336	829	0.	2		1606	1204	0.
1		0238	80	0.	1		1508	455	0.	2		0338	830	0.	2		1608	1205	0.
1		0240	81	0.	1		1510	456	0.	2		0340	831	0.	2		1610	1206	0.
1		0242	82	0.	1		1512	457	0.	2		0342	832	0.	2		1612	1207	0.
1		0244	83	0.	1		1514	458	0.	2		0344	833	0.	2		1614	1208	0.
1		0246	84	0.	1		1516	459	0.	2		0346	834	0.	2		1616	1209	0.
1		0248	85	0.	1		1518	460	0.	2		0348	835	0.	2		1618	1210	0.
1		0250	86	0.	1		1520	461	0.	2		0350	836	0.	2		1620	1211	0.
1		0252	87	0.	1		1522	462	0.	2		0352	837	0.	2		1622	1212	0.
1		0254	88	0.	1		1524	463	0.	2		0354	838	0.	2		1624	1213	0.
1		0256	89	0.	1		1526	464	0.	2		0356	839	0.	2		1626	1214	0.
1		0258	90	0.	1		1528	465	0.	2		0358	840	0.	2		1628	1215	0.
1		0300	91	0.	1		1530	466	0.	2		0400	841	0.	2		1630	1216	0.
1		0302	92	0.	1		1532	467	0.	2		0402	842	0.	2		1632	1217	0.
1		0304	93	0.	1		1534	468	0.	2		0404	843	0.	2		1634	1218	0.
1		0306	94	0.	1		1536	469	0.	2		0406	844	0.	2		1636	1219	0.
1		0308	95	0.	1		1538	470	0.	2		0408	845	0.	2		1638	1220	0.
1		0310	96	0.	1		1540	471	0.	2		0410	846	0.	2		1640	1221	0.
1		0312	97	0.	1		1542	472	0.	2		0412	847	0.	2		1642	1222	0.
1		0314	98	0.	1		1544	473	0.	2		0414	848	0.	2		1644	1223	0.
1		0316	99	0.	1		1546	474	0.	2		0416	849	0.	2		1646	1224	0.
1		0318	100	0.	1		1548	475	0.	2		0418	850	0.	2		1648	1225	0.
1		0320	101	0.	1		1550	476	0.	2		0420	851	0.	2		1650	1226	0.
1		0322	102	0.	1		1552	477	0.	2		0422	852	0.	2		1652	1227	0.
1		0324	103	0.	1		1554	478	0.	2		0424	853	0.	2		1654	1228	0.
1		0326	104	0.	1		1556	479	0.	2		0426	854	0.	2		1656	1229	0.
1		0328	105	0.	1		1558	480	0.	2		0428	855	0.	2		1658	1230	0.

1	0330	106	0.	*	1	1600	481	0.	*	2	0430	856	0.	*	2	1700	1231	0.
1	0332	107	0.	*	1	1602	482	0.	*	2	0432	857	0.	*	2	1702	1232	0.
1	0334	108	0.	*	1	1604	483	0.	*	2	0434	858	0.	*	2	1704	1233	0.
1	0336	109	0.	*	1	1606	484	0.	*	2	0436	859	0.	*	2	1706	1234	0.
1	0338	110	0.	*	1	1608	485	0.	*	2	0438	860	0.	*	2	1708	1235	0.
1	0340	111	0.	*	1	1610	486	0.	*	2	0440	861	0.	*	2	1710	1236	0.
1	0342	112	0.	*	1	1612	487	0.	*	2	0442	862	0.	*	2	1712	1237	0.
1	0344	113	0.	*	1	1614	488	0.	*	2	0444	863	0.	*	2	1714	1238	0.
1	0346	114	0.	*	1	1616	489	0.	*	2	0446	864	0.	*	2	1716	1239	0.
1	0348	115	0.	*	1	1618	490	0.	*	2	0448	865	0.	*	2	1718	1240	0.
1	0350	116	0.	*	1	1620	491	0.	*	2	0450	866	0.	*	2	1720	1241	0.
1	0352	117	0.	*	1	1622	492	0.	*	2	0452	867	0.	*	2	1722	1242	0.
1	0354	118	0.	*	1	1624	493	0.	*	2	0454	868	0.	*	2	1724	1243	0.
1	0356	119	0.	*	1	1626	494	0.	*	2	0456	869	0.	*	2	1726	1244	0.
1	0358	120	0.	*	1	1628	495	0.	*	2	0458	870	0.	*	2	1728	1245	0.
1	0400	121	0.	*	1	1630	496	0.	*	2	0500	871	0.	*	2	1730	1246	0.
1	0402	122	0.	*	1	1632	497	0.	*	2	0502	872	0.	*	2	1732	1247	0.
1	0404	123	0.	*	1	1634	498	0.	*	2	0504	873	0.	*	2	1734	1248	0.
1	0406	124	0.	*	1	1636	499	0.	*	2	0506	874	0.	*	2	1736	1249	0.
1	0408	125	0.	*	1	1638	500	0.	*	2	0508	875	0.	*	2	1738	1250	0.
1	0410	126	0.	*	1	1640	501	0.	*	2	0510	876	0.	*	2	1740	1251	0.
1	0412	127	0.	*	1	1642	502	0.	*	2	0512	877	0.	*	2	1742	1252	0.
1	0414	128	0.	*	1	1644	503	0.	*	2	0514	878	0.	*	2	1744	1253	0.
1	0416	129	0.	*	1	1646	504	0.	*	2	0516	879	0.	*	2	1746	1254	0.
1	0418	130	0.	*	1	1648	505	0.	*	2	0518	880	0.	*	2	1748	1255	0.
1	0420	131	0.	*	1	1650	506	0.	*	2	0520	881	0.	*	2	1750	1256	0.
1	0422	132	0.	*	1	1652	507	0.	*	2	0522	882	0.	*	2	1752	1257	0.
1	0424	133	0.	*	1	1654	508	0.	*	2	0524	883	0.	*	2	1754	1258	0.
1	0426	134	0.	*	1	1656	509	0.	*	2	0526	884	0.	*	2	1756	1259	0.
1	0428	135	0.	*	1	1658	510	0.	*	2	0528	885	0.	*	2	1758	1260	0.
1	0430	136	0.	*	1	1700	511	0.	*	2	0530	886	0.	*	2	1800	1261	0.
1	0432	137	0.	*	1	1702	512	0.	*	2	0532	887	0.	*	2	1802	1262	0.
1	0434	138	0.	*	1	1704	513	0.	*	2	0534	888	0.	*	2	1804	1263	0.
1	0436	139	0.	*	1	1706	514	0.	*	2	0536	889	0.	*	2	1806	1264	0.
1	0438	140	0.	*	1	1708	515	0.	*	2	0538	890	0.	*	2	1808	1265	0.
1	0440	141	0.	*	1	1710	516	0.	*	2	0540	891	0.	*	2	1810	1266	0.
1	0442	142	0.	*	1	1712	517	0.	*	2	0542	892	0.	*	2	1812	1267	0.
1	0444	143	0.	*	1	1714	518	0.	*	2	0544	893	0.	*	2	1814	1268	0.
1	0446	144	0.	*	1	1716	519	0.	*	2	0546	894	0.	*	2	1816	1269	0.
1	0448	145	0.	*	1	1718	520	0.	*	2	0548	895	0.	*	2	1818	1270	0.
1	0450	146	0.	*	1	1720	521	0.	*	2	0550	896	0.	*	2	1820	1271	0.
1	0452	147	0.	*	1	1722	522	0.	*	2	0552	897	0.	*	2	1822	1272	0.
1	0454	148	0.	*	1	1724	523	0.	*	2	0554	898	0.	*	2	1824	1273	0.
1	0456	149	0.	*	1	1726	524	0.	*	2	0556	899	0.	*	2	1826	1274	0.
1	0458	150	0.	*	1	1728	525	0.	*	2	0558	900	0.	*	2	1828	1275	0.
1	0500	151	0.	*	1	1730	526	0.	*	2	0600	901	0.	*	2	1830	1276	0.
1	0502	152	0.	*	1	1732	527	0.	*	2	0602	902	0.	*	2	1832	1277	0.
1	0504	153	0.	*	1	1734	528	0.	*	2	0604	903	0.	*	2	1834	1278	0.
1	0506	154	0.	*	1	1736	529	0.	*	2	0606	904	0.	*	2	1836	1279	0.
1	0508	155	0.	*	1	1738	530	0.	*	2	0608	905	0.	*	2	1838	1280	0.
1	0510	156	0.	*	1	1740	531	0.	*	2	0610	906	0.	*	2	1840	1281	0.
1	0512	157	0.	*	1	1742	532	0.	*	2	0612	907	0.	*	2	1842	1282	0.
1	0514	158	0.	*	1	1744	533	0.	*	2	0614	908	0.	*	2	1844	1283	0.
1	0516	159	0.	*	1	1746	534	0.	*	2	0616	909	0.	*	2	1846	1284	0.
1	0518	160	0.	*	1	1748	535	0.	*	2	0618	910	0.	*	2	1848	1285	0.
1	0520	161	0.	*	1	1750	536	0.	*	2	0620	911	0.	*	2	1850	1286	0.
1	0522	162	0.	*	1	1752	537	0.	*	2	0622	912	0.	*	2	1852	1287	0.
1	0524	163	0.	*	1	1754	538	0.	*	2	0624	913	0.	*	2	1854	1288	0.
1	0526	164	0.	*	1	1756	539	0.	*	2	0626	914	0.	*	2	1856	1289	0.
1	0528	165	0.	*	1	1758	540	0.	*	2	0628	915	0.	*	2	1858	1290	0.
1	0530	166	0.	*	1	1800	541	0.	*	2	0630	916	0.	*	2	1900	1291	0.
1	0532	167	0.	*	1	1802	542	0.	*	2	0632	917	0.	*	2	1902	1292	0.
1	0534	168	0.	*	1	1804	543	0.	*	2	0634	918	0.	*	2	1904	1293	0.
1	0536	169	0.	*	1	1806	544	0.	*	2	0636	919	0.	*	2	1906	1294	0.
1	0538	170	0.	*	1	1808	545	0.	*	2	0638	920	0.	*	2	1908	1295	0.
1	0540	171	0.	*	1	1810	546	0.	*	2	0640	921	0.	*	2	1910	1296	0.
1	0542	172	0.	*	1	1812	547	0.	*	2	0642	922	0.	*	2	1912	1297	0.
1	0544	173	0.	*	1	1814	548	0.	*	2	0644	923	0.	*	2	1914	1298	0.
1	0546	174	0.	*	1	1816	549	0.	*	2	0646	924	0.	*	2	1916	1299	0.
1	0548	175	0.	*	1	1818	550	0.	*	2	0648	925	0.	*	2	1918	1300	0.
1	0550	176	0.	*	1	1820	551	0.	*	2	0650	926	0.	*	2	1920	1301	0.
1	0552	177	0.	*	1	1822	552	0.	*	2	0652	927	0.	*	2	1922	1302	0.
1	0554	178	0.	*	1	1824	553	0.	*	2	0654	928	0.	*	2	1924	1303	0.
1	0556	179	0.	*	1	1826	554	0.	*	2	0656	929	0.	*	2	1926	1304	0.
1	0558	180	0.	*	1	1828	555	0.	*	2	0658	930	0.	*	2	1928	1305	0.
1	0600	181	0.	*	1	1830	556	0.	*	2	0700	931	0.	*	2	1930	1306	0.
1	0602	182	0.	*	1	1832	557	0.	*	2	0702	932	0.	*	2	1932	1307	0.
1	0604	183	0.	*	1	1834	558	0.	*	2	0704	933	0.	*	2	1934	1308	0.
1	0606	184	0.	*	1	1836	559	0.	*	2	0706	934	0.	*	2	1936	1309	0.
1	0608	185	0.	*	1	1838	560	0.	*	2	0708	935	0.	*	2	1938	1310	0.
1	0610	186	0.	*	1	1840	561	0.	*	2	0710	936	0.	*	2	1940	1311	0.
1	0612	187	0.	*	1	1842	562	0.	*	2	0712	937	0.	*	2	1942	1312	0.
1	0614	188	0.	*	1	1844	563	0.	*	2	0714	938	0.	*	2	1944	1313	0.
1	0616	189	0.	*	1	1846	564	0.	*	2	0716	939	0.	*	2	1946	1314	0.
1	0618	190	0.	*	1	1848	565	0.	*	2	0718	940	0.	*	2	1948	1315	0.
1	0620	191	0.	*	1	1850	566	0.	*	2	0720	941	0.	*	2	1950	1316	0.
1	0622	192	0.	*	1	1852	567	0.	*	2	0722	942	0.	*	2	1952	1317	0.
1	0624	193	0.	*	1	1854	568	0.	*	2	0724	943	0.	*	2	1954	1318	0.
1	0626	194	0.	*	1	1856	569	0.	*	2	0726	944	0.	*	2	1956	1319	0.
1	0628	195	0.	*	1	1858	570	0.	*	2	0728	945	0.	*	2	1958	1320	0.
1	0630	196	0.	*	1	1900	571	0.	*	2	0730	946	0.	*	2	2000	1321	0.
1	0632	197	0.	*	1	1902	572	0.	*	2	0732	947	0.	*	2	2002	1322	0.
1	0634	198	0.	*	1	1904	573	0.	*	2	0734	948	0.	*	2	2004	1323	0.
1	0636	199	0.	*	1	1906	574	0.	*	2	0736	949	0.	*	2	2006	1324	0.
1	0638	200	0.	*	1	1908	575	0.	*	2	0738	950	0.	*	2	2008	1325	0.
1	0640	201	0.	*	1	1910	576	0.	*	2	0740	951	0.	*	2	2010	1326	0.
1	0642	202	0.	*	1	1912	577	0.	*	2	0742	952	0.	*	2	2012	1327	0.
1	0644	203	0.	*	1	1914	578	0.	*	2	0744	953	0.	*	2	2014	1328	0.
1	0646	204	0.	*	1	1916	579	0.	*	2	0746	954	0.	*	2	2016	1329	0.
1	0648	205	0.	*	1	1918	580	0.	*	2	0748	955	0.	*	2	2018	1330	0.
1	0650	206	0.	*	1	1920	581	0.	*	2	0750	956	0.	*	2	2020	1331	0.
1	0652	207	0.	*	1	1922	582	0.	*	2	0752	957	0.	*	2	2022	1332	0.
1	0654	208	0.	*	1	1924	583	0.	*	2	0754	958	0.	*	2	2024	1333	0.
1	0656	209	0.	*	1	1926	584	0.	*	2	0756	959	0.	*	2	2026	1334	0.
1	0658	210	0.	*	1	1928	585	0.	*	2	0758	960	0.	*	2	2028	1335	0.
1	0700	211	0.	*	1	1930	586	0.	*	2	0800	961	0.	*	2	2030	1336	0.
1	0702	212	0.	*	1	1932	587	0.	*	2	0802	962	0.	*	2	2032	1337	0.
1	0704	213	0.	*	1	1934	588	0.	*	2	0804	963	0.	*	2	2034	1338	0.
1	0706	214	0.	*	1	1936	589	0.	*	2	0806	964	0.	*	2	2036	1339	0.
1	0708	215	0.	*	1	1938	590	0.	*	2	0808	965	0.	*	2	2038	1340	0.
1	0710	216	0.	*	1	1940	591	0.	*	2	0810	966	0.	*	2	2040	1341	0.
1	0712	217	0.	*	1	1942	592	0.	*	2	0812	967	0.	*	2	2042	1342	0.
1	0714	218	0.	*	1	1944	593	0.	*	2	0814	968	0.	*	2	2044	1343	0.

1	0716	219	0.	*	1	1946	594	0.	*	2	0816	969	0.	*	2	2046	1344	0.
1	0718	220	0.	*	1	1948	595	0.	*	2	0818	970	0.	*	2	2048	1345	0.
1	0720	221	0.	*	1	1950	596	0.	*	2	0820	971	0.	*	2	2050	1346	0.
1	0722	222	0.	*	1	1952	597	0.	*	2	0822	972	0.	*	2	2052	1347	0.
1	0724	223	0.	*	1	1954	598	0.	*	2	0824	973	0.	*	2	2054	1348	0.
1	0726	224	0.	*	1	1956	599	0.	*	2	0826	974	0.	*	2	2056	1349	0.
1	0728	225	0.	*	1	1958	600	0.	*	2	0828	975	0.	*	2	2058	1350	0.
1	0730	226	0.	*	1	2000	601	0.	*	2	0830	976	0.	*	2	2100	1351	0.
1	0732	227	0.	*	1	2002	602	0.	*	2	0832	977	0.	*	2	2102	1352	0.
1	0734	228	0.	*	1	2004	603	0.	*	2	0834	978	0.	*	2	2104	1353	0.
1	0736	229	0.	*	1	2006	604	0.	*	2	0836	979	0.	*	2	2106	1354	0.
1	0738	230	0.	*	1	2008	605	0.	*	2	0838	980	0.	*	2	2108	1355	0.
1	0740	231	0.	*	1	2010	606	0.	*	2	0840	981	0.	*	2	2110	1356	0.
1	0742	232	0.	*	1	2012	607	0.	*	2	0842	982	0.	*	2	2112	1357	0.
1	0744	233	0.	*	1	2014	608	0.	*	2	0844	983	0.	*	2	2114	1358	0.
1	0746	234	0.	*	1	2016	609	0.	*	2	0846	984	0.	*	2	2116	1359	0.
1	0748	235	0.	*	1	2018	610	0.	*	2	0848	985	0.	*	2	2118	1360	0.
1	0750	236	0.	*	1	2020	611	0.	*	2	0850	986	0.	*	2	2120	1361	0.
1	0752	237	0.	*	1	2022	612	0.	*	2	0852	987	0.	*	2	2122	1362	0.
1	0754	238	0.	*	1	2024	613	0.	*	2	0854	988	0.	*	2	2124	1363	0.
1	0756	239	0.	*	1	2026	614	0.	*	2	0856	989	0.	*	2	2126	1364	0.
1	0758	240	0.	*	1	2028	615	0.	*	2	0858	990	0.	*	2	2128	1365	0.
1	0800	241	0.	*	1	2030	616	0.	*	2	0900	991	0.	*	2	2130	1366	0.
1	0802	242	0.	*	1	2032	617	0.	*	2	0902	992	0.	*	2	2132	1367	0.
1	0804	243	0.	*	1	2034	618	0.	*	2	0904	993	0.	*	2	2134	1368	0.
1	0806	244	0.	*	1	2036	619	0.	*	2	0906	994	0.	*	2	2136	1369	0.
1	0808	245	0.	*	1	2038	620	0.	*	2	0908	995	0.	*	2	2138	1370	0.
1	0810	246	0.	*	1	2040	621	0.	*	2	0910	996	0.	*	2	2140	1371	0.
1	0812	247	0.	*	1	2042	622	0.	*	2	0912	997	0.	*	2	2142	1372	0.
1	0814	248	0.	*	1	2044	623	0.	*	2	0914	998	0.	*	2	2144	1373	0.
1	0816	249	0.	*	1	2046	624	0.	*	2	0916	999	0.	*	2	2146	1374	0.
1	0818	250	0.	*	1	2048	625	0.	*	2	0918	1000	0.	*	2	2148	1375	0.
1	0820	251	0.	*	1	2050	626	0.	*	2	0920	1001	0.	*	2	2150	1376	0.
1	0822	252	0.	*	1	2052	627	0.	*	2	0922	1002	0.	*	2	2152	1377	0.
1	0824	253	0.	*	1	2054	628	0.	*	2	0924	1003	0.	*	2	2154	1378	0.
1	0826	254	0.	*	1	2056	629	0.	*	2	0926	1004	0.	*	2	2156	1379	0.
1	0828	255	0.	*	1	2058	630	0.	*	2	0928	1005	0.	*	2	2158	1380	0.
1	0830	256	0.	*	1	2100	631	0.	*	2	0930	1006	0.	*	2	2200	1381	0.
1	0832	257	0.	*	1	2102	632	0.	*	2	0932	1007	0.	*	2	2202	1382	0.
1	0834	258	0.	*	1	2104	633	0.	*	2	0934	1008	0.	*	2	2204	1383	0.
1	0836	259	0.	*	1	2106	634	0.	*	2	0936	1009	0.	*	2	2206	1384	0.
1	0838	260	0.	*	1	2108	635	0.	*	2	0938	1010	0.	*	2	2208	1385	0.
1	0840	261	0.	*	1	2110	636	0.	*	2	0940	1011	0.	*	2	2210	1386	0.
1	0842	262	0.	*	1	2112	637	0.	*	2	0942	1012	0.	*	2	2212	1387	0.
1	0844	263	0.	*	1	2114	638	0.	*	2	0944	1013	0.	*	2	2214	1388	0.
1	0846	264	0.	*	1	2116	639	0.	*	2	0946	1014	0.	*	2	2216	1389	0.
1	0848	265	0.	*	1	2118	640	0.	*	2	0948	1015	0.	*	2	2218	1390	0.
1	0850	266	0.	*	1	2120	641	0.	*	2	0950	1016	0.	*	2	2220	1391	0.
1	0852	267	0.	*	1	2122	642	0.	*	2	0952	1017	0.	*	2	2222	1392	0.
1	0854	268	0.	*	1	2124	643	0.	*	2	0954	1018	0.	*	2	2224	1393	0.
1	0856	269	0.	*	1	2126	644	0.	*	2	0956	1019	0.	*	2	2226	1394	0.
1	0858	270	0.	*	1	2128	645	0.	*	2	0958	1020	0.	*	2	2228	1395	0.
1	0900	271	0.	*	1	2130	646	0.	*	2	1000	1021	0.	*	2	2230	1396	0.
1	0902	272	0.	*	1	2132	647	0.	*	2	1002	1022	0.	*	2	2232	1397	0.
1	0904	273	0.	*	1	2134	648	0.	*	2	1004	1023	0.	*	2	2234	1398	0.
1	0906	274	0.	*	1	2136	649	0.	*	2	1006	1024	0.	*	2	2236	1399	0.
1	0908	275	0.	*	1	2138	650	0.	*	2	1008	1025	0.	*	2	2238	1400	0.
1	0910	276	0.	*	1	2140	651	0.	*	2	1010	1026	0.	*	2	2240	1401	0.
1	0912	277	0.	*	1	2142	652	0.	*	2	1012	1027	0.	*	2	2242	1402	0.
1	0914	278	0.	*	1	2144	653	0.	*	2	1014	1028	0.	*	2	2244	1403	0.
1	0916	279	0.	*	1	2146	654	0.	*	2	1016	1029	0.	*	2	2246	1404	0.
1	0918	280	0.	*	1	2148	655	0.	*	2	1018	1030	0.	*	2	2248	1405	0.
1	0920	281	0.	*	1	2150	656	0.	*	2	1020	1031	0.	*	2	2250	1406	0.
1	0922	282	0.	*	1	2152	657	0.	*	2	1022	1032	0.	*	2	2252	1407	0.
1	0924	283	0.	*	1	2154	658	0.	*	2	1024	1033	0.	*	2	2254	1408	0.
1	0926	284	0.	*	1	2156	659	0.	*	2	1026	1034	0.	*	2	2256	1409	0.
1	0928	285	0.	*	1	2158	660	0.	*	2	1028	1035	0.	*	2	2258	1410	0.
1	0930	286	0.	*	1	2200	661	0.	*	2	1030	1036	0.	*	2	2300	1411	0.
1	0932	287	0.	*	1	2202	662	0.	*	2	1032	1037	0.	*	2	2302	1412	0.
1	0934	288	0.	*	1	2204	663	0.	*	2	1034	1038	0.	*	2	2304	1413	0.
1	0936	289	0.	*	1	2206	664	0.	*	2	1036	1039	0.	*	2	2306	1414	0.
1	0938	290	0.	*	1	2208	665	0.	*	2	1038	1040	0.	*	2	2308	1415	0.
1	0940	291	0.	*	1	2210	666	0.	*	2	1040	1041	0.	*	2	2310	1416	0.
1	0942	292	0.	*	1	2212	667	0.	*	2	1042	1042	0.	*	2	2312	1417	0.
1	0944	293	0.	*	1	2214	668	0.	*	2	1044	1043	0.	*	2	2314	1418	0.
1	0946	294	0.	*	1	2216	669	0.	*	2	1046	1044	0.	*	2	2316	1419	0.
1	0948	295	0.	*	1	2218	670	0.	*	2	1048	1045	0.	*	2	2318	1420	0.
1	0950	296	0.	*	1	2220	671	0.	*	2	1050	1046	0.	*	2	2320	1421	0.
1	0952	297	0.	*	1	2222	672	0.	*	2	1052	1047	0.	*	2	2322	1422	0.
1	0954	298	0.	*	1	2224	673	0.	*	2	1054	1048	0.	*	2	2324	1423	0.
1	0956	299	0.	*	1	2226	674	0.	*	2	1056	1049	0.	*	2	2326	1424	0.
1	0958	300	0.	*	1	2228	675	0.	*	2	1058	1050	0.	*	2	2328	1425	0.
1	1000	301	0.	*	1	2230	676	0.	*	2	1100	1051	0.	*	2	2330	1426	0.
1	1002	302	0.	*	1	2232	677	0.	*	2	1102	1052	0.	*	2	2332	1427	0.
1	1004	303	0.	*	1	2234	678	0.	*	2	1104	1053	0.	*	2	2334	1428	0.
1	1006	304	0.	*	1	2236	679	0.	*	2	1106	1054	0.	*	2	2336	1429	0.
1	1008	305	0.	*	1	2238	680	0.	*	2	1108	1055	0.	*	2	2338	1430	0.
1	1010	306	0.	*	1	2240	681	0.	*	2	1110	1056	0.	*	2	2340	1431	0.
1	1012	307	0.	*	1	2242	682	0.	*	2	1112	1057	0.	*	2	2342	1432	0.
1	1014	308	0.	*	1	2244	683	0.	*	2	1114	1058	0.	*	2	2344	1433	0.
1	1016	309	0.	*	1	2246	684	0.	*	2	1116	1059	0.	*	2	2346	1434	0.
1	1018	310	0.	*	1	2248	685	0.	*	2	1118	1060	0.	*	2	2348	1435	0.
1	1020	311	0.	*	1	2250	686	0.	*	2	1120	1061	0.	*	2	2350	1436	0.
1	1022	312	0.	*	1	2252	687	0.	*	2	1122	1062	0.	*	2	2352	1437	0.
1	1024	313	0.	*	1	2254	688	0.	*	2	1124	1063	0.	*	2	2354	1438	0.
1	1026	314	0.	*	1	2256	689	0.	*	2	1126	1064	0.	*	2	2356	1439	0.
1	1028	315	0.	*	1	2258	690	0.	*	2	1128	1065	0.	*	2	2358	1440	0.
1	1030	316	0.	*	1	2300	691	0.	*	2	1130	1066	0.	*	3	0000	1441	0.
1	1032	317	0.	*	1	2302	692	0.	*	2	1132	1067	0.	*	3	0002	1442	0.
1	1034	318	0.	*	1	2304	693	0.	*	2	1134	1068	0.	*	3	0004	1443	0.
1	1036	319	0.	*	1	2306	694	0.	*	2	1136	1069	0.	*	3	0006	1444	0.
1	1038	320	0.	*	1	2308	695	0.	*	2	1138	1070	0.	*	3	0008	1445	0.
1	1040	321	0.	*	1	2310	696	0.	*	2	1140	1071	0.	*	3	0010	1446	0.
1	1042	322	0.	*	1	2312	697	0.	*	2	1142	1072	0.	*	3	0012	1447	0.
1	1044	323	0.	*	1	2314	698	0.	*	2	1144	1073	0.	*	3	0014	1448	0.
1	1046	324	0.	*	1	2316	699	0.	*	2	1146	1074	0.	*	3	0016	1449	0.
1	1048	325	0.	*	1	2318	700	0.	*	2	1148	1075	0.	*	3	0018	1450	0.
1	1050	326	0.	*	1	2320	701	0.	*	2	1150	1076	0.	*	3	0020	1451	0.
1	1052	327	0.	*	1	2322	702	0.	*	2	1152	1077	0.	*	3	0022	1452	0.
1	1054	328	0.	*	1	2324	703	0.	*	2	1154	1078	0.	*	3	0024	1453	0.
1	1056	329	0.	*	1	2326	704	0.	*	2	1156	1079	0.	*	3	0026	1454	0.
1	1058	330	0.	*	1	2328	705	0.	*	2	1158	1080	0.	*	3	0028	1455	0.
1	1100	331	0.	*	1	2330	706	0.	*	2	1200	1081	0.	*	3	0030	1456	0.

1	1102	332	0.	*	1	2332	707	0.	*	2	1202	1082	0.	*	3	0032	1457	0.
1	1104	333	0.	*	1	2334	708	0.	*	2	1204	1083	0.	*	3	0034	1458	0.
1	1106	334	0.	*	1	2336	709	0.	*	2	1206	1084	0.	*	3	0036	1459	0.
1	1108	335	0.	*	1	2338	710	0.	*	2	1208	1085	0.	*	3	0038	1460	0.
1	1110	336	0.	*	1	2340	711	0.	*	2	1210	1086	0.	*	3	0040	1461	0.
1	1112	337	0.	*	1	2342	712	0.	*	2	1212	1087	0.	*	3	0042	1462	0.
1	1114	338	0.	*	1	2344	713	0.	*	2	1214	1088	0.	*	3	0044	1463	0.
1	1116	339	0.	*	1	2346	714	0.	*	2	1216	1089	0.	*	3	0046	1464	0.
1	1118	340	0.	*	1	2348	715	0.	*	2	1218	1090	0.	*	3	0048	1465	0.
1	1120	341	0.	*	1	2350	716	0.	*	2	1220	1091	0.	*	3	0050	1466	0.
1	1122	342	0.	*	1	2352	717	0.	*	2	1222	1092	0.	*	3	0052	1467	0.
1	1124	343	0.	*	1	2354	718	0.	*	2	1224	1093	0.	*	3	0054	1468	0.
1	1126	344	0.	*	1	2356	719	0.	*	2	1226	1094	0.	*	3	0056	1469	0.
1	1128	345	0.	*	1	2358	720	0.	*	2	1228	1095	0.	*	3	0058	1470	0.
1	1130	346	0.	*	2	0000	721	0.	*	2	1230	1096	0.	*	3	0100	1471	0.
1	1132	347	0.	*	2	0002	722	0.	*	2	1232	1097	0.	*	3	0102	1472	0.
1	1134	348	0.	*	2	0004	723	0.	*	2	1234	1098	0.	*	3	0104	1473	0.
1	1136	349	0.	*	2	0006	724	0.	*	2	1236	1099	0.	*	3	0106	1474	0.
1	1138	350	0.	*	2	0008	725	0.	*	2	1238	1100	0.	*	3	0108	1475	0.
1	1140	351	0.	*	2	0010	726	0.	*	2	1240	1101	0.	*	3	0110	1476	0.
1	1142	352	0.	*	2	0012	727	0.	*	2	1242	1102	0.	*	3	0112	1477	0.
1	1144	353	0.	*	2	0014	728	0.	*	2	1244	1103	0.	*	3	0114	1478	0.
1	1146	354	0.	*	2	0016	729	0.	*	2	1246	1104	0.	*	3	0116	1479	0.
1	1148	355	0.	*	2	0018	730	0.	*	2	1248	1105	0.	*	3	0118	1480	0.
1	1150	356	0.	*	2	0020	731	0.	*	2	1250	1106	0.	*	3	0120	1481	0.
1	1152	357	0.	*	2	0022	732	0.	*	2	1252	1107	0.	*	3	0122	1482	0.
1	1154	358	0.	*	2	0024	733	0.	*	2	1254	1108	0.	*	3	0124	1483	0.
1	1156	359	0.	*	2	0026	734	0.	*	2	1256	1109	0.	*	3	0126	1484	0.
1	1158	360	0.	*	2	0028	735	0.	*	2	1258	1110	0.	*	3	0128	1485	0.
1	1200	361	0.	*	2	0030	736	0.	*	2	1300	1111	0.	*	3	0130	1486	0.
1	1202	362	0.	*	2	0032	737	0.	*	2	1302	1112	0.	*	3	0132	1487	0.
1	1204	363	0.	*	2	0034	738	0.	*	2	1304	1113	0.	*	3	0134	1488	0.
1	1206	364	0.	*	2	0036	739	0.	*	2	1306	1114	0.	*	3	0136	1489	0.
1	1208	365	0.	*	2	0038	740	0.	*	2	1308	1115	0.	*	3	0138	1490	0.
1	1210	366	0.	*	2	0040	741	0.	*	2	1310	1116	0.	*	3	0140	1491	0.
1	1212	367	0.	*	2	0042	742	0.	*	2	1312	1117	0.	*	3	0142	1492	0.
1	1214	368	0.	*	2	0044	743	0.	*	2	1314	1118	0.	*	3	0144	1493	0.
1	1216	369	0.	*	2	0046	744	0.	*	2	1316	1119	0.	*	3	0146	1494	0.
1	1218	370	22.	*	2	0048	745	0.	*	2	1318	1120	0.	*	3	0148	1495	0.
1	1220	371	40.	*	2	0050	746	0.	*	2	1320	1121	0.	*	3	0150	1496	0.
1	1222	372	24.	*	2	0052	747	0.	*	2	1322	1122	0.	*	3	0152	1497	0.
1	1224	373	0.	*	2	0054	748	0.	*	2	1324	1123	0.	*	3	0154	1498	0.
1	1226	374	0.	*	2	0056	749	0.	*	2	1326	1124	0.	*	3	0156	1499	0.
1	1228	375	0.	*	2	0058	750	0.	*	2	1328	1125	0.	*	3	0158	1500	0.

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)	(CFS)				
+ 1086.	13.13		45.	11.	5.	5.
		(INCHES)	.031	.031	.031	.031
		(AC-FT)	22.	22.	22.	22.

CUMULATIVE AREA = 13.68 SQ MI

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	20	1130.	12.57	243.	64.	31.	1.82		
+	HYDROGRAPH AT	40	2286.	12.27	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1405.	12.37	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	4438.	12.30	712.	189.	91.	5.80		
+	ROUTED TO	SR60	92.	14.77	92.	89.	71.	5.80		
+	ROUTED TO	R60	92.	14.83	92.	89.	70.	5.80		
+	ROUTED TO	RR60	92.	14.93	92.	89.	70.	5.80		
+	HYDROGRAPH AT	80	1693.	12.20	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	1767.	12.20	266.	134.	93.	1.48		
+	ROUTED TO	R80	1765.	12.23	266.	134.	93.	1.48		
+	HYDROGRAPH AT	100	389.	12.33	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2117.	12.23	321.	148.	99.	1.96		
+	ROUTED TO	R100	2116.	12.27	321.	148.	99.	1.96		
+	HYDROGRAPH AT	120	2960.	12.20	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	4993.	12.23	636.	229.	141.	4.16		
+	ROUTED TO	R120	4949.	12.27	636.	229.	141.	4.16		
+	HYDROGRAPH AT	140	598.	12.23	64.	17.	8.	.60		
+	HYDROGRAPH AT	160	588.	12.30	85.	22.	11.	.78		
+	HYDROGRAPH AT	180	694.	12.33	90.	23.	11.	1.00		
+	4 COMBINED AT	180C	6691.	12.27	863.	286.	169.	6.54		
+	HYDROGRAPH AT	240	770.	12.30	107.	27.	13.	1.04		
+	ROUTED TO	R240	760.	12.37	107.	27.	13.	1.04		
+	HYDROGRAPH AT	220	1427.	12.23	167.	43.	21.	1.25		
+	2 COMBINED AT	220C	2088.	12.27	271.	69.	33.	2.29		
+	ROUTED TO	R220	2057.	12.30	271.	69.	33.	2.29		
+	HYDROGRAPH AT	200	2059.	12.23	236.	65.	31.	1.81		
+	2 COMBINED AT	200C	3995.	12.27	501.	132.	64.	4.10		
+	ROUTED TO	R200	3967.	12.30	501.	132.	64.	4.10		
+	2 COMBINED AT	C180	10520.	12.27	1345.	410.	230.	10.64		
+	ROUTED TO	SR180	141.	15.23	141.	140.	116.	10.64		
+	ROUTED TO	R180	141.	15.30	141.	140.	116.	10.64		
+	HYDROGRAPH AT	260	401.	12.17	43.	12.	6.	.27		
+	2 COMBINED AT	260C	515.	12.17	180.	151.	123.	.27		
+	ROUTED TO	R260	500.	12.23	180.	151.	122.	.27		
+	HYDROGRAPH AT	280	452.	12.13	42.	12.	6.	.30		

+ 2 COMBINED AT	280C	908.	12.17	219.	161.	128.	.57
+ ROUTED TO	R280	889.	12.27	219.	161.	127.	.57
+ HYDROGRAPH AT	300	824.	12.30	109.	29.	14.	.99
+ 2 COMBINED AT	300C	1686.	12.27	325.	188.	141.	1.56
+ ROUTED TO	R300	1664.	12.33	325.	188.	140.	1.56
+ ROUTED TO	RR300	1641.	12.40	325.	188.	140.	1.56
+ HYDROGRAPH AT	320	889.	12.43	171.	47.	22.	1.53
+ DIVERSION TO	BS320	390.	12.07	21.	6.	3.	1.53
+ HYDROGRAPH AT	D320	889.	12.43	157.	41.	19.	1.53
+ HYDROGRAPH AT	RT320	390.	12.07	21.	6.	3.	1.53
+ ROUTED TO	SR320	4.	4.40	4.	4.	3.	1.53
+ 3 COMBINED AT	C320	2503.	12.40	482.	232.	162.	3.09
+ ROUTED TO	R320	2356.	12.67	480.	231.	158.	3.09
+ HYDROGRAPH AT	340	1381.	12.27	186.	55.	26.	1.45
+ DIVERSION TO	BS340	1381.	12.27	104.	28.	14.	1.45
+ HYDROGRAPH AT	D340	1219.	12.40	98.	27.	13.	1.45
+ HYDROGRAPH AT	RT340	1381.	12.27	104.	28.	14.	1.45
+ ROUTED TO	SR340	19.	9.03	19.	19.	14.	1.45
+ 3 COMBINED AT	C340	2952.	12.63	591.	276.	184.	4.53
ROUTED TO	R340	2887.	12.70	590.	276.	183.	4.53
+ HYDROGRAPH AT	350	1102.	12.17	103.	27.	13.	.97
+ ROUTED TO	RR350	941.	12.57	103.	27.	13.	.97
+ HYDROGRAPH AT	360	668.	12.50	151.	42.	20.	1.33
+ DIVERSION TO	BS360	655.	12.43	53.	14.	7.	1.33
+ HYDROGRAPH AT	D360	657.	12.57	106.	28.	13.	1.33
+ HYDROGRAPH AT	RT360	655.	12.43	53.	14.	7.	1.33
+ ROUTED TO	SR360	10.	9.47	10.	10.	7.	1.33
+ 4 COMBINED AT	360C	4244.	12.67	797.	336.	215.	6.83
+ ROUTED TO	R360	4107.	12.77	795.	336.	214.	6.83
+ HYDROGRAPH AT	380	724.	12.37	99.	27.	13.	.98
+ DIVERSION TO	BS380	724.	12.37	56.	14.	7.	.98
+ HYDROGRAPH AT	D380	584.	12.53	47.	12.	6.	.98
+ HYDROGRAPH AT	RT380	724.	12.37	56.	14.	7.	.98
+ ROUTED TO	SR380	10.	11.30	10.	10.	7.	.98
+ 3 COMBINED AT	380C	4419.	12.77	847.	357.	226.	7.82
ROUTED TO	R380	4262.	12.90	844.	356.	224.	7.82
+ HYDROGRAPH AT	400	333.	12.37	47.	13.	6.	.62
+ 2 COMBINED AT	400C	4372.	12.90	876.	366.	230.	8.43

+ ROUTED TO	R400	4220.	13.03	875.	366.	228.	8.43
+ HYDROGRAPH AT	420	574.	12.23	65.	18.	9.	.58
+ DIVERSION TO	BS420	574.	12.23	65.	18.	9.	.58
HYDROGRAPH AT	D420	0.	.00	0.	0.	0.	.58
+ HYDROGRAPH AT	RT420	574.	12.23	65.	18.	9.	.58
+ ROUTED TO	SR420	13.	11.60	13.	13.	9.	.58
+ 3 COMBINED AT	420C	4228.	13.03	887.	378.	236.	9.01
+ ROUTED TO	R420	4102.	13.13	885.	378.	235.	9.01
+ HYDROGRAPH AT	370	504.	12.30	78.	21.	10.	.66
+ ROUTED TO	RR370	497.	12.33	78.	21.	10.	.66
+ HYDROGRAPH AT	390	1179.	12.20	144.	40.	19.	1.09
+ DIVERSION TO	BS390	7.	8.13	6.	2.	1.	1.09
+ HYDROGRAPH AT	D390	1179.	12.20	144.	38.	18.	1.09
+ HYDROGRAPH AT	RT390	7.	8.13	6.	2.	1.	1.09
+ ROUTED TO	SR390	1.	.50	1.	1.	1.	1.09
+ 3 COMBINED AT	390C	1618.	12.23	221.	60.	29.	1.75
+ ROUTED TO	RR390	1579.	12.33	221.	60.	29.	1.75
+ HYDROGRAPH AT	410	478.	12.03	32.	9.	4.	.27
+ 2 COMBINED AT	410C	1633.	12.30	251.	69.	33.	2.02
ROUTED TO	RR410	1604.	12.43	251.	69.	33.	2.02
+ 2 COMBINED AT	420CC	4447.	13.13	1106.	438.	266.	11.03
+ HYDROGRAPH AT	440	179.	12.00	12.	3.	2.	.08
+ ROUTED TO	R70	174.	12.03	12.	3.	2.	.08
+ HYDROGRAPH AT	441	16.	12.07	1.	0.	0.	.01
+ 2 COMBINED AT	C108	189.	12.03	14.	4.	2.	.09
+ DIVERSION TO	SPLIT	95.	12.03	7.	2.	1.	.09
+ HYDROGRAPH AT	DIV4	95.	12.03	7.	2.	1.	.09
+ ROUTED TO	R108	87.	12.10	7.	2.	1.	.09
+ HYDROGRAPH AT	442	99.	12.13	9.	2.	1.	.10
+ 2 COMBINED AT	C67	183.	12.13	15.	4.	2.	.19
+ DIVERSION TO	BASIN4	115.	12.13	6.	1.	1.	.19
+ HYDROGRAPH AT	DIV6	68.	12.13	10.	3.	1.	.19
+ HYDROGRAPH AT	RTDIV6	115.	12.13	6.	1.	1.	.19
+ ROUTED TO	RFDIV6	1.	11.93	1.	1.	1.	.19
+ 2 COMBINED AT	CDIV6	69.	12.13	11.	4.	2.	.19
HYDROGRAPH AT	443	146.	12.07	14.	4.	2.	.08
+ DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
+ HYDROGRAPH AT	DIV66	68.	12.07	3.	1.	0.	.08

ROUTED TO	R113	66.	12.10	3.	1.	0.	.08
2 COMBINED AT	C114	133.	12.10	13.	4.	2.	.27
HYDROGRAPH AT	444	81.	12.00	5.	1.	1.	.04
ROUTED TO	R58	78.	12.07	5.	1.	1.	.04
HYDROGRAPH AT	445	288.	12.07	18.	5.	2.	.19
2 COMBINED AT	C107	363.	12.07	22.	6.	3.	.23
ROUTED TO	R107	362.	12.07	22.	6.	3.	.23
HYDROGRAPH AT	RTB2	95.	12.03	7.	2.	1.	.09
ROUTED TO	RSPLIT	94.	12.07	7.	2.	1.	.09
HYDROGRAPH AT	446	64.	12.07	6.	2.	1.	.04
3 COMBINED AT	C109	516.	12.07	35.	9.	4.	.27
DIVERSION TO	WSH404	35.	11.73	7.	2.	1.	.27
HYDROGRAPH AT	DIV5	481.	12.07	27.	7.	3.	.27
ROUTED TO	R109	469.	12.10	27.	7.	3.	.27
HYDROGRAPH AT	447	135.	12.07	12.	4.	2.	.09
HYDROGRAPH AT	RT404	35.	11.73	7.	2.	1.	.27
ROUTED TO	R404	35.	11.90	7.	2.	1.	.27
3 COMBINED AT	C110	631.	12.10	46.	13.	6.	.36
ROUTED TO	R110	632.	12.10	46.	13.	6.	.36
2 COMBINED AT	C115	759.	12.10	59.	17.	8.	.63
ROUTED TO	R115	758.	12.10	59.	17.	8.	.63
HYDROGRAPH AT	448	87.	12.03	6.	2.	1.	.05
HYDROGRAPH AT	449	77.	12.03	5.	1.	1.	.05
2 COMBINED AT	C6364	163.	12.03	11.	3.	1.	.09
ROUTED TO	R6364	140.	12.20	11.	3.	1.	.09
HYDROGRAPH AT	450	58.	12.17	6.	2.	1.	.07
HYDROGRAPH AT	451	17.	12.17	2.	1.	0.	.03
HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
HYDROGRAPH AT	452	61.	12.07	4.	1.	1.	.04
2 COMBINED AT	C6566	139.	12.07	16.	4.	2.	.04
ROUTED TO	R6566	134.	12.13	16.	4.	2.	.04
4 COMBINED AT	C116	340.	12.17	35.	9.	4.	.23
ROUTED TO	BASIN5	153.	12.47	35.	9.	4.	.23
ROUTED TO	R116	152.	12.53	35.	9.	4.	.23
HYDROGRAPH AT	453	60.	12.13	7.	2.	1.	.06
2 COMBINED AT	C117	173.	12.50	41.	11.	5.	.29
2 COMBINED AT	C118	837.	12.10	99.	28.	14.	.92
ROUTED TO	R118	833.	12.13	99.	28.	14.	.92

+ DIVERSION TO	BASIN6	207.	12.13	12.	3.	1.	.92
+ HYDROGRAPH AT	DIV7	626.	12.13	86.	25.	12.	.92
+ HYDROGRAPH AT	RTDIV7	207.	12.13	12.	3.	1.	.92
+ ROUTED TO	RFDIV7	1.	11.93	1.	1.	1.	.92
+ 2 COMBINED AT	CDIV7	627.	12.13	87.	25.	13.	.92
+ HYDROGRAPH AT	454	152.	12.23	21.	6.	3.	.18
+ 2 COMBINED AT	C119	761.	12.13	107.	31.	16.	1.10
+ ROUTED TO	R454	676.	12.40	107.	31.	16.	1.10
+ HYDROGRAPH AT	455	1541.	12.23	198.	59.	28.	1.56
+ 2 COMBINED AT	C455	2058.	12.30	301.	89.	44.	2.66
+ 2 COMBINED AT	455C	4686.	13.13	1370.	511.	306.	13.68
+ DIVERSION TO	455D	1086.	13.13	45.	11.	5.	13.68
+ HYDROGRAPH AT	DD455	3600.	13.10	1324.	499.	301.	13.68
+ HYDROGRAPH AT	RT455D	1086.	13.13	45.	11.	5.	13.68
+ ROUTED TO	SR455D	83.	13.40	39.	11.	5.	13.68
+ 2 COMBINED AT	C455D	3683.	13.37	1360.	511.	306.	13.68
+ ROUTED TO	RR455	3572.	13.43	1355.	510.	304.	13.68
+ HYDROGRAPH AT	456	458.	12.07	36.	10.	5.	.26
+ DIVERSION TO	BASIN1	198.	12.07	8.	2.	1.	.26
+ HYDROGRAPH AT	DIV1	259.	12.07	28.	8.	4.	.26
+ DIVERSION TO	WA30	65.	12.07	8.	2.	1.	.26
+ HYDROGRAPH AT	DIV2	195.	12.07	20.	6.	3.	.26
+ ROUTED TO	R456	191.	12.17	20.	6.	3.	.26
+ HYDROGRAPH AT	457	254.	12.10	20.	5.	3.	.19
+ 2 COMBINED AT	C101	438.	12.10	40.	11.	5.	.45
+ DIVERSION TO	BASIN2	136.	12.10	8.	2.	1.	.45
+ HYDROGRAPH AT	DIV3	302.	12.10	32.	9.	4.	.45
+ HYDROGRAPH AT	RTDIV3	136.	12.10	8.	2.	1.	.45
+ ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+ 2 COMBINED AT	CDIV3	304.	12.10	33.	10.	5.	.45
+ ROUTED TO	R101	301.	12.13	33.	10.	5.	.45
+ HYDROGRAPH AT	458	347.	12.07	25.	7.	3.	.19
+ 2 COMBINED AT	C103	625.	12.07	58.	16.	8.	.64
+ ROUTED TO	R103	624.	12.10	58.	16.	8.	.64
+ HYDROGRAPH AT	RT30	65.	12.07	8.	2.	1.	.26
ROUTED TO	R30	64.	12.10	8.	2.	1.	.26
+ HYDROGRAPH AT	RTB1	198.	12.07	8.	2.	1.	.26
+ ROUTED TO	B1	36.	12.23	7.	2.	1.	.26

ROUTED TO	RB1	36.	12.30	7.	2.	1.	.26
2 COMBINED AT	CDIV	94.	12.23	15.	4.	2.	.12
HYDROGRAPH AT	459	43.	12.07	3.	1.	0.	.03
2 COMBINED AT	C52	118.	12.17	18.	5.	2.	.15
ROUTED TO	R52	116.	12.20	18.	5.	2.	.15
HYDROGRAPH AT	460	205.	12.10	19.	6.	3.	.14
2 COMBINED AT	C102	310.	12.10	37.	11.	5.	.29
ROUTED TO	BASIN3	75.	12.60	37.	11.	5.	.29
ROUTED TO	R3	75.	12.73	37.	11.	5.	.29
HYDROGRAPH AT	461	156.	12.13	17.	5.	2.	.12
2 COMBINED AT	C104	216.	12.13	53.	16.	7.	.41
2 COMBINED AT	C106	833.	12.10	110.	32.	16.	1.05
ROUTED TO	R106	799.	12.17	110.	32.	16.	1.05
HYDROGRAPH AT	462	523.	12.07	40.	11.	5.	.30
2 COMBINED AT	C56	1238.	12.13	149.	42.	21.	1.35
HYDROGRAPH AT	480	991.	12.13	96.	29.	14.	.73
DIVERSION TO	BS480	458.	11.93	27.	8.	4.	.73
HYDROGRAPH AT	D480	991.	12.13	78.	21.	10.	.73
HYDROGRAPH AT	RT480	458.	11.93	27.	8.	4.	.73
ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
2 COMBINED AT	C480	997.	12.13	84.	27.	14.	.73
3 COMBINED AT	480C	3908.	12.40	1639.	594.	348.	2.09
ROUTED TO	RR480	3900.	12.43	1638.	594.	348.	2.09
HYDROGRAPH AT	500	988.	12.23	122.	33.	16.	.93
2 COMBINED AT	500C	4688.	12.33	1747.	622.	362.	2.84

*** NORMAL END OF HEC-1 ***

NSTEP Estimation for Spook Hill ADMP 100-YR, 24hr Spook Hill Bipass Conditions + 3700cfs in Spook Hill Floodway

Trial 1

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.03	26.39	1.0	0.9
RR60	3500	0.03	32.41	1.0	0.9
R80	1200	0.01	33.33	1.0	0.3
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.04	10.42	1.0	1.2
R260	2300	0.04	15.97	2.0	1.2
R280	2500	0.07	9.92	2.0	2.1
R300	2200	0.03	20.37	2.0	0.9
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.23	8.21	7.0	6.9
R340	2000	0.1	5.56	2.0	3.0
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.14	7.94	4.0	4.2
R400	3800	0.13	8.12	4.0	3.9
R420	2900	0.1	8.06	3.0	3.0
RR370	2600	0.03	24.07	1.0	0.9
RR390	5400	0.1	15.00	3.0	3.0
RR410	6000	0.13	12.82	4.0	3.9
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.06	6.02	3.0	1.8
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.06	42.59	2.0	1.8
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.03	60.19	2.0	0.9

Trial 2

$time_{min}$ = 2

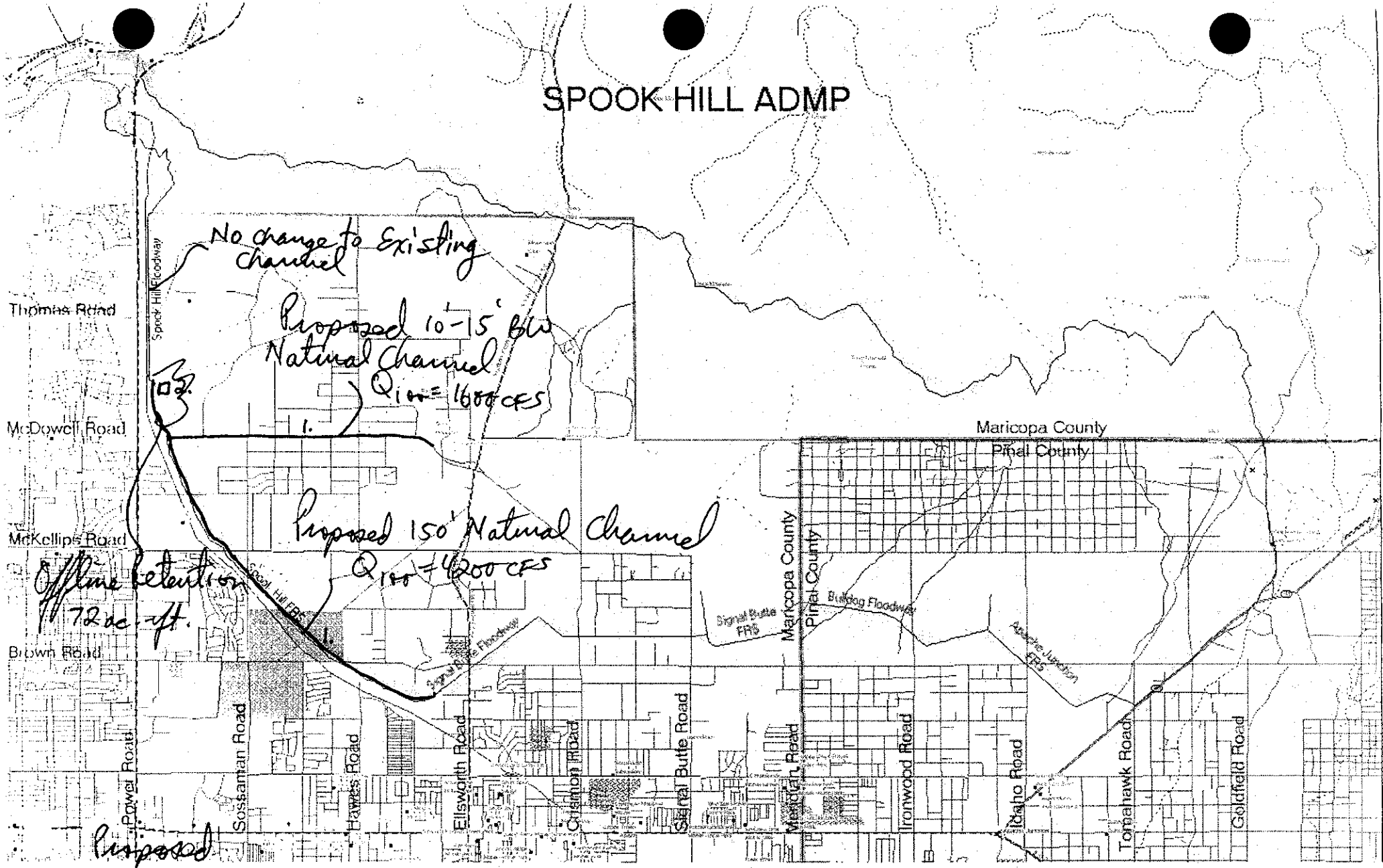
Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.06	13.19	2.0	1.8
RR60	3500	0.1	9.72	1.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.04	6.53	1.0	1.2
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.07	5.95	1.0	2.1
R260	2300	0.06	10.65	2.0	1.8
R280	2500	0.1	6.94	3.0	3.0
R300	2200	0.06	10.19	1.0	1.8
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.33	5.72	10.0	9.9
R340	2000	0.07	7.94	3.0	2.1
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.2	5.56	6.0	6.0
R400	3800	0.13	8.12	4.0	3.9
R420	2900	0.1	8.06	3.0	3.0
RR370	2600	0.03	24.07	1.0	0.9
RR390	5400	0.1	15.00	3.0	3.0
RR410	6000	0.13	12.82	4.0	3.9
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.1	3.61	2.0	3.0
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.06	42.59	2.0	1.8
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.07	25.79	2.0	2.1

Trial 3

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.06	13.19	2.0	1.8
RR60	3500	0.1	9.72	3.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.04	6.53	1.0	1.2
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.07	5.95	2.0	2.1
R260	2300	0.06	10.65	2.0	1.8
R280	2500	0.1	6.94	3.0	3.0
R300	2200	0.06	10.19	2.0	1.8
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.27	7.00	8.0	8.1
R340	2000	0.06	9.26	2.0	1.8
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.13	8.55	4.0	3.9
R400	3800	0.13	8.12	4.0	3.9
R420	2900	0.1	8.06	3.0	3.0
RR370	2600	0.03	24.07	1.0	0.9
RR390	5400	0.1	15.00	3.0	3.0
RR410	6000	0.13	12.82	4.0	3.9
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.1	3.61	3.0	3.0
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.06	42.59	2.0	1.8
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.06	30.09	2.0	1.8

SPOOK HILL ADMP



1. Channel
2. Offline Detention Basin

HEC-1 Existing Conditions 100-Year, 24hr Storm
Maintain Apache & Signal FRS & Eliminate Spook Hill FRS
Add an Offline Basin & maintain Spook Hill Floodway @ 2900cfs
Use an improved channel along McDowell Rd.

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1*****************************************
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *            JUN   1998                 *
 *          VERSION 4.1                  *
 *                                       *
 *  RUN DATE   07JAN00  TIME  09:28:58   *
 *                                       *
 *****************************************
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*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
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X     X  XXXXXXX   XXXXX           X
X     X  X        X     X         XX
X     X  X        X                X
XXXXXXX  XXXX     X        XXXXX   X
X     X  X        X                X
X     X  X        X     X          X
X     X  XXXXXXX   XXXXX          XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                   HEC-1 INPUT                                          PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS, AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL, SIGNAL
 10           ID   BUTTE, AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE: SPHEX2.DAT
 13           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
 14           ID
 15           ID
 16           ID   REVISED MODEL BASED ON BYPASSING OF FRS STRUCTURES
 17           ID   AND INCREASING THE EXISTING CHANNELS WIDTHS - MAINTAINING THE SAME DEPTHS
 18           ID   REVISED ON 11/9/99 BY JCD; FILE: SPHEX3.DAT
 19           ID
 20           ID   MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
 21           ID   DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
 22           ID   BY: JCD; 1/4/2000            FILE: SPHEX2RV.DAT
 23           ID
 24           ID   MODEL UPDATE BASED ON BYPASSING OF FRS STRUCTURES AND INCREASING
 25           ID   THE EXISTING CHANNEL WIDTHS WHILE MAINTAINING THE SAME DEPTHS
 26           ID   FILE: SPHEX3RV.DAT           1/4/2000
 27           ID
 28           ID   MODEL UPDATE BASED ON KEEPING THE APACHE JUNCTION FRS & SIGNAL BUTTE FRS
 29           ID   ELIMINATING THE SPOOK HILL FRS AND INCLUDING AN IMPROVED CHANNEL ALONG
 30           ID   MCDOWELL TO RAVENS ROOST MOUNTAIN LOCATED JUST WEST OF ELLSWORTH ROAD
 31           ID   FILE: SPHEX6RV.DAT           JCD; 1/6/2000
 32           ID
 33           ID   MODEL UPDATE USING SAME MODEL HOWEVER USED OFFLINE BASIN TO BRING DISCHARGE
 34           ID   DOWN TO 2900cfs - THE EXISTING DISCHARGE WITHIN THE SPOOK HILL FLOODWAY
 35           ID   THEREFORE NO IMPROVEMENT TO THE CAHNNEL
 36           ID   FILE: SPHEX8RV.DAT           JCD; 1/6/2000
 37           ID
 38           ID
              *DIAGRAM
 39           IT       2                    1500
 40           IO       3
 41           IN      15
 42           JD    3.81    0.01
 43           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 44           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 45           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 46           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 47           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 48           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 49           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 50           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 51           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 52           PC    .983    .986    .989    .992    .995    .998   1.000
 53           JD    3.58   10.00
 54           JD    3.43   30.00
1                                   HEC-1 INPUT                                          PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 55           JD    3.28   60.00
 56           JD    3.22   90.00
 57           JD    3.18  120.00
 58           JD    3.14  150.00
 59           JD    3.05  300.00
 60           JD    2.97  500.00

 61           KK      20
 62           KM   SUB-BASIN 20
 63           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 64           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
 65           KM     L = 4.58  Kb = .037  Adj. Slope =  118.0
 66           BA   1.821
 67           LG    .350    .360   6.600    .140   7.000
 68           UC    .804    .697
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SPHEX6RV.DAT

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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 888          KK    C119
 889          KM         COMBINE HYDROGRAPHS FROM SUB-BASIN 71 AND C119
              *      1       2
 890          HC       2
              * DDM   ***** Preserved *****

 891          KK    R454
 892          KM   FROM SUB-BASIN 454 TO SUB-BASIN 455
 893          RS       8    FLOW      -1
 894          RC     .05    .035     .05    6000    .005
 895          RX    1000    1010    1020    1036    1041    1057    1067    1077
 896          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Updated *****

 897          KK     455
 898          KM   SUB-BASIN 455
 899          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 900          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
 901          KM     L = 2.92  Kb = .039  Adj. Slope =  269.2
 902          BA   1.559
 903          LG    .280    .270   3.850    .590  22.000
 904          UC    .450    .279

 905          KK    C455
 906          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 907          HC       2

 908          KK    455C
 909          KM   HYDROGRAPH COMBINATION AT THE END OF THE SPOOK HILL FRS
              *      1       2
 910          HC       2

 911          KK   DD455
 912          KM   DIVERT FLOW INTO SPOOK HILL FRS - VOLUME = 100 ACRE-FEET
 913          KM   NOW INCREASE DIVERTED FLOW TO MAINTAIN 3700cfs OUTFLOW
 914          KO       1
 915          DT    455D
 916          DI       0    2800   20000
 917          DQ       0       0   17200

 918          KK  RT455D
 919          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
 920          DR    455D

 921          KK  SR455D
 922          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 923          KM     100 ACRE-FEETx43560/36x3600=34cfs
              *      1
 924          RS       1    STOR       0
 925          SV       0      75
 926          SQ       0     100
1                                        HEC-1 INPUT                                          PAGE 23

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 927          KK   C455D
 928          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 929          HC       2
              *  SR440
              *  SPOOK HILL FRS PLANS DATED 6/15/77
              *  OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
              *  EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
              *  STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
              *      1    STOR       0
              *      0     .04     100     300     500     680
              *      0     640     720     780     825     860
              *     66    77.5      79    80.2    81.2      82

 930          KK   RR455
 931          KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
 932          RS       1    FLOW      -1
 933          RC    .016    .016    .016    9200    .002
 934          RX       0       1       2      15      71      84      85      86
 935          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
              *     11    FLOW      -1
              *   .035    .025    .035    9200    .002
              *      0       1       2      28      58      84      85      86
              *     13      13      13       0       0      13      13      13

 936          KK     456
 937          KM   SUB-BASIN 456
 938          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 939          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
 940          KM     L =  .94  Kb = .045  Adj. Slope =  315.0
 941          BA    .260
 942          LG    .300    .380   5.600    .200  12.000
 943          UC    .217    .139

 944          KK    DIV1
 945          KM         DIVERT FLOW INTO OFFLINE DETENTION BASIN
 946          KM         WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
              *      1
 947          DT  BASIN1
 948          DI       0    24.4    70.8   132.2   194.1   281.1   415.5   571.9   753.2
 949          DQ       0       0       0       0       0    57.3     162   297.6   458.2
              * DDM   ***** Preserved *****

 950          KK    DIV2
 951          KM         SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
 952          KM         WASHES THAT DRAIN TO THE WEST, SOUTHERN WASHES FED BY 30" AND 18" PIPE
 953          DT    WA30
 954          DI       0    24.4    70.8   132.2   194.1   223.8   253.5  274.25     295
 955          DQ       0     8.4    24.8    40.2    52.1    57.8    63.5    67.3      71
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 24

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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```
871          .           .      RFDIV7
             .           .           .
             .           .           .
877          .       CDIV7............
             .           .
             .           .
880          .           .         454
             .           .           .
             .           .           .
888          .        C119............
             .           V
             .           V
891          .        R454
             .           .
             .           .
897          .           .         455
             .           .           .
             .           .           .
905          .        C455............
             .           .
             .           .
908       455C............
             .
             .
915          .-------->    455D
911      DD455
             .
             .
920          .           .<-------    455D
918          .      RT455D
             .           V
             .           V
921          .      SR455D
             .           .
             .           .
927      C455D............
             V
             V
930      RR455
             .
             .
936          .         456
             .           .
             .           .
947          .           .-------> BASIN1
944          .        DIV1
             .           .
             .           .
953          .           .------->    WA30
950          .        DIV2
             .           V
             .           V
956          .        R456
             .           .
             .           .
962          .           .         457
             .           .           .
             .           .           .
970          .        C101............
             .           .
             .           .
977          .           .-------> BASIN2
973          .        DIV3
             .           .
             .           .
982          .           .           .<-------  BASIN2
980          .           .      RTDIV3
             .           .           V
             .           .           V
983          .           .      RFDIV3
             .           .           .
             .           .           .
989          .       CDIV3............
             .           V
             .           V
992          .       R101
             .           .
             .           .
998          .           .         458
             .           .           .
             .           .           .
1006         .        C103............
             .           V
             .           V
1009         .        R103
             .           .
             .           .
1017         .           .           .<-------    WA30
1015         .           .        RT30
             .           .           V
             .           .           V
1018         .           .         R30
             .           .           .
             .           .           .
1026         .           .           .           .<-------  BASIN1
1024         .           .           .        RTB1
             .           .           .           V
             .           .           .           V
1027         .           .           .          B1
             .           .           .           V
             .           .           .           V
1034         .           .           .         RB1
             .           .           .           .
             .           .           .           .
1040         .           .        CDIV............
             .           .           .
             .           .           .
1043         .           .           .         459
             .           .           .           .
             .           .           .           .
1051         .           .         C52............
             .           .           V
             .           .           V
```

INTERPOLATED DIVERSION HYDROGRAPH AT 455D

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		1230	376	329.	2		0100	751	0.	2		1330	1126	0.
1		0002	2	0.	1		1232	377	168.	2		0102	752	0.	2		1332	1127	0.
1		0004	3	0.	1		1234	378	39.	2		0104	753	0.	2		1334	1128	0.
1		0006	4	0.	1		1236	379	0.	2		0106	754	0.	2		1336	1129	0.
1		0008	5	0.	1		1238	380	0.	2		0108	755	0.	2		1338	1130	0.
1		0010	6	0.	1		1240	381	0.	2		0110	756	0.	2		1340	1131	0.
1		0012	7	0.	1		1242	382	0.	2		0112	757	0.	2		1342	1132	0.
1		0014	8	0.	1		1244	383	0.	2		0114	758	0.	2		1344	1133	0.
1		0016	9	0.	1		1246	384	0.	2		0116	759	0.	2		1346	1134	0.
1		0018	10	0.	1		1248	385	0.	2		0118	760	0.	2		1348	1135	0.
1		0020	11	0.	1		1250	386	0.	2		0120	761	0.	2		1350	1136	0.
1		0022	12	0.	1		1252	387	0.	2		0122	762	0.	2		1352	1137	0.
1		0024	13	0.	1		1254	388	0.	2		0124	763	0.	2		1354	1138	0.
1		0026	14	0.	1		1256	389	0.	2		0126	764	0.	2		1356	1139	0.
1		0028	15	0.	1		1258	390	117.	2		0128	765	0.	2		1358	1140	0.
1		0030	16	0.	1		1300	391	601.	2		0130	766	0.	2		1400	1141	0.
1		0032	17	0.	1		1302	392	1074.	2		0132	767	0.	2		1402	1142	0.
1		0034	18	0.	1		1304	393	1522.	2		0134	768	0.	2		1404	1143	0.
1		0036	19	0.	1		1306	394	1784.	2		0136	769	0.	2		1406	1144	0.
1		0038	20	0.	1		1308	395	1886.	2		0138	770	0.	2		1408	1145	0.
1		0040	21	0.	1		1310	396	1870.	2		0140	771	0.	2		1410	1146	0.
1		0042	22	0.	1		1312	397	1782.	2		0142	772	0.	2		1412	1147	0.
1		0044	23	0.	1		1314	398	1654.	2		0144	773	0.	2		1414	1148	0.
1		0046	24	0.	1		1316	399	1500.	2		0146	774	0.	2		1416	1149	0.
1		0048	25	0.	1		1318	400	1336.	2		0148	775	0.	2		1418	1150	0.
1		0050	26	0.	1		1320	401	1171.	2		0150	776	0.	2		1420	1151	0.
1		0052	27	0.	1		1322	402	1004.	2		0152	777	0.	2		1422	1152	0.
1		0054	28	0.	1		1324	403	841.	2		0154	778	0.	2		1424	1153	0.
1		0056	29	0.	1		1326	404	685.	2		0156	779	0.	2		1426	1154	0.
1		0058	30	0.	1		1328	405	533.	2		0158	780	0.	2		1428	1155	0.
1		0100	31	0.	1		1330	406	388.	2		0200	781	0.	2		1430	1156	0.
1		0102	32	0.	1		1332	407	249.	2		0202	782	0.	2		1432	1157	0.
1		0104	33	0.	1		1334	408	115.	2		0204	783	0.	2		1434	1158	0.
1		0106	34	0.	1		1336	409	15.	2		0206	784	0.	2		1436	1159	0.
1		0108	35	0.	1		1338	410	0.	2		0208	785	0.	2		1438	1160	0.
1		0110	36	0.	1		1340	411	0.	2		0210	786	0.	2		1440	1161	0.
1		0112	37	0.	1		1342	412	0.	2		0212	787	0.	2		1442	1162	0.
1		0114	38	0.	1		1344	413	0.	2		0214	788	0.	2		1444	1163	0.
1		0116	39	0.	1		1346	414	0.	2		0216	789	0.	2		1446	1164	0.
1		0118	40	0.	1		1348	415	0.	2		0218	790	0.	2		1448	1165	0.
1		0120	41	0.	1		1350	416	0.	2		0220	791	0.	2		1450	1166	0.
1		0122	42	0.	1		1352	417	0.	2		0222	792	0.	2		1452	1167	0.
1		0124	43	0.	1		1354	418	0.	2		0224	793	0.	2		1454	1168	0.
1		0126	44	0.	1		1356	419	0.	2		0226	794	0.	2		1456	1169	0.
1		0128	45	0.	1		1358	420	0.	2		0228	795	0.	2		1458	1170	0.
1		0130	46	0.	1		1400	421	0.	2		0230	796	0.	2		1500	1171	0.
1		0132	47	0.	1		1402	422	0.	2		0232	797	0.	2		1502	1172	0.
1		0134	48	0.	1		1404	423	0.	2		0234	798	0.	2		1504	1173	0.
1		0136	49	0.	1		1406	424	0.	2		0236	799	0.	2		1506	1174	0.
1		0138	50	0.	1		1408	425	0.	2		0238	800	0.	2		1508	1175	0.
1		0140	51	0.	1		1410	426	0.	2		0240	801	0.	2		1510	1176	0.
1		0142	52	0.	1		1412	427	0.	2		0242	802	0.	2		1512	1177	0.
1		0144	53	0.	1		1414	428	0.	2		0244	803	0.	2		1514	1178	0.
1		0146	54	0.	1		1416	429	0.	2		0246	804	0.	2		1516	1179	0.
1		0148	55	0.	1		1418	430	0.	2		0248	805	0.	2		1518	1180	0.
1		0150	56	0.	1		1420	431	0.	2		0250	806	0.	2		1520	1181	0.
1		0152	57	0.	1		1422	432	0.	2		0252	807	0.	2		1522	1182	0.
1		0154	58	0.	1		1424	433	0.	2		0254	808	0.	2		1524	1183	0.
1		0156	59	0.	1		1426	434	0.	2		0256	809	0.	2		1526	1184	0.
1		0158	60	0.	1		1428	435	0.	2		0258	810	0.	2		1528	1185	0.
1		0200	61	0.	1		1430	436	0.	2		0300	811	0.	2		1530	1186	0.
1		0202	62	0.	1		1432	437	0.	2		0302	812	0.	2		1532	1187	0.
1		0204	63	0.	1		1434	438	0.	2		0304	813	0.	2		1534	1188	0.
1		0206	64	0.	1		1436	439	0.	2		0306	814	0.	2		1536	1189	0.
1		0208	65	0.	1		1438	440	0.	2		0308	815	0.	2		1538	1190	0.
1		0210	66	0.	1		1440	441	0.	2		0310	816	0.	2		1540	1191	0.
1		0212	67	0.	1		1442	442	0.	2		0312	817	0.	2		1542	1192	0.
1		0214	68	0.	1		1444	443	0.	2		0314	818	0.	2		1544	1193	0.
1		0216	69	0.	1		1446	444	0.	2		0316	819	0.	2		1546	1194	0.
1		0218	70	0.	1		1448	445	0.	2		0318	820	0.	2		1548	1195	0.
1		0220	71	0.	1		1450	446	0.	2		0320	821	0.	2		1550	1196	0.
1		0222	72	0.	1		1452	447	0.	2		0322	822	0.	2		1552	1197	0.
1		0224	73	0.	1		1454	448	0.	2		0324	823	0.	2		1554	1198	0.
1		0226	74	0.	1		1456	449	0.	2		0326	824	0.	2		1556	1199	0.
1		0228	75	0.	1		1458	450	0.	2		0328	825	0.	2		1558	1200	0.
1		0230	76	0.	1		1500	451	0.	2		0330	826	0.	2		1600	1201	0.
1		0232	77	0.	1		1502	452	0.	2		0332	827	0.	2		1602	1202	0.
1		0234	78	0.	1		1504	453	0.	2		0334	828	0.	2		1604	1203	0.
1		0236	79	0.	1		1506	454	0.	2		0336	829	0.	2		1606	1204	0.
1		0238	80	0.	1		1508	455	0.	2		0338	830	0.	2		1608	1205	0.
1		0240	81	0.	1		1510	456	0.	2		0340	831	0.	2		1610	1206	0.
1		0242	82	0.	1		1512	457	0.	2		0342	832	0.	2		1612	1207	0.
1		0244	83	0.	1		1514	458	0.	2		0344	833	0.	2		1614	1208	0.
1		0246	84	0.	1		1516	459	0.	2		0346	834	0.	2		1616	1209	0.
1		0248	85	0.	1		1518	460	0.	2		0348	835	0.	2		1618	1210	0.
1		0250	86	0.	1		1520	461	0.	2		0350	836	0.	2		1620	1211	0.
1		0252	87	0.	1		1522	462	0.	2		0352	837	0.	2		1622	1212	0.
1		0254	88	0.	1		1524	463	0.	2		0354	838	0.	2		1624	1213	0.
1		0256	89	0.	1		1526	464	0.	2		0356	839	0.	2		1626	1214	0.
1		0258	90	0.	1		1528	465	0.	2		0358	840	0.	2		1628	1215	0.
1		0300	91	0.	1		1530	466	0.	2		0400	841	0.	2		1630	1216	0.
1		0302	92	0.	1		1532	467	0.	2		0402	842	0.	2		1632	1217	0.
1		0304	93	0.	1		1534	468	0.	2		0404	843	0.	2		1634	1218	0.
1		0306	94	0.	1		1536	469	0.	2		0406	844	0.	2		1636	1219	0.
1		0308	95	0.	1		1538	470	0.	2		0408	845	0.	2		1638	1220	0.
1		0310	96	0.	1		1540	471	0.	2		0410	846	0.	2		1640	1221	0.
1		0312	97	0.	1		1542	472	0.	2		0412	847	0.	2		1642	1222	0.
1		0314	98	0.	1		1544	473	0.	2		0414	848	0.	2		1644	1223	0.
1		0316	99	0.	1		1546	474	0.	2		0416	849	0.	2		1646	1224	0.
1		0318	100	0.	1		1548	475	0.	2		0418	850	0.	2		1648	1225	0.
1		0320	101	0.	1		1550	476	0.	2		0420	851	0.	2		1650	1226	0.
1		0322	102	0.	1		1552	477	0.	2		0422	852	0.	2		1652	1227	0.
1		0324	103	0.	1		1554	478	0.	2		0424	853	0.	2		1654	1228	0.
1		0326	104	0.	1		1556	479	0.	2		0426	854	0.	2		1656	1229	0.
1		0328	105	0.	1		1558	480	0.	2		0428	855	0.	2		1658	1230	0.

1	0330	106	0.	*	1	1600	481	0.	*	2	0430	856	0.	*	2	1700	1231	0.
1	0332	107	0.	*	1	1602	482	0.	*	2	0432	857	0.	*	2	1702	1232	0.
1	0334	108	0.	*	1	1604	483	0.	*	2	0434	858	0.	*	2	1704	1233	0.
1	0336	109	0.	*	1	1606	484	0.	*	2	0436	859	0.	*	2	1706	1234	0.
1	0338	110	0.	*	1	1608	485	0.	*	2	0438	860	0.	*	2	1708	1235	0.
1	0340	111	0.	*	1	1610	486	0.	*	2	0440	861	0.	*	2	1710	1236	0.
1	0342	112	0.	*	1	1612	487	0.	*	2	0442	862	0.	*	2	1712	1237	0.
1	0344	113	0.	*	1	1614	488	0.	*	2	0444	863	0.	*	2	1714	1238	0.
1	0346	114	0.	*	1	1616	489	0.	*	2	0446	864	0.	*	2	1716	1239	0.
1	0348	115	0.	*	1	1618	490	0.	*	2	0448	865	0.	*	2	1718	1240	0.
1	0350	116	0.	*	1	1620	491	0.	*	2	0450	866	0.	*	2	1720	1241	0.
1	0352	117	0.	*	1	1622	492	0.	*	2	0452	867	0.	*	2	1722	1242	0.
1	0354	118	0.	*	1	1624	493	0.	*	2	0454	868	0.	*	2	1724	1243	0.
1	0356	119	0.	*	1	1626	494	0.	*	2	0456	869	0.	*	2	1726	1244	0.
1	0358	120	0.	*	1	1628	495	0.	*	2	0458	870	0.	*	2	1728	1245	0.
1	0400	121	0.	*	1	1630	496	0.	*	2	0500	871	0.	*	2	1730	1246	0.
1	0402	122	0.	*	1	1632	497	0.	*	2	0502	872	0.	*	2	1732	1247	0.
1	0404	123	0.	*	1	1634	498	0.	*	2	0504	873	0.	*	2	1734	1248	0.
1	0406	124	0.	*	1	1636	499	0.	*	2	0506	874	0.	*	2	1736	1249	0.
1	0408	125	0.	*	1	1638	500	0.	*	2	0508	875	0.	*	2	1738	1250	0.
1	0410	126	0.	*	1	1640	501	0.	*	2	0510	876	0.	*	2	1740	1251	0.
1	0412	127	0.	*	1	1642	502	0.	*	2	0512	877	0.	*	2	1742	1252	0.
1	0414	128	0.	*	1	1644	503	0.	*	2	0514	878	0.	*	2	1744	1253	0.
1	0416	129	0.	*	1	1646	504	0.	*	2	0516	879	0.	*	2	1746	1254	0.
1	0418	130	0.	*	1	1648	505	0.	*	2	0518	880	0.	*	2	1748	1255	0.
1	0420	131	0.	*	1	1650	506	0.	*	2	0520	881	0.	*	2	1750	1256	0.
1	0422	132	0.	*	1	1652	507	0.	*	2	0522	882	0.	*	2	1752	1257	0.
1	0424	133	0.	*	1	1654	508	0.	*	2	0524	883	0.	*	2	1754	1258	0.
1	0426	134	0.	*	1	1656	509	0.	*	2	0526	884	0.	*	2	1756	1259	0.
1	0428	135	0.	*	1	1658	510	0.	*	2	0528	885	0.	*	2	1758	1260	0.
1	0430	136	0.	*	1	1700	511	0.	*	2	0530	886	0.	*	2	1800	1261	0.
1	0432	137	0.	*	1	1702	512	0.	*	2	0532	887	0.	*	2	1802	1262	0.
1	0434	138	0.	*	1	1704	513	0.	*	2	0534	888	0.	*	2	1804	1263	0.
1	0436	139	0.	*	1	1706	514	0.	*	2	0536	889	0.	*	2	1806	1264	0.
1	0438	140	0.	*	1	1708	515	0.	*	2	0538	890	0.	*	2	1808	1265	0.
1	0440	141	0.	*	1	1710	516	0.	*	2	0540	891	0.	*	2	1810	1266	0.
1	0442	142	0.	*	1	1712	517	0.	*	2	0542	892	0.	*	2	1812	1267	0.
1	0444	143	0.	*	1	1714	518	0.	*	2	0544	893	0.	*	2	1814	1268	0.
1	0446	144	0.	*	1	1716	519	0.	*	2	0546	894	0.	*	2	1816	1269	0.
1	0448	145	0.	*	1	1718	520	0.	*	2	0548	895	0.	*	2	1818	1270	0.
1	0450	146	0.	*	1	1720	521	0.	*	2	0550	896	0.	*	2	1820	1271	0.
1	0452	147	0.	*	1	1722	522	0.	*	2	0552	897	0.	*	2	1822	1272	0.
1	0454	148	0.	*	1	1724	523	0.	*	2	0554	898	0.	*	2	1824	1273	0.
1	0456	149	0.	*	1	1726	524	0.	*	2	0556	899	0.	*	2	1826	1274	0.
1	0458	150	0.	*	1	1728	525	0.	*	2	0558	900	0.	*	2	1828	1275	0.
1	0500	151	0.	*	1	1730	526	0.	*	2	0600	901	0.	*	2	1830	1276	0.
1	0502	152	0.	*	1	1732	527	0.	*	2	0602	902	0.	*	2	1832	1277	0.
1	0504	153	0.	*	1	1734	528	0.	*	2	0604	903	0.	*	2	1834	1278	0.
1	0506	154	0.	*	1	1736	529	0.	*	2	0606	904	0.	*	2	1836	1279	0.
1	0508	155	0.	*	1	1738	530	0.	*	2	0608	905	0.	*	2	1838	1280	0.
1	0510	156	0.	*	1	1740	531	0.	*	2	0610	906	0.	*	2	1840	1281	0.
1	0512	157	0.	*	1	1742	532	0.	*	2	0612	907	0.	*	2	1842	1282	0.
1	0514	158	0.	*	1	1744	533	0.	*	2	0614	908	0.	*	2	1844	1283	0.
1	0516	159	0.	*	1	1746	534	0.	*	2	0616	909	0.	*	2	1846	1284	0.
1	0518	160	0.	*	1	1748	535	0.	*	2	0618	910	0.	*	2	1848	1285	0.
1	0520	161	0.	*	1	1750	536	0.	*	2	0620	911	0.	*	2	1850	1286	0.
1	0522	162	0.	*	1	1752	537	0.	*	2	0622	912	0.	*	2	1852	1287	0.
1	0524	163	0.	*	1	1754	538	0.	*	2	0624	913	0.	*	2	1854	1288	0.
1	0526	164	0.	*	1	1756	539	0.	*	2	0626	914	0.	*	2	1856	1289	0.
1	0528	165	0.	*	1	1758	540	0.	*	2	0628	915	0.	*	2	1858	1290	0.
1	0530	166	0.	*	1	1800	541	0.	*	2	0630	916	0.	*	2	1900	1291	0.
1	0532	167	0.	*	1	1802	542	0.	*	2	0632	917	0.	*	2	1902	1292	0.
1	0534	168	0.	*	1	1804	543	0.	*	2	0634	918	0.	*	2	1904	1293	0.
1	0536	169	0.	*	1	1806	544	0.	*	2	0636	919	0.	*	2	1906	1294	0.
1	0538	170	0.	*	1	1808	545	0.	*	2	0638	920	0.	*	2	1908	1295	0.
1	0540	171	0.	*	1	1810	546	0.	*	2	0640	921	0.	*	2	1910	1296	0.
1	0542	172	0.	*	1	1812	547	0.	*	2	0642	922	0.	*	2	1912	1297	0.
1	0544	173	0.	*	1	1814	548	0.	*	2	0644	923	0.	*	2	1914	1298	0.
1	0546	174	0.	*	1	1816	549	0.	*	2	0646	924	0.	*	2	1916	1299	0.
1	0548	175	0.	*	1	1818	550	0.	*	2	0648	925	0.	*	2	1918	1300	0.
1	0550	176	0.	*	1	1820	551	0.	*	2	0650	926	0.	*	2	1920	1301	0.
1	0552	177	0.	*	1	1822	552	0.	*	2	0652	927	0.	*	2	1922	1302	0.
1	0554	178	0.	*	1	1824	553	0.	*	2	0654	928	0.	*	2	1924	1303	0.
1	0556	179	0.	*	1	1826	554	0.	*	2	0656	929	0.	*	2	1926	1304	0.
1	0558	180	0.	*	1	1828	555	0.	*	2	0658	930	0.	*	2	1928	1305	0.
1	0600	181	0.	*	1	1830	556	0.	*	2	0700	931	0.	*	2	1930	1306	0.
1	0602	182	0.	*	1	1832	557	0.	*	2	0702	932	0.	*	2	1932	1307	0.
1	0604	183	0.	*	1	1834	558	0.	*	2	0704	933	0.	*	2	1934	1308	0.
1	0606	184	0.	*	1	1836	559	0.	*	2	0706	934	0.	*	2	1936	1309	0.
1	0608	185	0.	*	1	1838	560	0.	*	2	0708	935	0.	*	2	1938	1310	0.
1	0610	186	0.	*	1	1840	561	0.	*	2	0710	936	0.	*	2	1940	1311	0.
1	0612	187	0.	*	1	1842	562	0.	*	2	0712	937	0.	*	2	1942	1312	0.
1	0614	188	0.	*	1	1844	563	0.	*	2	0714	938	0.	*	2	1944	1313	0.
1	0616	189	0.	*	1	1846	564	0.	*	2	0716	939	0.	*	2	1946	1314	0.
1	0618	190	0.	*	1	1848	565	0.	*	2	0718	940	0.	*	2	1948	1315	0.
1	0620	191	0.	*	1	1850	566	0.	*	2	0720	941	0.	*	2	1950	1316	0.
1	0622	192	0.	*	1	1852	567	0.	*	2	0722	942	0.	*	2	1952	1317	0.
1	0624	193	0.	*	1	1854	568	0.	*	2	0724	943	0.	*	2	1954	1318	0.
1	0626	194	0.	*	1	1856	569	0.	*	2	0726	944	0.	*	2	1956	1319	0.
1	0628	195	0.	*	1	1858	570	0.	*	2	0728	945	0.	*	2	1958	1320	0.
1	0630	196	0.	*	1	1900	571	0.	*	2	0730	946	0.	*	2	2000	1321	0.
1	0632	197	0.	*	1	1902	572	0.	*	2	0732	947	0.	*	2	2002	1322	0.
1	0634	198	0.	*	1	1904	573	0.	*	2	0734	948	0.	*	2	2004	1323	0.
1	0636	199	0.	*	1	1906	574	0.	*	2	0736	949	0.	*	2	2006	1324	0.
1	0638	200	0.	*	1	1908	575	0.	*	2	0738	950	0.	*	2	2008	1325	0.
1	0640	201	0.	*	1	1910	576	0.	*	2	0740	951	0.	*	2	2010	1326	0.
1	0642	202	0.	*	1	1912	577	0.	*	2	0742	952	0.	*	2	2012	1327	0.
1	0644	203	0.	*	1	1914	578	0.	*	2	0744	953	0.	*	2	2014	1328	0.
1	0646	204	0.	*	1	1916	579	0.	*	2	0746	954	0.	*	2	2016	1329	0.
1	0648	205	0.	*	1	1918	580	0.	*	2	0748	955	0.	*	2	2018	1330	0.
1	0650	206	0.	*	1	1920	581	0.	*	2	0750	956	0.	*	2	2020	1331	0.
1	0652	207	0.	*	1	1922	582	0.	*	2	0752	957	0.	*	2	2022	1332	0.
1	0654	208	0.	*	1	1924	583	0.	*	2	0754	958	0.	*	2	2024	1333	0.
1	0656	209	0.	*	1	1926	584	0.	*	2	0756	959	0.	*	2	2026	1334	0.
1	0658	210	0.	*	1	1928	585	0.	*	2	0758	960	0.	*	2	2028	1335	0.
1	0700	211	0.	*	1	1930	586	0.	*	2	0800	961	0.	*	2	2030	1336	0.
1	0702	212	0.	*	1	1932	587	0.	*	2	0802	962	0.	*	2	2032	1337	0.
1	0704	213	0.	*	1	1934	588	0.	*	2	0804	963	0.	*	2	2034	1338	0.
1	0706	214	0.	*	1	1936	589	0.	*	2	0806	964	0.	*	2	2036	1339	0.
1	0708	215	0.	*	1	1938	590	0.	*	2	0808	965	0.	*	2	2038	1340	0.
1	0710	216	0.	*	1	1940	591	0.	*	2	0810	966	0.	*	2	2040	1341	0.
1	0712	217	0.	*	1	1942	592	0.	*	2	0812	967	0.	*	2	2042	1342	0.
1	0714	218	0.	*	1	1944	593	0.	*	2	0814	968	0.	*	2	2044	1343	0.

1	0716	219	0.	*	1	1946	594	0.	*	2	0816	969	0.	*	2	2046	1344	0.
1	0718	220	0.	*	1	1948	595	0.	*	2	0818	970	0.	*	2	2048	1345	0.
1	0720	221	0.	*	1	1950	596	0.	*	2	0820	971	0.	*	2	2050	1346	0.
1	0722	222	0.	*	1	1952	597	0.	*	2	0822	972	0.	*	2	2052	1347	0.
1	0724	223	0.	*	1	1954	598	0.	*	2	0824	973	0.	*	2	2054	1348	0.
1	0726	224	0.	*	1	1956	599	0.	*	2	0826	974	0.	*	2	2056	1349	0.
1	0728	225	0.	*	1	1958	600	0.	*	2	0828	975	0.	*	2	2058	1350	0.
1	0730	226	0.	*	1	2000	601	0.	*	2	0830	976	0.	*	2	2100	1351	0.
1	0732	227	0.	*	1	2002	602	0.	*	2	0832	977	0.	*	2	2102	1352	0.
1	0734	228	0.	*	1	2004	603	0.	*	2	0834	978	0.	*	2	2104	1353	0.
1	0736	229	0.	*	1	2006	604	0.	*	2	0836	979	0.	*	2	2106	1354	0.
1	0738	230	0.	*	1	2008	605	0.	*	2	0838	980	0.	*	2	2108	1355	0.
1	0740	231	0.	*	1	2010	606	0.	*	2	0840	981	0.	*	2	2110	1356	0.
1	0742	232	0.	*	1	2012	607	0.	*	2	0842	982	0.	*	2	2112	1357	0.
1	0744	233	0.	*	1	2014	608	0.	*	2	0844	983	0.	*	2	2114	1358	0.
1	0746	234	0.	*	1	2016	609	0.	*	2	0846	984	0.	*	2	2116	1359	0.
1	0748	235	0.	*	1	2018	610	0.	*	2	0848	985	0.	*	2	2118	1360	0.
1	0750	236	0.	*	1	2020	611	0.	*	2	0850	986	0.	*	2	2120	1361	0.
1	0752	237	0.	*	1	2022	612	0.	*	2	0852	987	0.	*	2	2122	1362	0.
1	0754	238	0.	*	1	2024	613	0.	*	2	0854	988	0.	*	2	2124	1363	0.
1	0756	239	0.	*	1	2026	614	0.	*	2	0856	989	0.	*	2	2126	1364	0.
1	0758	240	0.	*	1	2028	615	0.	*	2	0858	990	0.	*	2	2128	1365	0.
1	0800	241	0.	*	1	2030	616	0.	*	2	0900	991	0.	*	2	2130	1366	0.
1	0802	242	0.	*	1	2032	617	0.	*	2	0902	992	0.	*	2	2132	1367	0.
1	0804	243	0.	*	1	2034	618	0.	*	2	0904	993	0.	*	2	2134	1368	0.
1	0806	244	0.	*	1	2036	619	0.	*	2	0906	994	0.	*	2	2136	1369	0.
1	0808	245	0.	*	1	2038	620	0.	*	2	0908	995	0.	*	2	2138	1370	0.
1	0810	246	0.	*	1	2040	621	0.	*	2	0910	996	0.	*	2	2140	1371	0.
1	0812	247	0.	*	1	2042	622	0.	*	2	0912	997	0.	*	2	2142	1372	0.
1	0814	248	0.	*	1	2044	623	0.	*	2	0914	998	0.	*	2	2144	1373	0.
1	0816	249	0.	*	1	2046	624	0.	*	2	0916	999	0.	*	2	2146	1374	0.
1	0818	250	0.	*	1	2048	625	0.	*	2	0918	1000	0.	*	2	2148	1375	0.
1	0820	251	0.	*	1	2050	626	0.	*	2	0920	1001	0.	*	2	2150	1376	0.
1	0822	252	0.	*	1	2052	627	0.	*	2	0922	1002	0.	*	2	2152	1377	0.
1	0824	253	0.	*	1	2054	628	0.	*	2	0924	1003	0.	*	2	2154	1378	0.
1	0826	254	0.	*	1	2056	629	0.	*	2	0926	1004	0.	*	2	2156	1379	0.
1	0828	255	0.	*	1	2058	630	0.	*	2	0928	1005	0.	*	2	2158	1380	0.
1	0830	256	0.	*	1	2100	631	0.	*	2	0930	1006	0.	*	2	2200	1381	0.
1	0832	257	0.	*	1	2102	632	0.	*	2	0932	1007	0.	*	2	2202	1382	0.
1	0834	258	0.	*	1	2104	633	0.	*	2	0934	1008	0.	*	2	2204	1383	0.
1	0836	259	0.	*	1	2106	634	0.	*	2	0936	1009	0.	*	2	2206	1384	0.
1	0838	260	0.	*	1	2108	635	0.	*	2	0938	1010	0.	*	2	2208	1385	0.
1	0840	261	0.	*	1	2110	636	0.	*	2	0940	1011	0.	*	2	2210	1386	0.
1	0842	262	0.	*	1	2112	637	0.	*	2	0942	1012	0.	*	2	2212	1387	0.
1	0844	263	0.	*	1	2114	638	0.	*	2	0944	1013	0.	*	2	2214	1388	0.
1	0846	264	0.	*	1	2116	639	0.	*	2	0946	1014	0.	*	2	2216	1389	0.
1	0848	265	0.	*	1	2118	640	0.	*	2	0948	1015	0.	*	2	2218	1390	0.
1	0850	266	0.	*	1	2120	641	0.	*	2	0950	1016	0.	*	2	2220	1391	0.
1	0852	267	0.	*	1	2122	642	0.	*	2	0952	1017	0.	*	2	2222	1392	0.
1	0854	268	0.	*	1	2124	643	0.	*	2	0954	1018	0.	*	2	2224	1393	0.
1	0856	269	0.	*	1	2126	644	0.	*	2	0956	1019	0.	*	2	2226	1394	0.
1	0858	270	0.	*	1	2128	645	0.	*	2	0958	1020	0.	*	2	2228	1395	0.
1	0900	271	0.	*	1	2130	646	0.	*	2	1000	1021	0.	*	2	2230	1396	0.
1	0902	272	0.	*	1	2132	647	0.	*	2	1002	1022	0.	*	2	2232	1397	0.
1	0904	273	0.	*	1	2134	648	0.	*	2	1004	1023	0.	*	2	2234	1398	0.
1	0906	274	0.	*	1	2136	649	0.	*	2	1006	1024	0.	*	2	2236	1399	0.
1	0908	275	0.	*	1	2138	650	0.	*	2	1008	1025	0.	*	2	2238	1400	0.
1	0910	276	0.	*	1	2140	651	0.	*	2	1010	1026	0.	*	2	2240	1401	0.
1	0912	277	0.	*	1	2142	652	0.	*	2	1012	1027	0.	*	2	2242	1402	0.
1	0914	278	0.	*	1	2144	653	0.	*	2	1014	1028	0.	*	2	2244	1403	0.
1	0916	279	0.	*	1	2146	654	0.	*	2	1016	1029	0.	*	2	2246	1404	0.
1	0918	280	0.	*	1	2148	655	0.	*	2	1018	1030	0.	*	2	2248	1405	0.
1	0920	281	0.	*	1	2150	656	0.	*	2	1020	1031	0.	*	2	2250	1406	0.
1	0922	282	0.	*	1	2152	657	0.	*	2	1022	1032	0.	*	2	2252	1407	0.
1	0924	283	0.	*	1	2154	658	0.	*	2	1024	1033	0.	*	2	2254	1408	0.
1	0926	284	0.	*	1	2156	659	0.	*	2	1026	1034	0.	*	2	2256	1409	0.
1	0928	285	0.	*	1	2158	660	0.	*	2	1028	1035	0.	*	2	2258	1410	0.
1	0930	286	0.	*	1	2200	661	0.	*	2	1030	1036	0.	*	2	2300	1411	0.
1	0932	287	0.	*	1	2202	662	0.	*	2	1032	1037	0.	*	2	2302	1412	0.
1	0934	288	0.	*	1	2204	663	0.	*	2	1034	1038	0.	*	2	2304	1413	0.
1	0936	289	0.	*	1	2206	664	0.	*	2	1036	1039	0.	*	2	2306	1414	0.
1	0938	290	0.	*	1	2208	665	0.	*	2	1038	1040	0.	*	2	2308	1415	0.
1	0940	291	0.	*	1	2210	666	0.	*	2	1040	1041	0.	*	2	2310	1416	0.
1	0942	292	0.	*	1	2212	667	0.	*	2	1042	1042	0.	*	2	2312	1417	0.
1	0944	293	0.	*	1	2214	668	0.	*	2	1044	1043	0.	*	2	2314	1418	0.
1	0946	294	0.	*	1	2216	669	0.	*	2	1046	1044	0.	*	2	2316	1419	0.
1	0948	295	0.	*	1	2218	670	0.	*	2	1048	1045	0.	*	2	2318	1420	0.
1	0950	296	0.	*	1	2220	671	0.	*	2	1050	1046	0.	*	2	2320	1421	0.
1	0952	297	0.	*	1	2222	672	0.	*	2	1052	1047	0.	*	2	2322	1422	0.
1	0954	298	0.	*	1	2224	673	0.	*	2	1054	1048	0.	*	2	2324	1423	0.
1	0956	299	0.	*	1	2226	674	0.	*	2	1056	1049	0.	*	2	2326	1424	0.
1	0958	300	0.	*	1	2228	675	0.	*	2	1058	1050	0.	*	2	2328	1425	0.
1	1000	301	0.	*	1	2230	676	0.	*	2	1100	1051	0.	*	2	2330	1426	0.
1	1002	302	0.	*	1	2232	677	0.	*	2	1102	1052	0.	*	2	2332	1427	0.
1	1004	303	0.	*	1	2234	678	0.	*	2	1104	1053	0.	*	2	2334	1428	0.
1	1006	304	0.	*	1	2236	679	0.	*	2	1106	1054	0.	*	2	2336	1429	0.
1	1008	305	0.	*	1	2238	680	0.	*	2	1108	1055	0.	*	2	2338	1430	0.
1	1010	306	0.	*	1	2240	681	0.	*	2	1110	1056	0.	*	2	2340	1431	0.
1	1012	307	0.	*	1	2242	682	0.	*	2	1112	1057	0.	*	2	2342	1432	0.
1	1014	308	0.	*	1	2244	683	0.	*	2	1114	1058	0.	*	2	2344	1433	0.
1	1016	309	0.	*	1	2246	684	0.	*	2	1116	1059	0.	*	2	2346	1434	0.
1	1018	310	0.	*	1	2248	685	0.	*	2	1118	1060	0.	*	2	2348	1435	0.
1	1020	311	0.	*	1	2250	686	0.	*	2	1120	1061	0.	*	2	2350	1436	0.
1	1022	312	0.	*	1	2252	687	0.	*	2	1122	1062	0.	*	2	2352	1437	0.
1	1024	313	0.	*	1	2254	688	0.	*	2	1124	1063	0.	*	2	2354	1438	0.
1	1026	314	0.	*	1	2256	689	0.	*	2	1126	1064	0.	*	2	2356	1439	0.
1	1028	315	0.	*	1	2258	690	0.	*	2	1128	1065	0.	*	2	2358	1440	0.
1	1030	316	0.	*	1	2300	691	0.	*	2	1130	1066	0.	*	3	0000	1441	0.
1	1032	317	0.	*	1	2302	692	0.	*	2	1132	1067	0.	*	3	0002	1442	0.
1	1034	318	0.	*	1	2304	693	0.	*	2	1134	1068	0.	*	3	0004	1443	0.
1	1036	319	0.	*	1	2306	694	0.	*	2	1136	1069	0.	*	3	0006	1444	0.
1	1038	320	0.	*	1	2308	695	0.	*	2	1138	1070	0.	*	3	0008	1445	0.
1	1040	321	0.	*	1	2310	696	0.	*	2	1140	1071	0.	*	3	0010	1446	0.
1	1042	322	0.	*	1	2312	697	0.	*	2	1142	1072	0.	*	3	0012	1447	0.
1	1044	323	0.	*	1	2314	698	0.	*	2	1144	1073	0.	*	3	0014	1448	0.
1	1046	324	0.	*	1	2316	699	0.	*	2	1146	1074	0.	*	3	0016	1449	0.
1	1048	325	0.	*	1	2318	700	0.	*	2	1148	1075	0.	*	3	0018	1450	0.
1	1050	326	0.	*	1	2320	701	0.	*	2	1150	1076	0.	*	3	0020	1451	0.
1	1052	327	0.	*	1	2322	702	0.	*	2	1152	1077	0.	*	3	0022	1452	0.
1	1054	328	0.	*	1	2324	703	0.	*	2	1154	1078	0.	*	3	0024	1453	0.
1	1056	329	0.	*	1	2326	704	0.	*	2	1156	1079	0.	*	3	0026	1454	0.
1	1058	330	0.	*	1	2328	705	0.	*	2	1158	1080	0.	*	3	0028	1455	0.
1	1100	331	0.	*	1	2330	706	0.	*	2	1200	1081	0.	*	3	0030	1456	0.

1	1102	332	0.	*	1	2332	707	0.	*	2	1202	1082	0.	*	3	0032	1457	0.
1	1104	333	0.	*	1	2334	708	0.	*	2	1204	1083	0.	*	3	0034	1458	0.
1	1106	334	0.	*	1	2336	709	0.	*	2	1206	1084	0.	*	3	0036	1459	0.
1	1108	335	0.	*	1	2338	710	0.	*	2	1208	1085	0.	*	3	0038	1460	0.
1	1110	336	0.	*	1	2340	711	0.	*	2	1210	1086	0.	*	3	0040	1461	0.
1	1112	337	0.	*	1	2342	712	0.	*	2	1212	1087	0.	*	3	0042	1462	0.
1	1114	338	0.	*	1	2344	713	0.	*	2	1214	1088	0.	*	3	0044	1463	0.
1	1116	339	0.	*	1	2346	714	0.	*	2	1216	1089	0.	*	3	0046	1464	0.
1	1118	340	0.	*	1	2348	715	0.	*	2	1218	1090	0.	*	3	0048	1465	0.
1	1120	341	0.	*	1	2350	716	0.	*	2	1220	1091	0.	*	3	0050	1466	0.
1	1122	342	0.	*	1	2352	717	0.	*	2	1222	1092	0.	*	3	0052	1467	0.
1	1124	343	0.	*	1	2354	718	0.	*	2	1224	1093	0.	*	3	0054	1468	0.
1	1126	344	0.	*	1	2356	719	0.	*	2	1226	1094	0.	*	3	0056	1469	0.
1	1128	345	0.	*	1	2358	720	0.	*	2	1228	1095	0.	*	3	0058	1470	0.
1	1130	346	0.	*	2	0000	721	0.	*	2	1230	1096	0.	*	3	0100	1471	0.
1	1132	347	0.	*	2	0002	722	0.	*	2	1232	1097	0.	*	3	0102	1472	0.
1	1134	348	0.	*	2	0004	723	0.	*	2	1234	1098	0.	*	3	0104	1473	0.
1	1136	349	0.	*	2	0006	724	0.	*	2	1236	1099	0.	*	3	0106	1474	0.
1	1138	350	0.	*	2	0008	725	0.	*	2	1238	1100	0.	*	3	0108	1475	0.
1	1140	351	0.	*	2	0010	726	0.	*	2	1240	1101	0.	*	3	0110	1476	0.
1	1142	352	0.	*	2	0012	727	0.	*	2	1242	1102	0.	*	3	0112	1477	0.
1	1144	353	0.	*	2	0014	728	0.	*	2	1244	1103	0.	*	3	0114	1478	0.
1	1146	354	0.	*	2	0016	729	0.	*	2	1246	1104	0.	*	3	0116	1479	0.
1	1148	355	0.	*	2	0018	730	0.	*	2	1248	1105	0.	*	3	0118	1480	0.
1	1150	356	0.	*	2	0020	731	0.	*	2	1250	1106	0.	*	3	0120	1481	0.
1	1152	357	0.	*	2	0022	732	0.	*	2	1252	1107	0.	*	3	0122	1482	0.
1	1154	358	0.	*	2	0024	733	0.	*	2	1254	1108	0.	*	3	0124	1483	0.
1	1156	359	0.	*	2	0026	734	0.	*	2	1256	1109	0.	*	3	0126	1484	0.
1	1158	360	0.	*	2	0028	735	0.	*	2	1258	1110	0.	*	3	0128	1485	0.
1	1200	361	0.	*	2	0030	736	0.	*	2	1300	1111	0.	*	3	0130	1486	0.
1	1202	362	0.	*	2	0032	737	0.	*	2	1302	1112	0.	*	3	0132	1487	0.
1	1204	363	0.	*	2	0034	738	0.	*	2	1304	1113	0.	*	3	0134	1488	0.
1	1206	364	0.	*	2	0036	739	0.	*	2	1306	1114	0.	*	3	0136	1489	0.
1	1208	365	0.	*	2	0038	740	0.	*	2	1308	1115	0.	*	3	0138	1490	0.
1	1210	366	35.	*	2	0040	741	0.	*	2	1310	1116	0.	*	3	0140	1491	0.
1	1212	367	266.	*	2	0042	742	0.	*	2	1312	1117	0.	*	3	0142	1492	0.
1	1214	368	502.	*	2	0044	743	0.	*	2	1314	1118	0.	*	3	0144	1493	0.
1	1216	369	674.	*	2	0046	744	0.	*	2	1316	1119	0.	*	3	0146	1494	0.
1	1218	370	764.	*	2	0048	745	0.	*	2	1318	1120	0.	*	3	0148	1495	0.
1	1220	371	791.	*	2	0050	746	0.	*	2	1320	1121	0.	*	3	0150	1496	0.
1	1222	372	770.	*	2	0052	747	0.	*	2	1322	1122	0.	*	3	0152	1497	0.
1	1224	373	706.	*	2	0054	748	0.	*	2	1324	1123	0.	*	3	0154	1498	0.
1	1226	374	606.	*	2	0056	749	0.	*	2	1326	1124	0.	*	3	0156	1499	0.
1	1228	375	477.	*	2	0058	750	0.	*	2	1328	1125	0.	*	3	0158	1500	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)	(CFS)				
+ 1886.	13.13		146.	36.	18.	18.
		(INCHES)	.099	.099	.099	.099
		(AC-FT)	72.	72.	72.	72.

CUMULATIVE AREA = 13.68 SQ MI

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
	HYDROGRAPH AT	20	1130.	12.57	243.	64.	31.	1.82		
+	HYDROGRAPH AT	40	2286.	12.27	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1405.	12.37	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	4438.	12.30	712.	189.	91.	5.80		
+	ROUTED TO	SR60	92.	14.77	92.	89.	71.	5.80		
+	ROUTED TO	R60	92.	14.83	92.	89.	70.	5.80		
+	ROUTED TO	RR60	92.	14.93	92.	89.	70.	5.80		
+	HYDROGRAPH AT	80	1693.	12.20	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	1767.	12.20	266.	134.	93.	1.48		
+	ROUTED TO	R80	1765.	12.23	266.	134.	93.	1.48		
+	HYDROGRAPH AT	100	389.	12.33	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2117.	12.23	321.	148.	99.	1.96		
+	ROUTED TO	R100	2116.	12.27	321.	148.	99.	1.96		
+	HYDROGRAPH AT	120	2960.	12.20	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	4993.	12.23	636.	229.	141.	4.16		
+	ROUTED TO	R120	4949.	12.27	636.	229.	141.	4.16		
	HYDROGRAPH AT	140	598.	12.23	64.	17.	8.	.60		
+	HYDROGRAPH AT	160	588.	12.30	85.	22.	11.	.78		
+	HYDROGRAPH AT	180	694.	12.33	90.	23.	11.	1.00		
+	4 COMBINED AT	180C	6691.	12.27	863.	286.	169.	6.54		
+	HYDROGRAPH AT	240	770.	12.30	107.	27.	13.	1.04		
+	ROUTED TO	R240	760.	12.37	107.	27.	13.	1.04		
+	HYDROGRAPH AT	220	1427.	12.23	167.	43.	21.	1.25		
+	2 COMBINED AT	220C	2088.	12.27	271.	69.	33.	2.29		
+	ROUTED TO	R220	2057.	12.30	271.	69.	33.	2.29		
+	HYDROGRAPH AT	200	2059.	12.23	236.	65.	31.	1.81		
+	2 COMBINED AT	200C	3995.	12.27	501.	132.	64.	4.10		
+	ROUTED TO	R200	3967.	12.30	501.	132.	64.	4.10		
+	2 COMBINED AT	C180	10520.	12.27	1345.	410.	230.	10.64		
+	ROUTED TO	SR180	141.	15.23	141.	140.	116.	10.64		
+	ROUTED TO	R180	141.	15.30	141.	140.	116.	10.64		
+	HYDROGRAPH AT	260	401.	12.17	43.	12.	6.	.27		
	2 COMBINED AT	260C	515.	12.17	180.	151.	123.	.27		
+	ROUTED TO	R260	500.	12.23	180.	151.	122.	.27		
+	HYDROGRAPH AT	280	452.	12.13	42.	12.	6.	.30		

+	2 COMBINED AT	280C	908.	12.17	219.	161.	128.	.57
+	ROUTED TO	R280	889.	12.27	219.	161.	127.	.57
+	HYDROGRAPH AT	300	824.	12.30	109.	29.	14.	.99
+	2 COMBINED AT	300C	1686.	12.27	325.	188.	141.	1.56
+	ROUTED TO	R300	1664.	12.33	325.	188.	140.	1.56
+	ROUTED TO	RR300	1641.	12.40	325.	188.	140.	1.56
+	HYDROGRAPH AT	320	889.	12.43	171.	47.	22.	1.53
+	DIVERSION TO	BS320	390.	12.07	21.	6.	3.	1.53
+	HYDROGRAPH AT	D320	889.	12.43	157.	41.	19.	1.53
+	HYDROGRAPH AT	RT320	390.	12.07	21.	6.	3.	1.53
+	ROUTED TO	SR320	4.	4.40	4.	4.	3.	1.53
+	3 COMBINED AT	C320	2503.	12.40	482.	232.	162.	3.09
+	ROUTED TO	R320	2356.	12.67	480.	231.	158.	3.09
+	HYDROGRAPH AT	340	1381.	12.27	186.	55.	26.	1.45
+	DIVERSION TO	BS340	1381.	12.27	104.	28.	14.	1.45
+	HYDROGRAPH AT	D340	1219.	12.40	98.	27.	13.	1.45
+	HYDROGRAPH AT	RT340	1381.	12.27	104.	28.	14.	1.45
+	ROUTED TO	SR340	19.	9.03	19.	19.	14.	1.45
+	3 COMBINED AT	C340	2952.	12.63	591.	276.	184.	4.53
+	ROUTED TO	R340	2887.	12.70	590.	276.	183.	4.53
+	HYDROGRAPH AT	350	1102.	12.17	103.	27.	13.	.97
+	ROUTED TO	RR350	941.	12.57	103.	27.	13.	.97
+	HYDROGRAPH AT	360	668.	12.50	151.	42.	20.	1.33
+	DIVERSION TO	BS360	655.	12.43	53.	14.	7.	1.33
+	HYDROGRAPH AT	D360	657.	12.57	106.	28.	13.	1.33
+	HYDROGRAPH AT	RT360	655.	12.43	53.	14.	7.	1.33
+	ROUTED TO	SR360	10.	9.47	10.	10.	7.	1.33
+	4 COMBINED AT	360C	4244.	12.67	797.	336.	215.	6.83
+	ROUTED TO	R360	4107.	12.77	795.	336.	214.	6.83
+	HYDROGRAPH AT	380	724.	12.37	99.	27.	13.	.98
+	DIVERSION TO	BS380	724.	12.37	56.	14.	7.	.98
+	HYDROGRAPH AT	D380	584.	12.53	47.	12.	6.	.98
+	HYDROGRAPH AT	RT380	724.	12.37	56.	14.	7.	.98
+	ROUTED TO	SR380	10.	11.30	10.	10.	7.	.98
+	3 COMBINED AT	380C	4419.	12.77	847.	357.	226.	7.82
+	ROUTED TO	R380	4262.	12.90	844.	356.	224.	7.82
+	HYDROGRAPH AT	400	333.	12.37	47.	13.	6.	.62
+	2 COMBINED AT	400C	4372.	12.90	876.	366.	230.	8.43

+	ROUTED TO	R400	4220.	13.03	875.	366.	228.	8.43
+	HYDROGRAPH AT	420	574.	12.23	65.	18.	9.	.58
+	DIVERSION TO	BS420	574.	12.23	65.	18.	9.	.58
+	HYDROGRAPH AT	D420	0.	.00	0.	0.	0.	.58
+	HYDROGRAPH AT	RT420	574.	12.23	65.	18.	9.	.58
+	ROUTED TO	SR420	13.	11.60	13.	13.	9.	.58
+	3 COMBINED AT	420C	4228.	13.03	887.	378.	236.	9.01
+	ROUTED TO	R420	4102.	13.13	885.	378.	235.	9.01
+	HYDROGRAPH AT	370	504.	12.30	78.	21.	10.	.66
+	ROUTED TO	RR370	497.	12.33	78.	21.	10.	.66
+	HYDROGRAPH AT	390	1179.	12.20	144.	40.	19.	1.09
+	DIVERSION TO	BS390	7.	8.13	6.	2.	1.	1.09
+	HYDROGRAPH AT	D390	1179.	12.20	144.	38.	18.	1.09
+	HYDROGRAPH AT	RT390	7.	8.13	6.	2.	1.	1.09
+	ROUTED TO	SR390	1.	.50	1.	1.	1.	1.09
+	3 COMBINED AT	390C	1618.	12.23	221.	60.	29.	1.75
+	ROUTED TO	RR390	1579.	12.33	221.	60.	29.	1.75
+	HYDROGRAPH AT	410	478.	12.03	32.	9.	4.	.27
+	2 COMBINED AT	410C	1633.	12.30	251.	69.	33.	2.02
+	ROUTED TO	RR410	1604.	12.43	251.	69.	33.	2.02
+	2 COMBINED AT	420CC	4447.	13.13	1106.	438.	266.	11.03
+	HYDROGRAPH AT	440	179.	12.00	12.	3.	2.	.08
+	ROUTED TO	R70	174.	12.03	12.	3.	2.	.08
+	HYDROGRAPH AT	441	16.	12.07	1.	0.	0.	.01
+	2 COMBINED AT	C108	189.	12.03	14.	4.	2.	.09
+	DIVERSION TO	SPLIT	95.	12.03	7.	2.	1.	.09
+	HYDROGRAPH AT	DIV4	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	R108	87.	12.10	7.	2.	1.	.09
+	HYDROGRAPH AT	442	99.	12.13	9.	2.	1.	.10
+	2 COMBINED AT	C67	183.	12.13	15.	4.	2.	.19
+	DIVERSION TO	BASIN4	115.	12.13	6.	1.	1.	.19
+	HYDROGRAPH AT	DIV6	68.	12.13	10.	3.	1.	.19
+	HYDROGRAPH AT	RTDIV6	115.	12.13	6.	1.	1.	.19
+	ROUTED TO	RFDIV6	1.	11.93	1.	1.	1.	.19
+	2 COMBINED AT	CDIV6	69.	12.13	11.	4.	2.	.19
+	HYDROGRAPH AT	443	146.	12.07	14.	4.	2.	.08
+	DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	DIV66	68.	12.07	3.	1.	0.	.08

ROUTED TO	R113	66.	12.10	3.	1.	0.	.08
2 COMBINED AT	C114	133.	12.10	13.	4.	2.	.27
HYDROGRAPH AT	444	81.	12.00	5.	1.	1.	.04
ROUTED TO	R58	78.	12.07	5.	1.	1.	.04
HYDROGRAPH AT	445	288.	12.07	18.	5.	2.	.19
2 COMBINED AT	C107	363.	12.07	22.	6.	3.	.23
ROUTED TO	R107	362.	12.07	22.	6.	3.	.23
HYDROGRAPH AT	RTB2	95.	12.03	7.	2.	1.	.09
ROUTED TO	RSPLIT	94.	12.07	7.	2.	1.	.09
HYDROGRAPH AT	446	64.	12.07	6.	2.	1.	.04
3 COMBINED AT	C109	516.	12.07	35.	9.	4.	.27
DIVERSION TO	WSH404	35.	11.73	7.	2.	1.	.27
HYDROGRAPH AT	DIV5	481.	12.07	27.	7.	3.	.27
ROUTED TO	R109	469.	12.10	27.	7.	3.	.27
HYDROGRAPH AT	447	135.	12.07	12.	4.	2.	.09
HYDROGRAPH AT	RT404	35.	11.73	7.	2.	1.	.27
ROUTED TO	R404	35.	11.90	7.	2.	1.	.27
3 COMBINED AT	C110	631.	12.10	46.	13.	6.	.36
ROUTED TO	R110	632.	12.10	46.	13.	6.	.36
2 COMBINED AT	C115	759.	12.10	59.	17.	8.	.63
ROUTED TO	R115	758.	12.10	59.	17.	8.	.63
HYDROGRAPH AT	448	87.	12.03	6.	2.	1.	.05
HYDROGRAPH AT	449	77.	12.03	5.	1.	1.	.05
2 COMBINED AT	C6364	163.	12.03	11.	3.	1.	.09
ROUTED TO	R6364	140.	12.20	11.	3.	1.	.09
HYDROGRAPH AT	450	58.	12.17	6.	2.	1.	.07
HYDROGRAPH AT	451	17.	12.17	2.	1.	0.	.03
HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
HYDROGRAPH AT	452	61.	12.07	4.	1.	1.	.04
2 COMBINED AT	C6566	139.	12.07	16.	4.	2.	.04
ROUTED TO	R6566	134.	12.13	16.	4.	2.	.04
4 COMBINED AT	C116	340.	12.17	35.	9.	4.	.23
ROUTED TO	BASIN5	153.	12.47	35.	9.	4.	.23
ROUTED TO	R116	152.	12.53	35.	9.	4.	.23
HYDROGRAPH AT	453	60.	12.13	7.	2.	1.	.06
2 COMBINED AT	C117	173.	12.50	41.	11.	5.	.29
2 COMBINED AT	C118	837.	12.10	99.	28.	14.	.92
ROUTED TO	R118	833.	12.13	99.	28.	14.	.92

+ DIVERSION TO	BASIN6	207.	12.13	12.	3.	1.	.92
+ HYDROGRAPH AT	DIV7	626.	12.13	86.	25.	12.	.92
+ HYDROGRAPH AT	RTDIV7	207.	12.13	12.	3.	1.	.92
+ ROUTED TO	RFDIV7	1.	11.93	1.	1.	1.	.92
+ 2 COMBINED AT	CDIV7	627.	12.13	87.	25.	13.	.92
+ HYDROGRAPH AT	454	152.	12.23	21.	6.	3.	.18
+ 2 COMBINED AT	C119	761.	12.13	107.	31.	16.	1.10
+ ROUTED TO	R454	676.	12.40	107.	31.	16.	1.10
+ HYDROGRAPH AT	455	1541.	12.23	198.	59.	28.	1.56
+ 2 COMBINED AT	C455	2058.	12.30	301.	89.	44.	2.66
+ 2 COMBINED AT	455C	4686.	13.13	1370.	511.	306.	13.68
+ DIVERSION TO	455D	1886.	13.13	146.	36.	18.	13.68
+ HYDROGRAPH AT	DD455	2800.	12.20	1224.	474.	289.	13.68
+ HYDROGRAPH AT	RT455D	1886.	13.13	146.	36.	18.	13.68
+ ROUTED TO	SR455D	91.	13.57	68.	34.	17.	13.68
+ 2 COMBINED AT	C455D	2891.	13.57	1283.	507.	306.	13.68
+ ROUTED TO	RR455	2866.	13.60	1277.	507.	304.	13.68
+ HYDROGRAPH AT	456	458.	12.07	36.	10.	5.	.26
+ DIVERSION TO	BASIN1	198.	12.07	8.	2.	1.	.26
+ HYDROGRAPH AT	DIV1	259.	12.07	28.	8.	4.	.26
+ DIVERSION TO	WA30	65.	12.07	8.	2.	1.	.26
+ HYDROGRAPH AT	DIV2	195.	12.07	20.	6.	3.	.26
+ ROUTED TO	R456	191.	12.17	20.	6.	3.	.26
+ HYDROGRAPH AT	457	254.	12.10	20.	5.	3.	.19
+ 2 COMBINED AT	C101	438.	12.10	40.	11.	5.	.45
+ DIVERSION TO	BASIN2	136.	12.10	8.	2.	1.	.45
+ HYDROGRAPH AT	DIV3	302.	12.10	32.	9.	4.	.45
+ HYDROGRAPH AT	RTDIV3	136.	12.10	8.	2.	1.	.45
+ ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+ 2 COMBINED AT	CDIV3	304.	12.10	33.	10.	5.	.45
+ ROUTED TO	R101	301.	12.13	33.	10.	5.	.45
+ HYDROGRAPH AT	458	347.	12.07	25.	7.	3.	.19
+ 2 COMBINED AT	C103	625.	12.07	58.	16.	8.	.64
+ ROUTED TO	R103	624.	12.10	58.	16.	8.	.64
+ HYDROGRAPH AT	RT30	65.	12.07	8.	2.	1.	.26
+ ROUTED TO	R30	64.	12.10	8.	2.	1.	.26
+ HYDROGRAPH AT	RTB1	198.	12.07	8.	2.	1.	.26
+ ROUTED TO	B1	36.	12.23	7.	2.	1.	.26

+	ROUTED TO	RB1	36.	12.30	7.	2.	1.	.26
+	2 COMBINED AT	CDIV	94.	12.23	15.	4.	2.	.12
	HYDROGRAPH AT	459	43.	12.07	3.	1.	0.	.03
	2 COMBINED AT	C52	118.	12.17	18.	5.	2.	.15
+	ROUTED TO	R52	116.	12.20	18.	5.	2.	.15
+	HYDROGRAPH AT	460	205.	12.10	19.	6.	3.	.14
+	2 COMBINED AT	C102	310.	12.10	37.	11.	5.	.29
+	ROUTED TO	BASIN3	75.	12.60	37.	11.	5.	.29
+	ROUTED TO	R3	75.	12.73	37.	11.	5.	.29
+	HYDROGRAPH AT	461	156.	12.13	17.	5.	2.	.12
+	2 COMBINED AT	C104	216.	12.13	53.	16.	7.	.41
+	2 COMBINED AT	C106	833.	12.10	110.	32.	16.	1.05
+	ROUTED TO	R106	799.	12.17	110.	32.	16.	1.05
+	HYDROGRAPH AT	462	523.	12.07	40.	11.	5.	.30
+	2 COMBINED AT	C56	1238.	12.13	149.	42.	21.	1.35
+	HYDROGRAPH AT	480	991.	12.13	96.	29.	14.	.73
+	*DIVERSION TO*	BS480	458.	11.93	27.	8.	4.	.73
+	HYDROGRAPH AT	D480	991.	12.13	78.	21.	10.	.73
	HYDROGRAPH AT	RT480	458.	11.93	27.	8.	4.	.73
	ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT	C480	997.	12.13	84.	27.	14.	.73
+	3 COMBINED AT	480C	3592.	12.23	1542.	590.	348.	2.09
+	*ROUTED TO*	RR480	3559.	12.27	1541.	590.	347.	2.09
+	HYDROGRAPH AT	500	988.	12.23	122.	33.	16.	.93
+	2 COMBINED AT	500C	4503.	12.27	1652.	618.	362.	2.84

*** NORMAL END OF HEC-1 ***

NSTEP Estimation for Spook Hill ADMP 100-YR, 24hr Spook Hill Bipass Conditions + 2900cfs in Spook Hill Floodway

Trial 1

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.03	26.39	1.0	0.9
RR60	3500	0.03	32.41	1.0	0.9
R80	1200	0.01	33.33	1.0	0.3
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.04	10.42	1.0	1.2
R260	2300	0.04	15.97	2.0	1.2
R280	2500	0.07	9.92	2.0	2.1
R300	2200	0.03	20.37	2.0	0.9
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.23	8.21	7.0	6.9
R340	2000	0.1	5.56	2.0	3.0
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.14	7.94	4.0	4.2
R400	3800	0.13	8.12	4.0	3.9
R420	2900	0.1	8.06	3.0	3.0
RR370	2600	0.03	24.07	1.0	0.9
RR390	5400	0.1	15.00	3.0	3.0
RR410	6000	0.13	12.82	4.0	3.9
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.06	6.02	3.0	1.8
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.06	42.59	2.0	1.8
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.03	60.19	2.0	0.9

Trial 2

$time_{min}$ = 2

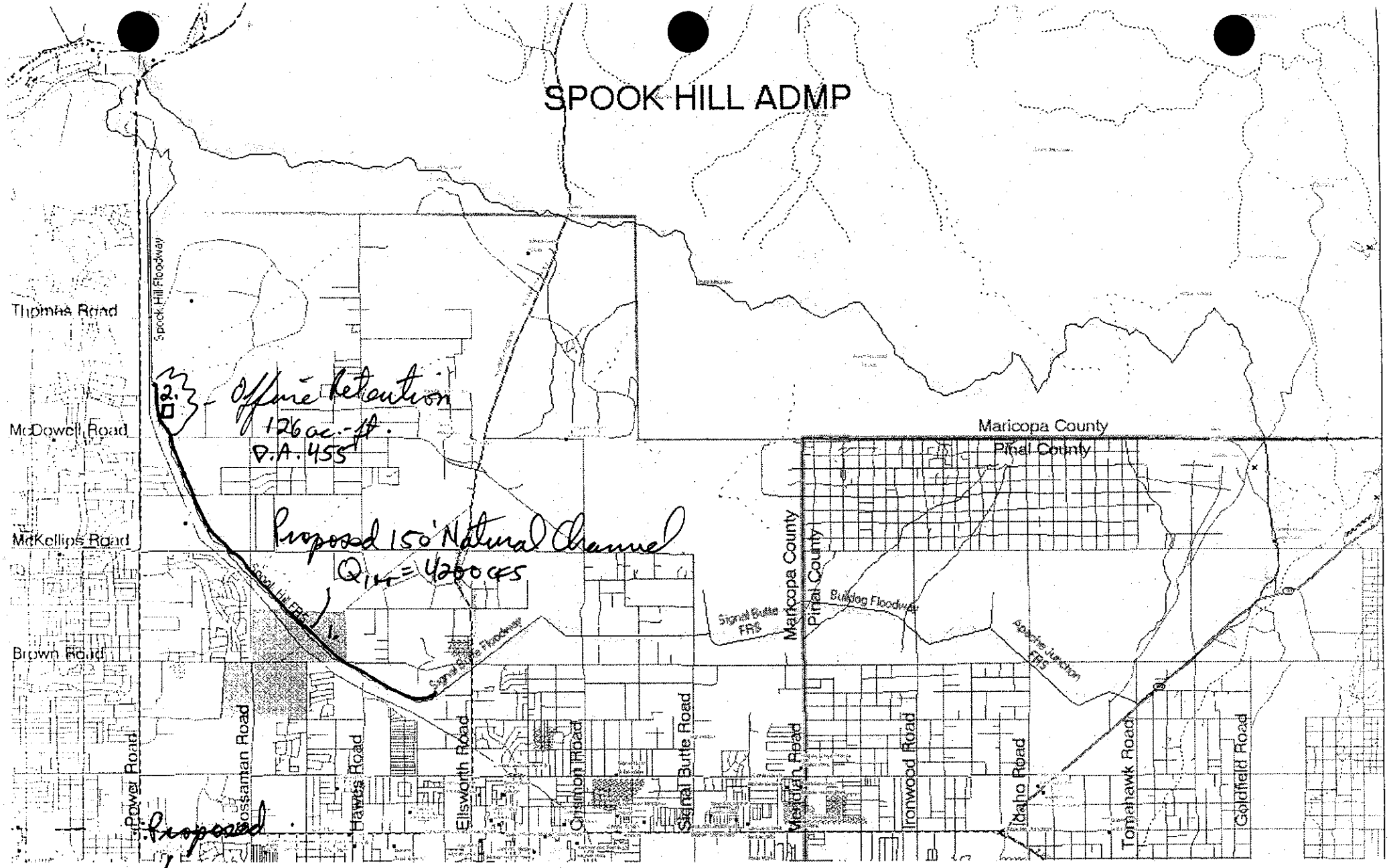
Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.06	13.19	2.0	1.8
RR60	3500	0.1	9.72	1.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.04	6.53	1.0	1.2
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.07	5.95	1.0	2.1
R260	2300	0.06	10.65	2.0	1.8
R280	2500	0.1	6.94	3.0	3.0
R300	2200	0.06	10.19	1.0	1.8
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.33	5.72	10.0	9.9
R340	2000	0.07	7.94	3.0	2.1
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.2	5.56	6.0	6.0
R400	3800	0.13	8.12	4.0	3.9
R420	2900	0.1	8.06	3.0	3.0
RR370	2600	0.03	24.07	1.0	0.9
RR390	5400	0.1	15.00	3.0	3.0
RR410	6000	0.13	12.82	4.0	3.9
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.1	3.61	2.0	3.0
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.06	42.59	2.0	1.8
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.07	25.79	2.0	2.1

Trial 3

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.06	13.19	2.0	1.8
RR60	3500	0.1	9.72	3.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.04	6.53	1.0	1.2
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.07	5.95	2.0	2.1
R260	2300	0.06	10.65	2.0	1.8
R280	2500	0.1	6.94	3.0	3.0
R300	2200	0.06	10.19	2.0	1.8
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.27	7.00	8.0	8.1
R340	2000	0.06	9.26	2.0	1.8
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.13	8.55	4.0	3.9
R400	3800	0.13	8.12	4.0	3.9
R420	2900	0.1	8.06	3.0	3.0
RR370	2600	0.03	24.07	1.0	0.9
RR390	5400	0.1	15.00	3.0	3.0
RR410	6000	0.13	12.82	4.0	3.9
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.1	3.61	3.0	3.0
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.06	42.59	2.0	1.8
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.06	30.09	2.0	1.8

SPOOK HILL ADMP



1. Channel
2. Offline Detention Basin

HEC-1 Existing Conditions 100-Year, 24hr Storm
Maintain Apache & Signal FRS & Eliminate Spook Hill FRS
Offline Basin added in D.A.455 & Spook Hill Floodway @ 2900cfs
No improved channel along McDowell Rd.

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1****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*              JUN   1998              *
*            VERSION 4.1               *
*                                      *
*  RUN DATE   07JAN00  TIME  10:52:38  *
*                                      *
****************************************
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****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    HYDROLOGIC ENGINEERING CENTER     *
*          609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616        *
*           (916) 756-1104             *
*                                      *
****************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX        XXX
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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

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1                                   HEC-1 INPUT                                          PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS, AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL, SIGNAL
 10           ID   BUTTE, AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE: SPHEX2.DAT
 13           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
 14           ID
 15           ID
 16           ID   REVISED MODEL BASED ON BYPASSING OF FRS STRUCTURES
 17           ID   AND INCREASING THE EXISTING CHANNELS WIDTHS - MAINTAINING THE SAME DEPTHS
 18           ID   REVISED ON 11/9/99 BY JCD; FILE: SPHEX3.DAT
 19           ID
 20           ID   MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
 21           ID   DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
 22           ID   BY: JCD; 1/4/2000            FILE: SPHEX2RV.DAT
 23           ID
 24           ID   MODEL UPDATE BASED ON BYPASSING OF FRS STRUCTURES AND INCREASING
 25           ID   THE EXISTING CHANNEL WIDTHS WHILE MAINTAINING THE SAME DEPTHS
 26           ID   FILE: SPHEX3RV.DAT           1/4/2000
 27           ID
 28           ID   MODEL UPDATE BASED ON KEEPING THE APACHE JUNCTION FRS & SIGNAL BUTTE FRS
 29           ID   ELIMINATING THE SPOOK HILL FRS AND INCLUDING AN IMPROVED CHANNEL ALONG
 30           ID   MCDOWELL TO RAVENS ROOST MOUNTAIN LOCATED JUST WEST OF ELLSWORTH ROAD
 31           ID   FILE: SPHEX6RV.DAT           JCD; 1/6/2000
 32           ID
 33           ID   MODEL UPDATE USING SAME MODEL HOWEVER USED OFFLINE BASIN TO BRING DISCHARGE
 34           ID   DOWN TO 2900cfs - THE EXISTING DISCHARGE WITHIN THE SPOOK HILL FLOODWAY
 35           ID   THEREFORE NO IMPROVEMENT TO THE CAHNNEL
 36           ID   FILE: SPHEX8RV.DAT           JCD; 1/6/2000
 37           ID
 38           ID   MODEL UPDATE HOWEVER NO MINOR IMPROVED CHANNEL AND USE OFFLINE BASIN
 39           ID   TO ELIMINATE THE SPOOK HILL FRS AND KEEP AT 2900cfs OUTFALL
 40           ID   FILE: SPHEX9RV.DAT           JCD; 1/6/2000
 41           ID
 42           ID
              *DIAGRAM
 43           IT       2                   1500
 44           IO       3
 45           IN      15
 46           JD    3.81    0.01
 47           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 48           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 49           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 50           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 51           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 52           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 53           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 54           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
1                                   HEC-1 INPUT                                          PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 55           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 56           PC    .983    .986    .989    .992    .995    .998   1.000
 57           JD    3.58   10.00
 58           JD    3.43   30.00
 59           JD    3.28   60.00
 60           JD    3.22   90.00
 61           JD    3.18  120.00
 62           JD    3.14  150.00
 63           JD    3.05  300.00
 64           JD    2.97  500.00

 65           KK      20
 66           KM   SUB-BASIN 20
 67           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 68           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
 69           KM     L = 4.58  Kb = .037  Adj. Slope =  118.0
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 70          BA   1.821
 71          LG    .350     .360   6.600     .140   7.000
 72          UC    .804     .697

 73          KK      40
 74          KM   SUB-BASIN 40
 75          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 76          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 77          KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 78          BA   2.233
 79          LG    .340     .340   4.900     .280   5.000
 80          UC    .496     .264

 81          KK      60
 82          KM   SUB-BASIN 60
 83          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 84          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 85          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 86          BA   1.746
 87          LG    .330     .350   5.800     .190   9.000
 88          UC    .596     .477

 89          KK     60C
 90          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1        2
 91          HC       3

 92          KK    SR60
 93          KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
 94          KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
 95          KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
 96          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
 97          RS       1    STOR        0
 98          SV       0       1      100      200      300      400
 99          SQ       0      71       81       87     91.5       94
100          SE    83.5    93.5       96     97.7       99    99.77
1                                          HEC-1 INPUT                                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

101          KK     R60
102          KM        ROUTE FLOW THROUGH BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
103          RS       2    FLOW       -1
104          RC    .016     .016     .016     2850     .012
105          RX       0        1        2      2.1      5.6      5.7        6        7
106          RY     3.5      3.5      3.5        0        0      3.5      3.5      3.5

107          KK    RR60
108          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
109          RS       3    FLOW       -1
110          RC    .016     .016     .016     3500     .005
111          RX       0        1        2      2.1      7.1      7.2        8        9
112          RY     3.5      3.5      3.5        0        0      3.5      3.5      3.5

113          KK      80
114          KM   SUB-BASIN 80
115          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
116          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
117          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
118          BA   1.475
119          LG    .330     .330   5.600     .210   4.000
120          UC    .433     .259

121          KK     80C
122          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
123          HC       2   1.475

124          KK     R80
125          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
126          RS       1    FLOW       -1
127          RC    .016     .016     .016     1200     .003
128          RX       0        1        2      2.1     37.1     37.2       38       39
129          RY     4.5      4.5      4.5        0        0      4.5      4.5      4.5

130          KK     100
131          KM   SUB-BASIN 100
132          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
133          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
134          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
135          BA    .484
136          LG    .320     .290   5.100     .260   3.000
137          UC    .533     .473

138          KK    100C
139          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
140          HC       2

141          KK    R100
142          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
143          RS       1    FLOW       -1
144          RC    .016     .016     .016      940     .005
145          RX       0        1        2      2.1     52.1     52.2       53       54
146          RY     4.5      4.5      4.5        0        0      4.5      4.5      4.5
1                                          HEC-1 INPUT                                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

147          KK     120
148          KM   SUB-BASIN 120
149          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
150          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
151          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
152          BA   2.202
153          LG    .330     .280   6.800     .130  11.000
154          UC    .429     .226

155          KK    120C
156          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
157          HC       2

158          KK    R120
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159          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
160          RS       1    FLOW      -1
161          RC    .025    .016    .025    2100    .005
162          RX       0       6      10    10.1    60.1    60.2    74.2    80.2
163          RY       8       5       5       0       0       5       5       8

164          KK     140
165          KM   SUB-BASIN 140
166          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
167          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
168          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
169          BA    .598
170          LG    .310    .280   4.200    .440   5.000
171          UC    .421    .278

172          KK     160
173          KM   SUB-BASIN 160
174          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
175          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
176          KM     L = 3.18  Kb = .043  Adj. Slope =  299.2
177          BA    .777
178          LG    .340    .340   4.600    .330   5.000
179          UC    .479    .476

180          KK     180
181          KM   SUB-BASIN 180
182          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
183          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
184          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
185          BA   1.000
186          LG    .350    .350   4.150    .430    .000
187          UC    .571    .403

188          KK    180C
189          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
190          HC       4
1                                        HEC-1 INPUT                                                    PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


191          KK     240
192          KM   SUB-BASIN 240
193          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
194          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
195          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
196          BA   1.036
197          LG    .350    .350   4.600    .330   2.000
198          UC    .500    .458

199          KK    R240
200          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
201          KM   PASS MOUNTAIN DIVERSION
202          RS       2    FLOW      -1
203          RC    .035    .025    .035    2100    .005
204          RX       0       1       2      11      41      50      51      52
205          RY       3       3       3       0       0       3       3       3

206          KK     220
207          KM   SUB-BASIN 220
208          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
209          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
210          KM     L = 3.14  Kb = .040  Adj. Slope =  302.1
211          BA   1.252
212          LG    .350    .350   7.000    .120   3.000
213          UC    .425    .315
             * DDM   ***** Preserved *****

214          KK    220C
215          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
216          HC       2
             * DDM   ***** Preserved *****

217          KK    R220
218          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
219          KM   PASS MOUNTAIN DIVERSION
220          RS       1    FLOW      -1
221          RC    .035    .025    .035    1900    .005
222          RX       0       1       2      14      64      76      77      78
223          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

224          KK     200
225          KM   SUB-BASIN 200
226          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
227          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
228          KM     L = 3.28  Kb = .038  Adj. Slope =  299.9
229          BA   1.811
230          LG    .350    .390   5.800    .190  11.000
231          UC    .433    .270
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


232          KK    200C
233          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
234          HC       2
             * DDM   ***** Preserved *****

235          KK    R200
236          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
237          RS       1    FLOW      -1
238          RC    .035    .025    .035    1300    .005
239          RX       0       1       2      14     114     126     127     128
240          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

241          KK    C180
242          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *      1       2
243          HC       2
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            * DDM   ***** Preserved *****

244         KK   SR180
245         KM   SIGNAL BUTTE FRS DATED 1/28/85
246         KM   OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
247         KM   EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
248         KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
249         RS       1    STOR       0
250         SV       0       1     250     500     750    1060
251         SQ       0   106.5   125.5   137.5     146     160
252         SE      90     101   104.5     107     109   112.4
            * DDM   ***** Preserved *****

253         KK    R180
254         KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
255         RS       2    FLOW      -1
256         RC    .035    .025    .035    1500    .003
257         RX       0       1       2    22.6    38.6    59.2      60      61
258         RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
            * DDM   ***** Updated *****

259         KK     260
260         KM   SUB-BASIN 260
261         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
262         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
263         KM     L =  .81  Kb = .049  Adj. Slope =   68.0
264         BA    .267
265         LG    .300    .170   6.800    .160  15.000
266         UC    .363    .215
            * DDM   ***** Preserved *****

267         KK    260C
268         KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
269         HC       2    .267
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE  7

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

270         KK    R260
271         KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
272         RS       2    FLOW      -1
273         RC    .035    .025    .035    2300    .003
274         RX       0       1       2    23.4    43.4    64.8      65      66
275         RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
            * DDM   ***** Updated *****

276         KK     280
277         KM   SUB-BASIN 280
278         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
279         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
280         KM     L =  .77  Kb = .049  Adj. Slope =   84.0
281         BA    .304
282         LG    .300    .250   5.300    .290  15.000
283         UC    .333    .175
            * DDM   ***** Preserved *****

284         KK    280C
285         KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
286         HC       2
            * DDM   ***** Preserved *****

287         KK    R280
288         KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
289         RS       3    FLOW      -1
290         RC    .035    .025    .035    2500    .003
291         RX       0       1       2    23.4    43.4    64.8      65      66
292         RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
            * DDM   ***** Updated *****

293         KK     300
294         KM   SUB-BASIN 300
295         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
296         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
297         KM     L = 2.28  Kb = .041  Adj. Slope =  127.0
298         BA    .988
299         LG    .340    .320   4.500    .370   7.000
300         UC    .538    .362
            * DDM   ***** Preserved *****

301         KK    300C
302         KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
303         HC       2
            * DDM   ***** Preserved *****

304         KK    R300
305         KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
306         RS       2    FLOW      -1
307         RC    .035    .025    .035    2200    .003
308         RX       0       1       2    23.4    55.4    76.8      77      78
309         RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE  8

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

310         KK   RR300
311         KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
312         RS       2    FLOW      -1
313         RC    .016    .016    .016    6050   .0146
314         RX       0       1       2     2.1    16.1    16.2      17      18
315         RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
            * DDM   ***** Updated *****

316         KK     320
317         KM   SUB-BASIN 320
318         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
319         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
320         KM     L = 4.67  Kb = .039  Adj. Slope =  248.6
            *      1       2
321         BA   1.527
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322          LG    .330    .320   4.400    .390   9.000
323          UC    .658    .627
             * DDM   ***** Preserved *****

324          KK    D320
325          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
326          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
327          KM   SIERRA HEIGHTS, FALCON RIDGE, & MARBLE CREEK
328          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *      1
329          DT   BS320   12.27
330          DI       0   10000
331          DQ       0   10000

332          KK   RT320
333          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
334          DR   BS320

335          KK   SR320
336          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
337          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *      1
338          RS       1    STOR       0
339          SV       0     .01    12.3
340          SQ       0     4.2     4.2

341          KK    C320
342          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
343          HC       3

344          KK    R320
345          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
346          RS       8    FLOW      -1
347          RC    .025    .025    .025    6800   .0016
348          RX       0       1       2      15     165     180     181     182
349          RY       5       5       5       0       0       5       5       5
             *      0       1       2      30      90     118     119     120
             *      7       7       7       0       0       7       7       7
1                                        HEC-1 INPUT                                                    PAGE  9

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

350          KK     340
351          KM   SUB-BASIN 340
352          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
353          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
354          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
355          BA   1.449
356          LG    .280    .280   4.150    .520  21.000
357          UC    .512    .287

358          KK    D340
359          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
360          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
361          KM   GRANDVIEW ESTATES, BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
362          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *      1
363          DT   BS340      56
364          DI       0   10000
365          DQ       0   10000

366          KK   RT340
367          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
368          DR   BS340

369          KK   SR340
370          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
371          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *      1
372          RS       1    STOR       0
373          SV       0     .01      56
374          SQ       0    18.9    18.9

375          KK    C340
376          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
377          HC       3

378          KK    R340
379          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
380          RS       2    FLOW      -1
381          RC    .025    .025    .025    2000   .0016
382          RX       0       1       2      15     165     180     181     182
383          RY       5       5       5       0       0       5       5       5
             *      0       1       2      30     114     142     143     144
             *      7       7       7       0       0       7       7       7

384          KK     350
385          KM   SUB-BASIN 350
386          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
387          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
388          KM     L = 2.22  Kb = .042  Adj. Slope =  315.0
389          BA    .970
390          LG    .350    .350   4.550    .340   4.000
391          UC    .367    .234
1                                        HEC-1 INPUT                                                    PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

392          KK   RR350
393          KM   FROM SUB-BASIN 350 TO SUB-BASIN 360
394          RS      12    FLOW      -1
395          RC     .05    .035     .05   25600    .049
396          RX    1000    1010    1020    1036    1041    1057    1067    1077
397          RY      15    14.5      14      10      10      14    14.5      15

398          KK     360
399          KM   SUB-BASIN 360
400          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
401          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
402          KM     L = 4.84  Kb = .042  Adj. Slope =  257.5
403          BA   1.329
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404          LG    .300    .300   4.250    .460  12.000
405          UC    .712    .763
             * DDM   ***** Preserved *****

406          KK    D360
407          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
408          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
409          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
410          DT   BS360    28.6
411          DI       0   10000
412          DQ       0   10000

413          KK   RT360
414          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
415          DR   BS360

416          KK   SR360
417          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
418          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
419          RS       1    STOR       0
420          SV       0     .01    28.6
421          SQ       0     9.6     9.6

422          KK    360C
423          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
424          HC       4

425          KK    R360
426          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
427          RS       2    FLOW      -1
428          RC    .025    .025    .025    2600   .0016
429          RX       0       1       2      15     165     180     181     182
430          RY       5       5       5       0       0       5       5       5
             *      0       1       2      30     130     158     159     160
             *      7       7       7       0       0       7       7       7
1                                          HEC-1 INPUT                                                          PAGE 11

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


431          KK     380
432          KM   SUB-BASIN 380
433          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
434          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
435          KM     L = 5.05  Kb = .041  Adj. Slope =  255.8
436          BA   1.638
437          LG    .320    .320   4.400    .420   8.000
438          UC    .733    .723

439          KK    D380
440          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
441          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
442          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
443          DT   BS380    28.6
444          DI       0   10000
445          DQ       0   10000

446          KK   RT380
447          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
448          DR   BS380

449          KK   SR380
450          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
451          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
452          RS       1    STOR       0
453          SV       0     .01    28.6
454          SQ       0     9.6     9.6

455          KK    380C
456          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
457          HC       3

458          KK    R380
459          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
460          RS       4    FLOW      -1
461          RC    .025    .025    .025    4000   .0016
462          RX       0       1       2      15     165     180     181     182
463          RY       5       5       5       0       0       5       5       5
             *      0       1       2      30     150     178     179     180
             *      7       7       7       0       0       7       7       7

464          KK     390
465          KM   SUB-BASIN 390
466          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
467          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
468          KM     L = 2.82  Kb = .041  Adj. Slope =  298.1
469          BA   1.089
470          LG    .330    .330   5.200    .260  14.000
471          UC     .41    .306
1                                          HEC-1 INPUT                                                          PAGE 12

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


472          KK    D390
473          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
474          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
475          KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
             *      1
476          DT   BS390     3.5
477          DI       0   10000
478          DQ       0   10000

479          KK   RT390
480          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
481          DR   BS390

482          KK   SR390
483          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
484          KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
485          RS       1    STOR       0
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SV       0     .01     3.5
SQ       0     1.2     1.2

KK    390C
KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
HC       2

KK   RR390
KM   FROM SUB-BASIN 390 TO SUB-BASIN 400
RS       6    FLOW      -1
RC     .05    .035     .05   14890    .056
RX    1000    1010    1020    1036    1041    1057    1067    1077
RY      15    14.5      14      10      10      14    14.5      15

KK     400
KM   SUB-BASIN 400
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
BA    .616
LG    .320    .320   3.130    .930   6.000
UC    .592    .405

KK    400C
KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
HC       2

KK    R400
KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
RS       6    FLOW      -1
RC    .025    .025    .025    3800   .0016
RX       0       1       2      15     165     180     181     182
RY       5       5       5       0       0       5       5       5
*      0       1       2      30     180     208     209     210
*      7       7       7       0       0       7       7       7
* DDM   ***** Preserved *****
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LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK     420
KM   SUB-BASIN 420
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
KM     L = 1.91  Kb = .042  Adj. Slope =  120.0
BA    .849
LG    .310    .270   3.880    .580  12.000
UC    .512    .325
* DDM   ***** Preserved *****

KK    D420
KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
*      1
DT   BS420   38.55
DI       0   10000
DQ       0   10000

KK   RT420
KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
DR   BS420

KK   SR420
KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
KM   38.55 ACRE-FEETx43560/36x3600=13cfs
RS       1    STOR       0
SV       0   38.55
SQ       0      20

KK    420C
KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
HC       3

KK    R420
KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
RS       4    FLOW      -1
RC    .025    .025    .025    2900   .0016
RX       0       1       2      15     165     180     181     182
RY       5       5       5       0       0       5       5       5

KK   420CC
KM   HYDROGRAPH COMBINATION FOR SUB-BASINS 410 & 420
HC       2
* DDM   ***** Updated *****

KK     440
KM   SUB-BASIN 440
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
KM     L =  .40  Kb = .039  Adj. Slope =  315.0
BA    .080
LG    .190    .380   6.400    .140  13.000
UC    .129    .077
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LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK     R70
KM        ROUTE FLOW FROM SUB-BASIN 60 TO C108
RS       1    FLOW      -1
RC     .05    .035     .05    2250     .08
RX    1000    1025    1050    1070    1075    1095    1120    1145
RY      30    22.9    15.7      10      10    15.7    22.9      30
* DDM   ***** Updated *****

KK     441
KM   SUB-BASIN 441
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
KM     L =  .28  Kb = .069  Adj. Slope =  315.0
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569          BA    .010
570          LG    .300    .250   5.600    .220   5.000
571          UC    .150    .225
             * DDM   ***** Preserved *****

572          KK    C108
573          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60 AND 61A
574          HC       2
             * DDM   ***** Preserved *****

575          KK    DIV4
576          KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
             *      1
577          DT   SPLIT
578          DI       0      14      40      82     120     154     180
579          DQ       0       7      20      41      60      77      90
             * DDM   ***** Preserved *****

580          KK    R108
581          KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
582          RS       2    FLOW      -1
583          RC     .05    .035     .05    3200      .1
584          RX    1000    1025    1050    1070    1075    1095    1120    1145
585          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

586          KK     442
587          KM   SUB-BASIN 442
588          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
589          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
590          KM     L =  .83  Kb = .055  Adj. Slope =  274.2
591          BA    .100
592          LG    .300    .270   3.290    .770   5.000
593          UC    .258    .264
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

594          KK     C67
595          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60, 61 AND 67
596          HC       2
             * DDM   ***** Preserved *****

597          KK    DIV6
598          KM        OFFLINE BASIN WITH 75 FOOT WEIR SET AT 3 FEET ABOVE BOTTOM OF CHANNEL
599          KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
             *      1
600          DT  BASIN4
601          DI       0      10      32      56   136.6   276.5     454   662.8
602          DQ       0       0       0       0    71.6   202.5     372   572.8

603          KK  RTDIV6
604          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
605          DR  BASIN4

606          KK  RFDIV6
607          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
608          KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
             *      1
609          RS       1    STOR       0
610          SV       0     .01     3.3
611          SQ       0     1.1     1.1

612          KK   CDIV6
613          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
614          HC       2

615          KK     443
616          KM   SUB-BASIN 443
617          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
618          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
619          KM     L =  .71  Kb = .050  Adj. Slope =  315.0
620          BA    .080
621          LG    .250    .190   8.000    .080  10.000
622          UC    .196    .194

623          KK   DIV66
624          KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
625          KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
626          DT   WSH66
627          DI       0      78     100     200
628          DQ       0      78      78      78

629          KK    R113
630          KM        ROUTE FLOW FROM C113 TO C114
631          RS       1    FLOW      -1
632          RC    .019    .019    .019    1300    .029
633          RX    1000    1004    1008    1012    1018    1022    1026    1030
634          RY      17   15.33   12.67      10      10   12.67   15.33      17
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

635          KK    C114
636          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
637          HC       2

638          KK     444
639          KM   SUB-BASIN 444
640          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
641          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
642          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
643          BA    .040
644          LG    .130    .350   4.450    .320   1.000
645          UC    .112    .084
             * DDM   ***** Preserved *****

646          KK     R58
647          KM        ROUTE FLOW FROM SUB-BASIN 58 TO C107
648          RS       2    FLOW      -1
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649          RC     .05    .035     .05    2370   .0516
650          RX    1000    1010    1020    1050    1055    1085    1095    1105
651          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Updated *****

652          KK     445
653          KM   SUB-BASIN 445
654          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
655          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
656          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
657          BA    .190
658          LG    .170    .320   3.470    .590   3.000
659          UC    .192    .130
             * DDM   ***** Preserved *****

660          KK    C107
661          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 58 AND 59
662          HC       2
             * DDM   ***** Preserved *****

663          KK    R107
664          KM        ROUTE FLOW FROM C107 TO C109
665          RS       1    FLOW      -1
666          RC     .05    .035     .05     700   .0516
667          RX    1000    1010    1020    1050    1055    1085    1095    1105
668          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

669          KK    RTB2
670          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
671          DR   SPLIT
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                    PAGE 17

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

672          KK  RSPLIT
673          KM        ROUTE FLOW FROM SPLIT TO C109
674          RS       1    FLOW      -1
675          RC     .05    .035     .05     800     .05
676          RX    1000    1025    1050    1070    1075    1095    1120    1145
677          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

678          KK     446
679          KM   SUB-BASIN 446
680          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
681          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
682          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
683          BA    .040
684          LG    .270    .250   4.500    .400  19.000
685          UC    .183    .189
             * DDM   ***** Preserved *****

686          KK    C109
687          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
688          HC       3
             * DDM   ***** Preserved *****

689          KK    DIV5
690          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
691          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
692          DT  WSH404
693          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
694          DQ       0      35      35      35      35      35      35      35
             * DDM   ***** Preserved *****

695          KK    R109
696          KM        ROUTE FLOW FROM C109 TO C110
697          RS       1    FLOW      -1
698          RC    .019    .019    .019    3080     .05
699          RX    1000    1005    1010    1015    1025    1030    1035    1040
700          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
             * DDM   ***** Updated *****

701          KK     447
702          KM   SUB-BASIN 447
703          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
704          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
705          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
706          BA    .090
707          LG    .250    .270   3.350    .870  30.000
708          UC    .208    .145
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                    PAGE 18

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

709          KK   RT404
710          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
711          DR  WSH404
             * DDM   ***** Preserved *****

712          KK    R404
713          KM        ROUTE FLOW FROM C110 TO C110
714          RS       5    FLOW      -1
715          RC    .019    .019    .019    3540     .03
716          RX    1000    1012    1016    1020    1025    1029    1033    1045
717          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

718          KK    C110
719          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 62 AND C109
720          HC       3
             * DDM   ***** Preserved *****

721          KK    R110
722          KM        ROUTE FLOW FROM C110 TO C115
723          RS       1    FLOW      -1
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724          RC    .019    .019    .019     580    .029
725          RX    1000    1012    1016    1020    1035    1039    1043    1055
726          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

727          KK    C115
728          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
729          HC       2
             * DDM   ***** Preserved *****

730          KK    R115
731          KM        ROUTE FLOW FROM C115 TO C119
732          RS       1    FLOW      -1
733          RC    .019    .019    .019    2125    .029
734          RC    .019    .019    .019     580   .0291
735          RX    1000    1012    1016    1020    1035    1039    1043    1055
736          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Updated *****

737          KK     448
738          KM   SUB-BASIN 448
739          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
740          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
741          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
742          BA    .045
743          LG    .170    .310   4.200    .390  11.000
744          UC    .133    .102
             * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                    PAGE 19

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

745          KK     449
746          KM   SUB-BASIN 449
747          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
748          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
749          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
750          BA    .050
751          LG    .260    .280   3.500    .640   6.000
752          UC    .167    .134
             * DDM   ***** Preserved *****

753          KK   C6364
754          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 63 AND 64
755          HC       2
             * DDM   ***** Preserved *****

756          KK   R6364
757          KM        ROUTE FLOW FROM DIVERSIONS 63 AND 64 TO C116
758          RS       5    FLOW      -1
759          RC     .05    .035     .05    4375   .0333
760          RX    1000    1027    1053    1080    1090    1117    1143    1170
761          RY      15   13.33   11.67      10      10   11.67   13.33      15
             * DDM   ***** Updated *****

762          KK     450
763          KM   SUB-BASIN 450
764          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
765          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
766          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
767          BA    .070
768          LG    .340    .350   3.630    .570   4.000
769          UC    .296    .383
             * DDM   ***** Updated *****

770          KK     451
771          KM   SUB-BASIN 451
772          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
773          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
774          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
775          BA    .025
776          LG    .340    .340   3.290    .750   3.000
777          UC    .271    .453
             * DDM   ***** Preserved *****

778          KK    RT66
779          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
780          DR   WSH66
             * DDM   ***** Updated *****

781          KK     452
782          KM   SUB-BASIN 452
783          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
784          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
785          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
786          BA    .040
1                                    HEC-1 INPUT                                    PAGE 20

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

787          LG    .260    .280   3.700    .550   9.000
788          UC    .171    .166
             * DDM   ***** Preserved *****

789          KK   C6566
790          KM        COMBINE HYDROGRAPHS FROM DIVERSIONS 65 AND 66
791          HC       2
             * DDM   ***** Preserved *****

792          KK   R6566
793          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
794          RS       2    FLOW      -1
795          RC     .05    .035     .05    2435   .0282
796          RX    1000    1045    1090    1150    1160    1220    1265    1310
797          RY      25      23      20      10      10      20      23      25
             * DDM   ***** Preserved *****

798          KK    C116
799          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 68 AND 69 AND DIVERTED FLOWS
800          KM        FROM SUB-BASINS 63, 64, 65 AND 66
801          HC       4
             * DDM   ***** Preserved *****
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802          KK  BASIN5
803          KM        RESERVOIR WITHIN PARCEL 31, 2-48 INCH PIPES AT OUTFALL
804          KM        BASIN 5 FEET DEEP
805          RS       1    ELEV       0
806          SV       0     4.5     9.9
807          SQ       0      69     190
808          SE       0     2.5       5
             * DDM   ***** Preserved *****

809          KK    R116
810          KM        ROUTE FLOW FROM C116 TO C118
811          RS       3    FLOW      -1
812          RC     .05    .035     .05    1300   .0333
813          RX    1000    1100    1200    1300    1320    1420    1520    1620
814          RY      13      12      11      10      10      11      12      13
             * DDM   ***** Updated *****

815          KK     453
816          KM   SUB-BASIN 453
817          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
818          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
819          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
820          BA    .060
821          LG    .290    .300   3.290    .820  18.000
822          UC    .275    .284
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 21

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

823          KK    C117
824          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 70 AND C115
825          HC       2
             * DDM   ***** Preserved *****

826          KK    C118
827          KM        COMBINE HYDROGRAPHS FROM C116 AND C117
828          HC       2
             * DDM   ***** Preserved *****

829          KK    R118
830          KM        ROUTE FLOW FROM C118 TO C119
831          RS       1    FLOW      -1
832          RC    .019    .019    .019    1500    .024
833          RX    1000    1012    1016    1020    1035    1039    1043    1055
834          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

835          KK    DIV7
836          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE, FLOWS ENTER BASIN OVER
837          KM        60' WEIR SET AT 1.5' ABOVE THE CHANNEL BOTTOM
             *      1
838          DT  BASIN6
839          DI       0    20.4    76.9   176.4   383.8   696.7  1105.8  1611.6
840          DQ       0       0       0       0    57.3     162   297.6   458.2

841          KK  RTDIV7
842          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
843          DR  BASIN6

844          KK  RFDIV7
845          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
846          KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
847          RS       1    STOR       0
848          SV       0     .01     3.6
849          SQ       0     1.2     1.2

850          KK   CDIV7
851          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
852          HC       2

853          KK     454
854          KM   SUB-BASIN 454
855          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
856          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
857          KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
858          BA    .180
859          LG    .300    .310   3.780    .560  14.000
860          UC    .379    .395
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 22

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

861          KK    C119
862          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 71 AND C119
             *      1       2
863          HC       2
             * DDM   ***** Preserved *****

864          KK    R454
865          KM   FROM SUB-BASIN 454 TO SUB-BASIN 455
866          RS       8    FLOW      -1
867          RC     .05    .035     .05    6000    .005
868          RX    1000    1010    1020    1036    1041    1057    1067    1077
869          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Updated *****

870          KK     455
871          KM   SUB-BASIN 455
872          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
873          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
874          KM     L = 2.92  Kb = .039  Adj. Slope =  269.2
875          BA   1.559
876          LG    .280    .270   3.850    .590  22.000
877          UC    .450    .279

878          KK    C455
879          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
880          HC       2
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881          KK    455C
882          KM   HYDROGRAPH COMBINATION AT THE END OF THE SPOOK HILL FRS
             *      1       2
883          HC       2

884          KK   DD455
885          KM   DIVERT FLOW INTO SPOOK HILL FRS - VOLUME = 100 ACRE-FEET
886          KM   NOW INCREASE DIVERTED FLOW TO MAINTAIN 3700cfs OUTFLOW
887          KO       1
888          DT    455D
889          DI       0    2800   20000
890          DQ       0       0   17200

891          KK  RT455D
892          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
893          DR    455D

894          KK  SR455D
895          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
896          KM     100 ACRE-FEETx43560/36x3600=34cfs
             *      1
897          RS       1    STOR       0
898          SV       0     125
899          SQ       0     100
1                                        HEC-1 INPUT                                          PAGE 23

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


900          KK   C455D
901          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
902          HC       2
             *  SR440
             *  SPOOK HILL FRS PLANS DATED 6/15/77
             *  OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
             *  EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
             *  STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
             *      1    STOR       0
             *      0     .04     100     300     500     680
             *      0     640     720     780     825     860
             *     66    77.5      79    80.2    81.2      82

903          KK   RR455
904          KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
905          RS       1    FLOW      -1
906          RC    .016    .016    .016    9200    .002
907          RX       0       1       2      15      71      84      85      86
908          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
             *     11    FLOW      -1
             *   .035    .025    .035    9200    .002
             *      0       1       2      28      58      84      85      86
             *     13      13      13       0       0      13      13      13

909          KK     456
910          KM   SUB-BASIN 456
911          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
912          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
913          KM     L =  .94  Kb = .045  Adj. Slope =  315.0
914          BA    .260
915          LG    .300    .380   5.600    .200  12.000
916          UC    .217    .139

917          KK    DIV1
918          KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
919          KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
             *      1
920          DT  BASIN1
921          DI       0    24.4    70.8   132.2   194.1   281.1   415.5   571.9   753.2
922          DQ       0       0       0       0       0    57.3     162   297.6   458.2
             * DDM   ***** Preserved *****

923          KK    DIV2
924          KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
925          KM        WASHES THAT DRAIN TO THE WEST, SOUTHERN WASHES FED BY 30" AND 18" PIPE
926          DT    WA30
927          DI       0    24.4    70.8   132.2   194.1   223.8   253.5  274.25     295
928          DQ       0     8.4    24.8    40.2    52.1    57.8    63.5    67.3      71
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 24

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


929          KK    R456
930          KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
931          RS       3    FLOW      -1
932          RC     .05    .035     .05    3800    .044
933          RX    1000    1010    1020    1036    1041    1057    1067    1077
934          RY   14.88   14.44      14      10      10      14   14.44   14.88
             * DDM   ***** Updated *****

935          KK     457
936          KM   SUB-BASIN 457
937          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
938          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
939          KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
940          BA    .190
941          LG    .270    .330   3.950    .460   6.000
942          UC    .237    .195
             * DDM   ***** Preserved *****

943          KK    C101
944          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
945          HC       2
             * DDM   ***** Preserved *****

946          KK    DIV3
947          KM        RESERVOIR AT THE EDGE OF THE PROPERTY, FLOW FROM 10' WIDE CHANNEL
948          KM        DIVERTED INTO OFFLINE BASIN OVER A 150' WEIR SET AT 0.75 FEET
949          KM        ABOVE CHANNEL
             *      1
950          DT  BASIN2
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951          DI        0       18     59.3    121.6    255.8    454.1    703.1    998.3   1338.4
952          DQ        0        0        0        0     50.6    143.2    263.1      405      566

953          KK  RTDIV3
954          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
955          DR  BASIN2

956          KK  RFDIV3
957          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
958          KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
959          RS       1     STOR       0
960          SV       0      .01       5
961          SQ       0      1.7     1.7

962          KK   CDIV3
963          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
964          HC       2
             * DDM   ***** Preserved *****

965          KK    R101
966          KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
967          RS       1    FLOW      -1
968          RC     .05    .035     .05    1450     .05
969          RX    1000    1010    1020    1036    1041    1057    1067    1077
970          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Updated *****
1                                          HEC-1 INPUT                                                    PAGE 25

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

971          KK     458
972          KM   SUB-BASIN 458
973          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
974          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
975          KM     L =  .76  Kb = .048  Adj. Slope =  299.0
976          BA    .190
977          LG    .290    .330   5.800    .190   6.000
978          UC    .204    .131
             * DDM   ***** Preserved *****

979          KK    C103
980          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
981          HC       2
             * DDM   ***** Preserved *****

982          KK    R103
983          KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
984          RS       1    FLOW      -1
985          RC     .05    .035     .05     900     .03
986          RX    1000    1010    1020    1030    1050    1060    1070    1080
987          RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
             * DDM   ***** Preserved *****

988          KK    RT30
989          KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
990          DR    WA30
             * DDM   ***** Preserved *****

991          KK     R30
992          KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
993          RS       1    FLOW      -1
994          RC     .05    .035     .05    1630     .05
995          RX    1000    1010    1020    1036    1041    1057    1067    1077
996          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Preserved *****

997          KK    RTB1
998          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1       2
999          DR  BASIN1
             * DDM   ***** Preserved *****

1000         KK      B1
1001         KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1002         KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
             *      1       2
1003         RS       1    ELEV       0
1004         SV              .7     1.4     2.3     2.7     3.2
1005         SQ       0       5      16      28    32.5      37
1006         SE       0       1       2       3     3.5       4
             * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE 26

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1007         KK     RB1
1008         KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
1009         RS       2    FLOW      -1
1010         RC     .05    .035     .05    1720     .05
1011         RX    1000    1010    1020    1036    1041    1057    1067    1077
1012         RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Preserved *****

1013         KK    CDIV
1014         KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1015         HC       2     .12
             * DDM   ***** Updated *****

1016         KK     459
1017         KM   SUB-BASIN 459
1018         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1019         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1020         KM     L =  .35  Kb = .052  Adj. Slope =  251.6
1021         BA    .030
1022         LG    .220    .300   3.330    .710   8.000
1023         UC    .162    .157
             * DDM   ***** Preserved *****

1024         KK     C52
1025         KM        COMBINE FLOWS FROM SUB-BASIN 52, WA30 AND BASIN 1
1026         HC       2
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          * DDM   ***** Preserved *****

1027      KK     R52
1028      KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1029      RS       1    FLOW      -1
1030      RC     .05    .035     .05    2000     .05
1031      RX    1000    1010    1020    1036    1041    1057    1067    1077
1032      RY      15    14.5      14      10      10      14    14.5      15
          * DDM   ***** Updated *****

1033      KK     460
1034      KM   SUB-BASIN 460
1035      KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1036      KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1037      KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1038      BA    .140
1039      LG    .250    .260   3.740    .690  27.000
1040      UC    .242    .160
          * DDM   ***** Preserved *****

1041      KK    C102
1042      KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1043      HC       2
          * DDM   ***** Preserved *****
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LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1044      KK  BASIN3
1045      KM        RESERVOIR AT CLUBHOUSE LOCATION, 1-30 INCH PIPE AT OUTFALL
1046      KM        BOTTOM OF BASIN AT 6 FEET ABOVE 0 ELEVATION
1047      RS       1    ELEV       0
1048      SA       0       0       0       0     .21    1.15       2    2.12    2.31    2.65
          *      0       0       0       0    1.14    3.25    5.52    9.23
1049      SE       0     2.5       5       6       7     7.5       8       9    10.5    12.5
1050      SQ       0      22      45      51      57    59.5      62      67      73      81
          * DDM   ***** Preserved *****

1051      KK      R3
1052      KM        ROUTE FLOW FROM C102 to C106
1053      RS       4    FLOW      -1
1054      RC     .05     .03     .05    2750   .0375
1055      RX    1000    1010    1020    1052    1086    1118    1128    1138
1056      RY    19.2    18.4      18      10      10      18    18.4    19.2
          * DDM   ***** Updated *****

1057      KK     461
1058      KM   SUB-BASIN 461
1059      KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1060      KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1061      KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1062      BA    .120
1063      LG    .270    .250   4.250    .450  21.000
1064      UC    .271    .250
          * DDM   ***** Preserved *****

1065      KK    C104
1066      KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1067      HC       2
          * DDM   ***** Preserved *****

1068      KK    C106
1069      KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1070      HC       2
          * DDM   ***** Preserved *****

1071      KK    R106
1072      KM        ROUTE FLOW FROM C106 TO C49
1073      RS       2    FLOW      -1
1074      RC     .05    .035     .05    3950    .033
1075      RX    1000    1010    1020    1030    1050    1060    1070    1080
1076      RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
          * DDM   ***** Updated *****

1077      KK     462
1078      KM   SUB-BASIN 462
1079      KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1080      KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1081      KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1082      BA    .301
1083      LG    .300    .330   5.300    .240  12.000
1084      UC    .225    .137
          * DDM   ***** Preserved *****
```



```
LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1085      KK     C56
1086      KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
          *      1       2
1087      HC       2
          * DDM   ***** Updated *****

1088      KK     480
1089      KM   SUB-BASIN 480
1090      KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1091      KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1092      KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1093      BA    .731
1094      LG    .270    .270   3.580    .730  27.000
1095      UC    .325    .148

1096      KK    D480
1097      KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1098      KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1099      KM   FOR BASIN #: 18 & 26
1100      KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
          *      1
1101      DT   BS480    16.5
1102      DI       0   10000
1103      DQ       0   10000
```

```
1104        KK   RT480
1105        KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1106        DR   BS480

1107        KK   SR480
1108        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1109        KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1110        RS       1    STOR       0
1111        SV       0     .01    16.5
1112        SQ       0     5.6     5.6

1113        KK    C480
1114        KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1115        HC       2
            * DDM   ***** Preserved *****

1116        KK    480C
1117        KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1118        HC       3    2.09
            * DDM   ***** Preserved *****

1119        KK   RR480
1120        KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
1121        RS       2    FLOW      -1
1122        RC    .025    .025    .025    6500     .05
1123        RX       0       1       2      28      58      84      85      86
1124        RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
            * DDM   ***** Updated *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1125        KK     500
1126        KM   SUB-BASIN 500
1127        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1128        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
1129        KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
1130        BA    .930
1131        LG    .350    .400   6.000    .170   9.000
1132        UC    .421    .333
            * DDM   ***** Preserved *****

1133        KK    500C
1134        KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1135        HC       2    2.84
1136        ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  65          20
               .
  73           .          40
               .           .
               .           .
  81           .           .          60
               .           .           .
               .           .           .
  89        60C.......................
             V
             V
  92       SR60
             V
             V
 101        R60
             V
             V
 107       RR60
               .
               .
 113           .          80
               .           .
               .           .
 121        80C............
             V
             V
 124        R80
               .
               .
 130           .         100
               .           .
               .           .
 138       100C............
             V
             V
 141       R100
               .
               .
 147           .         120
               .           .
               .           .
 155       120C............
             V
             V
 158       R120
               .
               .
 164           .         140
               .           .
               .           .
 172           .           .         160
               .           .           .
               .           .           .
 180           .           .           .         180
               .           .           .           .
               .           .           .           .
 188       180C.................................
               .
               .
 191           .         240
               .           V
               .           V
 199           .        R240
               .           .
               .           .
 206           .           .         220
               .           .           .
               .           .           .
 214           .        220C...........
               .           V
               .           V
 217           .        R220
               .           .
               .           .
 224           .           .         200
               .           .           .
               .           .           .
 232           .        200C...........
               .           V
               .           V
 235           .        R200
               .           .
               .           .
 241       C180............
             V
             V
 244      SR180
             V
             V
 253       R180
               .
               .
 259           .         260
               .           .
               .           .
 267       260C............
             V
             V
 270       R260
               .
               .
 276           .         280
               .           .
               .           .
 284       280C............
```

```
            V
            V
287       R280
            .
            .
293         .         300
            .           .
            .           .
301       300C...........
            V
            V
304       R300
            V
            V
310      RR300
            .
            .
316         .         320
            .           .
            .           .
329         .           .-------->   BS320
324         .       D320
            .           .
            .           .
334         .           .          .<-------   BS320
332         .           .      RT320
            .           .          V
            .           .          V
335         .           .      SR320
            .           .          .
            .           .          .
341       C320......................
            V
            V
344       R320
            .
            .
350         .         340
            .           .
            .           .
363         .           .-------->   BS340
358         .       D340
            .           .
            .           .
368         .           .          .<-------   BS340
366         .           .      RT340
            .           .          V
            .           .          V
369         .           .      SR340
            .           .          .
            .           .          .
375       C340......................
            V
            V
378       R340
            .
            .
384         .         350
            .           V
            .           V
392         .       RR350
            .           .
            .           .
398         .           .        360
            .           .          .
            .           .          .
410         .           .          .-------->   BS360
406         .           .       D360
            .           .          .
            .           .          .
415         .           .          .          .<-------   BS360
413         .           .          .      RT360
            .           .          .          V
            .           .          .          V
416         .           .          .      SR360
            .           .          .          .
            .           .          .          .
422       360C.................................
            V
            V
425       R360
            .
            .
431         .         380
            .           .
            .           .
443         .           .-------->   BS380
439         .       D380
            .           .
            .           .
448         .           .          .<-------   BS380
446         .           .      RT380
            .           .          V
            .           .          V
449         .           .      SR380
            .           .          .
            .           .          .
455       380C......................
            V
            V
458       R380
            .
            .
464         .         390
            .           .
            .           .
476         .           .-------->   BS390
472         .       D390
            .           .
            .           .
481         .           .          .<-------   BS390
479         .           .      RT390
            .           .          V
```

```
                 .          .          V
482              .          .      SR390
                 .          .          .
                 .          .          .
488              .      390C...........
                 .         V
                 .         V
491              .     RR390
                 .          .
                 .          .
497              .          .        400
                 .          .          .
                 .          .          .
505              .      400C...........
                 .         V
                 .         V
508              .      R400
                 .          .
                 .          .
514              .          .        420
                 .          .          .
                 .          .          .
526              .          .          .-------->   BS420
522              .          .      D420
                 .          .          .
                 .          .          .
531              .          .          .          .<-------   BS420
529              .          .          .     RT420
                 .          .          .        V
                 .          .          .        V
532              .          .          .     SR420
                 .          .          .        .
                 .          .          .        .
538              .      420C.......................
                 .         V
                 .         V
541              .      R420
                 .          .
                 .          .
547         420CC...........
                 .
                 .
550              .       440
                 .         V
                 .         V
558              .       R70
                 .          .
                 .          .
564              .          .        441
                 .          .          .
                 .          .          .
572              .      C108...........
                 .          .
                 .          .
577              .          .-------->   SPLIT
575              .      DIV4
                 .         V
                 .         V
580              .      R108
                 .          .
                 .          .
586              .          .        442
                 .          .          .
                 .          .          .
594              .       C67...........
                 .          .
                 .          .
600              .          .-------->  BASIN4
597              .      DIV6
                 .          .
                 .          .
605              .          .          .<-------  BASIN4
603              .          .     RTDIV6
                 .          .          V
                 .          .          V
606              .          .     RFDIV6
                 .          .          .
                 .          .          .
612              .     CDIV6...........
                 .          .
                 .          .
615              .          .        443
                 .          .          .
                 .          .          .
626              .          .          .-------->   WSH66
623              .          .      DIV66
                 .          .          V
                 .          .          V
629              .          .      R113
                 .          .          .
                 .          .          .
635              .      C114...........
                 .          .
                 .          .
638              .          .        444
                 .          .          V
                 .          .          V
646              .          .       R58
                 .          .          .
                 .          .          .
652              .          .          .         445
                 .          .          .           .
                 .          .          .           .
660              .          .      C107...........
                 .          .          V
                 .          .          V
663              .          .      R107
                 .          .          .
                 .          .          .
671              .          .          .          .<-------   SPLIT
669              .          .          .     RTB2
                 .          .          .        V
                 .          .          .        V
```

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672                                RSPLIT
                                     .
678                                  .        446
                                     .         .
686                          C109.......................
                                     .
692                                  .-------> WSH404
689                          DIV5
                                V
                                V
695                          R109
                                     .
701                                  .        447
                                     .
                                     .
711                                  .          .<------- WSH404
709                                  .      RT404
                                     .         V
                                     .         V
712                                  .       R404
                                     .         .
                                     .         .
718                          C110.......................
                                V
                                V
721                          R110
                                     .
                                     .
727                     C115............
                           V
                           V
730                     R115
                                     .
                                     .
737                                448
                                     .
                                     .
745                                  .        449
                                     .
                                     .
753                         C6364............
                                V
                                V
756                         R6364
                                     .
                                     .
762                                  .        450
                                     .
                                     .
770                                  .        451
                                     .         .
                                     .         .
780                                  .         .          .<------- WSH66
778                                  .         .       RT66
                                     .         .         .
                                     .         .         .
781                                  .         .         .        452
                                     .         .         .         .
                                     .         .         .         .
789                                  .         .      C6566............
                                     .         .         V
                                     .         .         V
792                                  .         .      R6566
                                     .         .         .
                                     .         .         .
798                          C116.................................
                                V
                                V
802                         BASIN5
                                V
                                V
809                          R116
                                     .
                                     .
815                                  .        453
                                     .         .
                                     .         .
823                          C117............
                                     .
                                     .
826                     C118............
                           V
                           V
829                     R118
                                     .
                                     .
838                          .-------> BASIN6
835                     DIV7
                                     .
                                     .
843                                  .<------- BASIN6
841                         RTDIV7
                                V
                                V
844                         RFDIV7
                                     .
                                     .
850                    CDIV7............
                                     .
                                     .
853                                454
                                     .
                                     .
861                     C119............
                           V
                           V
864                     R454
                                     .
                                     .
```

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870          .           .         455
             .           .           .
             .           .           .
878          .        C455............
             .           .
             .           .
881       455C............
             .
             .
888          .-------->    455D
884      DD455
             .
             .
893          .           .<-------    455D
891          .      RT455D
             .           V
             .           V
894          .      SR455D
             .           .
             .           .
900      C455D............
             V
             V
903      RR455
             .
             .
909          .         456
             .           .
             .           .
920          .           .-------->  BASIN1
917          .        DIV1
             .           .
             .           .
926          .           .-------->    WA30
923          .        DIV2
             .           V
             .           V
929          .        R456
             .           .
             .           .
935          .           .         457
             .           .           .
             .           .           .
943          .        C101............
             .           .
             .           .
950          .           .-------->  BASIN2
946          .        DIV3
             .           .
             .           .
955          .           .           .<-------  BASIN2
953          .           .      RTDIV3
             .           .           V
             .           .           V
956          .           .      RFDIV3
             .           .           .
             .           .           .
962          .       CDIV3............
             .           V
             .           V
965          .        R101
             .           .
             .           .
971          .           .         458
             .           .           .
             .           .           .
979          .        C103............
             .           V
             .           V
982          .        R103
             .           .
             .           .
990          .           .           .<-------    WA30
988          .           .        RT30
             .           .           V
             .           .           V
991          .           .         R30
             .           .           .
             .           .           .
999          .           .           .           .<-------  BASIN1
997          .           .           .        RTB1
             .           .           .           V
             .           .           .           V
1000         .           .           .          B1
             .           .           .           V
             .           .           .           V
1007         .           .           .         RB1
             .           .           .           .
             .           .           .           .
1013         .           .        CDIV............
             .           .           .
             .           .           .
1016         .           .           .         459
             .           .           .           .
             .           .           .           .
1024         .           .         C52............
             .           .           V
             .           .           V
1027         .           .         R52
             .           .           .
             .           .           .
1033         .           .           .         460
             .           .           .           .
             .           .           .           .
1041         .           .        C102............
             .           .           V
             .           .           V
1044         .           .      BASIN3
             .           .           V
             .           .           V
1051         .           .          R3
             .           .           .
             .           .           .
```

```
1057          .          .          .        461
              .          .          .          .
              .          .          .          .
1065          .          .       C104............
              .          .          .
              .          .          .
1068          .       C106............
              .          V
              .          V
1071          .       R106
              .          .
              .          .
1077          .          .        462
              .          .          .
              .          .          .
1085          .        C56............
              .          .
              .          .
1088          .          .        480
              .          .          .
              .          .          .
1101          .          .          .-------->   BS480
1096          .          .       D480
              .          .          .
              .          .          .
1106          .          .          .          .<-------   BS480
1104          .          .          .      RT480
              .          .          .          V
              .          .          .          V
1107          .          .          .      SR480
              .          .          .          .
              .          .          .          .
1113          .          .       C480............
              .          .          .
              .          .          .
1116       480C........................
              V
              V
1119      RR480
              .
              .
1125          .        500
              .          .
              .          .
1133       500C............
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

INTERPOLATED DIVERSION HYDROGRAPH AT 455D

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		1230	376	0.	2		0100	751	0.	2		1330	1126	0.
1		0002	2	0.	1		1232	377	0.	2		0102	752	0.	2		1332	1127	0.
1		0004	3	0.	1		1234	378	0.	2		0104	753	0.	2		1334	1128	0.
1		0006	4	0.	1		1236	379	0.	2		0106	754	0.	2		1336	1129	0.
1		0008	5	0.	1		1238	380	0.	2		0108	755	0.	2		1338	1130	0.
1		0010	6	0.	1		1240	381	274.	2		0110	756	0.	2		1340	1131	0.
1		0012	7	0.	1		1242	382	864.	2		0112	757	0.	2		1342	1132	0.
1		0014	8	0.	1		1244	383	1649.	2		0114	758	0.	2		1344	1133	0.
1		0016	9	0.	1		1246	384	2360.	2		0116	759	0.	2		1346	1134	0.
1		0018	10	0.	1		1248	385	2889.	2		0118	760	0.	2		1348	1135	0.
1		0020	11	0.	1		1250	386	3212.	2		0120	761	0.	2		1350	1136	0.
1		0022	12	0.	1		1252	387	3357.	2		0122	762	0.	2		1352	1137	0.
1		0024	13	0.	1		1254	388	3365.	2		0124	763	0.	2		1354	1138	0.
1		0026	14	0.	1		1256	389	3273.	2		0126	764	0.	2		1356	1139	0.
1		0028	15	0.	1		1258	390	3113.	2		0128	765	0.	2		1358	1140	0.
1		0030	16	0.	1		1300	391	2912.	2		0130	766	0.	2		1400	1141	0.
1		0032	17	0.	1		1302	392	2687.	2		0132	767	0.	2		1402	1142	0.
1		0034	18	0.	1		1304	393	2455.	2		0134	768	0.	2		1404	1143	0.
1		0036	19	0.	1		1306	394	2223.	2		0136	769	0.	2		1406	1144	0.
1		0038	20	0.	1		1308	395	1993.	2		0138	770	0.	2		1408	1145	0.
1		0040	21	0.	1		1310	396	1769.	2		0140	771	0.	2		1410	1146	0.
1		0042	22	0.	1		1312	397	1553.	2		0142	772	0.	2		1412	1147	0.
1		0044	23	0.	1		1314	398	1346.	2		0144	773	0.	2		1414	1148	0.
1		0046	24	0.	1		1316	399	1148.	2		0146	774	0.	2		1416	1149	0.
1		0048	25	0.	1		1318	400	957.	2		0148	775	0.	2		1418	1150	0.
1		0050	26	0.	1		1320	401	777.	2		0150	776	0.	2		1420	1151	0.
1		0052	27	0.	1		1322	402	608.	2		0152	777	0.	2		1422	1152	0.
1		0054	28	0.	1		1324	403	451.	2		0154	778	0.	2		1424	1153	0.
1		0056	29	0.	1		1326	404	301.	2		0156	779	0.	2		1426	1154	0.
1		0058	30	0.	1		1328	405	158.	2		0158	780	0.	2		1428	1155	0.
1		0100	31	0.	1		1330	406	41.	2		0200	781	0.	2		1430	1156	0.
1		0102	32	0.	1		1332	407	0.	2		0202	782	0.	2		1432	1157	0.
1		0104	33	0.	1		1334	408	0.	2		0204	783	0.	2		1434	1158	0.
1		0106	34	0.	1		1336	409	0.	2		0206	784	0.	2		1436	1159	0.
1		0108	35	0.	1		1338	410	0.	2		0208	785	0.	2		1438	1160	0.
1		0110	36	0.	1		1340	411	0.	2		0210	786	0.	2		1440	1161	0.
1		0112	37	0.	1		1342	412	0.	2		0212	787	0.	2		1442	1162	0.
1		0114	38	0.	1		1344	413	0.	2		0214	788	0.	2		1444	1163	0.
1		0116	39	0.	1		1346	414	0.	2		0216	789	0.	2		1446	1164	0.
1		0118	40	0.	1		1348	415	0.	2		0218	790	0.	2		1448	1165	0.
1		0120	41	0.	1		1350	416	0.	2		0220	791	0.	2		1450	1166	0.
1		0122	42	0.	1		1352	417	0.	2		0222	792	0.	2		1452	1167	0.
1		0124	43	0.	1		1354	418	0.	2		0224	793	0.	2		1454	1168	0.
1		0126	44	0.	1		1356	419	0.	2		0226	794	0.	2		1456	1169	0.
1		0128	45	0.	1		1358	420	0.	2		0228	795	0.	2		1458	1170	0.
1		0130	46	0.	1		1400	421	0.	2		0230	796	0.	2		1500	1171	0.
1		0132	47	0.	1		1402	422	0.	2		0232	797	0.	2		1502	1172	0.
1		0134	48	0.	1		1404	423	0.	2		0234	798	0.	2		1504	1173	0.
1		0136	49	0.	1		1406	424	0.	2		0236	799	0.	2		1506	1174	0.
1		0138	50	0.	1		1408	425	0.	2		0238	800	0.	2		1508	1175	0.
1		0140	51	0.	1		1410	426	0.	2		0240	801	0.	2		1510	1176	0.
1		0142	52	0.	1		1412	427	0.	2		0242	802	0.	2		1512	1177	0.
1		0144	53	0.	1		1414	428	0.	2		0244	803	0.	2		1514	1178	0.
1		0146	54	0.	1		1416	429	0.	2		0246	804	0.	2		1516	1179	0.
1		0148	55	0.	1		1418	430	0.	2		0248	805	0.	2		1518	1180	0.
1		0150	56	0.	1		1420	431	0.	2		0250	806	0.	2		1520	1181	0.
1		0152	57	0.	1		1422	432	0.	2		0252	807	0.	2		1522	1182	0.
1		0154	58	0.	1		1424	433	0.	2		0254	808	0.	2		1524	1183	0.
1		0156	59	0.	1		1426	434	0.	2		0256	809	0.	2		1526	1184	0.
1		0158	60	0.	1		1428	435	0.	2		0258	810	0.	2		1528	1185	0.
1		0200	61	0.	1		1430	436	0.	2		0300	811	0.	2		1530	1186	0.
1		0202	62	0.	1		1432	437	0.	2		0302	812	0.	2		1532	1187	0.
1		0204	63	0.	1		1434	438	0.	2		0304	813	0.	2		1534	1188	0.
1		0206	64	0.	1		1436	439	0.	2		0306	814	0.	2		1536	1189	0.
1		0208	65	0.	1		1438	440	0.	2		0308	815	0.	2		1538	1190	0.
1		0210	66	0.	1		1440	441	0.	2		0310	816	0.	2		1540	1191	0.
1		0212	67	0.	1		1442	442	0.	2		0312	817	0.	2		1542	1192	0.
1		0214	68	0.	1		1444	443	0.	2		0314	818	0.	2		1544	1193	0.
1		0216	69	0.	1		1446	444	0.	2		0316	819	0.	2		1546	1194	0.
1		0218	70	0.	1		1448	445	0.	2		0318	820	0.	2		1548	1195	0.
1		0220	71	0.	1		1450	446	0.	2		0320	821	0.	2		1550	1196	0.
1		0222	72	0.	1		1452	447	0.	2		0322	822	0.	2		1552	1197	0.
1		0224	73	0.	1		1454	448	0.	2		0324	823	0.	2		1554	1198	0.
1		0226	74	0.	1		1456	449	0.	2		0326	824	0.	2		1556	1199	0.
1		0228	75	0.	1		1458	450	0.	2		0328	825	0.	2		1558	1200	0.
1		0230	76	0.	1		1500	451	0.	2		0330	826	0.	2		1600	1201	0.
1		0232	77	0.	1		1502	452	0.	2		0332	827	0.	2		1602	1202	0.
1		0234	78	0.	1		1504	453	0.	2		0334	828	0.	2		1604	1203	0.
1		0236	79	0.	1		1506	454	0.	2		0336	829	0.	2		1606	1204	0.
1		0238	80	0.	1		1508	455	0.	2		0338	830	0.	2		1608	1205	0.
1		0240	81	0.	1		1510	456	0.	2		0340	831	0.	2		1610	1206	0.
1		0242	82	0.	1		1512	457	0.	2		0342	832	0.	2		1612	1207	0.
1		0244	83	0.	1		1514	458	0.	2		0344	833	0.	2		1614	1208	0.
1		0246	84	0.	1		1516	459	0.	2		0346	834	0.	2		1616	1209	0.
1		0248	85	0.	1		1518	460	0.	2		0348	835	0.	2		1618	1210	0.
1		0250	86	0.	1		1520	461	0.	2		0350	836	0.	2		1620	1211	0.
1		0252	87	0.	1		1522	462	0.	2		0352	837	0.	2		1622	1212	0.
1		0254	88	0.	1		1524	463	0.	2		0354	838	0.	2		1624	1213	0.
1		0256	89	0.	1		1526	464	0.	2		0356	839	0.	2		1626	1214	0.
1		0258	90	0.	1		1528	465	0.	2		0358	840	0.	2		1628	1215	0.
1		0300	91	0.	1		1530	466	0.	2		0400	841	0.	2		1630	1216	0.
1		0302	92	0.	1		1532	467	0.	2		0402	842	0.	2		1632	1217	0.
1		0304	93	0.	1		1534	468	0.	2		0404	843	0.	2		1634	1218	0.
1		0306	94	0.	1		1536	469	0.	2		0406	844	0.	2		1636	1219	0.
1		0308	95	0.	1		1538	470	0.	2		0408	845	0.	2		1638	1220	0.
1		0310	96	0.	1		1540	471	0.	2		0410	846	0.	2		1640	1221	0.
1		0312	97	0.	1		1542	472	0.	2		0412	847	0.	2		1642	1222	0.
1		0314	98	0.	1		1544	473	0.	2		0414	848	0.	2		1644	1223	0.
1		0316	99	0.	1		1546	474	0.	2		0416	849	0.	2		1646	1224	0.
1		0318	100	0.	1		1548	475	0.	2		0418	850	0.	2		1648	1225	0.
1		0320	101	0.	1		1550	476	0.	2		0420	851	0.	2		1650	1226	0.
1		0322	102	0.	1		1552	477	0.	2		0422	852	0.	2		1652	1227	0.
1		0324	103	0.	1		1554	478	0.	2		0424	853	0.	2		1654	1228	0.
1		0326	104	0.	1		1556	479	0.	2		0426	854	0.	2		1656	1229	0.
1		0328	105	0.	1		1558	480	0.	2		0428	855	0.	2		1658	1230	0.

1	0330	106	0.	*	1	1600	481	0.	*	2	0430	856	0.	*	2	1700	1231	0.
1	0332	107	0.	*	1	1602	482	0.	*	2	0432	857	0.	*	2	1702	1232	0.
1	0334	108	0.	*	1	1604	483	0.	*	2	0434	858	0.	*	2	1704	1233	0.
1	0336	109	0.	*	1	1606	484	0.	*	2	0436	859	0.	*	2	1706	1234	0.
1	0338	110	0.	*	1	1608	485	0.	*	2	0438	860	0.	*	2	1708	1235	0.
1	0340	111	0.	*	1	1610	486	0.	*	2	0440	861	0.	*	2	1710	1236	0.
1	0342	112	0.	*	1	1612	487	0.	*	2	0442	862	0.	*	2	1712	1237	0.
1	0344	113	0.	*	1	1614	488	0.	*	2	0444	863	0.	*	2	1714	1238	0.
1	0346	114	0.	*	1	1616	489	0.	*	2	0446	864	0.	*	2	1716	1239	0.
1	0348	115	0.	*	1	1618	490	0.	*	2	0448	865	0.	*	2	1718	1240	0.
1	0350	116	0.	*	1	1620	491	0.	*	2	0450	866	0.	*	2	1720	1241	0.
1	0352	117	0.	*	1	1622	492	0.	*	2	0452	867	0.	*	2	1722	1242	0.
1	0354	118	0.	*	1	1624	493	0.	*	2	0454	868	0.	*	2	1724	1243	0.
1	0356	119	0.	*	1	1626	494	0.	*	2	0456	869	0.	*	2	1726	1244	0.
1	0358	120	0.	*	1	1628	495	0.	*	2	0458	870	0.	*	2	1728	1245	0.
1	0400	121	0.	*	1	1630	496	0.	*	2	0500	871	0.	*	2	1730	1246	0.
1	0402	122	0.	*	1	1632	497	0.	*	2	0502	872	0.	*	2	1732	1247	0.
1	0404	123	0.	*	1	1634	498	0.	*	2	0504	873	0.	*	2	1734	1248	0.
1	0406	124	0.	*	1	1636	499	0.	*	2	0506	874	0.	*	2	1736	1249	0.
1	0408	125	0.	*	1	1638	500	0.	*	2	0508	875	0.	*	2	1738	1250	0.
1	0410	126	0.	*	1	1640	501	0.	*	2	0510	876	0.	*	2	1740	1251	0.
1	0412	127	0.	*	1	1642	502	0.	*	2	0512	877	0.	*	2	1742	1252	0.
1	0414	128	0.	*	1	1644	503	0.	*	2	0514	878	0.	*	2	1744	1253	0.
1	0416	129	0.	*	1	1646	504	0.	*	2	0516	879	0.	*	2	1746	1254	0.
1	0418	130	0.	*	1	1648	505	0.	*	2	0518	880	0.	*	2	1748	1255	0.
1	0420	131	0.	*	1	1650	506	0.	*	2	0520	881	0.	*	2	1750	1256	0.
1	0422	132	0.	*	1	1652	507	0.	*	2	0522	882	0.	*	2	1752	1257	0.
1	0424	133	0.	*	1	1654	508	0.	*	2	0524	883	0.	*	2	1754	1258	0.
1	0426	134	0.	*	1	1656	509	0.	*	2	0526	884	0.	*	2	1756	1259	0.
1	0428	135	0.	*	1	1658	510	0.	*	2	0528	885	0.	*	2	1758	1260	0.
1	0430	136	0.	*	1	1700	511	0.	*	2	0530	886	0.	*	2	1800	1261	0.
1	0432	137	0.	*	1	1702	512	0.	*	2	0532	887	0.	*	2	1802	1262	0.
1	0434	138	0.	*	1	1704	513	0.	*	2	0534	888	0.	*	2	1804	1263	0.
1	0436	139	0.	*	1	1706	514	0.	*	2	0536	889	0.	*	2	1806	1264	0.
1	0438	140	0.	*	1	1708	515	0.	*	2	0538	890	0.	*	2	1808	1265	0.
1	0440	141	0.	*	1	1710	516	0.	*	2	0540	891	0.	*	2	1810	1266	0.
1	0442	142	0.	*	1	1712	517	0.	*	2	0542	892	0.	*	2	1812	1267	0.
1	0444	143	0.	*	1	1714	518	0.	*	2	0544	893	0.	*	2	1814	1268	0.
1	0446	144	0.	*	1	1716	519	0.	*	2	0546	894	0.	*	2	1816	1269	0.
1	0448	145	0.	*	1	1718	520	0.	*	2	0548	895	0.	*	2	1818	1270	0.
1	0450	146	0.	*	1	1720	521	0.	*	2	0550	896	0.	*	2	1820	1271	0.
1	0452	147	0.	*	1	1722	522	0.	*	2	0552	897	0.	*	2	1822	1272	0.
1	0454	148	0.	*	1	1724	523	0.	*	2	0554	898	0.	*	2	1824	1273	0.
1	0456	149	0.	*	1	1726	524	0.	*	2	0556	899	0.	*	2	1826	1274	0.
1	0458	150	0.	*	1	1728	525	0.	*	2	0558	900	0.	*	2	1828	1275	0.
1	0500	151	0.	*	1	1730	526	0.	*	2	0600	901	0.	*	2	1830	1276	0.
1	0502	152	0.	*	1	1732	527	0.	*	2	0602	902	0.	*	2	1832	1277	0.
1	0504	153	0.	*	1	1734	528	0.	*	2	0604	903	0.	*	2	1834	1278	0.
1	0506	154	0.	*	1	1736	529	0.	*	2	0606	904	0.	*	2	1836	1279	0.
1	0508	155	0.	*	1	1738	530	0.	*	2	0608	905	0.	*	2	1838	1280	0.
1	0510	156	0.	*	1	1740	531	0.	*	2	0610	906	0.	*	2	1840	1281	0.
1	0512	157	0.	*	1	1742	532	0.	*	2	0612	907	0.	*	2	1842	1282	0.
1	0514	158	0.	*	1	1744	533	0.	*	2	0614	908	0.	*	2	1844	1283	0.
1	0516	159	0.	*	1	1746	534	0.	*	2	0616	909	0.	*	2	1846	1284	0.
1	0518	160	0.	*	1	1748	535	0.	*	2	0618	910	0.	*	2	1848	1285	0.
1	0520	161	0.	*	1	1750	536	0.	*	2	0620	911	0.	*	2	1850	1286	0.
1	0522	162	0.	*	1	1752	537	0.	*	2	0622	912	0.	*	2	1852	1287	0.
1	0524	163	0.	*	1	1754	538	0.	*	2	0624	913	0.	*	2	1854	1288	0.
1	0526	164	0.	*	1	1756	539	0.	*	2	0626	914	0.	*	2	1856	1289	0.
1	0528	165	0.	*	1	1758	540	0.	*	2	0628	915	0.	*	2	1858	1290	0.
1	0530	166	0.	*	1	1800	541	0.	*	2	0630	916	0.	*	2	1900	1291	0.
1	0532	167	0.	*	1	1802	542	0.	*	2	0632	917	0.	*	2	1902	1292	0.
1	0534	168	0.	*	1	1804	543	0.	*	2	0634	918	0.	*	2	1904	1293	0.
1	0536	169	0.	*	1	1806	544	0.	*	2	0636	919	0.	*	2	1906	1294	0.
1	0538	170	0.	*	1	1808	545	0.	*	2	0638	920	0.	*	2	1908	1295	0.
1	0540	171	0.	*	1	1810	546	0.	*	2	0640	921	0.	*	2	1910	1296	0.
1	0542	172	0.	*	1	1812	547	0.	*	2	0642	922	0.	*	2	1912	1297	0.
1	0544	173	0.	*	1	1814	548	0.	*	2	0644	923	0.	*	2	1914	1298	0.
1	0546	174	0.	*	1	1816	549	0.	*	2	0646	924	0.	*	2	1916	1299	0.
1	0548	175	0.	*	1	1818	550	0.	*	2	0648	925	0.	*	2	1918	1300	0.
1	0550	176	0.	*	1	1820	551	0.	*	2	0650	926	0.	*	2	1920	1301	0.
1	0552	177	0.	*	1	1822	552	0.	*	2	0652	927	0.	*	2	1922	1302	0.
1	0554	178	0.	*	1	1824	553	0.	*	2	0654	928	0.	*	2	1924	1303	0.
1	0556	179	0.	*	1	1826	554	0.	*	2	0656	929	0.	*	2	1926	1304	0.
1	0558	180	0.	*	1	1828	555	0.	*	2	0658	930	0.	*	2	1928	1305	0.
1	0600	181	0.	*	1	1830	556	0.	*	2	0700	931	0.	*	2	1930	1306	0.
1	0602	182	0.	*	1	1832	557	0.	*	2	0702	932	0.	*	2	1932	1307	0.
1	0604	183	0.	*	1	1834	558	0.	*	2	0704	933	0.	*	2	1934	1308	0.
1	0606	184	0.	*	1	1836	559	0.	*	2	0706	934	0.	*	2	1936	1309	0.
1	0608	185	0.	*	1	1838	560	0.	*	2	0708	935	0.	*	2	1938	1310	0.
1	0610	186	0.	*	1	1840	561	0.	*	2	0710	936	0.	*	2	1940	1311	0.
1	0612	187	0.	*	1	1842	562	0.	*	2	0712	937	0.	*	2	1942	1312	0.
1	0614	188	0.	*	1	1844	563	0.	*	2	0714	938	0.	*	2	1944	1313	0.
1	0616	189	0.	*	1	1846	564	0.	*	2	0716	939	0.	*	2	1946	1314	0.
1	0618	190	0.	*	1	1848	565	0.	*	2	0718	940	0.	*	2	1948	1315	0.
1	0620	191	0.	*	1	1850	566	0.	*	2	0720	941	0.	*	2	1950	1316	0.
1	0622	192	0.	*	1	1852	567	0.	*	2	0722	942	0.	*	2	1952	1317	0.
1	0624	193	0.	*	1	1854	568	0.	*	2	0724	943	0.	*	2	1954	1318	0.
1	0626	194	0.	*	1	1856	569	0.	*	2	0726	944	0.	*	2	1956	1319	0.
1	0628	195	0.	*	1	1858	570	0.	*	2	0728	945	0.	*	2	1958	1320	0.
1	0630	196	0.	*	1	1900	571	0.	*	2	0730	946	0.	*	2	2000	1321	0.
1	0632	197	0.	*	1	1902	572	0.	*	2	0732	947	0.	*	2	2002	1322	0.
1	0634	198	0.	*	1	1904	573	0.	*	2	0734	948	0.	*	2	2004	1323	0.
1	0636	199	0.	*	1	1906	574	0.	*	2	0736	949	0.	*	2	2006	1324	0.
1	0638	200	0.	*	1	1908	575	0.	*	2	0738	950	0.	*	2	2008	1325	0.
1	0640	201	0.	*	1	1910	576	0.	*	2	0740	951	0.	*	2	2010	1326	0.
1	0642	202	0.	*	1	1912	577	0.	*	2	0742	952	0.	*	2	2012	1327	0.
1	0644	203	0.	*	1	1914	578	0.	*	2	0744	953	0.	*	2	2014	1328	0.
1	0646	204	0.	*	1	1916	579	0.	*	2	0746	954	0.	*	2	2016	1329	0.
1	0648	205	0.	*	1	1918	580	0.	*	2	0748	955	0.	*	2	2018	1330	0.
1	0650	206	0.	*	1	1920	581	0.	*	2	0750	956	0.	*	2	2020	1331	0.
1	0652	207	0.	*	1	1922	582	0.	*	2	0752	957	0.	*	2	2022	1332	0.
1	0654	208	0.	*	1	1924	583	0.	*	2	0754	958	0.	*	2	2024	1333	0.
1	0656	209	0.	*	1	1926	584	0.	*	2	0756	959	0.	*	2	2026	1334	0.
1	0658	210	0.	*	1	1928	585	0.	*	2	0758	960	0.	*	2	2028	1335	0.
1	0700	211	0.	*	1	1930	586	0.	*	2	0800	961	0.	*	2	2030	1336	0.
1	0702	212	0.	*	1	1932	587	0.	*	2	0802	962	0.	*	2	2032	1337	0.
1	0704	213	0.	*	1	1934	588	0.	*	2	0804	963	0.	*	2	2034	1338	0.
1	0706	214	0.	*	1	1936	589	0.	*	2	0806	964	0.	*	2	2036	1339	0.
1	0708	215	0.	*	1	1938	590	0.	*	2	0808	965	0.	*	2	2038	1340	0.
1	0710	216	0.	*	1	1940	591	0.	*	2	0810	966	0.	*	2	2040	1341	0.
1	0712	217	0.	*	1	1942	592	0.	*	2	0812	967	0.	*	2	2042	1342	0.
1	0714	218	0.	*	1	1944	593	0.	*	2	0814	968	0.	*	2	2044	1343	0.

1	0716	219	0.	*	1	1946	594	0.	*	2	0816	969	0.	*	2	2046	1344	0.
1	0718	220	0.	*	1	1948	595	0.	*	2	0818	970	0.	*	2	2048	1345	0.
1	0720	221	0.	*	1	1950	596	0.	*	2	0820	971	0.	*	2	2050	1346	0.
1	0722	222	0.	*	1	1952	597	0.	*	2	0822	972	0.	*	2	2052	1347	0.
1	0724	223	0.	*	1	1954	598	0.	*	2	0824	973	0.	*	2	2054	1348	0.
1	0726	224	0.	*	1	1956	599	0.	*	2	0826	974	0.	*	2	2056	1349	0.
1	0728	225	0.	*	1	1958	600	0.	*	2	0828	975	0.	*	2	2058	1350	0.
1	0730	226	0.	*	1	2000	601	0.	*	2	0830	976	0.	*	2	2100	1351	0.
1	0732	227	0.	*	1	2002	602	0.	*	2	0832	977	0.	*	2	2102	1352	0.
1	0734	228	0.	*	1	2004	603	0.	*	2	0834	978	0.	*	2	2104	1353	0.
1	0736	229	0.	*	1	2006	604	0.	*	2	0836	979	0.	*	2	2106	1354	0.
1	0738	230	0.	*	1	2008	605	0.	*	2	0838	980	0.	*	2	2108	1355	0.
1	0740	231	0.	*	1	2010	606	0.	*	2	0840	981	0.	*	2	2110	1356	0.
1	0742	232	0.	*	1	2012	607	0.	*	2	0842	982	0.	*	2	2112	1357	0.
1	0744	233	0.	*	1	2014	608	0.	*	2	0844	983	0.	*	2	2114	1358	0.
1	0746	234	0.	*	1	2016	609	0.	*	2	0846	984	0.	*	2	2116	1359	0.
1	0748	235	0.	*	1	2018	610	0.	*	2	0848	985	0.	*	2	2118	1360	0.
1	0750	236	0.	*	1	2020	611	0.	*	2	0850	986	0.	*	2	2120	1361	0.
1	0752	237	0.	*	1	2022	612	0.	*	2	0852	987	0.	*	2	2122	1362	0.
1	0754	238	0.	*	1	2024	613	0.	*	2	0854	988	0.	*	2	2124	1363	0.
1	0756	239	0.	*	1	2026	614	0.	*	2	0856	989	0.	*	2	2126	1364	0.
1	0758	240	0.	*	1	2028	615	0.	*	2	0858	990	0.	*	2	2128	1365	0.
1	0800	241	0.	*	1	2030	616	0.	*	2	0900	991	0.	*	2	2130	1366	0.
1	0802	242	0.	*	1	2032	617	0.	*	2	0902	992	0.	*	2	2132	1367	0.
1	0804	243	0.	*	1	2034	618	0.	*	2	0904	993	0.	*	2	2134	1368	0.
1	0806	244	0.	*	1	2036	619	0.	*	2	0906	994	0.	*	2	2136	1369	0.
1	0808	245	0.	*	1	2038	620	0.	*	2	0908	995	0.	*	2	2138	1370	0.
1	0810	246	0.	*	1	2040	621	0.	*	2	0910	996	0.	*	2	2140	1371	0.
1	0812	247	0.	*	1	2042	622	0.	*	2	0912	997	0.	*	2	2142	1372	0.
1	0814	248	0.	*	1	2044	623	0.	*	2	0914	998	0.	*	2	2144	1373	0.
1	0816	249	0.	*	1	2046	624	0.	*	2	0916	999	0.	*	2	2146	1374	0.
1	0818	250	0.	*	1	2048	625	0.	*	2	0918	1000	0.	*	2	2148	1375	0.
1	0820	251	0.	*	1	2050	626	0.	*	2	0920	1001	0.	*	2	2150	1376	0.
1	0822	252	0.	*	1	2052	627	0.	*	2	0922	1002	0.	*	2	2152	1377	0.
1	0824	253	0.	*	1	2054	628	0.	*	2	0924	1003	0.	*	2	2154	1378	0.
1	0826	254	0.	*	1	2056	629	0.	*	2	0926	1004	0.	*	2	2156	1379	0.
1	0828	255	0.	*	1	2058	630	0.	*	2	0928	1005	0.	*	2	2158	1380	0.
1	0830	256	0.	*	1	2100	631	0.	*	2	0930	1006	0.	*	2	2200	1381	0.
1	0832	257	0.	*	1	2102	632	0.	*	2	0932	1007	0.	*	2	2202	1382	0.
1	0834	258	0.	*	1	2104	633	0.	*	2	0934	1008	0.	*	2	2204	1383	0.
1	0836	259	0.	*	1	2106	634	0.	*	2	0936	1009	0.	*	2	2206	1384	0.
1	0838	260	0.	*	1	2108	635	0.	*	2	0938	1010	0.	*	2	2208	1385	0.
1	0840	261	0.	*	1	2110	636	0.	*	2	0940	1011	0.	*	2	2210	1386	0.
1	0842	262	0.	*	1	2112	637	0.	*	2	0942	1012	0.	*	2	2212	1387	0.
1	0844	263	0.	*	1	2114	638	0.	*	2	0944	1013	0.	*	2	2214	1388	0.
1	0846	264	0.	*	1	2116	639	0.	*	2	0946	1014	0.	*	2	2216	1389	0.
1	0848	265	0.	*	1	2118	640	0.	*	2	0948	1015	0.	*	2	2218	1390	0.
1	0850	266	0.	*	1	2120	641	0.	*	2	0950	1016	0.	*	2	2220	1391	0.
1	0852	267	0.	*	1	2122	642	0.	*	2	0952	1017	0.	*	2	2222	1392	0.
1	0854	268	0.	*	1	2124	643	0.	*	2	0954	1018	0.	*	2	2224	1393	0.
1	0856	269	0.	*	1	2126	644	0.	*	2	0956	1019	0.	*	2	2226	1394	0.
1	0858	270	0.	*	1	2128	645	0.	*	2	0958	1020	0.	*	2	2228	1395	0.
1	0900	271	0.	*	1	2130	646	0.	*	2	1000	1021	0.	*	2	2230	1396	0.
1	0902	272	0.	*	1	2132	647	0.	*	2	1002	1022	0.	*	2	2232	1397	0.
1	0904	273	0.	*	1	2134	648	0.	*	2	1004	1023	0.	*	2	2234	1398	0.
1	0906	274	0.	*	1	2136	649	0.	*	2	1006	1024	0.	*	2	2236	1399	0.
1	0908	275	0.	*	1	2138	650	0.	*	2	1008	1025	0.	*	2	2238	1400	0.
1	0910	276	0.	*	1	2140	651	0.	*	2	1010	1026	0.	*	2	2240	1401	0.
1	0912	277	0.	*	1	2142	652	0.	*	2	1012	1027	0.	*	2	2242	1402	0.
1	0914	278	0.	*	1	2144	653	0.	*	2	1014	1028	0.	*	2	2244	1403	0.
1	0916	279	0.	*	1	2146	654	0.	*	2	1016	1029	0.	*	2	2246	1404	0.
1	0918	280	0.	*	1	2148	655	0.	*	2	1018	1030	0.	*	2	2248	1405	0.
1	0920	281	0.	*	1	2150	656	0.	*	2	1020	1031	0.	*	2	2250	1406	0.
1	0922	282	0.	*	1	2152	657	0.	*	2	1022	1032	0.	*	2	2252	1407	0.
1	0924	283	0.	*	1	2154	658	0.	*	2	1024	1033	0.	*	2	2254	1408	0.
1	0926	284	0.	*	1	2156	659	0.	*	2	1026	1034	0.	*	2	2256	1409	0.
1	0928	285	0.	*	1	2158	660	0.	*	2	1028	1035	0.	*	2	2258	1410	0.
1	0930	286	0.	*	1	2200	661	0.	*	2	1030	1036	0.	*	2	2300	1411	0.
1	0932	287	0.	*	1	2202	662	0.	*	2	1032	1037	0.	*	2	2302	1412	0.
1	0934	288	0.	*	1	2204	663	0.	*	2	1034	1038	0.	*	2	2304	1413	0.
1	0936	289	0.	*	1	2206	664	0.	*	2	1036	1039	0.	*	2	2306	1414	0.
1	0938	290	0.	*	1	2208	665	0.	*	2	1038	1040	0.	*	2	2308	1415	0.
1	0940	291	0.	*	1	2210	666	0.	*	2	1040	1041	0.	*	2	2310	1416	0.
1	0942	292	0.	*	1	2212	667	0.	*	2	1042	1042	0.	*	2	2312	1417	0.
1	0944	293	0.	*	1	2214	668	0.	*	2	1044	1043	0.	*	2	2314	1418	0.
1	0946	294	0.	*	1	2216	669	0.	*	2	1046	1044	0.	*	2	2316	1419	0.
1	0948	295	0.	*	1	2218	670	0.	*	2	1048	1045	0.	*	2	2318	1420	0.
1	0950	296	0.	*	1	2220	671	0.	*	2	1050	1046	0.	*	2	2320	1421	0.
1	0952	297	0.	*	1	2222	672	0.	*	2	1052	1047	0.	*	2	2322	1422	0.
1	0954	298	0.	*	1	2224	673	0.	*	2	1054	1048	0.	*	2	2324	1423	0.
1	0956	299	0.	*	1	2226	674	0.	*	2	1056	1049	0.	*	2	2326	1424	0.
1	0958	300	0.	*	1	2228	675	0.	*	2	1058	1050	0.	*	2	2328	1425	0.
1	1000	301	0.	*	1	2230	676	0.	*	2	1100	1051	0.	*	2	2330	1426	0.
1	1002	302	0.	*	1	2232	677	0.	*	2	1102	1052	0.	*	2	2332	1427	0.
1	1004	303	0.	*	1	2234	678	0.	*	2	1104	1053	0.	*	2	2334	1428	0.
1	1006	304	0.	*	1	2236	679	0.	*	2	1106	1054	0.	*	2	2336	1429	0.
1	1008	305	0.	*	1	2238	680	0.	*	2	1108	1055	0.	*	2	2338	1430	0.
1	1010	306	0.	*	1	2240	681	0.	*	2	1110	1056	0.	*	2	2340	1431	0.
1	1012	307	0.	*	1	2242	682	0.	*	2	1112	1057	0.	*	2	2342	1432	0.
1	1014	308	0.	*	1	2244	683	0.	*	2	1114	1058	0.	*	2	2344	1433	0.
1	1016	309	0.	*	1	2246	684	0.	*	2	1116	1059	0.	*	2	2346	1434	0.
1	1018	310	0.	*	1	2248	685	0.	*	2	1118	1060	0.	*	2	2348	1435	0.
1	1020	311	0.	*	1	2250	686	0.	*	2	1120	1061	0.	*	2	2350	1436	0.
1	1022	312	0.	*	1	2252	687	0.	*	2	1122	1062	0.	*	2	2352	1437	0.
1	1024	313	0.	*	1	2254	688	0.	*	2	1124	1063	0.	*	2	2354	1438	0.
1	1026	314	0.	*	1	2256	689	0.	*	2	1126	1064	0.	*	2	2356	1439	0.
1	1028	315	0.	*	1	2258	690	0.	*	2	1128	1065	0.	*	2	2358	1440	0.
1	1030	316	0.	*	1	2300	691	0.	*	2	1130	1066	0.	*	3	0000	1441	0.
1	1032	317	0.	*	1	2302	692	0.	*	2	1132	1067	0.	*	3	0002	1442	0.
1	1034	318	0.	*	1	2304	693	0.	*	2	1134	1068	0.	*	3	0004	1443	0.
1	1036	319	0.	*	1	2306	694	0.	*	2	1136	1069	0.	*	3	0006	1444	0.
1	1038	320	0.	*	1	2308	695	0.	*	2	1138	1070	0.	*	3	0008	1445	0.
1	1040	321	0.	*	1	2310	696	0.	*	2	1140	1071	0.	*	3	0010	1446	0.
1	1042	322	0.	*	1	2312	697	0.	*	2	1142	1072	0.	*	3	0012	1447	0.
1	1044	323	0.	*	1	2314	698	0.	*	2	1144	1073	0.	*	3	0014	1448	0.
1	1046	324	0.	*	1	2316	699	0.	*	2	1146	1074	0.	*	3	0016	1449	0.
1	1048	325	0.	*	1	2318	700	0.	*	2	1148	1075	0.	*	3	0018	1450	0.
1	1050	326	0.	*	1	2320	701	0.	*	2	1150	1076	0.	*	3	0020	1451	0.
1	1052	327	0.	*	1	2322	702	0.	*	2	1152	1077	0.	*	3	0022	1452	0.
1	1054	328	0.	*	1	2324	703	0.	*	2	1154	1078	0.	*	3	0024	1453	0.
1	1056	329	0.	*	1	2326	704	0.	*	2	1156	1079	0.	*	3	0026	1454	0.
1	1058	330	0.	*	1	2328	705	0.	*	2	1158	1080	0.	*	3	0028	1455	0.
1	1100	331	0.	*	1	2330	706	0.	*	2	1200	1081	0.	*	3	0030	1456	0.

1	1102	332	0.	*	1	2332	707	0.	*	2	1202	1082	0.	*	3	0032	1457	0.
1	1104	333	0.	*	1	2334	708	0.	*	2	1204	1083	0.	*	3	0034	1458	0.
1	1106	334	0.	*	1	2336	709	0.	*	2	1206	1084	0.	*	3	0036	1459	0.
1	1108	335	0.	*	1	2338	710	0.	*	2	1208	1085	0.	*	3	0038	1460	0.
1	1110	336	0.	*	1	2340	711	0.	*	2	1210	1086	0.	*	3	0040	1461	0.
1	1112	337	0.	*	1	2342	712	0.	*	2	1212	1087	0.	*	3	0042	1462	0.
1	1114	338	0.	*	1	2344	713	0.	*	2	1214	1088	0.	*	3	0044	1463	0.
1	1116	339	0.	*	1	2346	714	0.	*	2	1216	1089	0.	*	3	0046	1464	0.
1	1118	340	0.	*	1	2348	715	0.	*	2	1218	1090	0.	*	3	0048	1465	0.
1	1120	341	0.	*	1	2350	716	0.	*	2	1220	1091	0.	*	3	0050	1466	0.
1	1122	342	0.	*	1	2352	717	0.	*	2	1222	1092	0.	*	3	0052	1467	0.
1	1124	343	0.	*	1	2354	718	0.	*	2	1224	1093	0.	*	3	0054	1468	0.
1	1126	344	0.	*	1	2356	719	0.	*	2	1226	1094	0.	*	3	0056	1469	0.
1	1128	345	0.	*	1	2358	720	0.	*	2	1228	1095	0.	*	3	0058	1470	0.
1	1130	346	0.	*	2	0000	721	0.	*	2	1230	1096	0.	*	3	0100	1471	0.
1	1132	347	0.	*	2	0002	722	0.	*	2	1232	1097	0.	*	3	0102	1472	0.
1	1134	348	0.	*	2	0004	723	0.	*	2	1234	1098	0.	*	3	0104	1473	0.
1	1136	349	0.	*	2	0006	724	0.	*	2	1236	1099	0.	*	3	0106	1474	0.
1	1138	350	0.	*	2	0008	725	0.	*	2	1238	1100	0.	*	3	0108	1475	0.
1	1140	351	0.	*	2	0010	726	0.	*	2	1240	1101	0.	*	3	0110	1476	0.
1	1142	352	0.	*	2	0012	727	0.	*	2	1242	1102	0.	*	3	0112	1477	0.
1	1144	353	0.	*	2	0014	728	0.	*	2	1244	1103	0.	*	3	0114	1478	0.
1	1146	354	0.	*	2	0016	729	0.	*	2	1246	1104	0.	*	3	0116	1479	0.
1	1148	355	0.	*	2	0018	730	0.	*	2	1248	1105	0.	*	3	0118	1480	0.
1	1150	356	0.	*	2	0020	731	0.	*	2	1250	1106	0.	*	3	0120	1481	0.
1	1152	357	0.	*	2	0022	732	0.	*	2	1252	1107	0.	*	3	0122	1482	0.
1	1154	358	0.	*	2	0024	733	0.	*	2	1254	1108	0.	*	3	0124	1483	0.
1	1156	359	0.	*	2	0026	734	0.	*	2	1256	1109	0.	*	3	0126	1484	0.
1	1158	360	0.	*	2	0028	735	0.	*	2	1258	1110	0.	*	3	0128	1485	0.
1	1200	361	0.	*	2	0030	736	0.	*	2	1300	1111	0.	*	3	0130	1486	0.
1	1202	362	0.	*	2	0032	737	0.	*	2	1302	1112	0.	*	3	0132	1487	0.
1	1204	363	0.	*	2	0034	738	0.	*	2	1304	1113	0.	*	3	0134	1488	0.
1	1206	364	0.	*	2	0036	739	0.	*	2	1306	1114	0.	*	3	0136	1489	0.
1	1208	365	0.	*	2	0038	740	0.	*	2	1308	1115	0.	*	3	0138	1490	0.
1	1210	366	0.	*	2	0040	741	0.	*	2	1310	1116	0.	*	3	0140	1491	0.
1	1212	367	0.	*	2	0042	742	0.	*	2	1312	1117	0.	*	3	0142	1492	0.
1	1214	368	0.	*	2	0044	743	0.	*	2	1314	1118	0.	*	3	0144	1493	0.
1	1216	369	0.	*	2	0046	744	0.	*	2	1316	1119	0.	*	3	0146	1494	0.
1	1218	370	0.	*	2	0048	745	0.	*	2	1318	1120	0.	*	3	0148	1495	0.
1	1220	371	0.	*	2	0050	746	0.	*	2	1320	1121	0.	*	3	0150	1496	0.
1	1222	372	0.	*	2	0052	747	0.	*	2	1322	1122	0.	*	3	0152	1497	0.
1	1224	373	0.	*	2	0054	748	0.	*	2	1324	1123	0.	*	3	0154	1498	0.
1	1226	374	0.	*	2	0056	749	0.	*	2	1326	1124	0.	*	3	0156	1499	0.
1	1228	375	0.	*	2	0058	750	0.	*	2	1328	1125	0.	*	3	0158	1500	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)					
		(CFS)				
+ 3365.	12.90		254.	64.	31.	31.
		(INCHES)	.173	.173	.173	.173
		(AC-FT)	126.	126.	126.	126.

CUMULATIVE AREA = 13.68 SQ MI

INTERPOLATED HYDROGRAPH AT DD455

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		1230	376	1672.	2		0100	751	228.	2		1330	1126	191.
1		0002	2	0.	1		1232	377	1682.	2		0102	752	228.	2		1332	1127	191.
1		0004	3	0.	1		1234	378	1811.	2		0104	753	227.	2		1334	1128	191.
1		0006	4	0.	1		1236	379	2054.	2		0106	754	226.	2		1336	1129	191.
1		0008	5	0.	1		1238	380	2422.	2		0108	755	226.	2		1338	1130	190.
1		0010	6	0.	1		1240	381	2685.	2		0110	756	225.	2		1340	1131	190.
1		0012	7	1.	1		1242	382	2800.	2		0112	757	224.	2		1342	1132	190.
1		0014	8	1.	1		1244	383	2800.	2		0114	758	224.	2		1344	1133	190.
1		0016	9	1.	1		1246	384	2800.	2		0116	759	223.	2		1346	1134	190.
1		0018	10	2.	1		1248	385	2800.	2		0118	760	222.	2		1348	1135	190.
1		0020	11	2.	1		1250	386	2800.	2		0120	761	222.	2		1350	1136	190.
1		0022	12	2.	1		1252	387	2800.	2		0122	762	221.	2		1352	1137	190.
1		0024	13	3.	1		1254	388	2800.	2		0124	763	220.	2		1354	1138	190.
1		0026	14	3.	1		1256	389	2800.	2		0126	764	220.	2		1356	1139	189.
1		0028	15	4.	1		1258	390	2800.	2		0128	765	219.	2		1358	1140	189.
1		0030	16	4.	1		1300	391	2800.	2		0130	766	218.	2		1400	1141	189.
1		0032	17	5.	1		1302	392	2800.	2		0132	767	218.	2		1402	1142	189.
1		0034	18	5.	1		1304	393	2800.	2		0134	768	217.	2		1404	1143	189.
1		0036	19	6.	1		1306	394	2800.	2		0136	769	217.	2		1406	1144	188.
1		0038	20	6.	1		1308	395	2800.	2		0138	770	216.	2		1408	1145	188.
1		0040	21	6.	1		1310	396	2800.	2		0140	771	216.	2		1410	1146	188.
1		0042	22	7.	1		1312	397	2800.	2		0142	772	215.	2		1412	1147	188.
1		0044	23	7.	1		1314	398	2800.	2		0144	773	215.	2		1414	1148	188.
1		0046	24	7.	1		1316	399	2800.	2		0146	774	214.	2		1416	1149	188.
1		0048	25	8.	1		1318	400	2800.	2		0148	775	214.	2		1418	1150	187.
1		0050	26	8.	1		1320	401	2800.	2		0150	776	213.	2		1420	1151	187.
1		0052	27	8.	1		1322	402	2800.	2		0152	777	213.	2		1422	1152	187.
1		0054	28	8.	1		1324	403	2800.	2		0154	778	212.	2		1424	1153	187.
1		0056	29	8.	1		1326	404	2800.	2		0156	779	212.	2		1426	1154	187.
1		0058	30	8.	1		1328	405	2800.	2		0158	780	211.	2		1428	1155	187.
1		0100	31	9.	1		1330	406	2780.	2		0200	781	211.	2		1430	1156	186.
1		0102	32	9.	1		1332	407	2694.	2		0202	782	210.	2		1432	1157	186.
1		0104	33	9.	1		1334	408	2574.	2		0204	783	210.	2		1434	1158	186.
1		0106	34	9.	1		1336	409	2461.	2		0206	784	210.	2		1436	1159	186.
1		0108	35	9.	1		1338	410	2356.	2		0208	785	209.	2		1438	1160	186.
1		0110	36	9.	1		1340	411	2258.	2		0210	786	209.	2		1440	1161	186.
1		0112	37	9.	1		1342	412	2163.	2		0212	787	208.	2		1442	1162	186.
1		0114	38	10.	1		1344	413	2073.	2		0214	788	208.	2		1444	1163	186.
1		0116	39	10.	1		1346	414	1989.	2		0216	789	208.	2		1446	1164	186.
1		0118	40	10.	1		1348	415	1910.	2		0218	790	207.	2		1448	1165	186.
1		0120	41	10.	1		1350	416	1837.	2		0220	791	207.	2		1450	1166	185.
1		0122	42	10.	1		1352	417	1765.	2		0222	792	207.	2		1452	1167	185.
1		0124	43	10.	1		1354	418	1697.	2		0224	793	206.	2		1454	1168	185.
1		0126	44	10.	1		1356	419	1635.	2		0226	794	206.	2		1456	1169	185.
1		0128	45	11.	1		1358	420	1577.	2		0228	795	206.	2		1458	1170	185.
1		0130	46	11.	1		1400	421	1522.	2		0230	796	205.	2		1500	1171	185.
1		0132	47	11.	1		1402	422	1468.	2		0232	797	205.	2		1502	1172	185.
1		0134	48	11.	1		1404	423	1415.	2		0234	798	205.	2		1504	1173	185.
1		0136	49	11.	1		1406	424	1364.	2		0236	799	204.	2		1506	1174	185.
1		0138	50	11.	1		1408	425	1316.	2		0238	800	204.	2		1508	1175	185.
1		0140	51	12.	1		1410	426	1272.	2		0240	801	204.	2		1510	1176	185.
1		0142	52	12.	1		1412	427	1231.	2		0242	802	204.	2		1512	1177	185.
1		0144	53	12.	1		1414	428	1191.	2		0244	803	203.	2		1514	1178	185.
1		0146	54	12.	1		1416	429	1153.	2		0246	804	203.	2		1516	1179	185.
1		0148	55	13.	1		1418	430	1116.	2		0248	805	203.	2		1518	1180	185.
1		0150	56	13.	1		1420	431	1081.	2		0250	806	203.	2		1520	1181	185.
1		0152	57	13.	1		1422	432	1047.	2		0252	807	202.	2		1522	1182	185.
1		0154	58	13.	1		1424	433	1015.	2		0254	808	202.	2		1524	1183	185.
1		0156	59	14.	1		1426	434	986.	2		0256	809	202.	2		1526	1184	185.
1		0158	60	14.	1		1428	435	959.	2		0258	810	202.	2		1528	1185	185.
1		0200	61	14.	1		1430	436	934.	2		0300	811	202.	2		1530	1186	185.
1		0202	62	15.	1		1432	437	909.	2		0302	812	201.	2		1532	1187	185.
1		0204	63	15.	1		1434	438	885.	2		0304	813	201.	2		1534	1188	185.
1		0206	64	15.	1		1436	439	862.	2		0306	814	201.	2		1536	1189	185.
1		0208	65	16.	1		1438	440	839.	2		0308	815	201.	2		1538	1190	184.
1		0210	66	16.	1		1440	441	816.	2		0310	816	201.	2		1540	1191	184.
1		0212	67	16.	1		1442	442	795.	2		0312	817	200.	2		1542	1192	184.
1		0214	68	17.	1		1444	443	774.	2		0314	818	200.	2		1544	1193	184.
1		0216	69	17.	1		1446	444	754.	2		0316	819	200.	2		1546	1194	184.
1		0218	70	17.	1		1448	445	736.	2		0318	820	200.	2		1548	1195	184.
1		0220	71	18.	1		1450	446	718.	2		0320	821	200.	2		1550	1196	184.
1		0222	72	18.	1		1452	447	702.	2		0322	822	200.	2		1552	1197	184.
1		0224	73	18.	1		1454	448	686.	2		0324	823	199.	2		1554	1198	184.
1		0226	74	18.	1		1456	449	670.	2		0326	824	199.	2		1556	1199	184.
1		0228	75	19.	1		1458	450	655.	2		0328	825	199.	2		1558	1200	184.
1		0230	76	19.	1		1500	451	639.	2		0330	826	199.	2		1600	1201	184.
1		0232	77	19.	1		1502	452	625.	2		0332	827	199.	2		1602	1202	184.
1		0234	78	20.	1		1504	453	611.	2		0334	828	199.	2		1604	1203	184.
1		0236	79	20.	1		1506	454	597.	2		0336	829	199.	2		1606	1204	184.
1		0238	80	20.	1		1508	455	585.	2		0338	830	198.	2		1608	1205	184.
1		0240	81	20.	1		1510	456	573.	2		0340	831	198.	2		1610	1206	184.
1		0242	82	21.	1		1512	457	562.	2		0342	832	198.	2		1612	1207	184.
1		0244	83	21.	1		1514	458	551.	2		0344	833	198.	2		1614	1208	184.
1		0246	84	21.	1		1516	459	541.	2		0346	834	198.	2		1616	1209	184.
1		0248	85	22.	1		1518	460	531.	2		0348	835	198.	2		1618	1210	183.
1		0250	86	22.	1		1520	461	522.	2		0350	836	198.	2		1620	1211	183.
1		0252	87	22.	1		1522	462	514.	2		0352	837	198.	2		1622	1212	183.
1		0254	88	22.	1		1524	463	506.	2		0354	838	198.	2		1624	1213	183.
1		0256	89	23.	1		1526	464	498.	2		0356	839	197.	2		1626	1214	182.
1		0258	90	23.	1		1528	465	492.	2		0358	840	197.	2		1628	1215	182.
1		0300	91	23.	1		1530	466	485.	2		0400	841	197.	2		1630	1216	181.
1		0302	92	23.	1		1532	467	479.	2		0402	842	197.	2		1632	1217	181.
1		0304	93	24.	1		1534	468	472.	2		0404	843	197.	2		1634	1218	180.
1		0306	94	24.	1		1536	469	466.	2		0406	844	197.	2		1636	1219	179.
1		0308	95	24.	1		1538	470	460.	2		0408	845	197.	2		1638	1220	178.
1		0310	96	24.	1		1540	471	453.	2		0410	846	197.	2		1640	1221	178.
1		0312	97	25.	1		1542	472	447.	2		0412	847	197.	2		1642	1222	177.
1		0314	98	25.	1		1544	473	441.	2		0414	848	197.	2		1644	1223	176.
1		0316	99	25.	1		1546	474	436.	2		0416	849	197.	2		1646	1224	175.
1		0318	100	25.	1		1548	475	430.	2		0418	850	197.	2		1648	1225	174.
1		0320	101	26.	1		1550	476	425.	2		0420	851	197.	2		1650	1226	173.
1		0322	102	26.	1		1552	477	419.	2		0422	852	196.	2		1652	1227	172.
1		0324	103	26.	1		1554	478	414.	2		0424	853	196.	2		1654	1228	170.
1		0326	104	26.	1		1556	479	409.	2		0426	854	196.	2		1656	1229	169.
1		0328	105	27.	1		1558	480	405.	2		0428	855	196.	2		1658	1230	168.

1	0330	106	27.	*	1	1600	481	400.	*	2	0430	856	196.	*	2	1700	1231	167.
1	0332	107	27.	*	1	1602	482	396.	*	2	0432	857	196.	*	2	1702	1232	166.
1	0334	108	27.	*	1	1604	483	391.	*	2	0434	858	196.	*	2	1704	1233	165.
1	0336	109	27.	*	1	1606	484	387.	*	2	0436	859	196.	*	2	1706	1234	164.
1	0338	110	28.	*	1	1608	485	383.	*	2	0438	860	196.	*	2	1708	1235	163.
1	0340	111	28.	*	1	1610	486	379.	*	2	0440	861	196.	*	2	1710	1236	162.
1	0342	112	28.	*	1	1612	487	375.	*	2	0442	862	196.	*	2	1712	1237	161.
1	0344	113	28.	*	1	1614	488	371.	*	2	0444	863	196.	*	2	1714	1238	161.
1	0346	114	28.	*	1	1616	489	368.	*	2	0446	864	196.	*	2	1716	1239	160.
1	0348	115	29.	*	1	1618	490	364.	*	2	0448	865	196.	*	2	1718	1240	159.
1	0350	116	29.	*	1	1620	491	360.	*	2	0450	866	196.	*	2	1720	1241	159.
1	0352	117	29.	*	1	1622	492	357.	*	2	0452	867	196.	*	2	1722	1242	158.
1	0354	118	29.	*	1	1624	493	354.	*	2	0454	868	196.	*	2	1724	1243	157.
1	0356	119	30.	*	1	1626	494	350.	*	2	0456	869	196.	*	2	1726	1244	157.
1	0358	120	30.	*	1	1628	495	347.	*	2	0458	870	196.	*	2	1728	1245	157.
1	0400	121	30.	*	1	1630	496	344.	*	2	0500	871	196.	*	2	1730	1246	156.
1	0402	122	31.	*	1	1632	497	342.	*	2	0502	872	196.	*	2	1732	1247	156.
1	0404	123	31.	*	1	1634	498	339.	*	2	0504	873	196.	*	2	1734	1248	156.
1	0406	124	31.	*	1	1636	499	336.	*	2	0506	874	195.	*	2	1736	1249	155.
1	0408	125	32.	*	1	1638	500	334.	*	2	0508	875	195.	*	2	1738	1250	155.
1	0410	126	32.	*	1	1640	501	332.	*	2	0510	876	195.	*	2	1740	1251	154.
1	0412	127	32.	*	1	1642	502	329.	*	2	0512	877	195.	*	2	1742	1252	153.
1	0414	128	33.	*	1	1644	503	327.	*	2	0514	878	195.	*	2	1744	1253	153.
1	0416	129	33.	*	1	1646	504	325.	*	2	0516	879	195.	*	2	1746	1254	152.
1	0418	130	33.	*	1	1648	505	323.	*	2	0518	880	195.	*	2	1748	1255	151.
1	0420	131	34.	*	1	1650	506	321.	*	2	0520	881	195.	*	2	1750	1256	151.
1	0422	132	34.	*	1	1652	507	320.	*	2	0522	882	195.	*	2	1752	1257	150.
1	0424	133	34.	*	1	1654	508	318.	*	2	0524	883	195.	*	2	1754	1258	149.
1	0426	134	35.	*	1	1656	509	316.	*	2	0526	884	195.	*	2	1756	1259	149.
1	0428	135	35.	*	1	1658	510	315.	*	2	0528	885	195.	*	2	1758	1260	148.
1	0430	136	35.	*	1	1700	511	313.	*	2	0530	886	195.	*	2	1800	1261	147.
1	0432	137	35.	*	1	1702	512	312.	*	2	0532	887	195.	*	2	1802	1262	147.
1	0434	138	36.	*	1	1704	513	311.	*	2	0534	888	195.	*	2	1804	1263	147.
1	0436	139	36.	*	1	1706	514	310.	*	2	0536	889	195.	*	2	1806	1264	146.
1	0438	140	36.	*	1	1708	515	309.	*	2	0538	890	195.	*	2	1808	1265	146.
1	0440	141	36.	*	1	1710	516	308.	*	2	0540	891	195.	*	2	1810	1266	146.
1	0442	142	37.	*	1	1712	517	307.	*	2	0542	892	195.	*	2	1812	1267	145.
1	0444	143	37.	*	1	1714	518	306.	*	2	0544	893	195.	*	2	1814	1268	145.
1	0446	144	37.	*	1	1716	519	305.	*	2	0546	894	195.	*	2	1816	1269	145.
1	0448	145	37.	*	1	1718	520	304.	*	2	0548	895	195.	*	2	1818	1270	145.
1	0450	146	38.	*	1	1720	521	303.	*	2	0550	896	195.	*	2	1820	1271	145.
1	0452	147	38.	*	1	1722	522	303.	*	2	0552	897	195.	*	2	1822	1272	145.
1	0454	148	38.	*	1	1724	523	302.	*	2	0554	898	195.	*	2	1824	1273	145.
1	0456	149	38.	*	1	1726	524	301.	*	2	0556	899	195.	*	2	1826	1274	145.
1	0458	150	39.	*	1	1728	525	300.	*	2	0558	900	195.	*	2	1828	1275	144.
1	0500	151	39.	*	1	1730	526	299.	*	2	0600	901	195.	*	2	1830	1276	144.
1	0502	152	39.	*	1	1732	527	299.	*	2	0602	902	195.	*	2	1832	1277	144.
1	0504	153	40.	*	1	1734	528	298.	*	2	0604	903	195.	*	2	1834	1278	144.
1	0506	154	40.	*	1	1736	529	297.	*	2	0606	904	195.	*	2	1836	1279	144.
1	0508	155	40.	*	1	1738	530	297.	*	2	0608	905	195.	*	2	1838	1280	144.
1	0510	156	40.	*	1	1740	531	296.	*	2	0610	906	195.	*	2	1840	1281	144.
1	0512	157	41.	*	1	1742	532	295.	*	2	0612	907	195.	*	2	1842	1282	144.
1	0514	158	41.	*	1	1744	533	295.	*	2	0614	908	195.	*	2	1844	1283	144.
1	0516	159	41.	*	1	1746	534	294.	*	2	0616	909	195.	*	2	1846	1284	144.
1	0518	160	42.	*	1	1748	535	293.	*	2	0618	910	195.	*	2	1848	1285	144.
1	0520	161	42.	*	1	1750	536	293.	*	2	0620	911	195.	*	2	1850	1286	144.
1	0522	162	42.	*	1	1752	537	292.	*	2	0622	912	195.	*	2	1852	1287	144.
1	0524	163	43.	*	1	1754	538	292.	*	2	0624	913	195.	*	2	1854	1288	144.
1	0526	164	43.	*	1	1756	539	291.	*	2	0626	914	195.	*	2	1856	1289	144.
1	0528	165	43.	*	1	1758	540	290.	*	2	0628	915	195.	*	2	1858	1290	144.
1	0530	166	44.	*	1	1800	541	290.	*	2	0630	916	195.	*	2	1900	1291	144.
1	0532	167	44.	*	1	1802	542	289.	*	2	0632	917	195.	*	2	1902	1292	144.
1	0534	168	44.	*	1	1804	543	289.	*	2	0634	918	195.	*	2	1904	1293	144.
1	0536	169	45.	*	1	1806	544	288.	*	2	0636	919	195.	*	2	1906	1294	144.
1	0538	170	45.	*	1	1808	545	287.	*	2	0638	920	194.	*	2	1908	1295	144.
1	0540	171	45.	*	1	1810	546	287.	*	2	0640	921	194.	*	2	1910	1296	144.
1	0542	172	46.	*	1	1812	547	286.	*	2	0642	922	194.	*	2	1912	1297	144.
1	0544	173	46.	*	1	1814	548	286.	*	2	0644	923	194.	*	2	1914	1298	144.
1	0546	174	47.	*	1	1816	549	285.	*	2	0646	924	194.	*	2	1916	1299	144.
1	0548	175	47.	*	1	1818	550	285.	*	2	0648	925	194.	*	2	1918	1300	144.
1	0550	176	47.	*	1	1820	551	284.	*	2	0650	926	194.	*	2	1920	1301	144.
1	0552	177	48.	*	1	1822	552	284.	*	2	0652	927	194.	*	2	1922	1302	144.
1	0554	178	48.	*	1	1824	553	283.	*	2	0654	928	194.	*	2	1924	1303	144.
1	0556	179	49.	*	1	1826	554	283.	*	2	0656	929	194.	*	2	1926	1304	144.
1	0558	180	49.	*	1	1828	555	282.	*	2	0658	930	194.	*	2	1928	1305	144.
1	0600	181	49.	*	1	1830	556	282.	*	2	0700	931	194.	*	2	1930	1306	144.
1	0602	182	50.	*	1	1832	557	281.	*	2	0702	932	194.	*	2	1932	1307	144.
1	0604	183	50.	*	1	1834	558	281.	*	2	0704	933	194.	*	2	1934	1308	144.
1	0606	184	51.	*	1	1836	559	280.	*	2	0706	934	194.	*	2	1936	1309	144.
1	0608	185	52.	*	1	1838	560	280.	*	2	0708	935	194.	*	2	1938	1310	144.
1	0610	186	52.	*	1	1840	561	279.	*	2	0710	936	194.	*	2	1940	1311	144.
1	0612	187	53.	*	1	1842	562	279.	*	2	0712	937	194.	*	2	1942	1312	144.
1	0614	188	54.	*	1	1844	563	279.	*	2	0714	938	194.	*	2	1944	1313	144.
1	0616	189	55.	*	1	1846	564	278.	*	2	0716	939	194.	*	2	1946	1314	144.
1	0618	190	56.	*	1	1848	565	278.	*	2	0718	940	194.	*	2	1948	1315	144.
1	0620	191	57.	*	1	1850	566	277.	*	2	0720	941	194.	*	2	1950	1316	144.
1	0622	192	58.	*	1	1852	567	277.	*	2	0722	942	194.	*	2	1952	1317	144.
1	0624	193	60.	*	1	1854	568	276.	*	2	0724	943	194.	*	2	1954	1318	144.
1	0626	194	62.	*	1	1856	569	276.	*	2	0726	944	194.	*	2	1956	1319	144.
1	0628	195	63.	*	1	1858	570	275.	*	2	0728	945	194.	*	2	1958	1320	144.
1	0630	196	65.	*	1	1900	571	275.	*	2	0730	946	194.	*	2	2000	1321	144.
1	0632	197	66.	*	1	1902	572	275.	*	2	0732	947	194.	*	2	2002	1322	144.
1	0634	198	68.	*	1	1904	573	274.	*	2	0734	948	194.	*	2	2004	1323	144.
1	0636	199	69.	*	1	1906	574	274.	*	2	0736	949	194.	*	2	2006	1324	144.
1	0638	200	70.	*	1	1908	575	273.	*	2	0738	950	194.	*	2	2008	1325	144.
1	0640	201	71.	*	1	1910	576	273.	*	2	0740	951	194.	*	2	2010	1326	144.
1	0642	202	72.	*	1	1912	577	273.	*	2	0742	952	194.	*	2	2012	1327	144.
1	0644	203	73.	*	1	1914	578	272.	*	2	0744	953	194.	*	2	2014	1328	144.
1	0646	204	74.	*	1	1916	579	272.	*	2	0746	954	194.	*	2	2016	1329	144.
1	0648	205	75.	*	1	1918	580	272.	*	2	0748	955	194.	*	2	2018	1330	144.
1	0650	206	76.	*	1	1920	581	271.	*	2	0750	956	194.	*	2	2020	1331	144.
1	0652	207	76.	*	1	1922	582	271.	*	2	0752	957	194.	*	2	2022	1332	144.
1	0654	208	77.	*	1	1924	583	271.	*	2	0754	958	194.	*	2	2024	1333	144.
1	0656	209	78.	*	1	1926	584	270.	*	2	0756	959	194.	*	2	2026	1334	144.
1	0658	210	78.	*	1	1928	585	270.	*	2	0758	960	194.	*	2	2028	1335	144.
1	0700	211	79.	*	1	1930	586	270.	*	2	0800	961	194.	*	2	2030	1336	144.
1	0702	212	80.	*	1	1932	587	270.	*	2	0802	962	194.	*	2	2032	1337	144.
1	0704	213	80.	*	1	1934	588	269.	*	2	0804	963	194.	*	2	2034	1338	144.
1	0706	214	81.	*	1	1936	589	269.	*	2	0806	964	194.	*	2	2036	1339	144.
1	0708	215	81.	*	1	1938	590	269.	*	2	0808	965	194.	*	2	2038	1340	143.
1	0710	216	82.	*	1	1940	591	269.	*	2	0810	966	194.	*	2	2040	1341	143.
1	0712	217	83.	*	1	1942	592	268.	*	2	0812	967	194.	*	2	2042	1342	143.
1	0714	218	83.	*	1	1944	593	268.	*	2	0814	968	194.	*	2	2044	1343	143.

1	0716	219	84.	*	1	1946	594	268.	*	2	0816	969	194.	*	2	2046	1344	143.
1	0718	220	84.	*	1	1948	595	268.	*	2	0818	970	194.	*	2	2048	1345	143.
1	0720	221	85.	*	1	1950	596	267.	*	2	0820	971	194.	*	2	2050	1346	143.
1	0722	222	85.	*	1	1952	597	267.	*	2	0822	972	194.	*	2	2052	1347	143.
1	0724	223	86.	*	1	1954	598	267.	*	2	0824	973	194.	*	2	2054	1348	143.
1	0726	224	87.	*	1	1956	599	267.	*	2	0826	974	194.	*	2	2056	1349	143.
1	0728	225	87.	*	1	1958	600	266.	*	2	0828	975	194.	*	2	2058	1350	143.
1	0730	226	88.	*	1	2000	601	266.	*	2	0830	976	194.	*	2	2100	1351	143.
1	0732	227	88.	*	1	2002	602	265.	*	2	0832	977	193.	*	2	2102	1352	143.
1	0734	228	89.	*	1	2004	603	265.	*	2	0834	978	193.	*	2	2104	1353	143.
1	0736	229	89.	*	1	2006	604	265.	*	2	0836	979	193.	*	2	2106	1354	143.
1	0738	230	90.	*	1	2008	605	264.	*	2	0838	980	193.	*	2	2108	1355	143.
1	0740	231	90.	*	1	2010	606	264.	*	2	0840	981	193.	*	2	2110	1356	143.
1	0742	232	91.	*	1	2012	607	264.	*	2	0842	982	193.	*	2	2112	1357	143.
1	0744	233	91.	*	1	2014	608	263.	*	2	0844	983	193.	*	2	2114	1358	143.
1	0746	234	92.	*	1	2016	609	263.	*	2	0846	984	193.	*	2	2116	1359	143.
1	0748	235	92.	*	1	2018	610	263.	*	2	0848	985	193.	*	2	2118	1360	143.
1	0750	236	92.	*	1	2020	611	262.	*	2	0850	986	193.	*	2	2120	1361	143.
1	0752	237	93.	*	1	2022	612	262.	*	2	0852	987	193.	*	2	2122	1362	143.
1	0754	238	93.	*	1	2024	613	262.	*	2	0854	988	193.	*	2	2124	1363	143.
1	0756	239	94.	*	1	2026	614	261.	*	2	0856	989	193.	*	2	2126	1364	143.
1	0758	240	94.	*	1	2028	615	261.	*	2	0858	990	193.	*	2	2128	1365	143.
1	0800	241	94.	*	1	2030	616	261.	*	2	0900	991	193.	*	2	2130	1366	143.
1	0802	242	95.	*	1	2032	617	260.	*	2	0902	992	193.	*	2	2132	1367	143.
1	0804	243	95.	*	1	2034	618	260.	*	2	0904	993	193.	*	2	2134	1368	143.
1	0806	244	95.	*	1	2036	619	260.	*	2	0906	994	193.	*	2	2136	1369	143.
1	0808	245	96.	*	1	2038	620	260.	*	2	0908	995	193.	*	2	2138	1370	143.
1	0810	246	96.	*	1	2040	621	259.	*	2	0910	996	193.	*	2	2140	1371	143.
1	0812	247	97.	*	1	2042	622	259.	*	2	0912	997	193.	*	2	2142	1372	143.
1	0814	248	97.	*	1	2044	623	259.	*	2	0914	998	193.	*	2	2144	1373	143.
1	0816	249	97.	*	1	2046	624	258.	*	2	0916	999	193.	*	2	2146	1374	143.
1	0818	250	98.	*	1	2048	625	258.	*	2	0918	1000	193.	*	2	2148	1375	143.
1	0820	251	98.	*	1	2050	626	258.	*	2	0920	1001	193.	*	2	2150	1376	143.
1	0822	252	99.	*	1	2052	627	257.	*	2	0922	1002	193.	*	2	2152	1377	143.
1	0824	253	99.	*	1	2054	628	257.	*	2	0924	1003	193.	*	2	2154	1378	143.
1	0826	254	100.	*	1	2056	629	257.	*	2	0926	1004	193.	*	2	2156	1379	143.
1	0828	255	100.	*	1	2058	630	256.	*	2	0928	1005	193.	*	2	2158	1380	143.
1	0830	256	101.	*	1	2100	631	256.	*	2	0930	1006	193.	*	2	2200	1381	143.
1	0832	257	101.	*	1	2102	632	256.	*	2	0932	1007	193.	*	2	2202	1382	143.
1	0834	258	102.	*	1	2104	633	255.	*	2	0934	1008	193.	*	2	2204	1383	143.
1	0836	259	102.	*	1	2106	634	255.	*	2	0936	1009	193.	*	2	2206	1384	143.
1	0838	260	103.	*	1	2108	635	255.	*	2	0938	1010	193.	*	2	2208	1385	143.
1	0840	261	104.	*	1	2110	636	255.	*	2	0940	1011	193.	*	2	2210	1386	143.
1	0842	262	104.	*	1	2112	637	254.	*	2	0942	1012	193.	*	2	2212	1387	143.
1	0844	263	105.	*	1	2114	638	254.	*	2	0944	1013	193.	*	2	2214	1388	143.
1	0846	264	105.	*	1	2116	639	254.	*	2	0946	1014	193.	*	2	2216	1389	143.
1	0848	265	105.	*	1	2118	640	254.	*	2	0948	1015	193.	*	2	2218	1390	143.
1	0850	266	106.	*	1	2120	641	253.	*	2	0950	1016	193.	*	2	2220	1391	143.
1	0852	267	106.	*	1	2122	642	253.	*	2	0952	1017	193.	*	2	2222	1392	143.
1	0854	268	107.	*	1	2124	643	253.	*	2	0954	1018	193.	*	2	2224	1393	143.
1	0856	269	107.	*	1	2126	644	253.	*	2	0956	1019	193.	*	2	2226	1394	143.
1	0858	270	108.	*	1	2128	645	252.	*	2	0958	1020	193.	*	2	2228	1395	143.
1	0900	271	108.	*	1	2130	646	252.	*	2	1000	1021	193.	*	2	2230	1396	143.
1	0902	272	109.	*	1	2132	647	252.	*	2	1002	1022	193.	*	2	2232	1397	143.
1	0904	273	109.	*	1	2134	648	252.	*	2	1004	1023	193.	*	2	2234	1398	143.
1	0906	274	109.	*	1	2136	649	251.	*	2	1006	1024	193.	*	2	2236	1399	143.
1	0908	275	110.	*	1	2138	650	251.	*	2	1008	1025	193.	*	2	2238	1400	143.
1	0910	276	111.	*	1	2140	651	251.	*	2	1010	1026	193.	*	2	2240	1401	143.
1	0912	277	111.	*	1	2142	652	251.	*	2	1012	1027	193.	*	2	2242	1402	143.
1	0914	278	112.	*	1	2144	653	251.	*	2	1014	1028	193.	*	2	2244	1403	143.
1	0916	279	112.	*	1	2146	654	250.	*	2	1016	1029	193.	*	2	2246	1404	143.
1	0918	280	113.	*	1	2148	655	250.	*	2	1018	1030	193.	*	2	2248	1405	143.
1	0920	281	114.	*	1	2150	656	250.	*	2	1020	1031	193.	*	2	2250	1406	143.
1	0922	282	115.	*	1	2152	657	250.	*	2	1022	1032	193.	*	2	2252	1407	143.
1	0924	283	115.	*	1	2154	658	250.	*	2	1024	1033	193.	*	2	2254	1408	143.
1	0926	284	116.	*	1	2156	659	250.	*	2	1026	1034	193.	*	2	2256	1409	143.
1	0928	285	117.	*	1	2158	660	249.	*	2	1028	1035	193.	*	2	2258	1410	143.
1	0930	286	118.	*	1	2200	661	249.	*	2	1030	1036	193.	*	2	2300	1411	143.
1	0932	287	118.	*	1	2202	662	249.	*	2	1032	1037	192.	*	2	2302	1412	143.
1	0934	288	119.	*	1	2204	663	249.	*	2	1034	1038	192.	*	2	2304	1413	143.
1	0936	289	120.	*	1	2206	664	249.	*	2	1036	1039	192.	*	2	2306	1414	143.
1	0938	290	120.	*	1	2208	665	249.	*	2	1038	1040	192.	*	2	2308	1415	143.
1	0940	291	121.	*	1	2210	666	248.	*	2	1040	1041	192.	*	2	2310	1416	142.
1	0942	292	122.	*	1	2212	667	248.	*	2	1042	1042	192.	*	2	2312	1417	142.
1	0944	293	123.	*	1	2214	668	248.	*	2	1044	1043	192.	*	2	2314	1418	142.
1	0946	294	123.	*	1	2216	669	248.	*	2	1046	1044	192.	*	2	2316	1419	142.
1	0948	295	124.	*	1	2218	670	248.	*	2	1048	1045	192.	*	2	2318	1420	142.
1	0950	296	125.	*	1	2220	671	248.	*	2	1050	1046	192.	*	2	2320	1421	142.
1	0952	297	126.	*	1	2222	672	248.	*	2	1052	1047	192.	*	2	2322	1422	142.
1	0954	298	126.	*	1	2224	673	248.	*	2	1054	1048	192.	*	2	2324	1423	142.
1	0956	299	127.	*	1	2226	674	247.	*	2	1056	1049	192.	*	2	2326	1424	142.
1	0958	300	128.	*	1	2228	675	247.	*	2	1058	1050	192.	*	2	2328	1425	142.
1	1000	301	128.	*	1	2230	676	247.	*	2	1100	1051	192.	*	2	2330	1426	142.
1	1002	302	129.	*	1	2232	677	247.	*	2	1102	1052	192.	*	2	2332	1427	142.
1	1004	303	130.	*	1	2234	678	247.	*	2	1104	1053	192.	*	2	2334	1428	142.
1	1006	304	130.	*	1	2236	679	247.	*	2	1106	1054	192.	*	2	2336	1429	142.
1	1008	305	131.	*	1	2238	680	247.	*	2	1108	1055	192.	*	2	2338	1430	142.
1	1010	306	132.	*	1	2240	681	247.	*	2	1110	1056	192.	*	2	2340	1431	142.
1	1012	307	132.	*	1	2242	682	247.	*	2	1112	1057	192.	*	2	2342	1432	142.
1	1014	308	133.	*	1	2244	683	246.	*	2	1114	1058	192.	*	2	2344	1433	142.
1	1016	309	134.	*	1	2246	684	246.	*	2	1116	1059	192.	*	2	2346	1434	142.
1	1018	310	135.	*	1	2248	685	246.	*	2	1118	1060	192.	*	2	2348	1435	142.
1	1020	311	135.	*	1	2250	686	246.	*	2	1120	1061	192.	*	2	2350	1436	142.
1	1022	312	136.	*	1	2252	687	246.	*	2	1122	1062	192.	*	2	2352	1437	142.
1	1024	313	137.	*	1	2254	688	246.	*	2	1124	1063	192.	*	2	2354	1438	142.
1	1026	314	138.	*	1	2256	689	246.	*	2	1126	1064	192.	*	2	2356	1439	142.
1	1028	315	139.	*	1	2258	690	246.	*	2	1128	1065	192.	*	2	2358	1440	142.
1	1030	316	140.	*	1	2300	691	246.	*	2	1130	1066	192.	*	3	0000	1441	142.
1	1032	317	141.	*	1	2302	692	246.	*	2	1132	1067	192.	*	3	0002	1442	142.
1	1034	318	142.	*	1	2304	693	246.	*	2	1134	1068	192.	*	3	0004	1443	142.
1	1036	319	143.	*	1	2306	694	246.	*	2	1136	1069	192.	*	3	0006	1444	142.
1	1038	320	144.	*	1	2308	695	246.	*	2	1138	1070	192.	*	3	0008	1445	142.
1	1040	321	146.	*	1	2310	696	245.	*	2	1140	1071	192.	*	3	0010	1446	142.
1	1042	322	147.	*	1	2312	697	245.	*	2	1142	1072	192.	*	3	0012	1447	142.
1	1044	323	148.	*	1	2314	698	245.	*	2	1144	1073	192.	*	3	0014	1448	142.
1	1046	324	150.	*	1	2316	699	245.	*	2	1146	1074	192.	*	3	0016	1449	142.
1	1048	325	151.	*	1	2318	700	245.	*	2	1148	1075	192.	*	3	0018	1450	142.
1	1050	326	153.	*	1	2320	701	245.	*	2	1150	1076	192.	*	3	0020	1451	142.
1	1052	327	154.	*	1	2322	702	245.	*	2	1152	1077	192.	*	3	0022	1452	142.
1	1054	328	156.	*	1	2324	703	245.	*	2	1154	1078	192.	*	3	0024	1453	142.
1	1056	329	158.	*	1	2326	704	245.	*	2	1156	1079	192.	*	3	0026	1454	142.
1	1058	330	160.	*	1	2328	705	245.	*	2	1158	1080	192.	*	3	0028	1455	142.
1	1100	331	161.	*	1	2330	706	245.	*	2	1200	1081	192.	*	3	0030	1456	142.

1	1102	332	163.	*	1	2332	707	245.	*	2	1202	1082	192.	*	3	0032	1457	142.
1.	1104	333	165.	*	1	2334	708	245.	*	2	1204	1083	192.	*	3	0034	1458	142.
1	1106	334	167.	*	1	2336	709	245.	*	2	1206	1084	192.	*	3	0036	1459	142.
1	1108	335	169.	*	1	2338	710	245.	*	2	1208	1085	192.	*	3	0038	1460	142.
1	1110	336	171.	*	1	2340	711	245.	*	2	1210	1086	192.	*	3	0040	1461	142.
1	1112	337	173.	*	1	2342	712	245.	*	2	1212	1087	192.	*	3	0042	1462	142.
1	1114	338	175.	*	1	2344	713	245.	*	2	1214	1088	192.	*	3	0044	1463	142.
1	1116	339	177.	*	1	2346	714	245.	*	2	1216	1089	192.	*	3	0046	1464	142.
1	1118	340	179.	*	1	2348	715	245.	*	2	1218	1090	192.	*	3	0048	1465	142.
1	1120	341	181.	*	1	2350	716	244.	*	2	1220	1091	192.	*	3	0050	1466	142.
1	1122	342	183.	*	1	2352	717	244.	*	2	1222	1092	192.	*	3	0052	1467	142.
1	1124	343	186.	*	1	2354	718	244.	*	2	1224	1093	192.	*	3	0054	1468	142.
1	1126	344	188.	*	1	2356	719	244.	*	2	1226	1094	192.	*	3	0056	1469	142.
1	1128	345	190.	*	1	2358	720	244.	*	2	1228	1095	191.	*	3	0058	1470	142.
1	1130	346	193.	*	2	0000	721	244.	*	2	1230	1096	191.	*	3	0100	1471	142.
1	1132	347	196.	*	2	0002	722	244.	*	2	1232	1097	191.	*	3	0102	1472	142.
1	1134	348	200.	*	2	0004	723	243.	*	2	1234	1098	191.	*	3	0104	1473	142.
1	1136	349	207.	*	2	0006	724	243.	*	2	1236	1099	191.	*	3	0106	1474	142.
1	1138	350	216.	*	2	0008	725	243.	*	2	1238	1100	191.	*	3	0108	1475	142.
1	1140	351	227.	*	2	0010	726	242.	*	2	1240	1101	191.	*	3	0110	1476	142.
1	1142	352	242.	*	2	0012	727	242.	*	2	1242	1102	191.	*	3	0112	1477	142.
1	1144	353	260.	*	2	0014	728	241.	*	2	1244	1103	191.	*	3	0114	1478	142.
1	1146	354	283.	*	2	0016	729	241.	*	2	1246	1104	191.	*	3	0116	1479	142.
1	1148	355	316.	*	2	0018	730	240.	*	2	1248	1105	191.	*	3	0118	1480	142.
1	1150	356	364.	*	2	0020	731	240.	*	2	1250	1106	191.	*	3	0120	1481	142.
1	1152	357	430.	*	2	0022	732	239.	*	2	1252	1107	191.	*	3	0122	1482	142.
1	1154	358	516.	*	2	0024	733	239.	*	2	1254	1108	191.	*	3	0124	1483	142.
1	1156	359	621.	*	2	0026	734	238.	*	2	1256	1109	191.	*	3	0126	1484	142.
1	1158	360	746.	*	2	0028	735	237.	*	2	1258	1110	191.	*	3	0128	1485	142.
1	1200	361	891.	*	2	0030	736	237.	*	2	1300	1111	191.	*	3	0130	1486	142.
1	1202	362	1048.	*	2	0032	737	236.	*	2	1302	1112	191.	*	3	0132	1487	142.
1	1204	363	1209.	*	2	0034	738	236.	*	2	1304	1113	191.	*	3	0134	1488	142.
1	1206	364	1370.	*	2	0036	739	235.	*	2	1306	1114	191.	*	3	0136	1489	142.
1	1208	365	1533.	*	2	0038	740	235.	*	2	1308	1115	191.	*	3	0138	1490	141.
1	1210	366	1699.	*	2	0040	741	234.	*	2	1310	1116	191.	*	3	0140	1491	141.
1	1212	367	1860.	*	2	0042	742	234.	*	2	1312	1117	191.	*	3	0142	1492	141.
1	1214	368	1998.	*	2	0044	743	233.	*	2	1314	1118	191.	*	3	0144	1493	141.
1	1216	369	2093.	*	2	0046	744	233.	*	2	1316	1119	191.	*	3	0146	1494	141.
1	1218	370	2121.	*	2	0048	745	232.	*	2	1318	1120	191.	*	3	0148	1495	141.
1	1220	371	2099.	*	2	0050	746	232.	*	2	1320	1121	191.	*	3	0150	1496	141.
1	1222	372	2039.	*	2	0052	747	231.	*	2	1322	1122	191.	*	3	0152	1497	141.
1	1224	373	1952.	*	2	0054	748	230.	*	2	1324	1123	191.	*	3	0154	1498	141.
1	1226	374	1845.	*	2	0056	749	230.	*	2	1326	1124	191.	*	3	0156	1499	141.
1	1228	375	1737.	*	2	0058	750	229.	*	2	1328	1125	191.	*	3	0158	1500	141.
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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	49.97-HR
+ (CFS)	(HR)	(CFS)				
+ 2800.	12.70		1124.	448.	276.	276.
		(INCHES)	.764	1.217	1.564	1.564
		(AC-FT)	558.	888.	1141.	1141.

CUMULATIVE AREA = 13.68 SQ MI

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
	HYDROGRAPH AT	20	1130.	12.57	243.	64.	31.	1.82		
+	HYDROGRAPH AT	40	2286.	12.27	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1405.	12.37	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	4438.	12.30	712.	189.	91.	5.80		
+	ROUTED TO	SR60	92.	14.77	92.	89.	71.	5.80		
+	ROUTED TO	R60	92.	14.83	92.	89.	70.	5.80		
+	ROUTED TO	RR60	92.	14.93	92.	89.	70.	5.80		
+	HYDROGRAPH AT	80	1693.	12.20	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	1767.	12.20	266.	134.	93.	1.48		
+	ROUTED TO	R80	1765.	12.23	266.	134.	93.	1.48		
+	HYDROGRAPH AT	100	389.	12.33	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2117.	12.23	321.	148.	99.	1.96		
+	ROUTED TO	R100	2116.	12.27	321.	148.	99.	1.96		
+	HYDROGRAPH AT	120	2960.	12.20	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	4993.	12.23	636.	229.	141.	4.16		
	ROUTED TO	R120	4949.	12.27	636.	229.	141.	4.16		
	HYDROGRAPH AT	140	598.	12.23	64.	17.	8.	.60		
+	HYDROGRAPH AT	160	588.	12.30	85.	22.	11.	.78		
+	HYDROGRAPH AT	180	694.	12.33	90.	23.	11.	1.00		
+	4 COMBINED AT	180C	6691.	12.27	863.	286.	169.	6.54		
+	HYDROGRAPH AT	240	770.	12.30	107.	27.	13.	1.04		
+	ROUTED TO	R240	760.	12.37	107.	27.	13.	1.04		
+	HYDROGRAPH AT	220	1427.	12.23	167.	43.	21.	1.25		
+	2 COMBINED AT	220C	2088.	12.27	271.	69.	33.	2.29		
+	ROUTED TO	R220	2057.	12.30	271.	69.	33.	2.29		
+	HYDROGRAPH AT	200	2059.	12.23	236.	65.	31.	1.81		
+	2 COMBINED AT	200C	3995.	12.27	501.	132.	64.	4.10		
+	ROUTED TO	R200	3967.	12.30	501.	132.	64.	4.10		
+	2 COMBINED AT	C180	10520.	12.27	1345.	410.	230.	10.64		
+	ROUTED TO	SR180	141.	15.23	141.	140.	116.	10.64		
+	ROUTED TO	R180	141.	15.30	141.	140.	116.	10.64		
+	HYDROGRAPH AT	260	401.	12.17	43.	12.	6.	.27		
	2 COMBINED AT	260C	515.	12.17	180.	151.	123.	.27		
+	ROUTED TO	R260	500.	12.23	180.	151.	122.	.27		
+	HYDROGRAPH AT	280	452.	12.13	42.	12.	6.	.30		

+	2 COMBINED AT	280C	908.	12.17	219.	161.	128.	.57
+	ROUTED TO	R280	889.	12.27	219.	161.	127.	.57
+	HYDROGRAPH AT	300	824.	12.30	109.	29.	14.	.99
+	2 COMBINED AT	300C	1686.	12.27	325.	188.	141.	1.56
+	ROUTED TO	R300	1664.	12.33	325.	188.	140.	1.56
+	ROUTED TO	RR300	1641.	12.40	325.	188.	140.	1.56
+	HYDROGRAPH AT	320	889.	12.43	171.	47.	22.	1.53
+	DIVERSION TO	BS320	390.	12.07	21.	6.	3.	1.53
+	HYDROGRAPH AT	D320	889.	12.43	157.	41.	19.	1.53
+	HYDROGRAPH AT	RT320	390.	12.07	21.	6.	3.	1.53
+	ROUTED TO	SR320	4.	4.40	4.	4.	3.	1.53
+	3 COMBINED AT	C320	2503.	12.40	482.	232.	162.	3.09
+	ROUTED TO	R320	2356.	12.67	480.	231.	158.	3.09
+	HYDROGRAPH AT	340	1381.	12.27	186.	55.	26.	1.45
+	DIVERSION TO	BS340	1381.	12.27	104.	28.	14.	1.45
+	HYDROGRAPH AT	D340	1219.	12.40	98.	27.	13.	1.45
+	HYDROGRAPH AT	RT340	1381.	12.27	104.	28.	14.	1.45
+	ROUTED TO	SR340	19.	9.03	19.	19.	14.	1.45
+	3 COMBINED AT	C340	2952.	12.63	591.	276.	184.	4.53
+	ROUTED TO	R340	2887.	12.70	590.	276.	183.	4.53
+	HYDROGRAPH AT	350	1102.	12.17	103.	27.	13.	.97
+	ROUTED TO	RR350	941.	12.57	103.	27.	13.	.97
+	HYDROGRAPH AT	360	668.	12.50	151.	42.	20.	1.33
+	DIVERSION TO	BS360	655.	12.43	53.	14.	7.	1.33
+	HYDROGRAPH AT	D360	657.	12.57	106.	28.	13.	1.33
+	HYDROGRAPH AT	RT360	655.	12.43	53.	14.	7.	1.33
+	ROUTED TO	SR360	10.	9.47	10.	10.	7.	1.33
+	4 COMBINED AT	360C	4244.	12.67	797.	336.	215.	6.83
+	ROUTED TO	R360	4107.	12.77	795.	336.	214.	6.83
+	HYDROGRAPH AT	380	821.	12.50	175.	48.	23.	1.64
+	DIVERSION TO	BS380	779.	12.40	54.	14.	7.	1.64
+	HYDROGRAPH AT	D380	821.	12.50	128.	33.	16.	1.64
+	HYDROGRAPH AT	RT380	779.	12.40	54.	14.	7.	1.64
+	ROUTED TO	SR380	10.	10.30	10.	10.	7.	1.64
+	3 COMBINED AT	380C	4748.	12.77	925.	377.	236.	8.47
+	ROUTED TO	R380	4598.	12.90	922.	377.	234.	8.47
+	HYDROGRAPH AT	390	1179.	12.20	144.	40.	19.	1.09
+	DIVERSION TO	BS390	7.	8.13	6.	2.	1.	1.09

+	HYDROGRAPH AT	D390	1179.	12.20	144.	38.	18.	1.09
+	HYDROGRAPH AT	RT390	7.	8.13	6.	2.	1.	1.09
+	ROUTED TO	SR390	1.	.50	1.	1.	1.	1.09
+	2 COMBINED AT	390C	1180.	12.20	145.	40.	19.	1.09
+	ROUTED TO	RR390	1102.	12.40	145.	40.	19.	1.09
+	HYDROGRAPH AT	400	333.	12.37	47.	13.	6.	.62
+	2 COMBINED AT	400C	1421.	12.40	190.	52.	25.	1.70
+	ROUTED TO	R400	1354.	12.60	190.	52.	25.	1.70
+	HYDROGRAPH AT	420	710.	12.30	92.	26.	12.	.85
+	DIVERSION TO	BS420	710.	12.30	74.	19.	9.	.85
+	HYDROGRAPH AT	D420	219.	12.80	23.	7.	3.	.85
+	HYDROGRAPH AT	RT420	710.	12.30	74.	19.	9.	.85
+	ROUTED TO	SR420	19.	12.80	17.	12.	8.	.85
+	3 COMBINED AT	420C	1416.	12.63	226.	69.	36.	2.55
+	ROUTED TO	R420	1342.	12.77	225.	69.	36.	2.55
+	2 COMBINED AT	420CC	5734.	12.90	1130.	441.	267.	11.03
+	HYDROGRAPH AT	440	179.	12.00	12.	3.	2.	.08
+	ROUTED TO	R70	174.	12.03	12.	3.	2.	.08
+	HYDROGRAPH AT	441	16.	12.07	1.	0.	0.	.01
+	2 COMBINED AT	C108	189.	12.03	14.	4.	2.	.09
+	DIVERSION TO	SPLIT	95.	12.03	7.	2.	1.	.09
+	HYDROGRAPH AT	DIV4	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	R108	87.	12.10	7.	2.	1.	.09
+	HYDROGRAPH AT	442	99.	12.13	9.	2.	1.	.10
+	2 COMBINED AT	C67	183.	12.13	15.	4.	2.	.19
+	DIVERSION TO	BASIN4	115.	12.13	6.	1.	1.	.19
+	HYDROGRAPH AT	DIV6	68.	12.13	10.	3.	1.	.19
+	HYDROGRAPH AT	RTDIV6	115.	12.13	6.	1.	1.	.19
+	ROUTED TO	RFDIV6	1.	11.93	1.	1.	1.	.19
+	2 COMBINED AT	CDIV6	69.	12.13	11.	4.	2.	.19
+	HYDROGRAPH AT	443	146.	12.07	14.	4.	2.	.08
+	DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	DIV66	68.	12.07	3.	1.	0.	.08
+	ROUTED TO	R113	66.	12.10	3.	1.	0.	.08
+	2 COMBINED AT	C114	133.	12.10	13.	4.	2.	.27
+	HYDROGRAPH AT	444	81.	12.00	5.	1.	1.	.04
+	ROUTED TO	R58	78.	12.07	5.	1.	1.	.04
+	HYDROGRAPH AT	445	288.	12.07	18.	5.	2.	.19

2 COMBINED AT	C107	363.	12.07	22.	6.	3.	.23
ROUTED TO	R107	362.	12.07	22.	6.	3.	.23
HYDROGRAPH AT	RTB2	95.	12.03	7.	2.	1.	.09
ROUTED TO	RSPLIT	94.	12.07	7.	2.	1.	.09
HYDROGRAPH AT	446	64.	12.07	6.	2.	1.	.04
3 COMBINED AT	C109	516.	12.07	35.	9.	4.	.27
DIVERSION TO	WSH404	35.	11.73	7.	2.	1.	.27
HYDROGRAPH AT	DIV5	481.	12.07	27.	7.	3.	.27
ROUTED TO	R109	469.	12.10	27.	7.	3.	.27
HYDROGRAPH AT	447	135.	12.07	12.	4.	2.	.09
HYDROGRAPH AT	RT404	35.	11.73	7.	2.	1.	.27
ROUTED TO	R404	35.	11.90	7.	2.	1.	.27
3 COMBINED AT	C110	631.	12.10	46.	13.	6.	.36
ROUTED TO	R110	632.	12.10	46.	13.	6.	.36
2 COMBINED AT	C115	759.	12.10	59.	17.	8.	.63
ROUTED TO	R115	758.	12.10	59.	17.	8.	.63
HYDROGRAPH AT	448	87.	12.03	6.	2.	1.	.05
HYDROGRAPH AT	449	77.	12.03	5.	1.	1.	.05
2 COMBINED AT	C6364	163.	12.03	11.	3.	1.	.09
ROUTED TO	R6364	140.	12.20	11.	3.	1.	.09
HYDROGRAPH AT	450	58.	12.17	6.	2.	1.	.07
HYDROGRAPH AT	451	17.	12.17	2.	1.	0.	.03
HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
HYDROGRAPH AT	452	61.	12.07	4.	1.	1.	.04
2 COMBINED AT	C6566	139.	12.07	16.	4.	2.	.04
ROUTED TO	R6566	134.	12.13	16.	4.	2.	.04
4 COMBINED AT	C116	340.	12.17	35.	9.	4.	.23
ROUTED TO	BASIN5	153.	12.47	35.	9.	4.	.23
ROUTED TO	R116	152.	12.53	35.	9.	4.	.23
HYDROGRAPH AT	453	60.	12.13	7.	2.	1.	.06
2 COMBINED AT	C117	173.	12.50	41.	11.	5.	.29
2 COMBINED AT	C118	837.	12.10	99.	28.	14.	.92
ROUTED TO	R118	833.	12.13	99.	28.	14.	.92
DIVERSION TO	BASIN6	207.	12.13	12.	3.	1.	.92
HYDROGRAPH AT	DIV7	626.	12.13	86.	25.	12.	.92
HYDROGRAPH AT	RTDIV7	207.	12.13	12.	3.	1.	.92
ROUTED TO	RFDIV7	1.	11.93	1.	1.	1.	.92
2 COMBINED AT	CDIV7	627.	12.13	87.	25.	13.	.92

+	HYDROGRAPH AT	454	152.	12.23	21.	6.	3.	.18
+	2 COMBINED AT	C119	761.	12.13	107.	31.	16.	1.10
	ROUTED TO	R454	676.	12.40	107.	31.	16.	1.10
+	HYDROGRAPH AT	455	1541.	12.23	198.	59.	28.	1.56
+	2 COMBINED AT	C455	2058.	12.30	301.	89.	44.	2.66
+	2 COMBINED AT	455C	6165.	12.90	1379.	511.	307.	13.68
+	DIVERSION TO	455D	3365.	12.90	254.	64.	31.	13.68
+	HYDROGRAPH AT	DD455	2800.	12.70	1124.	448.	276.	13.68
+	HYDROGRAPH AT	RT455D	3365.	12.90	254.	64.	31.	13.68
+	ROUTED TO	SR455D	97.	13.50	82.	50.	28.	13.68
+	2 COMBINED AT	C455D	2897.	13.47	1194.	497.	304.	13.68
+	ROUTED TO	RR455	2884.	13.50	1187.	497.	302.	13.68
+	HYDROGRAPH AT	456	458.	12.07	36.	10.	5.	.26
+	DIVERSION TO	BASIN1	198.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV1	259.	12.07	28.	8.	4.	.26
+	DIVERSION TO	WA30	65.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV2	195.	12.07	20.	6.	3.	.26
+	ROUTED TO	R456	191.	12.17	20.	6.	3.	.26
	HYDROGRAPH AT	457	254.	12.10	20.	5.	3.	.19
+	2 COMBINED AT	C101	438.	12.10	40.	11.	5.	.45
+	DIVERSION TO	BASIN2	136.	12.10	8.	2.	1.	.45
+	HYDROGRAPH AT	DIV3	302.	12.10	32.	9.	4.	.45
+	HYDROGRAPH AT	RTDIV3	136.	12.10	8.	2.	1.	.45
+	ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+	2 COMBINED AT	CDIV3	304.	12.10	33.	10.	5.	.45
+	ROUTED TO	R101	301.	12.13	33.	10.	5.	.45
+	HYDROGRAPH AT	458	347.	12.07	25.	7.	3.	.19
+	2 COMBINED AT	C103	625.	12.07	58.	16.	8.	.64
+	ROUTED TO	R103	624.	12.10	58.	16.	8.	.64
+	HYDROGRAPH AT.	RT30	65.	12.07	8.	2.	1.	.26
+	ROUTED TO	R30	64.	12.10	8.	2.	1.	.26
+	HYDROGRAPH AT	RTB1	198.	12.07	8.	2.	1.	.26
+	ROUTED TO	B1	36.	12.23	7.	2.	1.	.26
+	ROUTED TO	RB1	36.	12.30	7.	2.	1.	.26
	2 COMBINED AT	CDIV	94.	12.23	15.	4.	2.	.12
	HYDROGRAPH AT	459	43.	12.07	3.	1.	0.	.03
+	2 COMBINED AT	C52	118.	12.17	18.	5.	2.	.15
+	ROUTED TO	R52	116.	12.20	18.	5.	2.	.15

+	HYDROGRAPH AT	460	205.	12.10	19.	6.	3.	.14
+	2 COMBINED AT	C102	310.	12.10	37.	11.	5.	.29
	ROUTED TO	BASIN3	75.	12.60	37.	11.	5.	.29
+	ROUTED TO	R3	75.	12.73	37.	11.	5.	.29
+	HYDROGRAPH AT	461	156.	12.13	17.	5.	2.	.12
+	2 COMBINED AT	C104	216.	12.13	53.	16.	7.	.41
+	2 COMBINED AT	C106	833.	12.10	110.	32.	16.	1.05
+	ROUTED TO	R106	799.	12.17	110.	32.	16.	1.05
+	HYDROGRAPH AT	462	523.	12.07	40.	11.	5.	.30
+	2 COMBINED AT	C56	1238.	12.13	149.	42.	21.	1.35
+	HYDROGRAPH AT	480	991.	12.13	96.	29.	14.	.73
+	DIVERSION TO	BS480	458.	11.93	27.	8.	4.	.73
+	HYDROGRAPH AT	D480	991.	12.13	78.	21.	10.	.73
+	HYDROGRAPH AT	RT480	458.	11.93	27.	8.	4.	.73
+	ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT	C480	997.	12.13	84.	27.	14.	.73
+	3 COMBINED AT	480C	3026.	13.50	1444.	578.	346.	2.09
+	ROUTED TO	RR480	3025.	13.53	1444.	578.	345.	2.09
+	HYDROGRAPH AT	500	988.	12.23	122.	33.	16.	.93
+	2 COMBINED AT	500C	3946.	12.23	1554.	606.	360.	2.84

*** NORMAL END OF HEC-1 ***

NSTEP Estimation for Spook Hill ADMP 100-YR, 24hr Spook Hill Bipass Conditions + 2900cfs in Spook Hill Floodway

Trial 1

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.03	26.39	1.0	0.9
RR60	3500	0.03	32.41	1.0	0.9
R80	1200	0.01	33.33	1.0	0.3
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.04	10.42	1.0	1.2
R260	2300	0.04	15.97	2.0	1.2
R280	2500	0.07	9.92	2.0	2.1
R300	2200	0.03	20.37	2.0	0.9
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.23	8.21	7.0	6.9
R340	2000	0.1	5.56	2.0	3.0
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.14	7.94	4.0	4.2
RR390	14890	0.1	41.36	3.0	3.0
R400	3800	0.13	8.12	4.0	3.9
R420	2900	0.1	8.06	3.0	3.0
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.06	6.02	3.0	1.8
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.03	85.19	2.0	0.9
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.03	60.19	2.0	0.9

Trial 2

$time_{min}$ = 2

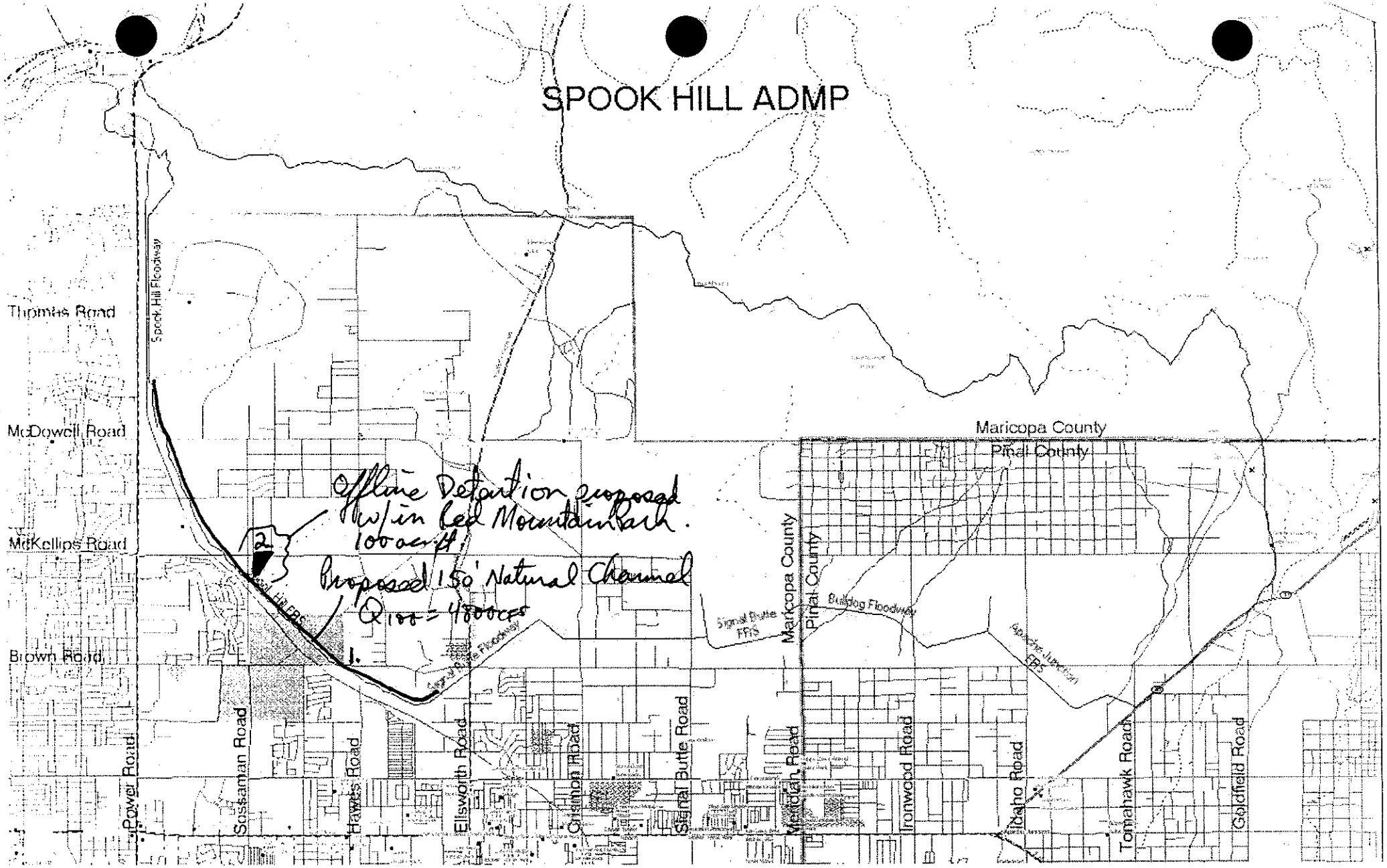
Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.06	13.19	2.0	1.8
RR60	3500	0.1	9.72	1.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.04	6.53	1.0	1.2
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.07	5.95	1.0	2.1
R260	2300	0.06	10.65	2.0	1.8
R280	2500	0.1	6.94	3.0	3.0
R300	2200	0.06	10.19	1.0	1.8
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.33	5.72	10.0	9.9
R340	2000	0.07	7.94	3.0	2.1
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.13	8.55	6.0	3.9
RR390	5400	0.2	7.50	3.0	6.0
R400	3800	0.2	5.28	4.0	6.0
R420	2900	0.1	8.06	3.0	3.0
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.1	3.61	2.0	3.0
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.06	42.59	1.0	1.8
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.07	25.79	1.0	2.1

Trial 3

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.06	13.19	2.0	1.8
RR60	3500	0.1	9.72	3.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.04	6.53	1.0	1.2
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.07	5.95	2.0	2.1
R260	2300	0.06	10.65	2.0	1.8
R280	2500	0.1	6.94	3.0	3.0
R300	2200	0.06	10.19	2.0	1.8
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.27	7.00	8.0	8.1
R340	2000	0.07	7.94	2.0	2.1
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.13	8.55	4.0	3.9
RR390	5400	0.2	7.50	6.0	6.0
R400	3800	0.2	5.28	6.0	6.0
R420	2900	0.14	5.75	4.0	4.2
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.1	3.61	3.0	3.0
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.03	85.19	2.0	0.9
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.03	60.19	2.0	0.9

SPOOK HILL ADMP



Proposed

1. Channel
2. Offline Detention Basin

HEC-1 Existing Conditions 100-Year, 24hr Storm
Maintain Apache & Signal FRS & Eliminate Spook Hill FRS
Offline Basin added in D.A.380 Spook Hill Floodway @ 2900cfs
No improved channel along McDowell Rd.

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1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*              JUN  1998            *
*            VERSION 4.1            *
*                                   *
* RUN DATE   11JAN00  TIME  16:14:32 *
*                                   *
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*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS   *
*    HYDROLOGIC ENGINEERING CENTER  *
*          609 SECOND STREET        *
*       DAVIS, CALIFORNIA 95616     *
*          (916) 756-1104           *
*                                   *
*************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX
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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

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1                                    HEC-1 INPUT                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS, AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL, SIGNAL
 10           ID   BUTTE, AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE: SPHEX2.DAT
 13           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
 14           ID
 15           ID
 16           ID   REVISED MODEL BASED ON BYPASSING OF FRS STRUCTURES
 17           ID   AND INCREASING THE EXISTING CHANNELS WIDTHS - MAINTAINING THE SAME DEPTHS
 18           ID   REVISED ON 11/9/99 BY JCD; FILE: SPHEX3.DAT
 19           ID
 20           ID   MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
 21           ID   DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
 22           ID   BY: JCD; 1/4/2000            FILE: SPHEX2RV.DAT
 23           ID
 24           ID   MODEL UPDATE BASED ON BYPASSING OF FRS STRUCTURES AND INCREASING
 25           ID   THE EXISTING CHANNEL WIDTHS WHILE MAINTAINING THE SAME DEPTHS
 26           ID   FILE: SPHEX3RV.DAT           1/4/2000
 27           ID
 28           ID   MODEL UPDATE BASED ON KEEPING THE APACHE JUNCTION FRS & SIGNAL BUTTE FRS
 29           ID   ELIMINATING THE SPOOK HILL FRS AND INCLUDING AN IMPROVED CHANNEL ALONG
 30           ID   MCDOWELL TO RAVENS ROOST MOUNTAIN LOCATED JUST WEST OF ELLSWORTH ROAD
 31           ID   FILE: SPHEX6RV.DAT           JCD; 1/6/2000
 32           ID
 33           ID   MODEL UPDATE USING SAME MODEL HOWEVER USED OFFLINE BASIN TO BRING DISCHARGE
 34           ID   DOWN TO 2900cfs - THE EXISTING DISCHARGE WITHIN THE SPOOK HILL FLOODWAY
 35           ID   THEREFORE NO IMPROVEMENT TO THE CAHNNEL
 36           ID   FILE: SPHEX8RV.DAT           JCD; 1/6/2000
 37           ID
 38           ID   MODEL UPDATE HOWEVER NO MINOR IMPROVED CHANNEL AND USE OFFLINE BASIN
 39           ID   TO ELIMINATE THE SPOOK HILL FRS AND KEEP AT 2900cfs OUTFALL
 40           ID   FILE: SPHEX9RV.DAT           JCD; 1/6/2000
 41           ID
 42           ID   MODEL UPDATE TO ELIMINATE SPOOK HILL FRS AT AN OUTFALL OF 2900cfs
 43           ID   USE AN OFFLINE BASIN WITHIN D.A.380 TO REDUCE PEAK
 44           ID   STORAGE INCREASED TO 162 acre-feet IN ORDER TO MEET REQUIREMENTS
 45           ID   FILE: SPHX10RV.DAT           JCD; 1/11/2000
              *DIAGRAM
 46           IT       2                   1500
 47           IO       3
 48           IN      15
 49           JD    3.81    0.01
 50           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 51           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 52           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 53           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 54           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
1                                    HEC-1 INPUT                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 55           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 56           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 57           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 58           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 59           PC    .983    .986    .989    .992    .995    .998   1.000
 60           JD    3.58   10.00
 61           JD    3.43   30.00
 62           JD    3.28   60.00
 63           JD    3.22   90.00
 64           JD    3.18  120.00
 65           JD    3.14  150.00
 66           JD    3.05  300.00
 67           JD    2.97  500.00

 68           KK      20
 69           KM   SUB-BASIN 20
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 70          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 71          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
 72          KM     L = 4.58  Kb = .037  Adj. Slope =  118.0
 73          BA   1.821
 74          LG    .350    .360   6.600    .140   7.000
 75          UC    .804    .697

 76          KK      40
 77          KM   SUB-BASIN 40
 78          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 79          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 80          KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 81          BA   2.233
 82          LG    .340    .340   4.900    .280   5.000
 83          UC    .496    .264

 84          KK      60
 85          KM   SUB-BASIN 60
 86          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 87          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 88          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 89          BA   1.746
 90          LG    .330    .350   5.800    .190   9.000
 91          UC    .596    .477

 92          KK     60C
 93          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 94          HC       3

 95          KK    SR60
 96          KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
 97          KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
 98          KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
 99          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
100          RS       1    STOR       0
101          SV       0       1     100     200     300     400
102          SQ       0      71      81      87    91.5      94
103          SE    83.5    93.5      96    97.7      99   99.77
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

104          KK     R60
105          KM        ROUTE FLOW THROUGH BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
106          RS       2    FLOW      -1
107          RC    .016    .016    .016    2850    .012
108          RX       0       1       2     2.1     5.6     5.7       6       7
109          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5

110          KK    RR60
111          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
112          RS       3    FLOW      -1
113          RC    .016    .016    .016    3500    .005
114          RX       0       1       2     2.1     7.1     7.2       8       9
115          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5

116          KK      80
117          KM   SUB-BASIN 80
118          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
119          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
120          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
121          BA   1.475
122          LG    .330    .330   5.600    .210   4.000
123          UC    .433    .259

124          KK     80C
125          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
126          HC       2   1.475

127          KK     R80
128          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
129          RS       1    FLOW      -1
130          RC    .016    .016    .016    1200    .003
131          RX       0       1       2     2.1    37.1    37.2      38      39
132          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5

133          KK     100
134          KM   SUB-BASIN 100
135          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
136          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
137          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
138          BA    .484
139          LG    .320    .290   5.100    .260   3.000
140          UC    .533    .473

141          KK    100C
142          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
143          HC       2

144          KK    R100
145          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
146          RS       1    FLOW      -1
147          RC    .016    .016    .016     940    .005
148          RX       0       1       2     2.1    52.1    52.2      53      54
149          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

150          KK     120
151          KM   SUB-BASIN 120
152          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
153          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
154          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
155          BA   2.202
156          LG    .330    .280   6.800    .130  11.000
157          UC    .429    .226

158          KK    120C
159          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
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160          HC       2

161          KK    R120
162          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
163          RS       1    FLOW      -1
164          RC    .025    .016    .025    2100    .005
165          RX       0       6      10    10.1    60.1    60.2    74.2    80.2
166          RY       8       5       5       0       0       5       5       8

167          KK     140
168          KM   SUB-BASIN 140
169          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
170          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
171          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
172          BA    .598
173          LG    .310    .280   4.200    .440   5.000
174          UC    .421    .278

175          KK     160
176          KM   SUB-BASIN 160
177          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
178          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
179          KM     L = 3.18  Kb = .043  Adj. Slope =  299.2
180          BA    .777
181          LG    .340    .340   4.600    .330   5.000
182          UC    .479    .476

183          KK     180
184          KM   SUB-BASIN 180
185          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
186          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
187          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
188          BA   1.000
189          LG    .350    .350   4.150    .430    .000
190          UC    .571    .403

191          KK    180C
192          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
193          HC       4
1                                    HEC-1 INPUT                                          PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


194          KK     240
195          KM   SUB-BASIN 240
196          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
197          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
198          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
199          BA   1.036
200          LG    .350    .350   4.600    .330   2.000
201          UC    .500    .458

202          KK    R240
203          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
204          KM   PASS MOUNTAIN DIVERSION
205          RS       2    FLOW      -1
206          RC    .035    .025    .035    2100    .005
207          RX       0       1       2      11      41      50      51      52
208          RY       3       3       3       0       0       3       3       3

209          KK     220
210          KM   SUB-BASIN 220
211          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
212          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
213          KM     L = 3.14  Kb = .040  Adj. Slope =  302.1
214          BA   1.252
215          LG    .350    .350   7.000    .120   3.000
216          UC    .425    .315
             * DDM   ***** Preserved *****

217          KK    220C
218          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
219          HC       2
             * DDM   ***** Preserved *****

220          KK    R220
221          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
222          KM   PASS MOUNTAIN DIVERSION
223          RS       1    FLOW      -1
224          RC    .035    .025    .035    1900    .005
225          RX       0       1       2      14      64      76      77      78
226          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

227          KK     200
228          KM   SUB-BASIN 200
229          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
230          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
231          KM     L = 3.28  Kb = .038  Adj. Slope =  299.9
232          BA   1.811
233          LG    .350    .390   5.800    .190  11.000
234          UC    .433    .270
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


235          KK    200C
236          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
237          HC       2
             * DDM   ***** Preserved *****

238          KK    R200
239          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
240          RS       1    FLOW      -1
241          RC    .035    .025    .035    1300    .005
242          RX       0       1       2      14     114     126     127     128
243          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

244          KK    C180
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245          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *      1       2
246          HC       2
             * DDM    ***** Preserved *****

247          KK   SR180
248          KM   SIGNAL BUTTE FRS DATED 1/28/85
249          KM   OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
250          KM   EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
251          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
252          RS       1    STOR       0
253          SV       0       1     250     500     750    1060
254          SQ       0   106.5   125.5   137.5     146     160
255          SE      90     101   104.5     107     109   112.4
             * DDM    ***** Preserved *****

256          KK    R180
257          KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
258          RS       2    FLOW      -1
259          RC    .035    .025    .035    1500    .003
260          RX       0       1       2    22.6    38.6    59.2      60      61
261          RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
             * DDM    ***** Updated *****

262          KK     260
263          KM   SUB-BASIN 260
264          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
265          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
266          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
267          BA    .267
268          LG    .300    .170   6.800    .160  15.000
269          UC    .363    .215
             * DDM    ***** Preserved *****

270          KK    260C
271          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
272          HC       2    .267
             * DDM    ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

273          KK    R260
274          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
275          RS       2    FLOW      -1
276          RC    .035    .025    .035    2300    .003
277          RX       0       1       2    23.4    43.4    64.8      65      66
278          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM    ***** Updated *****

279          KK     280
280          KM   SUB-BASIN 280
281          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
282          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
283          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
284          BA    .304
285          LG    .300    .250   5.300    .290  15.000
286          UC    .333    .175
             * DDM    ***** Preserved *****

287          KK    280C
288          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
289          HC       2
             * DDM    ***** Preserved *****

290          KK    R280
291          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
292          RS       3    FLOW      -1
293          RC    .035    .025    .035    2500    .003
294          RX       0       1       2    23.4    43.4    64.8      65      66
295          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM    ***** Updated *****

296          KK     300
297          KM   SUB-BASIN 300
298          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
299          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
300          KM     L = 2.28  Kb = .041  Adj. Slope =  127.0
301          BA    .988
302          LG    .340    .320   4.500    .370   7.000
303          UC    .538    .362
             * DDM    ***** Preserved *****

304          KK    300C
305          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
306          HC       2
             * DDM    ***** Preserved *****

307          KK    R300
308          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
309          RS       2    FLOW      -1
310          RC    .035    .025    .035    2200    .003
311          RX       0       1       2    23.4    55.4    76.8      77      78
312          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM    ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  8

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

313          KK   RR300
314          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
315          RS       2    FLOW      -1
316          RC    .016    .016    .016    6050   .0146
317          RX       0       1       2     2.1    16.1    16.2      17      18
318          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
             * DDM    ***** Updated *****

319          KK     320
320          KM   SUB-BASIN 320
321          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
322          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
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323          KM     L = 4.67  Kb = .039  Adj. Slope =  248.6
             *      1        2
324          BA   1.527
325          LG    .330     .320   4.400    .390   9.000
326          UC    .658     .627
             * DDM    ***** Preserved *****

327          KK    D320
328          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
329          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
330          KM   SIERRA HEIGHTS, FALCON RIDGE, & MARBLE CREEK
331          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *      1
332          DT   BS320   12.27
333          DI       0   10000
334          DQ       0   10000

335          KK   RT320
336          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
337          DR   BS320

338          KK   SR320
339          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
340          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *      1
341          RS       1    STOR       0
342          SV       0     .01    12.3
343          SQ       0     4.2     4.2

344          KK    C320
345          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
346          HC       3

347          KK    R320
348          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
349          RS       8    FLOW      -1
350          RC    .025    .025    .025    6800   .0016
351          RX       0       1       2      15     165     180     181     182
352          RY       5       5       5       0       0       5       5       5
             *      0       1       2      30      90     118     119     120
             *      7       7       7       0       0       7       7       7
1                                          HEC-1 INPUT                                                          PAGE  9

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

353          KK     340
354          KM   SUB-BASIN 340
355          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
356          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
357          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
358          BA   1.449
359          LG    .280     .280   4.150    .520  21.000
360          UC    .512     .287

361          KK    D340
362          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
363          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
364          KM   GRANDVIEW ESTATES, BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
365          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *      1
366          DT   BS340      56
367          DI       0   10000
368          DQ       0   10000

369          KK   RT340
370          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
371          DR   BS340

372          KK   SR340
373          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
374          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *      1
375          RS       1    STOR       0
376          SV       0     .01      56
377          SQ       0    18.9    18.9

378          KK    C340
379          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
380          HC       3

381          KK    R340
382          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
383          RS       2    FLOW      -1
384          RC    .025    .025    .025    2000   .0016
385          RX       0       1       2      15     165     180     181     182
386          RY       5       5       5       0       0       5       5       5
             *      0       1       2      30     114     142     143     144
             *      7       7       7       0       0       7       7       7

387          KK     350
388          KM   SUB-BASIN 350
389          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
390          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
391          KM     L = 2.22  Kb = .042  Adj. Slope =  315.0
392          BA    .970
393          LG    .350     .350   4.550    .340   4.000
394          UC    .367     .234
1                                          HEC-1 INPUT                                                          PAGE 10

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

395          KK   RR350
396          KM   FROM SUB-BASIN 350 TO SUB-BASIN 360
397          RS      12    FLOW      -1
398          RC     .05     .035     .05   25600    .049
399          RX    1000    1010    1020    1036    1041    1057    1067    1077
400          RY      15    14.5      14      10      10      14    14.5      15

401          KK     360
402          KM   SUB-BASIN 360
403          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
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404          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
405          KM     L = 4.84  Kb = .042  Adj. Slope =  257.5
406          BA   1.329
407          LG    .300    .300   4.250    .460  12.000
408          UC    .712    .763
             * DDM   ***** Preserved *****

409          KK    D360
410          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
411          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
412          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
413          DT   BS360    28.6
414          DI       0   10000
415          DQ       0   10000

416          KK   RT360
417          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
418          DR   BS360

419          KK   SR360
420          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
421          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
422          RS       1    STOR       0
423          SV       0     .01    28.6
424          SQ       0     9.6     9.6

425          KK    360C
426          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
427          HC       4

428          KK    R360
429          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
430.         RS       2    FLOW      -1
431          RC    .025    .025    .025    2600   .0016
432          RX       0       1       2      15     165     180     181     182
433          RY       5       5       5       0       0       5       5       5
             *      0       1       2      30     130     158     159     160
             *      7       7       7       0       0       7       7       7
1                                          HEC-1 INPUT                                                    PAGE 11

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.......10

434          KK     380
435          KM   SUB-BASIN 380
436          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
437          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
438          KM     L = 5.05  Kb = .041  Adj. Slope =  255.8
439          BA   1.638
440          LG    .320    .320   4.400    .420   8.000
441          UC    .733    .723

442          KK    D380
443          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
444          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
445          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
446          DT   BS380    28.6
447          DI       0   10000
448          DQ       0   10000

449          KK   RT380
450          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
451          DR   BS380

452          KK   SR380
453          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
454          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
455          RS       1    STOR       0
456          SV       0     .01    28.6
457          SQ       0     9.6     9.6

458          KK    380C
459          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
460          HC       3

461          KK   DD380
462          KM   DIVERT FLOW INTO SPOOK HILL FRS - VOLUME = 100 ACRE-FEET
463          KM   NOW INCREASE DIVERTED FLOW TO MAINTAIN 2900cfs OUTFLOW
464          KO       1
465          DT    380D
466          DI       0    1400   20000
467          DQ       0       0   18600

468          KK  RT380D
469          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
470          DR    380D

471          KK  SR380D
472          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
473          KM     100 ACRE-FEETx43560/36x3600=34cfs
474          KO       1       2
475          RS       1    STOR       0
476          SV       0     100
477          SQ       0    1200
1                                          HEC-1 INPUT                                                    PAGE 12

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.......10

478          KK   C380D
479          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
480          HC       2

481          KK    R380
482          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
483          RS       4    FLOW      -1
484          RC    .025    .025    .025    4000   .0016
485          RX       0       1       2      15     165     180     181     182
486          RY       5       5       5       0       0       5       5       5
             *      0       1       2      30     150     178     179     180
             *      7       7       7       0       0       7       7       7
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487          KK     390
488          KM   SUB-BASIN 390
489          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
490          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
491          KM     L = 2.82  Kb = .041  Adj. Slope =  298.1
492          BA   1.089
493          LG    .330    .330   5.200    .260  14.000
494          UC     .41    .306

495          KK    D390
496          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
497          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
498          KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
             *      1
499          DT   BS390     3.5
500          DI       0   10000
501          DQ       0   10000

502          KK   RT390
503          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
504          DR   BS390

505          KK   SR390
506          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
507          KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
508          RS       1    STOR       0
509          SV       0     .01     3.5
510          SQ       0     1.2     1.2

511          KK    390C
512          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
513          HC       2

514          KK   RR390
515          KM   FROM SUB-BASIN 390 TO SUB-BASIN 400
516          RS       6    FLOW      -1
517          RC     .05    .035     .05   14890    .056
518          RX    1000    1010    1020    1036    1041    1057    1067    1077
519          RY      15    14.5      14      10      10      14    14.5      15
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

520          KK     400
521          KM   SUB-BASIN 400
522          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
523          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
524          KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
525          BA    .616
526          LG    .320    .320   3.130    .930   6.000
527          UC    .592    .405

528          KK    400C
529          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
530          HC       3

531          KK    R400
532          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
533          RS       4    FLOW      -1
534          RC    .025    .025    .025    3800   .0016
535          RX       0       1       2      15     165     180     181     182
536          RY       5       5       5       0       0       5       5       5
             *        0       1       2      30     180     208     209     210
             *        7       7       7       0       0       7       7       7
             * DDM    ***** Preserved *****

537          KK     420
538          KM   SUB-BASIN 420
539          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
540          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
541          KM     L = 1.91  Kb = .042  Adj. Slope =  120.0
542          BA    .849
543          LG    .310    .270   3.880    .580  12.000
544          UC    .512    .325
             * DDM    ***** Preserved *****

545          KK    D420
546          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
547          KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
548          KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
             *      1
549          DT   BS420   38.55
550          DI       0   10000
551          DQ       0   10000

552          KK   RT420
553          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
554          DR   BS420

555          KK   SR420
556          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
557          KM   38.55 ACRE-FEETx43560/36x3600=13cfs
558          RS       1    STOR       0
559          SV       0   38.55
560          SQ       0      20
```



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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

561          KK    420C
562          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
563          HC       3

564          KK    R420
565          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
566          RS       4    FLOW      -1
567          RC    .025    .025    .025    2900   .0016
568          RX       0       1       2      15     165     180     181     182
569          RY       5       5       5       0       0       5       5       5
             *   420CC
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*  HYDROGRAPH COMBINATION FOR SUB-BASINS 410 & 420
*      2
* DDM   ***** Updated *****

KK     440
KM   SUB-BASIN 440
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
KM     L =  .40  Kb = .039  Adj. Slope =  315.0
BA    .080
LG    .190    .380   6.400    .140  13.000
UC    .129    .077

KK     R70
KM        ROUTE FLOW FROM SUB-BASIN 60 TO C108
RS       1    FLOW      -1
RC     .05    .035     .05    2250     .08
RX    1000    1025    1050    1070    1075    1095    1120    1145
RY      30    22.9    15.7      10      10    15.7    22.9      30
* DDM   ***** Updated *****

KK     441
KM   SUB-BASIN 441
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
KM     L =  .28  Kb = .069  Adj. Slope =  315.0
BA    .010
LG    .300    .250   5.600    .220   5.000
UC    .150    .225
* DDM   ***** Preserved *****

KK    C108
KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60 AND 61A
HC       2
* DDM   ***** Preserved *****

KK    DIV4
KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
*      1
DT   SPLIT
DI       0      14      40      82     120     154     180
DQ       0       7      20      41      60      77      90
* DDM   ***** Preserved *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK    R108
KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
RS       2    FLOW      -1
RC     .05    .035     .05    3200      .1
RX    1000    1025    1050    1070    1075    1095    1120    1145
RY      30    22.9    15.7      10      10    15.7    22.9      30
* DDM   ***** Updated *****

KK     442
KM   SUB-BASIN 442
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
KM     L =  .83  Kb = .055  Adj. Slope =  274.2
BA    .100
LG    .300    .270   3.290    .770   5.000
UC    .258    .264
* DDM   ***** Preserved *****

KK     C67
KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60, 61 AND 67
HC       2
* DDM   ***** Preserved *****

KK    DIV6
KM        OFFLINE BASIN WITH 75 FOOT WEIR SET AT 3 FEET ABOVE BOTTOM OF CHANNEL
KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
*      1
DT  BASIN4
DI       0      10      32      56   136.6   276.5     454   662.8
DQ       0       0       0       0    71.6   202.5     372   572.8

KK  RTDIV6
KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
DR  BASIN4

KK  RFDIV6
KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
*      1
RS       1    STOR       0
SV       0     .01     3.3
SQ       0     1.1     1.1

KK   CDIV6
KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
HC       2

KK     443
KM   SUB-BASIN 443
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
KM     L =  .71  Kb = .050  Adj. Slope =  315.0
BA    .080
LG    .250    .190   8.000    .080  10.000
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

UC    .196    .194

KK   DIV66
KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
DT   WSH66
DI       0      78     100     200
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648          DQ       0      78      78      78

649          KK    R113
650          KM        ROUTE FLOW FROM C113 TO C114
651          RS       1    FLOW      -1
652          RC    .019    .019    .019    1300    .029
653          RX    1000    1004    1008    1012    1018    1022    1026    1030
654          RY      17   15.33   12.67      10      10   12.67   15.33      17

655          KK    C114
656          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
657          HC       2

658          KK     444
659          KM   SUB-BASIN 444
660          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
661          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
662          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
663          BA    .040
664          LG    .130    .350   4.450    .320   1.000
665          UC    .112    .084
             * DDM   ***** Preserved *****

666          KK     R58
667          KM        ROUTE FLOW FROM SUB-BASIN 58 TO C107
668          RS       2    FLOW      -1
669          RC     .05    .035     .05    2370   .0516
670          RX    1000    1010    1020    1050    1055    1085    1095    1105
671          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Updated *****

672          KK     445
673          KM   SUB-BASIN 445
674          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
675          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
676          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
677          BA    .190
678          LG    .170    .320   3.470    .590   3.000
679          UC    .192    .130
             * DDM   ***** Preserved *****

680          KK    C107
681          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 58 AND 59
682          HC       2
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.......10

683          KK    R107
684          KM        ROUTE FLOW FROM C107 TO C109
685          RS       1    FLOW      -1
686          RC     .05    .035     .05     700   .0516
687          RX    1000    1010    1020    1050    1055    1085    1095    1105
688          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

689          KK    RTB2
690          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
691          DR   SPLIT
             * DDM   ***** Preserved *****

692          KK  RSPLIT
693          KM        ROUTE FLOW FROM SPLIT TO C109
694          RS       1    FLOW      -1
695          RC     .05    .035     .05     800     .05
696          RX    1000    1025    1050    1070    1075    1095    1120    1145
697          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

698          KK     446
699          KM   SUB-BASIN 446
700          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
701          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
702          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
703          BA    .040
704          LG    .270    .250   4.500    .400  19.000
705          UC    .183    .189
             * DDM   ***** Preserved *****

706          KK    C109
707          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
708          HC       3
             * DDM   ***** Preserved *****

709          KK    DIV5
710          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
711          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
712          DT  WSH404
713          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
714          DQ       0      35      35      35      35      35      35      35
             * DDM   ***** Preserved *****

715          KK    R109
716          KM        ROUTE FLOW FROM C109 TO C110
717          RS       1    FLOW      -1
718          RC    .019    .019    .019    3080     .05
719          RX    1000    1005    1010    1015    1025    1030    1035    1040
720          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
             * DDM   ***** Updated *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.......10

721          KK     447
722          KM   SUB-BASIN 447
723          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
724          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
725          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
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726          BA    .090
727          LG    .250    .270   3.350    .870  30.000
728          UC    .208    .145
             * DDM   ***** Preserved *****

729          KK   RT404
730          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
731          DR  WSH404
             * DDM   ***** Preserved *****

732          KK    R404
733          KM        ROUTE FLOW FROM C110 TO C110
734          RS       5    FLOW      -1
735          RC    .019    .019    .019    3540     .03
736          RX    1000    1012    1016    1020    1025    1029    1033    1045
737          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

738          KK    C110
739          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 62 AND C109
740          HC       3
             * DDM   ***** Preserved *****

741          KK    R110
742          KM        ROUTE FLOW FROM C110 TO C115
743          RS       1    FLOW      -1
744          RC    .019    .019    .019     580    .029
745          RX    1000    1012    1016    1020    1035    1039    1043    1055
746          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

747          KK    C115
748          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
749          HC       2
             * DDM   ***** Preserved *****

750          KK    R115
751          KM        ROUTE FLOW FROM C115 TO C119
752          RS       1    FLOW      -1
753          RC    .019    .019    .019    2125    .029
754          RC    .019    .019    .019     580   .0291
755          RX    1000    1012    1016    1020    1035    1039    1043    1055
756          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Updated *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

757          KK     448
758          KM   SUB-BASIN 448
759          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
760          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
761          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
762          BA    .045
763          LG    .170    .310   4.200    .390  11.000
764          UC    .133    .102
             * DDM   ***** Updated *****

765          KK     449
766          KM   SUB-BASIN 449
767          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
768          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
769          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
770          BA    .050
771          LG    .260    .280   3.500    .640   6.000
772          UC    .167    .134
             * DDM   ***** Preserved *****

773          KK   C6364
774          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 63 AND 64
775          HC       2
             * DDM   ***** Preserved *****

776          KK   R6364
777          KM        ROUTE FLOW FROM DIVERSIONS 63 AND 64 TO C116
778          RS       5    FLOW      -1
779          RC     .05    .035     .05    4375   .0333
780          RX    1000    1027    1053    1080    1090    1117    1143    1170
781          RY      15   13.33   11.67      10      10   11.67   13.33      15
             * DDM   ***** Updated *****

782          KK     450
783          KM   SUB-BASIN 450
784          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
785          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
786          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
787          BA    .070
788          LG    .340    .350   3.630    .570   4.000
789          UC    .296    .383
             * DDM   ***** Updated *****

790          KK     451
791          KM   SUB-BASIN 451
792          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
793          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
794          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
795          BA    .025
796          LG    .340    .340   3.290    .750   3.000
797          UC    .271    .453
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

798          KK    RT66
799          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
800          DR   WSH66
             * DDM   ***** Updated *****

801          KK     452
802          KM   SUB-BASIN 452
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803          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
804          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
805          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
806          BA    .040
807          LG    .260    .280   3.700    .550   9.000
808          UC    .171    .166
             * DDM   ***** Preserved *****

809          KK   C6566
810          KM        COMBINE HYDROGRAPHS FROM DIVERSIONS 65 AND 66
811          HC       2
             * DDM   ***** Preserved *****

812          KK   R6566
813          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
814          RS       2    FLOW      -1
815          RC     .05    .035     .05    2435   .0282
816          RX    1000    1045    1090    1150    1160    1220    1265    1310
817          RY      25      23      20      10      10      20      23      25
             * DDM   ***** Preserved *****

818          KK    C116
819          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 68 AND 69 AND DIVERTED FLOWS
820          KM        FROM SUB-BASINS 63, 64, 65 AND 66
821          HC       4
             * DDM   ***** Preserved *****

822          KK  BASIN5
823          KM        RESERVOIR WITHIN PARCEL 31, 2-48 INCH PIPES AT OUTFALL
824          KM        BASIN 5 FEET DEEP
825          RS       1    ELEV       0
826          SV       0     4.5     9.9
827          SQ       0      69     190
828          SE       0     2.5       5
             * DDM   ***** Preserved *****

829          KK    R116
830          KM        ROUTE FLOW FROM C116 TO C118
831          RS       3    FLOW      -1
832          RC     .05    .035     .05    1300   .0333
833          RX    1000    1100    1200    1300    1320    1420    1520    1620
834          RY      13      12      11      10      10      11      12      13
             * DDM   ***** Updated *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

835          KK     453
836          KM   SUB-BASIN 453
837          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
838          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
839          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
840          BA    .060
841          LG    .290    .300   3.290    .820  18.000
842          UC    .275    .284
             * DDM   ***** Preserved *****

843          KK    C117
844          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 70 AND C115
845          HC       2
             * DDM   ***** Preserved *****

846          KK    C118
847          KM        COMBINE HYDROGRAPHS FROM C116 AND C117
848          HC       2
             * DDM   ***** Preserved *****

849          KK    R118
850          KM        ROUTE FLOW FROM C118 TO C119
851          RS       1    FLOW      -1
852          RC    .019    .019    .019    1500    .024
853          RX    1000    1012    1016    1020    1035    1039    1043    1055
854          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

855          KK    DIV7
856          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE, FLOWS ENTER BASIN OVER
857          KM        60' WEIR SET AT 1.5' ABOVE THE CHANNEL BOTTOM
             *      1
858          DT  BASIN6
859          DI       0    20.4    76.9   176.4   383.8   696.7  1105.8  1611.6
860          DQ       0       0       0       0    57.3     162   297.6   458.2

861          KK  RTDIV7
862          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
863          DR  BASIN6

864          KK  RFDIV7
865          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
866          KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
867          RS       1    STOR       0
868          SV       0     .01     3.6
869          SQ       0     1.2     1.2

870          KK   CDIV7
871          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
872          HC       2
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

873          KK     454
874          KM   SUB-BASIN 454
875          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
876          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
877          KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
878          BA    .180
879          LG    .300    .310   3.780    .560  14.000
880          UC    .379    .395
             * DDM   ***** Preserved *****
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881          KK    C119
882          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 71 AND C119
             *      1       2
883          HC       2
             * DDM   ***** Preserved *****

884          KK    R454
885          KM   FROM SUB-BASIN 454 TO SUB-BASIN 455
886          RS       8    FLOW     -1
887          RC     .05    .035     .05    6000    .005
888          RX    1000    1010    1020    1036    1041    1057    1067    1077
889          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Updated *****

890          KK     455
891          KM   SUB-BASIN 455
892          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
893          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
894          KM     L = 2.92  Kb = .039  Adj. Slope =  269.2
895          BA   1.559
896          LG    .280    .270   3.850    .590  22.000
897          UC    .450    .279

898          KK    C455
899          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
900          HC       2

901          KK    455C
902          KM   HYDROGRAPH COMBINATION AT THE END OF THE SPOOK HILL FRS
             *      1       2
903          HC       2
             *  SR440
             *  SPOOK HILL FRS PLANS DATED 6/15/77
             *  OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
             *  EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
             *  STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
             *      1    STOR       0
             *      0     .04     100     300     500     680
             *      0     640     720     780     825     860
             *     66    77.5      79    80.2    81.2      82
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

904          KK   RR455
905          KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
906          RS       5    FLOW     -1
907          RC    .016    .016    .016    9200    .002
908          RX       0       1       2      15      71      84      85      86
909          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
             *     11    FLOW     -1
             *   .035    .025    .035    9200    .002
             *      0       1       2      28      58      84      85      86
             *     13      13      13       0       0      13      13      13

910          KK     456
911          KM   SUB-BASIN 456
912          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
913          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
914          KM     L =  .94  Kb = .045  Adj. Slope =  315.0
915          BA    .260
916          LG    .300    .380   5.600    .200  12.000
917          UC    .217    .139

918          KK    DIV1
919          KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
920          KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
             *      1
921          DT  BASIN1
922          DI       0    24.4    70.8   132.2   194.1   281.1   415.5   571.9   753.2
923          DQ       0       0       0       0       0    57.3     162   297.6   458.2
             * DDM   ***** Preserved *****

924          KK    DIV2
925          KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
926          KM        WASHES THAT DRAIN TO THE WEST, SOUTHERN WASHES FED BY 30" AND 18" PIPE
927          DT    WA30
928          DI       0    24.4    70.8   132.2   194.1   223.8   253.5  274.25     295
929          DQ       0     8.4    24.8    40.2    52.1    57.8    63.5    67.3      71
             * DDM   ***** Preserved *****

930          KK    R456
931          KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
932          RS       3    FLOW     -1
933          RC     .05    .035     .05    3800    .044
934          RX    1000    1010    1020    1036    1041    1057    1067    1077
935          RY   14.88   14.44      14      10      10      14   14.44   14.88
             * DDM   ***** Updated *****

936          KK     457
937          KM   SUB-BASIN 457
938          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
939          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
940          KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
941          BA    .190
942          LG    .270    .330   3.950    .460   6.000
943          UC    .237    .195
             * DDM   ***** Preserved *****
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

944          KK    C101
945          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
946          HC       2
             * DDM   ***** Preserved *****

947          KK    DIV3
948          KM        RESERVOIR AT THE EDGE OF THE PROPERTY, FLOW FROM 10' WIDE CHANNEL
949          KM        DIVERTED INTO OFFLINE BASIN OVER A 150' WEIR SET AT 0.75 FEET
950          KM        ABOVE CHANNEL
```

```
                *      1
 951            DT  BASIN2
 952            DI       0      18    59.3   121.6   255.8   454.1   703.1   998.3  1338.4
 953            DQ       0       0       0       0    50.6   143.2   263.1     405     566

 954            KK  RTDIV3
 955            KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
 956            DR  BASIN2

 957            KK  RFDIV3
 958            KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 959            KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
 960            RS       1    STOR       0
 961            SV       0     .01       5
 962            SQ       0     1.7     1.7

 963            KK   CDIV3
 964            KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
 965            HC       2
                * DDM   ***** Preserved *****

 966            KK    R101
 967            KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
 968            RS       1    FLOW      -1
 969            RC     .05    .035     .05    1450     .05
 970            RX    1000    1010    1020    1036    1041    1057    1067    1077
 971            RY      15    14.5      14      10      10      14    14.5      15
                * DDM   ***** Updated *****

 972            KK     458
 973            KM   SUB-BASIN 458
 974            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 975            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
 976            KM     L =  .76  Kb = .048  Adj. Slope =  299.0
 977            BA    .190
 978            LG    .290    .330   5.800    .190   6.000
 979            UC    .204    .131
                * DDM   ***** Preserved *****

 980            KK    C103
 981            KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
 982            HC       2
                * DDM   ***** Preserved *****
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LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 983            KK    R103
 984            KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
 985            RS       1    FLOW      -1
 986            RC     .05    .035     .05     900     .03
 987            RX    1000    1010    1020    1030    1050    1060    1070    1080
 988            RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
                * DDM   ***** Preserved *****

 989            KK    RT30
 990            KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
 991            DR    WA30
                * DDM   ***** Preserved *****

 992            KK     R30
 993            KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
 994            RS       1    FLOW      -1
 995            RC     .05    .035     .05    1630     .05
 996            RX    1000    1010    1020    1036    1041    1057    1067    1077
 997            RY      15    14.5      14      10      10      14    14.5      15
                * DDM   ***** Preserved *****

 998            KK    RTB1
 999            KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
                *      1       2
1000            DR  BASIN1
                * DDM   ***** Preserved *****

1001            KK      B1
1002            KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1003            KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
                *      1       2
1004            RS       1    ELEV       0
1005            SV              .7     1.4     2.3     2.7     3.2
1006            SQ       0       5      16      28    32.5      37
1007            SE       0       1       2       3     3.5       4
                * DDM   ***** Preserved *****

1008            KK     RB1
1009            KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
1010            RS       2    FLOW      -1
1011            RC     .05    .035     .05    1720     .05
1012            RX    1000    1010    1020    1036    1041    1057    1067    1077
1013            RY      15    14.5      14      10      10      14    14.5      15
                * DDM   ***** Preserved *****

1014            KK    CDIV
1015            KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1016            HC       2     .12
                * DDM   ***** Updated *****
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LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1017            KK     459
1018            KM   SUB-BASIN 459
1019            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1020            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1021            KM     L =  .35  Kb = .052  Adj. Slope =  251.6
1022            BA    .030
1023            LG    .220    .300   3.330    .710   8.000
1024            UC    .162    .157
                * DDM   ***** Preserved *****

1025            KK     C52
```

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1026        KM        COMBINE FLOWS FROM SUB-BASIN 52, WA30 AND BASIN 1
1027        HC       2
            * DDM   ***** Preserved *****

1028        KK     R52
1029        KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1030        RS       1    FLOW      -1
1031        RC     .05    .035     .05    2000     .05
1032        RX    1000    1010    1020    1036    1041    1057    1067    1077
1033        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

1034        KK     460
1035        KM   SUB-BASIN 460
1036        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1037        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1038        KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1039        BA    .140
1040        LG    .250    .260   3.740    .690  27.000
1041        UC    .242    .160
            * DDM   ***** Preserved *****

1042        KK    C102
1043        KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1044        HC       2
            * DDM   ***** Preserved *****

1045        KK  BASIN3
1046        KM        RESERVOIR AT CLUBHOUSE LOCATION, 1-30 INCH PIPE AT OUTFALL
1047        KM        BOTTOM OF BASIN AT 6 FEET ABOVE 0 ELEVATION
1048        RS       1    ELEV       0
1049        SA       0       0       0       0     .21    1.15       2    2.12    2.31    2.65
            *      0       0       0       0    1.14    3.25    5.52    9.23
1050        SE       0     2.5       5       6       7     7.5       8       9    10.5    12.5
1051        SQ       0      22      45      51      57    59.5      62      67      73      81
            * DDM   ***** Preserved *****

1052        KK      R3
1053        KM        ROUTE FLOW FROM C102 to C106
1054        RS       4    FLOW      -1
1055        RC     .05     .03     .05    2750   .0375
1056        RX    1000    1010    1020    1052    1086    1118    1128    1138
1057        RY    19.2    18.4      18      10      10      18    18.4    19.2
            * DDM   ***** Updated *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1058        KK     461
1059        KM   SUB-BASIN 461
1060        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1061        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1062        KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1063        BA    .120
1064        LG    .270    .250   4.250    .450  21.000
1065        UC    .271    .250
            * DDM   ***** Preserved *****

1066        KK    C104
1067        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1068        HC       2
            * DDM   ***** Preserved *****

1069        KK    C106
1070        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1071        HC       2
            * DDM   ***** Preserved *****

1072        KK    R106
1073        KM        ROUTE FLOW FROM C106 TO C49
1074        RS       2    FLOW      -1
1075        RC     .05    .035     .05    3950    .033
1076        RX    1000    1010    1020    1030    1050    1060    1070    1080
1077        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Updated *****

1078        KK     462
1079        KM   SUB-BASIN 462
1080        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1081        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1082        KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1083        BA    .301
1084        LG    .300    .330   5.300    .240  12.000
1085        UC    .225    .137
            * DDM   ***** Preserved *****

1086        KK     C56
1087        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
            *      1       2
1088        HC       2
            * DDM   ***** Updated *****

1089        KK     480
1090        KM   SUB-BASIN 480
1091        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1092        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1093        KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1094        BA    .731
1095        LG    .270    .270   3.580    .730  27.000
1096        UC    .325    .148
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1097        KK    D480
1098        KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1099        KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1100        KM   FOR BASIN #: 18 & 26
1101        KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
            *      1
1102        DT   BS480    16.5
```

```
1103          DI       0   10000
1104          DQ       0   10000

1105          KK   RT480
1106          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1107          DR   BS480

1108          KK   SR480
1109          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1110          KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1111          RS       1    STOR       0
1112          SV       0     .01    16.5
1113          SQ       0     5.6     5.6

1114          KK    C480
1115          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1116          HC       2
              * DDM   ***** Preserved *****

1117          KK    480C
1118          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1119          HC       3    2.09
              * DDM   ***** Preserved *****

1120          KK   RR480
1121          KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
1122          RS       2    FLOW      -1
1123          RC    .025    .025    .025    6500     .05
1124          RX       0       1       2      28      58      84      85      86
1125          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
              * DDM   ***** Updated *****

1126          KK     500
1127          KM   SUB-BASIN 500
1128          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1129          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
1130          KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
1131          BA    .930
1132          LG    .350    .400   6.000    .170   9.000
1133          UC    .421    .333
              * DDM   ***** Preserved *****
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```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1134          KK    500C
1135          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1136          KO       1       2
1137          HC       2    2.84
1138          ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

 NO.       (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  68          20
               .
               .
  76           .          40
               .           .
               .           .
  84           .           .          60
               .           .           .
               .           .           .
  92        60C.......................
             V
             V
  95       SR60
             V
             V
 104        R60
             V
             V
 110       RR60
               .
               .
 116           .          80
               .           .
               .           .
 124        80C............
             V
             V
 127        R80
               .
               .
 133           .         100
               .           .
               .           .
 141       100C............
             V
             V
 144       R100
               .
               .
 150           .         120
               .           .
               .           .
 158       120C............
             V
             V
 161       R120
               .
               .
 167           .         140
               .           .
               .           .
 175           .           .         160
               .           .           .
               .           .           .
 183           .           .           .         180
               .           .           .           .
               .           .           .           .
 191       180C.................................
               .
               .
 194           .         240
               .           V
               .           V
 202           .        R240
               .           .
               .           .
 209           .           .         220
               .           .           .
               .           .           .
 217           .        220C............
               .           V
               .           V
 220           .        R220
               .           .
               .           .
 227           .           .         200
               .           .           .
               .           .           .
 235           .        200C............
               .           V
               .           V
 238           .        R200
               .           .
               .           .
 244       C180............
             V
             V
 247      SR180
             V
             V
 256       R180
               .
               .
 262           .         260
               .           .
               .           .
 270       260C............
             V
             V
 273       R260
               .
               .
 279           .         280
               .           .
               .           .
 287       280C............
```

```
            V
            V
290       R280
            .
            .
296         .         300
            .           .
            .           .
304       300C............
            V
            V
307       R300
            V
            V
313      RR300
            .
            .
319         .         320
            .           .
            .           .
332         .           .-------->   BS320
327         .       D320
            .           .
            .           .
337         .           .           .<-------   BS320
335         .           .       RT320
            .           .           V
            .           .           V
338         .           .       SR320
            .           .           .
            .           .           .
344       C320......................
            V
            V
347       R320
            .
            .
353         .         340
            .           .
            .           .
366         .           .-------->   BS340
361         .       D340
            .           .
            .           .
371         .           .           .<-------   BS340
369         .           .       RT340
            .           .           V
            .           .           V
372         .           .       SR340
            .           .           .
            .           .           .
378       C340......................
            V
            V
381       R340
            .
            .
387         .         350
            .           V
            .           V
395         .      RR350
            .           .
            .           .
401         .           .         360
            .           .           .
            .           .           .
413         .           .           .-------->   BS360
409         .           .       D360
            .           .           .
            .           .           .
418         .           .           .           .<-------   BS360
416         .           .           .       RT360
            .           .           .           V
            .           .           .           V
419         .           .           .       SR360
            .           .           .           .
            .           .           .           .
425       360C.................................
            V
            V
428       R360
            .
            .
434         .         380
            .           .
            .           .
446         .           .-------->   BS380
442         .       D380
            .           .
            .           .
451         .           .           .<-------   BS380
449         .           .       RT380
            .           .           V
            .           .           V
452         .           .       SR380
            .           .           .
            .           .           .
458       380C......................
            .
            .
465         .-------->    380D
461      DD380
            .
            .
470         .           .<-------    380D
468         .      RT380D
            .           V
            .           V
471         .      SR380D
            .           .
            .           .
478       C380D...........
            V
```

```
                V
481         R380
                .
                .
487             .         390
                .           .
                .           .
499             .           .-------->   BS390
495             .        D390
                .           .
                .           .
504             .           .           .<-------   BS390
502             .           .       RT390
                .           .           V
                .           .           V
505             .           .       SR390
                .           .           .
                .           .           .
511             .        390C............
                .           V
                .           V
514             .       RR390
                .           .
                .           .
520             .           .         400
                .           .           .
                .           .           .
528         400C........................
                V
                V
531         R400
                .
                .
537             .         420
                .           .
                .           .
549             .           .-------->   BS420
545             .        D420
                .           .
                .           .
554             .           .           .<-------   BS420
552             .           .       RT420
                .           .           V
                .           .           V
555             .           .       SR420
                .           .           .
                .           .           .
561         420C........................
                V
                V
564         R420
                .
                .
570             .         440
                .           V
                .           V
578             .         R70
                .           .
                .           .
584             .           .         441
                .           .           .
                .           .           .
592             .        C108............
                .           .
                .           .
597             .           .-------->   SPLIT
595             .        DIV4
                .           V
                .           V
600             .        R108
                .           .
                .           .
606             .           .         442
                .           .           .
                .           .           .
614             .         C67............
                .           .
                .           .
620             .           .-------->  BASIN4
617             .        DIV6
                .           .
                .           .
625             .           .           .<-------  BASIN4
623             .           .      RTDIV6
                .           .           V
                .           .           V
626             .           .      RFDIV6
                .           .           .
                .           .           .
632             .       CDIV6............
                .           .
                .           .
635             .           .         443
                .           .           .
                .           .           .
646             .           .           .-------->   WSH66
643             .           .       DIV66
                .           .           V
                .           .           V
649             .           .        R113
                .           .           .
                .           .           .
655             .        C114............
                .           .
                .           .
658             .           .         444
                .           .           V
                .           .           V
666             .           .         R58
                .           .           .
                .           .           .
672             .           .           .         445
                .           .           .           .
```

```
680          C107...........
                V
                V
683          R107
                .
                .
691                  .<-------   SPLIT
689                RTB2
                     V
                     V
692             RSPLIT
                     .
                     .
698                  .        446
                     .          .
                     .          .
706          C109......................
                .
                .
712             .-------> WSH404
709          DIV5
                V
                V
715          R109
                .
                .
721                447
                     .
                     .
731                  .          .<-------  WSH404
729                  .      RT404
                     .          V
                     .          V
732                  .       R404
                     .          .
                     .          .
738          C110......................
                V
                V
741          R110
                .
                .
747       C115...........
             V
             V
750       R115
             .
             .
757          448
                .
                .
765                449
                     .
                     .
773       C6364...........
             V
             V
776       R6364
             .
             .
782                450
                     .
                     .
790                  .        451
                     .          .
                     .          .
800                  .          .          .<-------   WSH66
798                  .          .       RT66
                     .          .          .
                     .          .          .
801                  .          .          .         452
                     .          .          .           .
                     .          .          .           .
809                  .          .       C6566...........
                     .          .          V
                     .          .          V
812                  .          .       R6566
                     .          .          .
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818          C116.................................
                V
                V
822       BASIN5
             V
             V
829          R116
                .
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835                453
                     .
                     .
843          C117...........
                .
                .
846       C118...........
             V
             V
849       R118
             .
             .
858          .-------> BASIN6
855       DIV7
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863                  .<-------  BASIN6
861       RTDIV7
             V
             V
864       RFDIV7
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870    CDIV7...........
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                .          .
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873             .          .        454
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881             .      C119............
                .        V
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884             .      R454
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890             .          .        455
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898             .      C455............
                .          .
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901         455C............
              V
              V
904        RR455
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910             .       456
                .          .
                .          .
921             .          .-------> BASIN1
918             .      DIV1
                .          .
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927             .          .------->   WA30
924             .      DIV2
                .        V
                .        V
930             .      R456
                .          .
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936             .          .        457
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944             .      C101............
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951             .          .-------> BASIN2
947             .      DIV3
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956             .          .          .<------- BASIN2
954             .          .     RTDIV3
                .          .          V
                .          .          V
957             .          .     RFDIV3
                .          .          .
                .          .          .
963             .     CDIV3............
                .        V
                .        V
966             .      R101
                .          .
                .          .
972             .          .        458
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980             .      C103............
                .        V
                .        V
983             .      R103
                .          .
                .          .
991             .          .          .<-------   WA30
989             .          .       RT30
                .          .          V
                .          .          V
992             .          .        R30
                .          .          .
                .          .          .
1000            .          .          .          .<------- BASIN1
998             .          .          .       RTB1
                .          .          .          V
                .          .          .          V
1001            .          .          .         B1
                .          .          .          V
                .          .          .          V
1008            .          .          .        RB1
                .          .          .          .
                .          .          .          .
1014            .          .       CDIV............
                .          .          .
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1017            .          .          .        459
                .          .          .          .
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1025            .          .        C52............
                .          .          V
                .          .          V
1028            .          .        R52
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1034            .          .          .        460
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1042            .          .       C102............
                .          .          V
                .          .          V
1045            .          .     BASIN3
                .          .          V
                .          .          V
1052            .          .         R3
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1058            .          .          .        461
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1066          .           .        C104............
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1069          .        C106............
              .           V
              .           V
1072          .        R106
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1078          .           .         462
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1086          .         C56............
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1089          .           .         480
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              .           .           .
1102          .           .           .-------->   BS480
1097          .           .        D480
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              .           .           .
1107          .           .           .           .<-------   BS480
1105          .           .           .       RT480
              .           .           .           V
              .           .           .           V
1108          .           .           .       SR480
              .           .           .           .
              .           .           .           .
1114          .           .        C480............
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              .           .           .
1117       480C........................
              V
              V
1120      RR480
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1126          .         500
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1134       500C............
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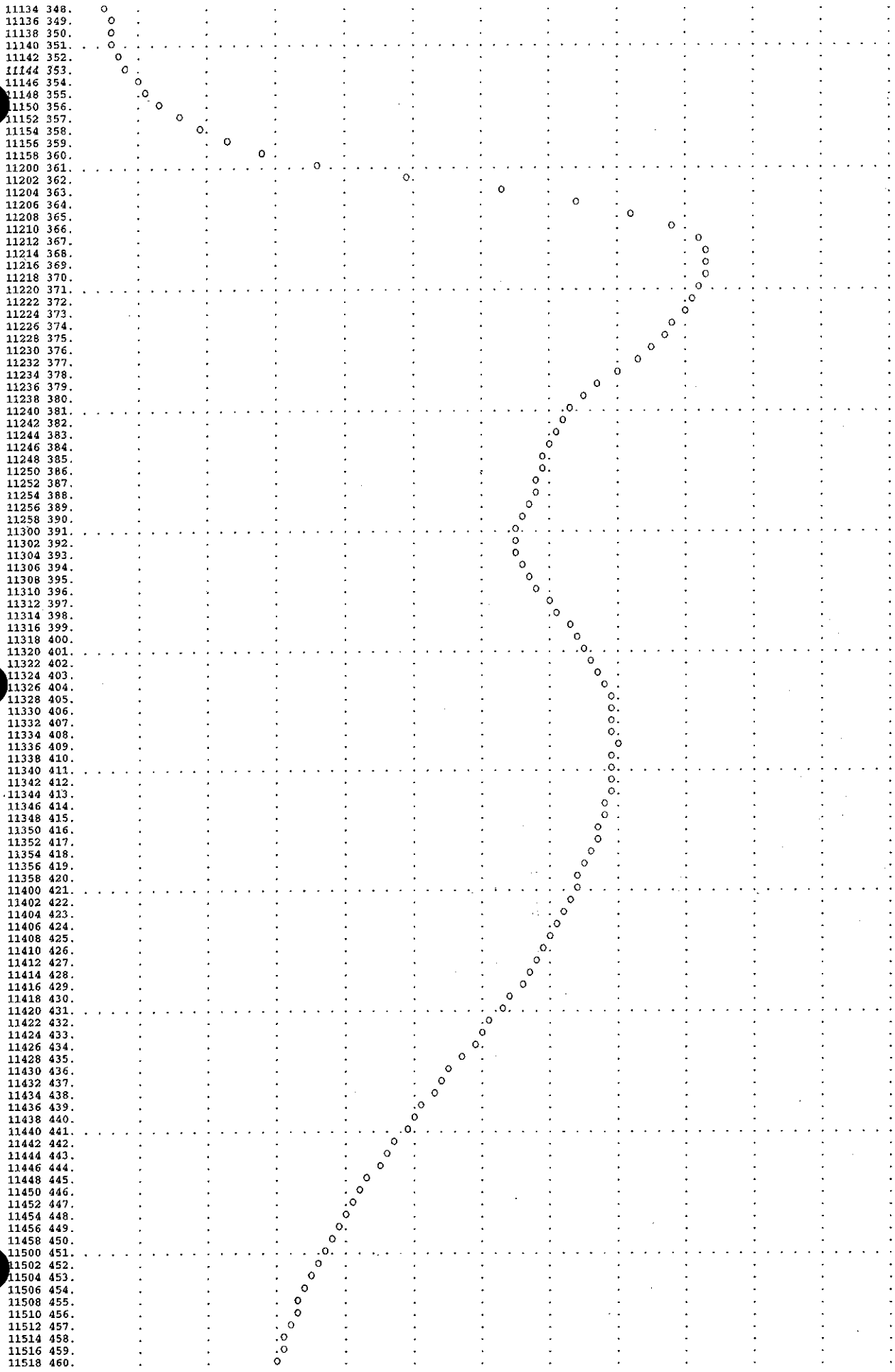
(***) RUNOFF ALSO COMPUTED AT THIS LOCATION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RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	20	1130.	12.57	243.	64.	31.	1.82		
+	HYDROGRAPH AT	40	2286.	12.27	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1405.	12.37	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	4438.	12.30	712.	189.	91.	5.80		
+	ROUTED TO	SR60	92.	14.77	92.	89.	71.	5.80		
+	ROUTED TO	R60	92.	14.83	92.	89.	70.	5.80		
+	ROUTED TO	RR60	92.	14.93	92.	89.	70.	5.80		
+	HYDROGRAPH AT	80	1693.	12.20	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	1767.	12.20	266.	134.	93.	1.48		
+	ROUTED TO	R80	1765.	12.23	266.	134.	93.	1.48		
+	HYDROGRAPH AT	100	389.	12.33	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2117.	12.23	321.	148.	99.	1.96		
+	ROUTED TO	R100	2116.	12.27	321.	148.	99.	1.96		
+	HYDROGRAPH AT	120	2960.	12.20	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	4993.	12.23	636.	229.	141.	4.16		
+	ROUTED TO	R120	4949.	12.27	636.	229.	141.	4.16		
+	HYDROGRAPH AT	140	598.	12.23	64.	17.	8.	.60		
+	HYDROGRAPH AT	160	588.	12.30	85.	22.	11.	.78		
+	HYDROGRAPH AT	180	694.	12.33	90.	23.	11.	1.00		
+	4 COMBINED AT	180C	6691.	12.27	863.	286.	169.	6.54		
+	HYDROGRAPH AT	240	770.	12.30	107.	27.	13.	1.04		
+	ROUTED TO	R240	760.	12.37	107.	27.	13.	1.04		
+	HYDROGRAPH AT	220	1427.	12.23	167.	43.	21.	1.25		
+	2 COMBINED AT	220C	2088.	12.27	271.	69.	33.	2.29		
+	ROUTED TO	R220	2057.	12.30	271.	69.	33.	2.29		
+	HYDROGRAPH AT	200	2059.	12.23	236.	65.	31.	1.81		
+	2 COMBINED AT	200C	3995.	12.27	501.	132.	64.	4.10		
+	ROUTED TO	R200	3967.	12.30	501.	132.	64.	4.10		
+	2 COMBINED AT	C180	10520.	12.27	1345.	410.	230.	10.64		
+	ROUTED TO	SR180	141.	15.23	141.	140.	116.	10.64		
+	ROUTED TO	R180	141.	15.30	141.	140.	116.	10.64		
+	HYDROGRAPH AT	260	401.	12.17	43.	12.	6.	.27		
+	2 COMBINED AT	260C	515.	12.17	180.	151.	123.	.27		
+	ROUTED TO	R260	500.	12.23	180.	151.	122.	.27		
+	HYDROGRAPH AT	280	452.	12.13	42.	12.	6.	.30		

+	2 COMBINED AT	280C	908.	12.17	219.	161.	128.	.57
+	ROUTED TO	R280	889.	12.27	219.	161.	127.	.57
	HYDROGRAPH AT	300	824.	12.30	109.	29.	14.	.99
+	2 COMBINED AT	300C	1686.	12.27	325.	188.	141.	1.56
+	ROUTED TO	R300	1664.	12.33	325.	188.	140.	1.56
+	ROUTED TO	RR300	1641.	12.40	325.	188.	140.	1.56
+	HYDROGRAPH AT	320	889.	12.43	171.	47.	22.	1.53
+	DIVERSION TO	BS320	390.	12.07	21.	6.	3.	1.53
+	HYDROGRAPH AT	D320	889.	12.43	157.	41.	19.	1.53
+	HYDROGRAPH AT	RT320	390.	12.07	21.	6.	3.	1.53
+	ROUTED TO	SR320	4.	4.40	4.	4.	3.	1.53
+	3 COMBINED AT	C320	2503.	12.40	482.	232.	162.	3.09
+	ROUTED TO	R320	2356.	12.67	480.	231.	158.	3.09
+	HYDROGRAPH AT	340	1381.	12.27	186.	55.	26.	1.45
+	DIVERSION TO	BS340	1381.	12.27	104.	28.	14.	1.45
+	HYDROGRAPH AT	D340	1219.	12.40	98.	27.	13.	1.45
+	HYDROGRAPH AT	RT340	1381.	12.27	104.	28.	14.	1.45
+	ROUTED TO	SR340	19.	9.03	19.	19.	14.	1.45
	3 COMBINED AT	C340	2952.	12.63	591.	276.	184.	4.53
+	ROUTED TO	R340	2887.	12.70	590.	276.	183.	4.53
+	HYDROGRAPH AT	350	1102.	12.17	103.	27.	13.	.97
+	ROUTED TO	RR350	941.	12.57	103.	27.	13.	.97
+	HYDROGRAPH AT	360	668.	12.50	151.	42.	20.	1.33
+	DIVERSION TO	BS360	655.	12.43	53.	14.	7.	1.33
+	HYDROGRAPH AT	D360	657.	12.57	106.	28.	13.	1.33
+	HYDROGRAPH AT	RT360	655.	12.43	53.	14.	7.	1.33
+	ROUTED TO	SR360	10.	9.47	10.	10.	7.	1.33
+	4 COMBINED AT	360C	4244.	12.67	797.	336.	215.	6.83
+	ROUTED TO	R360	4107.	12.77	795.	336.	214.	6.83
+	HYDROGRAPH AT	380	821.	12.50	175.	48.	23.	1.64
+	DIVERSION TO	BS380	779.	12.40	54.	14.	7.	1.64
+	HYDROGRAPH AT	D380	821.	12.50	128.	33.	16.	1.64
+	HYDROGRAPH AT	RT380	779.	12.40	54.	14.	7.	1.64
+	ROUTED TO	SR380	10.	10.30	10.	10.	7.	1.64
	3 COMBINED AT	380C	4748.	12.77	925.	377.	236.	8.47
	DIVERSION TO	380D	3348.	12.77	315.	79.	38.	8.47
+	HYDROGRAPH AT	DD380	1400.	12.50	610.	298.	198.	8.47
+	HYDROGRAPH AT	RT380D	3348.	12.77	315.	79.	38.	8.47

+	ROUTED TO	SR380D	1150.	13.27	314.	79.	38.	8.47
+	2 COMBINED AT	C380D	2550.	13.27	924.	377.	236.	8.47
+	ROUTED TO	R380	2541.	13.40	920.	377.	234.	8.47
+	HYDROGRAPH AT	390	1179.	12.20	144.	40.	19.	1.09
+	DIVERSION TO	BS390	7.	8.13	6.	2.	1.	1.09
+	HYDROGRAPH AT	D390	1179.	12.20	144.	38.	18.	1.09
+	HYDROGRAPH AT	RT390	7.	8.13	6.	2.	1.	1.09
+	ROUTED TO	SR390	1.	.50	1.	1.	1.	1.09
+	2 COMBINED AT	390C	1180.	12.20	145.	40.	19.	1.09
+	ROUTED TO	RR390	1102.	12.40	145.	40.	19.	1.09
+	HYDROGRAPH AT	400	333.	12.37	47.	13.	6.	.62
+	3 COMBINED AT	400C	2718.	13.30	1086.	422.	258.	10.18
+	ROUTED TO	R400	2709.	13.43	1084.	422.	256.	10.18
+	HYDROGRAPH AT	420	710.	12.30	92.	26.	12.	.85
+	DIVERSION TO	BS420	710.	12.30	74.	19.	9.	.85
+	HYDROGRAPH AT	D420	219.	12.80	23.	7.	3.	.85
+	HYDROGRAPH AT	RT420	710.	12.30	74.	19.	9.	.85
+	ROUTED TO	SR420	19.	12.80	17.	12.	8.	.85
+	3 COMBINED AT	420C	2758.	13.40	1113.	438.	265.	11.03
+	ROUTED TO	R420	2753.	13.50	1111.	438.	264.	11.03
+	HYDROGRAPH AT	440	179.	12.00	12.	3.	2.	.08
+	ROUTED TO	R70	174.	12.03	12.	3.	2.	.08
+	HYDROGRAPH AT	441	16.	12.07	1.	0.	0.	.01
+	2 COMBINED AT	C108	189.	12.03	14.	4.	2.	.09
+	DIVERSION TO	SPLIT	95.	12.03	7.	2.	1.	.09
+	HYDROGRAPH AT	DIV4	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	R108	87.	12.10	7.	2.	1.	.09
+	HYDROGRAPH AT	442	99.	12.13	9.	2.	1.	.10
+	2 COMBINED AT	C67	183.	12.13	15.	4.	2.	.19
+	DIVERSION TO	BASIN4	115.	12.13	6.	1.	1.	.19
+	HYDROGRAPH AT	DIV6	68.	12.13	10.	3.	1.	.19
+	HYDROGRAPH AT	RTDIV6	115.	12.13	6.	1.	1.	.19
+	ROUTED TO	RFDIV6	1.	11.93	1.	1.	1.	.19
+	2 COMBINED AT	CDIV6	69.	12.13	11.	4.	2.	.19
+	HYDROGRAPH AT	443	146.	12.07	14.	4.	2.	.08
+	DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	DIV66	68.	12.07	3.	1.	0.	.08
+	ROUTED TO	R113	66.	12.10	3.	1.	0.	.08

+	2 COMBINED AT	C114	133.	12.10	13.	4.	2.	.27
+	HYDROGRAPH AT	444	81.	12.00	5.	1.	1.	.04
	ROUTED TO	R58	78.	12.07	5.	1.	1.	.04
+	HYDROGRAPH AT	445	288.	12.07	18.	5.	2.	.19
+	2 COMBINED AT	C107	363.	12.07	22.	6.	3.	.23
+	ROUTED TO	R107	362.	12.07	22.	6.	3.	.23
+	HYDROGRAPH AT	RTB2	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	RSPLIT	94.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT	446	64.	12.07	6.	2.	1.	.04
+	3 COMBINED AT	C109	516.	12.07	35.	9.	4.	.27
+	DIVERSION TO	WSH404	35.	11.73	7.	2.	1.	.27
+	HYDROGRAPH AT	DIV5	481.	12.07	27.	7.	3.	.27
+	ROUTED TO	R109	469.	12.10	27.	7.	3.	.27
+	HYDROGRAPH AT	447	135.	12.07	12.	4.	2.	.09
+	HYDROGRAPH AT	RT404	35.	11.73	7.	2.	1.	.27
+	ROUTED TO	R404	35.	11.90	7.	2.	1.	.27
+	3 COMBINED AT	C110	631.	12.10	46.	13.	6.	.36
+	ROUTED TO	R110	632.	12.10	46.	13.	6.	.36
	2 COMBINED AT	C115	759.	12.10	59.	17.	8.	.63
+	ROUTED TO	R115	758.	12.10	59.	17.	8.	.63
+	HYDROGRAPH AT	448	87.	12.03	6.	2.	1.	.05
+	HYDROGRAPH AT	449	77.	12.03	5.	1.	1.	.05
+	2 COMBINED AT	C6364	163.	12.03	11.	3.	1.	.09
+	ROUTED TO	R6364	140.	12.20	11.	3.	1.	.09
+	HYDROGRAPH AT	450	58.	12.17	6.	2.	1.	.07
+	HYDROGRAPH AT	451	17.	12.17	2.	1.	0.	.03
+	HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	452	61.	12.07	4.	1.	1.	.04
+	2 COMBINED AT	C6566	139.	12.07	16.	4.	2.	.04
+	ROUTED TO	R6566	134.	12.13	16.	4.	2.	.04
+	4 COMBINED AT	C116	340.	12.17	35.	9.	4.	.23
+	ROUTED TO	BASIN5	153.	12.47	35.	9.	4.	.23
+	ROUTED TO	R116	152.	12.53	35.	9.	4.	.23
+	HYDROGRAPH AT	453	60.	12.13	7.	2.	1.	.06
	2 COMBINED AT	C117	173.	12.50	41.	11.	5.	.29
	2 COMBINED AT	C118	837.	12.10	99.	28.	14.	.92
+	ROUTED TO	R118	833.	12.13	99.	28.	14.	.92
+	DIVERSION TO	BASIN6	207.	12.13	12.	3.	1.	.92

+ HYDROGRAPH AT	DIV7	626.	12.13	86.	25.	12.	.92
+ HYDROGRAPH AT	RTDIV7	207.	12.13	12.	3.	1.	.92
ROUTED TO	RFDIV7	1.	11.93	1.	1.	1.	.92
+ 2 COMBINED AT	CDIV7	627.	12.13	87.	25.	13.	.92
+ HYDROGRAPH AT	454	152.	12.23	21.	6.	3.	.18
+ 2 COMBINED AT	C119	761.	12.13	107.	31.	16.	1.10
+ ROUTED TO	R454	676.	12.40	107.	31.	16.	1.10
+ HYDROGRAPH AT	455	1541.	12.23	198.	59.	28.	1.56
+ 2 COMBINED AT	C455	2058.	12.30	301.	89.	44.	2.66
+ 2 COMBINED AT	455C	2922.	13.43	1360.	509.	304.	13.68
+ ROUTED TO	RR455	2912.	13.60	1358.	509.	302.	13.68
+ HYDROGRAPH AT	456	458.	12.07	36.	10.	5.	.26
+ DIVERSION TO	BASIN1	198.	12.07	8.	2.	1.	.26
+ HYDROGRAPH AT	DIV1	259.	12.07	28.	8.	4.	.26
+ DIVERSION TO	WA30	65.	12.07	8.	2.	1.	.26
+ HYDROGRAPH AT	DIV2	195.	12.07	20.	6.	3.	.26
+ ROUTED TO	R456	191.	12.17	20.	6.	3.	.26
+ HYDROGRAPH AT	457	254.	12.10	20.	5.	3.	.19
+ 2 COMBINED AT	C101	438.	12.10	40.	11.	5.	.45
+ DIVERSION TO	BASIN2	136.	12.10	8.	2.	1.	.45
+ HYDROGRAPH AT	DIV3	302.	12.10	32.	9.	4.	.45
+ HYDROGRAPH AT	RTDIV3	136.	12.10	8.	2.	1.	.45
+ ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+ 2 COMBINED AT	CDIV3	304.	12.10	33.	10.	5.	.45
+ ROUTED TO	R101	301.	12.13	33.	10.	5.	.45
+ HYDROGRAPH AT	458	347.	12.07	25.	7.	3.	.19
+ 2 COMBINED AT	C103	625.	12.07	58.	16.	8.	.64
+ ROUTED TO	R103	624.	12.10	58.	16.	8.	.64
+ HYDROGRAPH AT	RT30	65.	12.07	8.	2.	1.	.26
+ ROUTED TO	R30	64.	12.10	8.	2.	1.	.26
+ HYDROGRAPH AT	RTB1	198.	12.07	8.	2.	1.	.26
+ ROUTED TO	B1	36.	12.23	7.	2.	1.	.26
+ ROUTED TO	RB1	36.	12.30	7.	2.	1.	.26
+ 2 COMBINED AT	CDIV	94.	12.23	15.	4.	2.	.12
+ HYDROGRAPH AT	459	43.	12.07	3.	1.	0.	.03
+ 2 COMBINED AT	C52	118.	12.17	18.	5.	2.	.15
+ ROUTED TO	R52	116.	12.20	18.	5.	2.	.15
+ HYDROGRAPH AT	460	205.	12.10	19.	6.	3.	.14

+	2 COMBINED AT	C102	310.	12.10	37.	11.	5.	.29
+	ROUTED TO	BASIN3	75.	12.60	37.	11.	5.	.29
+	ROUTED TO	R3	75.	12.73	37.	11.	5.	.29
+	HYDROGRAPH AT	461	156.	12.13	17.	5.	2.	.12
+	2 COMBINED AT	C104	216.	12.13	53.	16.	7.	.41
+	2 COMBINED AT	C106	833.	12.10	110.	32.	16.	1.05
+	ROUTED TO	R106	799.	12.17	110.	32.	16.	1.05
+	HYDROGRAPH AT	462	523.	12.07	40.	11.	5.	.30
+	2 COMBINED AT	C56	1238.	12.13	149.	42.	21.	1.35
+	HYDROGRAPH AT	480	991.	12.13	96.	29.	14.	.73
+	DIVERSION TO	BS480	458.	11.93	27.	8.	4.	.73
+	HYDROGRAPH AT	D480	991.	12.13	78.	21.	10.	.73
+	HYDROGRAPH AT	RT480	458.	11.93	27.	8.	4.	.73
+	ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT	C480	997.	12.13	84.	27.	14.	.73
+	3 COMBINED AT	480C	3167.	13.57	1645.	593.	346.	2.09
+	ROUTED TO	RR480	3164.	13.63	1645.	593.	345.	2.09
+	HYDROGRAPH AT	500	988.	12.23	122.	33.	16.	.93
	2 COMBINED AT	500C	3726.	12.27	1752.	621.	360.	2.84

*** NORMAL END OF HEC-1 ***

NSTEP Estimation for Spook Hill ADMP

100-YR, 24hr Spook Hill Bipass Conditions + 2900cfs in Spook Hill Floodway w/Offline Basin

Trial 1

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.03	26.39	1.0	0.9
RR60	3500	0.03	32.41	1.0	0.9
R80	1200	0.01	33.33	1.0	0.3
R100	940	0.01	26.11	1.0	0.3
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.04	10.42	1.0	1.2
R260	2300	0.04	15.97	2.0	1.2
R280	2500	0.07	9.92	2.0	2.1
R300	2200	0.03	20.37	2.0	0.9
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.23	8.21	7.0	6.9
R340	2000	0.1	5.56	2.0	3.0
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.14	7.94	4.0	4.2
RR390	14890	0.1	41.36	3.0	3.0
R400	3800	0.13	8.12	5.0	3.9
R420	2900	0.1	8.06	4.0	3.0
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.06	6.02	3.0	1.8
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.17	15.03	5.0	5.1
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.03	60.19	2.0	0.9

Trial 2

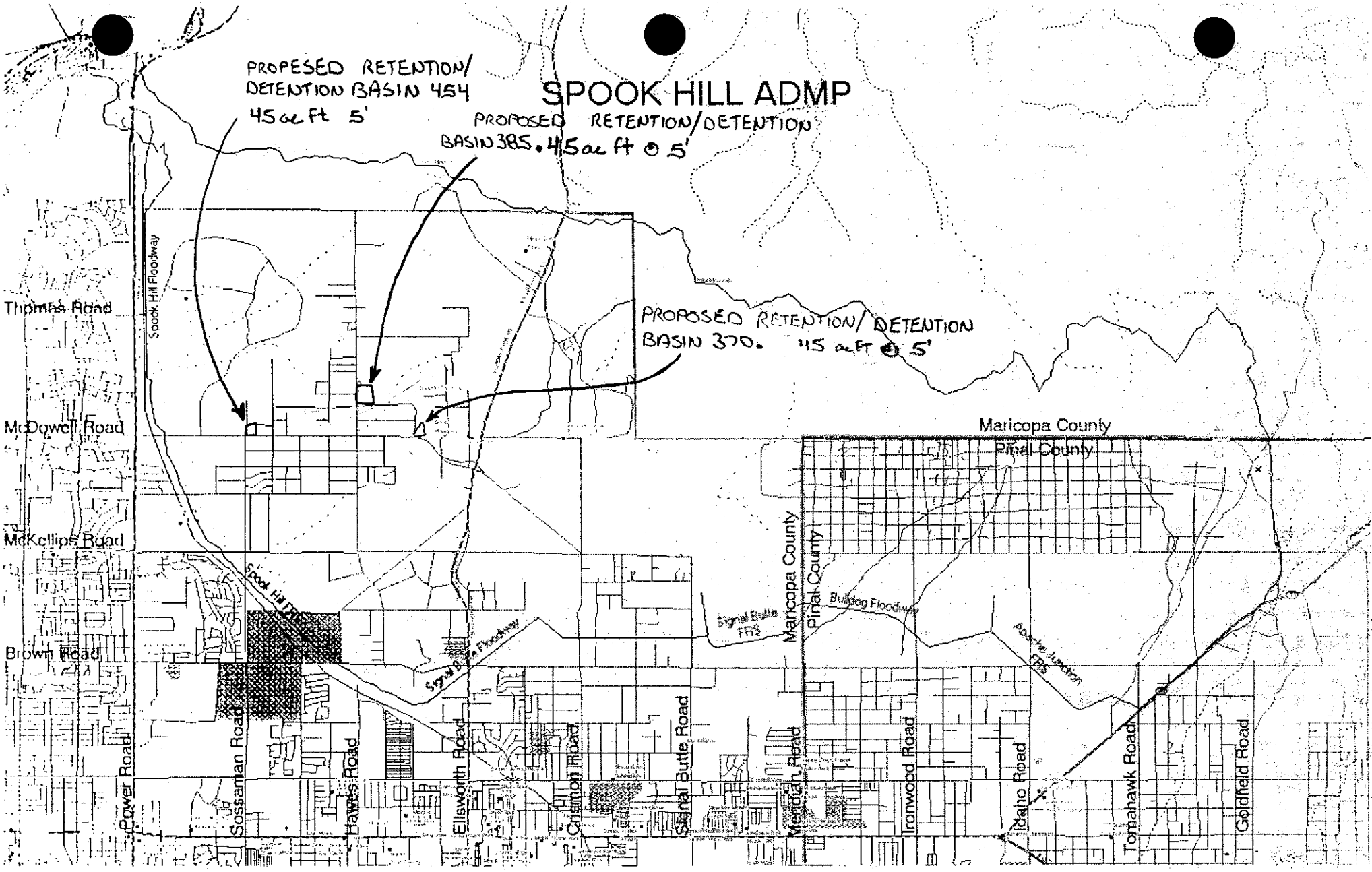
$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.06	13.19	2.0	1.8
RR60	3500	0.1	9.72	1.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.04	6.53	1.0	1.2
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.07	5.95	1.0	2.1
R260	2300	0.06	10.65	2.0	1.8
R280	2500	0.1	6.94	3.0	3.0
R300	2200	0.06	10.19	1.0	1.8
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.33	5.72	10.0	9.9
R340	2000	0.07	7.94	3.0	2.1
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.13	8.55	6.0	3.9
RR390	5400	0.2	7.50	3.0	6.0
R400	3800	0.2	5.28	4.0	6.0
R420	2900	0.13	6.20	3.0	3.9
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.1	3.61	2.0	3.0
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.17	15.03	5.0	5.1
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.07	25.79	1.0	2.1

Trial 3

$time_{min}$ = 2

Route	length ft	peak lag time hr	calculated velocity ft/sec	estimated nsteps	calculated nsteps
R60	2850	0.06	13.19	2.0	1.8
RR60	3500	0.1	9.72	3.0	3.0
R80	1200	0.03	11.11	1.0	0.9
R100	940	0.04	6.53	1.0	1.2
R120	2100	0.04	14.58	1.0	1.2
R240	2100	0.07	8.33	2.0	2.1
R220	1900	0.03	17.59	1.0	0.9
R200	1300	0.03	12.04	1.0	0.9
R180	1500	0.07	5.95	2.0	2.1
R260	2300	0.06	10.65	2.0	1.8
R280	2500	0.1	6.94	3.0	3.0
R300	2200	0.06	10.19	2.0	1.8
RR300	6050	0.07	24.01	2.0	2.1
R320	6800	0.27	7.00	8.0	8.1
R340	2000	0.07	7.94	2.0	2.1
RR350	25600	0.4	17.78	12.0	12.0
R360	2600	0.1	7.22	3.0	3.0
R380	4000	0.13	8.55	4.0	3.9
RR390	5400	0.2	7.50	6.0	6.0
R400	3800	0.13	8.12	4.0	3.9
R420	2900	0.1	8.06	4.0	3.0
R70	2250	0.03	20.83	1.0	0.9
R108	3200	0.07	12.70	2.0	2.1
R113	1300	0.03	12.04	1.0	0.9
R58	2370	0.07	9.40	2.0	2.1
R107	700	0.01	19.44	1.0	0.3
R109	3080	0.03	28.52	1.0	0.9
R404	3540	0.17	5.78	5.0	5.1
R110	580	0.01	16.11	1.0	0.3
R115	2125	0.01	59.03	1.0	0.3
R6364	4375	0.17	7.15	5.0	5.1
R6566	2435	0.06	11.27	2.0	1.8
R116	1300	0.06	6.02	3.0	1.8
R118	1500	0.03	13.89	1.0	0.9
R454	6000	0.27	6.17	8.0	8.1
RR455	9200	0.17	15.03	5.0	5.1
R456	3800	0.1	10.56	3.0	3.0
R101	1450	0.03	13.43	1.0	0.9
R103	900	0.03	8.33	1.0	0.9
R30	1630	0.03	15.09	1.0	0.9
RB1	1720	0.07	6.83	2.0	2.1
R52	2000	0.03	18.52	1.0	0.9
R3	2750	0.13	5.88	4.0	3.9
R106	3950	0.07	15.67	2.0	2.1
RR480	6500	0.03	60.19	2.0	0.9



HEC-1 Proposed Retention / Detention Basins
Alternative #1 100-Year, 24hr Storm

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1****************************************
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 *                                      *                                                    *
 *                                      *                                                    *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                    *    U.S. ARMY CORPS OF ENGINEERS
 *                                      *                                                    *
 *              JUN   1998              *                                                    *    HYDROLOGIC ENGINEERING CENTER
 *                                      *                                                    *
 *           VERSION 4.1                *                                                    *          609 SECOND STREET
 *                                      *                                                    *
 *                                      *                                                    *       DAVIS, CALIFORNIA 95616
 *                                      *                                                    *
 *  RUN DATE   14MAR00  TIME  13:03:35  *                                                    *          (916) 756-1104
 *                                      *                                                    *
 *                                      *                                                    *
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX
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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1 HEC-1 INPUT PAGE 1

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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS,AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL,SIGNAL
 10           ID   BUTTE,AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE: SPHEX2.DAT
 13           ID
 14           ID
 15           ID   REVISED MODEL BASED ON BYPASSING OF FRS STRUCTURES
 16           ID   AND INCREASING THE EXISTING CHANNELS WIDTHS - MAINTAINING THE SAME DEPTHS
 17           ID   REVISED ON 11/9/99 BY JCD; FILE: SPHEX3.DAT
 18           ID
 19           ID   MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
 20           ID   DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
 21           ID   BY: JCD; 1/4/2000            FILE: SPHEX2RV.DAT
 22           ID
 23           ID   MODEL UPDATE BASED ON BYPASSING OF FRS STRUCTURES AND INCREASING
 24           ID   THE EXISTING CHANNEL WIDTHS WHILE MAINTAINING THE SAME DEPTHS
 25           ID   FILE: SPHEX3RV.DAT           1/4/2000
 26           ID
 27           ID   MODEL UPDATE BASED ON KEEPING THE APACHE JUNCTION FRS & SIGNAL BUTTE FRS
 28           ID   ELIMINATING THE SPOOK HILL FRS AND INCLUDING AN IMPROVED CHANNEL ALONG
 29           ID   MCDOWELL TO RAVENS ROOST MOUNTAIN LOCATED JUST WEST OF ELLSWORTH ROAD
 30           ID   FILE: SPHEX6RV.DAT           JCD; 1/6/2000
 31           ID
 32           ID   MODEL UPDATE BASED ON KEEPING THE ENTIRE MODEL UP TO THE SPOOKHILL FRS
 33           ID   UNCHANGED AND INCLUDING PROPOSED RET./DET. BASINS WITHIN REVISED
 34           ID   D.A.s 370 & 385 - BASINS WERE ASSUMED AS A 10 ACRE SQUARE AT 5' DEEP
 35           ID   AND A 45 ACRE-FOOT CAPACITY. ALSO BASIN @ D.A. 415
 36           ID   FILE: SPHFUAL1.DAT           JCD; 3/9/00  100yr 24hr. STORM
              *DIAGRAM
 37           IT       2                    1500
 38           IO       5
 39           IN      15
 40           JD    3.81    0.01
 41           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 42           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 43           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 44           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 45           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 46           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 47           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 48           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 49           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 50           PC    .983    .986    .989    .992    .995    .998   1.000
 51           JD    3.58   10.00
 52           JD    3.43   30.00
 53           JD    3.28   60.00
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  54        JD    3.22   90.00
1                                        HEC-1 INPUT                                                    PAGE  2

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  55        JD    3.18  120.00
  56        JD    3.14  150.00
  57        JD    3.05  300.00
  58        JD    2.97  500.00
            * DDM   ***** Preserved *****

  59        KK      20
  60        KM   SUB-BASIN 20
  61        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
  62        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
  63        KM     L = 4.58  Kb = .037  Adj. Slope =  118.0
  64        BA   1.821
  65        LG    .350    .360   6.600    .140   7.000
  66        UC    .804    .697
            * DDM   ***** Preserved *****

  67        KK      40
  68        KM   SUB-BASIN 40
  69        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
  70        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
  71        KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
  72        BA   2.233
  73        LG    .340    .340   4.900    .280   5.000
  74        UC    .496    .264
            * DDM   ***** Preserved *****

  75        KK      60
  76        KM   SUB-BASIN 60
  77        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
  78        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
  79        KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
  80        BA   1.746
  81        LG    .330    .350   5.800    .190   9.000
  82        UC    .596    .477
            * DDM   ***** Preserved *****

  83        KK     60C
  84        KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
            *     1       2
  85        HC      3
            * DDM   ***** Preserved *****

  86        KK    SR60
  87        KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
  88        KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
  89        KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
  90        KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
  91        RS      1    STOR       0
  92        SV      0       1     100     200     300     400
  93        SQ      0      71      81      87    91.5      94
  94        SE   83.5    93.5      96    97.7      99   99.77
            * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE  3

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  95        KK     R60
  96        KM        ROUTE FLOW THROUGH BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
  97        RS      2    FLOW      -1
  98        RC   .016    .016    .016    2850    .012
  99        RX      0       1       2     2.1     5.6     5.7       6       7
 100        RY    3.5     3.5     3.5       0       0     3.5     3.5     3.5
            * DDM   ***** Preserved *****

 101        KK    RR60
 102        KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
 103        RS      3    FLOW      -1
 104        RC   .016    .016    .016    3500    .005
 105        RX      0       1       2     2.1     7.1     7.2       8       9
 106        RY    3.5     3.5     3.5       0       0     3.5     3.5     3.5
            * DDM   ***** Preserved *****

 107        KK      80
 108        KM   SUB-BASIN 80
 109        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 110        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
 111        KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
 112        BA   1.475
 113        LG    .330    .330   5.600    .210   4.000
 114        UC    .433    .259
            * DDM   ***** Preserved *****

 115        KK     80C
 116        KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
 117        HC      2   1.475
            * DDM   ***** Preserved *****

 118        KK     R80
 119        KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
 120        RS      1    FLOW      -1
 121        RC   .016    .016    .016    1200    .003
 122        RX      0       1       2     2.1    37.1    37.2      38      39
 123        RY    4.5     4.5     4.5       0       0     4.5     4.5     4.5
            * DDM   ***** Preserved *****
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124          KK     100
125          KM   SUB-BASIN 100
126          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
127          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
128          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
129          BA    .484
130          LG    .320    .290   5.100    .260   3.000
131          UC    .533    .473
             * DDM  ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


132          KK    100C
133          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
134          HC       2
             * DDM   ***** Preserved *****

135          KK    R100
136          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
137          RS       1    FLOW      -1
138          RC    .016    .016    .016     940    .005
139          RX       0       1       2     2.1    52.1    52.2      53      54
140          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             * DDM   ***** Preserved *****

141          KK     120
142          KM   SUB-BASIN 120
143          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
144          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
145          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
146          BA   2.202
147          LG    .330    .280   6.800    .130  11.000
148          UC    .429    .226
             * DDM   ***** Preserved *****

149          KK    120C
150          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
151          HC       2
             * DDM   ***** Preserved *****

152          KK    R120
153          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
154          RS       1    FLOW      -1
155          RC    .025    .016    .025    2100    .005
156          RX       0       6      10    10.1    60.1    60.2    74.2    80.2
157          RY       8       5       5       0       0       5       5       8
             * DDM   ***** Preserved *****

158          KK     140
159          KM   SUB-BASIN 140
160          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
161          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
162          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
163          BA    .598
164          LG    .310    .280   4.200    .440   5.000
165          UC    .421    .278
             * DDM   ***** Preserved *****

166          KK     160
167          KM   SUB-BASIN 160
168          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
169          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
170          KM     L = 3.18  Kb = .043  Adj. Slope =  299.2
171          BA    .777
172          LG    .340    .340   4.600    .330   5.000
173          UC    .479    .476
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


174          KK     180
175          KM   SUB-BASIN 180
176          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
177          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
178          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
179          BA   1.000
180          LG    .350    .350   4.150    .430    .000
181          UC    .571    .403
             * DDM   ***** Preserved *****

182          KK    180C
183          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
184          HC       4
             * DDM   ***** Preserved *****

185          KK     240
186          KM   SUB-BASIN 240
187          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
188          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
189          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
190          BA   1.036
191          LG    .350    .350   4.600    .330   2.000
192          UC    .500    .458
             * DDM   ***** Preserved *****

193          KK    R240
194          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
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195          KM   PASS MOUNTAIN DIVERSION
196          RS       2    FLOW      -1
197          RC    .035    .025    .035    2100    .005
198          RX       0       1       2      11      41      50      51      52
199          RY       3       3       3       0       0       3       3       3
             * DDM   ***** Preserved *****

200          KK     220
201          KM   SUB-BASIN 220
202          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
203          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
204          KM     L = 3.14  Kb = .040  Adj. Slope =  302.1
205          BA   1.252
206          LG    .350    .350   7.000    .120   3.000
207          UC    .425    .315
             * DDM   ***** Preserved *****

208          KK    220C
209          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
210          HC       2
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

211          KK    R220
212          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
213          KM   PASS MOUNTAIN DIVERSION
214          RS       1    FLOW      -1
215          RC    .035    .025    .035    1900    .005
216          RX       0       1       2      14      64      76      77      78
217          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

218          KK     200
219          KM   SUB-BASIN 200
220          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
221          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
222          KM     L = 3.28  Kb = .038  Adj. Slope =  299.9
223          BA   1.811
224          LG    .350    .390   5,800    .190  11.000
225          UC    .433    .270
             * DDM   ***** Preserved *****

226          KK    200C
227          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
228          HC       2
             * DDM   ***** Preserved *****

229          KK    R200
230          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
231          RS       1    FLOW      -1
232          RC    .035    .025    .035    1300    .005
233          RX       0       1       2      14     114     126     127     128
234          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

235          KK    C180
236          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *      1       2
237          HC       2
             * DDM   ***** Preserved *****

238          KK   SR180
239          KM   SIGNAL BUTTE FRS DATED 1/28/85
240          KM   OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
241          KM   EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
242          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
243          RS       1    STOR       0
244          SV       0       1     250     500     750    1060
245          SQ       0   106.5   125.5   137.5     146     160
246          SE      90     101   104.5     107     109   112.4
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

247          KK    R180
248          KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
249          RS       2    FLOW      -1
250          RC    .035    .025    .035    1500    .003
251          RX       0       1       2    22.6    38.6    59.2      60      61
252          RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
             * DDM   ***** Preserved *****

253          KK     260
254          KM   SUB-BASIN 260
255          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
256          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
257          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
258          BA    .267
259          LG    .300    .170   6.800    .160  15.000
260          UC    .363    .215
             * DDM   ***** Preserved *****

261          KK    260C
262          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
263          HC       2    .267
             * DDM   ***** Preserved *****
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264          KK    R260
265          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
266          RS       2    FLOW      -1
267          RC    .035    .025    .035    2300    .003
268          RX       0       1       2    23.4    43.4    64.8      65      66
269          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Preserved *****

270          KK     280
271          KM   SUB-BASIN 280
272          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
273          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
274          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
275          BA    .304
276          LG    .300    .250   5.300    .290  15.000
277          UC    .333    .175
             * DDM   ***** Preserved *****

278          KK    280C
279          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
280          HC       2
             * DDM   ***** Preserved *****

281          KK    R280
282          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
283          RS       3    FLOW      -1
284          RC    .035    .025    .035    2500    .003
285          RX       0       1       2    23.4    43.4    64.8      65      66
286          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE  8

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


287          KK     300
288          KM   SUB-BASIN 300
289          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
290          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
291          KM     L = 2.28  Kb = .041  Adj. Slope =  127.0
292          BA    .988
293          LG    .340    .320   4.500    .370   7.000
294          UC    .538    .362
             * DDM   ***** Preserved *****

295          KK    300C
296          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
297          HC       2
             * DDM   ***** Preserved *****

298          KK    R300
299          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
300          RS       2    FLOW      -1
301          RC    .035    .025    .035    2200    .003
302          RX       0       1       2    23.4    55.4    76.8      77      78
303          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Preserved *****

304          KK   RR300
305          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
306          RS       2    FLOW      -1
307          RC    .016    .016    .016    6050   .0146
308          RX       0       1       2     2.1    16.1    16.2      17      18
309          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
             *      1       2
             * DDM   ***** Preserved *****

310          KK     320
311          KM   SUB-BASIN 320
312          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
313          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
314          KM     L = 4.67  Kb = .039  Adj. Slope =  248.6
315          BA   1.527
316          LG    .330    .320   4.400    .390   9.000
317          UC    .658    .627
             * DDM   ***** Preserved *****

318          KK    D320
319          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
320          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
321          KM   SIERRA HEIGHTS,FALCON RIDGE,& MARBLE CREEK
322          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *      1
323          DT   BS320   12.27
324          DI       0   10000
325          DQ       0   10000
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE  9

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


326          KK   RT320
327          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
328          DR   BS320
             * DDM   ***** Preserved *****

329          KK   SR320
330          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
331          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
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                *      1
332             RS       1    STOR       0
333             SV       0     .01    12.3
334             SQ       0     4.2     4.2
                * DDM   ***** Preserved *****

335             KK    C320
336             KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
337             HC       3
                *   R320
                *  ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
                *      8    FLOW      -1
                *   .025    .025    .025    6800   .0016
                *      0       1       2      15     165     180     181     182
                *      5       5       5       0       0       5       5       5
                *      0       1       2      30      90     118     119     120
                *      7       7       7       0       0       7       7       7
                * DDM   ***** Preserved *****

338             KK     340
339             KM   SUB-BASIN 340
340             KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
341             KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
342             KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
343             BA   1.449
344             LG    .280    .280   4.150    .520  21.000
345             UC    .512    .287
                * DDM   ***** Preserved *****

346             KK    D340
347             KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
348             KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
349             KM   GRANDVIEW ESTATES,BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
350             KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
                *      1
351             DT   BS340      56
352             DI       0   10000
353             DQ       0   10000
                * DDM   ***** Preserved *****

354             KK   RT340
355             KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
356             DR   BS340
                * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 10

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

357             KK   SR340
358             KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
359             KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
                *      1
360             RS       1    STOR       0
361             SV       0     .01      56
362             SQ       0    18.9    18.9
                * DDM   ***** Preserved *****

363             KK    C340
364             KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
365             HC       3
                *   R340
                *  ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
                *      2    FLOW      -1
                *   .025    .025    .025    2000   .0016
                *      0       1       2      15     165     180     181     182
                *      5       5       5       0       0       5       5       5
                *      0       1       2      30     114     142     143     144
                *      7       7       7       0       0       7       7       7
                * DDM   ***** Preserved *****

366             KK     350
367             KM   SUB-BASIN 350
368             KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
369             KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
370             KM     L = 2.22  Kb = .042  Adj. Slope =  315.0
371             BA    .970
372             LG    .350    .350   4.550    .340   4.000
373             UC    .367    .234
                * DDM   ***** Preserved *****

374             KK   RR350
375             KM   FROM SUB-BASIN 350 TO SUB-BASIN 360
376             RS      12    FLOW      -1
377             RC     .05    .035     .05   25600    .049
378             RX    1000    1010    1020    1036    1041    1057    1067    1077
379             RY      15    14.5      14      10      10      14    14.5      15
                * DDM   ***** Preserved *****

380             KK     360
381             KM   SUB-BASIN 360
382             KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
383             KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
384             KM     L = 4.84  Kb = .042  Adj. Slope =  257.5
385             BA   1.329
386             LG    .300    .300   4.250    .460  12.000
387             UC    .712    .763
                * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 11

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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388          KK    D360
389          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
390          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
391          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
392          DT   BS360    28.6
393          DI       0   10000
394          DQ       0   10000
             * DDM   ***** Preserved *****

395          KK   RT360
396          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
397          DR   BS360
             * DDM   ***** Preserved *****

398          KK   SR360
399          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
400          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
401          RS       1    STOR       0
402          SV       0     .01    28.6
403          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

404          KK    360C
405          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
406          HC       4
             *   R360
             *  ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
             *      2    FLOW      -1
             *   .025    .025    .025    2600   .0016
             *      0       1       2      15     165     180     181     182
             *      5       5       5       0       0       5       5       5
             *      0       1       2      30     130     158     159     160
             *      7       7       7       0       0       7       7       7
             * DDM   ***** Preserved *****

407          KK     380
408          KM   SUB-BASIN 380
409          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
410          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
411          KM     L = 2.02  Kb = .048  Adj. Slope =  124.0
412          BA    .982
413          LG    .300    .310   4.150    .500   7.000
414          UC    .592    .366
             * DDM   ***** Preserved *****

415          KK    D380
416          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
417          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
418          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1       2
419          DT   BS380    28.6
420          DI       0   10000
421          DQ       0   10000
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

422          KK   RT380
423          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
424          DR   BS380
             * DDM   ***** Preserved *****

425          KK   SR380
426          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
427          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
428          RS       1    STOR       0
429          SV       0     .01    28.6
430          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

431          KK    380C
432          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
433          HC       3
             *   R380
             *  ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
             *      4    FLOW      -1
             *   .025    .025    .025    4000   .0016
             *      0       1       2      15     165     180     181     182
             *      5       5       5       0       0       5       5       5
             *      0       1       2      30     150     178     179     180
             *      7       7       7       0       0       7       7       7
             * DDM   ***** Preserved *****

434          KK     400
435          KM   SUB-BASIN 400
436          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
437          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
438          KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
439          BA    .616
440          LG    .320    .320   3.130    .930   6.000
441          UC    .592    .405
             * DDM   ***** Preserved *****

442          KK    400C
443          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
444          HC       2
             *   R400
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*  ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
*      4    FLOW      -1
*   .025    .025    .025    3800    .0016
*      0       1       2      15     165     180     181     182
*      5       5       5       0       0       5       5       5
*      0       1       2      30     180     208     209     210
*      7       7       7       0       0       7       7       7
* DDM   ***** Preserved *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 445          KK     420
 446          KM   SUB-BASIN 420
 447          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 448          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
 449          KM     L = 1.39  Kb = .045  Adj. Slope =  101.0
 450          BA    .579
 451          LG    .320    .280   4.300    .460  10.000
 452          UC    .454    .274
              * DDM   ***** Preserved *****

 453          KK    D420
 454          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 455          KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
 456          KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
              *      1
 457          DT   BS420   38.55
 458          DI       0   10000
 459          DQ       0   10000
              * DDM   ***** Preserved *****

 460          KK   RT420
 461          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
 462          DR   BS420
              * DDM   ***** Preserved *****

 463          KK   SR420
 464          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 465          KM   38.55 ACRE-FEETx43560/36x3600=13cfs
 466          RS       1    STOR       0
 467          SV       0     .01   38.55
 468          SQ       0      13      13
              * DDM   ***** Preserved *****

 469          KK    420C
 470          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 471          HC       3
              * DDM   ***** Preserved *****

 472          KK     370
 473          KM   SUB-BASIN 370
 474          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 475          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
 476          KM     L = 3.03  Kb = .044  Adj. Slope =  285.0
 477          BA    .656
 478          LG    .340    .320   4.700    .320   9.000
 479          UC    .475    .500
              * DDM   ***** Preserved *****

 480          KK    D370
 481          KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
 482          KM   DETENTION/RETENTION BASINS LOCATED WITHIN PROPOSED ALTERNATIVE
 483          KM        MAXIMUM VOLUME DIVERSION = 45 ACRE-FEET
 484          KO       1
 485          DT.  BS370
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 486          DI       0       2    1000
 487          DQ       0       0     998
              * DDM   ***** Preserved *****

 488          KK   RR370
 489          KM   FROM SUB-BASIN 370 TO SUB-BASIN 390
 490          RS       3    FLOW      -1
 491          RC    .025    .025    .025    2600    .027
 492          RX    1000    1010    1020    1032    1042    1054    1064    1074
 493          RY      14    13.5      13      10      10      13    13.5      14
              * DDM   ***** Preserved *****

 494          KK     385
 495          KM   SUB-BASIN 385
 496          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 497          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
 498          KM     L = 2.30  Kb = .042  Adj. Slope =  303.0
 499          BA    .860
 500          LG    .350    .380   5.700    .200  13.000
 501          UC    .367    .258
              * DDM   ***** Preserved *****

 502          KK    D385
 503          KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
 504          KM   DETENTION/RETENTION BASINS LOCATED WITHIN PROPOSED ALTERNATIVE
 505          KM        MAXIMUM VOLUME DIVERSION = 45 ACRE-FEET
 506          KO       1
 507          DT   BS385
 508          DI       0      50    2000
 509          DQ       0       0    1950
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                * DDM   ***** Preserved *****

 510            KK   RR385
 511            KM   FROM SUB-BASIN 385 TO SUB-BASIN 390
 512            RS       6    FLOW      -1
 513            RC    .025    .025    .025    2600    .027
 514            RX    1000    1010    1020    1032    1042    1054    1064    1074
 515            RY      14    13.5      13      10      10      13    13.5      14
                * DDM   ***** Preserved *****

 516            KK     390
 517            KM   SUB-BASIN 390
 518            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 519            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
 520            KM     L = 2.05  Kb = .041  Adj. Slope =  200.0
 521            BA    .421
 522            LG    .310    .280   4.800    .340  15.000
 523            UC    .400    .389
                * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE 15

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 524            KK    D390
 525            KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 526            KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
 527            KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
                *      1
 528            DT   BS390     3.5
 529            DI       0   10000
 530            DQ       0   10000
                * DDM   ***** Preserved *****

 531            KK   RT390
 532            KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
 533            DR   BS390
                * DDM   ***** Preserved *****

 534            KK   SR390
 535            KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 536            KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
 537            RS       1    STOR       0
 538            SV       0     .01     3.5
 539            SQ       0     1.2     1.2
                * DDM   ***** Preserved *****

 540            KK    390C
 541            KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 542            HC       4
                * DDM   ***** Preserved *****

 543            KK   RR390
 544            KM   FROM SUB-BASIN 390 TP SUB-BASIN 410
 545            RS       3    FLOW      -1
 546            RC    .025    .025    .025    5400    .019
 547            RX    1000    1010    1020    1032    1042    1054    1064    1074
 548            RY      14    13.5      13      10      10      13    13.5      14
                * DDM   ***** Preserved *****

 549            KK     410
 550            KM   SUB-BASIN 410
 551            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 552            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
 553            KM     L =  .52  Kb = .049  Adj. Slope =  173.0
 554            BA    .270
 555            LG    .300    .250   3.950    .580  15.000
 556            UC    .213    .083
                * DDM   ***** Preserved *****

 557            KK    410C
 558            KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 559            HC       2
                * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE 16

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 560            KK     440
 561            KM   SUB-BASIN 440
 562            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 563            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 564            KM     L =  .40  Kb = .039  Adj. Slope =  315.0
 565            BA    .080
 566            LG    .190    .380   6.400    .140  13.000
 567            UC    .129    .077
                * DDM   ***** Preserved *****

 568            KK     R70
 569            KM        ROUTE FLOW FROM SUB-BASIN 60 TO C108
 570            RS       1    FLOW      -1
 571            RC     .05    .035     .05    2250     .08
 572            RX    1000    1025    1050    1070    1075    1095    1120    1145
 573            RY      30    22.9    15.7      10      10    15.7    22.9      30
                * DDM   ***** Preserved *****

 574            KK     441
 575            KM   SUB-BASIN 441
 576            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 577            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
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578          KM     L =  .28  Kb = .069  Adj. Slope =  315.0
579          BA    .010
580          LG    .300    .250   5.600    .220   5.000
581          UC    .150    .225
             * DDM   ***** Preserved *****

582          KK    C108
583          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60 AND 61A
584          HC       2
             * DDM   ***** Preserved *****

585          KK    DIV4
586          KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
             *      1
587          DT   SPLIT
588          DI       0      14      40      82     120     154     180
589          DQ       0       7      20      41      60      77      90
             * DDM   ***** Preserved *****

590          KK    R108
591          KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
592          RS       2    FLOW      -1
593          RC     .05    .035     .05    3200      .1
594          RX    1000    1025    1050    1070    1075    1095    1120    1145
595          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

596          KK     442
597          KM   SUB-BASIN 442
598          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
599          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
600          KM     L =  .83  Kb = .055  Adj. Slope =  274.2
601          BA    .100
602          LG    .300    .270   3.290    .770   5.000
603          UC    .258    .264
             * DDM   ***** Preserved *****

604          KK     C67
605          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60,61 AND 67
606          HC       2
             * DDM   ***** Preserved *****

607          KK    DIV6
608          KM        OFFLINE BASIN WITH 75 FOOT WEIR SET AT 3 FEET ABOVE BOTTOM OF CHANNEL
609          KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
             *      1
610          DT  BASIN4
611          DI       0      10      32      56   136.6   276.5     454   662.8
612          DQ       0       0       0       0    71.6   202.5     372   572.8
             * DDM   ***** Preserved *****

613          KK  RTDIV6
614          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
615          DR  BASIN4
             * DDM   ***** Preserved *****

616          KK  RFDIV6
617          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
618          KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
             *      1
619          RS       1    STOR       0
620          SV       0     .01     3.3
621          SQ       0     1.1     1.1
             * DDM   ***** Preserved *****

622          KK   CDIV6
623          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
624          HC       2
             * DDM   ***** Preserved *****

625          KK     443
626          KM   SUB-BASIN 443
627          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
628          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
629          KM     L =  .71  Kb = .050  Adj. Slope =  315.0
630          BA    .080
631          LG    .250    .190   8.000    .080  10.000
632          UC    .196    .194
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

633          KK   DIV66
634          KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
635          KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
636          DT   WSH66
637          DI       0      78     100     200
638          DQ       0      78      78      78
             * DDM   ***** Preserved *****

639          KK    R113
640          KM        ROUTE FLOW FROM C113 TO C114
641          RS       1    FLOW      -1
642          RC    .019    .019    .019    1300    .029
643          RX    1000    1004    1008    1012    1018    1022    1026    1030
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644          RY      17   15.33   12.67      10      10   12.67   15.33      17
             * DDM   ***** Preserved *****

645          KK    C114
646          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
647          HC       2
             * DDM   ***** Preserved *****

648          KK     444
649          KM   SUB-BASIN 444
650          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
651          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
652          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
653          BA    .040
654          LG    .130    .350   4.450    .320   1.000
655          UC    .112    .084
             * DDM   ***** Preserved *****

656          KK     R58
657          KM        ROUTE FLOW FROM SUB-BASIN 58 TO C107
658          RS       2    FLOW      -1
659          RC     .05    .035     .05    2370   .0516
660          RX    1000    1010    1020    1050    1055    1085    1095    1105
661          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

662          KK     445
663          KM   SUB-BASIN 445
664          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
665          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
666          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
667          BA    .190
668          LG    .170    .320   3.470    .590   3.000
669          UC    .192    .130
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

670          KK    C107
671          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 58 AND 59
672          HC       2
             * DDM   ***** Preserved *****

673          KK    R107
674          KM        ROUTE FLOW FROM C107 TO C109
675          RS       1    FLOW      -1
676          RC     .05    .035     .05     700   .0516
677          RX    1000    1010    1020    1050    1055    1085    1095    1105
678          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

679          KK    RTB2
680          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
681          DR   SPLIT
             * DDM   ***** Preserved *****

682          KK  RSPLIT
683          KM        ROUTE FLOW FROM SPLIT TO C109
684          RS       1    FLOW      -1
685          RC     .05    .035     .05     800     .05
686          RX    1000    1025    1050    1070    1075    1095    1120    1145
687          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Preserved *****

688          KK     446
689          KM   SUB-BASIN 446
690          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
691          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
692          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
693          BA    .040
694          LG    .270    .250   4.500    .400  19.000
695          UC    .183    .189
             * DDM   ***** Preserved *****

696          KK    C109
697          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
698          HC       3
             * DDM   ***** Preserved *****

699          KK    DIV5
700          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
701          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
702          DT  WSH404
703          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
704          DQ       0      35      35      35      35      35      35      35
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

705          KK    R109
706          KM        ROUTE FLOW FROM C109 TO C110
707          RS       1    FLOW      -1
708          RC    .019    .019    .019    3080     .05
709          RX    1000    1005    1010    1015    1025    1030    1035    1040
710          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
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                * DDM   ***** Preserved *****

711             KK     447
712             KM   SUB-BASIN 447
713             KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
714             KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
715             KM     L =  .49  Kb = .056  Adj. Slope =  221.0
716             BA    .090
717             LG    .250    .270   3.350    .870  30.000
718             UC    .208    .145
                * DDM   ***** Preserved *****

719             KK   RT404
720             KM        RETRIEVE DIVERTED FLOW FOR WASH 109
721             DR  WSH404
                * DDM   ***** Preserved *****

722             KK    R404
723             KM        ROUTE FLOW FROM C110 TO C110
724             RS       5    FLOW      -1
725             RC    .019    .019    .019    3540     .03
726             RX    1000    1012    1016    1020    1025    1029    1033    1045
727             RY      15      12      11      10      10      11      12      15
                * DDM   ***** Preserved *****

728             KK    C110
729             KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 62 AND C109
730             HC       3
                * DDM   ***** Preserved *****

731             KK    R110
732             KM        ROUTE FLOW FROM C110 TO C115
733             RS       1    FLOW      -1
734             RC    .019    .019    .019     580    .029
735             RX    1000    1012    1016    1020    1035    1039    1043    1055
736             RY      15      12      11      10      10      11      12      15
                * DDM   ***** Preserved *****

737             KK    C115
738             KM        COMBINE HYDROGRAPHS FROM C114 AND C110
739             HC       2
                * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                          PAGE 21

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

740             KK    R115
741             KM        ROUTE FLOW FROM C115 TO C119
742             RS       1    FLOW      -1
743             RC    .019    .019    .019    2125    .029
744             RC    .019    .019    .019     580   .0291
745             RX    1000    1012    1016    1020    1035    1039    1043    1055
746             RY      15      12      11      10      10      11      12      15
                * DDM   ***** Preserved *****

747             KK     448
748             KM   SUB-BASIN 448
749             KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
750             KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
751             KM     L =  .36  Kb = .042  Adj. Slope =  315.0
752             BA    .045
753             LG    .170    .310   4.200    .390  11.000
754             UC    .133    .102
                * DDM   ***** Preserved *****

755             KK     449
756             KM   SUB-BASIN 449
757             KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
758             KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
759             KM     L =  .40  Kb = .054  Adj. Slope =  315.0
760             BA    .050
761             LG    .260    .280   3.500    .640   6.000
762             UC    .167    .134
                * DDM   ***** Preserved *****

763             KK   C6364
764             KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 63 AND 64
765             HC       2
                * DDM   ***** Preserved *****

766             KK   R6364
767             KM        ROUTE FLOW FROM DIVERSIONS 63 AND 64 TO C116
768             RS       5    FLOW      -1
769             RC     .05    .035     .05    4375   .0333
770             RX    1000    1027    1053    1080    1090    1117    1143    1170
771             RY      15   13.33   11.67      10      10   11.67   13.33      15
                * DDM   ***** Preserved *****

772             KK     450
773             KM   SUB-BASIN 450
774             KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
775             KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
776             KM     L =  .85  Kb = .057  Adj. Slope =  210.5
777             BA    .070
778             LG    .340    .350   3.630    .570   4.000
779             UC    .296    .383
                * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                          PAGE 22

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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780          KK     451
781          KM   SUB-BASIN 451
782          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
783          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
784          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
785          BA    .025
786          LG    .340    .340   3.290    .750   3.000
787          UC    .271    .453
             * DDM   ***** Preserved *****

788          KK    RT66
789          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
790          DR   WSH66
             * DDM   ***** Preserved *****

791          KK     452
792          KM   SUB-BASIN 452
793          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
794          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
795          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
796          BA    .040
797          LG    .260    .280   3.700    .550   9.000
798          UC    .171    .166
             * DDM   ***** Preserved *****

799          KK   C6566
800          KM        COMBINE HYDROGRAPHS FROM DIVERSIONS 65 AND 66
801          HC       2
             * DDM   ***** Preserved *****

802          KK   R6566
803          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
804          RS       2    FLOW      -1
805          RC     .05    .035     .05    2435   .0282
806          RX    1000    1045    1090    1150    1160    1220    1265    1310
807          RY      25      23      20      10      10      20      23      25
             * DDM   ***** Preserved *****

808          KK    C116
809          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 68 AND 69 AND DIVERTED FLOWS
810          KM        FROM SUB-BASINS 63,64,65 AND 66
811          HC       4
             * DDM   ***** Preserved *****

812          KK  BASIN5
813          KM        RESERVOIR WITHIN PARCEL 31,2-48 INCH PIPES AT OUTFALL
814          KM        BASIN 5 FEET DEEP
815          RS       1    ELEV       0
816          SV       0     4.5     9.9
817          SQ       0      69     190
818          SE       0     2.5       5
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

819          KK    R116
820          KM        ROUTE FLOW FROM C116 TO C118
821          RS       3    FLOW      -1
822          RC     .05    .035     .05    1300   .0333
823          RX    1000    1100    1200    1300    1320    1420    1520    1620
824          RY      13      12      11      10      10      11      12      13
             * DDM   ***** Preserved *****

825          KK     453
826          KM   SUB-BASIN 453
827          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
828          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
829          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
830          BA    .060
831          LG    .290    .300   3.290    .820  18.000
832          UC    .275    .284
             * DDM   ***** Preserved *****

833          KK    C117
834          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 70 AND C115
835          HC       2
             * DDM   ***** Preserved *****

836          KK    C118
837          KM        COMBINE HYDROGRAPHS FROM C116 AND C117
838          HC       2
             * DDM   ***** Preserved *****

839          KK    R118
840          KM        ROUTE FLOW FROM C118 TO C119
841          RS       1    FLOW      -1
842          RC    .019    .019    .019    1500    .024
843          RX    1000    1012    1016    1020    1035    1039    1043    1055
844          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

845          KK    DIV7
846          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE,FLOWS ENTER BASIN OVER
847          KM        60' WEIR SET AT 1.5' ABOVE THE CHANNEL BOTTOM
             *      1
848          DT  BASIN6
849          DI       0    20.4    76.9   176.4   383.8   696.7  1105.8  1611.6
850          DQ       0       0       0       0    57.3     162   297.6   458.2
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                 * DDM   ***** Preserved *****

851              KK  RTDIV7
852              KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
853              DR  BASIN6
                 * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE 24

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


854              KK  RFDIV7
855              KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
856              KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
857              RS       1    STOR       0
858              SV       0     .01     3.6
859              SQ       0     1.2     1.2
                 * DDM   ***** Preserved *****

860              KK   CDIV7
861              KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
862              HC       2
                 * DDM   ***** Preserved *****

863              KK     454
864              KM   SUB-BASIN 454
865              KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
866              KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
867              KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
868              BA    .180
869              LG    .300    .310   3.780    .560  14.000
870              UC    .379    .395
                 * DDM   ***** Preserved *****

871              KK    C119
872              KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 71 AND C119
                 *      1       2
873              HC       2
                 * DDM   ***** Preserved *****

874              KK    R454
875              KM   FROM SUB-BASIN 454 TO SUB-BASIN 455
876              RS       3    FLOW      -1
877              RC     .05    .035     .05    2200    .005
878              RX    1000    1010    1020    1036    1041    1057    1067    1077
879              RY      15    14.5      14      10      10      14    14.5      15
                 * DDM   ***** Preserved *****

880              KK     415
881              KM   SUB-BASIN 415
882              KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
883              KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
884              KM     L = 1.10  Kb = .049  Adj. Slope =  127.0
885              BA    .263
886              LG    .300    .260   3.600    .720  15.000
887              UC    .387    .298
                 * DDM   ***** Preserved *****

888              KK    415C
889              KM   HYDROGRAPH COMBINATION FOR SUB-BASINS 410 & 420
890              HC       2
                 * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE 25

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


891              KK    D454
892              KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
893              KM   DETENTION/RETENTION BASINS LOCATED WITHIN PROPOSED ALTERNATIVE
894              KM        MAXIMUM VOLUME DIVERSION = 45 ACRE-FEET
895              KO       1
896              DT   BS454
897              DI       0     100    2000
898              DQ       0       0    1900
                 * DDM   ***** Preserved *****

899              KK   415CC
900              KM   HYDROGRAPH COMBINATION FOR SUB-BASINS 410 & 420
901              HC       2
                 * DDM   ***** Preserved *****

902              KK   RR410
903              KM   FROM SUB-BASIN 410 TO SUB-BASIN 420
904              RS       2    FLOW      -1
905              RC    .025    .025    .025    3900   .0133
906              RX    1000    1010    1020    1032    1047    1059    1069    1079
907              RY      14    13.5      13      10      10      13    13.5      14
                 * DDM   ***** Preserved *****

908              KK     455
909              KM   SUB-BASIN 455
910              KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
911              KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
912              KM     L = 1.59  Kb = .041  Adj. Slope =  151.0
913              BA   1.112
914              LG    .270    .270   3.700    .650  25.000
915              UC    .396    .180
                 * DDM   ***** Preserved *****

916              KK    C455
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917          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
918          HC       3
             * DDM   ***** Preserved *****

919          KK   SR440
920          KM   SPOOK HILL FRS PLANS DATED 6/15/77
921          KM   OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
922          KM   EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
923          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
924          RS       1    STOR       0
925          SV       0     .04      100      300      500      680
926          SQ       0     640      720      780      825      860
927          SE      66    77.5       79     80.2     81.2       82
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 26

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

928          KK   RR455
929          KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
930          RS       8    FLOW      -1
931          RC    .016    .016    .016    9200    .002
932          RX       0       1       2      15      71      84      85      86
933          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
             *     11    FLOW      -1
             *   .035    .025    .035    9200    .002
             *      0       1       2      28      58      84      85      86
             *     13      13      13       0       0      13      13      13
             * DDM   ***** Preserved *****

934          KK     456
935          KM   SUB-BASIN 456
936          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
937          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
938          KM     L =  .94  Kb = .045  Adj. Slope =  315.0
939          BA    .260
940          LG    .300    .380   5.600    .200  12.000
941          UC    .217    .139
             * DDM   ***** Preserved *****

942          KK    DIV1
943          KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
944          KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
             *      1
945          DT  BASIN1
946          DI       0    24.4    70.8   132.2   194.1   281.1   415.5   571.9   753.2
947          DQ       0       0       0       0       0    57.3     162   297.6   458.2
             * DDM   ***** Preserved *****

948          KK    DIV2
949          KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
950          KM        WASHES THAT DRAIN TO THE WEST,SOUTHERN WASHES FED BY 30" AND 18" PIPE
951          DT    WA30
952          DI       0    24.4    70.8   132.2   194.1   223.8   253.5  274.25     295
953          DQ       0     8.4    24.8    40.2    52.1    57.8    63.5    67.3      71
             * DDM   ***** Preserved *****

954          KK    R456
955          KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
956          RS       3    FLOW      -1
957          RC     .05    .035     .05    3800    .044
958          RX    1000    1010    1020    1036    1041    1057    1067    1077
959          RY   14.88   14.44      14      10      10      14   14.44   14.88
             * DDM   ***** Preserved *****

960          KK     457
961          KM   SUB-BASIN 457
962          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
963          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
964          KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
965          BA    .190
966          LG    .270    .330   3.950    .460   6.000
1                                        HEC-1 INPUT                                                    PAGE 27

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

967          UC    .237    .195
             * DDM   ***** Preserved *****

968          KK    C101
969          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
970          HC       2
             * DDM   ***** Preserved *****

971          KK    DIV3
972          KM        RESERVOIR AT THE EDGE OF THE PROPERTY,FLOW FROM 10' WIDE CHANNEL
973          KM        DIVERTED INTO OFFLINE BASIN OVER A 150' WEIR SET AT 0.75 FEET
974          KM        ABOVE CHANNEL
             *      1
975          DT  BASIN2
976          DI       0      18    59.3   121.6   255.8   454.1   703.1   998.3  1338.4
977          DQ       0       0       0       0    50.6   143.2   263.1     405     566
             * DDM   ***** Preserved *****

978          KK  RTDIV3
979          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
980          DR  BASIN2
             * DDM   ***** Preserved *****

981          KK  RFDIV3
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 982          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 983          KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
 984          RS       1    STOR       0
 985          SV       0     .01       5
 986          SQ       0     1.7     1.7
              * DDM   ***** Preserved *****

 987          KK   CDIV3
 988          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
 989          HC       2
              * DDM   ***** Preserved *****

 990          KK    R101
 991          KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
 992          RS       1    FLOW      -1
 993          RC     .05    .035     .05    1450     .05
 994          RX    1000    1010    1020    1036    1041    1057    1067    1077
 995          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****

 996          KK     458
 997          KM   SUB-BASIN 458
 998          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 999          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1000          KM     L =  .76  Kb = .048  Adj. Slope =  299.0
1001          BA    .190
1002          LG    .290    .330   5.800    .190   6.000
1003          UC    .204    .131
              * DDM   ***** Preserved *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1004          KK    C103
1005          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
1006          HC       2
              * DDM   ***** Preserved *****

1007          KK    R103
1008          KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
1009          RS       1    FLOW      -1
1010          RC     .05    .035     .05     900     .03
1011          RX    1000    1010    1020    1030    1050    1060    1070    1080
1012          RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
              * DDM   ***** Preserved *****

1013          KK    RT30
1014          KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
1015          DR    WA30
              * DDM   ***** Preserved *****

1016          KK     R30
1017          KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
1018          RS       1    FLOW      -1
1019          RC     .05    .035     .05    1630     .05
1020          RX    1000    1010    1020    1036    1041    1057    1067    1077
1021          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****

1022          KK    RTB1
1023          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
              *      1       2
1024          DR  BASIN1
              * DDM   ***** Preserved *****

1025          KK      B1
1026          KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1027          KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
              *      1       2
1028          RS       1    ELEV       0
1029          SV              .7     1.4     2.3     2.7     3.2
1030          SQ       0       5      16      28    32.5      37
1031          SE       0       1       2       3     3.5       4
              * DDM   ***** Preserved *****

1032          KK     RB1
1033          KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
1034          RS       2    FLOW      -1
1035          RC     .05    .035     .05    1720     .05
1036          RX    1000    1010    1020    1036    1041    1057    1067    1077
1037          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1038          KK    CDIV
1039          KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1040          HC       2     .12
              * DDM   ***** Preserved *****

1041          KK     459
1042          KM   SUB-BASIN 459
1043          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1044          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1045          KM     L =  .35  Kb = .052  Adj. Slope =  251.6
1046          BA    .030
1047          LG    .220    .300   3.330    .710   8.000
1048          UC    .162    .157
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                * DDM   ***** Preserved *****

1049            KK     C52
1050            KM        COMBINE FLOWS FROM SUB-BASIN 52,WA30 AND BASIN 1
1051            HC       2
                * DDM   ***** Preserved *****

1052            KK     R52
1053            KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1054            RS       1    FLOW      -1
1055            RC     .05    .035     .05    2000     .05
1056            RX    1000    1010    1020    1036    1041    1057    1067    1077
1057            RY      15    14.5      14      10      10      14    14.5      15
                * DDM   ***** Preserved *****

1058            KK     460
1059            KM   SUB-BASIN 460
1060            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1061            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1062            KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1063            BA    .140
1064            LG    .250    .260   3.740    .690  27.000
1065            UC    .242    .160
                * DDM   ***** Preserved *****

1066            KK    C102
1067            KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1068            HC       2
                * DDM   ***** Preserved *****

1069            KK  BASIN3
1070            KM        RESERVOIR AT CLUBHOUSE LOCATION,1-30 INCH PIPE AT OUTFALL
1071            KM        BOTTOM OF BASIN AT 6 FEET ABOVE 0 ELEVATION
1072            RS       1    ELEV       0
1073            SA       0       0       0       0     .21    1.15       2    2.12    2.31    2.65
                *      0       0       0       0    1.14    3.25    5.52    9.23
1074            SE       0     2.5       5       6       7     7.5       8       9    10.5    12.5
1075            SQ       0      22      45      51      57    59.5      62      67      73      81
                * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                          PAGE 30

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


1076            KK      R3
1077            KM        ROUTE FLOW FROM C102 to C106
1078            RS       4    FLOW      -1
1079            RC     .05     .03     .05    2750   .0375
1080            RX    1000    1010    1020    1052    1086    1118    1128    1138
1081            RY    19.2    18.4      18      10      10      18    18.4    19.2
                * DDM   ***** Preserved *****

1082            KK     461
1083            KM   SUB-BASIN 461
1084            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1085            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1086            KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1087            BA    .120
1088            LG    .270    .250   4.250    .450  21.000
1089            UC    .271    .250
                * DDM   ***** Preserved *****

1090            KK    C104
1091            KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1092            HC       2
                * DDM   ***** Preserved *****

1093            KK    C106
1094            KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1095            HC       2
                * DDM   ***** Preserved *****

1096            KK    R106
1097            KM        ROUTE FLOW FROM C106 TO C49
1098            RS       2    FLOW      -1
1099            RC     .05    .035     .05    3950    .033
1100            RX    1000    1010    1020    1030    1050    1060    1070    1080
1101            RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
                * DDM   ***** Preserved *****

1102            KK     462
1103            KM   SUB-BASIN 462
1104            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1105            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1106            KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1107            BA    .301
1108            LG    .300    .330   5.300    .240  12.000
1109            UC    .225    .137
                * DDM   ***** Preserved *****

1110            KK     C56
1111            KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
                *      1       2
1112            HC       2
                * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                          PAGE 31

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


1113            KK     480
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1114        KM   SUB-BASIN 480
1115        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1116        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1117        KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1118        BA    .731
1119        LG    .270    .270   3.580    .730  27.000
1120        UC    .325    .148
            * DDM   ***** Preserved *****

1121        KK    D480
1122        KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1123        KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1124        KM   FOR BASIN #: 18 & 26
1125        KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
            *      1
1126        DT   BS480    16.5
1127        DI       0   10000
1128        DQ       0   10000
            * DDM   ***** Preserved *****

1129        KK   RT480
1130        KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1131        DR   BS480
            * DDM   ***** Preserved *****

1132        KK   SR480
1133        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1134        KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1135        RS       1    STOR       0
1136        SV       0     .01    16.5
1137        SQ       0     5.6     5.6
            * DDM   ***** Preserved *****

1138        KK    C480
1139        KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1140        HC       2
            * DDM   ***** Preserved *****

1141        KK    480C
1142        KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1143        HC       3    2.09
            * DDM   ***** Preserved *****

1144        KK   RR480
1145        KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
1146        RS       2    FLOW      -1
1147        RC    .025    .025    .025    6500     .05
1148        RX       0       1       2      28      58      84      85      86
1149        RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
            * DDM   ***** Preserved *****
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1
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1150        KK     500
1151        KM   SUB-BASIN 500
1152        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1153        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
1154        KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
1155        BA    .930
1156        LG    .350    .400   6.000    .170   9.000
1157        UC    .421    .333
            * DDM   ***** Preserved *****

1158        KK    500C
1159        KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1160        HC       2    2.84
1161        ZZ
```

1

SCHEMATIC DIAGRAM OF STREAM NETWORK

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INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  59          20
               .
               .
  67           .          40
               .           .
               .           .
  75           .           .          60
               .           .           .
               .           .           .
  83         60C.......................
              V
              V
  86        SR60
              V
              V
  95         R60
              V
              V
 101        RR60
               .
               .
 107           .          80
               .           .
               .           .
 115         80C............
              V
              V
 118         R80
               .
               .
 124           .         100
               .           .
               .           .
 132        100C............
              V
              V
 135        R100
               .
               .
 141           .         120
               .           .
               .           .
 149        120C............
              V
              V
 152        R120
               .
               .
 158           .         140
               .           .
               .           .
 166           .           .         160
               .           .           .
               .           .           .
 174           .           .           .         180
               .           .           .           .
               .           .           .           .
 182        180C.................................
               .
               .
 185           .         240
               .           V
               .           V
 193           .        R240
               .           .
               .           .
 200           .           .         220
               .           .           .
               .           .           .
 208           .        220C............
               .           V
               .           V
 211           .        R220
               .           .
               .           .
 218           .           .         200
               .           .           .
               .           .           .
 226           .        200C............
               .           V
               .           V
 229           .        R200
               .           .
               .           .
 235        C180............
              V
              V
 238       SR180
              V
              V
 247        R180
               .
               .
 253           .         260
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                .          .
                .          .
261         260C............
                V
                V
264         R260
                .
                .
270             .        280
                .          .
                .          .
278         280C............
                V
                V
281         R280
                .
                .
287             .        300
                .          .
                .          .
295         300C............
                V
                V
298         R300
                V
                V
304        RR300
                .
                .
310             .        320
                .          .
                .          .
323             .          .-------->   BS320
318             .       D320
                .          .
                .          .
328             .          .          .<-------   BS320
326             .          .      RT320
                .          .          V
                .          .          V
329             .          .      SR320
                .          .          .
                .          .          .
335         C320......................
                .
                .
338             .        340
                .          .
                .          .
351             .          .-------->   BS340
346             .       D340
                .          .
                .          .
356             .          .          .<-------   BS340
354             .          .      RT340
                .          .          V
                .          .          V
357             .          .      SR340
                .          .          .
                .          .          .
363         C340......................
                .
                .
366             .        350
                .         V
                .         V
374             .      RR350
                .          .
                .          .
380             .          .        360
                .          .          .
                .          .          .
392             .          .          .-------->   BS360
388             .          .       D360
                .          .          .
                .          .          .
397             .          .          .          .<-------   BS360
395             .          .          .      RT360
                .          .          .          V
                .          .          .          V
398             .          .          .      SR360
                .          .          .          .
                .          .          .          .
404         360C...................................
                .
                .
407             .        380
                .          .
                .          .
419             .          .-------->   BS380
415             .       D380
                .          .
                .          .
424             .          .          .<-------   BS380
422             .          .      RT380
                .          .          V
                .          .          V
425             .          .      SR380
                .          .          .
                .          .          .
431         380C......................
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                .
                .
434             .        400
                .          .
                .          .
442         400C............
                .
                .
445             .        420
                .          .
                .          .
457             .          .-------> BS420
453             .       D420
                .          .
                .          .
462             .          .        .<-------  BS420
460             .          .     RT420
                .          .        V
                .          .        V
463             .          .     SR420
                .          .        .
                .          .        .
469         420C......................
                .
                .
472             .        370
                .          .
                .          .
485             .          .-------> BS370
480             .       D370
                .          V
                .          V
488             .      RR370
                .          .
                .          .
494             .          .      385
                .          .        .
                .          .        .
507             .          .        .-------> BS385
502             .          .     D385
                .          .        V
                .          .        V
510             .          .    RR385
                .          .        .
                .          .        .
516             .          .        .       390
                .          .        .         .
                .          .        .         .
528             .          .        .         .-------> BS390
524             .          .        .      D390
                .          .        .         .
                .          .        .         .
533             .          .        .         .        .<-------  BS390
531             .          .        .         .     RT390
                .          .        .         .        V
                .          .        .         .        V
534             .          .        .         .     SR390
                .          .        .         .        .
                .          .        .         .        .
540             .       390C...................................
                .          V
                .          V
543             .      RR390
                .          .
                .          .
549             .          .      410
                .          .        .
                .          .        .
557             .       410C............
                .          .
                .          .
560             .          .      440
                .          .        V
                .          .        V
568             .          .      R70
                .          .        .
                .          .        .
574             .          .        .       441
                .          .        .         .
                .          .        .         .
582             .          .     C108............
                .          .        .
                .          .        .
587             .          .        .-------> SPLIT
585             .          .     DIV4
                .          .        V
                .          .        V
590             .          .     R108
                .          .        .
                .          .        .
596             .          .        .       442
                .          .        .         .
                .          .        .         .
604             .          .      C67............
                .          .        .
                .          .        .
610             .          .        .-------> BASIN4
607             .          .     DIV6
                .          .        .
                .          .        .
615             .          .        .         .<-------  BASIN4
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613                 RTDIV6
                       V
                       V
616                 RFDIV6
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622           CDIV6............
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                       .
625                   443
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636                    .-------->   WSH66
633                 DIV66
                       V
                       V
639                 R113
                       .
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645           C114............
                       .
                       .
648                   444
                       V
                       V
656                   R56
                       .
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662                    .         445
                       .           .
                       .           .
670                 C107............
                       V
                       V
673                 R107
                       .
                       .
681                    .           .<-------   SPLIT
679                    .       RTB2
                       .          V
                       .          V
682                    .     RSPLIT
                       .           .
                       .           .
688                    .           .         446
                       .           .           .
                       .           .           .
696                 C109........................
                       .
                       .
702                    .-------->  WSH404
699                 DIV5
                       V
                       V
705                 R109
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711                    .         447
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721                    .           .          .<-------  WSH404
719                    .           .      RT404
                       .           .          V
                       .           .          V
722                    .           .       R404
                       .           .           .
                       .           .           .
728                 C110........................
                       V
                       V
731                 R110
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737           C115............
                 V
                 V
740           R115
                       .
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747                   448
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755                    .         449
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763                 C6364...........
                       V
                       V
766                 R6364
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772                    .         450
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                       .           .
780                    .           .         451
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790                    .           .           .          .<-------   WSH66
788                    .           .           .       RT66
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791                                                                                  452
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799                                                                        C6566.........
                                                                               V
                                                                               V
802                                                                        R6566
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                                                                                      .
808                                                C116.................................
                                                       V
                                                       V
812                                            BASIN5
                                                       V
                                                       V
819                                                R116
                                                       .
                                                       .
825                                                       .        453
                                                          .          .
                                                          .          .
833                                                C117............
                                                       .
                                                       .
836                                        C118............
                                                V
                                                V
839                                        R118
                                                .
                                                .
848                                             .-------> BASIN6
845                                        DIV7
                                                .
                                                .
853                                                     .<-------  BASIN6
851                                            RTDIV7
                                                       V
                                                       V
854                                            RFDIV7
                                                       .
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860                                       CDIV7............
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863                                                     454
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871                                        C119............
                                                V
                                                V
874                                        R454
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880                                                     415
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888                                        415C............
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896                                             .-------> BS454
891                                        D454
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899                                   415CC............
                                          V
                                          V
902                                   RR410
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908                                          455
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916                          C455........................
                                V
                                V
919                          SR440
                                V
                                V
928                          RR455
                                .
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934                                 456
                                    .
                                    .
945                                 .-------> BASIN1
942                                 DIV1
                                    .
                                    .
951                                 .------->   WA30
948                                 DIV2
                                       V
                                       V
954                                 R456
                                    .
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960                                    .        457
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968                                 C101............
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975          .          .-------> BASIN2
971          .       DIV3
             .          .
             .          .
980          .          .          .<-------  BASIN2
978          .          .     RTDIV3
             .          .        V
             .          .        V
981          .          .     RFDIV3
             .          .        .
             .          .        .
987          .       CDIV3............
             .          V
             .          V
990          .       R101
             .          .
             .          .
996          .          .        458
             .          .        .
             .          .        .
1004         .       C103............
             .          V
             .          V
1007         .       R103
             .          .
             .          .
1015         .          .          .<-------    WA30
1013         .          .       RT30
             .          .        V
             .          .        V
1016         .          .       R30
             .          .        .
             .          .        .
1024         .          .        .          .<-------  BASIN1
1022         .          .        .       RTB1
             .          .        .          V
             .          .        .          V
1025         .          .        .         B1
             .          .        .          V
             .          .        .          V
1032         .          .        .        RB1
             .          .        .         .
             .          .        .         .
1038         .          .       CDIV............
             .          .        .
             .          .        .
1041         .          .        .        459
             .          .        .         .
             .          .        .         .
1049         .          .       C52............
             .          .        V
             .          .        V
1052         .          .       R52
             .          .        .
             .          .        .
1058         .          .        .        460
             .          .        .         .
             .          .        .         .
1066         .          .       C102...........
             .          .        V
             .          .        V
1069         .          .     BASIN3
             .          .        V
             .          .        V
1076         .          .        R3
             .          .        .
             .          .        .
1082         .          .        .        461
             .          .        .         .
             .          .        .         .
1090         .          .       C104...........
             .          .        .
             .          .        .
1093         .       C106............
             .          V
             .          V
1096         .       R106
             .          .
             .          .
1102         .          .        462
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1110         .        C56............
             .          .
             .          .
1113         .          .        480
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             .          .        .
1126         .          .        .-------> BS480
1121         .          .       D480
             .          .        .
             .          .        .
1131         .          .        .          .<-------  BS480
1129         .          .        .      RT480
             .          .        .          V
             .          .        .          V
1132         .          .        .      SR480
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1138         .          .       C480...........
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1141        480C.......................
               V
               V
1144       RR480
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1150            .         500
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1158        500C............
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	20	1130.	12.57	243.	64.	31.	1.82		
+	HYDROGRAPH AT	40	2286.	12.27	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1405.	12.37	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	4438.	12.30	712.	189.	91.	5.80		
+	ROUTED TO	SR60	92.	14.77	92.	89.	71.	5.80		
+	ROUTED TO	R60	92.	14.83	92.	89.	70.	5.80		
+	ROUTED TO	RR60	92.	14.93	92.	89.	70.	5.80		
+	HYDROGRAPH AT	80	1693.	12.20	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	1767.	12.20	266.	134.	93.	1.48		
+	ROUTED TO	R80	1765.	12.23	266.	134.	93.	1.48		
+	HYDROGRAPH AT	100	389.	12.33	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2117.	12.23	321.	148.	99.	1.96		
+	ROUTED TO	R100	2116.	12.27	321.	148.	99.	1.96		
+	HYDROGRAPH AT	120	2960.	12.20	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	4993.	12.23	636.	229.	141.	4.16		
+	ROUTED TO	R120	4949.	12.27	636.	229.	141.	4.16		
+	HYDROGRAPH AT	140	598.	12.23	64.	17.	8.	.60		
+	HYDROGRAPH AT	160	588.	12.30	85.	22.	11.	.78		
+	HYDROGRAPH AT	180	694.	12.33	90.	23.	11.	1.00		
+	4 COMBINED AT	180C	6691.	12.27	863.	286.	169.	6.54		
+	HYDROGRAPH AT	240	770.	12.30	107.	27.	13.	1.04		
+	ROUTED TO	R240	760.	12.37	107.	27.	13.	1.04		
+	HYDROGRAPH AT	220	1427.	12.23	167.	43.	21.	1.25		
+	2 COMBINED AT	220C	2088.	12.27	271.	69.	33.	2.29		
+	ROUTED TO	R220	2057.	12.30	271.	69.	33.	2.29		
+	HYDROGRAPH AT	200	2059.	12.23	236.	65.	31.	1.81		
+	2 COMBINED AT	200C	3995.	12.27	501.	132.	64.	4.10		
+	ROUTED TO	R200	3967.	12.30	501.	132.	64.	4.10		
+	2 COMBINED AT	C180	10520.	12.27	1345.	410.	230.	10.64		
+	ROUTED TO	SR180	141.	15.23	141.	140.	116.	10.64		
+	ROUTED TO	R180	141.	15.30	141.	140.	116.	10.64		

+	HYDROGRAPH AT	260	401.	12.17	43.	12.	6.	.27
+	2 COMBINED AT	260C	515.	12.17	180.	151.	123.	.27
+	ROUTED TO	R260	500.	12.23	180.	151.	122.	.27
+	HYDROGRAPH AT	280	452.	12.13	42.	12.	6.	.30
+	2 COMBINED AT	280C	908.	12.17	219.	161.	128.	.57
+	ROUTED TO	R280	889.	12.27	219.	161.	127.	.57
+	HYDROGRAPH AT	300	824.	12.30	109.	29.	14.	.99
+	2 COMBINED AT	300C	1686.	12.27	325.	188.	141.	1.56
+	ROUTED TO	R300	1664.	12.33	325.	188.	140.	1.56
+	ROUTED TO	RR300	1641.	12.40	325.	188.	140.	1.56
+	HYDROGRAPH AT	320	889.	12.43	171.	47.	22.	1.53
+	DIVERSION TO	BS320	390.	12.07	21.	6.	3.	1.53
+	HYDROGRAPH AT	D320	889.	12.43	157.	41.	19.	1.53
+	HYDROGRAPH AT	RT320	390.	12.07	21.	6.	3.	1.53
+	ROUTED TO	SR320	4.	4.40	4.	4.	3.	1.53
+	3 COMBINED AT	C320	2503.	12.40	482.	232.	162.	3.09
+	HYDROGRAPH AT	340	1381.	12.27	186.	55.	26.	1.45
+	DIVERSION TO	BS340	1381.	12.27	104.	28.	14.	1.45
+	HYDROGRAPH AT	D340	1219.	12.40	98.	27.	13.	1.45
+	HYDROGRAPH AT	RT340	1381.	12.27	104.	28.	14.	1.45
+	ROUTED TO	SR340	19.	9.03	19.	19.	14.	1.45
+	3 COMBINED AT	C340	3709.	12.40	592.	276.	187.	4.53
+	HYDROGRAPH AT	350	1102.	12.17	103.	27.	13.	.97
+	ROUTED TO	RR350	941.	12.57	103.	27.	13.	.97
+	HYDROGRAPH AT	360	668.	12.50	151.	42.	20.	1.33
+	DIVERSION TO	BS360	655.	12.43	53.	14.	7.	1.33
+	HYDROGRAPH AT	D360	657.	12.57	106.	28.	13.	1.33
+	HYDROGRAPH AT	RT360	655.	12.43	53.	14.	7.	1.33
+	ROUTED TO	SR360	10.	9.47	10.	10.	7.	1.33
+	4 COMBINED AT	360C	4557.	12.53	799.	337.	219.	6.83
+	HYDROGRAPH AT	380	724.	12.37	99.	27.	13.	.98
+	DIVERSION TO	BS380	724.	12.37	56.	14.	7.	.98
+	HYDROGRAPH AT	D380	584.	12.53	47.	12.	6.	.98
+	HYDROGRAPH AT	RT380	724.	12.37	56.	14.	7.	.98

+	ROUTED TO	SR380	10.	11.30	10.	10.	7.	.98
+	3 COMBINED AT	380C	5121.	12.53	850.	357.	231.	7.82
+	HYDROGRAPH AT	400	333.	12.37	47.	13.	6.	.62
+	2 COMBINED AT	400C	5383.	12.53	893.	369.	237.	8.43
+	HYDROGRAPH AT	420	574.	12.23	65.	18.	9.	.58
+	DIVERSION TO	BS420	574.	12.23	65.	18.	9.	.58
+	HYDROGRAPH AT	D420	0.	.00	0.	0.	0.	.58
+	HYDROGRAPH AT	RT420	574.	12.23	65.	18.	9.	.58
+	ROUTED TO	SR420	13.	11.60	13.	13.	9.	.58
+	3 COMBINED AT	420C	5390.	12.53	905.	381.	245.	9.01
+	HYDROGRAPH AT	370	504.	12.30	78.	21.	10.	.66
+	DIVERSION TO	BS370	502.	12.30	76.	19.	9.	.66
+	HYDROGRAPH AT	D370	2.	4.60	2.	2.	1.	.66
+	ROUTED TO	RR370	2.	5.20	2.	2.	1.	.66
+	HYDROGRAPH AT	385	1056.	12.17	115.	32.	15.	.86
+	DIVERSION TO	BS385	1006.	12.17	92.	23.	11.	.86
+	HYDROGRAPH AT	D385	50.	11.67	23.	9.	4.	.86
+	ROUTED TO	RR385	50.	11.80	23.	9.	4.	.86
+	HYDROGRAPH AT	390	403.	12.23	55.	16.	8.	.42
+	DIVERSION TO	BS390	38.	11.73	5.	2.	1.	.42
+	HYDROGRAPH AT	D390	403.	12.23	53.	14.	7.	.42
+	HYDROGRAPH AT	RT390	38.	11.73	5.	2.	1.	.42
+	ROUTED TO	SR390	1.	.90	1.	1.	1.	.42
+	4 COMBINED AT	390C	449.	12.23	77.	26.	13.	1.94
+	ROUTED TO	RR390	435.	12.33	77.	26.	13.	1.94
+	HYDROGRAPH AT	410	478.	12.03	32.	9.	4.	.27
+	2 COMBINED AT	410C	676.	12.10	108.	34.	17.	2.21
+	HYDROGRAPH AT	440	179.	12.00	12.	3.	2.	.08
+	ROUTED TO	R70	174.	12.03	12.	3.	2.	.08
+	HYDROGRAPH AT	441	16.	12.07	1.	0.	0.	.01
+	2 COMBINED AT	C108	189.	12.03	14.	4.	2.	.09
+	DIVERSION TO	SPLIT	95.	12.03	7.	2.	1.	.09
+	HYDROGRAPH AT	DIV4	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	R108	87.	12.10	7.	2.	1.	.09

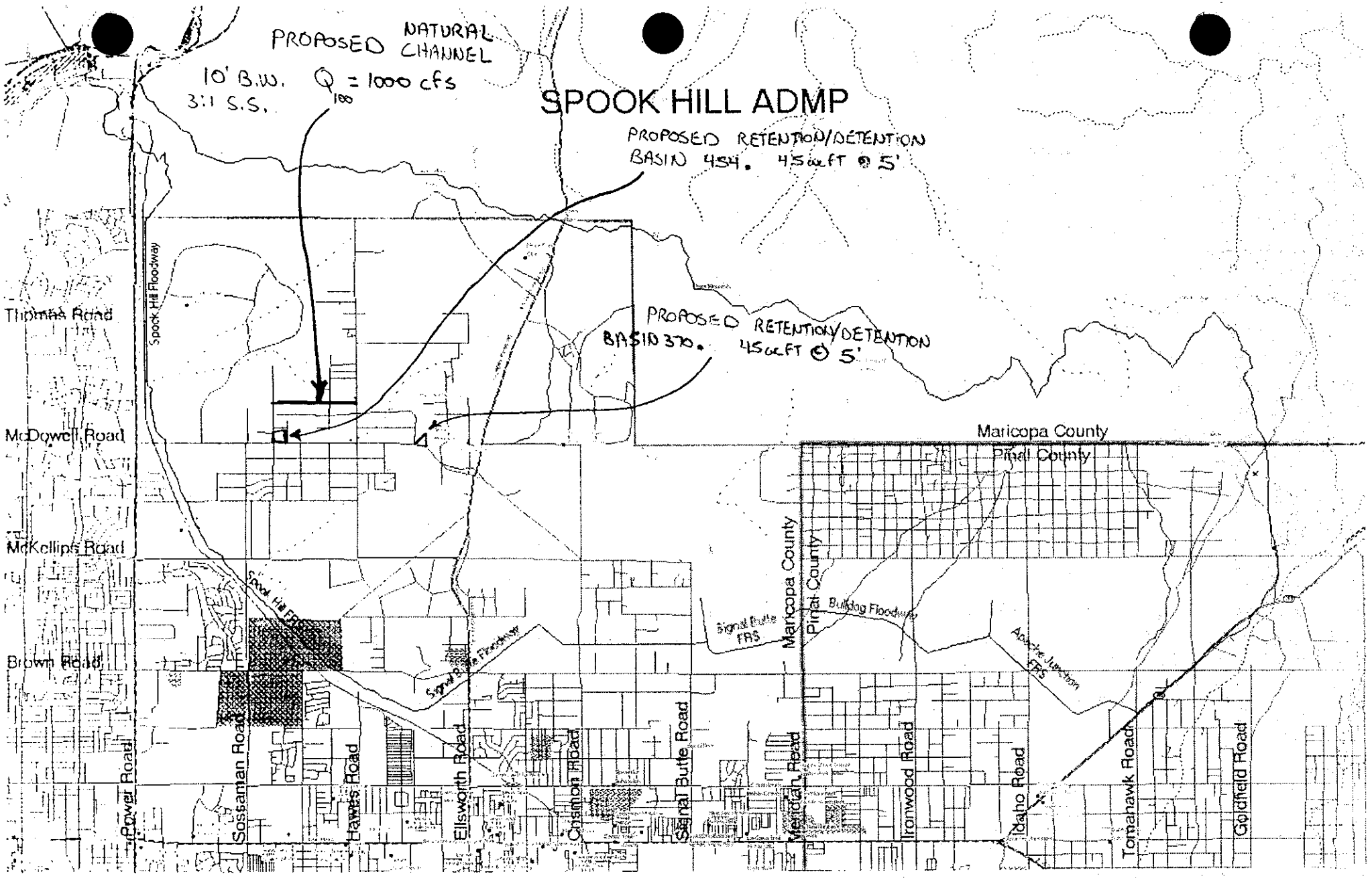
+	HYDROGRAPH AT	442	99.	12.13	9.	2.	1.	.10
+	2 COMBINED AT	C67	183.	12.13	15.	4.	2.	.19
+	DIVERSION TO	BASIN4	115.	12.13	6.	1.	1.	.19
+	HYDROGRAPH AT	DIV6	68.	12.13	10.	3.	1.	.19
+	HYDROGRAPH AT	RTDIV6	115.	12.13	6.	1.	1.	.19
+	ROUTED TO	RFDIV6	1.	11.93	1.	1.	1.	.19
+	2 COMBINED AT	CDIV6	69.	12.13	11.	4.	2.	.19
+	HYDROGRAPH AT	443	146.	12.07	14.	4.	2.	.08
+	DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	DIV66	68.	12.07	3.	1.	0.	.08
+	ROUTED TO	R113	66.	12.10	3.	1.	0.	.08
+	2 COMBINED AT	C114	133.	12.10	13.	4.	2.	.27
+	HYDROGRAPH AT	444	81.	12.00	5.	1.	1.	.04
+	ROUTED TO	R58	78.	12.07	5.	1.	1.	.04
+	HYDROGRAPH AT	445	288.	12.07	18.	5.	2.	.19
+	2 COMBINED AT	C107	363.	12.07	22.	6.	3.	.23
+	ROUTED TO	R107	362.	12.07	22.	6.	3.	.23
+	HYDROGRAPH AT	RTB2	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	RSPLIT	94.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT	446	64.	12.07	6.	2.	1.	.04
+	3 COMBINED AT	C109	516.	12.07	35.	9.	4.	.27
+	DIVERSION TO	WSH404	35.	11.73	7.	2.	1.	.27
+	HYDROGRAPH AT	DIV5	481.	12.07	27.	7.	3.	.27
+	ROUTED TO	R109	469.	12.10	27.	7.	3.	.27
+	HYDROGRAPH AT	447	135.	12.07	12.	4.	2.	.09
+	HYDROGRAPH AT	RT404	35.	11.73	7.	2.	1.	.27
+	ROUTED TO	R404	35.	11.90	7.	2.	1.	.27
+	3 COMBINED AT	C110	631.	12.10	46.	13.	6.	.36
+	ROUTED TO	R110	632.	12.10	46.	13.	6.	.36
+	2 COMBINED AT	C115	759.	12.10	59.	17.	8.	.63
+	ROUTED TO	R115	758.	12.10	59.	17.	8.	.63
+	HYDROGRAPH AT	448	87.	12.03	6.	2.	1.	.05
+	HYDROGRAPH AT	449	77.	12.03	5.	1.	1.	.05
+	2 COMBINED AT	C6364	163.	12.03	11.	3.	1.	.09

+	ROUTED TO	R6364	140.	12.20	11.	3.	1.	.09
+	HYDROGRAPH AT	450	58.	12.17	6.	2.	1.	.07
+	HYDROGRAPH AT	451	17.	12.17	2.	1.	0.	.03
+	HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	452	61.	12.07	4.	1.	1.	.04
+	2 COMBINED AT	C6566	139.	12.07	16.	4.	2.	.04
+	ROUTED TO	R6566	134.	12.13	16.	4.	2.	.04
+	4 COMBINED AT	C116	340.	12.17	35.	9.	4.	.23
+	ROUTED TO	BASIN5	153.	12.47	35.	9.	4.	.23
+	ROUTED TO	R116	152.	12.53	35.	9.	4.	.23
+	HYDROGRAPH AT	453	60.	12.13	7.	2.	1.	.06
+	2 COMBINED AT	C117	173.	12.50	41.	11.	5.	.29
+	2 COMBINED AT	C118	837.	12.10	99.	28.	14.	.92
+	ROUTED TO	R118	833.	12.13	99.	28.	14.	.92
+	DIVERSION TO	BASIN6	207.	12.13	12.	3.	1.	.92
+	HYDROGRAPH AT	DIV7	626.	12.13	86.	25.	12.	.92
+	HYDROGRAPH AT	RTDIV7	207.	12.13	12.	3.	1.	.92
+	ROUTED TO	RFDIV7	1.	11.93	1.	1.	1.	.92
+	2 COMBINED AT	CDIV7	627.	12.13	87.	25.	13.	.92
+	HYDROGRAPH AT	454	152.	12.23	21.	6.	3.	.18
+	2 COMBINED AT	C119	761.	12.13	107.	31.	16.	1.10
+	ROUTED TO	R454	722.	12.23	107.	31.	16.	1.10
+	HYDROGRAPH AT	415	242.	12.20	29.	8.	4.	.26
+	2 COMBINED AT	415C	954.	12.23	134.	39.	20.	1.36
+	DIVERSION TO	BS454	854.	12.23	83.	21.	10.	1.36
+	HYDROGRAPH AT	D454	100.	11.90	51.	18.	10.	1.36
+	2 COMBINED AT	415CC	772.	12.10	158.	52.	26.	3.57
+	ROUTED TO	RR410	739.	12.17	158.	52.	26.	3.57
+	HYDROGRAPH AT	455	1350.	12.17	145.	44.	21.	1.11
+	3 COMBINED AT	C455	5859.	12.53	1167.	458.	288.	13.69
+	ROUTED TO	SR440	787.	13.87	769.	458.	288.	13.69
+	ROUTED TO	RR455	787.	14.13	769.	458.	286.	13.69
+	HYDROGRAPH AT	456	458.	12.07	36.	10.	5.	.26
+	DIVERSION TO	BASIN1	198.	12.07	8.	2.	1.	.26

+	HYDROGRAPH AT	DIV1	259.	12.07	28.	8.	4.	.26
+	DIVERSION TO	WA30	65.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV2	195.	12.07	20.	6.	3.	.26
+	ROUTED TO	R456	191.	12.17	20.	6.	3.	.26
+	HYDROGRAPH AT	457	254.	12.10	20.	5.	3.	.19
+	2 COMBINED AT	C101	438.	12.10	40.	11.	5.	.45
+	DIVERSION TO	BASIN2	136.	12.10	8.	2.	1.	.45
+	HYDROGRAPH AT	DIV3	302.	12.10	32.	9.	4.	.45
+	HYDROGRAPH AT	RTDIV3	136.	12.10	8.	2.	1.	.45
+	ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+	2 COMBINED AT	CDIV3	304.	12.10	33.	10.	5.	.45
+	ROUTED TO	R101	301.	12.13	33.	10.	5.	.45
+	HYDROGRAPH AT	458	347.	12.07	25.	7.	3.	.19
+	2 COMBINED AT	C103	625.	12.07	58.	16.	8.	.64
+	ROUTED TO	R103	624.	12.10	58.	16.	8.	.64
+	HYDROGRAPH AT	RT30	65.	12.07	8.	2.	1.	.26
+	ROUTED TO	R30	64.	12.10	8.	2.	1.	.26
+	HYDROGRAPH AT	RTB1	198.	12.07	8.	2.	1.	.26
+	ROUTED TO	B1	36.	12.23	7.	2.	1.	.26
+	ROUTED TO	RB1	36.	12.30	7.	2.	1.	.26
+	2 COMBINED AT	CDIV	94.	12.23	15.	4.	2.	.12
+	HYDROGRAPH AT	459	43.	12.07	3.	1.	0.	.03
+	2 COMBINED AT	C52	118.	12.17	18.	5.	2.	.15
+	ROUTED TO	R52	116.	12.20	18.	5.	2.	.15
+	HYDROGRAPH AT	460	205.	12.10	19.	6.	3.	.14
+	2 COMBINED AT	C102	310.	12.10	37.	11.	5.	.29
+	ROUTED TO	BASIN3	75.	12.60	37.	11.	5.	.29
+	ROUTED TO	R3	75.	12.73	37.	11.	5.	.29
+	HYDROGRAPH AT	461	156.	12.13	17.	5.	2.	.12
+	2 COMBINED AT	C104	216.	12.13	53.	16.	7.	.41
+	2 COMBINED AT	C106	833.	12.10	110.	32.	16.	1.05
+	ROUTED TO	R106	799.	12.17	110.	32.	16.	1.05
+	HYDROGRAPH AT	462	523.	12.07	40.	11.	5.	.30
+	2 COMBINED AT	C56	1238.	12.13	149.	42.	21.	1.35

+	HYDROGRAPH AT	480	991.	12.13	96.	29.	14.	.73
+	DIVERSION TO	BS480	458.	11.93	27.	8.	4.	.73
+	HYDROGRAPH AT	D480	991.	12.13	78.	21.	10.	.73
+	HYDROGRAPH AT	RT480	458.	11.93	27.	8.	4.	.73
+	ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT	C480	997.	12.13	84.	27.	14.	.73
+	3 COMBINED AT	480C	2776.	12.13	973.	539.	329.	2.09
+	ROUTED TO	RR480	2720.	12.20	972.	539.	328.	2.09
+	HYDROGRAPH AT	500	988.	12.23	122.	33.	16.	.93
+	2 COMBINED AT	500C	3677.	12.20	1081.	568.	343.	2.84

*** NORMAL END OF HEC-1 ***



HEC-1 Proposed Retention / Detention Basins
Alternative #2 100-Year, 24hr Storm

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1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*              JUN  1998            *
*            VERSION 4.1            *
*                                   *
*  RUN DATE   14MAR00  TIME  13:57:10  *
*                                   *
*************************************
```

```
*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS   *
*    HYDROLOGIC ENGINEERING CENTER  *
*          609 SECOND STREET        *
*       DAVIS, CALIFORNIA 95616     *
*           (916) 756-1104          *
*                                   *
*************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

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1                                        HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS,AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL,SIGNAL
 10           ID   BUTTE,AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE: SPHEX2.DAT
 13           ID
 14           ID
 15           ID   REVISED MODEL BASED ON BYPASSING OF FRS STRUCTURES
 16           ID   AND INCREASING THE EXISTING CHANNELS WIDTHS - MAINTAINING THE SAME DEPTHS
 17           ID   REVISED ON 11/9/99 BY JCD; FILE: SPHEX3.DAT
 18           ID
 19           ID   MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
 20           ID   DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
 21           ID   BY: JCD; 1/4/2000            FILE: SPHEX2RV.DAT
 22           ID
 23           ID   MODEL UPDATE BASED ON BYPASSING OF FRS STRUCTURES AND INCREASING
 24           ID   THE EXISTING CHANNEL WIDTHS WHILE MAINTAINING THE SAME DEPTHS
 25           ID   FILE: SPHEX3RV.DAT           1/4/2000
 26           ID
 27           ID   MODEL UPDATE BASED ON KEEPING THE APACHE JUNCTION FRS & SIGNAL BUTTE FRS
 28           ID   ELIMINATING THE SPOOK HILL FRS AND INCLUDING AN IMPROVED CHANNEL ALONG
 29           ID   MCDOWELL TO RAVENS ROOST MOUNTAIN LOCATED JUST WEST OF ELLSWORTH ROAD
 30           ID   FILE: SPHEX6RV.DAT           JCD; 1/6/2000
 31           ID
 32           ID   MODEL UPDATE BASED ON KEEPING THE ENTIRE MODEL UP TO THE SPOOKHILL FRS
 33           ID   UNCHANGED AND INCLUDING PROPOSED RET./DET. BASINS WITHIN REVISED
 34           ID   D.A.s 370 & 385 - BASINS WERE ASSUMED AS A 10 ACRE SQUARE AT 5' DEEP
 35           ID   AND A 45 ACRE-FOOT CAPACITY. ALSO BASIN @ D.A. 415
 36           ID   FILE: SPHFUAL2.DAT           JCD; 3/9/00
 37           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR,24HR STORM/
              *DIAGRAM
 38           IT       2                    1500
 39           IO       3
 40           IN      15
 41           JD    3.81    0.01
 42           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 43           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 44           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 45           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 46           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 47           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 48           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 49           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 50           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 51           PC    .983    .986    .989    .992    .995    .998   1.000
 52           JD    3.58   10.00
 53           JD    3.43   30.00
 54           JD    3.28   60.00
1                                        HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 55           JD    3.22   90.00
 56           JD    3.18  120.00
 57           JD    3.14  150.00
 58           JD    3.05  300.00
 59           JD    2.97  500.00
              * DDM   ***** Preserved *****

 60           KK      20
 61           KM   SUB-BASIN 20
 62           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 63           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
 64           KM     L = 4.58  Kb = .037  Adj. Slope =  118.0
 65           BA   1.821
 66           LG    .350    .360   6.600    .140   7.000
 67           UC    .804    .697
              * DDM   ***** Preserved *****
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 68          KK      40
 69          KM   SUB-BASIN 40
 70          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 71          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 72          KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 73          BA   2.233
 74          LG    .340    .340   4.900    .280   5.000
 75          UC    .496    .264
             * DDM   ***** Preserved *****

 76          KK      60
 77          KM   SUB-BASIN 60
 78          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 79          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 80          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 81          BA   1.746
 82          LG    .330    .350   5.800    .190   9.000
 83          UC    .596    .477
             * DDM   ***** Preserved *****

 84          KK     60C
 85          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 86          HC       3
             * DDM   ***** Preserved *****

 87          KK    SR60
 88          KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
 89          KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
 90          KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
 91          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
 92          RS       1    STOR       0
 93          SV       0       1     100     200     300     400
 94          SQ       0      71      81      87    91.5      94
 95          SE    83.5    93.5      96    97.7      99   99.77
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 96          KK     R60
 97          KM        ROUTE FLOW THROUGH BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
 98          RS       2    FLOW      -1
 99          RC    .016    .016    .016    2850    .012
100          RX       0       1       2     2.1     5.6     5.7       6       7
101          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Preserved *****

102          KK    RR60
103          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
104          RS       3    FLOW      -1
105          RC    .016    .016    .016    3500    .005
106          RX       0       1       2     2.1     7.1     7.2       8       9
107          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Preserved *****

108          KK      80
109          KM   SUB-BASIN 80
110          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
111          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
112          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
113          BA   1.475
114          LG    .330    .330   5.600    .210   4.000
115          UC    .433    .259
             * DDM   ***** Preserved *****

116          KK     80C
117          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
118          HC       2   1.475
             * DDM   ***** Preserved *****

119          KK     R80
120          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
121          RS       1    FLOW      -1
122          RC    .016    .016    .016    1200    .003
123          RX       0       1       2     2.1    37.1    37.2      38      39
124          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             * DDM   ***** Preserved *****

125          KK     100
126          KM   SUB-BASIN 100
127          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
128          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
129          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
130          BA    .484
131          LG    .320    .290   5.100    .260   3.000
132          UC    .533    .473
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

133          KK    100C
134          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
135          HC       2
             * DDM   ***** Preserved *****

136          KK    R100
137          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
138          RS       1    FLOW      -1
139          RC    .016    .016    .016     940    .005
140          RX       0       1       2     2.1    52.1    52.2      53      54
141          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             * DDM   ***** Preserved *****

142          KK     120
143          KM   SUB-BASIN 120
144          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
145          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
146          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
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147          BA   2.202
148          LG    .330    .280   6.800    .130  11.000
149          UC    .429    .226
             * DDM   ***** Preserved *****

150          KK    120C
151          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
152          HC       2
             * DDM   ***** Preserved *****

153          KK    R120
154          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
155          RS       1    FLOW      -1
156          RC    .025    .016    .025    2100    .005
157          RX       0       6      10    10.1    60.1    60.2    74.2    80.2
158          RY       8       5       5       0       0       5       5       8
             * DDM   ***** Preserved *****

159          KK     140
160          KM   SUB-BASIN 140
161          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
162          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
163          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
164          BA    .598
165          LG    .310    .280   4.200    .440   5.000
166          UC    .421    .278
             * DDM   ***** Preserved *****

167          KK     160
168          KM   SUB-BASIN 160
169          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
170          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
171          KM     L = 3.18  Kb = .043  Adj. Slope =  299.2
172          BA    .777
173          LG    .340    .340   4.600    .330   5.000
174          UC    .479    .476
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

175          KK     180
176          KM   SUB-BASIN 180
177          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
178          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
179          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
180          BA   1.000
181          LG    .350    .350   4.150    .430    .000
182          UC    .571    .403
             * DDM   ***** Preserved *****

183          KK    180C
184          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
185          HC       4
             * DDM   ***** Preserved *****

186          KK     240
187          KM   SUB-BASIN 240
188          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
189          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
190          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
191          BA   1.036
192          LG    .350    .350   4.600    .330   2.000
193          UC    .500    .458
             * DDM   ***** Preserved *****

194          KK    R240
195          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
196          KM   PASS MOUNTAIN DIVERSION
197          RS       2    FLOW      -1
198          RC    .035    .025    .035    2100    .005
199          RX       0       1       2      11      41      50      51      52
200          RY       3       3       3       0       0       3       3       3
             * DDM   ***** Preserved *****

201          KK     220
202          KM   SUB-BASIN 220
203          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
204          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
205          KM     L = 3.14  Kb = .040  Adj. Slope =  302.1
206          BA   1.252
207          LG    .350    .350   7.000    .120   3.000
208          UC    .425    .315
             * DDM   ***** Preserved *****

209          KK    220C
210          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
211          HC       2
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

212          KK    R220
213          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
214          KM   PASS MOUNTAIN DIVERSION
215          RS       1    FLOW      -1
216          RC    .035    .025    .035    1900    .005
217          RX       0       1       2      14      64      76      77      78
218          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

219          KK     200
220          KM   SUB-BASIN 200
221          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
222          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .989
223          KM     L = 3.28  Kb = .038  Adj. Slope =  299.9
224          BA   1.811
225          LG    .350    .390   5.800    .190  11.000
226          UC    .433    .270
             * DDM   ***** Preserved *****
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227          KK    200C
228          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
229          HC       2
             * DDM   ***** Preserved *****

230          KK    R200
231          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
232          RS       1    FLOW      -1
233          RC    .035    .025    .035    1300    .005
234          RX       0       1       2      14     114     126     127     128
235          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

236          KK    C180
237          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *      1       2
238          HC       2
             * DDM   ***** Preserved *****

239          KK   SR180
240          KM   SIGNAL BUTTE FRS DATED 1/28/85
241          KM   OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
242          KM   EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
243          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
244          RS       1    STOR       0
245          SV       0       1     250     500     750    1060
246          SQ       0   106.5   125.5   137.5     146     160
247          SE      90     101   104.5     107     109   112.4
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

248          KK    R180
249          KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
250          RS       2    FLOW      -1
251          RC    .035    .025    .035    1500    .003
252          RX       0       1       2    22.6    38.6    59.2      60      61
253          RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
             * DDM   ***** Preserved *****

254          KK     260
255          KM   SUB-BASIN 260
256          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
257          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
258          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
259          BA    .267
260          LG    .300    .170   6.800    .160  15.000
261          UC    .363    .215
             * DDM   ***** Preserved *****

262          KK    260C
263          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
264          HC       2    .267
             * DDM   ***** Preserved *****

265          KK    R260
266          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
267          RS       2    FLOW      -1
268          RC    .035    .025    .035    2300    .003
269          RX       0       1       2    23.4    43.4    64.8      65      66
270          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Preserved *****

271          KK     280
272          KM   SUB-BASIN 280
273          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
274          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
275          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
276          BA    .304
277          LG    .300    .250   5.300    .290  15.000
278          UC    .333    .175
             * DDM   ***** Preserved *****

279          KK    280C
280          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
281          HC       2
             * DDM   ***** Preserved *****

282          KK    R280
283          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
284          RS       3    FLOW      -1
285          RC    .035    .025    .035    2500    .003
286          RX       0       1       2    23.4    43.4    64.8      65      66
287          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  8

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

288          KK     300
289          KM   SUB-BASIN 300
290          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
291          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
292          KM     L = 2.28  Kb = .041  Adj. Slope =  127.0
293          BA    .988
294          LG    .340    .320   4.500    .370   7.000
295          UC    .538    .362
             * DDM   ***** Preserved *****

296          KK    300C
297          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
298          HC       2
             * DDM   ***** Preserved *****

299          KK    R300
300          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
301          RS       2    FLOW      -1
302          RC    .035    .025    .035    2200    .003
303          RX       0       1       2    23.4    55.4    76.8      77      78
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304          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Preserved *****

305          KK   RR300
306          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
307          RS       2    FLOW      -1
308          RC    .016    .016    .016    6050   .0146
309          RX       0       1       2     2.1    16.1    16.2      17      18
310          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
             *      1       2
             * DDM   ***** Preserved *****

311          KK     320
312          KM   SUB-BASIN 320
313          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
314          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
315          KM     L = 4.67  Kb = .039  Adj. Slope =  248.6
316          BA   1.527
317          LG    .330    .320   4.400    .390   9.000
318          UC    .658    .627
             * DDM   ***** Preserved *****

319          KK    D320
320          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
321          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
322          KM   SIERRA HEIGHTS,FALCON RIDGE,& MARBLE CREEK
323          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *      1
324          DT   BS320   12.27
325          DI       0   10000
326          DQ       0   10000
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

327          KK   RT320
328          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
329          DR   BS320
             * DDM   ***** Preserved *****

330          KK   SR320
331          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
332          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *      1
333          RS       1    STOR       0
334          SV       0     .01    12.3
335          SQ       0     4.2     4.2
             * DDM   ***** Preserved *****

336          KK    C320
337          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
338          HC       3
             *   R320
             *  ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
             *      8    FLOW      -1
             *   .025    .025    .025    6800   .0016
             *      0       1       2      15     165     180     181     182
             *      5       5       5       0       0       5       5       5
             *      0       1       2      30      90     118     119     120
             *      7       7       7       0       0       7       7       7
             * DDM   ***** Preserved *****

339          KK     340
340          KM   SUB-BASIN 340
341          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
342          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
343          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
344          BA   1.449
345          LG    .280    .280   4.150    .520  21.000
346          UC    .512    .287
             * DDM   ***** Preserved *****

347          KK    D340
348          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
349          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
350          KM   GRANDVIEW ESTATES,BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
351          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *      1
352          DT   BS340      56
353          DI       0   10000
354          DQ       0   10000
             * DDM   ***** Preserved *****

355          KK   RT340
356          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
357          DR   BS340
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

358          KK   SR340
359          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
360          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *      1
361          RS       1    STOR       0
362          SV       0     .01      56
363          SQ       0    18.9    18.9
             * DDM   ***** Preserved *****

364          KK    C340
365          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
366          HC       3
             *   R340
             *  ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
             *      2    FLOW      -1
             *   .025    .025    .025    2000   .0016
             *      0       1       2      15     165     180     181     182
             *      5       5       5       0       0       5       5       5
             *      0       1       2      30     114     142     143     144
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*       7       7       7       0       0       7       7       7
* DDM   ***** Preserved *****

KK     350
KM   SUB-BASIN 350
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
KM     L = 2.22  Kb = .042  Adj. Slope =  315.0
BA    .970
LG    .350    .350   4.550    .340   4.000
UC    .367    .234
* DDM   ***** Preserved *****

KK   RR350
KM   FROM SUB-BASIN 350 TO SUB-BASIN 360
RS      12    FLOW      -1
RC     .05    .035     .05   25600    .049
RX    1000    1010    1020    1036    1041    1057    1067    1077
RY      15    14.5      14      10      10      14    14.5      15
* DDM   ***** Preserved *****

KK     360
KM   SUB-BASIN 360
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
KM     L = 4.84  Kb = .042  Adj. Slope =  257.5
BA   1.329
LG    .300    .300   4.250    .460  12.000
UC    .712    .763
* DDM   ***** Preserved *****
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LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK    D360
KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
*      1
DT   BS360    28.6
DI       0   10000
DQ       0   10000
* DDM   ***** Preserved *****

KK   RT360
KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
DR   BS360
* DDM   ***** Preserved *****

KK   SR360
KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
RS       1    STOR       0
SV       0     .01    28.6
SQ       0     9.6     9.6
* DDM   ***** Preserved *****

KK    360C
KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
HC       4
*   R360
*  ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
*      2    FLOW      -1
*   .025    .025    .025    2600    .0016
*      0       1       2      15     165     180     181     182
*      5       5       5       0       0       5       5       5
*      0       1       2      30     130     158     159     160
*      7       7       7       0       0       7       7       7
* DDM   ***** Preserved *****

KK     380
KM   SUB-BASIN 380
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
KM     L = 2.02  Kb = .048  Adj. Slope =  124.0
BA    .982
LG    .300    .310   4.150    .500   7.000
UC    .592    .366
* DDM   ***** Preserved *****

KK    D380
KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
*      1       2
DT   BS380    28.6
DI       0   10000
DQ       0   10000
* DDM   ***** Preserved *****
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LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK   RT380
KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
DR   BS380
* DDM   ***** Preserved *****

KK   SR380
KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
RS       1    STOR       0
SV       0     .01    28.6
SQ       0     9.6     9.6
* DDM   ***** Preserved *****

KK    380C
KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
HC       3
*   R380
*  ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
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*      4    FLOW      -1
*   .025    .025    .025    4000   .0016
*      0       1       2      15     165     180     181     182
*      5       5       5       0       0       5       5       5
*      0       1       2      30     150     178     179     180
*      7       7       7       0       0       7       7       7
* DDM   ***** Preserved *****

KK     400
KM   SUB-BASIN 400
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
BA    .616
LG    .320    .320   3.130    .930   6.000
UC    .592    .405
* DDM   ***** Preserved *****

KK    400C
KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
HC       2
*   R400
*  ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
*      4    FLOW      -1
*   .025    .025    .025    3800   .0016
*      0       1       2      15     165     180     181     182
*      5       5       5       0       0       5       5       5
*      0       1       2      30     180     208     209     210
*      7       7       7       0       0       7       7       7
* DDM   ***** Preserved *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK     420
KM   SUB-BASIN 420
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
KM     L = 1.39  Kb = .045  Adj. Slope =  101.0
BA    .579
LG    .320    .280   4.300    .460  10.000
UC    .454    .274
* DDM   ***** Preserved *****

KK    D420
KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
*      1
DT   BS420   38.55
DI       0   10000
DQ       0   10000
* DDM   ***** Preserved *****

KK   RT420
KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
DR   BS420
* DDM   ***** Preserved *****

KK   SR420
KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
KM   38.55 ACRE-FEETx43560/36x3600=13cfs
RS       1    STOR       0
SV       0     .01   38.55
SQ       0      13      13
* DDM   ***** Preserved *****

KK    420C
KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
HC       3
* DDM   ***** Preserved *****

KK     370
KM   SUB-BASIN 370
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
KM     L = 3.03  Kb = .044  Adj. Slope =  285.0
BA    .656
LG    .340    .320   4.700    .320   9.000
UC    .475    .500
* DDM   ***** Preserved *****

KK    D370
KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
KM   DETENTION/RETENTION BASINS LOCATED WITHIN PROPOSED ALTERNATIVE
KM        MAXIMUM VOLUME DIVERSION = 45 ACRE-FEET
KO       1
DT   BS370
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

DI       0       2    1000
DQ       0       0     998
* DDM   ***** Preserved *****

KK   RR370
KM   FROM SUB-BASIN 370 TO SUB-BASIN 390
RS       3    FLOW      -1
RC    .025    .025    .025    2600    .027
RX    1000    1010    1020    1032    1042    1054    1064    1074
RY      14    13.5      13      10      10      13    13.5      14
* DDM   ***** Preserved *****

KK     390
KM   SUB-BASIN 390
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
KM     L = 2.05  Kb = .041  Adj. Slope =  200.0
BA    .421
LG    .310    .280   4.800    .340  15.000
UC    .400    .389
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            * DDM   ***** Preserved *****

503         KK    D390
504         KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
505         KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
506         KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
            *      1
507         DT   BS390     3.5
508         DI        0   10000
509         DQ        0   10000
            * DDM   ***** Preserved *****

510         KK   RT390
511         KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
512         DR   BS390
            * DDM   ***** Preserved *****

513         KK   SR390
514         KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
515         KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
516         RS       1    STOR       0
517         SV       0     .01     3.5
518         SQ       0     1.2     1.2
            * DDM   ***** Preserved *****

519         KK    390C
520         KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
521         HC       3
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                    PAGE 15

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

522         KK   RR390
523         KM   FROM SUB-BASIN 390 TP SUB-BASIN 410
524         RS       3    FLOW      -1
525         RC    .025    .025    .025    5400    .019
526         RX    1000    1010    1020    1032    1042    1054    1064    1074
527         RY      14    13.5      13      10      10      13    13.5      14
            * DDM   ***** Preserved *****

528         KK     410
529         KM   SUB-BASIN 410
530         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
531         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
532         KM     L =  .52  Kb = .049  Adj. Slope =  173.0
533         BA    .270
534         LG    .300    .250   3.950    .580  15.000
535         UC    .213    .083
            * DDM   ***** Preserved *****

536         KK    410C
537         KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
538         HC       2
            * DDM   ***** Preserved *****

539         KK     440
540         KM   SUB-BASIN 440
541         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
542         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
543         KM     L =  .40  Kb = .039  Adj. Slope =  315.0
544         BA    .080
545         LG    .190    .380   6.400    .140  13.000
546         UC    .129    .077
            * DDM   ***** Preserved *****

547         KK     R70
548         KM        ROUTE FLOW FROM SUB-BASIN 60 TO C108
549         RS       1    FLOW      -1
550         RC     .05    .035     .05    2250     .08
551         RX    1000    1025    1050    1070    1075    1095    1120    1145
552         RY      30    22.9    15.7      10      10    15.7    22.9      30
            * DDM   ***** Preserved *****

553         KK     441
554         KM   SUB-BASIN 441
555         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
556         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
557         KM     L =  .28  Kb = .069  Adj. Slope =  315.0
558         BA    .010
559         LG    .300    .250   5.600    .220   5.000
560         UC    .150    .225
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                    PAGE 16

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

561         KK    C108
562         KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60 AND 61A
563         HC       2
            * DDM   ***** Preserved *****

564         KK    DIV4
565         KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
            *      1
566         DT   SPLIT
567         DI       0      14      40      82     120     154     180
568         DQ       0       7      20      41      60      77      90
            * DDM   ***** Preserved *****

569         KK    R108
570         KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
571         RS       2    FLOW      -1
572         RC     .05    .035     .05    3200      .1
573         RX    1000    1025    1050    1070    1075    1095    1120    1145
574         RY      30    22.9    15.7      10      10    15.7    22.9      30
            * DDM   ***** Preserved *****

575         KK     442
576         KM   SUB-BASIN 442
577         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
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578          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
579          KM     L =  .83  Kb = .055  Adj. Slope =  274.2
580          BA    .100
581          LG    .300    .270   3.290    .770   5.000
582          UC    .258    .264
             * DDM   ***** Preserved *****

583          KK     C67
584          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 60,61 AND 67
585          HC       2
             * DDM   ***** Preserved *****

586          KK    DIV6
587          KM        OFFLINE BASIN WITH 75 FOOT WEIR SET AT 3 FEET ABOVE BOTTOM OF CHANNEL
588          KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
             *      1
589          DT  BASIN4
590          DI       0      10      32      56   136.6   276.5     454   662.8
591          DQ       0       0       0       0    71.6   202.5     372   572.8
             * DDM   ***** Preserved *****

592          KK  RTDIV6
593          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
594          DR  BASIN4
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 17

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

595          KK  RFDIV6
596          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
597          KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
             *      1
598          RS       1    STOR       0
599          SV       0     .01     3.3
600          SQ       0     1.1     1.1
             * DDM   ***** Preserved *****

601          KK   CDIV6
602          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
603          HC       2
             * DDM   ***** Preserved *****

604          KK     443
605          KM   SUB-BASIN 443
606          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
607          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
608          KM     L =  .71  Kb = .050  Adj. Slope =  315.0
609          BA    .080
610          LG    .250    .190   8.000    .080  10.000
611          UC    .196    .194
             * DDM   ***** Preserved *****

612          KK   DIV66
613          KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
614          KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
615          DT   WSH66
616          DI       0      78     100     200
617          DQ       0      78      78      78
             * DDM   ***** Preserved *****

618          KK    R113
619          KM        ROUTE FLOW FROM C113 TO C114
620          RS       1    FLOW      -1
621          RC    .019    .019    .019    1300    .029
622          RX    1000    1004    1008    1012    1018    1022    1026    1030
623          RY      17   15.33   12.67      10      10   12.67   15.33      17
             * DDM   ***** Preserved *****

624          KK    C114
625          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
626          HC       2
             * DDM   ***** Preserved *****

627          KK     444
628          KM   SUB-BASIN 444
629          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
630          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
631          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
632          BA    .040
633          LG    .130    .350   4.450    .320   1.000
634          UC    .112    .084
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 18

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

635          KK     R58
636          KM        ROUTE FLOW FROM SUB-BASIN 58 TO C107
637          RS       2    FLOW      -1
638          RC     .05    .035     .05    2370   .0516
639          RX    1000    1010    1020    1050    1055    1085    1095    1105
640          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

641          KK     445
642          KM   SUB-BASIN 445
643          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
644          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
645          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
646          BA    .190
647          LG    .170    .320   3.470    .590   3.000
648          UC    .192    .130
             * DDM   ***** Preserved *****

649          KK    C107
650          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 58 AND 59
651          HC       2
             * DDM   ***** Preserved *****

652          KK    R107
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653          KM        ROUTE FLOW FROM C107 TO C109
654          RS       1    FLOW      -1
655          RC     .05    .035     .05     700   .0516
656          RX    1000    1010    1020    1050    1055    1085    1095    1105
657          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

658          KK    RTB2
659          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
660          DR   SPLIT
             * DDM   ***** Preserved *****

661          KK  RSPLIT
662          KM        ROUTE FLOW FROM SPLIT TO C109
663          RS       1    FLOW      -1
664          RC     .05    .035     .05     800     .05
665          RX    1000    1025    1050    1070    1075    1095    1120    1145
666          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Preserved *****

667          KK     446
668          KM   SUB-BASIN 446
669          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
670          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
671          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
672          BA    .040
673          LG    .270    .250   4.500    .400  19.000
674          UC    .183    .189
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                                    PAGE 19

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


675          KK    C109
676          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
677          HC       3
             * DDM   ***** Preserved *****

678          KK    DIV5
679          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
680          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
681          DT  WSH404
682          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
683          DQ       0      35      35      35      35      35      35      35
             * DDM   ***** Preserved *****

684          KK    R109
685          KM        ROUTE FLOW FROM C109 TO C110
686          RS       1    FLOW      -1
687          RC    .019    .019    .019    3080     .05
688          RX    1000    1005    1010    1015    1025    1030    1035    1040
689          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
             * DDM   ***** Preserved *****

690          KK     447
691          KM   SUB-BASIN 447
692          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
693          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
694          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
695          BA    .090
696          LG    .250    .270   3.350    .870  30.000
697          UC    .208    .145
             * DDM   ***** Preserved *****

698          KK   RT404
699          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
700          DR  WSH404
             * DDM   ***** Preserved *****

701          KK    R404
702          KM        ROUTE FLOW FROM C110 TO C110
703          RS       5    FLOW      -1
704          RC    .019    .019    .019    3540     .03
705          RX    1000    1012    1016    1020    1025    1029    1033    1045
706          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

707          KK    C110
708          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 62 AND C109
709          HC       3
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                                    PAGE 20

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


710          KK    R110
711          KM        ROUTE FLOW FROM C110 TO C115
712          RS       1    FLOW      -1
713          RC    .019    .019    .019     580    .029
714          RX    1000    1012    1016    1020    1035    1039    1043    1055
715          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

716          KK    C115
717          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
718          HC       2
             * DDM   ***** Preserved *****

719          KK    R115
720          KM        ROUTE FLOW FROM C115 TO C119
721          RS       1    FLOW      -1
722          RC    .019    .019    .019    2125    .029
723          RC    .019    .019    .019     580   .0291
724          RX    1000    1012    1016    1020    1035    1039    1043    1055
725          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

726          KK     448
727          KM   SUB-BASIN 448
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728          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
729          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
730          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
731          BA    .045
732          LG    .170    .310   4.200    .390  11.000
733          UC    .133    .102
             * DDM   ***** Preserved *****

734          KK     449
735          KM   SUB-BASIN 449
736          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
737          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
738          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
739          BA    .050
740          LG    .260    .280   3.500    .640   6.000
741          UC    .167    .134
             * DDM   ***** Preserved *****

742          KK   C6364
743          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 63 AND 64
744          HC       2
             * DDM   ***** Preserved *****

745          KK   R6364
746          KM        ROUTE FLOW FROM DIVERSIONS 63 AND 64 TO C116
747          RS       5    FLOW      -1
748          RC     .05    .035     .05    4375   .0333
749          RX    1000    1027    1053    1080    1090    1117    1143    1170
750          RY      15   13.33   11.67      10      10   11.67   13.33      15
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 21

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

751          KK     450
752          KM   SUB-BASIN 450
753          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
754          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
755          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
756          BA    .070
757          LG    .340    .350   3.630    .570   4.000
758          UC    .296    .383
             * DDM   ***** Preserved *****

759          KK     451
760          KM   SUB-BASIN 451
761          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
762          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
763          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
764          BA    .025
765          LG    .340    .340   3.290    .750   3.000
766          UC    .271    .453
             * DDM   ***** Preserved *****

767          KK    RT66
768          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
769          DR   WSH66
             * DDM   ***** Preserved *****

770          KK     452
771          KM   SUB-BASIN 452
772          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
773          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
774          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
775          BA    .040
776          LG    .260    .280   3.700    .550   9.000
777          UC    .171    .166
             * DDM   ***** Preserved *****

778          KK   C6566
779          KM        COMBINE HYDROGRAPHS FROM DIVERSIONS 65 AND 66
780          HC       2
             * DDM   ***** Preserved *****

781          KK   R6566
782          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
783          RS       2    FLOW      -1
784          RC     .05    .035     .05    2435   .0282
785          RX    1000    1045    1090    1150    1160    1220    1265    1310
786          RY      25      23      20      10      10      20      23      25
             * DDM   ***** Preserved *****

787          KK    C116
788          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 68 AND 69 AND DIVERTED FLOWS
789          KM        FROM SUB-BASINS 63,64,65 AND 66
790          HC       4
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 22

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

791          KK  BASIN5
792          KM        RESERVOIR WITHIN PARCEL 31,2-48 INCH PIPES AT OUTFALL
793          KM        BASIN 5 FEET DEEP
794          RS       1    ELEV       0
795          SV       0     4.5     9.9
796          SQ       0      69     190
797          SE       0     2.5       5
             * DDM   ***** Preserved *****

798          KK    R116
799          KM        ROUTE FLOW FROM C116 TO C118
800          RS       3    FLOW      -1
801          RC     .05    .035     .05    1300   .0333
802          RX    1000    1100    1200    1300    1320    1420    1520    1620
803          RY      13      12      11      10      10      11      12      13
             * DDM   ***** Preserved *****

804          KK     453
805          KM   SUB-BASIN 453
806          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
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807          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
808          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
809          BA    .060
810          LG    .290    .300   3.290    .820  18.000
811          UC    .275    .284
             * DDM   ***** Preserved *****

812          KK    C117
813          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 70 AND C115
814          HC       2
             * DDM   ***** Preserved *****

815          KK    C118
816          KM        COMBINE HYDROGRAPHS FROM C116 AND C117
817          HC       2
             * DDM   ***** Preserved *****

818          KK    R118
819          KM        ROUTE FLOW FROM C118 TO C119
820          RS       1    FLOW      -1
821          RC    .019    .019    .019    1500    .024
822          RX    1000    1012    1016    1020    1035    1039    1043    1055
823          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

824          KK    DIV7
825          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE,FLOWS ENTER BASIN OVER
826          KM        60' WEIR SET AT 1.5' ABOVE THE CHANNEL BOTTOM
             *      1
827          DT  BASIN6
828          DI       0    20.4    76.9   176.4   383.8   696.7  1105.8  1611.6
829          DQ       0       0       0       0    57.3     162   297.6   458.2
             * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE 23

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

830          KK  RTDIV7
831          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
832          DR  BASIN6
             * DDM   ***** Preserved *****

833          KK  RFDIV7
834          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
835          KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
836          RS       1    STOR       0
837          SV       0     .01     3.6
838          SQ       0     1.2     1.2
             * DDM   ***** Preserved *****

839          KK   CDIV7
840          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
841          HC       2
             * DDM   ***** Preserved *****

842          KK     454
843          KM   SUB-BASIN 454
844          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
845          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
846          KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
847          BA    .180
848          LG    .300    .310   3.780    .560  14.000
849          UC    .379    .395
             * DDM   ***** Preserved *****

850          KK    C119
851          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 71 AND C119
             *      1       2
852          HC       2

853          KK     385
854          KM   SUB-BASIN 385
855          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
856          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
857          KM     L = 2.30  Kb = .042  Adj. Slope =  303.0
858          BA    .846
859          LG    .350    .370   5.200    .240  10.000
860          UC    .371    .263
             *   D385
             *      DIVERT FLOW INTO OFFLINE DETENTION BASIN
             *  DETENTION/RETENTION BASINS LOCATED WITHIN PROPOSED ALTERNATIVE
             *      MAXIMUM VOLUME DIVERSION = 45 ACRE-FEET
             *      1
             *  BS385
             *      0      20    1000
             *      0       0     980
1                                          HEC-1 INPUT                                                    PAGE 24

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

861          KK   RR385
862          KM   FROM SUB-BASIN 385 TO C.P.C119
863          KO       1
864          RS       2    FLOW      -1
865          RC    .025    .025    .025    5280    .035
866          RX    1000    1010    1020    1032    1042    1054    1064    1074
867          RY      14    13.5      13      10      10      13    13.5      14

868          KK    C385
869          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 385 AND C119
             *      1       2
870          HC       2
             * DDM   ***** Preserved *****

871          KK    R454
872          KM   FROM SUB-BASIN 454 TO SUB-BASIN 455
873          RS       2    FLOW      -1
874          RC     .05    .035     .05    2200    .005
875          RX    1000    1010    1020    1032    1062    1074    1084    1094
876          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Preserved *****
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728          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
729          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
730          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
731          BA    .045
732          LG    .170    .310   4.200    .390  11.000
733          UC    .133    .102
             * DDM   ***** Preserved *****

734          KK     449
735          KM   SUB-BASIN 449
736          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
737          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
738          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
739          BA    .050
740          LG    .260    .280   3.500    .640   6.000
741          UC    .167    .134
             * DDM   ***** Preserved *****

742          KK   C6364
743          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 63 AND 64
744          HC       2
             * DDM   ***** Preserved *****

745          KK   R6364
746          KM        ROUTE FLOW FROM DIVERSIONS 63 AND 64 TO C116
747          RS       5    FLOW      -1
748          RC     .05    .035     .05    4375   .0333
749          RX    1000    1027    1053    1080    1090    1117    1143    1170
750          RY      15   13.33   11.67      10      10   11.67   13.33      15
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                        PAGE 21

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

751          KK     450
752          KM   SUB-BASIN 450
753          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
754          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
755          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
756          BA    .070
757          LG    .340    .350   3.630    .570   4.000
758          UC    .296    .383
             * DDM   ***** Preserved *****

759          KK     451
760          KM   SUB-BASIN 451
761          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
762          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
763          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
764          BA    .025
765          LG    .340    .340   3.290    .750   3.000
766          UC    .271    .453
             * DDM   ***** Preserved *****

767          KK    RT66
768          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
769          DR   WSH66
             * DDM   ***** Preserved *****

770          KK     452
771          KM   SUB-BASIN 452
772          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
773          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
774          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
775          BA    .040
776          LG    .260    .280   3.700    .550   9.000
777          UC    .171    .166
             * DDM   ***** Preserved *****

778          KK   C6566
779          KM        COMBINE HYDROGRAPHS FROM DIVERSIONS 65 AND 66
780          HC       2
             * DDM   ***** Preserved *****

781          KK   R6566
782          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
783          RS       2    FLOW      -1
784          RC     .05    .035     .05    2435   .0282
785          RX    1000    1045    1090    1150    1160    1220    1265    1310
786          RY      25      23      20      10      10      20      23      25
             * DDM   ***** Preserved *****

787          KK    C116
788          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 68 AND 69 AND DIVERTED FLOWS
789          KM        FROM SUB-BASINS 63,64,65 AND 66
790          HC       4
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                        PAGE 22

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

791          KK  BASIN5
792          KM        RESERVOIR WITHIN PARCEL 31,2-48 INCH PIPES AT OUTFALL
793          KM        BASIN 5 FEET DEEP
794          RS       1    ELEV       0
795          SV       0     4.5     9.9
796          SQ       0      69     190
797          SE       0     2.5       5
             * DDM   ***** Preserved *****

798          KK    R116
799          KM        ROUTE FLOW FROM C116 TO C118
800          RS       3    FLOW      -1
801          RC     .05    .035     .05    1300   .0333
802          RX    1000    1100    1200    1300    1320    1420    1520    1620
803          RY      13      12      11      10      10      11      12      13
             * DDM   ***** Preserved *****

804          KK     453
805          KM   SUB-BASIN 453
806          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
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```
807          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
808          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
809          BA    .060
810          LG    .290    .300   3.290    .820  18.000
811          UC    .275    .284
             * DDM   ***** Preserved *****

812          KK    C117
813          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 70 AND C115
814          HC       2
             * DDM   ***** Preserved *****

815          KK    C118
816          KM        COMBINE HYDROGRAPHS FROM C116 AND C117
817          HC       2
             * DDM   ***** Preserved *****

818          KK    R118
819          KM        ROUTE FLOW FROM C118 TO C119
820          RS       1    FLOW      -1
821          RC    .019    .019    .019    1500    .024
822          RX    1000    1012    1016    1020    1035    1039    1043    1055
823          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

824          KK    DIV7
825          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE,FLOWS ENTER BASIN OVER
826          KM        60' WEIR SET AT 1.5' ABOVE THE CHANNEL BOTTOM
             *      1
827          DT  BASIN6
828          DI       0    20.4    76.9   176.4   383.8   696.7  1105.8  1611.6
829          DQ       0       0       0       0    57.3     162   297.6   458.2
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 23

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

830          KK  RTDIV7
831          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
832          DR  BASIN6
             * DDM   ***** Preserved *****

833          KK  RFDIV7
834          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
835          KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
836          RS       1    STOR       0
837          SV       0     .01     3.6
838          SQ       0     1.2     1.2
             * DDM   ***** Preserved *****

839          KK   CDIV7
840          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
841          HC       2
             * DDM   ***** Preserved *****

842          KK     454
843          KM   SUB-BASIN 454
844          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
845          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
846          KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
847          BA    .180
848          LG    .300    .310   3.780    .560  14.000
849          UC    .379    .395
             * DDM   ***** Preserved *****

850          KK    C119
851          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 71 AND C119
             *      1       2
852          HC       2

853          KK     385
854          KM   SUB-BASIN 385
855          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
856          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
857          KM     L = 2.30  Kb = .042  Adj. Slope =  303.0
858          BA    .846
859          LG    .350    .370   5.200    .240  10.000
860          UC    .371    .263
             *   D385
             *       DIVERT FLOW INTO OFFLINE DETENTION BASIN
             *  DETENTION/RETENTION BASINS LOCATED WITHIN PROPOSED ALTERNATIVE
             *       MAXIMUM VOLUME DIVERSION = 45 ACRE-FEET
             *      1
             *  BS385
             *      0      20    1000
             *      0       0     980
1                                        HEC-1 INPUT                                                    PAGE 24

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

861          KK   RR385
862          KM   FROM SUB-BASIN 385 TO C.P.C119
863          KO       1
864          RS       2    FLOW      -1
865          RC    .025    .025    .025    5280    .035
866          RX    1000    1010    1020    1032    1042    1054    1064    1074
867          RY      14    13.5      13      10      10      13    13.5      14

868          KK    C385
869          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 385 AND C119
             *      1       2
870          HC       2
             * DDM   ***** Preserved *****

871          KK    R454
872          KM   FROM SUB-BASIN 454 TO SUB-BASIN 455
873          RS       2    FLOW      -1
874          RC     .05    .035     .05    2200    .005
875          RX    1000    1010    1020    1032    1062    1074    1084    1094
876          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Preserved *****
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877          KK     415
878          KM   SUB-BASIN 415
879          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
880          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
881          KM     L = 1.10  Kb = .049  Adj. Slope =  127.0
882          BA    .263
883          LG    .300    .260   3.600    .720  15.000
884          UC    .387    .298
             * DDM   ***** Preserved *****

885          KK    415C
886          KM   HYDROGRAPH COMBINATION FOR SUB-BASINS 410 & 420
887          HC       2
             * DDM   ***** Preserved *****

888          KK    D454
889          KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
890          KM   DETENTION/RETENTION BASINS LOCATED WITHIN PROPOSED ALTERNATIVE
891          KM        MAXIMUM VOLUME DIVERSION = 45 ACRE-FEET
892          KO       1
893          DT   BS454
894          DI       0     550    2000
895          DQ       0       0    1450
             * DDM   ***** Preserved *****

896          KK   415CC
897          KM   HYDROGRAPH COMBINATION FOR SUB-BASINS 410 & 420
898          HC       2
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 25

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


899          KK   RR410
900          KM   FROM SUB-BASIN
901          RS       2    FLOW      -1
902          RC    .025    .025    .025    3900   .0133
903          RX    1000    1010    1020    1029    1044    1053    1063    1073
904          RY      14    13.5      13      10      10      13    13.5      14
             * DDM   ***** Preserved *****

905          KK     455
906          KM   SUB-BASIN 455
907          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
908          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
909          KM     L = 1.59  Kb = .041  Adj. Slope =  151.0
910          BA   1.112
911          LG    .270    .270   3.700    .650  25.000
912          UC    .396    .180
             * DDM   ***** Preserved *****

913          KK    C455
914          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
915          HC       3
             * DDM   ***** Preserved *****

916          KK   SR440
917          KM   SPOOK HILL FRS PLANS DATED 6/15/77
918          KM   OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
919          KM   EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
920          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
921          RS       1    STOR       0
922          SV       0     .04     100     300     500     680
923          SQ       0     640     720     780     825     860
924          SE      66    77.5      79    80.2    81.2      82
             * DDM   ***** Preserved *****

925          KK   RR455
926          KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
927          RS       8    FLOW      -1
928          RC    .016    .016    .016    9200    .002
929          RX       0       1       2      15      71      84      85      86
930          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
             *     11    FLOW      -1
             *   .035    .025    .035    9200    .002
             *      0       1       2      28      58      84      85      86
             *     13      13      13       0       0      13      13      13
             * DDM   ***** Preserved *****

931          KK     456
932          KM   SUB-BASIN 456
933          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
934          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
935          KM     L =  .94  Kb = .045  Adj. Slope =  315.0
936          BA    .260
937          LG    .300    .380   5.600    .200  12.000
938          UC    .217    .139
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 26

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


939          KK    DIV1
940          KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
941          KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
             *      1
942          DT  BASIN1
943          DI       0    24.4    70.8   132.2   194.1   281.1   415.5   571.9   753.2
944          DQ       0       0       0       0       0    57.3     162   297.6   458.2
             * DDM   ***** Preserved *****

945          KK    DIV2
946          KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
947          KM        WASHES THAT DRAIN TO THE WEST,SOUTHERN WASHES FED BY 30" AND 18" PIPE
948          DT    WA30
949          DI       0    24.4    70.8   132.2   194.1   223.8   253.5  274.25     295
950          DQ       0     8.4    24.8    40.2    52.1    57.8    63.5    67.3      71
             * DDM   ***** Preserved *****

951          KK    R456
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807          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
808          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
809          BA    .060
810          LG    .290    .300   3.290    .820  18.000
811          UC    .275    .284
             * DDM   ***** Preserved *****

812          KK    C117
813          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 70 AND C115
814          HC       2
             * DDM   ***** Preserved *****

815          KK    C118
816          KM        COMBINE HYDROGRAPHS FROM C116 AND C117
817          HC       2
             * DDM   ***** Preserved *****

818          KK    R118
819          KM        ROUTE FLOW FROM C118 TO C119
820          RS       1    FLOW      -1
821          RC    .019    .019    .019    1500    .024
822          RX    1000    1012    1016    1020    1035    1039    1043    1055
823          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

824          KK    DIV7
825          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE,FLOWS ENTER BASIN OVER
826          KM        60' WEIR SET AT 1.5' ABOVE THE CHANNEL BOTTOM
             *      1
827          DT  BASIN6
828          DI       0    20.4    76.9   176.4   383.8   696.7  1105.8  1611.6
829          DQ       0       0       0       0    57.3     162   297.6   458.2
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 23

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

830          KK  RTDIV7
831          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
832          DR  BASIN6
             * DDM   ***** Preserved *****

833          KK  RFDIV7
834          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
835          KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
836          RS       1    STOR       0
837          SV       0     .01     3.6
838          SQ       0     1.2     1.2
             * DDM   ***** Preserved *****

839          KK   CDIV7
840          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
841          HC       2
             * DDM   ***** Preserved *****

842          KK     454
843          KM   SUB-BASIN 454
844          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
845          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
846          KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
847          BA    .180
848          LG    .300    .310   3.780    .560  14.000
849          UC    .379    .395
             * DDM   ***** Preserved *****

850          KK    C119
851          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 71 AND C119
             *      1       2
852          HC       2

853          KK     385
854          KM   SUB-BASIN 385
855          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
856          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
857          KM     L = 2.30  Kb = .042  Adj. Slope =  303.0
858          BA    .846
859          LG    .350    .370   5.200    .240  10.000
860          UC    .371    .263
             *   D385
             *       DIVERT FLOW INTO OFFLINE DETENTION BASIN
             *  DETENTION/RETENTION BASINS LOCATED WITHIN PROPOSED ALTERNATIVE
             *       MAXIMUM VOLUME DIVERSION = 45 ACRE-FEET
             *      1
             *  BS385
             *      0      20    1000
             *      0       0     980
1                                        HEC-1 INPUT                                          PAGE 24

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

861          KK   RR385
862          KM   FROM SUB-BASIN 385 TO C.P.C119
863          KO       1
864          RS       2    FLOW      -1
865          RC    .025    .025    .025    5280    .035
866          RX    1000    1010    1020    1032    1042    1054    1064    1074
867          RY      14    13.5      13      10      10      13    13.5      14

868          KK    C385
869          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 385 AND C119
             *      1       2
870          HC       2
             * DDM   ***** Preserved *****

871          KK    R454
872          KM   FROM SUB-BASIN 454 TO SUB-BASIN 455
873          RS       2    FLOW      -1
874          RC     .05    .035     .05    2200    .005
875          RX    1000    1010    1020    1032    1062    1074    1084    1094
876          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Preserved *****
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877          KK     415
878          KM   SUB-BASIN 415
879          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
880          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
881          KM     L = 1.10  Kb = .049  Adj. Slope =  127.0
882          BA    .263
883          LG    .300    .260   3.600    .720  15.000
884          UC    .387    .298
             * DDM   ***** Preserved *****

885          KK    415C
886          KM   HYDROGRAPH COMBINATION FOR SUB-BASINS 410 & 420
887          HC       2
             * DDM   ***** Preserved *****

888          KK    D454
889          KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
890          KM   DETENTION/RETENTION BASINS LOCATED WITHIN PROPOSED ALTERNATIVE
891          KM        MAXIMUM VOLUME DIVERSION = 45 ACRE-FEET
892          KO       1
893          DT   BS454
894          DI       0     550    2000
895          DQ       0       0    1450
             * DDM   ***** Preserved *****

896          KK   415CC
897          KM   HYDROGRAPH COMBINATION FOR SUB-BASINS 410 & 420
898          HC       2
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                                    PAGE 25

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


899          KK   RR410
900          KM   FROM SUB-BASIN
901          RS       2    FLOW      -1
902          RC    .025    .025    .025    3900   .0133
903          RX    1000    1010    1020    1029    1044    1053    1063    1073
904          RY      14    13.5      13      10      10      13    13.5      14
             * DDM   ***** Preserved *****

905          KK     455
906          KM   SUB-BASIN 455
907          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
908          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
909          KM     L = 1.59  Kb = .041  Adj. Slope =  151.0
910          BA   1.112
911          LG    .270    .270   3.700    .650  25.000
912          UC    .396    .180
             * DDM   ***** Preserved *****

913          KK    C455
914          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
915          HC       3
             * DDM   ***** Preserved *****

916          KK   SR440
917          KM   SPOOK HILL FRS PLANS DATED 6/15/77
918          KM   OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
919          KM   EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
920          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
921          RS       1    STOR       0
922          SV       0     .04     100     300     500     680
923          SQ       0     640     720     780     825     860
924          SE      66    77.5      79    80.2    81.2      82
             * DDM   ***** Preserved *****

925          KK   RR455
926          KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
927          RS       8    FLOW      -1
928          RC    .016    .016    .016    9200    .002
929          RX       0       1       2      15      71      84      85      86
930          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
             *     11    FLOW      -1
             *   .035    .025    .035    9200    .002
             *      0       1       2      28      58      84      85      86
             *     13      13      13       0       0      13      13      13
             * DDM   ***** Preserved *****

931          KK     456
932          KM   SUB-BASIN 456
933          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
934          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
935          KM     L =  .94  Kb = .045  Adj. Slope =  315.0
936          BA    .260
937          LG    .300    .380   5.600    .200  12.000
938          UC    .217    .139
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                                    PAGE 26

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


939          KK    DIV1
940          KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
941          KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
             *      1
942          DT  BASIN1
943          DI       0    24.4    70.8   132.2   194.1   281.1   415.5   571.9   753.2
944          DQ       0       0       0       0       0    57.3     162   297.6   458.2
             * DDM   ***** Preserved *****

945          KK    DIV2
946          KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
947          KM        WASHES THAT DRAIN TO THE WEST,SOUTHERN WASHES FED BY 30" AND 18" PIPE
948          DT    WA30
949          DI       0    24.4    70.8   132.2   194.1   223.8   253.5  274.25     295
950          DQ       0     8.4    24.8    40.2    52.1    57.8    63.5    67.3      71
             * DDM   ***** Preserved *****

951          KK    R456
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952          KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
953          RS       3    FLOW      -1
954          RC     .05    .035     .05    3800    .044
955          RX    1000    1010    1020    1036    1041    1057    1067    1077
956          RY   14.88   14.44      14      10      10      14   14.44   14.88
             * DDM   ***** Preserved *****

957          KK     457
958          KM   SUB-BASIN 457
959          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
960          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
961          KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
962          BA    .190
963          LG    .270    .330   3.950    .460   6.000
964          UC    .237    .195
             * DDM   ***** Preserved *****

965          KK    C101
966          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
967          HC       2
             * DDM   ***** Preserved *****

968          KK    DIV3
969          KM        RESERVOIR AT THE EDGE OF THE PROPERTY,FLOW FROM 10' WIDE CHANNEL
970          KM        DIVERTED INTO OFFLINE BASIN OVER A 150' WEIR SET AT 0.75 FEET
971          KM        ABOVE CHANNEL
             *      1
972          DT  BASIN2
973          DI       0      18    59.3   121.6   255.8   454.1   703.1   998.3  1338.4
974          DQ       0       0       0       0    50.6   143.2   263.1     405     566
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

975          KK  RTDIV3
976          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
977          DR  BASIN2
             * DDM   ***** Preserved *****

978          KK  RFDIV3
979          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
980          KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
981          RS       1    STOR       0
982          SV       0     .01       5
983          SQ       0     1.7     1.7
             * DDM   ***** Preserved *****

984          KK   CDIV3
985          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
986          HC       2
             * DDM   ***** Preserved *****

987          KK    R101
988          KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
989          RS       1    FLOW      -1
990          RC     .05    .035     .05    1450     .05
991          RX    1000    1010    1020    1036    1041    1057    1067    1077
992          RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Preserved *****

993          KK     458
994          KM   SUB-BASIN 458
995          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
996          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
997          KM     L =  .76  Kb = .048  Adj. Slope =  299.0
998          BA    .190
999          LG    .290    .330   5.800    .190   6.000
1000         UC    .204    .131
             * DDM   ***** Preserved *****

1001         KK    C103
1002         KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
1003         HC       2
             * DDM   ***** Preserved *****

1004         KK    R103
1005         KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
1006         RS       1    FLOW      -1
1007         RC     .05    .035     .05     900     .03
1008         RX    1000    1010    1020    1030    1050    1060    1070    1080
1009         RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1010         KK    RT30
1011         KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
1012         DR    WA30
             * DDM   ***** Preserved *****

1013         KK     R30
1014         KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
1015         RS       1    FLOW      -1
1016         RC     .05    .035     .05    1630     .05
1017         RX    1000    1010    1020    1036    1041    1057    1067    1077
1018         RY      15    14.5      14      10      10      14    14.5      15
             * DDM   ***** Preserved *****

1019         KK    RTB1
1020         KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1       2
1021         DR  BASIN1
             * DDM   ***** Preserved *****

1022         KK      B1
1023         KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1024         KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
             *      1       2
1025         RS       1    ELEV       0
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1026        SV              .7     1.4     2.3     2.7     3.2
1027        SQ       0       5      16      28    32.5      37
1028        SE       0       1       2       3     3.5       4
            * DDM   ***** Preserved *****

1029        KK     RB1
1030        KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
1031        RS       2    FLOW      -1
1032        RC     .05    .035     .05    1720     .05
1033        RX    1000    1010    1020    1036    1041    1057    1067    1077
1034        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Preserved *****

1035        KK    CDIV
1036        KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1037        HC       2     .12
            * DDM   ***** Preserved *****

1038        KK     459
1039        KM   SUB-BASIN 459
1040        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1041        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1042        KM     L =  .35  Kb = .052  Adj. Slope =  251.6
1043        BA    .030
1044        LG    .220    .300   3.330    .710   8.000
1045        UC    .162    .157
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                    PAGE 29

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1046        KK     C52
1047        KM        COMBINE FLOWS FROM SUB-BASIN 52,WA30 AND BASIN 1
1048        HC       2
            * DDM   ***** Preserved *****

1049        KK     R52
1050        KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1051        RS       1    FLOW      -1
1052        RC     .05    .035     .05    2000     .05
1053        RX    1000    1010    1020    1036    1041    1057    1067    1077
1054        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Preserved *****

1055        KK     460
1056        KM   SUB-BASIN 460
1057        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1058        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1059        KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1060        BA    .140
1061        LG    .250    .260   3.740    .690  27.000
1062        UC    .242    .160
            * DDM   ***** Preserved *****

1063        KK    C102
1064        KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1065        HC       2
            * DDM   ***** Preserved *****

1066        KK  BASIN3
1067        KM        RESERVOIR AT CLUBHOUSE LOCATION,1-30 INCH PIPE AT OUTFALL
1068        KM        BOTTOM OF BASIN AT 6 FEET ABOVE 0 ELEVATION
1069        RS       1    ELEV       0
1070        SA       0       0       0       0     .21    1.15       2    2.12    2.31    2.65
            *      0       0       0       0    1.14    3.25    5.52    9.23
1071        SE       0     2.5       5       6       7     7.5       8       9    10.5    12.5
1072        SQ       0      22      45      51      57    59.5      62      67      73      81
            * DDM   ***** Preserved *****

1073        KK      R3
1074        KM        ROUTE FLOW FROM C102 to C106
1075        RS       4    FLOW      -1
1076        RC     .05     .03     .05    2750   .0375
1077        RX    1000    1010    1020    1052    1086    1118    1128    1138
1078        RY    19.2    18.4      18      10      10      18    18.4    19.2
            * DDM   ***** Preserved *****

1079        KK     461
1080        KM   SUB-BASIN 461
1081        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1082        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1083        KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1084        BA    .120
1085        LG    .270    .250   4.250    .450  21.000
1086        UC    .271    .250
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                    PAGE 30

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1087        KK    C104
1088        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1089        HC       2
            * DDM   ***** Preserved *****

1090        KK    C106
1091        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1092        HC       2
            * DDM   ***** Preserved *****

1093        KK    R106
1094        KM        ROUTE FLOW FROM C106 TO C49
1095        RS       2    FLOW      -1
1096        RC     .05    .035     .05    3950    .033
1097        RX    1000    1010    1020    1030    1050    1060    1070    1080
1098        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Preserved *****

1099        KK     462
1100        KM   SUB-BASIN 462
1101        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
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1102        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1103        KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1104        BA    .301
1105        LG    .300    .330   5.300    .240  12.000
1106        UC    .225    .137
            * DDM   ***** Preserved *****

1107        KK     C56
1108        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
            *      1       2
1109        HC       2
            * DDM   ***** Preserved *****

1110        KK     480
1111        KM   SUB-BASIN 480
1112        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1113        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1114        KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1115        BA    .731
1116        LG    .270    .270   3.580    .730  27.000
1117        UC    .325    .148
            * DDM   ***** Preserved *****

1118        KK    D480
1119        KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1120        KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1121        KM   FOR BASIN #: 18 & 26
1122        KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
            *      1
1123        DT   BS480    16.5
1124        DI       0   10000
1125        DQ       0   10000
            * DDM   ***** Preserved *****
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1126        KK   RT480
1127        KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1128        DR   BS480
            * DDM   ***** Preserved *****

1129        KK   SR480
1130        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1131        KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1132        RS       1    STOR       0
1133        SV       0     .01    16.5
1134        SQ       0     5.6     5.6
            * DDM   ***** Preserved *****

1135        KK    C480
1136        KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1137        HC       2
            * DDM   ***** Preserved *****

1138        KK    480C
1139        KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1140        HC       3    2.09
            * DDM   ***** Preserved *****

1141        KK   RR480
1142        KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
1143        RS       2    FLOW      -1
1144        RC    .025    .025    .025    6500     .05
1145        RX       0       1       2      28      58      84      85      86
1146        RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
            * DDM   ***** Preserved *****

1147        KK     500
1148        KM   SUB-BASIN 500
1149        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1150        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
1151        KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
1152        BA    .930
1153        LG    .350    .400   6.000    .170   9.000
1154        UC    .421    .333
            * DDM   ***** Preserved *****

1155        KK    500C
1156        KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1157        HC       2    2.84
1158        ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  60          20
               .
               .
  68           .          40
               .           .
               .           .
  76           .           .          60
               .           .           .
               .           .           .
  84         60C.......................
              V
              V
  87        SR60
              V
              V
  96         R60
              V
              V
 102        RR60
               .
               .
 108           .          80
               .           .
               .           .
 116         80C............
              V
              V
 119         R80
               .
               .
 125           .         100
               .           .
               .           .
 133        100C............
              V
              V
 136        R100
               .
               .
 142           .         120
               .           .
               .           .
 150        120C............
              V
              V
 153        R120
               .
               .
 159           .         140
               .           .
               .           .
 167           .           .         160
               .           .           .
               .           .           .
 175           .           .           .         180
               .           .           .           .
               .           .           .           .
 183        180C...................................
               .
               .
 186           .         240
               .           V
               .           V
 194           .        R240
               .           .
               .           .
 201           .           .         220
               .           .           .
               .           .           .
 209           .        220C............
               .           V
               .           V
 212           .        R220
               .           .
               .           .
 219           .           .         200
               .           .           .
               .           .           .
 227           .        200C............
               .           V
               .           V
 230           .        R200
               .           .
               .           .
 236        C180............
              V
              V
 239       SR180
              V
              V
 248        R180
               .
               .
 254           .         260
               .           .
               .           .
 262        260C............
              V
              V
 265        R260
               .
               .
 271           .         280
               .           .
               .           .
 279        280C............
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
 NO.       (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

 60          20
              .
              .
 68           .          40
              .           .
              .           .
 76           .           .          60
              .           .           .
              .           .           .
 84         60C.......................
              V
              V
 87        SR60
              V
              V
 96         R60
              V
              V
102        RR60
              .
              .
108           .          80
              .           .
              .           .
116         80C............
              V
              V
119         R80
              .
              .
125           .         100
              .           .
              .           .
133       100C............
              V
              V
136       R100
              .
              .
142           .         120
              .           .
              .           .
150       120C............
              V
              V
153       R120
              .
              .
159           .         140
              .           .
              .           .
167           .           .         160
              .           .           .
              .           .           .
175           .           .           .         180
              .           .           .           .
              .           .           .           .
183       180C.................................
              .
              .
186           .         240
              .           V
              .           V
194           .        R240
              .           .
              .           .
201           .           .         220
              .           .           .
              .           .           .
209           .        220C............
              .           V
              .           V
212           .        R220
              .           .
              .           .
219           .           .         200
              .           .           .
              .           .           .
227           .        200C............
              .           V
              .           V
230           .        R200
              .           .
              .           .
236       C180............
              V
              V
239      SR180
              V
              V
248       R180
              .
              .
254           .         260
              .           .
              .           .
262       260C............
              V
              V
265       R260
              .
              .
271           .         280
              .           .
              .           .
279       280C............
```

```
            V
            V
282       R280
            .
            .
288         .         300
            .           .
            .           .
296       300C............
            V
            V
299       R300
            V
            V
305      RR300
            .
            .
311         .         320
            .           .
            .           .
324         .           .-------->   BS320
319         .       D320
            .           .
            .           .
329         .           .          .<-------   BS320
327         .           .      RT320
            .           .          V
            .           .          V
330         .           .      SR320
            .           .          .
            .           .          .
336       C320......................
            .
            .
339         .         340
            .           .
            .           .
352         .           .-------->   BS340
347         .       D340
            .           .
            .           .
357         .           .          .<-------   BS340
355         .           .      RT340
            .           .          V
            .           .          V
358         .           .      SR340
            .           .          .
            .           .          .
364       C340......................
            .
            .
367         .         350
            .           V
            .           V
375         .      RR350
            .           .
            .           .
381         .           .        360
            .           .          .
            .           .          .
393         .           .          .-------->   BS360
389         .           .      D360
            .           .          .
            .           .          .
398         .           .          .          .<-------   BS360
396         .           .          .      RT360
            .           .          .          V
            .           .          .          V
399         .           .          .      SR360
            .           .          .          .
            .           .          .          .
405       360C.................................
            .
            .
408         .         380
            .           .
            .           .
420         .           .-------->   BS380
416         .       D380
            .           .
            .           .
425         .           .          .<-------   BS380
423         .           .      RT380
            .           .          V
            .           .          V
426         .           .      SR380
            .           .          .
            .           .          .
432       380C......................
            .
            .
435         .         400
            .           .
            .           .
443       400C............
            .
            .
446         .         420
            .           .
            .           .
458         .           .-------->   BS420
454         .       D420
            .           .
            .           .
463         .           .          .<-------   BS420
461         .           .      RT420
            .           .          V
            .           .          V
464         .           .      SR420
            .           .          .
            .           .          .
470       420C......................
            .
```

```
473          370
             .
             .
486          .-------> BS370
481       D370
             V
             V
489       RR370
             .
             .
495          .        390
             .          .
             .          .
507          .          .-------> BS390
503          .       D390
             .          .
             .          .
512          .          .          .<-------  BS390
510          .          .      RT390
             .          .          V
             .          .          V
513          .          .      SR390
             .          .          .
             .          .          .
519       390C.......................
             V
             V
522       RR390
             .
             .
528          .        410
             .          .
             .          .
536       410C............
             .
             .
539          .        440
             .          V
             .          V
547          .        R70
             .          .
             .          .
553          .          .        441
             .          .          .
             .          .          .
561          .       C108............
             .          .
             .          .
566          .          .-------> SPLIT
564          .       DIV4
             .          V
             .          V
569          .       R108
             .          .
             .          .
575          .          .        442
             .          .          .
             .          .          .
583          .        C67............
             .          .
             .          .
589          .          .-------> BASIN4
586          .       DIV6
             .          .
             .          .
594          .          .          .<-------  BASIN4
592          .          .     RTDIV6
             .          .          V
             .          .          V
595          .          .     RFDIV6
             .          .          .
             .          .          .
601          .      CDIV6............
             .          .
             .          .
604          .          .        443
             .          .          .
             .          .          .
615          .          .          .-------> WSH66
612          .          .      DIV66
             .          .          V
             .          .          V
618          .          .      R113
             .          .          .
             .          .          .
624          .       C114............
             .          .
             .          .
627          .          .        444
             .          .          V
             .          .          V
635          .          .        R58
             .          .          .
             .          .          .
641          .          .          .        445
             .          .          .          .
             .          .          .          .
649          .          .      C107............
             .          .          V
             .          .          V
652          .          .      R107
             .          .          .
             .          .          .
660          .          .          .          .<-------  SPLIT
658          .          .          .      RTB2
             .          .          .          V
             .          .          .          V
661          .          .          .     RSPLIT
             .          .          .          .
             .          .          .          .
667          .          .          .          .        446
             .          .          .          .          .
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675                 C109.......................
                       .
                       .
681                    .-------> WSH404
678                 DIV5
                       V
                       V
684                 R109
                       .
                       .
690                    .         447
                       .           .
                       .           .
700                    .           .          .<-------  WSH404
698                    .           .      RT404
                       .           .          V
                       .           .          V
701                    .           .       R404
                       .           .          .
                       .           .          .
707                 C110.......................
                       V
                       V
710                 R110
                       .
                       .
716              C115............
                    V
                    V
719              R115
                       .
                       .
726                 448
                       .
                       .
734                    .         449
                       .           .
                       .           .
742              C6364............
                       V
                       V
745              R6364
                       .
                       .
751                    .         450
                       .           .
                       .           .
759                    .           .         451
                       .           .           .
                       .           .           .
769                    .           .           .           .<-------   WSH66
767                    .           .           .        RT66
                       .           .           .           .
                       .           .           .           .         452
770                    .           .           .           .           .
                       .           .           .           .           .
778                    .           .           .       C6566............
                       .           .           .           V
                       .           .           .           V
781                    .           .           .       R6566
                       .           .           .           .
                       .           .           .           .
787                 C116.................................
                       V
                       V
791              BASIN5
                       V
                       V
798                 R116
                       .
                       .
804                    .         453
                       .           .
                       .           .
812                 C117............
                       .
                       .
815              C118............
                    V
                    V
818              R118
                       .
                       .
827                    .-------> BASIN6
824              DIV7
                       .
                       .
832                    .           .<-------  BASIN6
830                 RTDIV7
                       V
                       V
833                 RFDIV7
                       .
                       .
839              CDIV7............
                       .
                       .
842                 454
                       .
                       .
850              C119............
                       .
                       .
853                 385
                       V
                       V
861                 RR385
                       .
                       .
868              C385............
                    V
```

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                 .          .          V
871              .          .       R454
                 .          .          .
                 .          .          .
877              .          .          .        415
                 .          .          .          .
                 .          .          .          .
885              .          .       415C...........
                 .          .          .
                 .          .          .
893              .          .          .-------->  BS454
888              .          .       D454
                 .          .          .
                 .          .          .
896              .      415CC...........
                 .         V
                 .         V
899              .      RR410
                 .          .
                 .          .
905              .          .        455
                 .          .          .
                 .          .          .
913          C455........................
                V
                V
916         SR440
                V
                V
925         RR455
                .
                .
931              .        456
                 .          .
                 .          .
942              .          .-------->  BASIN1
939              .      DIV1
                 .          .
                 .          .
948              .          .-------->   WA30
945              .      DIV2
                 .         V
                 .         V
951              .      R456
                 .          .
                 .          .
957              .          .        457
                 .          .          .
                 .          .          .
965              .      C101...........
                 .          .
                 .          .
972              .          .-------->  BASIN2
968              .      DIV3
                 .          .
                 .          .
977              .          .          .<--------  BASIN2
975              .          .     RTDIV3
                 .          .          V
                 .          .          V
978              .          .     RFDIV3
                 .          .          .
                 .          .          .
984              .      CDIV3...........
                 .         V
                 .         V
987              .      R101
                 .          .
                 .          .
993              .          .        458
                 .          .          .
                 .          .          .
1001             .      C103...........
                 .         V
                 .         V
1004             .      R103
                 .          .
                 .          .
1012             .          .          .<--------   WA30
1010             .          .       RT30
                 .          .          V
                 .          .          V
1013             .          .        R30
                 .          .          .
                 .          .          .
1021             .          .          .          .<--------  BASIN1
1019             .          .          .       RTB1
                 .          .          .          V
                 .          .          .          V
1022             .          .          .         B1
                 .          .          .          V
                 .          .          .          V
1029             .          .          .        RB1
                 .          .          .          .
                 .          .          .          .
1035             .          .       CDIV...........
                 .          .          .
                 .          .          .
1038             .          .          .        459
                 .          .          .          .
                 .          .          .          .
1046             .          .        C52...........
                 .          .          V
                 .          .          V
1049             .          .        R52
                 .          .          .
                 .          .          .
1055             .          .          .        460
                 .          .          .          .
                 .          .          .          .
1063             .          .       C102...........
                 .          .          V
                 .          .          V
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1066          .           .      BASIN3
              .           .          V
              .           .          V
1073          .           .         R3
              .           .          .
              .           .          .
1079          .           .          .        461
              .           .          .          .
              .           .          .          .
1087          .           .       C104............
              .           .          .
              .           .          .
1090          .        C106............
              .           V
              .           V
1093          .        R106
              .           .
              .           .
1099          .           .        462
              .           .          .
              .           .          .
1107          .         C56............
              .           .
              .           .
1110          .           .        480
              .           .          .
              .           .          .
1123          .           .          .-------->   BS480
1118          .           .       D480
              .           .          .
              .           .          .
1128          .           .          .          .<-------   BS480
1126          .           .          .      RT480
              .           .          .          V
              .           .          .          V
1129          .           .          .      SR480
              .           .          .          .
              .           .          .          .
1135          .           .       C480............
              .           .          .
              .           .          .
1138       480C........................
              V
              V
1141      RR480
              .
              .
1147          .         500
              .           .
              .           .
1155       500C............
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	20	1130.	12.57	243.	64.	31.	1.82		
+	HYDROGRAPH AT	40	2286.	12.27	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1405.	12.37	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	4438.	12.30	712.	189.	91.	5.80		
+	ROUTED TO	SR60	92.	14.77	92.	89.	71.	5.80		
+	ROUTED TO	R60	92.	14.83	92.	89.	70.	5.80		
+	ROUTED TO	RR60	92.	14.93	92.	89.	70.	5.80		
+	HYDROGRAPH AT	80	1693.	12.20	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	1767.	12.20	266.	134.	93.	1.48		
+	ROUTED TO	R80	1765.	12.23	266.	134.	93.	1.48		
+	HYDROGRAPH AT	100	389.	12.33	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2117.	12.23	321.	148.	99.	1.96		
+	ROUTED TO	R100	2116.	12.27	321.	148.	99.	1.96		
+	HYDROGRAPH AT	120	2960.	12.20	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	4993.	12.23	636.	229.	141.	4.16		
+	ROUTED TO	R120	4949.	12.27	636.	229.	141.	4.16		
+	HYDROGRAPH AT	140	598.	12.23	64.	17.	8.	.60		
+	HYDROGRAPH AT	160	588.	12.30	85.	22.	11.	.78		
+	HYDROGRAPH AT	180	694.	12.33	90.	23.	11.	1.00		
+	4 COMBINED AT	180C	6691.	12.27	863.	286.	169.	6.54		
+	HYDROGRAPH AT	240	770.	12.30	107.	27.	13.	1.04		
+	ROUTED TO	R240	760.	12.37	107.	27.	13.	1.04		
+	HYDROGRAPH AT	220	1427.	12.23	167.	43.	21.	1.25		
+	2 COMBINED AT	220C	2088.	12.27	271.	69.	33.	2.29		
+	ROUTED TO	R220	2057.	12.30	271.	69.	33.	2.29		
+	HYDROGRAPH AT	200	2059.	12.23	236.	65.	31.	1.81		
+	2 COMBINED AT	200C	3995.	12.27	501.	132.	64.	4.10		
+	ROUTED TO	R200	3967.	12.30	501.	132.	64.	4.10		
+	2 COMBINED AT	C180	10520.	12.27	1345.	410.	230.	10.64		
+	ROUTED TO	SR180	141.	15.23	141.	140.	116.	10.64		
+	ROUTED TO	R180	141.	15.30	141.	140.	116.	10.64		
	HYDROGRAPH AT	260	401.	12.17	43.	12.	6.	.27		
	2 COMBINED AT	260C	515.	12.17	180.	151.	123.	.27		
+	ROUTED TO	R260	500.	12.23	180.	151.	122.	.27		
+	HYDROGRAPH AT	280	452.	12.13	42.	12.	6.	.30		

+	2 COMBINED AT	280C	908.	12.17	219.	161.	128.	.57
+	ROUTED TO	R280	889.	12.27	219.	161.	127.	.57
+	HYDROGRAPH AT	300	824.	12.30	109.	29.	14.	.99
+	2 COMBINED AT	300C	1686.	12.27	325.	188.	141.	1.56
+	ROUTED TO	R300	1664.	12.33	325.	188.	140.	1.56
+	ROUTED TO	RR300	1641.	12.40	325.	188.	140.	1.56
+	HYDROGRAPH AT	320	889.	12.43	171.	47.	22.	1.53
+	DIVERSION TO	BS320	390.	12.07	21.	6.	3.	1.53
+	HYDROGRAPH AT	D320	889.	12.43	157.	41.	19.	1.53
+	HYDROGRAPH AT	RT320	390.	12.07	21.	6.	3.	1.53
+	ROUTED TO	SR320	4.	4.40	4.	4.	3.	1.53
+	3 COMBINED AT	C320	2503.	12.40	482.	232.	162.	3.09
+	HYDROGRAPH AT	340	1381.	12.27	186.	55.	26.	1.45
+	DIVERSION TO	BS340	1381.	12.27	104.	28.	14.	1.45
+	HYDROGRAPH AT	D340	1219.	12.40	98.	27.	13.	1.45
+	HYDROGRAPH AT	RT340	1381.	12.27	104.	28.	14.	1.45
+	ROUTED TO	SR340	19.	9.03	19.	19.	14.	1.45
+	3 COMBINED AT	C340	3709.	12.40	592.	276.	187.	4.53
+	HYDROGRAPH AT	350	1102.	12.17	103.	27.	13.	.97
+	ROUTED TO	RR350	941.	12.57	103.	27.	13.	.97
+	HYDROGRAPH AT	360	668.	12.50	151.	42.	20.	1.33
+	DIVERSION TO	BS360	655.	12.43	53.	14.	7.	1.33
+	HYDROGRAPH AT	D360	657.	12.57	106.	28.	13.	1.33
+	HYDROGRAPH AT	RT360	655.	12.43	53.	14.	7.	1.33
+	ROUTED TO	SR360	10.	9.47	10.	10.	7.	1.33
+	4 COMBINED AT	360C	4557.	12.53	799.	337.	219.	6.83
+	HYDROGRAPH AT	380	724.	12.37	99.	27.	13.	.98
+	DIVERSION TO	BS380	724.	12.37	56.	14.	7.	.98
+	HYDROGRAPH AT	D380	584.	12.53	47.	12.	6.	.98
+	HYDROGRAPH AT	RT380	724.	12.37	56.	14.	7.	.98
+	ROUTED TO	SR380	10.	11.30	10.	10.	7.	.98
+	3 COMBINED AT	380C	5121.	12.53	850.	357.	231.	7.82
+	HYDROGRAPH AT	400	333.	12.37	47.	13.	6.	.62
+	2 COMBINED AT	400C	5383.	12.53	893.	369.	237.	8.43
+	HYDROGRAPH AT	420	574.	12.23	65.	18.	9.	.58
+	DIVERSION TO	BS420	574.	12.23	65.	18.	9.	.58
+	HYDROGRAPH AT	D420	0.	.00	0.	0.	0.	.58
+	HYDROGRAPH AT	RT420	574.	12.23	65.	18.	9.	.58

+	ROUTED TO	SR420	13.	11.60	13.	13.	9.	.58
+	3 COMBINED AT	420C	5390.	12.53	905.	381.	245.	9.01
+	HYDROGRAPH AT	370	504.	12.30	78.	21.	10.	.66
+	DIVERSION TO	BS370	502.	12.30	76.	19.	9.	.66
+	HYDROGRAPH AT	D370	2.	4.60	2.	2.	1.	.66
+	ROUTED TO	RR370	2.	5.20	2.	2.	1.	.66
+	HYDROGRAPH AT	390	403.	12.23	55.	16.	8.	.42
+	DIVERSION TO	BS390	38.	11.73	5.	2.	1.	.42
+	HYDROGRAPH AT	D390	403.	12.23	53.	14.	7.	.42
+	HYDROGRAPH AT	RT390	38.	11.73	5.	2.	1.	.42
+	ROUTED TO	SR390	1.	.90	1.	1.	1.	.42
+	3 COMBINED AT	390C	403.	12.23	56.	17.	8.	1.08
+	ROUTED TO	RR390	387.	12.33	56.	17.	8.	1.08
+	HYDROGRAPH AT	410	478.	12.03	32.	9.	4.	.27
+	2 COMBINED AT	410C	615.	12.10	86.	26.	13.	1.35
+	HYDROGRAPH AT	440	179.	12.00	12.	3.	2.	.08
+	ROUTED TO	R70	174.	12.03	12.	3.	2.	.08
+	HYDROGRAPH AT	441	16.	12.07	1.	0.	0.	.01
+	2 COMBINED AT	C108	189.	12.03	14.	4.	2.	.09
+	DIVERSION TO	SPLIT	95.	12.03	7.	2.	1.	.09
+	HYDROGRAPH AT	DIV4	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	R108	87.	12.10	7.	2.	1.	.09
+	HYDROGRAPH AT	442	99.	12.13	9.	2.	1.	.10
+	2 COMBINED AT	C67	183.	12.13	15.	4.	2.	.19
+	DIVERSION TO	BASIN4	115.	12.13	6.	1.	1.	.19
+	HYDROGRAPH AT	DIV6	68.	12.13	10.	3.	1.	.19
+	HYDROGRAPH AT	RTDIV6	115.	12.13	6.	1.	1.	.19
+	ROUTED TO	RFDIV6	1.	11.93	1.	1.	1.	.19
+	2 COMBINED AT	CDIV6	69.	12.13	11.	4.	2.	.19
+	HYDROGRAPH AT	443	146.	12.07	14.	4.	2.	.08
+	DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	DIV66	68.	12.07	3.	1.	0.	.08
+	ROUTED TO	R113	66.	12.10	3.	1.	0.	.08
+	2 COMBINED AT	C114	133.	12.10	13.	4.	2.	.27
+	HYDROGRAPH AT	444	81.	12.00	5.	1.	1.	.04
+	ROUTED TO	R58	78.	12.07	5.	1.	1.	.04
+	HYDROGRAPH AT	445	288.	12.07	18.	5.	2.	.19
+	2 COMBINED AT	C107	363.	12.07	22.	6.	3.	.23

+	ROUTED TO	R107	362.	12.07	22.	6.	3.	.23
+	HYDROGRAPH AT	RTB2	95.	12.03	7.	2.	1.	.09
+	ROUTED TO	RSPLIT	94.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT	446	64.	12.07	6.	2.	1.	.04
+	3 COMBINED AT	C109	516.	12.07	35.	9.	4.	.27
+	DIVERSION TO	WSH404	35.	11.73	7.	2.	1.	.27
+	HYDROGRAPH AT	DIV5	481.	12.07	27.	7.	3.	.27
+	ROUTED TO	R109	469.	12.10	27.	7.	3.	.27
+	HYDROGRAPH AT	447	135.	12.07	12.	4.	2.	.09
+	HYDROGRAPH AT	RT404	35.	11.73	7.	2.	1.	.27
+	ROUTED TO	R404	35.	11.90	7.	2.	1.	.27
+	3 COMBINED AT	C110	631.	12.10	46.	13.	6.	.36
+	ROUTED TO	R110	632.	12.10	46.	13.	6.	.36
+	2 COMBINED AT	C115	759.	12.10	59.	17.	8.	.63
+	ROUTED TO	R115	758.	12.10	59.	17.	8.	.63
+	HYDROGRAPH AT	448	87.	12.03	6.	2.	1.	.05
+	HYDROGRAPH AT	449	77.	12.03	5.	1.	1.	.05
+	2 COMBINED AT	C6364	163.	12.03	11.	3.	1.	.09
+	ROUTED TO	R6364	140.	12.20	11.	3.	1.	.09
+	HYDROGRAPH AT	450	58.	12.17	6.	2.	1.	.07
+	HYDROGRAPH AT	451	17.	12.17	2.	1.	0.	.03
+	HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	452	61.	12.07	4.	1.	1.	.04
+	2 COMBINED AT	C6566	139.	12.07	16.	4.	2.	.04
+	ROUTED TO	R6566	134.	12.13	16.	4.	2.	.04
+	4 COMBINED AT	C116	340.	12.17	35.	9.	4.	.23
+	ROUTED TO	BASIN5	153.	12.47	35.	9.	4.	.23
+	ROUTED TO	R116	152.	12.53	35.	9.	4.	.23
+	HYDROGRAPH AT	453	60.	12.13	7.	2.	1.	.06
+	2 COMBINED AT	C117	173.	12.50	41.	11.	5.	.29
+	2 COMBINED AT	C118	837.	12.10	99.	28.	14.	.92
+	ROUTED TO	R118	833.	12.13	99.	28.	14.	.92
+	DIVERSION TO	BASIN6	207.	12.13	12.	3.	1.	.92
+	HYDROGRAPH AT	DIV7	626.	12.13	86.	25.	12.	.92
	HYDROGRAPH AT	RTDIV7	207.	12.13	12.	3.	1.	.92
	ROUTED TO	RFDIV7	1.	11.93	1.	1.	1.	.92
+	2 COMBINED AT	CDIV7	627.	12.13	87.	25.	13.	.92
+	HYDROGRAPH AT	454	152.	12.23	21.	6.	3.	.18

+	2 COMBINED AT	C119	761.	12.13	107.	31.	16.	1.10
+	HYDROGRAPH AT	385	993.	12.17	106.	29.	14.	.85
+	ROUTED TO	RR385	963.	12.23	106.	29.	14.	.85
+	2 COMBINED AT	C385	1634.	12.20	211.	59.	29.	1.95
+	ROUTED TO	R454	1584.	12.27	211.	59.	29.	1.95
+	HYDROGRAPH AT	415	242.	12.20	29.	8.	4.	.26
+	2 COMBINED AT	415C	1806.	12.27	238.	67.	33.	2.21
+	DIVERSION TO	BS454	1256.	12.27	91.	23.	11.	2.21
+	HYDROGRAPH AT	D454	550.	12.03	147.	45.	22.	2.21
+	2 COMBINED AT	415CC	1155.	12.10	231.	70.	35.	3.56
+	ROUTED TO	RR410	1123.	12.17	231.	70.	35.	3.56
+	HYDROGRAPH AT	455	1350.	12.17	145.	44.	21.	1.11
+	3 COMBINED AT	C455	6250.	12.53	1239.	475.	296.	13.68
+	ROUTED TO	SR440	795.	13.87	778.	476.	296.	13.68
+	ROUTED TO	RR455	795.	14.13	778.	475.	294.	13.68
+	HYDROGRAPH AT	456	458.	12.07	36.	10.	5.	.26
+	DIVERSION TO	BASIN1	198.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV1	259.	12.07	28.	8.	4.	.26
+	DIVERSION TO	WA30	65.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV2	195.	12.07	20.	6.	3.	.26
+	ROUTED TO	R456	191.	12.17	20.	6.	3.	.26
+	HYDROGRAPH AT	457	254.	12.10	20.	5.	3.	.19
+	2 COMBINED AT	C101	438.	12.10	40.	11.	5.	.45
+	DIVERSION TO	BASIN2	136.	12.10	8.	2.	1.	.45
+	HYDROGRAPH AT	DIV3	302.	12.10	32.	9.	4.	.45
+	HYDROGRAPH AT	RTDIV3	136.	12.10	8.	2.	1.	.45
+	ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+	2 COMBINED AT	CDIV3	304.	12.10	33.	10.	5.	.45
+	ROUTED TO	R101	301.	12.13	33.	10.	5.	.45
+	HYDROGRAPH AT	458	347.	12.07	25.	7.	3.	.19
+	2 COMBINED AT	C103	625.	12.07	58.	16.	8.	.64
+	ROUTED TO	R103	624.	12.10	58.	16.	8.	.64
+	HYDROGRAPH AT	RT30	65.	12.07	8.	2.	1.	.26
+	ROUTED TO	R30	64.	12.10	8.	2.	1.	.26
+	HYDROGRAPH AT	RTB1	198.	12.07	8.	2.	1.	.26
+	ROUTED TO	B1	36.	12.23	7.	2.	1.	.26
+	ROUTED TO	RB1	36.	12.30	7.	2.	1.	.26
+	2 COMBINED AT	CDIV	94.	12.23	15.	4.	2.	.12

+	HYDROGRAPH AT	459	43.	12.07	3.	1.	0.	.03
+	2 COMBINED AT	C52	118.	12.17	18.	5.	2.	.15
+	ROUTED TO	R52	116.	12.20	18.	5.	2.	.15
+	HYDROGRAPH AT	460	205.	12.10	19.	6.	3.	.14
+	2 COMBINED AT	C102	310.	12.10	37.	11.	5.	.29
+	ROUTED TO	BASIN3	75.	12.60	37.	11.	5.	.29
+	ROUTED TO	R3	75.	12.73	37.	11.	5.	.29
+	HYDROGRAPH AT	461	156.	12.13	17.	5.	2.	.12
+	2 COMBINED AT	C104	216.	12.13	53.	16.	7.	.41
+	2 COMBINED AT	C106	833.	12.10	110.	32.	16.	1.05
+	ROUTED TO	R106	799.	12.17	110.	32.	16.	1.05
+	HYDROGRAPH AT	462	523.	12.07	40.	11.	5.	.30
+	2 COMBINED AT	C56	1238.	12.13	149.	42.	21.	1.35
+	HYDROGRAPH AT	480	991.	12.13	96.	29.	14.	.73
+	DIVERSION TO	BS480	458.	11.93	27.	8.	4.	.73
+	HYDROGRAPH AT	D480	991.	12.13	78.	21.	10.	.73
+	HYDROGRAPH AT	RT480	458.	11.93	27.	8.	4.	.73
+	ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT	C480	997.	12.13	84.	27.	14.	.73
+	3 COMBINED AT	480C	2773.	12.13	980.	557.	337.	2.09
+	ROUTED TO	RR480	2718.	12.20	979.	557.	337.	2.09
+	HYDROGRAPH AT	500	988.	12.23	122.	33.	16.	.93
+	2 COMBINED AT	500C	3675.	12.20	1088.	586.	351.	2.84

*** NORMAL END OF HEC-1 ***