HYDROLOGY REPORT

48TH STREET DETENTION BASIN PROJECT

City of Phoenix

Street Transportation Department

Project No. ST-970400

December, 1998

HDR Engineering, Inc
2141 East Highland Avenue, Suite 250
Phoenix, Arizona 85016

Don Rerick - FCDX

From: Don Rerick - FCDX
Sent: Thursday, December 10, 1998 8:11 AM
To: Amir Motamedi - FCDX
Cc: Don Rerick - FCDX
Subject: "Bsin 15" Project - Hydrology Report

We have received from the COPhoenix consultant HDR, two copies of the Hydrology Report for the subject project.

I will provide you with the one that has the diskette, CD-ROM, and color graphics for review.

The purpose of this review is to be verify the hydrology design basis for the basin, that it meets FCD criteria, and we get a basin of the proper size.

Please provide me with you review comments by December 22 if at all possible. I will forward them to HDR. If there is something that requires immediate attention, go ahead and call Jerry Zovne at HDR at 508-6696 and lets get it cleared up now.

I would like the color graphic from your report once you have finished the review. The report notebook and the disk and CD are "yours to keep". (And, if you call within the next 30 minutes, we will also send you ....).

Thanks.

Transmittal

HDR Engineering, Inc.
Suite 205
5353 N. 16th Street
Phoenix, Arizona
85016-3226
Telephone
(602) 248-6600

HDR

Attention:

To: Don Rerick
Flood Control District of Maricopa County

Date: December 9, 1998

Regarding: **48th Street Detention Basin Project, City of Phoenix**

We Are Sending You: Attached **Via:** **Hand Deliver**

The Following Items:

Copies	Date	No.	Description
2	Dec. 1998	Report	Hydrology Report/ 48th Street Detention Basin(One with Large color map and CD w/ graphics file and one without the color graphics)

These are transmitted as indicated below:

For your review

Remarks:

Please provide review comments within two weeks, if possible

Sincerely,

Jerome J. Zovne, PhD, PE

Copy: Art Glover

HYDROLOGY REPORT

48TH STREET DETENTION BASIN PROJECT

City of Phoenix

Street Transportation Department

Project No. ST-970400

December, 1998

HDR Engineering, Inc
2141 East Highland Avenue, Suite 250
Phoenix, Arizona 85016

HDR

Introduction

This report presents the results of a hydrologic study for the City of Phoenix 48th Street Detention Basin Project. The report contains the hydrologic design criteria and models that were used to prepare the conceptual design for the basin. The city recently approved the plan for this regional basin shown in the attached *48th Street Detention Basin Site Plan* November 1998. Other agencies that are participating at this time are the Flood Control District of Maricopa County (FCDMC) and the Arizona Department of Transportation (ADOT).

In 1996 HDR completed a master drainage plan for the vicinity of 48th Street and Chandler Boulevard for the City of Phoenix. A channel collection system and large regional detention basin known as the 48th Street Detention Basin was included in that plan. The channel collection system and an earlier version of the basin are shown in the attached graphic entitled Storm Water Management Master Plan, July 2, 1996 (See Appendix A). Since 1996 the City of Phoenix has abandoned efforts to form an improvement district to construct the channel system and has concentrated primarily on the design and construction of the 48th Street Detention Basin. However, the city has continued to use the 1996 channel design concept as a basis for approving development plans. A channel collection system similar to that shown in the 1996 plan will likely be constructed as development proceeds.

The hydrology for the original master plan and for the current detention basin plan was developed from previous hydrologic models that were prepared by HDR and by developers in the upper watershed contributing to this area. The previous models were modified to adapt the model to new and planned development in the watershed and to be consistent with Flood Control District of Maricopa County criteria for regional drainage systems. The report presents the criteria used to update the models for this project and the application to the sizing and design of the 48th Street basin.

Background

Hydrologic models for the contributing drainage basin have been in existence since prior to 1991. In 1992 HDR prepared a HEC-1[1] model for this area based upon a TR-20 model prepared by another consultant in 1991(Ref. 1). HDR's model was for the purpose of preparing drainage design concepts for the South Mountain Freeway /I-10 interchange for the ADOT. Details of the model, including watershed description, modifications and model runs are included in the Concept Drainage Report for South Mountain Freeway (Ref. 2). Sheet 5 of 5 from that report entitled "Segment V Drainage Area Map" (in Appendix A) shows the contributing watershed at that time when the watershed was only approximately 60% developed. There was virtually no development south of Ray Road and east of 48th Street at that time. In preparing the 1992 model to design Basin 15 and the interchange channel collection system, HDR added the large subbasins to the east of 48th Street and to the south of Ray Road and the Highline Canal as undeveloped large tracts of land. The model was developed as an existing condition model.

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[1] U.S. Army Corps of Engineers, Hydrologic Engineering Center *Flood Hydrograph Package, Version 4.0.3E* (HEC-1), June 9, 1992.

In subsequent years the model was added to and refined by others as development proceeded. By 1995 considerable development had occurred in the watershed that was reflected in a more detailed model developed for the *Master Watershed Study for 48th Street and Ray Road* (Ref. 3). The HEC-1 model prepared for this study was significantly more detailed than previous models. HDR field verified the model and extended it to 48th Street and Pecos area to develop the 1996 storm water master plan. Revisions to the model by HDR included more detailed subdividing of the previously undeveloped areas adjacent to the proposed collector channels in HDR's plan.

HDR developed the channel network in the 1996 plan based partly upon planned developments for which there was a drainage plan available and partly upon judicious placement along section and half-section lines. Subbasin parameters for the HEC-1 model such as area, curve number, routing length and travel time were then determined from the assumed channelization in the watershed and fully developed land use. A detailed basin routing map is included in the map pocket.

Model Criteria

In January 1996, HDR submitted to the City of Phoenix a memorandum on hydrologic criteria to be used on the 48th Street study (See Appendix A). The memorandum clarifies differences between the Flood Control District of Maricopa County (FCDMC) hydrologic criteria and ADOT criteria, and established HDR's basic approach. At that time, the City of Phoenix requested that HDR use FCDMC criteria as there was potential involvement of FCDMC in the project. In 1998 the FCDMC became a full participant in the city's project and will be cost sharing and administering the construction contract for the basin. The FCDMC hydrologic design criteria has therefore been used to develop the basin design concept.

ADOT's hydrologic criteria is substantially more conservative than FCDMC's in this case as discussed in Item 1 below. Since the basin itself is downstream of the interchange, the basin will not impact the interchange. However, since the 48th detention basin essentially replaces ADOT's Basin 15, the model includes a volume allocation for onsite flows from the interchange. ADOT is indirectly participating in the 48th Street detention basin project by acquiring right-of-way for an interim interchange project (South Mountain Freeway/I-10) that includes part of the basin site. The interim interchange will require ADOT to construct a collector channel system that will discharge into the 48th Street basin. The design of that system by ADOT will be coordinated with the 48th Street design, as the outlet culvert from that channel system is the inlet to the basin. The results of the ADOT HEC-1 model are included for comparison to the FCDMC model.

1. Rainfall Duration and Distribution

Rainfall duration and distribution is in accordance with FCDMC's 100-year 6-hour storm (Ref. 4). A spreadsheet with the rainfall data is attached to the HEC-1 run in Appendix B.

MUST CHECK 24 HR

Although the minimum design storm for cross-flows for urban freeways is the 50-year event (Ref. 5, p.600-4) the 100-year storm is often used to evaluate flood impacts of new

or existing drainage systems in accordance with Federal Emergency Management Agency and/or Federal Highway Administration requirements. Therefore, a 100-year model was prepared for this project using ADOT's recommended 24-hour storm and the balanced storm distribution option (PH Card) in HEC-1 (Ref. 6, p. 1.2). The 24-hour duration generates greatly increased runoff volumes compared to FCDMC 6-hour model as discussed in the results section. In addition, although estimating peak flows for design purposes was not the primary interest of this modeling effort, the ADOT 100-year 24-hour storm distribution also produces much larger peak flows than the FCDMC model.

2. Loss Rate and Unit Hydrograph Methodology

Previous models of the 48th Street drainage basin have used the Soil Conservation Service (SCS) methods to calculate loss rates and to generate hydrographs. These methods were in common use until 1992 when the FCDMC issued a new drainage manual (Ref. 4) and 1993 when ADOT issued a new hydrology manual (Ref. 5). HDR recommended that the City of Phoenix retain the use of the SCS methods for the 48th Street project because of the historical use of this model by various agencies and developers. Both FCDMC and ADOT have preliminarily indicated acceptance of this approach, subject to review of the model by each agency.

3. Time of Concentration Methodology

Two methodologies have been used for Time-of-Concentration (T_c). The model in Reference 3 used the SCS "upland" method in the City of Phoenix storm drain manual to calculate T_c. When HDR added subbasins to this model, the FCDMC manual (Ref. 4, Eqn. 3.2) was used. Lag time for the SCS Unit Hydrograph is assumed to be 0.6 x T_c.

4. Flow Routing

Channel routings are based upon Normal Depth routing methods and basins are routed using the Modified-Puls option in HEC-1.

5. Existing vs. Future Land Use

The current model assumes fully developed conditions in the watershed. It was assumed that all areas that are presently undeveloped will ultimately be commercial or higher density residential development with a curve number of 85. No reductions were made for on-site retention. At the 100-year level, on-site retention has been found to have little impact on storm peaks and volumes.

Results

The drainage basin HEC-1 model schematic is included in the map pocket. The map shows all subbasins, routing reaches and hydrograph combining points, except for the South Mountain Freeway/I-10 interchange onsite drainage system. The subbasins for this system are shown on the Sheet 5 of 5 from the South Mountain Freeway report (Ref. 2).

The 100-year 6-hour HEC-1 model run is included in Appendix B. The primary purpose of the run is to determine the required volume of the 48th Street detention basin (formerly Basin 15 in the model). The basin complex, as shown in the site plan, has an equalization

basin that has a design storage capacity of 43.6 ac-ft (38 ac-ft inflow volume in the model), and a primary basin that has a design storage capacity of 276.1 ac-ft (268 ac-ft inflow volume in the model). The vegetated treatment cells are not included in the HEC-1 routing, as these basins will treat storm water retained in the equalization basin post-event. Also, there is a 42-inch outfall pipe with a gate that remains closed in the model as the basin is designed to retain the entire design event volume.

The 48th Street basin has been designed as a retention basin for the 100-year 6-hour storm event. The gate on the 42-inch outfall pipe would normally be closed until after the event. The gate would be manually opened to dewater the basin when there is capacity available in the Santan Outfall Channel.

The 2-year 6-hour HEC-1 model run is also included in Appendix B. This is for the purpose of evaluating the frequency that the lower basin capacity will be exceeded, as the upper basin may be used for recreation. The results indicate that the lower basin capacity may be exceeded approximately annually. In other words, the upper basin may be flooded once every year or two.

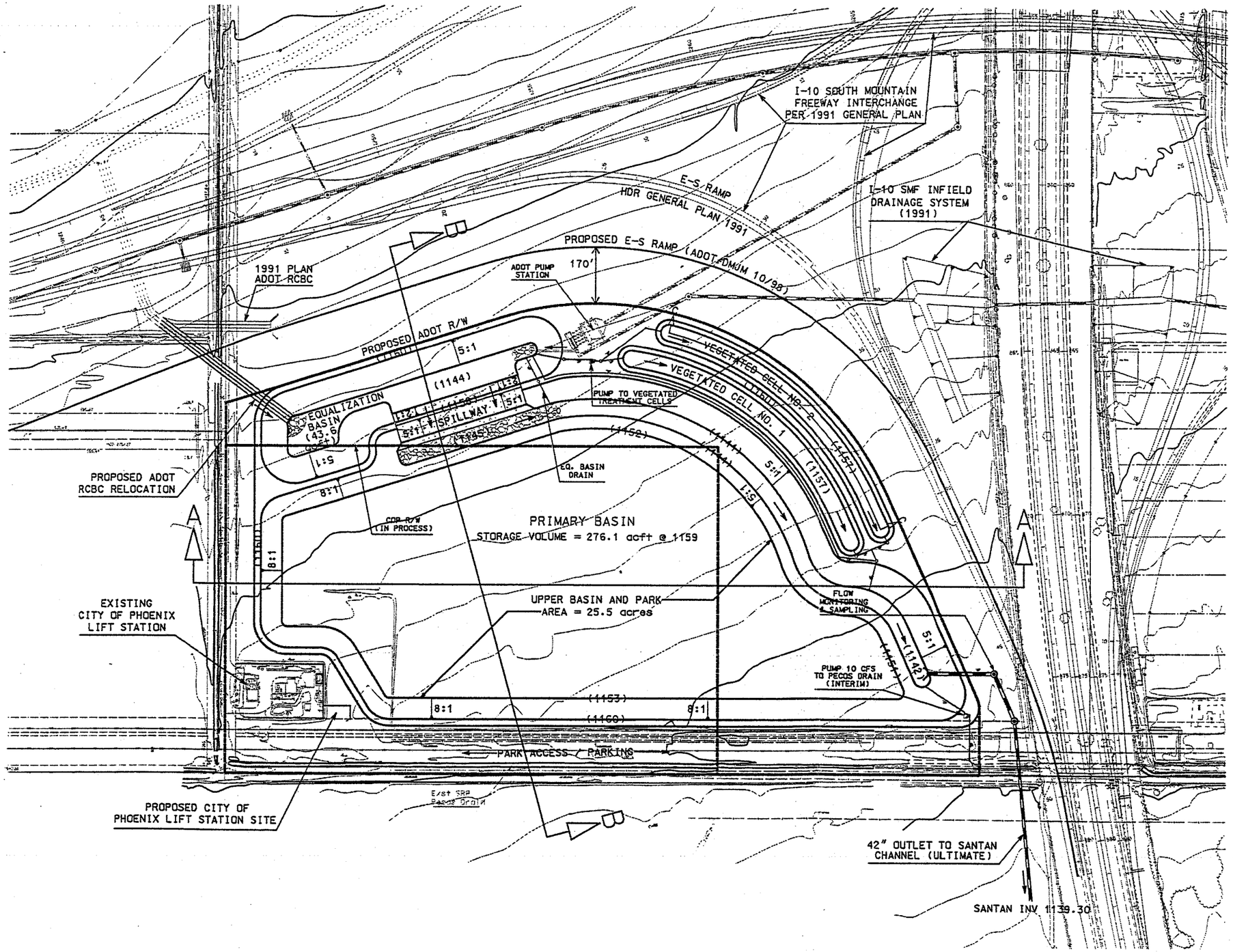
The 100-year 24-hour ADOT HEC-1 run is included in Appendix C. After deducting the 38 ac-ft retained in the equalization basin, the volume flowing into the primary basin is approximately 420 ac-ft compared to 268 ac-ft for 6-hour model. This run was configured with the 42-inch outflow conduit open to the Santan Outfall Channel. The results show that although the 100-year 24-hour storm volume exceeds the basin capacity by more than 100 ac-ft, opening the 42-inch outflow conduit gate could prevent the basin from overtopping for this event.

In addition, it is noted for future reference that the peak outflow in the 24 hour model with the outflow pipe open occurs approximately five hours later than the peak outflow of the Santan Outfall Channel (Ref. 7 Appendix A 100-year 24-hour HEC-1 model). There is therefore a possibility that the 42-inch outflow conduit could be left open at all times, since the times to peak appear sufficiently lagged. This has not been evaluated at this time because it requires inserting the 100-year 24-hour model into the Santan Outfall Channel model. However, this should be evaluated in preliminary design.

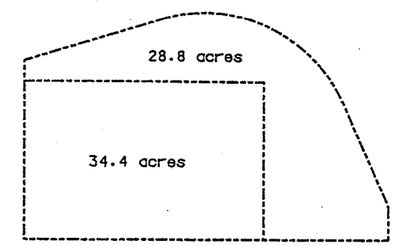
COMPATIBLE WITH SRP OUTFALL TIMING, PEAK, ETC.?

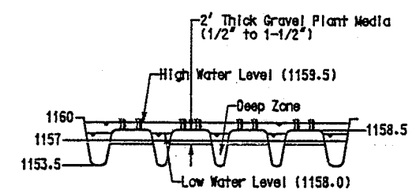
References

1. Coe & Van Loo Consultants, *48th Street and Chandler Boulevard Master Drainage Report*, July 1991.
2. HDR Engineering, Inc., *Final Concept Drainage Report, South Mountain Freeway, I-10 Papago to I-10 Maricopa*, Vols. I, II and III for Arizona Department of Transportation, February 1993.
3. Kimley-Horn and Associates, Inc., *Master Watershed Study for 48th Street and Ray Road*, for M&B Capital Group, LLC. September 26, 1995.
4. Flood Control District of Maricopa County, *Drainage Design Manual for Maricopa County, Arizona Volume I Hydrology*, June 1, 1992 (Rev. January 1, 1995).
5. Arizona Department of Transportation, *Roadway Design Guidelines*, Doc 31-089, May 1996.
6. Arizona Department of Transportation, *Highway Drainage Design Manual, Hydrology*, Report No. FHWA-AZ93-281, March 1993.
7. HDR Engineering, Inc., *Final Drainage Report, Santan Channel Project, Phase 1 and Phase 2*, for Arizona Department of Transportation and Flood Control District of Maricopa County, May 30, 1998.



BASIN COMPLEX SUMMARY					
BASIN	SIDE SLOPE	DEPTH (FT)	TOP EL (AC)	H2O SURF EL (AC FT)	BOT EL (AC)
PRIMARY BASIN	8:1	8	1160	1159	–
	5:1	16	38.0	276.1	–
UPPER BASIN	8:1	8	1160	1159	1152
			–	–	25.5
LOWER BASIN	5:1	16	1160	1152	1144
			–	35.0	2.5
EQUALIZATION BASIN	5:1	16	1160	1159	1144
			4.7	43.6	1.4
VEGETATED CELL NO. 1	5:1	3	1160	1159.5	1157
			1.8	3.5	1.1
VEGETATED CELL NO. 2	5:1	3	1160	1159.5	1157
			1.8	3.5	1.1





SECTION C-C
TYPICAL "HYBRID" VEGETATED TREATMENT CELL

BASIN SITE PLAN

N

DRAFT

REVISIONS TO DRAWINGS				
NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

HDR ENGINEERING, INC.
2141 E. HIGHLAND AVE. SUITE 250
PHOENIX, ARIZONA 85016-4736

PROJECT NO.	00167-293-044
FILE NAME:	48BASN3D.DGN
PLOT DATE:	NOV. 23, 1998
DRAWN BY:	LJ
DESIGNED BY:	JZ

CITY OF PHOENIX, ARIZONA

CIVIL
48TH STREET DETENTION BASIN SITE PLAN

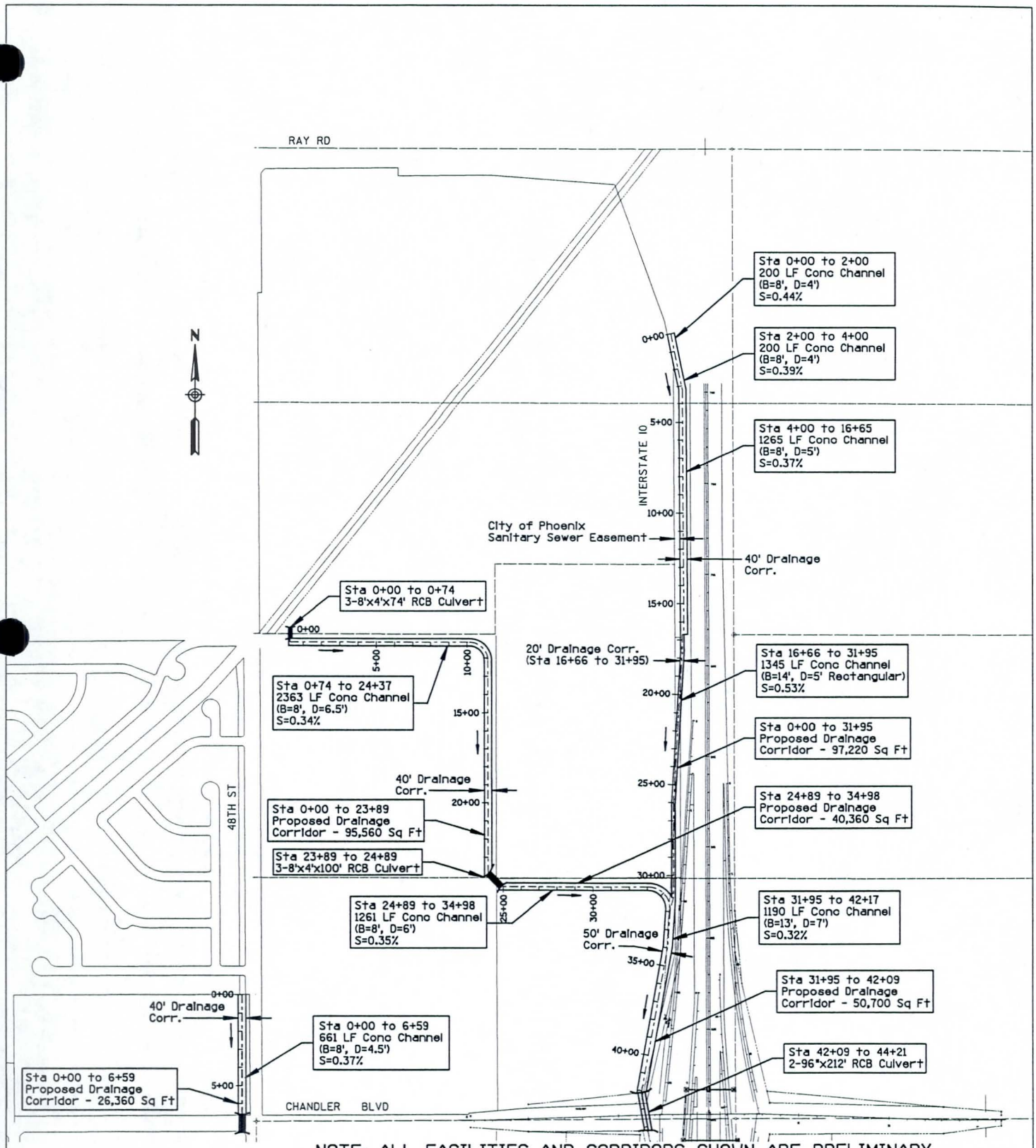
SHEET NO. 1 OF 1

APPENDIX A

48TH Street Improvement District Storm Water Management Master Plan
(North Half and South Half) July 2, 1996

SEGMENT V Drainage Area Map, Sheet 5 of 5, South Mountain Freeway (6/92)

Memorandum concerning Hydrology Criteria March 1, 1996



NOTE: ALL FACILITIES AND CORRIDORS SHOWN ARE PRELIMINARY

Sheet 1 of 2

CITY OF PHOENIX
48TH STREET IMPROVEMENT DISTRICT PROJECT
STORM WATER MANAGEMENT MASTER PLAN
(NORTH HALF)

July 2, 1996

HDR Engineering, Inc.

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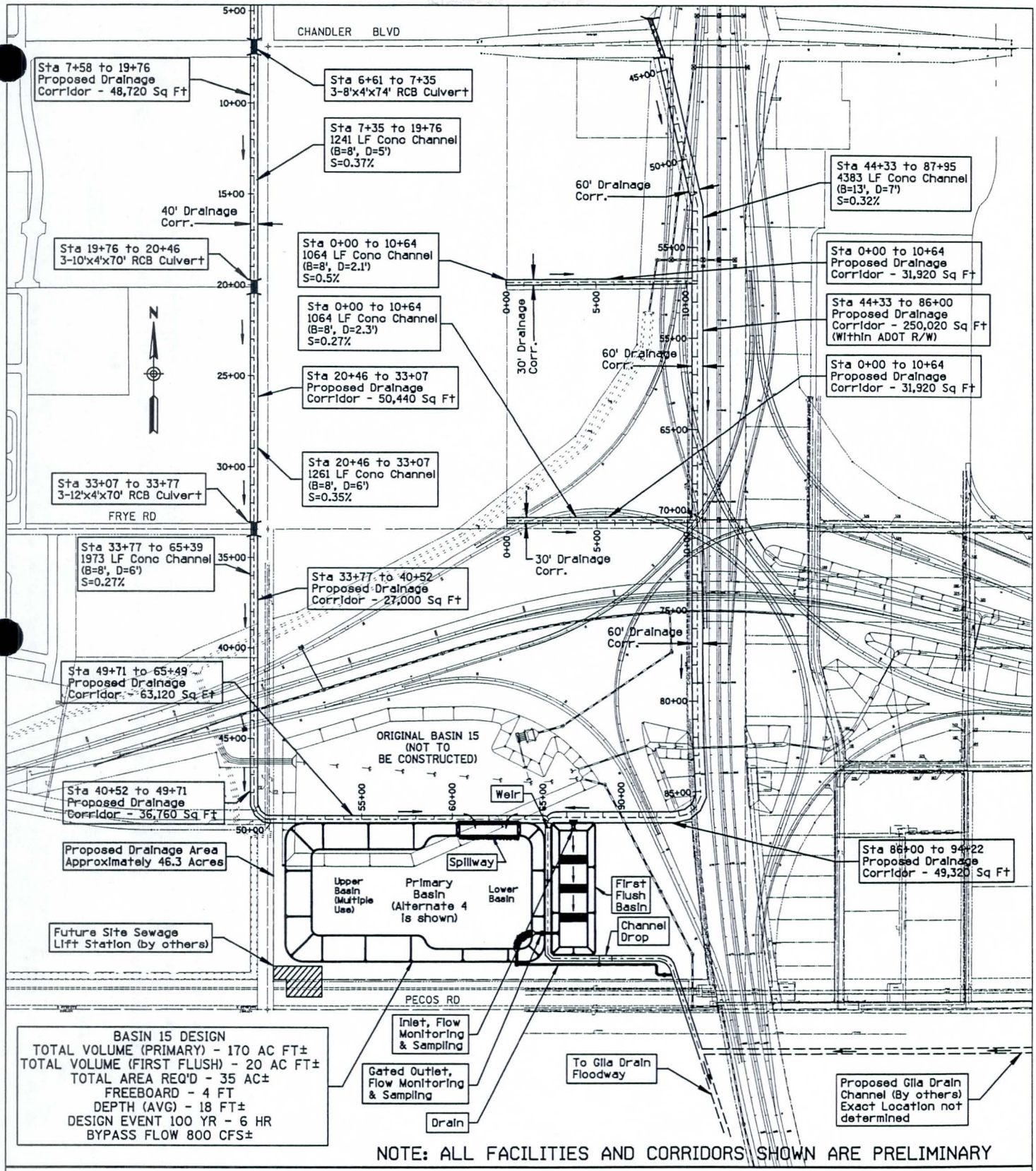


Sheet 2 of 2

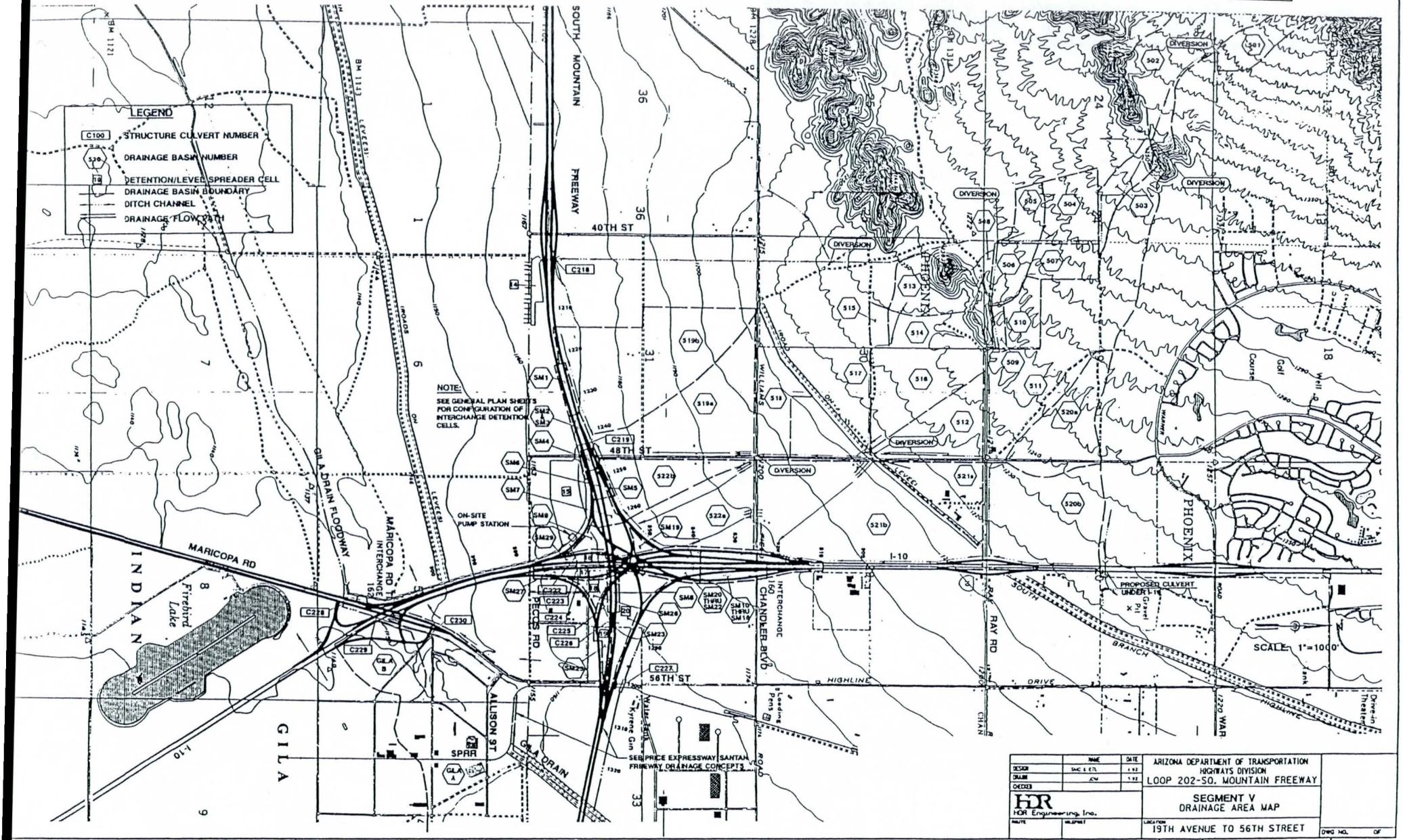
CITY OF PHOENIX
48TH STREET IMPROVEMENT DISTRICT PROJECT
STORM WATER MANAGEMENT MASTER PLAN
(SOUTH HALF)

July 2, 1996

HDR Engineering, Inc.

D:/48ST/SHALFEX.DGN

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				



	NAME	DATE
DESIGN	SAC & ETL	1.92
DRAWN	JCW	1.92
CHECKED		

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
LOOP 202-SO. MOUNTAIN FREEWAY

SEGMENT V
DRAINAGE AREA MAP

LOCATION: 19TH AVENUE TO 56TH STREET

DWG NO. OF

TRACS NO. H-2222-01D

5 OF 5

File: Mem#3.doc
Hydrology Criteria

Fax Sheet

HDR

Date: March 1, 1996

Number of Pages (including cover page) 3

Message To:

Name: **Art Glover, P.E.** **Telecopy Number Called: 534-1961**

City: Phoenix **State:**

From:
Name: **Jerome J. Zovne, Ph.D., P.E.**
Project Manager **Department:** Phoenix (044)

RE. 48th Street Improvement Project

Attached is a Memo regarding the proposed Hydrology Criteria. We invite your review and comments and we can make some adjustments as we proceed. However, we intend to finalize the design flows early next week so that we can begin designing the facilities and remain on schedule for a March 15 delivery.

Regards,
HDR Engineering, Inc.

Jerome J. Zovne

If you do not receive all of the pages, please call (602) 248-6600 as soon as possible.

HDR Engineering, Inc.

Suite 205
5353 N. 16th Street
Phoenix, Arizona
85016-3226

Telephone
602-248-6600
FAX
602-265-6472

File: Mem#3.doc

To Art Glover, P.E.

From Jerome J. Zovne, P.E.

Date 3-1-96 ~~January 4, 1996~~

Subject Hydrologic Criteria

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
CERTIFICATE NO. 25118
JEROME J. ZOVNE
Date Signed 3-1-96
ARIZONA, U.S.A.

HDR

Memorandum

Project: 48th Street Improvement Project
Storm Water Management Plan

The scope of Task 3 Hydrology for the **Storm Water Management Master Plan** outlines the basic understandings and procedures to be used to develop the design flows for the drainage system design. Following is a summary of these criteria:

1. Rainfall Durations and Distributions.

A basic premise is that ADOT criteria will control when designing offsite drainage facilities that protect a freeway. In this case, this mainly applies to the channels along the proposed South Mountain Freeway(SMF) and existing I-10 in the project area. HDR designed the drainage concepts for the SMF/I-10 Interchange using a HEC-1 model based upon a 100-year 24-hour storm and using the so-called "Balanced Storm" (i.e. the PH card) for the rainfall distribution. We propose to continue this approach for the ADOT facilities.

However, it is customary now when designing regional drainage facilities which could be cost-shared by the Flood Control District(FCDMC), to use Maricopa County criteria, as presented in *Volume 1 Hydrology* of the *Maricopa County Drainage Design Manual.* This recommends the use of the 100-year 6-hour storm and a storm distribution specially derived for Maricopa County. Therefore, when designing the collector channels, culverts and the large detention basin(Basin 15) HDR will use the FCDMC storm duration(6-hours) and distribution derived from the Hydrology Manual. This will result in somewhat lower peak flows and volumes as compared to the ADOT 24-hour model.

2. Rainfall Frequencies

ADOT generally requires channels and detention basins to be designed for the 100-year 24-hour event. Cross-culverts are designed for the 50-year 24-hour event (headwater at least two feet below pavement). Therefore, HDR's original 100-year and 50-year models will be used for the channels and freeway cross-culvert, except that the 1991 HEC-1 model will updated for current and future development.

Maricopa County generally requires channels and regional basins to be designed for the 100-year 6-hour event. Cross-culverts are designed for the 50-year 6-hour event (headwater non-overtopping). This criteria will be applied to the regional drainage system, except for the freeway facilities mentioned above.

AND VERSUS 100 YR/24 HR, WHICHEVER IS GREATER.

File: Mem#3.doc

3. Loss Rate, Unit Hydrograph, and Time of Concentration Methodology.

The City of Phoenix and other agencies have used the SCS methods(TR20, TR55 and HEC-1) for many years. HDR prepared the original model for designing the offsite drainage system for the I-10/South Mountain Freeway TI using the HEC-1 SCS option in 1991. This model has also been updated and used by various developers in the 48th Street area since then. Although ADOT(in 1993) and FCDMC(in 1992) issued new hydrology criteria which do not recommend the SCS methods, both generally allow the use of a previous model if it was approved prior to adoption of the new procedures. Therefore, HDR recommends that HEC-1 SCS methods for the Loss Rate, Unit Hydrograph and TC computation continue to be used for the **48th Street Improvement District.**

4. Flow Routing

Channel routings are based upon Normal Depth routing method and basins are routed using the Modified-Puls option which are accepted by all agencies.

5. Existing Vs Future Land Use Condition.

HDR's original ADOT model was based upon then existing conditions in which less than half of the watershed was developed and development was proceeding moderately. With retention requirements, future developed conditions may result in lower peaks and less volume than pre-developed conditions. Therefore, the use of an existing condition model at that time(1991) was considered conservative. In recent years development has accelerated rapidly, and the entire watershed will likely be fully developed in the next several years. This development will likely precede the construction of South Mountain Freeway which is an unfunded project. Therefore, it is recommended that a fully-developed future condition model be used to determine the design flows and volumes for the **48th Street Improvement District Project.**

6. Models to be Developed

The following models are required for the project:

1. 100-year 24-hour future condition model for ADOT I-10 and SMF offsite channels.
2. 50-year 24-hour future condition model for SMF cross-culvert sizing.
3. 100-year 6-hour future condition model for improvement district collector channels and Basin 15 sizing.
4. 50-year 6-hour future condition model for improvement district cross-culvert sizing.
5. 10-year 6-hour future condition model for improvement district Basin 15 multi-purpose/water quality low flow basin or wet pond.

AND 24HR STORM FOR COMPARISON

APPENDIX B

FCDMC 6-HOUR Rainfall Distribution

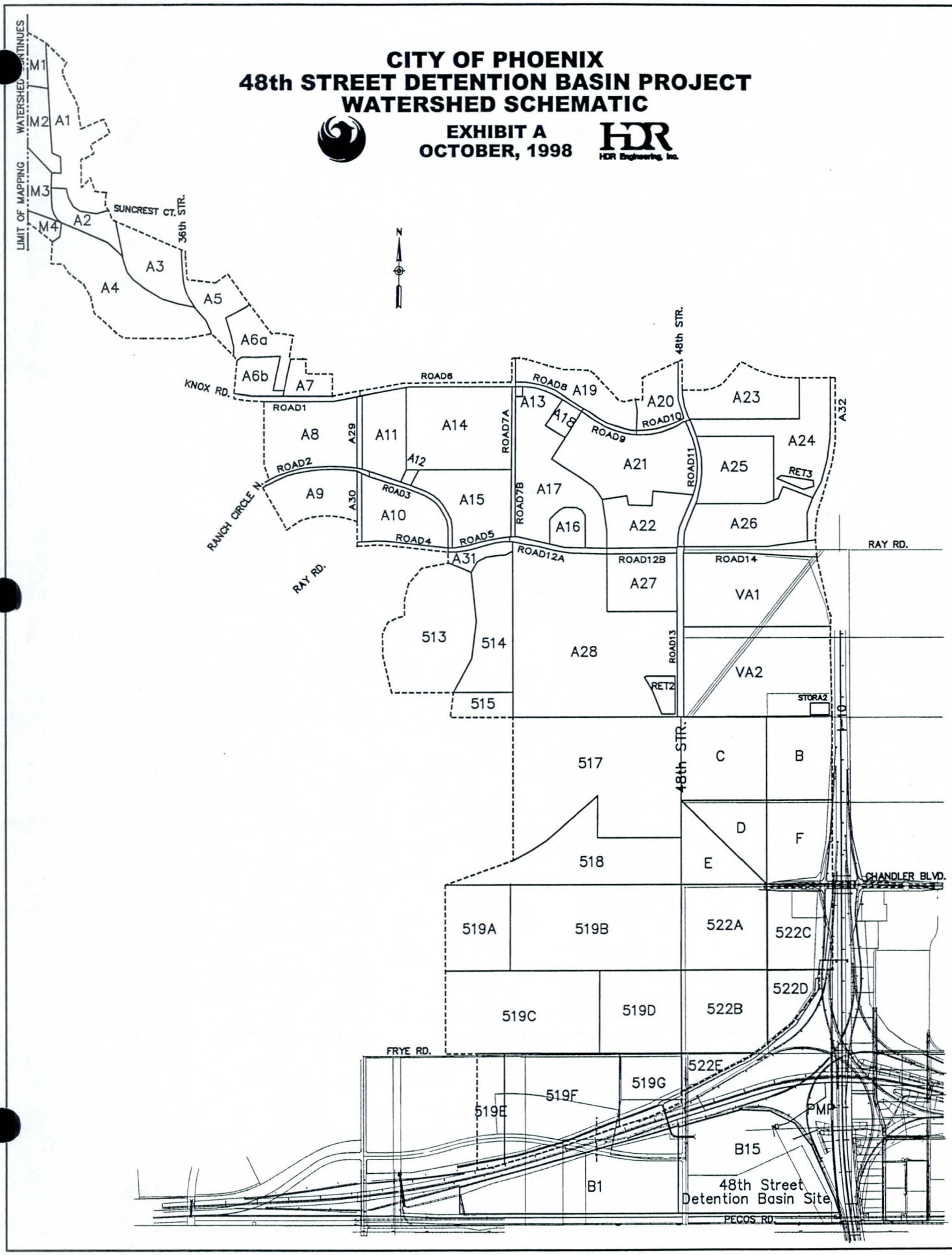
HEC-1 Output File H1006cl.OUT (100 yr-6 hr Run)

HEC-1 Output File H2__6cl.OUT (2 yr-6 hr Run)

CITY OF PHOENIX
48th STREET DETENTION BASIN PROJECT
WATERSHED SCHEMATIC

EXHIBIT A
OCTOBER, 1998

HDR Engineering, Inc.



HDR Engineering, Inc. | Job No. 00167-293-044 | No.

Computation

Project	48th Drainage Improvements	**Computed**	RDT	7/9/97
Subject	Hydrologic Modeling	**Checked**	JJZ	7/10/97
Task	FCDMC 6-HOUR RAINFALL DIST.	**Sheet**	1 of	1

Reference FCDMC Drainage Design Manual

RAINFALL DEPTHS Approx. Drainage area for 48th Street Watershed = 5 sq. miles

Depth-Area Reduction Factor (Table 2.2) = 0.96

2-yr 6-hr Precip (Fig. 2.2) = 1.1 inches
10-yr 6-hr Precip (Fig. 2.4) = 1.9 inches
100-yr 6-hr Precip (Fig. 2.7) = 3.2 inches

Reduced 2-yr 6-hr Precip = 1.1 inches
Reduced 10-yr 6-hr Precip = 1.8 inches
Reduced 100-yr 6-hr Precip = 3.1 inches

RAINFALL DISTRIBUTION FOR 6-HOUR STORM

From Fig. 2.17, use pattern 2.3 for drainage area of 5 sq. miles

Time (hrs)	Patter 2 (from Tab. 2.4)	Patter 2.3 (interpolated)	Patter 3 (from Tab. 2.4)
0	0	0.0	0
0:15	0.9	1.1	1.5
0:30	1.6	1.7	2
0:45	2.5	2.7	3
1:00	3.4	3.8	4.8
1:15	4.2	4.8	6.3
1:30	5.1	5.9	7.6
1:45	5.9	6.8	9
2:00	6.7	7.8	10.5
2:15	7.6	8.9	11.9
2:30	8.7	10.1	13.5
2:45	10	11.6	15.2
3:00	12	13.7	17.5
3:15	16.3	18.1	22.2
3:30	25.2	26.8	30.4
3:45	45.1	45.7	47.2
4:00	69.4	68.7	67
4:15	83.7	82.5	79.6
4:30	90	89.0	86.8
4:45	93.8	93.0	91.2
5:00	95	94.9	94.6
5:15	96.3	96.2	96
5:30	97.5	97.4	97.3
5:45	98.8	98.8	98.7
6:00	100	100.0	100

Pattern represents percent of rainfall depth

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1****************************************                                                    ****************************************
 *                                      *                                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *             JUN 09 1992              *                                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.0.3E             *                                                    *         609 SECOND STREET            *
 *                                      *                                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE  12/02/98  TIME  16:15:37  *                                                    *          (916) 551-1748              *
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                                        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        FN: H1006cl.DAT     November 1998
         2           ID            48TH STREET BASIN/REVISED BASIN 15
         3           ID            HDR 100-YR  6-HR MULTI-USE RETENTION BASIN WITH 1' FREEBOARD
         4           ID            42" RCP OUTLET CLOSED-BASIN RETAINS INFLOW
         5           IT       1                    1081
         6           IO       5
         7           IN      12                     310
                     *DIAGRAM
                     * ****************************************************************
                     * THIS FILE USES        FCDMC 100-YR  6-HR RAINFALL
                     * ***********************************************************************
                     *        BEGIN 100-YR 6-HR RAINFALL

         8           KK      M1
         9           KM        Mountain Area 1
        10           KO       2
                     *              0    0.77    1.50    2.64    2.89    3.06    3.37    3.68    4.00
        11           IN      15
                     * 100-YE 6 HOUR POINT PRECIP. OF 3.2" REDUCED BY FACTOR OF 0.96 TO 3.1".
                     * SEE FCDMC DRAINAGE MANUAL, FIG. 2.7 & TABLE 2.2 STORM PATTERN 2.3(5.0 SQ.MI)
        12           PB     3.1
        13           PC       0    .011    .017    .027    .038    .048    .059    .068    .078    .089
        14           PC    .101    .116    .137    .181    .268    .457    .687    .825    .890    .930
        15           PC    .949    .962    .974    .988   1.000
        16           BA    .280
                     * IA = 0.25 as per Maricopa Drainage Design Manual (Vol. 1) Table 4.1
        17           LS     .25      98
        18           UD    .252

        19           KK    RtC1
```

```
 20          KM        Route M1 flow to split
 21          RS       1    FLOW      -1
 22          RC   0.035   0.035   0.035    2300    0.02
 23          RX       3       4       5      20      45      55      65      66
 24          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

 25          KK      M2
 26          KM        Mountain Area 2
 27          BA    .200
             * IA = 0.25 as per Maricopa Drainage Design Manual (Vol. 1) Table 4.1
 28          LS     .25      98
 29          UD    .190

 30          KK    RtC2
 31          KM        Route M2 flow to split
 32          RS       1    FLOW      -1
 33          RC   0.035   0.035   0.035     900    0.02
 34          RX       3       4       5      20      25      35      45      46
 35          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1
1                                          HEC-1 INPUT                                                    PAGE  2

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

 36          KK      A1
 37          KM       Developed Area 1
 38          BA    .041
 39          LS              80
 40          UD    .169

 41          KK   COMB1
 42          KM   Combine flows
 43          HC       3

 44          KK   Splt1
 45          KM      Channel splits (divert flow out of model)
 46          DT   Splt1
 47          DI       0      50     100     150     200     250     500
 48          DQ       0      30      60      90     120     150     300

 49          KK    RtC3
 50          KM        Route flows from split to next tributary
 51          RS       1    FLOW      -1
 52          RC   0.035   0.035   0.035     600    0.02
 53          RX       3       4       5      20      75      85      95      96
 54          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

 55          KK      M3
 56          KM        Mountain Area 3
 57          BA    .029
             * IA = 0.25 as per Maricopa Drainage Design Manual (Vol. 1) Table 4.1
 58          LS     .25      98
 59          UD    .035

 60          KK    RtC4
 61          KM        Route flows To convergence of tributary.
 62          RS       1    FLOW      -1
 63          RC   0.035   0.035   0.035    1100    0.02
 64          RX       3       4       5      20      35      45      55      56
 65          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

 66          KK      A2
 67          KM        Developed  Area 2
 68          BA    .020
 69          LS              81
 70          UD    .115
```

```
 71          KK   COMB2
 72          KM        Combine, M3, A2, Flows from split
 73          HC       3

 74          KK    RtC5
 75          KM   Route combined flows from convergence of tributary to weir of detention basin
 76          RS       1    FLOW      -1
 77          RC   0.035   0.035   0.035    1500    0.02
 78          RX       3       4       5      20      75      85      95      96
 79          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1
1                                          HEC-1 INPUT                                                    PAGE  3

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


 80          KK      M4
 81          KM        Mountain Area 4
 82          BA    .380
             * IA = 0.25 as per Maricopa Drainage Design Manual (Vol. 1) Table 4.1
 83          LS     .25      98
 84          UD    .525

 85          KK    RtR1
 86          KM        Route Mountain flows to weir  (through streets in area 4)
 87          RS       1    FLOW      -1
 88          RC   0.012   0.012   0.012    1600    0.02
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING
 89          RX       2      18      19      20      50      51      52      68
 90          RY     2.2     2.0     1.5     1.0     1.0     1.5     2.0     2.2

 91          KK      A3
 92          KM         Developed Area 3
 93          BA    .036
 94          LS              81
 95          UD    .145

 96          KK      A4
 97          KM        Developed Area 4
 98          BA    .067
 99          LS              84
100          UD    .139

101          KK   COMB3
102          KM        Combine A3, A4, M4, and routed flows (RtC5)
103          HC       4

104          KK    RET1
105          KM        Flows spill over the weir to retention basin (Divert Flow)
106          DT    RET1    4.61
107          DI       0     200     400     600     800    1000
108          DQ       0       0       4      17      37      63

109          KK    RtC6
110          KM        Route flows in channel to next split in channel
111          RS       1    FLOW      -1
112          RC   0.035   0.035   0.035    1200    0.02
113          RX       3       4       5      20      45      55      65      66
114          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

115          KK      A5
116          KM        Developed Area 5
117          BA    .030
118          LS              85
119          UD    .137
1                                          HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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 120          KK   COMB4
 121          KM        Combine A5 and routed flows
 122          HC       2
              * splt2 revised using South Mountain run data (70-30 SPLIT)

 123          KK   Splt2
 124          KM         Channel splits (Flow diverted from model)
 125          DT   Splt2
 126          DI       0    1000    1500
 127          DQ       0     300     450

 128          KK    RtC7
 129          KM        Route flows from split to 40th St & Knox RD
 130          RS       1    FLOW      -1
 131          RC   0.035   0.035   0.035    2800    0.02
 132          RX       8       9      10      20      30      35      40      41
 133          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1
              *     Flows from Area 6b flow through the streets to Knox Rd and 40th St.
              *     All flow is assumed to stay in road.

 134          KK     A6b
 135          KM        Developed Area 6b
 136          BA    .019
 137          LS              84
 138          UD    .137

 139          KK    RtR2
 140          KM        Route flows through Knox Rd from 38th St to 40th St
 141          RS       1    FLOW      -1
 142          RC   0.012   0.012   0.012    1000    0.02
 143          RX       7       8       9      10      75      76      77      78
 144          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

 145          KK      R1
 146          KM        Road segment on Knox Rd from 37th St to 40th St.
 147          BA    .007
 148          LS             100
 149          UD    .145

 150          KK   Comb5
 151          KM   Combine flows from Area 6b and Road 1
 152          HC       2

 153          KK   DivR1
 154          KM        Flow across Knox Road
 155          DT   DivR1
 156          DI       0      50     100     150     200     500    1000
 157          DQ       0      50     100     150     200     250     250
              *  If flows from Area 6 and Road 1 can be carried on Knox Rd, no diversion to
              *  channel.  If they cannot be carried, then excess diverted to channel.
              *  Capacity of channel (based on Manning's equation) is 250 cfs.
              *
1                                        HEC-1 INPUT                                        PAGE  5

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

 158          KK     A6a
 159          KM        Developed Area 6a
 160          BA    .038
 161          LS              84
 162          UD    .159

 163          KK    RtC8
 164          KM        Route flows from A6a through channel to Knox and 40th St
```

```
165          RS       1    FLOW      -1
166          RC   0.035   0.035   0.035    1000    0.01
167          RX       8       9      10      20      30      35      40      41
168          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

169          KK      A7
170          KM        Developed Area 7
171          BA    .008
172          LS              84
173          UD    .115

174          KK   Comb6
175          KM   Combine flows in channel at 40th St and Knox Rd
176          HC       4

177          KK    RtC9
178          KM       Route flows from Knox to Ranch Circle North
179          RS       1    FLOW      -1
180          RC   0.035   0.035   0.035    1150    0.01
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING ORIGINAL RX AND
             * RY:
             * RX   0       1      10      20      30      40      49      50
             * RY 4.5     4.4     4.3     1.0     1.0     4.0     4.1     4.2
181          RX       0       1      10      20      30      40      49      50
182          RY       6     4.4     4.3     1.0     1.0     4.0     4.1       6

183          KK      A8
184          KM       Developed Area 8
185          BA    .058
186          LS              84
187          UD    .217

188          KK      R2
189          KM       Road segment on Ranch Circle North from 37th PL to Channel near 40th St.
190          BA    .006
191          LS             100
192          UD    .130

193          KK     A29
194          KM       Area 29 - Trail area from Knox to Ranch Circle North
195          BA   0.006
196          LS              85
197          UD   0.091
1                                        HEC-1 INPUT                                        PAGE  6
       LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

198          KK   COMB7
199          KM        Combine flows from A8, Road 2, and A29
200          HC       4

201          KK   RtC10
202          KM        Route flows from Ranch Circle N to Ray Road
203          RS       1    FLOW      -1
204          RC   0.035   0.035   0.035    1150    0.01
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
             * RX   0       1      10      20      30      40      49      50
             * RY 4.5     4.4     4.3     1.0     1.0     4.0     4.1     4.2
205          RX       0       1      10      20      30      40      49      50
206          RY       6     4.4     4.3     1.0     1.0     4.0     4.1       6

207          KK      A9
208          KM        Developed Area 9
209          BA    .040
210          LS              85
211          UD    .201
```

```
212          KK     A30
213          KM       Area 30 - Trail area from Ranch Circle North to Ray Road
214          BA   0.006
215          LS              85
216          UD   0.091

217          KK   COMB8
218          KM        Combine flows from A9, A30, and routed flows
219          HC       3

220          KK   SPLT3
221          KM        Split along Ray Rd near 40th St. (Divert flows to park)
222          DT   Splt3
223          DI       0      74     145     234     340     462     600     750
224          DQ       0      20      43      72     107     131     140     140

225          KK   RtC11
226          KM      Route flows along Ray Road from split at 40th St to Ranch Circle N
227          RS       1    FLOW      -1
228          RC   0.035   0.035   0.035    1600    0.01
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
             * RX  8       9      10      20      30      35      40      41
             * RY 4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1
229          RX       8       9      10      20      30      35      40      41
230          RY       6     4.4     4.3     1.0     1.0     2.0     5.0       6

231          KK     A11
232          KM       Developed Area 11
233          BA    .034
234          LS              84
235          UD    .161
```



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

236          KK     A12
237          KM       Developed Area 12
238          BA    .002
239          LS              85
240          UD    .067

241          KK   DvA12
242          KM      Simulate Detention Area for Development A12
243          DT   DvA12    0.07
244          DI       0      50     100     150     200     250     500
245          DQ       0      50     100     150     200     250     500

246          KK   Comb9
247          KM      Combine flows from A11 & A12
248          HC       2

249          KK    RtR3
250          KM        Route flows from A11 & A12 to Ray Rd
251          RS       1    FLOW      -1
252          RC   0.012   0.012   0.012    1900    0.01
253          RX       0       8       9      10      60      61      62      70
254          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

255          KK     A10
256          KM        Developed Area 10
257          BA    .042
258          LS              85
259          UD    .133

260          KK   DvA10
```

```
 261          KM      Simulate Detention Area for Development A10
 262          DT   DvA10    2.16
 263          DI       0      50     100     150     200     250     500
 264          DQ       0      50     100     150     200     250     500

 265          KK      R3
 266          KM        Road Segment on Ranch Circle N 40TH ST TO RAY
 267          BA    .007
 268          LS             100
 269          UD    .158

 270          KK      R4
 271          KM       Road segment on Ray Rd from 40TH ST TO RANCH CIRCLE N
 272          BA    .005
 273          LS             100
 274          UD    .125

 275          KK  Comb10
 276          KM       Combine flow from A10, Road3, Road4, and RtR3
 277          HC       5
1                                        HEC-1 INPUT                                          PAGE  8

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


 278          KK   RtC12
 279          KM       Route combined flows (along Ray Road from Ranch Circle N to 44th ST)
 280          RS       1    FLOW      -1
 281          RC   0.035   0.035   0.035    1000    0.01
              * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
              * RX   7       8       9      10      30      31      32      33
              * RY 5.2     5.1     5.0     1.0     1.0     5.0     5.1     5.2
 282          RX       7       8       9      10      30      31      32      33
 283          RY       7     5.1     5.0     1.0     1.0     5.0     5.1       7
              *
              *     At this point, the model returns to Knox Road and 40th Street to
              *     simulate flows carried down Knox Road from 40th Street to 44th Street.
              *     Returning flows from R1:

 284          KK   RetR1
 285          KM       Return (to model) the flow coming down Knox Rd
 286          DR   DivR1

 287          KK    RtR4
 288          KM        Route flows through Knox Rd from 40th St to 44th St.
 289          RS       1    FLOW      -1
 290          RC   0.012   0.012   0.012    2600    0.01
 291          RX       7       8       9      10      75      76      77      78
 292          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

 293          KK      R6
 294          KM       Road segment on Knox Rd from 40th St to 44th St.
 295          BA    .009
 296          LS             100
 297          UD    .217

 298          KK     A13
 299          KM       Developed Area 13
 300          BA    .001
 301          LS              87
 302          UD    .058

 303          KK   DvA13
 304          KM      Simulate Detention Area for Development A13
 305          DT   DvA13    0.10
 306          DI       0      50     100     150     200     250     500
 307          DQ       0      50     100     150     200     250     500
```

```
308          KK  Comb11
309          KM       Combine flows from A13, R6 and from R1 (DivR1)
310          HC       3

311          KK   RtC13
312          KM       Route flows from Knox and 44th St to middle of 44th St (entrance to schl)
313          RS       1    FLOW      -1
314          RC   0.035   0.035   0.035    1100    0.01
315          RX      13      14      15      20      30      35      36      37
316          RY     4.7     4.6     4.5     1.0     1.0     4.5     4.6     4.7
1                                          HEC-1 INPUT                                                    PAGE  9

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

317          KK     A14
318          KM       Developed Area 14
319          BA    .076
320          LS              79
321          UD    .233

322          KK   DvA14
323          KM      Simulate Detention Area for Development A14
324          DT   DvA14    4.24
325          DI       0      50     100     150     200     250     500
326          DQ       0      50     100     150     200     250     500

327          KK     R7a
328          KM        Road Segment on 44th St from Knox Rd to Midway between Knox and Ray Rd
329          BA    .004
330          LS             100
331          UD    .100

332          KK  Comb12
333          KM       Combine R7a, A14, and combined flows at A13
334          HC       3

335          KK   RtC14
336          KM        ROUTE combined flows to Ray Road
337          RS       1    FLOW      -1
338          RC   0.035   0.035   0.035    1100    0.01
339          RX      13      14      15      20      30      31      35      36
340          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

341          KK     A15
342          KM       Developed Area 15
343          BA    .047
344          LS              88
345          UD    .083

346          KK     A31
347          KM       Developed Area 31
348          BA    .005
349          LS              92
350          UD    .113

351          KK     R7b
352          KM        Road Segment on 44th St from Midway between Knox and Ray Rd to Ray Rd
353          BA    .004
354          LS             100
355          UD    .100

356          KK      R5
357          KM       Road Segment on Ray Rd from Ranch Circle North to 44th St
358          BA    .004
359          LS             100
```

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 360          UD    .083
1                                        HEC-1 INPUT                                                PAGE 10
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 361          KK  Comb13
 362          KM      Combine flows
 363          HC       6

 364          KK   RtC15
 365          KM       Route flows in channel along Ray Rd from 44th St to clogged pipes
 366          RS       1    FLOW      -1
 367          RC   0.035   0.035   0.035     500   0.008
              * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
              * RX   0      5      10      20      40      50      55      60
              * RY 4.7     4.6     4.5     1.0     1.0     4.5     4.6     4.7
 368          RX       0      5      10      20      40      50      55      60
 369          RY       6    4.6     4.5     1.0     1.0     4.5     4.6       6
              *    At this point, there are 3-48" pipes at Ray Road where the water was
              *    designed to flow; however, a field visit showed that the pipes were
              *    clogged, and therefore the flow will be carried along Ray Road.

 370          KK    RtR5
 371          KM       Route flows along Ray Rd from clogged pipes to 46th Place
 372          RS       1    FLOW      -1
 373          RC   0.012   0.012   0.012    1000   0.008
              * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
              * RX   0      8       9      10      90      91      92     100
              * RY 2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1
 374          RX       0      8       9      10      90      91      92     100
 375          RY     2.3    2.0     1.5       1       1     1.5       2     2.3

 376          KK    R12A
 377          KM        Road segment on Ray Rd from 44th St to 46th PL
 378          BA   0.005
 379          LS            100
 380          UD   0.127

 381          KK     A16
 382          KM       Developed Area 16
 383          BA    .015
 384          LS              92
 385          UD    .089

 386          KK   DvA16
 387          KM      Simulate Detention Area for Development A16
 388          DT   DvA16   1.28
 389          DI       0     50    100    150    200    250    500
 390          DQ       0     50    100    150    200    250    500

 391          KK     A17
 392          KM       Developed Area 17
 393          BA    .072
 394          LS              88
 395          UD    .233
1                                        HEC-1 INPUT                                                PAGE 11
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 396          KK  Comb14
 397          KM       Combine flows from A16, A17, R12a, RtR5, RtC15
 398          HC       4

 399          KK    RtR6
 400          KM       Route combined flows along Ray Rd from 46th PL to 48th St
```

```
401          RS       1    FLOW      -1
402          RC   0.012   0.012   0.012    1100   0.008
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
             * RX   0       8       9      10      90      91      92     100
             * RY 2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1
403          RX      0       8       9      10      90      91      92     100
404          RY    2.3       2     1.5       1       1     1.5       2     2.3
             *    At this point, 50% of flow coming down Ray Road (flow in southern portion
             *    of the street) is assumed to flow south down 48th St and into the channel
             *    flowing south down 48th St.
             *    The other 50% of the flow is combined with the flow coming down 48th Street
             *    north of the intersection. Ray Road is assumed to take all of the flow up
             *    to capacity, at which time the excess flow continues south down 48th St.

405          KK  48-Sth
406          KM      Simulate flow coming down Ray and flowing down 48th Street
407          DT  48-Est
408          DI       0      50     100     200     500    1000    1500    2000
409          DQ       0      25      50     100     250     500     750    1000

410          KK     A18
411          KM      Developed Area 18 (church)
412          BA    .005
413          LS              84
414          UD    .082

415          KK      R8
416          KM        Road Segment on Knox Rd from 44th St to 46th St
417          BA    .003
418          LS             100
419          UD    .092

420          KK  Comb15
421          KM       Combine flows from R8 and A18
422          HC       2

423          KK    RtR7
424          KM       Route flows along Knox Road from A18 to 47th St
425          RS       1    FLOW      -1
426          RC   0.012   0.012   0.012     950    0.01
427          RX       0       8       9      10      75      76      77      85
428          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1
```



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

429          KK      R9
430          KM        Road Segment on Knox Rd from 46th St to 47th St
431          BA    .002
432          LS             100
433          UD    .075

434          KK     A19
435          KM        Developed Area 19
436          BA    .038
437          LS              85
438          UD    .217

439          KK  Comb16
440          KM        Combine flows from R9, A19, and RtR7
441          HC       3

442          KK    RtR8
443          KM       Route Combined Flows on Knox Rd from 46th St to 47th St
444          RS       1    FLOW      -1
445          RC   0.012   0.012   0.012     800    0.01
```

```
446          RX       0       8       9      10      75      76      77      85
447          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

448          KK     A20
449          KM       Developed Area 20
450          BA    .020
451          LS              85
452          UD    .142

453          KK   DvA20
454          KM      Simulate Detention Area for Development A20
455          DT   DvA20    1.22
456          DI       0      50     100     150     200     250     500
457          DQ       0      50     100     150     200     250     500

458          KK     R10
459          KM        Road segment on Knox Rd from 47th St to 48th St
460          BA    .004
461          LS             100
462          UD    .083

463          KK  Comb17
464          KM        Combine flows from A20, R10, and RtR8
465          HC       3

466          KK    RtR9
467          KM       Route flows along 48th St from Knox Rd to Ray Rd
468          RS       1    FLOW      -1
469          RC   0.012   0.012   0.012    2100   0.008
470          RX       0       8       9      10      90      91      92     100
471          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1
             *
             *     Note:   Developments A21, A23, A24, and A25 drain to basin behind KMart.
             *             Area 21 runoff:   capacity of pipe to basin, remaining heads
             *                               south down 48th street to Ray Road
1                                     HEC-1 INPUT                                          PAGE 13

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


472          KK     A21
473          KM       Developed Area 21
474          BA    .075
475          LS              85
476          UD    .275

477          KK  21-Sth
478          KM      Simulate Detention Area for Development 21
479          DT  21-Est
480          DI       0      50      60      70     100     200     500
481          DQ       0      50      60      70      70      70      70

482          KK   RtR10
483          KM       Route flows along 48th St from Development A21 to Ray Rd
484          RS       1    FLOW      -1
485          RC   0.012   0.012   0.012    1000   0.008
486          RX       0       8       9      10      80      81      82      90
487          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

488          KK     R11
489          KM       Road segment on 48th St from Knox to Ray Rd
490          BA    .008
491          LS             100
492          UD    .216

493          KK     A22
494          KM        Developed Area 22
```

```
495          BA    .033
496          LS              92
497          UD    .099

498          KK   DvA22
499          KM      Simulate Detention Area for Development A22
500          DT   DvA22    2.75
501          DI       0      50     100     150     200     250     500
502          DQ       0      50     100     150     200     250     500

503          KK    R12b
504          KM        Road segment on Ray Rd from 46th PL to 48th St
505          BA   0.005
506          LS             100
507          UD   0.127

508          KK  Retn48
509          KM      Return divided flow from Ray Road as it reaches 48th ST.
510          DR  48-Est

511          KK  Comb18
512          KM    Combine A21, A22, R11, R12B, RtR10, and Dv48th
513          HC       6
1                                    HEC-1 INPUT                                    PAGE 14

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


514          KK  RaySth
515          KM      Split at 48th St and Ray - Capacity of 1/2 of Ray Rd is 140 cfs.
516          DT  RayEst
517          DI       0      50     100     140     300     500    1000
518          DQ       0      50     100     140     140     140     140

519          KK  Comb19
520          KM    Combine split flows from ray and flows carried down 1/2 of Ray Road
521          HC       2

522          KK   RtC16
523          KM      Route flows along 48th St to Detention Basin
524          RS       1    FLOW      -1
525          RC   0.012   0.012   0.012    2000   0.008
526          RX      13      14      15      20      30      55      56      57
527          RY     4.5     4.4     4.3     1.0     1.0     4.3     4.4     4.5

528          KK     A27
529          KM      Developed Area 27
530          BA    .036
531          LS              92
532          UD    .540

533          KK   RtC17
534          KM      Route flows along 48th St to Detention Basin
535          RS       1    FLOW      -1
536          RC   0.012   0.012   0.012    2000   0.008
537          RX      13      14      15      20      45      55      56      57
538          RY     4.5     4.4     4.3     1.0     1.0     4.3     4.4     4.5

539          KK     A28
540          KM      Developed Area 28
541          BA    .216
542          LS              84
543          UD    .383

544          KK     R13
545          KM        Road segment of 48th St from Ray Rd to detention basin
546          BA   0.007
```

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547          LS              100
548          UD   0.235

549          KK  Comb20
550          KM       Combine flows from A27, A28, R13, and RtC16 (flows from 48th St and Ray)
551          HC       4

552          KK    RET2
553          KM       Retention Basin - At 48th Street and Thistle Landing
554          RS       1    STOR       0       0
555          SV       0    25.2    27.3    29.5    31.8    34.1    36.4
556          SE    11.5      19    19.5      20    20.5      21    21.5
557          SS      19     150       3     1.5
558          SL      13     7.1     0.6     0.5
1                                        HEC-1 INPUT                                          PAGE 15

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

559          KK    East
560          KM       Account for flow traveling south through pipe and east over road (weir)
561          DT   South
562          DI       0      41      45      48      53      58      65      73      84      85
563          DI      91     108     140     192     269     375     516     696     920
564          DQ       0      41      45      48      53      58      65      73      84      84
565          DQ      85      85      85      85      85      85      85      85      85
             *
             * DITCH PARAMETERS ASSUMED. 10'BW, 2:1SS, n=0.015, D=5'
             * LENGTH ASSUMED. SLOPE ASSUMED SIMILAR TO PREVIOUS ROUTING.

566          KK  RtEAST
567          KM        ROUTE EAST SPLIT TO BOTTOM OF PEPPERWOOD BASIN C
568          RS       4    FLOW      -1
569          RC    .035    .015    .035    2600    .006
570          RX       0       5      10      22      32      44      54      64
571          RY       6       6       6       0       0       6       6       6
             *

572          KK       C
573          KM   FROM PEPPERWOOD REPORT
574          BA    0.06
             * CN ASSUMED 85 (COMMERCIAL, B SOIL)
575          LS              85
576          UD    0.09
             *

577          KK   COMBC
578          KM   COMBINE FLOW FROM BASIN C AND EAST SPLIT
579          HC       2
             *

580          KK     RtC
581          KM   ROUTE COMBINED FLOWS TO BOTTOM OF BASIN B
582          RS       2    FLOW
583          RC    .015    .015    .015    1050   .0035
584          RX       0      10      20      32      42      54      64      74
585          RY       6       6       6       0       0       6       6       6
             *

586          KK       B KYRENE SCHOOL DISTRICT
587          KM   CN ASSUMED TO BE 85 (COMMERCIAL, B SOIL)
588          BA    0.06
589          LS              85
590          UD    0.09
             *

591          KK   COMBB
```

```
592          KM   COMBINE HYDROGRAPHS FROM RTC AND BASIN B
593          HC       2
             * ******************* FLOWS TO RET 3 CONCENTRATION POINT
             * ************************
             *
             *     Note:   Developments A21, A23, A24, and A25 drain to basin behind KMart.
             *             Area 21 runoff:   capacity of pipe to basin, remaining heads
             *                               south down 48th street to Ray Road
             *             Area 23 runoff:   70% retained on-site, 30% to basin
             *             Area 24 runoff:   All to basin
             *             Area 25 runoff:   All to basin
1                                     HEC-1 INPUT                                          PAGE 16

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

594          KK  Retn21
595          KM       Return flow from Development 21 that travels through pipe
596          DR  21-Est

597          KK    RtP1
598          KM       Route flows from development 21 to basin  (36" pipe)
599          RS       1    FLOW      -1
600          RC   0.013   0.013   0.013    1320   0.008
601          RX     4.8     4.9       5       6       7       8     8.1     8.2
602          RY     3.0     2.0     1.5       0       0     1.5     2.0     3.0

603          KK     A25
604          KM       Developed Area 25
605          BA    .043
606          LS              85
607          UD    .226

608          KK  Comb21
609          KM       Combine flows from A25 and RtP1 (routed flows from A21)
610          HC       2

611          KK    RtP2
612          KM       Route flows from A21 and A25 to basin  (54" pipe)
613          RS       1    FLOW      -1
614          RC   0.013   0.013   0.013     100   0.008
615          RX     4.9       5       6       7     7.5     8.5     9.5     9.6
616          RY     4.5     2.3     1.0       0       0     1.0     2.3     4.5

617          KK     A23
618          KM       Developed Area 23
619          BA    .039
620          LS              85
621          UD    .200

622          KK   DvA23
623          KM      Simulate Detention Area for Development A23
624          DT    ST23    2.37
625          DI       0      50     100     150     200     250     500
626          DQ       0      50     100     150     200     250     500

627          KK   RtC18
628          KM       Route flows through park
629          RS       1    FLOW      -1
630          RC   0.035   0.035   0.035    1000   0.008
631          RX      10      20      50     100     150     200     230     240
632          RY     2.5     2.3     1.0       0       0     1.0     2.3     2.5
             * A24 - CN CHANGED FROM 85 TO 65 BASED ON PLANS FOR CITY PARK.
             *       10% @ CN=98 AND 90% @CN=61 (FROM TR-55)
1                                     HEC-1 INPUT                                          PAGE 17

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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633          KK     A24
634          KM       Developed Area 24
635          BA    .064
636          LS              65
637          UD    .285

638          KK  Comb22
639          KM       Combine flows from A21 & A25 (RtP2), A23 (RtC18), A24
640          HC       3

641          KK    RET3
642          KM      Retention Basin - in south portion of A24 (north of KMart - A26)
643          RS       1    STOR       0       0
644          SV       0    0.59    2.68    5.01    7.58     9.0
645          SE    20.5      21      22      23      24      25
646          SS      24     100       3     1.5
647          SL      21   13.14     0.6     0.5

648          KK   RtC19
649          KM       Route flows along I-10 in channel from Basin
650          RS       1    FLOW      -1
651          RC   0.035   0.035   0.035     700   0.008
652          RX      13      14      15      20      45      55      56      57
653          RY     4.5     4.4     4.3     1.0     1.0     4.3     4.4     4.5

654          KK     A26
655          KM        Developed Area 26
656          BA    .048
657          LS              92
658          UD    .089

659          KK   DvA26
660          KM      Simulate Detention Area for Development A26
661          DT    ST26    4.04
662          DI       0      50     100     150     200     250     500
663          DQ       0      50     100     150     200     250     500

664          KK  RtnRay
665          KM       Return divided flow from Ray and 48th ST
666          DR  RayEst

667          KK   RtR11
668          KM       Route flows along Ray Rd
669          RS       1    FLOW      -1
670          RC   0.012   0.012   0.012    2000   0.008
671          RX       0       8       9      10      90      91      92     100
672          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

673          KK     R14
674          KM        Road Segment along Ray from 48th to I-10
675          BA    .008
676          LS             100
677          UD    .186
1            *                          HEC-1 INPUT                                    PAGE 18

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


678          KK  Comb23
679          KM       Combine flows from A26, R14, RtR11, and RtC19 (basin)
680          HC       4
             * DIV520, DIVBOX, & ADDBOX FROM HDR SOUTH MOUNTAIN RUN.

681          KK  DIV520 DIVERT WEIR FLOW THRU EQUIP. CROSSING UNDER EB OFF-RAMP
682          KM   FROM HDR SOUTH MONTAIN RUN
```

```
683          DT  DIVBOX
684          DI       0     100     200     300     400     500
685          DQ       0       0      60     143     230     320

686          KK  DIVBOX RETREIVE FLOW THRU EQUIPMENT CROSSING
687          DR  DIVBOX
             * NOTE: FLOW RE-COMBINES AT APPROX. BOTTOM OF BASIN A1

688          KK  ADDBOX RE-COMBINE FLOW DIVERTED THRU EQUIP. CROSSING.
689          KM   RE-COMBINE FLOW DIVERTED THRU EQUIP. CROSSING
690          HC       2
             *

691          KK   RTE23 ROUTE CHANNEL FLOW SOUTH ALONG I-10 TO COMBB
692          KM   ASSUME BW=10', 2:1ss, D=5', n=0.015, s & l FROM SOUTH MONTAIN RUN
693          RS       1    FLOW      -1
694          RC    .015    .015    .015    4000   .0099
695          RX       0      10      20      30      40      50      60      70
696          RY       5       5       5       0       0       5       5       5
             *
             * PEPPERWOOD MODEL, MODIFIED TO REFLECT NEW DEVELOPMENT PLANS
             * EAST OF 48th
             * FROM RAY ROAD TO CHANDLER BLVD.  NO LOCAL RETENTION CONSIDERED.
             *

697          KK     VA1 VESTAR PHASE I & II DEVELOPMENTS.
698          KM   ASSUMED COMMERCIAL (ZONING R-3), B SOILS, AREA FROM KIMLEY HORN
699          KM   GRADING PLAN
700          BA    0.11
701          LS              85
702          UD    0.17
             *
             *

703          KK   RTEA1 ROUTE A1 TO A2 VIA DITCH ON I-10 R.O.W.
704          KM   ASSUME BW=10', 2:1ss, D=5', n=0.015
705          RS       1    FLOW
706          RC    .015    .015    .015    1320    .002
707          RX       0      10      20      30      40      50      60      70
708          RY       5       5       5       0       0       5       5       5
             *
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1 HEC-1 INPUT PAGE 19

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

709          KK     VA2 MARK DEVELOPMENT APARTMENTS, COMMERCE PARK I & II
710          KM   CN ASSUMES COMMERCIAL AND APARTMENT DEVELOPMENT ON B SOIL
711          BA    0.17
712          LS              85
713          UD    0.19
             *

714          KK   COMBA
715          KM   COMBINE A1 & A2 HYDROGRPAHS
716          HC       2
             *

717          KK  STORA2
718          KM   RETENTION CELL IN SE CORNER OF BASIN VA2.
             * SEE KIMLEY/HORN GRADING & DRAINAGE PLANS
719          RS       1    STOR      -1
720          SQ       0    0.01    1500
721          SV       0   21.44   21.44
             *

722          KK   RTEA2 ROUTE A2 TO B VIA DITCH ON I-10 R.O.W.
```

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723          KM   ASSUME BW=10', 2:1ss, D=5', n=0.015
724          RS       1    FLOW
725          RC    .015    .015    .015    1320    .008
726          RX       0      10      20      30      40      50      60      70
727          RY       5       5       5       0       0       5       5       5
             *

728          KK   COMBB
729          KM   COMBINE HYDROGRAPHS RTE23,RTEA2 AND COMBB
730          HC       3
             *

731          KK     RtB
732          KM   ROUTE FLOW TO BOTTOM OF PEPPERWOOD BASIN F PARALLEL TO I-10
733          RS       2    FLOW
734          RC    .015    .015    .015    1320    .006
735          RX       0       5      10      22      32      44      54      64
736          RY       6       6       6       0       0       6       6       6
             *

737          KK       D PEPPERWOOD BASIN D
738          KM   CN ASSUMED COMMERCIAL, B SOILS
739          BA     .03
740          LS             85
741          UD      .1
             *
             *
1                                        HEC-1 INPUT                                          PAGE 20

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

742          KK       E PEPPERWOOD BASIN E
743          KM   CN ASSUMED COMMERCIAL, B SOILS
744          BA     .03
745          LS             85
746          UD      .1
             *
             *

747          KK   COMBE
748          KM   COMBINE HYDROGRAPHS FROM D& E
749          HC       2
             *

750          KK    RTEE
751          KM   ROUTE COMBINED HYDROGRAPHS TO BOTTOM OF BASIN F
752          RS       1    FLOW      -1
753          RC    .015    .015    .015    1000    .005
754          RX       0      10      20      32      42      54      64      74
755          RY       6       6       6       0       0       6       6       6
             *

756          KK       F PEPPERWOOD BASIN F
757          KM   CN ASSUMED, COMMERCIAL, B SOILS
758          BA     .04
759          LS             85
760          UD     .09
             *

761          KK   COMBF
762          KM   COMBINE HYDROGRAPHS FROM RTEE,BASIN F, AND RTB
763          HC       3
             *

764          KK    RTEF
765          KM   ROUTE FLOW THROUGH CONCRETE CHANNEL ALONG I-10 R.O.W TO BOTTOM
```

```
766          KM   OF DA522C
767          RS       1    FLOW      -1
768          RC    .015    .015    .015    1320    .005
769          RX       0      10      20      32      42      54      64      74
770          RY       6       6       6       0       0       6       6       6
             *
             * ORIG. BASIN 522A THRU 522D MODIFIED TO REFLECT FUTURE DEVELOPMENT
             * AND DRAINAGE CORRIDORS.  ORIG. BASINS HAD CN OF 81
             * ASSUMED FOR NEW BASINS.
             *

771          KK  DA522A
772          BA   0.058
773          LS              85
774          UD     .17
1                                        HEC-1 INPUT                                          PAGE 21

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

775          KK  RT522A
776          KM   ROUTE COMBINED FLOW THROUGH CONC. CHANNEL ALONG 1/4-Section
777          RS       1    FLOW      -1
778          RC    .015    .015    .015    1200    .005
779          RX       0      10      20      32      42      54      64      74
780          RY       6       6       6       0       0       6       6       6
             *
             * ****BEGIN I-10/CHANDLER BLVD TI ON-SITE TO COLLECTOR CHAN*****

781          KK    DA10  UPPER 1-10 DRAINAGE AREAS WHICH DRAIN TO WEST CHANNEL
782          BA    .006
783          LS              92
784          UD     .10

785          KK    DA11
786          BA   .0019
787          LS              98
788          UD     .10

789          KK    DA12
790          BA   .0079
791          LS              91
792          UD     .10

793          KK   ADD12
794          HC       3

795          KK   RTE12
796          RD     140   .0036    .012            CIRC     2.5

797          KK    DA13
798          BA   .0026
799          LS            90.1
800          UD     .10

801          KK   RTE13
802          RD     300   .0017    .012            CIRC     2.0

803          KK    DA14
804          BA   .0043
805          LS            88.4
806          UD     .10

807          KK   ADD14
808          HC       3

809          KK   RTE14
```

```
 810          RD    1060   .0029    .012            CIRC     4.0
1                                          HEC-1 INPUT                                                    PAGE 22
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 811          KK    DA15
 812          BA   .0050
 813          LS            90.9
 814          UD     .10

 815          KK    DA16
 816          BA   .0016
 817          LS              98
 818          UD     .10

 819          KK    DA17
 820          BA   .0052
 821          LS            90.6
 822          UD     .10

 823          KK    DA18
 824          BA   .0017
 825          LS            90.7
 826          UD     .10

 827          KK   ADD17
 828          HC       5

 829          KK   RTE18
 830          KM   ONSITE FLOW FROM I-10 NORTH - CHANDLER BLVD. TO COLLECTOR
 831          KM   CHANNEL
 832          RD     380   .0008    .012            CIRC     4.5
              * *****END I-10/ CHANDLER/TI MODEL *****

 833          KK  DA522C
 834          BA   0.044
 835          LS              85
 836          UD    0.14

 837          KK  AD522C
 838          KM   COMBINE HYDROGRAPHS FROM RT522A, I-10, DA522C AND RTEF
 839          HC       4

 840          KK  RT522C
 841          KM   ROUTE FLOW THROUGH CONC. ADOT CHANNEL TO BOTTOM OF DA522D
 842          RS       1     FLOW      -1
 843          RC    .015    .015    .015    1450    .003
 844          RX       0      10      20      32      42      54      64      74
 845          RY       6       6       6       0       0       6       6       6
              *
              * AREAS FOR DA522D & DA522E BASED ON ALIGNMENT SHOWN IN SOUTH
              * MOUNTAIN REPORT.

 846          KK  DA522DA 0.024
 847          LS              85
 848          UD     .13
1                                          HEC-1 INPUT                                                    PAGE 23
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 849          KK  DA522B
 850          BA   0.058
 851          LS              85
 852          UD     .17
              *
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```
853          KK  AD522D
854          KM   COMBINE HYDROGRAPHS FROM RT522C,DA522B AND DA522D
855          HC       3

856          KK  RT522D
857          KM   ROUTE COMBINED FLOW THROUGH CONC. ADOT CHANNEL TO BOT OF 522E
858          RS      1     FLOW      -1
859          RC    .015    .015    .015    1490    .003
860          RX       0      10      20      32      42      54      64      74
861          RY       6       6       6       0       0       6       6       6
             *

862          KK  DA522E
863          BA    0.05
864          LS              85
865          UD    0.09

866          KK  AD522E
867          KM   COMBINE HYDROGRAPHS FROM RT522D, RT522B, AND DA522E
868          HC       2
             *
             *
             *
             *
             * ****************************
             * THE FOLLOWING IS FROM THE HDR SOUTH MOUNTAIN MODEL

869          KK   DA513  (CVL195) CVL data
870          BA  0.0879
871          LS              85
872          UD   0.204

873          KK   DA514  (CVL197) CVL data
874          BA  0.0564
875          LS            84.1
876          UD   0.144

877          KK   DA515  (CVL199) CVL data
878          BA  0.0466
879          LS              84
880          UD   0.186

881          KK   AD515  Combine 515, 514 and 513
882          HC       3
1                                        HEC-1 INPUT                                        PAGE 24

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

883          KK   RT515  Channel info from Clouse plans.
884          RS      1     FLOW      -1
885          RC   0.040   0.020   0.040    2600  0.0059
886          RX      80      90     100     106     116     122     132     142
887          RY      10      10      10       6       6      10      10      10

888          KK   DA517  (CVL320) CVL data
889          BA  0.1700
890          LS              77
891          UD   0.258
             * RETREIVE SOUTH SPLIT AT 48th & THISTLE (KIMLEY/HORN DATA)

892          KK   South
893          KM   RETREIVE SOUTH SPLIT FROM 48th & THISTLE
894          DR   South
             * CONTINUE WITH HDR SOUTH MONTAIN DATA
```

```
895          KK   AD517  Add in 517
896          HC       3

897          KK   RT517  Assumed channel shape based on estimated 48th St. cross-section.
898          RS       1    FLOW      -1
899          RC   0.020   0.025   0.040     850   0.005
900          RX      78      80     100     112     116     118     122     222
901          RY      12     9.6      10    9.76    7.76    7.76      10      12

902          KK   DA518
903          BA   0.099
904          LS              81
905          UD    0.58

906          KK   AD518  Combine 518 with flow moving south in 48th St.
907          HC       2
             * HDR SOUTH MOUNTAIN RUN SHOWS SPLIT AT 48th & CHANDLER. ASSUME THAT
             * SPLIT HAS BEEN CORRECTED, AND ALL FLOW GOES SOUTH ALONG 48th.
             * ORIGINAL SPLIT CARDS:
             * KKDIV518 Assume 50-50 split at 48th & Chandler IC.
             * DT DIVSE
             * DI     0    2000
             * DQ     0    1000
             *
             *
             * CHANNEL GEOMETRY FOR RT518 HAS BEEN EXTENDED TO STABILIZE ROUTING
             * ORIG. RX & RY:
             * RX  80      90     100     105     110     115     125     135
             * RY10.4    10.2      10       5       5      10    10.2    10.4
             * RT518 MODIFIED TO REFLECT NEW CONC. CHANNEL PARALLEL TO 48th STR.
             * ORIGINAL CARDS
             *  RT518  Assume channel size based on existing tail-water ditch.
             * RS   1    FLOW      -1
             * RC 0.035   0.025   0.035    3600  0.0061
             * RX  50      90     100     105     110     115     125     165
             * RY  11    10.2      10       5       5      10    10.2      11
```



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

908          KK   RT518
909          KM   ROUTE FLOW TO BOTTOM OF 519B
910          RS       1    FLOW      -1
911          RC    .015    .015    .015    1320    .005
912          RX       0      10      20      30      40      50      60      70
913          RY       5       5       5       0       0       5       5       5
             *
             * ORIGINAL BASINS 519a AND 519b SPLIT UP TO REFLECT EXPECTED ROAD AND
             * DRAINAGE PATTERNS.  ORIGINAL DATA:
             * KKDA519a
             * BA0.22
             * LS          81
             * UD0.62
             * KKAD519a  Combine 519a and flow from N. at 48th & SMF.
             * HC   2
             *
             * ORIGINAL RETRIEVAL CARDS FOR SPLIT AT 48th & CHANDLER DELETED.
             *
             * KK DIVSE   Retrieve SE part of diversion from 48th St and Chandler Blvd IC.
             * DR DIVSE
             * KK  RTSE  Route to approx 50th St. thru assumed channel overland
             * RS     5    FLOW      -1
             * RC 0.035   0.035   0.035    3100   0.005
             * RX    80      90     100     110     610     620     630     640
             * RY    10      10      10       9       9      10      10      10
             *
```

```
                    * KKDA519b
                    * BA 0.322
                    * LS          85
                    * UD0.43
                    *
                    * KKRT519b  Assume channel size and route 519b back to 48th St.
                    * RS   1    FLOW      -1
                    * RC 0.035   0.018   0.035    2800  0.0011
                    * RX  80      90     100     112     124     136     146     156
                    * RY  10      10      10       4       4      10      10      10
                    * KKAD519b  Combine all flows approx. 400ft West of 48th St. Design Q - C219.
                    * HC   3
                    *
                    * MODIFIED AREAS
                    *

914                 KK  DA519A
915                 BA   0.046
916                 LS              85
917                 UD    0.13
                    *

918                 KK  RT519A
919                 KM   ROUTE EAST TO END OF 519B (AT 48th STR.)
920                 RS       1    FLOW      -1
921                 RC    .015    .015    .015    2750    .003
922                 RX       0      10      20      30      40      50      60      70
923                 RY       5       5       5       0       0       5       5       5
                    *
1                                          HEC-1 INPUT                                          PAGE 26

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

924                 KK  DA519B
925                 BA   0.136
926                 LS              85
927                 UD    0.19
                    *

928                 KK  AD519B
929                 KM   COMBINE HYDROGRAPHS FROM RT518, RT519A, & DA519B
930                 HC       3
                    *

931                 KK  RT519B
932                 KM   ROUTE COMBINED HYDROGRAPHS SOUTH TO WEST SIDE OF 48th & FRYE
933                 RS       1    FLOW      -1
934                 RC    .015    .015    .015    1320    .006
935                 RX       0      10      20      32      42      54      64      74
936                 RY       6       6       6       0       0       6       6       6
                    *

937                 KK  DA519C
938                 BA   0.116
939                 LS              85
940                 UD    0.19
                    *

941                 KK  RT519C
942                 KM   ROUTE FLOW EAST TO 48th & FRYE
943                 RS       1    FLOW      -1
944                 RC    .015    .015    .015     900    .002
945                 RX       0      10      20      30      40      50      60      70
946                 RY       5       5       5       0       0       5       5       5
                    *
```

```
947          KK  DA519D
948          BA    .078
949          LS              85
950          UD     .19
             *

951          KK  AD519D
952          KM   COMBINE HYDROGRAPHS FROM RT519B, RT519C, & DA519D
953          HC       3
             *

954          KK  RT519D
955          KM   ROUTE FLOW TO ADOT CHANNEL
956          RS       1    FLOW      -1
957          RC    .015    .015    .015     800    .008
958          RX       0      10      20      32      42      54      64      74
959          RY       6       6       6       0       0       6       6       6
             *
1                                          HEC-1 INPUT                                                    PAGE 27

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

960          KK  DA519E
961          BA    .031
962          LS              85
963          UD     .11
             *

964          KK  RT519E
965          KM   ROUTE FLOW THROUGH ADOT CHANNEL TO BOTTOM OF DA519F
966          RS       1    FLOW      -1
967          RC    .015    .015    .015    2200    .002
968          RX       0      10      20      32      42      54      64      74
969          RY       6       6       6       0       0       6       6       6
             *

970          KK  DA519F
971          BA    .099
972          LS              85
973          UD     .23
             *

974          KK  AD519F
975          KM   COMBINE HYDROGRAPHS FROM RT519E AND DA519F
976          HC       2
             *

977          KK  DA519G
978          BA   0.032
979          LS              85
980          UD     .11
             *

981          KK  AD519G
982          KM   COMBINE HYDROGRAPHS FROM AD519F, DA519G, RT519D, & AD522E
983          HC       4
             *

984          KK  RTI-10
985          KM   ROUTE FLOWS THROUGH OPEN CHANNEL ACROSS I-10 R.O.W.
986          KM   SIMULATES (3) 10X6 RCBC
987          RS       1    FLOW      -1
988          RC    .012    .012    .012     750    .002
989          RX       0       5       9      10      40      41      45      50
990          RY      10       8       6       0       0       6       8      10
             *  ADD ADITIONAL AREA FOR BASN 15 AND AREA WEST OF BASIN
```

```
 991          KK      B1 Area west of Basin 15
 992          KM   CN=85 assumed (commercial, B soil)
 993          BA   0.106
 994          LS            85
 995          UD    0.16
              *
1                                        HEC-1 INPUT                                          PAGE 28

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

 996          KK   RTEB1
 997          KM   Route flow to Basin 15
 998          RS       1    FLOW      -1
 999          RC    .015    .015    .015    3000    .005
1000          RX       0      10      20      30      40      50      60      70
1001          RY       5       5       5       0       0       5       5       5
              *

1002          KK  ADI-10
1003          KM   COMBINE HYDROGRAPHS FROM RTI-10 AND RTEB1
1004          HC       2
              *

1005          KK     B15
1006          KM   Drainage Area of Retention Basin 15
1007          BA   0.129
1008          LS            85
1009          UD    0.25
              *

1010          KK  ADBA15
1011          KM   COMBINE HYDROGRAPHS FROM ADI-10 AND B15
1012          HC       2
              *
              *     PRICE ROAD HYDROLOGY
              *     I-10 AND SOUTH MOUNTAIN FREEWAY INTERCHANGE
              *     ON-SITE INFIELD BASIN ROUTING, ON-SITE COLLECTION AND PUMP STATION
              *     DISCHARGE COMBINED FLOW @ PMP TO EQUALIZATION BASIN

1013          KK    DA01
1014          BA   .0099
1015          LS           95.7
1016          UD    0.10

1017          KK   RTE01
1018          RD     840   .0094    .012            CIRC     2.5

1019          KK    DA02
1020          BA   .0075
1021          LS           94.8
1022          UD    0.10

1023          KK    DA03
1024          BA   .0047
1025          LS           89.6
1026          UD     .10

1027          KK   ADD03   ADD HYD. 01 THRU 03
1028          HC       3
1                                        HEC-1 INPUT                                          PAGE 29

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

1029          KK   RTE03
```

```
1030          RD     490   .0074    .012            CIRC     3.5

1031          KK    DA04
1032          BA   .0038
1033          LS            93.4
1034          UD     .10

1035          KK    DA05
1036          BA   .0066
1037          LS            90.4
1038          UD     .10

1039          KK   ADD05
1040          HC       3

1041          KK   RTE05
1042          RD     685   .0045    .012            CIRC     4.0

1043          KK    DA06
1044          BA   .0088
1045          LS            90.7
1046          UD     .10

1047          KK   ADD06
1048          HC       2

1049          KK   RTE06
1050          RD     700   .0045    .012            CIRC     4.0

1051          KK    DA07
1052          BA   .0203
1053          LS            81.3
1054          UD     .10

1055          KK   ADD07
1056          HC       2

1057          KK   RTE07
1058          RD     605   .0022    .012            CIRC       5

1059          KK    DA08
1060          BA   .0056
1061          LS            94.8
1062          UD     .10

1063          KK   RTE08
1064          RD     700   .0072    .012            CIRC     2.5
1                                          HEC-1 INPUT                                          PAGE 30

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


1065          KK   ADD08
1066          HC       2

1067          KK    DA09
1068          BA   .0284
1069          LS            80.8
1070          UD     .10

1071          KK   ADD09
1072          HC       2

1073          KK    PUMP  96" STORAGE RCP'S
1074          KM          L=1070 FEET     200 CFS STATION
1075          RS       1    ELEV    1132       0
1076          SV       0     .24    0.62    0.99    1.24
```

```
1077          SE    1132    1134    1136    1138    1140
1078          SQ     .01     .02     .03     .04     .05
1079          WP                            PUMP
1080          WP    1134      50    1133    PUMP
1081          WP    1135      50    1134    PUMP
1082          WP    1136      50    1135    PUMP
1083          WP    1136      50    1133    PUMP

1084          KK   PUMPR
1085          WR    PUMP

1086          KK    PUMP
1087          HC       2

1088          KK    DA19
1089          BA   .0112
1090          LS            75.6
1091          UD     .10

1092          KK   RTE19
1093          RD     150  .00670    .012           CIRC     2.5

1094          KK    DA20
1095          BA   .0104
1096          LS            90.7
1097          UD     .10

1098          KK   ADD20
1099          HC       2

1100          KK   RTE20
1101          RD      90   .0028    .012           CIRC     3.5

1102          KK    DA21
1103          BA   .0016
1104          LS              98
1105          UD     .10
```



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

1106          KK   ADD21
1107          HC       2

1108          KK   RTE21
1109          RD      90   .0028    .012           CIRC       4

1110          KK    DA22
1111          BA   .0133
1112          LS            91.3
1113          UD     .10

1114          KK   ADD22
1115          HC       2

1116          KK   RTE22
1117          RD     260   .0028    .012           CIRC     4.5

1118          KK    DA23
1119          BA   .0319
1120          LS            81.5
1121          UD     .10

1122          KK   ADD23
1123          HC       2
```

```
1124          KK   RTE23  INFIELD AREA - 30" OUTLET (INLET CONTROL) basin 12
1125          RS       1    STOR     0.0
1126          SV       0    0.24    0.91    7.44
1127          SE    1160    1161    1162    1165
1128          SQ       0       0       4      25

1129          KK    DA24
1130          BA   .0025
1131          LS               98
1132          UD     .10

1133          KK   ADD24
1134          HC       2

1135          KK    DA25
1136          BA   .0195
1137          LS            84.4
1138          UD     .10

1139          KK   ADD25
1140          HC       2

1141          KK   RTE25  INFIELD AREA - 24" OUTLET (INLET CONTROL) basin 11
1142          RS       1    STOR     0.0
1143          SV       0     .16     .91   13.37
1144          SE    1159    1160    1161    1165
1145          SQ       0       0       4      30
1                                          HEC-1 INPUT                                          PAGE 32

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


1146          KK    DA26
1147          BA   .0156
1148          LS            78.5
1149          UD     .10

1150          KK   ADD26
1151          HC       2

1152          KK   RTE26  INFIELD AREA - 18" OUTLET (INLET CONTROL) basin 10
1153          RS       1    STOR     0.0
1154          SV       0    0.01    1.91    5.31
1155          SE    1158    1159    1160    1161
1156          SQ       0       0     3.4       9

1157          KK    DA27
1158          BA   .0253
1159          LS            84.3
1160          UD     .10

1161          KK   ADD27
1162          HC       2

1163          KK   RTE27  INFIELD AREA - 24" OUTLET (INLET CONTROL) basin 9
1164          RS       1    STOR     0.0
1165          SV       0    0.01    1.34    3.53
1166          SE  1157.9  1158.4    1160    1161
1167          SQ       0       0       9      17

1168          KK    DA28
1169          BA   .0025
1170          LS               98
1171          UD     .10

1172          KK   ADD28
1173          HC       2
```

```
1174          KK    DA29
1175          BA   .0286
1176          LS            83.5
1177          UD     .10

1178          KK   ADD29
1179          HC       2

1180          KK   RTE29  INFIELD AREA - 24" OUTLET (INLET CONTROL) basin 8
1181          RS       1    STOR     0.0
1182          SV       0     .01    0.02    4.41
1183          SE  1157.0  1157.5    1159    1161
1184          SQ       0       0       8      23
1                                   HEC-1 INPUT                                    PAGE 33
-
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1185          KK     PMP
1186          KM        ADD INFIELD RUNOFF AND PUMP STATION OUTFLOW
1187          KM        COMBINED DISCHARGE TO EQUALIZATION BASIN
1188          HC       2
              * ****END INTERCHANGE ON-SITE MODEL*****

1189          KK   ADPMP  combine flows from IC onsite pumpstation and route thru basin.
1190          KO       1
1191          HC       2
              *
              * *****Original ADOT BASIN 15 Design Concept not used in this run.
              * KK DET  Route thru detention basin S. side of SMF, outlet to Gila Floodw
              * KM        thru 54" RCP.
              * RS     1    STOR       0
              * SV     0    13.8    23.0   118.9   221.8   243.2   264.9   286.9   309.2   331
              * SE  1143  1144.5    1145    1150    1155    1156    1157    1158    1159    11
              * SQ     0      13      20      79      98     102     105     108     111     1
              *
              *
              * ***********************************************************************
              * PREVIOUS BASIN 15 ROUTINE KEPT FOR RECORD PURPOSES ONLY
              *
              * ***********************************************************************
              * ***********************************************************************
              * Begin Basin 15/48th Street Detention Basin Routing
              * ***********************************************************************

1192          KK   B15FF
1193          KM   DIVERT FIRST 37 ac-ft EQUALIZATION BASIN
1194          KM   EQ BASIN RETAINS 37.6 AC-FT TO OVERFLOW ELEV. 1158
1195          KO       3
1196          DT   DIVFF    37.6
1197          DI       0   10000
1198          DQ       0   10000
              *

1199          KK   STB15
1200          KM        ROUTE MAIN VOLUME INTO BASIN 15
1201          KM        100-YR  6-HOUR MULTI-USE BASIN WITH 1' FREEBORAD
1202          KM        TOP OF BASIN, INCLUDING FREEBOARD, AT ELEV. 1160.
1203          KM        OUTLET PIPE IS CLOSED
1204          KM        OUTLET IS 42" RCP TO SANTAN CHANNEL
1205          KO       2
1206          RS       1    STOR
1207          SV       0       1      15     109     228     275   321.8
1208          SQ       0       0       0       0       0       0       0
1209          SE    1143  1146.5    1150    1155    1158    1159    1160
              *
```

```
1                                                HEC-1 INPUT                                                PAGE 34

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


          1210          KK    RTFF
          1211          DR   DIVFF

          1212          KK    STFF
          1213          KM    ROUTE FF INTO EQUAL BASIN
          1214          KO       3
          1215          RS       1    STOR
          1216          SV       0    37.6
          1217          SQ       0       0
          1218          SE    1144    1158
          1219          ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

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

     8          M1
                 V
                 V
    19        RtC1
                 .
                 .
    25           .          M2
                 .           V
                 .           V
    30           .        RtC2
                 .           .
                 .           .
    36           .           .          A1
                 .           .           .
                 .           .           .
    41       COMB1.......................
                 .
                 .
    46           .------->   Splt1
    44       Splt1
                 V
                 V
    49        RtC3
                 .
                 .
    55           .          M3
                 .           V
                 .           V
    60           .        RtC4
                 .           .
                 .           .
    66           .           .          A2
                 .           .           .
                 .           .           .
    71       COMB2.......................
                 V
                 V
    74        RtC5
                 .
                 .
    80           .          M4
                 .           V
                 .           V
    85           .        RtR1
```

```
                .          .
 91             .          .        A3
                .          .         .
 96             .          .         .        A4
                .          .         .         .
101         COMB3.......................................
                .
                .
106             .-------->   RET1
104          RET1
                V
                V
109          RtC6
                .
                .
115             .        A5
                .         .
                .         .
120         COMB4............
                .
                .
125             .-------->  Splt2
123         Splt2
                V
                V
128          RtC7
                .
                .
134             .       A6b
                .         V
                .         V
139             .      RtR2
                .         .
                .         .
145             .         .        R1
                .         .         .
                .         .         .
150             .     Comb5............
                .         .
                .         .
155             .         .-------->  DivR1
153             .     DivR1
                .         .
                .         .
158             .         .       A6a
                .         .         V
                .         .         V
163             .         .      RtC8
                .         .         .
                .         .         .
169             .         .         .        A7
                .         .         .         .
                .         .         .         .
174         Comb6.......................................
                V
                V
177          RtC9
                .
                .
183             .        A8
                .         .
                .         .
188             .         .        R2
                .         .
```

```
193          :          :          :        A29
             :          :          :          :
198      COMB7..............................
             V
             V
201      RtC10
             :
             :
207          :        A9
             :          :
             :          :
212          :          :        A30
             :          :          :
             :          :          :
217      COMB8.......................
             :
             :
222          :-------->   Splt3
220      SPLT3
             V
             V
225      RtC11
             :
             :
231          :       A11
             :          :
             :          :
236          :          :        A12
             :          :          :
             :          :          :
243          :          :          :-------->   DvA12
241          :          :      DvA12
             :          :          :
             :          :          :
246          :      Comb9...........
             :          V
             :          V
249          :      RtR3
             :          :
             :          :
255          :          :        A10
             :          :          :
             :          :          :
262          :          :          :-------->   DvA10
260          :          :      DvA10
             :          :          :
             :          :          :
265          :          :          :        R3
             :          :          :          :
             :          :          :          :
270          :          :          :          :        R4
             :          :          :          :          :
             :          :          :          :          :
275      Comb10.............................................
             V
             V
278      RtC12
             :
             :
286          :          :<-------   DivR1
284          :      RetR1
             :          V
             :          V
287          :      RtR4
             :          :
```

```
293                R6
298                A13
305                .-------> DvA13
303                DvA13
308          Comb11.......................
                V
                V
311           RtC13
317                A14
324                .-------> DvA14
322                DvA14
327                R7a
332          Comb12.......................
                V
                V
335           RtC14
341                A15
346                A31
351                R7b
356                R5
361     Comb13.......................................................
            V
            V
364      RtC15
            V
            V
370       RtR5
376           R12A
381                A16
388                .-------> DvA16
386                DvA16
391                A17
```

```
396     Comb14.................................
            V
            V
399       RtR6
            .
            .
407         .-------> 48-Est
405     48-Sth
            .
            .
410         .        A18
            .          .
            .          .
415         .          .         R8
            .          .          .
            .          .          .
420         .     Comb15............
            .          V
            .          V
423         .       RtR7
            .          .
            .          .
429         .          .         R9
            .          .          .
            .          .          .
434         .          .          .        A19
            .          .          .          .
            .          .          .          .
439         .     Comb16......................
            .          V
            .          V
442         .       RtR8
            .          .
            .          .
448         .          .        A20
            .          .          .
            .          .          .
455         .          .          .-------> DvA20
453         .          .      DvA20
            .          .          .
            .          .          .
458         .          .          .        R10
            .          .          .          .
            .          .          .          .
463         .     Comb17......................
            .          V
            .          V
466         .       RtR9
            .          .
            .          .
472         .          .        A21
            .          .          .
            .          .          .
479         .          .          .-------> 21-Est
477         .          .     21-Sth
            .          .          V
            .          .          V
482         .          .      RtR10
            .          .          .
            .          .          .
488         .          .          .        R11
            .          .          .          .
            .          .          .          .
493         .          .          .          .        A22
            .          .          .          .          .
            .          .          .          .          .
500         .          .          .          .          .-------> DvA22
```

```
498                                   DvA22
                                        .
503                                     .       R12b
                                        .         .
510                                     .         .<-------  48-Est
508                                     .     Retn48
                                        .         .
511                 Comb18..............................................
                                        .
516                                     .-------> RayEst
514                 RaySth              .
                                        .
519            Comb19............
                    V
                    V
522             RtC16
                                        .
528                   A27               .
                      V                 .
                      V                 .
533                 RtC17               .
                                        .
539                                     .       A28
                                        .         .
544                                     .         .       R13
                                        .         .         .
549            Comb20...................................
                    V
                    V
552              RET2
                                        .
561                                     .-------> South
559              East
                    V
                    V
566            RtEAST
                                        .
572                                     .         C
                                        .         .
577             COMBC............       .         .
                    V
                    V
580               RtC
                                        .
586                                     .         B
                                        .         .
591             COMBB............       .         .
                                        .
596                                     .<-------  21-Est
594                 Retn21              .
                                        .         V
                                        .         V
```

```
597          .        RtP1
             .          .
             .          .
603          .          .        A25
             .          .          .
             .          .          .
608          .     Comb21...........
             .         V
             .         V
611          .       RtP2
             .          .
             .          .
617          .          .        A23
             .          .          .
             .          .          .
624          .          .          .-------->    ST23
622          .          .      DvA23
             .          .         V
             .          .         V
627          .          .      RtC18
             .          .          .
             .          .          .
633          .          .          .        A24
             .          .          .          .
             .          .          .          .
638          .     Comb22......................
             .         V
             .         V
641          .       RET3
             .         V
             .         V
648          .      RtC19
             .          .
             .          .
654          .          .        A26
             .          .          .
             .          .          .
661          .          .          .-------->    ST26
659          .          .      DvA26
             .          .          .
             .          .          .
666          .          .          .          .<-------  RayEst
664          .          .          .     RtnRay
             .          .          .         V
             .          .          .         V
667          .          .          .      RtR11
             .          .          .          .
             .          .          .          .
673          .          .          .          .        R14
             .          .          .          .          .
             .          .          .          .          .
678          .     Comb23...................................
             .          .
             .          .
683          .          .-------> DIVBOX
681          .     DIV520
             .          .
             .          .
687          .          .          .<-------  DIVBOX
686          .          .     DIVBOX
             .          .          .
             .          .          .
688          .     ADDBOX...........
             .         V
             .         V
691          .      RTE23
             .          .
```

```
697                 VA1
                     V
                     V
703               RTEA1
                     .
                     .
709                  .          VA2
                     .           .
                     .           .
714               COMBA...........
                     V
                     V
717              STORA2
                     V
                     V
722               RTEA2
                     .
                     .
728      COMBB......................
            V
            V
731        RtB
            .
            .
737            D
               .
               .
742                E
               .   .
               .   .
747         COMBE...........
               V
               V
750         RTEE
               .
               .
756                F
               .   .
               .   .
761      COMBF......................
            V
            V
764       RTEF
            .
            .
771      DA522A
               V
               V
775      RT522A
               .
               .
781               DA10
               .   .
               .   .
785                  .       DA11
                     .         .
                     .         .
789                  .         .        DA12
                     .         .          .
                     .         .          .
793               ADD12......................
               .     V
               .     V
795               RTE12
               .     .
               .     .
```

```
797          .          .          .      DA13
             .          .          .        V
             .          .          .        V
801          .          .          .     RTE13
             .          .          .        .
803          .          .          .        .        DA14
             .          .          .        .          .
807          .          .     ADD14.........................
             .          .          V        .          .
             .          .          V        .          .
809          .          .     RTE14        .          .
             .          .          .        .          .
811          .          .          .      DA15         .
             .          .          .        .          .
815          .          .          .        .        DA16
             .          .          .        .          .
819          .          .          .        .          .      DA17
             .          .          .        .          .        .
823          .          .          .        .          .        .      DA18
             .          .          .        .          .        .        .
827          .          .     ADD17.............................................
             .          .          V        .          .        .        .
             .          .          V        .          .        .        .
829          .          .     RTE18        .          .        .        .
             .          .          .        .          .        .        .
833          .          .          .     DA522C        .        .        .
             .          .          .        .          .        .        .
837     AD522C...............................          .        .        .
             V                                          .        .        .
             V                                          .        .        .
840     RT522C                                          .        .        .
             .                                          .        .        .
846          .     DA522D                               .        .        .
             .        .                                 .        .        .
849          .        .     DA522B                      .        .        .
             .        .        .                        .        .        .
853     AD522D.......................                  .        .        .
             V                                          .        .        .
             V                                          .        .        .
856     RT522D                                          .        .        .
             .                                          .        .        .
862          .     DA522E                               .        .        .
             .        .                                 .        .        .
866     AD522E............                             .        .        .
             .                                          .        .        .
869          .     DA513                                .        .        .
             .        .                                 .        .        .
873          .        .     DA514                       .        .        .
             .        .        .                        .        .        .
877          .        .        .     DA515              .        .        .
```

```
881          AD515.......................
                 V
                 V
883          RT515
                 .
888                  DA517
                         .
894                      .          .<-------   South
892                      .      South
                         .          .
895          AD517.......................
                 V
                 V
897          RT517
                 .
902                  DA518
                         .
906          AD518............
                 V
                 V
908          RT518
                 .
914                 DA519A
                         V
                         V
918                 RT519A
                         .
924                      .      DA519B
                         .          .
928         AD519B.......................
                 V
                 V
931         RT519B
                 .
937                 DA519C
                         V
                         V
941                 RT519C
                         .
947                      .      DA519D
                         .          .
951         AD519D.......................
                 V
                 V
954         RT519D
                 .
960                 DA519E
                         V
                         V
964                 RT519E
                         .
970                      .      DA519F
```

```
                 :          :          :          :
 974             :          :      AD519F.........:
                 :          :          :          :
 977             :          :          :     DA519G
                 :          :          :          :
 981     AD519G..............................:
                 V
                 V
 984     RTI-10
                 :
 991             :        B1
                 :         V
                 :         V
 996             :     RTEB1
                 :          :
1002     ADI-10..........:
                 :
1005             :       B15
                 :          :
1010     ADBA15..........:
                 :
1013             :      DA01
                 :         V
                 :         V
1017             :     RTE01
                 :          :
1019             :          :      DA02
                 :          :          :
1023             :          :          :      DA03
                 :          :          :          :
1027             :     ADD03...................:
                 :         V
                 :         V
1029             :     RTE03
                 :          :
1031             :          :      DA04
                 :          :          :
1035             :          :          :      DA05
                 :          :          :          :
1039             :     ADD05...................:
                 :         V
                 :         V
1041             :     RTE05
                 :          :
1043             :          :      DA06
                 :          :          :
1047             :     ADD06..........:
                 :         V
                 :         V
1049             :     RTE06
                 :          :
```

```
1051          .           .        DA07
              .           .           .
              .           .           .
1055          .      ADD07.............
              .          V
              .          V
1057          .      RTE07
              .           .
              .           .
1059          .           .        DA08
              .           .           V
              .           .           V
1063          .           .       RTE08
              .           .           .
              .           .           .
1065          .      ADD08.............
              .           .
              .           .
1067          .           .        DA09
              .           .           .
              .           .           .
1071          .      ADD09.............
              .          V
              .          V
1079          .           .-------->    PUMP
1073          .       PUMP
              .           .
              .           .
1085          .           .           .<-------    PUMP
1084          .           .       PUMPR
              .           .           .
              .           .           .
1086          .       PUMP.............
              .           .
              .           .
1088          .           .        DA19
              .           .           V
              .           .           V
1092          .           .       RTE19
              .           .           .
              .           .           .
1094          .           .           .        DA20
              .           .           .           .
              .           .           .           .
1098          .           .       ADD20.............
              .           .           V
              .           .           V
1100          .           .       RTE20
              .           .           .
              .           .           .
1102          .           .           .        DA21
              .           .           .           .
              .           .           .           .
1106          .           .       ADD21.............
              .           .           V
              .           .           V
1108          .           .       RTE21
              .           .           .
              .           .           .
1110          .           .           .        DA22
              .           .           .           .
              .           .           .           .
1114          .           .       ADD22.............
              .           .           V
              .           .           V
1116          .           .       RTE22
```

```
                 :          :          :
1118             :          :          :       DA23
                 :          :          :          :
1122             :          :      ADD23...........
                 :          :          V
                 :          :          V
1124             :          :      RTE23
                 :          :          :
1129             :          :          :       DA24
                 :          :          :          :
1133             :          :      ADD24...........
                 :          :          :
1135             :          :          :       DA25
                 :          :          :          :
1139             :          :      ADD25...........
                 :          :          V
                 :          :          V
1141             :          :      RTE25
                 :          :          :
1146             :          :          :       DA26
                 :          :          :          :
1150             :          :      ADD26...........
                 :          :          V
                 :          :          V
1152             :          :      RTE26
                 :          :          :
1157             :          :          :       DA27
                 :          :          :          :
1161             :          :      ADD27...........
                 :          :          V
                 :          :          V
1163             :          :      RTE27
                 :          :          :
1168             :          :          :       DA28
                 :          :          :          :
1172             :          :      ADD28...........
                 :          :          :
1174             :          :          :       DA29
                 :          :          :          :
1178             :          :      ADD29...........
                 :          :          V
                 :          :          V
1180             :          :      RTE29
                 :          :          :
1185             :        PMP...........
                 :          :
1189         ADPMP...........
                 :
1196             :-------> DIVFF
1192         B15FF
```

```
                V
                V
 1199        STB15
                .
                .
 1211           .          .<-------   DIVFF
 1210           .       RTFF
                .          V
                .          V
 1212           .       STFF

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1****************************************                    ****************************************
*                                      *                    *                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *   U.S. ARMY CORPS OF ENGINEERS       *
*             JUN 09 1992              *                    *   HYDROLOGIC ENGINEERING CENTER      *
*           VERSION 4.0.3E             *                    *         609 SECOND STREET            *
*                                      *                    *      DAVIS, CALIFORNIA 95616         *
*  RUN DATE  12/02/98  TIME  16:15:37  *                    *          (916) 551-1748              *
*                                      *                    *                                      *
****************************************                    ****************************************


                              FN: H1006cl.DAT     November 1998
                                  48TH STREET BASIN/REVISED BASIN 15
                                  HDR 100-YR  6-HR MULTI-USE RETENTION BASIN WITH 1' FREEBOARD
                                  42" RCP OUTLET CLOSED-BASIN RETAINS INFLOW

   6 IO         OUTPUT CONTROL VARIABLES
                      IPRNT          5  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

     IT         HYDROGRAPH TIME DATA
                       NMIN          1  MINUTES IN COMPUTATION INTERVAL
                      IDATE      1   0  STARTING DATE
                      ITIME       0000  STARTING TIME
                         NQ       1081  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE   .  1   0  ENDING DATE
                     NDTIME       1800  ENDING TIME
                      ICENT         19  CENTURY MARK

                 COMPUTATION INTERVAL    0.02 HOURS
                      TOTAL TIME BASE   18.00 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


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
   8 KK     *        M1  *
            *            *
            **************
```

```
10 KO        OUTPUT CONTROL VARIABLES
                   IPRNT          2  PRINT CONTROL
                   IPLOT          0  PLOT CONTROL
                   QSCAL         0.  HYDROGRAPH PLOT SCALE

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

           SUBBASIN RUNOFF DATA

16 BA        SUBBASIN CHARACTERISTICS
                    TAREA      0.28  SUBBASIN AREA

             PRECIPITATION DATA

12 PB              STORM      3.10  BASIN TOTAL PRECIPITATION

13 PI          INCREMENTAL PRECIPITATION PATTERN
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01
                 0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                 0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                 0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
                 0.02      0.02      0.02      0.02      0.02      0.02      0.02      0.02      0.02      0.02
                 0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                 0.01      0.01      0.01      0.01      0.01      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

17 LS        SCS LOSS RATE
                   STRTL      0.25  INITIAL ABSTRACTION
                  CRVNBR     98.00  CURVE NUMBER
                   RTIMP      0.00  PERCENT IMPERVIOUS AREA

18 UD        SCS DIMENSIONLESS UNITGRAPH
                    TLAG      0.25  LAG
```

***

UNIT HYDROGRAPH
78 END-OF-PERIOD ORDINATES

10.	26.	49.	78.	111.	151.	201.	256.	319.	376.
428.	465.	493.	513.	517.	518.	515.	498.	477.	454.
428.	401.	368.	331.	291.	257.	229.	205.	185.	166.
149.	136.	124.	112.	101.	91.	81.	73.	66.	60.
54.	49.	44.	39.	35.	32.	28.	26.	23.	21.
19.	17.	15.	14.	13.	11.	10.	9.	8.	7.
7.	6.	6.	5.	5.	4.	4.	4.	3.	3.
2.	2.	2.	1.	1.	1.	0.	0.		

****

HYDROGRAPH AT STATION M1

****

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	0.00	0.00	0.00	0.	*	1		0901	542	0.00	0.00	0.00	0.
1		0001	2	0.00	0.00	0.00	0.	*	1		0902	543	0.00	0.00	0.00	0.
1		0002	3	0.00	0.00	0.00	0.	*	1		0903	544	0.00	0.00	0.00	0.
1		0003	4	0.00	0.00	0.00	0.	*	1		0904	545	0.00	0.00	0.00	0.
1		0004	5	0.00	0.00	0.00	0.	*	1		0905	546	0.00	0.00	0.00	0.
1		0005	6	0.00	0.00	0.00	0.	*	1		0906	547	0.00	0.00	0.00	0.
1		0006	7	0.00	0.00	0.00	0.	*	1		0907	548	0.00	0.00	0.00	0.
1		0007	8	0.00	0.00	0.00	0.	*	1		0908	549	0.00	0.00	0.00	0.
1		0008	9	0.00	0.00	0.00	0.	*	1		0909	550	0.00	0.00	0.00	0.
1		0009	10	0.00	0.00	0.00	0.	*	1		0910	551	0.00	0.00	0.00	0.
1		0010	11	0.00	0.00	0.00	0.	*	1		0911	552	0.00	0.00	0.00	0.
1		0011	12	0.00	0.00	0.00	0.	*	1		0912	553	0.00	0.00	0.00	0.
1		0012	13	0.00	0.00	0.00	0.	*	1		0913	554	0.00	0.00	0.00	0.
1		0013	14	0.00	0.00	0.00	0.	*	1		0914	555	0.00	0.00	0.00	0.
1		0014	15	0.00	0.00	0.00	0.	*	1		0915	556	0.00	0.00	0.00	0.
1		0015	16	0.00	0.00	0.00	0.	*	1		0916	557	0.00	0.00	0.00	0.
1		0016	17	0.00	0.00	0.00	0.	*	1		0917	558	0.00	0.00	0.00	0.
1		0017	18	0.00	0.00	0.00	0.	*	1		0918	559	0.00	0.00	0.00	0.
1		0018	19	0.00	0.00	0.00	0.	*	1		0919	560	0.00	0.00	0.00	0.
1		0019	20	0.00	0.00	0.00	0.	*	1		0920	561	0.00	0.00	0.00	0.
1		0020	21	0.00	0.00	0.00	0.	*	1		0921	562	0.00	0.00	0.00	0.
1		0021	22	0.00	0.00	0.00	0.	*	1		0922	563	0.00	0.00	0.00	0.
1		0022	23	0.00	0.00	0.00	0.	*	1		0923	564	0.00	0.00	0.00	0.
1		0023	24	0.00	0.00	0.00	0.	*	1		0924	565	0.00	0.00	0.00	0.
1		0024	25	0.00	0.00	0.00	0.	*	1		0925	566	0.00	0.00	0.00	0.
1		0025	26	0.00	0.00	0.00	0.	*	1		0926	567	0.00	0.00	0.00	0.
1		0026	27	0.00	0.00	0.00	0.	*	1		0927	568	0.00	0.00	0.00	0.
1		0027	28	0.00	0.00	0.00	0.	*	1		0928	569	0.00	0.00	0.00	0.
1		0028	29	0.00	0.00	0.00	0.	*	1		0929	570	0.00	0.00	0.00	0.
1		0029	30	0.00	0.00	0.00	0.	*	1		0930	571	0.00	0.00	0.00	0.
1		0030	31	0.00	0.00	0.00	0.	*	1		0931	572	0.00	0.00	0.00	0.
1		0031	32	0.00	0.00	0.00	0.	*	1		0932	573	0.00	0.00	0.00	0.
1		0032	33	0.00	0.00	0.00	0.	*	1		0933	574	0.00	0.00	0.00	0.
1		0033	34	0.00	0.00	0.00	0.	*	1		0934	575	0.00	0.00	0.00	0.
1		0034	35	0.00	0.00	0.00	0.	*	1		0935	576	0.00	0.00	0.00	0.
1		0035	36	0.00	0.00	0.00	0.	*	1		0936	577	0.00	0.00	0.00	0.
1		0036	37	0.00	0.00	0.00	0.	*	1		0937	578	0.00	0.00	0.00	0.
1		0037	38	0.00	0.00	0.00	0.	*	1		0938	579	0.00	0.00	0.00	0.
1		0038	39	0.00	0.00	0.00	0.	*	1		0939	580	0.00	0.00	0.00	0.
1		0039	40	0.00	0.00	0.00	0.	*	1		0940	581	0.00	0.00	0.00	0.
1		0040	41	0.00	0.00	0.00	0.	*	1		0941	582	0.00	0.00	0.00	0.
1		0041	42	0.00	0.00	0.00	0.	*	1		0942	583	0.00	0.00	0.00	0.
1		0042	43	0.00	0.00	0.00	0.	*	1		0943	584	0.00	0.00	0.00	0.
1		0043	44	0.00	0.00	0.00	0.	*	1		0944	585	0.00	0.00	0.00	0.
1		0044	45	0.00	0.00	0.00	0.	*	1		0945	586	0.00	0.00	0.00	0.
1		0045	46	0.00	0.00	0.00	0.	*	1		0946	587	0.00	0.00	0.00	0.
1		0046	47	0.00	0.00	0.00	0.	*	1		0947	588	0.00	0.00	0.00	0.

1	0047	48	0.00	0.00	0.00	0.	*	1	0948	589	0.00	0.00	0.00	0.
1	0048	49	0.00	0.00	0.00	0.	*	1	0949	590	0.00	0.00	0.00	0.
1	0049	50	0.00	0.00	0.00	0.	*	1	0950	591	0.00	0.00	0.00	0.
1	0050	51	0.00	0.00	0.00	0.	*	1	0951	592	0.00	0.00	0.00	0.
1	0051	52	0.00	0.00	0.00	0.	*	1	0952	593	0.00	0.00	0.00	0.
1	0052	53	0.00	0.00	0.00	0.	*	1	0953	594	0.00	0.00	0.00	0.
1	0053	54	0.00	0.00	0.00	0.	*	1	0954	595	0.00	0.00	0.00	0.
1	0054	55	0.00	0.00	0.00	0.	*	1	0955	596	0.00	0.00	0.00	0.
1	0055	56	0.00	0.00	0.00	0.	*	1	0956	597	0.00	0.00	0.00	0.
1	0056	57	0.00	0.00	0.00	0.	*	1	0957	598	0.00	0.00	0.00	0.
1	0057	58	0.00	0.00	0.00	0.	*	1	0958	599	0.00	0.00	0.00	0.
1	0058	59	0.00	0.00	0.00	0.	*	1	0959	600	0.00	0.00	0.00	0.
1	0059	60	0.00	0.00	0.00	0.	*	1	1000	601	0.00	0.00	0.00	0.
1	0100	61	0.00	0.00	0.00	0.	*	1	1001	602	0.00	0.00	0.00	0.
1	0101	62	0.00	0.00	0.00	0.	*	1	1002	603	0.00	0.00	0.00	0.
1	0102	63	0.00	0.00	0.00	0.	*	1	1003	604	0.00	0.00	0.00	0.
1	0103	64	0.00	0.00	0.00	0.	*	1	1004	605	0.00	0.00	0.00	0.
1	0104	65	0.00	0.00	0.00	0.	*	1	1005	606	0.00	0.00	0.00	0.
1	0105	66	0.00	0.00	0.00	0.	*	1	1006	607	0.00	0.00	0.00	0.
1	0106	67	0.00	0.00	0.00	0.	*	1	1007	608	0.00	0.00	0.00	0.
1	0107	68	0.00	0.00	0.00	0.	*	1	1008	609	0.00	0.00	0.00	0.
1	0108	69	0.00	0.00	0.00	0.	*	1	1009	610	0.00	0.00	0.00	0.
1	0109	70	0.00	0.00	0.00	0.	*	1	1010	611	0.00	0.00	0.00	0.
1	0110	71	0.00	0.00	0.00	0.	*	1	1011	612	0.00	0.00	0.00	0.
1	0111	72	0.00	0.00	0.00	0.	*	1	1012	613	0.00	0.00	0.00	0.
1	0112	73	0.00	0.00	0.00	0.	*	1	1013	614	0.00	0.00	0.00	0.
1	0113	74	0.00	0.00	0.00	0.	*	1	1014	615	0.00	0.00	0.00	0.
1	0114	75	0.00	0.00	0.00	0.	*	1	1015	616	0.00	0.00	0.00	0.
1	0115	76	0.00	0.00	0.00	0.	*	1	1016	617	0.00	0.00	0.00	0.
1	0116	77	0.00	0.00	0.00	0.	*	1	1017	618	0.00	0.00	0.00	0.
1	0117	78	0.00	0.00	0.00	0.	*	1	1018	619	0.00	0.00	0.00	0.
1	0118	79	0.00	0.00	0.00	0.	*	1	1019	620	0.00	0.00	0.00	0.
1	0119	80	0.00	0.00	0.00	0.	*	1	1020	621	0.00	0.00	0.00	0.
1	0120	81	0.00	0.00	0.00	0.	*	1	1021	622	0.00	0.00	0.00	0.
1	0121	82	0.00	0.00	0.00	0.	*	1	1022	623	0.00	0.00	0.00	0.
1	0122	83	0.00	0.00	0.00	0.	*	1	1023	624	0.00	0.00	0.00	0.
1	0123	84	0.00	0.00	0.00	0.	*	1	1024	625	0.00	0.00	0.00	0.
1	0124	85	0.00	0.00	0.00	0.	*	1	1025	626	0.00	0.00	0.00	0.
1	0125	86	0.00	0.00	0.00	0.	*	1	1026	627	0.00	0.00	0.00	0.
1	0126	87	0.00	0.00	0.00	0.	*	1	1027	628	0.00	0.00	0.00	0.
1	0127	88	0.00	0.00	0.00	0.	*	1	1028	629	0.00	0.00	0.00	0.
1	0128	89	0.00	0.00	0.00	0.	*	1	1029	630	0.00	0.00	0.00	0.
1	0129	90	0.00	0.00	0.00	0.	*	1	1030	631	0.00	0.00	0.00	0.
1	0130	91	0.00	0.00	0.00	0.	*	1	1031	632	0.00	0.00	0.00	0.
1	0131	92	0.00	0.00	0.00	0.	*	1	1032	633	0.00	0.00	0.00	0.
1	0132	93	0.00	0.00	0.00	0.	*	1	1033	634	0.00	0.00	0.00	0.
1	0133	94	0.00	0.00	0.00	0.	*	1	1034	635	0.00	0.00	0.00	0.
1	0134	95	0.00	0.00	0.00	0.	*	1	1035	636	0.00	0.00	0.00	0.
1	0135	96	0.00	0.00	0.00	0.	*	1	1036	637	0.00	0.00	0.00	0.
1	0136	97	0.00	0.00	0.00	0.	*	1	1037	638	0.00	0.00	0.00	0.
1	0137	98	0.00	0.00	0.00	0.	*	1	1038	639	0.00	0.00	0.00	0.
1	0138	99	0.00	0.00	0.00	0.	*	1	1039	640	0.00	0.00	0.00	0.
1	0139	100	0.00	0.00	0.00	0.	*	1	1040	641	0.00	0.00	0.00	0.
1	0140	101	0.00	0.00	0.00	0.	*	1	1041	642	0.00	0.00	0.00	0.
1	0141	102	0.00	0.00	0.00	0.	*	1	1042	643	0.00	0.00	0.00	0.
1	0142	103	0.00	0.00	0.00	0.	*	1	1043	644	0.00	0.00	0.00	0.
1	0143	104	0.00	0.00	0.00	0.	*	1	1044	645	0.00	0.00	0.00	0.
1	0144	105	0.00	0.00	0.00	0.	*	1	1045	646	0.00	0.00	0.00	0.
1	0145	106	0.00	0.00	0.00	0.	*	1	1046	647	0.00	0.00	0.00	0.
1	0146	107	0.00	0.00	0.00	0.	*	1	1047	648	0.00	0.00	0.00	0.
1	0147	108	0.00	0.00	0.00	0.	*	1	1048	649	0.00	0.00	0.00	0.
1	0148	109	0.00	0.00	0.00	0.	*	1	1049	650	0.00	0.00	0.00	0.
1	0149	110	0.00	0.00	0.00	0.	*	1	1050	651	0.00	0.00	0.00	0.
1	0150	111	0.00	0.00	0.00	0.	*	1	1051	652	0.00	0.00	0.00	0.
1	0151	112	0.00	0.00	0.00	0.	*	1	1052	653	0.00	0.00	0.00	0.
1	0152	113	0.00	0.00	0.00	0.	*	1	1053	654	0.00	0.00	0.00	0.
1	0153	114	0.00	0.00	0.00	0.	*	1	1054	655	0.00	0.00	0.00	0.

1	0154	115	0.00	0.00	0.00	0.	*	1	1055	656	0.00	0.00	0.00	0.
1	0155	116	0.00	0.00	0.00	0.	*	1	1056	657	0.00	0.00	0.00	0.
1	0156	117	0.00	0.00	0.00	0.	*	1	1057	658	0.00	0.00	0.00	0.
1	0157	118	0.00	0.00	0.00	0.	*	1	1058	659	0.00	0.00	0.00	0.
1	0158	119	0.00	0.00	0.00	0.	*	1	1059	660	0.00	0.00	0.00	0.
1	0159	120	0.00	0.00	0.00	0.	*	1	1100	661	0.00	0.00	0.00	0.
1	0200	121	0.00	0.00	0.00	0.	*	1	1101	662	0.00	0.00	0.00	0.
1	0201	122	0.00	0.00	0.00	0.	*	1	1102	663	0.00	0.00	0.00	0.
1	0202	123	0.00	0.00	0.00	0.	*	1	1103	664	0.00	0.00	0.00	0.
1	0203	124	0.00	0.00	0.00	0.	*	1	1104	665	0.00	0.00	0.00	0.
1	0204	125	0.00	0.00	0.00	0.	*	1	1105	666	0.00	0.00	0.00	0.
1	0205	126	0.00	0.00	0.00	0.	*	1	1106	667	0.00	0.00	0.00	0.
1	0206	127	0.00	0.00	0.00	0.	*	1	1107	668	0.00	0.00	0.00	0.
1	0207	128	0.00	0.00	0.00	0.	*	1	1108	669	0.00	0.00	0.00	0.
1	0208	129	0.00	0.00	0.00	0.	*	1	1109	670	0.00	0.00	0.00	0.
1	0209	130	0.00	0.00	0.00	0.	*	1	1110	671	0.00	0.00	0.00	0.
1	0210	131	0.00	0.00	0.00	0.	*	1	1111	672	0.00	0.00	0.00	0.
1	0211	132	0.00	0.00	0.00	0.	*	1	1112	673	0.00	0.00	0.00	0.
1	0212	133	0.00	0.00	0.00	0.	*	1	1113	674	0.00	0.00	0.00	0.
1	0213	134	0.00	0.00	0.00	0.	*	1	1114	675	0.00	0.00	0.00	0.
1	0214	135	0.00	0.00	0.00	0.	*	1	1115	676	0.00	0.00	0.00	0.
1	0215	136	0.00	0.00	0.00	0.	*	1	1116	677	0.00	0.00	0.00	0.
1	0216	137	0.00	0.00	0.00	0.	*	1	1117	678	0.00	0.00	0.00	0.
1	0217	138	0.00	0.00	0.00	1.	*	1	1118	679	0.00	0.00	0.00	0.
1	0218	139	0.00	0.00	0.00	1.	*	1	1119	680	0.00	0.00	0.00	0.
1	0219	140	0.00	0.00	0.00	1.	*	1	1120	681	0.00	0.00	0.00	0.
1	0220	141	0.00	0.00	0.00	1.	*	1	1121	682	0.00	0.00	0.00	0.
1	0221	142	0.00	0.00	0.00	1.	*	1	1122	683	0.00	0.00	0.00	0.
1	0222	143	0.00	0.00	0.00	2.	*	1	1123	684	0.00	0.00	0.00	0.
1	0223	144	0.00	0.00	0.00	2.	*	1	1124	685	0.00	0.00	0.00	0.
1	0224	145	0.00	0.00	0.00	2.	*	1	1125	686	0.00	0.00	0.00	0.
1	0225	146	0.00	0.00	0.00	2.	*	1	1126	687	0.00	0.00	0.00	0.
1	0226	147	0.00	0.00	0.00	3.	*	1	1127	688	0.00	0.00	0.00	0.
1	0227	148	0.00	0.00	0.00	3.	*	1	1128	689	0.00	0.00	0.00	0.
1	0228	149	0.00	0.00	0.00	3.	*	1	1129	690	0.00	0.00	0.00	0.
1	0229	150	0.00	0.00	0.00	4.	*	1	1130	691	0.00	0.00	0.00	0.
1	0230	151	0.00	0.00	0.00	4.	*	1	1131	692	0.00	0.00	0.00	0.
1	0231	152	0.00	0.00	0.00	4.	*	1	1132	693	0.00	0.00	0.00	0.
1	0232	153	0.00	0.00	0.00	5.	*	1	1133	694	0.00	0.00	0.00	0.
1	0233	154	0.00	0.00	0.00	5.	*	1	1134	695	0.00	0.00	0.00	0.
1	0234	155	0.00	0.00	0.00	6.	*	1	1135	696	0.00	0.00	0.00	0.
1	0235	156	0.00	0.00	0.00	6.	*	1	1136	697	0.00	0.00	0.00	0.
1	0236	157	0.00	0.00	0.00	6.	*	1	1137	698	0.00	0.00	0.00	0.
1	0237	158	0.00	0.00	0.00	7.	*	1	1138	699	0.00	0.00	0.00	0.
1	0238	159	0.00	0.00	0.00	7.	*	1	1139	700	0.00	0.00	0.00	0.
1	0239	160	0.00	0.00	0.00	8.	*	1	1140	701	0.00	0.00	0.00	0.
1	0240	161	0.00	0.00	0.00	8.	*	1	1141	702	0.00	0.00	0.00	0.
1	0241	162	0.00	0.00	0.00	9.	*	1	1142	703	0.00	0.00	0.00	0.
1	0242	163	0.00	0.00	0.00	9.	*	1	1143	704	0.00	0.00	0.00	0.
1	0243	164	0.00	0.00	0.00	10.	*	1	1144	705	0.00	0.00	0.00	0.
1	0244	165	0.00	0.00	0.00	10.	*	1	1145	706	0.00	0.00	0.00	0.
1	0245	166	0.00	0.00	0.00	11.	*	1	1146	707	0.00	0.00	0.00	0.
1	0246	167	0.00	0.00	0.00	11.	*	1	1147	708	0.00	0.00	0.00	0.
1	0247	168	0.00	0.00	0.00	12.	*	1	1148	709	0.00	0.00	0.00	0.
1	0248	169	0.00	0.00	0.00	12.	*	1	1149	710	0.00	0.00	0.00	0.
1	0249	170	0.00	0.00	0.00	13.	*	1	1150	711	0.00	0.00	0.00	0.
1	0250	171	0.00	0.00	0.00	13.	*	1	1151	712	0.00	0.00	0.00	0.
1	0251	172	0.00	0.00	0.00	14.	*	1	1152	713	0.00	0.00	0.00	0.
1	0252	173	0.00	0.00	0.00	15.	*	1	1153	714	0.00	0.00	0.00	0.
1	0253	174	0.00	0.00	0.00	15.	*	1	1154	715	0.00	0.00	0.00	0.
1	0254	175	0.00	0.00	0.00	16.	*	1	1155	716	0.00	0.00	0.00	0.
1	0255	176	0.00	0.00	0.00	17.	*	1	1156	717	0.00	0.00	0.00	0.
1	0256	177	0.00	0.00	0.00	17.	*	1	1157	718	0.00	0.00	0.00	0.
1	0257	178	0.00	0.00	0.00	18.	*	1	1158	719	0.00	0.00	0.00	0.
1	0258	179	0.00	0.00	0.00	19.	*	1	1159	720	0.00	0.00	0.00	0.
1	0259	180	0.00	0.00	0.00	20.	*	1	1200	721	0.00	0.00	0.00	0.
1	0300	181	0.00	0.00	0.00	20.	*	1	1201	722	0.00	0.00	0.00	0.

1	0301	182	0.01	0.00	0.01	21.	*	1	1202	723	0.00	0.00	0.00	0.
1	0302	183	0.01	0.00	0.01	22.	*	1	1203	724	0.00	0.00	0.00	0.
1	0303	184	0.01	0.00	0.01	23.	*	1	1204	725	0.00	0.00	0.00	0.
1	0304	185	0.01	0.00	0.01	24.	*	1	1205	726	0.00	0.00	0.00	0.
1	0305	186	0.01	0.00	0.01	25.	*	1	1206	727	0.00	0.00	0.00	0.
1	0306	187	0.01	0.00	0.01	27.	*	1	1207	728	0.00	0.00	0.00	0.
1	0307	188	0.01	0.00	0.01	28.	*	1	1208	729	0.00	0.00	0.00	0.
1	0308	189	0.01	0.00	0.01	30.	*	1	1209	730	0.00	0.00	0.00	0.
1	0309	190	0.01	0.00	0.01	31.	*	1	1210	731	0.00	0.00	0.00	0.
1	0310	191	0.01	0.00	0.01	33.	*	1	1211	732	0.00	0.00	0.00	0.
1	0311	192	0.01	0.00	0.01	36.	*	1	1212	733	0.00	0.00	0.00	0.
1	0312	193	0.01	0.00	0.01	38.	*	1	1213	734	0.00	0.00	0.00	0.
1	0313	194	0.01	0.00	0.01	40.	*	1	1214	735	0.00	0.00	0.00	0.
1	0314	195	0.01	0.00	0.01	43.	*	1	1215	736	0.00	0.00	0.00	0.
1	0315	196	0.01	0.00	0.01	45.	*	1	1216	737	0.00	0.00	0.00	0.
1	0316	197	0.02	0.00	0.02	48.	*	1	1217	738	0.00	0.00	0.00	0.
1	0317	198	0.02	0.00	0.02	50.	*	1	1218	739	0.00	0.00	0.00	0.
1	0318	199	0.02	0.00	0.02	53.	*	1	1219	740	0.00	0.00	0.00	0.
1	0319	200	0.02	0.00	0.02	56.	*	1	1220	741	0.00	0.00	0.00	0.
1	0320	201	0.02	0.00	0.02	59.	*	1	1221	742	0.00	0.00	0.00	0.
1	0321	202	0.02	0.00	0.02	63.	*	1	1222	743	0.00	0.00	0.00	0.
1	0322	203	0.02	0.00	0.02	66.	*	1	1223	744	0.00	0.00	0.00	0.
1	0323	204	0.02	0.00	0.02	70.	*	1	1224	745	0.00	0.00	0.00	0.
1	0324	205	0.02	0.00	0.02	75.	*	1	1225	746	0.00	0.00	0.00	0.
1	0325	206	0.02	0.00	0.02	79.	*	1	1226	747	0.00	0.00	0.00	0.
1	0326	207	0.02	0.00	0.02	84.	*	1	1227	748	0.00	0.00	0.00	0.
1	0327	208	0.02	0.00	0.02	90.	*	1	1228	749	0.00	0.00	0.00	0.
1	0328	209	0.02	0.00	0.02	95.	*	1	1229	750	0.00	0.00	0.00	0.
1	0329	210	0.02	0.00	0.02	100.	*	1	1230	751	0.00	0.00	0.00	0.
1	0330	211	0.02	0.00	0.02	106.	*	1	1231	752	0.00	0.00	0.00	0.
1	0331	212	0.04	0.00	0.04	111.	*	1	1232	753	0.00	0.00	0.00	0.
1	0332	213	0.04	0.00	0.04	117.	*	1	1233	754	0.00	0.00	0.00	0.
1	0333	214	0.04	0.00	0.04	123.	*	1	1234	755	0.00	0.00	0.00	0.
1	0334	215	0.04	0.00	0.04	130.	*	1	1235	756	0.00	0.00	0.00	0.
1	0335	216	0.04	0.00	0.04	137.	*	1	1236	757	0.00	0.00	0.00	0.
1	0336	217	0.04	0.00	0.04	145.	*	1	1237	758	0.00	0.00	0.00	0.
1	0337	218	0.04	0.00	0.04	153.	*	1	1238	759	0.00	0.00	0.00	0.
1	0338	219	0.04	0.00	0.04	162.	*	1	1239	760	0.00	0.00	0.00	0.
1	0339	220	0.04	0.00	0.04	172.	*	1	1240	761	0.00	0.00	0.00	0.
1	0340	221	0.04	0.00	0.04	183.	*	1	1241	762	0.00	0.00	0.00	0.
1	0341	222	0.04	0.00	0.04	195.	*	1	1242	763	0.00	0.00	0.00	0.
1	0342	223	0.04	0.00	0.04	207.	*	1	1243	764	0.00	0.00	0.00	0.
1	0343	224	0.04	0.00	0.04	219.	*	1	1244	765	0.00	0.00	0.00	0.
1	0344	225	0.04	0.00	0.04	232.	*	1	1245	766	0.00	0.00	0.00	0.
1	0345	226	0.04	0.00	0.04	245.	*	1	1246	767	0.00	0.00	0.00	0.
1	0346	227	0.05	0.00	0.05	258.	*	1	1247	768	0.00	0.00	0.00	0.
1	0347	228	0.05	0.00	0.05	270.	*	1	1248	769	0.00	0.00	0.00	0.
1	0348	229	0.05	0.00	0.05	283.	*	1	1249	770	0.00	0.00	0.00	0.
1	0349	230	0.05	0.00	0.05	295.	*	1	1250	771	0.00	0.00	0.00	0.
1	0350	231	0.05	0.00	0.05	307.	*	1	1251	772	0.00	0.00	0.00	0.
1	0351	232	0.05	0.00	0.05	319.	*	1	1252	773	0.00	0.00	0.00	0.
1	0352	233	0.05	0.00	0.05	330.	*	1	1253	774	0.00	0.00	0.00	0.
1	0353	234	0.05	0.00	0.05	341.	*	1	1254	775	0.00	0.00	0.00	0.
1	0354	235	0.05	0.00	0.05	352.	*	1	1255	776	0.00	0.00	0.00	0.
1	0355	236	0.05	0.00	0.05	362.	*	1	1256	777	0.00	0.00	0.00	0.
1	0356	237	0.05	0.00	0.05	372.	*	1	1257	778	0.00	0.00	0.00	0.
1	0357	238	0.05	0.00	0.05	382.	*	1	1258	779	0.00	0.00	0.00	0.
1	0358	239	0.05	0.00	0.05	391.	*	1	1259	780	0.00	0.00	0.00	0.
1	0359	240	0.05	0.00	0.05	401.	*	1	1300	781	0.00	0.00	0.00	0.
1	0400	241	0.05	0.00	0.05	409.	*	1	1301	782	0.00	0.00	0.00	0.
1	0401	242	0.03	0.00	0.03	417.	*	1	1302	783	0.00	0.00	0.00	0.
1	0402	243	0.03	0.00	0.03	425.	*	1	1303	784	0.00	0.00	0.00	0.
1	0403	244	0.03	0.00	0.03	432.	*	1	1304	785	0.00	0.00	0.00	0.
1	0404	245	0.03	0.00	0.03	437.	*	1	1305	786	0.00	0.00	0.00	0.
1	0405	246	0.03	0.00	0.03	442.	*	1	1306	787	0.00	0.00	0.00	0.
1	0406	247	0.03	0.00	0.03	445.	*	1	1307	788	0.00	0.00	0.00	0.
1	0407	248	0.03	0.00	0.03	447.	*	1	1308	789	0.00	0.00	0.00	0.

1	0408	249	0.03	0.00	0.03	447.	*	1	1309	790	0.00	0.00	0.00	0.
1	0409	250	0.03	0.00	0.03	446.	*	1	1310	791	0.00	0.00	0.00	0.
1	0410	251	0.03	0.00	0.03	443.	*	1	1311	792	0.00	0.00	0.00	0.
1	0411	252	0.03	0.00	0.03	439.	*	1	1312	793	0.00	0.00	0.00	0.
1	0412	253	0.03	0.00	0.03	433.	*	1	1313	794	0.00	0.00	0.00	0.
1	0413	254	0.03	0.00	0.03	427.	*	1	1314	795	0.00	0.00	0.00	0.
1	0414	255	0.03	0.00	0.03	420.	*	1	1315	796	0.00	0.00	0.00	0.
1	0415	256	0.03	0.00	0.03	413.	*	1	1316	797	0.00	0.00	0.00	0.
1	0416	257	0.01	0.00	0.01	405.	*	1	1317	798	0.00	0.00	0.00	0.
1	0417	258	0.01	0.00	0.01	397.	*	1	1318	799	0.00	0.00	0.00	0.
1	0418	259	0.01	0.00	0.01	389.	*	1	1319	800	0.00	0.00	0.00	0.
1	0419	260	0.01	0.00	0.01	381.	*	1	1320	801	0.00	0.00	0.00	0.
1	0420	261	0.01	0.00	0.01	372.	*	1	1321	802	0.00	0.00	0.00	0.
1	0421	262	0.01	0.00	0.01	363.	*	1	1322	803	0.00	0.00	0.00	0.
1	0422	263	0.01	0.00	0.01	354.	*	1	1323	804	0.00	0.00	0.00	0.
1	0423	264	0.01	0.00	0.01	344.	*	1	1324	805	0.00	0.00	0.00	0.
1	0424	265	0.01	0.00	0.01	334.	*	1	1325	806	0.00	0.00	0.00	0.
1	0425	266	0.01	0.00	0.01	324.	*	1	1326	807	0.00	0.00	0.00	0.
1	0426	267	0.01	0.00	0.01	313.	*	1	1327	808	0.00	0.00	0.00	0.
1	0427	268	0.01	0.00	0.01	303.	*	1	1328	809	0.00	0.00	0.00	0.
1	0428	269	0.01	0.00	0.01	292.	*	1	1329	810	0.00	0.00	0.00	0.
1	0429	270	0.01	0.00	0.01	282.	*	1	1330	811	0.00	0.00	0.00	0.
1	0430	271	0.01	0.00	0.01	271.	*	1	1331	812	0.00	0.00	0.00	0.
1	0431	272	0.01	0.00	0.01	261.	*	1	1332	813	0.00	0.00	0.00	0.
1	0432	273	0.01	0.00	0.01	251.	*	1	1333	814	0.00	0.00	0.00	0.
1	0433	274	0.01	0.00	0.01	242.	*	1	1334	815	0.00	0.00	0.00	0.
1	0434	275	0.01	0.00	0.01	232.	*	1	1335	816	0.00	0.00	0.00	0.
1	0435	276	0.01	0.00	0.01	223.	*	1	1336	817	0.00	0.00	0.00	0.
1	0436	277	0.01	0.00	0.01	215.	*	1	1337	818	0.00	0.00	0.00	0.
1	0437	278	0.01	0.00	0.01	207.	*	1	1338	819	0.00	0.00	0.00	0.
1	0438	279	0.01	0.00	0.01	199.	*	1	1339	820	0.00	0.00	0.00	0.
1	0439	280	0.01	0.00	0.01	191.	*	1	1340	821	0.00	0.00	0.00	0.
1	0440	281	0.01	0.00	0.01	184.	*	1	1341	822	0.00	0.00	0.00	0.
1	0441	282	0.01	0.00	0.01	177.	*	1	1342	823	0.00	0.00	0.00	0.
1	0442	283	0.01	0.00	0.01	170.	*	1	1343	824	0.00	0.00	0.00	0.
1	0443	284	0.01	0.00	0.01	164.	*	1	1344	825	0.00	0.00	0.00	0.
1	0444	285	0.01	0.00	0.01	158.	*	1	1345	826	0.00	0.00	0.00	0.
1	0445	286	0.01	0.00	0.01	152.	*	1	1346	827	0.00	0.00	0.00	0.
1	0446	287	0.00	0.00	0.00	147.	*	1	1347	828	0.00	0.00	0.00	0.
1	0447	288	0.00	0.00	0.00	142.	*	1	1348	829	0.00	0.00	0.00	0.
1	0448	289	0.00	0.00	0.00	137.	*	1	1349	830	0.00	0.00	0.00	0.
1	0449	290	0.00	0.00	0.00	132.	*	1	1350	831	0.00	0.00	0.00	0.
1	0450	291	0.00	0.00	0.00	127.	*	1	1351	832	0.00	0.00	0.00	0.
1	0451	292	0.00	0.00	0.00	122.	*	1	1352	833	0.00	0.00	0.00	0.
1	0452	293	0.00	0.00	0.00	118.	*	1	1353	834	0.00	0.00	0.00	0.
1	0453	294	0.00	0.00	0.00	114.	*	1	1354	835	0.00	0.00	0.00	0.
1	0454	295	0.00	0.00	0.00	109.	*	1	1355	836	0.00	0.00	0.00	0.
1	0455	296	0.00	0.00	0.00	105.	*	1	1356	837	0.00	0.00	0.00	0.
1	0456	297	0.00	0.00	0.00	101.	*	1	1357	838	0.00	0.00	0.00	0.
1	0457	298	0.00	0.00	0.00	97.	*	1	1358	839	0.00	0.00	0.00	0.
1	0458	299	0.00	0.00	0.00	93.	*	1	1359	840	0.00	0.00	0.00	0.
1	0459	300	0.00	0.00	0.00	89.	*	1	1400	841	0.00	0.00	0.00	0.
1	0500	301	0.00	0.00	0.00	85.	*	1	1401	842	0.00	0.00	0.00	0.
1	0501	302	0.00	0.00	0.00	82.	*	1	1402	843	0.00	0.00	0.00	0.
1	0502	303	0.00	0.00	0.00	78.	*	1	1403	844	0.00	0.00	0.00	0.
1	0503	304	0.00	0.00	0.00	75.	*	1	1404	845	0.00	0.00	0.00	0.
1	0504	305	0.00	0.00	0.00	72.	*	1	1405	846	0.00	0.00	0.00	0.
1	0505	306	0.00	0.00	0.00	69.	*	1	1406	847	0.00	0.00	0.00	0.
1	0506	307	0.00	0.00	0.00	66.	*	1	1407	848	0.00	0.00	0.00	0.
1	0507	308	0.00	0.00	0.00	63.	*	1	1408	849	0.00	0.00	0.00	0.
1	0508	309	0.00	0.00	0.00	61.	*	1	1409	850	0.00	0.00	0.00	0.
1	0509	310	0.00	0.00	0.00	58.	*	1	1410	851	0.00	0.00	0.00	0.
1	0510	311	0.00	0.00	0.00	56.	*	1	1411	852	0.00	0.00	0.00	0.
1	0511	312	0.00	0.00	0.00	54.	*	1	1412	853	0.00	0.00	0.00	0.
1	0512	313	0.00	0.00	0.00	52.	*	1	1413	854	0.00	0.00	0.00	0.
1	0513	314	0.00	0.00	0.00	50.	*	1	1414	855	0.00	0.00	0.00	0.
1	0514	315	0.00	0.00	0.00	48.	*	1	1415	856	0.00	0.00	0.00	0.

1	0515	316	0.00	0.00	0.00	46.	*	1	1416	857	0.00	0.00	0.00	0.
1	0516	317	0.00	0.00	0.00	45.	*	1	1417	858	0.00	0.00	0.00	0.
1	0517	318	0.00	0.00	0.00	43.	*	1	1418	859	0.00	0.00	0.00	0.
1	0518	319	0.00	0.00	0.00	42.	*	1	1419	860	0.00	0.00	0.00	0.
1	0519	320	0.00	0.00	0.00	41.	*	1	1420	861	0.00	0.00	0.00	0.
1	0520	321	0.00	0.00	0.00	40.	*	1	1421	862	0.00	0.00	0.00	0.
1	0521	322	0.00	0.00	0.00	38.	*	1	1422	863	0.00	0.00	0.00	0.
1	0522	323	0.00	0.00	0.00	37.	*	1	1423	864	0.00	0.00	0.00	0.
1	0523	324	0.00	0.00	0.00	36.	*	1	1424	865	0.00	0.00	0.00	0.
1	0524	325	0.00	0.00	0.00	36.	*	1	1425	866	0.00	0.00	0.00	0.
1	0525	326	0.00	0.00	0.00	35.	*	1	1426	867	0.00	0.00	0.00	0.
1	0526	327	0.00	0.00	0.00	34.	*	1	1427	868	0.00	0.00	0.00	0.
1	0527	328	0.00	0.00	0.00	33.	*	1	1428	869	0.00	0.00	0.00	0.
1	0528	329	0.00	0.00	0.00	33.	*	1	1429	870	0.00	0.00	0.00	0.
1	0529	330	0.00	0.00	0.00	32.	*	1	1430	871	0.00	0.00	0.00	0.
1	0530	331	0.00	0.00	0.00	32.	*	1	1431	872	0.00	0.00	0.00	0.
1	0531	332	0.00	0.00	0.00	31.	*	1	1432	873	0.00	0.00	0.00	0.
1	0532	333	0.00	0.00	0.00	31.	*	1	1433	874	0.00	0.00	0.00	0.
1	0533	334	0.00	0.00	0.00	30.	*	1	1434	875	0.00	0.00	0.00	0.
1	0534	335	0.00	0.00	0.00	30.	*	1	1435	876	0.00	0.00	0.00	0.
1	0535	336	0.00	0.00	0.00	30.	*	1	1436	877	0.00	0.00	0.00	0.
1	0536	337	0.00	0.00	0.00	30.	*	1	1437	878	0.00	0.00	0.00	0.
1	0537	338	0.00	0.00	0.00	29.	*	1	1438	879	0.00	0.00	0.00	0.
1	0538	339	0.00	0.00	0.00	29.	*	1	1439	880	0.00	0.00	0.00	0.
1	0539	340	0.00	0.00	0.00	29.	*	1	1440	881	0.00	0.00	0.00	0.
1	0540	341	0.00	0.00	0.00	29.	*	1	1441	882	0.00	0.00	0.00	0.
1	0541	342	0.00	0.00	0.00	29.	*	1	1442	883	0.00	0.00	0.00	0.
1	0542	343	0.00	0.00	0.00	29.	*	1	1443	884	0.00	0.00	0.00	0.
1	0543	344	0.00	0.00	0.00	29.	*	1	1444	885	0.00	0.00	0.00	0.
1	0544	345	0.00	0.00	0.00	29.	*	1	1445	886	0.00	0.00	0.00	0.
1	0545	346	0.00	0.00	0.00	29.	*	1	1446	887	0.00	0.00	0.00	0.
1	0546	347	0.00	0.00	0.00	29.	*	1	1447	888	0.00	0.00	0.00	0.
1	0547	348	0.00	0.00	0.00	30.	*	1	1448	889	0.00	0.00	0.00	0.
1	0548	349	0.00	0.00	0.00	30.	*	1	1449	890	0.00	0.00	0.00	0.
1	0549	350	0.00	0.00	0.00	30.	*	1	1450	891	0.00	0.00	0.00	0.
1	0550	351	0.00	0.00	0.00	30.	*	1	1451	892	0.00	0.00	0.00	0.
1	0551	352	0.00	0.00	0.00	30.	*	1	1452	893	0.00	0.00	0.00	0.
1	0552	353	0.00	0.00	0.00	30.	*	1	1453	894	0.00	0.00	0.00	0.
1	0553	354	0.00	0.00	0.00	30.	*	1	1454	895	0.00	0.00	0.00	0.
1	0554	355	0.00	0.00	0.00	30.	*	1	1455	896	0.00	0.00	0.00	0.
1	0555	356	0.00	0.00	0.00	30.	*	1	1456	897	0.00	0.00	0.00	0.
1	0556	357	0.00	0.00	0.00	30.	*	1	1457	898	0.00	0.00	0.00	0.
1	0557	358	0.00	0.00	0.00	30.	*	1	1458	899	0.00	0.00	0.00	0.
1	0558	359	0.00	0.00	0.00	29.	*	1	1459	900	0.00	0.00	0.00	0.
1	0559	360	0.00	0.00	0.00	29.	*	1	1500	901	0.00	0.00	0.00	0.
1	0600	361	0.00	0.00	0.00	29.	*	1	1501	902	0.00	0.00	0.00	0.
1	0601	362	0.00	0.00	0.00	29.	*	1	1502	903	0.00	0.00	0.00	0.
1	0602	363	0.00	0.00	0.00	29.	*	1	1503	904	0.00	0.00	0.00	0.
1	0603	364	0.00	0.00	0.00	28.	*	1	1504	905	0.00	0.00	0.00	0.
1	0604	365	0.00	0.00	0.00	28.	*	1	1505	906	0.00	0.00	0.00	0.
1	0605	366	0.00	0.00	0.00	28.	*	1	1506	907	0.00	0.00	0.00	0.
1	0606	367	0.00	0.00	0.00	27.	*	1	1507	908	0.00	0.00	0.00	0.
1	0607	368	0.00	0.00	0.00	26.	*	1	1508	909	0.00	0.00	0.00	0.
1	0608	369	0.00	0.00	0.00	26.	*	1	1509	910	0.00	0.00	0.00	0.
1	0609	370	0.00	0.00	0.00	25.	*	1	1510	911	0.00	0.00	0.00	0.
1	0610	371	0.00	0.00	0.00	24.	*	1	1511	912	0.00	0.00	0.00	0.
1	0611	372	0.00	0.00	0.00	23.	*	1	1512	913	0.00	0.00	0.00	0.
1	0612	373	0.00	0.00	0.00	21.	*	1	1513	914	0.00	0.00	0.00	0.
1	0613	374	0.00	0.00	0.00	20.	*	1	1514	915	0.00	0.00	0.00	0.
1	0614	375	0.00	0.00	0.00	19.	*	1	1515	916	0.00	0.00	0.00	0.
1	0615	376	0.00	0.00	0.00	17.	*	1	1516	917	0.00	0.00	0.00	0.
1	0616	377	0.00	0.00	0.00	16.	*	1	1517	918	0.00	0.00	0.00	0.
1	0617	378	0.00	0.00	0.00	15.	*	1	1518	919	0.00	0.00	0.00	0.
1	0618	379	0.00	0.00	0.00	13.	*	1	1519	920	0.00	0.00	0.00	0.
1	0619	380	0.00	0.00	0.00	12.	*	1	1520	921	0.00	0.00	0.00	0.
1	0620	381	0.00	0.00	0.00	11.	*	1	1521	922	0.00	0.00	0.00	0.
1	0621	382	0.00	0.00	0.00	10.	*	1	1522	923	0.00	0.00	0.00	0.

1	0622	383	0.00	0.00	0.00	9.	*	1	1523	924	0.00	0.00	0.00	0.
1	0623	384	0.00	0.00	0.00	8.	*	1	1524	925	0.00	0.00	0.00	0.
1	0624	385	0.00	0.00	0.00	7.	*	1	1525	926	0.00	0.00	0.00	0.
1	0625	386	0.00	0.00	0.00	7.	*	1	1526	927	0.00	0.00	0.00	0.
1	0626	387	0.00	0.00	0.00	6.	*	1	1527	928	0.00	0.00	0.00	0.
1	0627	388	0.00	0.00	0.00	5.	*	1	1528	929	0.00	0.00	0.00	0.
1	0628	389	0.00	0.00	0.00	5.	*	1	1529	930	0.00	0.00	0.00	0.
1	0629	390	0.00	0.00	0.00	4.	*	1	1530	931	0.00	0.00	0.00	0.
1	0630	391	0.00	0.00	0.00	4.	*	1	1531	932	0.00	0.00	0.00	0.
1	0631	392	0.00	0.00	0.00	3.	*	1	1532	933	0.00	0.00	0.00	0.
1	0632	393	0.00	0.00	0.00	3.	*	1	1533	934	0.00	0.00	0.00	0.
1	0633	394	0.00	0.00	0.00	3.	*	1	1534	935	0.00	0.00	0.00	0.
1	0634	395	0.00	0.00	0.00	3.	*	1	1535	936	0.00	0.00	0.00	0.
1	0635	396	0.00	0.00	0.00	2.	*	1	1536	937	0.00	0.00	0.00	0.
1	0636	397	0.00	0.00	0.00	2.	*	1	1537	938	0.00	0.00	0.00	0.
1	0637	398	0.00	0.00	0.00	2.	*	1	1538	939	0.00	0.00	0.00	0.
1	0638	399	0.00	0.00	0.00	2.	*	1	1539	940	0.00	0.00	0.00	0.
1	0639	400	0.00	0.00	0.00	1.	*	1	1540	941	0.00	0.00	0.00	0.
1	0640	401	0.00	0.00	0.00	1.	*	1	1541	942	0.00	0.00	0.00	0.
1	0641	402	0.00	0.00	0.00	1.	*	1	1542	943	0.00	0.00	0.00	0.
1	0642	403	0.00	0.00	0.00	1.	*	1	1543	944	0.00	0.00	0.00	0.
1	0643	404	0.00	0.00	0.00	1.	*	1	1544	945	0.00	0.00	0.00	0.
1	0644	405	0.00	0.00	0.00	1.	*	1	1545	946	0.00	0.00	0.00	0.
1	0645	406	0.00	0.00	0.00	1.	*	1	1546	947	0.00	0.00	0.00	0.
1	0646	407	0.00	0.00	0.00	1.	*	1	1547	948	0.00	0.00	0.00	0.
1	0647	408	0.00	0.00	0.00	1.	*	1	1548	949	0.00	0.00	0.00	0.
1	0648	409	0.00	0.00	0.00	1.	*	1	1549	950	0.00	0.00	0.00	0.
1	0649	410	0.00	0.00	0.00	1.	*	1	1550	951	0.00	0.00	0.00	0.
1	0650	411	0.00	0.00	0.00	0.	*	1	1551	952	0.00	0.00	0.00	0.
1	0651	412	0.00	0.00	0.00	0.	*	1	1552	953	0.00	0.00	0.00	0.
1	0652	413	0.00	0.00	0.00	0.	*	1	1553	954	0.00	0.00	0.00	0.
1	0653	414	0.00	0.00	0.00	0.	*	1	1554	955	0.00	0.00	0.00	0.
1	0654	415	0.00	0.00	0.00	0.	*	1	1555	956	0.00	0.00	0.00	0.
1	0655	416	0.00	0.00	0.00	0.	*	1	1556	957	0.00	0.00	0.00	0.
1	0656	417	0.00	0.00	0.00	0.	*	1	1557	958	0.00	0.00	0.00	0.
1	0657	418	0.00	0.00	0.00	0.	*	1	1558	959	0.00	0.00	0.00	0.
1	0658	419	0.00	0.00	0.00	0.	*	1	1559	960	0.00	0.00	0.00	0.
1	0659	420	0.00	0.00	0.00	0.	*	1	1600	961	0.00	0.00	0.00	0.
1	0700	421	0.00	0.00	0.00	0.	*	1	1601	962	0.00	0.00	0.00	0.
1	0701	422	0.00	0.00	0.00	0.	*	1	1602	963	0.00	0.00	0.00	0.
1	0702	423	0.00	0.00	0.00	0.	*	1	1603	964	0.00	0.00	0.00	0.
1	0703	424	0.00	0.00	0.00	0.	*	1	1604	965	0.00	0.00	0.00	0.
1	0704	425	0.00	0.00	0.00	0.	*	1	1605	966	0.00	0.00	0.00	0.
1	0705	426	0.00	0.00	0.00	0.	*	1	1606	967	0.00	0.00	0.00	0.
1	0706	427	0.00	0.00	0.00	0.	*	1	1607	968	0.00	0.00	0.00	0.
1	0707	428	0.00	0.00	0.00	0.	*	1	1608	969	0.00	0.00	0.00	0.
1	0708	429	0.00	0.00	0.00	0.	*	1	1609	970	0.00	0.00	0.00	0.
1	0709	430	0.00	0.00	0.00	0.	*	1	1610	971	0.00	0.00	0.00	0.
1	0710	431	0.00	0.00	0.00	0.	*	1	1611	972	0.00	0.00	0.00	0.
1	0711	432	0.00	0.00	0.00	0.	*	1	1612	973	0.00	0.00	0.00	0.
1	0712	433	0.00	0.00	0.00	0.	*	1	1613	974	0.00	0.00	0.00	0.
1	0713	434	0.00	0.00	0.00	0.	*	1	1614	975	0.00	0.00	0.00	0.
1	0714	435	0.00	0.00	0.00	0.	*	1	1615	976	0.00	0.00	0.00	0.
1	0715	436	0.00	0.00	0.00	0.	*	1	1616	977	0.00	0.00	0.00	0.
1	0716	437	0.00	0.00	0.00	0.	*	1	1617	978	0.00	0.00	0.00	0.
1	0717	438	0.00	0.00	0.00	0.	*	1	1618	979	0.00	0.00	0.00	0.
1	0718	439	0.00	0.00	0.00	0.	*	1	1619	980	0.00	0.00	0.00	0.
1	0719	440	0.00	0.00	0.00	0.	*	1	1620	981	0.00	0.00	0.00	0.
1	0720	441	0.00	0.00	0.00	0.	*	1	1621	982	0.00	0.00	0.00	0.
1	0721	442	0.00	0.00	0.00	0.	*	1	1622	983	0.00	0.00	0.00	0.
1	0722	443	0.00	0.00	0.00	0.	*	1	1623	984	0.00	0.00	0.00	0.
1	0723	444	0.00	0.00	0.00	0.	*	1	1624	985	0.00	0.00	0.00	0.
1	0724	445	0.00	0.00	0.00	0.	*	1	1625	986	0.00	0.00	0.00	0.
1	0725	446	0.00	0.00	0.00	0.	*	1	1626	987	0.00	0.00	0.00	0.
1	0726	447	0.00	0.00	0.00	0.	*	1	1627	988	0.00	0.00	0.00	0.
1	0727	448	0.00	0.00	0.00	0.	*	1	1628	989	0.00	0.00	0.00	0.
1	0728	449	0.00	0.00	0.00	0.	*	1	1629	990	0.00	0.00	0.00	0.

1	0729	450	0.00	0.00	0.00	0.	*	1	1630	991	0.00	0.00	0.00	0.
1	0730	451	0.00	0.00	0.00	0.	*	1	1631	992	0.00	0.00	0.00	0.
1	0731	452	0.00	0.00	0.00	0.	*	1	1632	993	0.00	0.00	0.00	0.
1	0732	453	0.00	0.00	0.00	0.	*	1	1633	994	0.00	0.00	0.00	0.
1	0733	454	0.00	0.00	0.00	0.	*	1	1634	995	0.00	0.00	0.00	0.
1	0734	455	0.00	0.00	0.00	0.	*	1	1635	996	0.00	0.00	0.00	0.
1	0735	456	0.00	0.00	0.00	0.	*	1	1636	997	0.00	0.00	0.00	0.
1	0736	457	0.00	0.00	0.00	0.	*	1	1637	998	0.00	0.00	0.00	0.
1	0737	458	0.00	0.00	0.00	0.	*	1	1638	999	0.00	0.00	0.00	0.
1	0738	459	0.00	0.00	0.00	0.	*	1	1639	1000	0.00	0.00	0.00	0.
1	0739	460	0.00	0.00	0.00	0.	*	1	1640	1001	0.00	0.00	0.00	0.
1	0740	461	0.00	0.00	0.00	0.	*	1	1641	1002	0.00	0.00	0.00	0.
1	0741	462	0.00	0.00	0.00	0.	*	1	1642	1003	0.00	0.00	0.00	0.
1	0742	463	0.00	0.00	0.00	0.	*	1	1643	1004	0.00	0.00	0.00	0.
1	0743	464	0.00	0.00	0.00	0.	*	1	1644	1005	0.00	0.00	0.00	0.
1	0744	465	0.00	0.00	0.00	0.	*	1	1645	1006	0.00	0.00	0.00	0.
1	0745	466	0.00	0.00	0.00	0.	*	1	1646	1007	0.00	0.00	0.00	0.
1	0746	467	0.00	0.00	0.00	0.	*	1	1647	1008	0.00	0.00	0.00	0.
1	0747	468	0.00	0.00	0.00	0.	*	1	1648	1009	0.00	0.00	0.00	0.
1	0748	469	0.00	0.00	0.00	0.	*	1	1649	1010	0.00	0.00	0.00	0.
1	0749	470	0.00	0.00	0.00	0.	*	1	1650	1011	0.00	0.00	0.00	0.
1	0750	471	0.00	0.00	0.00	0.	*	1	1651	1012	0.00	0.00	0.00	0.
1	0751	472	0.00	0.00	0.00	0.	*	1	1652	1013	0.00	0.00	0.00	0.
1	0752	473	0.00	0.00	0.00	0.	*	1	1653	1014	0.00	0.00	0.00	0.
1	0753	474	0.00	0.00	0.00	0.	*	1	1654	1015	0.00	0.00	0.00	0.
1	0754	475	0.00	0.00	0.00	0.	*	1	1655	1016	0.00	0.00	0.00	0.
1	0755	476	0.00	0.00	0.00	0.	*	1	1656	1017	0.00	0.00	0.00	0.
1	0756	477	0.00	0.00	0.00	0.	*	1	1657	1018	0.00	0.00	0.00	0.
1	0757	478	0.00	0.00	0.00	0.	*	1	1658	1019	0.00	0.00	0.00	0.
1	0758	479	0.00	0.00	0.00	0.	*	1	1659	1020	0.00	0.00	0.00	0.
1	0759	480	0.00	0.00	0.00	0.	*	1	1700	1021	0.00	0.00	0.00	0.
1	0800	481	0.00	0.00	0.00	0.	*	1	1701	1022	0.00	0.00	0.00	0.
1	0801	482	0.00	0.00	0.00	0.	*	1	1702	1023	0.00	0.00	0.00	0.
1	0802	483	0.00	0.00	0.00	0.	*	1	1703	1024	0.00	0.00	0.00	0.
1	0803	484	0.00	0.00	0.00	0.	*	1	1704	1025	0.00	0.00	0.00	0.
1	0804	485	0.00	0.00	0.00	0.	*	1	1705	1026	0.00	0.00	0.00	0.
1	0805	486	0.00	0.00	0.00	0.	*	1	1706	1027	0.00	0.00	0.00	0.
1	0806	487	0.00	0.00	0.00	0.	*	1	1707	1028	0.00	0.00	0.00	0.
1	0807	488	0.00	0.00	0.00	0.	*	1	1708	1029	0.00	0.00	0.00	0.
1	0808	489	0.00	0.00	0.00	0.	*	1	1709	1030	0.00	0.00	0.00	0.
1	0809	490	0.00	0.00	0.00	0.	*	1	1710	1031	0.00	0.00	0.00	0.
1	0810	491	0.00	0.00	0.00	0.	*	1	1711	1032	0.00	0.00	0.00	0.
1	0811	492	0.00	0.00	0.00	0.	*	1	1712	1033	0.00	0.00	0.00	0.
1	0812	493	0.00	0.00	0.00	0.	*	1	1713	1034	0.00	0.00	0.00	0.
1	0813	494	0.00	0.00	0.00	0.	*	1	1714	1035	0.00	0.00	0.00	0.
1	0814	495	0.00	0.00	0.00	0.	*	1	1715	1036	0.00	0.00	0.00	0.
1	0815	496	0.00	0.00	0.00	0.	*	1	1716	1037	0.00	0.00	0.00	0.
1	0816	497	0.00	0.00	0.00	0.	*	1	1717	1038	0.00	0.00	0.00	0.
1	0817	498	0.00	0.00	0.00	0.	*	1	1718	1039	0.00	0.00	0.00	0.
1	0818	499	0.00	0.00	0.00	0.	*	1	1719	1040	0.00	0.00	0.00	0.
1	0819	500	0.00	0.00	0.00	0.	*	1	1720	1041	0.00	0.00	0.00	0.
1	0820	501	0.00	0.00	0.00	0.	*	1	1721	1042	0.00	0.00	0.00	0.
1	0821	502	0.00	0.00	0.00	0.	*	1	1722	1043	0.00	0.00	0.00	0.
1	0822	503	0.00	0.00	0.00	0.	*	1	1723	1044	0.00	0.00	0.00	0.
1	0823	504	0.00	0.00	0.00	0.	*	1	1724	1045	0.00	0.00	0.00	0.
1	0824	505	0.00	0.00	0.00	0.	*	1	1725	1046	0.00	0.00	0.00	0.
1	0825	506	0.00	0.00	0.00	0.	*	1	1726	1047	0.00	0.00	0.00	0.
1	0826	507	0.00	0.00	0.00	0.	*	1	1727	1048	0.00	0.00	0.00	0.
1	0827	508	0.00	0.00	0.00	0.	*	1	1728	1049	0.00	0.00	0.00	0.
1	0828	509	0.00	0.00	0.00	0.	*	1	1729	1050	0.00	0.00	0.00	0.
1	0829	510	0.00	0.00	0.00	0.	*	1	1730	1051	0.00	0.00	0.00	0.
1	0830	511	0.00	0.00	0.00	0.	*	1	1731	1052	0.00	0.00	0.00	0.
1	0831	512	0.00	0.00	0.00	0.	*	1	1732	1053	0.00	0.00	0.00	0.
1	0832	513	0.00	0.00	0.00	0.	*	1	1733	1054	0.00	0.00	0.00	0.
1	0833	514	0.00	0.00	0.00	0.	*	1	1734	1055	0.00	0.00	0.00	0.
1	0834	515	0.00	0.00	0.00	0.	*	1	1735	1056	0.00	0.00	0.00	0.
1	0835	516	0.00	0.00	0.00	0.	*	1	1736	1057	0.00	0.00	0.00	0.

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        1    0836  517    0.00    0.00    0.00        0.      *       1    1737 1058    0.00    0.00    0.00        0.
        1    0837  518    0.00    0.00    0.00        0.      *       1    1738 1059    0.00    0.00    0.00        0.
        1    0838  519    0.00    0.00    0.00        0.      *       1    1739 1060    0.00    0.00    0.00        0.
        1    0839  520    0.00    0.00    0.00        0.      *       1    1740 1061    0.00    0.00    0.00        0.
        1    0840  521    0.00    0.00    0.00        0.      *       1    1741 1062    0.00    0.00    0.00        0.
        1    0841  522    0.00    0.00    0.00        0.      *       1    1742 1063    0.00    0.00    0.00        0.
        1    0842  523    0.00    0.00    0.00        0.      *       1    1743 1064    0.00    0.00    0.00        0.
        1    0843  524    0.00    0.00    0.00        0.      *       1    1744 1065    0.00    0.00    0.00        0.
        1    0844  525    0.00    0.00    0.00        0.      *       1    1745 1066    0.00    0.00    0.00        0.
        1    0845  526    0.00    0.00    0.00        0.      *       1    1746 1067    0.00    0.00    0.00        0.
        1    0846  527    0.00    0.00    0.00        0.      *       1    1747 1068    0.00    0.00    0.00        0.
        1    0847  528    0.00    0.00    0.00        0.      *       1    1748 1069    0.00    0.00    0.00        0.
        1    0848  529    0.00    0.00    0.00        0.      *       1    1749 1070    0.00    0.00    0.00        0.
        1    0849  530    0.00    0.00    0.00        0.      *       1    1750 1071    0.00    0.00    0.00        0.
        1    0850  531    0.00    0.00    0.00        0.      *       1    1751 1072    0.00    0.00    0.00        0.
        1    0851  532    0.00    0.00    0.00        0.      *       1    1752 1073    0.00    0.00    0.00        0.
        1    0852  533    0.00    0.00    0.00        0.      *       1    1753 1074    0.00    0.00    0.00        0.
        1    0853  534    0.00    0.00    0.00        0.      *       1    1754 1075    0.00    0.00    0.00        0.
        1    0854  535    0.00    0.00    0.00        0.      *       1    1755 1076    0.00    0.00    0.00        0.
        1    0855  536    0.00    0.00    0.00        0.      *       1    1756 1077    0.00    0.00    0.00        0.
        1    0856  537    0.00    0.00    0.00        0.      *       1    1757 1078    0.00    0.00    0.00        0.
        1    0857  538    0.00    0.00    0.00        0.      *       1    1758 1079    0.00    0.00    0.00        0.
        1    0858  539    0.00    0.00    0.00        0.      *       1    1759 1080    0.00    0.00    0.00        0.
        1    0859  540    0.00    0.00    0.00        0.      *       1    1800 1081    0.00    0.00    0.00        0.
        1    0900  541    0.00    0.00    0.00        0.      *
                                                                 *
*****************************************************************************************************************************

    TOTAL RAINFALL =    3.10, TOTAL LOSS =    0.44, TOTAL EXCESS =    2.66

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     18.00-HR
+   (CFS)       (HR)
                                   (CFS)
+     447.      4.13                  80.         27.         27.         27.
                                (INCHES)       2.660       2.660       2.660       2.660
                                 (AC-FT)         40.         40.         40.         40.

                                CUMULATIVE AREA =    0.28 SQ MI

MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
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MANE2 NPLAN,NSTM        1       0
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MANE2 NPLAN,NSTM	1	0
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MANE2 NPLAN,NSTM       1      0

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

          **************
          *            *
1189 KK   *     ADPMP  *       combine flows from IC onsite pumpstation and route thru basin.
          *            *
          **************

1190 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           1  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE

1191 HC          HYDROGRAPH COMBINATION
                       ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                  ***
MANE2 NPLAN,NSTM       1      0
*****************************************************************************************************************************
                                                HYDROGRAPH AT STATION    ADPMP
                                                     SUM OF  2 HYDROGRAPHS
*****************************************************************************************************************************
                                  *                                 *                                 *                                 *
   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     0431  272     1635.    *   1     0902  543       70.     *   1     1333  814       10.
    1     0001   2        0.      *   1     0432  273     1659.    *   1     0903  544       69.     *   1     1334  815       10.
    1     0002   3        0.      *   1     0433  274     1724.    *   1     0904  545       69.     *   1     1335  816       10.
    1     0003   4        0.      *   1     0434  275     1822.    *   1     0905  546       69.     *   1     1336  817       10.
    1     0004   5        0.      *   1     0435  276     1933.    *   1     0906  547       68.     *   1     1337  818       10.
    1     0005   6        0.      *   1     0436  277     2021.    *   1     0907  548       68.     *   1     1338  819       10.
    1     0006   7        0.      *   1     0437  278     2076.    *   1     0908  549       68.     *   1     1339  820       10.
    1     0007   8        0.      *   1     0438  279     2104.    *   1     0909  550       67.     *   1     1340  821       10.
    1     0008   9        0.      *   1     0439  280     2113.    *   1     0910  551       67.     *   1     1341  822       10.
    1     0009  10        0.      *   1     0440  281     2107.    *   1     0911  552       67.     *   1     1342  823       10.
    1     0010  11        0.      *   1     0441  282     2091.    *   1     0912  553       66.     *   1     1343  824       10.
    1     0011  12        0.      *   1     0442  283     2068.    *   1     0913  554       66.     *   1     1344  825       10.
    1     0012  13        0.      *   1     0443  284     2041.    *   1     0914  555       66.     *   1     1345  826       10.
    1     0013  14        0.      *   1     0444  285     2011.    *   1     0915  556       65.     *   1     1346  827       10.
    1     0014  15        0.      *   1     0445  286     1979.    *   1     0916  557       65.     *   1     1347  828       10.
    1     0015  16        0.      *   1     0446  287     1947.    *   1     0917  558       65.     *   1     1348  829        9.
    1     0016  17        0.      *   1     0447  288     1864.    *   1     0918  559       65.     *   1     1349  830        9.
```

1	0017	18	0.	*	1	0448	289	1830.	*	1	0919	560	64.	*	1	1350	831	9.
1	0018	19	0.	*	1	0449	290	1796.	*	1	0920	561	64.	*	1	1351	832	9.
1	0019	20	0.	*	1	0450	291	1762.	*	1	0921	562	64.	*	1	1352	833	9.
1	0020	21	0.	*	1	0451	292	1777.	*	1	0922	563	64.	*	1	1353	834	9.
1	0021	22	0.	*	1	0452	293	1741.	*	1	0923	564	64.	*	1	1354	835	9.
1	0022	23	0.	*	1	0453	294	1705.	*	1	0924	565	63.	*	1	1355	836	9.
1	0023	24	0.	*	1	0454	295	1668.	*	1	0925	566	63.	*	1	1356	837	9.
1	0024	25	0.	*	1	0455	296	1580.	*	1	0926	567	63.	*	1	1357	838	9.
1	0025	26	0.	*	1	0456	297	1543.	*	1	0927	568	63.	*	1	1358	839	9.
1	0026	27	0.	*	1	0457	298	1506.	*	1	0928	569	63.	*	1	1359	840	9.
1	0027	28	0.	*	1	0458	299	1469.	*	1	0929	570	62.	*	1	1400	841	9.
1	0028	29	0.	*	1	0459	300	1432.	*	1	0930	571	62.	*	1	1401	842	9.
1	0029	30	0.	*	1	0500	301	1399.	*	1	0931	572	62.	*	1	1402	843	9.
1	0030	31	0.	*	1	0501	302	1419.	*	1	0932	573	62.	*	1	1403	844	9.
1	0031	32	0.	*	1	0502	303	1394.	*	1	0933	574	62.	*	1	1404	845	9.
1	0032	33	0.	*	1	0503	304	1370.	*	1	0934	575	62.	*	1	1405	846	9.
1	0033	34	0.	*	1	0504	305	1298.	*	1	0935	576	61.	*	1	1406	847	9.
1	0034	35	0.	*	1	0505	306	1275.	*	1	0936	577	61.	*	1	1407	848	9.
1	0035	36	0.	*	1	0506	307	1249.	*	1	0937	578	61.	*	1	1408	849	9.
1	0036	37	0.	*	1	0507	308	1222.	*	1	0938	579	61.	*	1	1409	850	9.
1	0037	38	0.	*	1	0508	309	1193.	*	1	0939	580	61.	*	1	1410	851	9.
1	0038	39	0.	*	1	0509	310	1163.	*	1	0940	581	60.	*	1	1411	852	9.
1	0039	40	0.	*	1	0510	311	1134.	*	1	0941	582	60.	*	1	1412	853	9.
1	0040	41	0.	*	1	0511	312	1106.	*	1	0942	583	60.	*	1	1413	854	9.
1	0041	42	0.	*	1	0512	313	1080.	*	1	0943	584	60.	*	1	1414	855	9.
1	0042	43	0.	*	1	0513	314	1106.	*	1	0944	585	60.	*	1	1415	856	9.
1	0043	44	0.	*	1	0514	315	1082.	*	1	0945	586	59.	*	1	1416	857	9.
1	0044	45	0.	*	1	0515	316	1059.	*	1	0946	587	59.	*	1	1417	858	9.
1	0045	46	0.	*	1	0516	317	986.	*	1	0947	588	59.	*	1	1418	859	8.
1	0046	47	0.	*	1	0517	318	964.	*	1	0948	589	59.	*	1	1419	860	8.
1	0047	48	0.	*	1	0518	319	942.	*	1	0949	590	58.	*	1	1420	861	8.
1	0048	49	0.	*	1	0519	320	921.	*	1	0950	591	58.	*	1	1421	862	8.
1	0049	50	0.	*	1	0520	321	901.	*	1	0951	592	58.	*	1	1422	863	8.
1	0050	51	0.	*	1	0521	322	880.	*	1	0952	593	57.	*	1	1423	864	8.
1	0051	52	0.	*	1	0522	323	861.	*	1	0953	594	57.	*	1	1424	865	8.
1	0052	53	0.	*	1	0523	324	842.	*	1	0954	595	56.	*	1	1425	866	8.
1	0053	54	0.	*	1	0524	325	824.	*	1	0955	596	56.	*	1	1426	867	8.
1	0054	55	0.	*	1	0525	326	808.	*	1	0956	597	55.	*	1	1427	868	8.
1	0055	56	0.	*	1	0526	327	792.	*	1	0957	598	55.	*	1	1428	869	8.
1	0056	57	0.	*	1	0527	328	776.	*	1	0958	599	54.	*	1	1429	870	8.
1	0057	58	0.	*	1	0528	329	760.	*	1	0959	600	53.	*	1	1430	871	8.
1	0058	59	0.	*	1	0529	330	745.	*	1	1000	601	52.	*	1	1431	872	8.
1	0059	60	0.	*	1	0530	331	780.	*	1	1001	602	50.	*	1	1432	873	8.
1	0100	61	0.	*	1	0531	332	766.	*	1	1002	603	49.	*	1	1433	874	8.
1	0101	62	1.	*	1	0532	333	753.	*	1	1003	604	49.	*	1	1434	875	8.
1	0102	63	1.	*	1	0533	334	690.	*	1	1004	605	48.	*	1	1435	876	8.
1	0103	64	1.	*	1	0534	335	677.	*	1	1005	606	48.	*	1	1436	877	8.
1	0104	65	1.	*	1	0535	336	663.	*	1	1006	607	47.	*	1	1437	878	8.
1	0105	66	1.	*	1	0536	337	651.	*	1	1007	608	47.	*	1	1438	879	8.
1	0106	67	1.	*	1	0537	338	639.	*	1	1008	609	46.	*	1	1439	880	8.
1	0107	68	1.	*	1	0538	339	627.	*	1	1009	610	46.	*	1	1440	881	8.
1	0108	69	1.	*	1	0539	340	617.	*	1	1010	611	45.	*	1	1441	882	8.
1	0109	70	1.	*	1	0540	341	607.	*	1	1011	612	45.	*	1	1442	883	8.
1	0110	71	1.	*	1	0541	342	598.	*	1	1012	613	44.	*	1	1443	884	8.
1	0111	72	1.	*	1	0542	343	589.	*	1	1013	614	44.	*	1	1444	885	8.
1	0112	73	1.	*	1	0543	344	580.	*	1	1014	615	43.	*	1	1445	886	8.
1	0113	74	1.	*	1	0544	345	572.	*	1	1015	616	43.	*	1	1446	887	8.
1	0114	75	1.	*	1	0545	346	564.	*	1	1016	617	42.	*	1	1447	888	8.
1	0115	76	1.	*	1	0546	347	557.	*	1	1017	618	42.	*	1	1448	889	8.
1	0116	77	1.	*	1	0547	348	549.	*	1	1018	619	42.	*	1	1449	890	8.
1	0117	78	1.	*	1	0548	349	592.	*	1	1019	620	41.	*	1	1450	891	8.
1	0118	79	1.	*	1	0549	350	586.	*	1	1020	621	41.	*	1	1451	892	8.
1	0119	80	1.	*	1	0550	351	579.	*	1	1021	622	40.	*	1	1452	893	8.
1	0120	81	1.	*	1	0551	352	523.	*	1	1022	623	40.	*	1	1453	894	8.
1	0121	82	1.	*	1	0552	353	517.	*	1	1023	624	40.	*	1	1454	895	8.
1	0122	83	1.	*	1	0553	354	511.	*	1	1024	625	39.	*	1	1455	896	8.
1	0123	84	1.	*	1	0554	355	505.	*	1	1025	626	39.	*	1	1456	897	8.

1	0124	85	1.	*	1	0555	356	498.	*	1	1026	627	38.	*	1	1457	898	8.
1	0125	86	2.	*	1	0556	357	492.	*	1	1027	628	38.	*	1	1458	899	8.
1	0126	87	2.	*	1	0557	358	486.	*	1	1028	629	38.	*	1	1459	900	8.
1	0127	88	2.	*	1	0558	359	480.	*	1	1029	630	37.	*	1	1500	901	8.
1	0128	89	2.	*	1	0559	360	474.	*	1	1030	631	37.	*	1	1501	902	7.
1	0129	90	2.	*	1	0600	361	468.	*	1	1031	632	36.	*	1	1502	903	7.
1	0130	91	2.	*	1	0601	362	463.	*	1	1032	633	36.	*	1	1503	904	7.
1	0131	92	2.	*	1	0602	363	458.	*	1	1033	634	36.	*	1	1504	905	7.
1	0132	93	2.	*	1	0603	364	452.	*	1	1034	635	35.	*	1	1505	906	7.
1	0133	94	2.	*	1	0604	365	447.	*	1	1035	636	35.	*	1	1506	907	7.
1	0134	95	2.	*	1	0605	366	441.	*	1	1036	637	35.	*	1	1507	908	7.
1	0135	96	2.	*	1	0606	367	485.	*	1	1037	638	34.	*	1	1508	909	7.
1	0136	97	2.	*	1	0607	368	479.	*	1	1038	639	34.	*	1	1509	910	7.
1	0137	98	2.	*	1	0608	369	472.	*	1	1039	640	34.	*	1	1510	911	7.
1	0138	99	2.	*	1	0609	370	415.	*	1	1040	641	33.	*	1	1511	912	7.
1	0139	100	2.	*	1	0610	371	407.	*	1	1041	642	33.	*	1	1512	913	7.
1	0140	101	2.	*	1	0611	372	399.	*	1	1042	643	33.	*	1	1513	914	7.
1	0141	102	2.	*	1	0612	373	390.	*	1	1043	644	32.	*	1	1514	915	7.
1	0142	103	2.	*	1	0613	374	381.	*	1	1044	645	32.	*	1	1515	916	7.
1	0143	104	2.	*	1	0614	375	371.	*	1	1045	646	32.	*	1	1516	917	7.
1	0144	105	2.	*	1	0615	376	362.	*	1	1046	647	32.	*	1	1517	918	7.
1	0145	106	2.	*	1	0616	377	354.	*	1	1047	648	31.	*	1	1518	919	7.
1	0146	107	2.	*	1	0617	378	345.	*	1	1048	649	31.	*	1	1519	920	7.
1	0147	108	2.	*	1	0618	379	336.	*	1	1049	650	31.	*	1	1520	921	7.
1	0148	109	3.	*	1	0619	380	326.	*	1	1050	651	30.	*	1	1521	922	7.
1	0149	110	3.	*	1	0620	381	317.	*	1	1051	652	30.	*	1	1522	923	7.
1	0150	111	3.	*	1	0621	382	308.	*	1	1052	653	30.	*	1	1523	924	7.
1	0151	112	3.	*	1	0622	383	299.	*	1	1053	654	30.	*	1	1524	925	7.
1	0152	113	3.	*	1	0623	384	290.	*	1	1054	655	29.	*	1	1525	926	7.
1	0153	114	3.	*	1	0624	385	283.	*	1	1055	656	29.	*	1	1526	927	7.
1	0154	115	3.	*	1	0625	386	275.	*	1	1056	657	29.	*	1	1527	928	7.
1	0155	116	3.	*	1	0626	387	269.	*	1	1057	658	29.	*	1	1528	929	7.
1	0156	117	3.	*	1	0627	388	262.	*	1	1058	659	28.	*	1	1529	930	7.
1	0157	118	3.	*	1	0628	389	256.	*	1	1059	660	28.	*	1	1530	931	7.
1	0158	119	3.	*	1	0629	390	249.	*	1	1100	661	28.	*	1	1531	932	7.
1	0159	120	3.	*	1	0630	391	243.	*	1	1101	662	28.	*	1	1532	933	7.
1	0200	121	3.	*	1	0631	392	238.	*	1	1102	663	27.	*	1	1533	934	7.
1	0201	122	3.	*	1	0632	393	232.	*	1	1103	664	27.	*	1	1534	935	7.
1	0202	123	3.	*	1	0633	394	227.	*	1	1104	665	27.	*	1	1535	936	7.
1	0203	124	3.	*	1	0634	395	222.	*	1	1105	666	27.	*	1	1536	937	7.
1	0204	125	3.	*	1	0635	396	218.	*	1	1106	667	26.	*	1	1537	938	7.
1	0205	126	3.	*	1	0636	397	213.	*	1	1107	668	26.	*	1	1538	939	7.
1	0206	127	3.	*	1	0637	398	209.	*	1	1108	669	26.	*	1	1539	940	7.
1	0207	128	3.	*	1	0638	399	205.	*	1	1109	670	26.	*	1	1540	941	7.
1	0208	129	3.	*	1	0639	400	202.	*	1	1110	671	25.	*	1	1541	942	7.
1	0209	130	4.	*	1	0640	401	198.	*	1	1111	672	25.	*	1	1542	943	7.
1	0210	131	4.	*	1	0641	402	195.	*	1	1112	673	25.	*	1	1543	944	7.
1	0211	132	4.	*	1	0642	403	191.	*	1	1113	674	25.	*	1	1544	945	7.
1	0212	133	4.	*	1	0643	404	188.	*	1	1114	675	24.	*	1	1545	946	7.
1	0213	134	4.	*	1	0644	405	186.	*	1	1115	676	24.	*	1	1546	947	7.
1	0214	135	4.	*	1	0645	406	183.	*	1	1116	677	24.	*	1	1547	948	7.
1	0215	136	4.	*	1	0646	407	180.	*	1	1117	678	24.	*	1	1548	949	7.
1	0216	137	4.	*	1	0647	408	177.	*	1	1118	679	24.	*	1	1549	950	7.
1	0217	138	4.	*	1	0648	409	174.	*	1	1119	680	23.	*	1	1550	951	7.
1	0218	139	4.	*	1	0649	410	172.	*	1	1120	681	23.	*	1	1551	952	7.
1	0219	140	4.	*	1	0650	411	169.	*	1	1121	682	23.	*	1	1552	953	7.
1	0220	141	4.	*	1	0651	412	167.	*	1	1122	683	23.	*	1	1553	954	7.
1	0221	142	4.	*	1	0652	413	164.	*	1	1123	684	23.	*	1	1554	955	7.
1	0222	143	4.	*	1	0653	414	162.	*	1	1124	685	22.	*	1	1555	956	7.
1	0223	144	4.	*	1	0654	415	159.	*	1	1125	686	22.	*	1	1556	957	7.
1	0224	145	4.	*	1	0655	416	157.	*	1	1126	687	22.	*	1	1557	958	7.
1	0225	146	4.	*	1	0656	417	155.	*	1	1127	688	22.	*	1	1558	959	7.
1	0226	147	4.	*	1	0657	418	153.	*	1	1128	689	22.	*	1	1559	960	7.
1	0227	148	4.	*	1	0658	419	151.	*	1	1129	690	21.	*	1	1600	961	7.
1	0228	149	4.	*	1	0659	420	150.	*	1	1130	691	21.	*	1	1601	962	7.
1	0229	150	4.	*	1	0700	421	148.	*	1	1131	692	21.	*	1	1602	963	7.
1	0230	151	4.	*	1	0701	422	146.	*	1	1132	693	21.	*	1	1603	964	7.

1	0231	152	4.	*	1	0702	423	144.	*	1	1133	694	21.	*	1	1604	965	7.
1	0232	153	4.	*	1	0703	424	143.	*	1	1134	695	21.	*	1	1605	966	7.
1	0233	154	4.	*	1	0704	425	141.	*	1	1135	696	20.	*	1	1606	967	7.
1	0234	155	4.	*	1	0705	426	139.	*	1	1136	697	20.	*	1	1607	968	7.
1	0235	156	4.	*	1	0706	427	138.	*	1	1137	698	20.	*	1	1608	969	7.
1	0236	157	4.	*	1	0707	428	136.	*	1	1138	699	20.	*	1	1609	970	7.
1	0237	158	4.	*	1	0708	429	135.	*	1	1139	700	20.	*	1	1610	971	7.
1	0238	159	5.	*	1	0709	430	133.	*	1	1140	701	20.	*	1	1611	972	7.
1	0239	160	5.	*	1	0710	431	132.	*	1	1141	702	19.	*	1	1612	973	7.
1	0240	161	5.	*	1	0711	432	130.	*	1	1142	703	19.	*	1	1613	974	7.
1	0241	162	5.	*	1	0712	433	129.	*	1	1143	704	19.	*	1	1614	975	6.
1	0242	163	5.	*	1	0713	434	128.	*	1	1144	705	19.	*	1	1615	976	6.
1	0243	164	5.	*	1	0714	435	127.	*	1	1145	706	19.	*	1	1616	977	6.
1	0244	165	5.	*	1	0715	436	126.	*	1	1146	707	19.	*	1	1617	978	6.
1	0245	166	5.	*	1	0716	437	125.	*	1	1147	708	19.	*	1	1618	979	6.
1	0246	167	5.	*	1	0717	438	124.	*	1	1148	709	19.	*	1	1619	980	6.
1	0247	168	5.	*	1	0718	439	123.	*	1	1149	710	18.	*	1	1620	981	6.
1	0248	169	5.	*	1	0719	440	122.	*	1	1150	711	18.	*	1	1621	982	6.
1	0249	170	5.	*	1	0720	441	121.	*	1	1151	712	18.	*	1	1622	983	6.
1	0250	171	5.	*	1	0721	442	120.	*	1	1152	713	18.	*	1	1623	984	6.
1	0251	172	5.	*	1	0722	443	119.	*	1	1153	714	18.	*	1	1624	985	6.
1	0252	173	5.	*	1	0723	444	118.	*	1	1154	715	18.	*	1	1625	986	6.
1	0253	174	5.	*	1	0724	445	117.	*	1	1155	716	18.	*	1	1626	987	6.
1	0254	175	5.	*	1	0725	446	117.	*	1	1156	717	18.	*	1	1627	988	6.
1	0255	176	5.	*	1	0726	447	116.	*	1	1157	718	17.	*	1	1628	989	6.
1	0256	177	6.	*	1	0727	448	115.	*	1	1158	719	17.	*	1	1629	990	6.
1	0257	178	6.	*	1	0728	449	114.	*	1	1159	720	17.	*	1	1630	991	6.
1	0258	179	6.	*	1	0729	450	114.	*	1	1200	721	17.	*	1	1631	992	6.
1	0259	180	6.	*	1	0730	451	113.	*	1	1201	722	17.	*	1	1632	993	6.
1	0300	181	6.	*	1	0731	452	112.	*	1	1202	723	17.	*	1	1633	994	6.
1	0301	182	7.	*	1	0732	453	112.	*	1	1203	724	17.	*	1	1634	995	6.
1	0302	183	7.	*	1	0733	454	111.	*	1	1204	725	17.	*	1	1635	996	6.
1	0303	184	7.	*	1	0734	455	110.	*	1	1205	726	17.	*	1	1636	997	6.
1	0304	185	8.	*	1	0735	456	109.	*	1	1206	727	17.	*	1	1637	998	6.
1	0305	186	8.	*	1	0736	457	109.	*	1	1207	728	16.	*	1	1638	999	6.
1	0306	187	9.	*	1	0737	458	108.	*	1	1208	729	16.	*	1	1639	1000	6.
1	0307	188	10.	*	1	0738	459	107.	*	1	1209	730	16.	*	1	1640	1001	6.
1	0308	189	11.	*	1	0739	460	106.	*	1	1210	731	16.	*	1	1641	1002	6.
1	0309	190	12.	*	1	0740	461	106.	*	1	1211	732	16.	*	1	1642	1003	6.
1	0310	191	13.	*	1	0741	462	105.	*	1	1212	733	16.	*	1	1643	1004	6.
1	0311	192	14.	*	1	0742	463	104.	*	1	1213	734	16.	*	1	1644	1005	6.
1	0312	193	15.	*	1	0743	464	103.	*	1	1214	735	16.	*	1	1645	1006	6.
1	0313	194	16.	*	1	0744	465	103.	*	1	1215	736	16.	*	1	1646	1007	6.
1	0314	195	18.	*	1	0745	466	102.	*	1	1216	737	15.	*	1	1647	1008	6.
1	0315	196	20.	*	1	0746	467	101.	*	1	1217	738	15.	*	1	1648	1009	6.
1	0316	197	22.	*	1	0747	468	100.	*	1	1218	739	15.	*	1	1649	1010	6.
1	0317	198	24.	*	1	0748	469	100.	*	1	1219	740	15.	*	1	1650	1011	6.
1	0318	199	77.	*	1	0749	470	99.	*	1	1220	741	15.	*	1	1651	1012	6.
1	0319	200	80.	*	1	0750	471	98.	*	1	1221	742	15.	*	1	1652	1013	6.
1	0320	201	84.	*	1	0751	472	97.	*	1	1222	743	15.	*	1	1653	1014	6.
1	0321	202	38.	*	1	0752	473	97.	*	1	1223	744	15.	*	1	1654	1015	6.
1	0322	203	42.	*	1	0753	474	96.	*	1	1224	745	15.	*	1	1655	1016	6.
1	0323	204	47.	*	1	0754	475	95.	*	1	1225	746	15.	*	1	1656	1017	6.
1	0324	205	52.	*	1	0755	476	95.	*	1	1226	747	14.	*	1	1657	1018	6.
1	0325	206	57.	*	1	0756	477	94.	*	1	1227	748	14.	*	1	1658	1019	6.
1	0326	207	64.	*	1	0757	478	94.	*	1	1228	749	14.	*	1	1659	1020	6.
1	0327	208	71.	*	1	0758	479	93.	*	1	1229	750	14.	*	1	1700	1021	6.
1	0328	209	80.	*	1	0759	480	92.	*	1	1230	751	14.	*	1	1701	1022	6.
1	0329	210	144.	*	1	0800	481	92.	*	1	1231	752	14.	*	1	1702	1023	6.
1	0330	211	157.	*	1	0801	482	91.	*	1	1232	753	14.	*	1	1703	1024	6.
1	0331	212	170.	*	1	0802	483	91.	*	1	1233	754	14.	*	1	1704	1025	6.
1	0332	213	183.	*	1	0803	484	90.	*	1	1234	755	14.	*	1	1705	1026	6.
1	0333	214	148.	*	1	0804	485	90.	*	1	1235	756	14.	*	1	1706	1027	6.
1	0334	215	165.	*	1	0805	486	89.	*	1	1236	757	14.	*	1	1707	1028	6.
1	0335	216	183.	*	1	0806	487	89.	*	1	1237	758	14.	*	1	1708	1029	6.
1	0336	217	203.	*	1	0807	488	88.	*	1	1238	759	13.	*	1	1709	1030	6.
1	0337	218	276.	*	1	0808	489	88.	*	1	1239	760	13.	*	1	1710	1031	6.

1	0338	219	304.	*	1	0809	490	88.	*	1	1240	761	13.	*	1	1711	1032	6.
1	0339	220	334.	*	1	0810	491	87.	*	1	1241	762	13.	*	1	1712	1033	6.
1	0340	221	366.	*	1	0811	492	87.	*	1	1242	763	13.	*	1	1713	1034	6.
1	0341	222	401.	*	1	0812	493	87.	*	1	1243	764	13.	*	1	1714	1035	6.
1	0342	223	441.	*	1	0813	494	86.	*	1	1244	765	13.	*	1	1715	1036	6.
1	0343	224	488.	*	1	0814	495	86.	*	1	1245	766	13.	*	1	1716	1037	6.
1	0344	225	542.	*	1	0815	496	86.	*	1	1246	767	13.	*	1	1717	1038	6.
1	0345	226	597.	*	1	0816	497	85.	*	1	1247	768	13.	*	1	1718	1039	6.
1	0346	227	653.	*	1	0817	498	85.	*	1	1248	769	13.	*	1	1719	1040	6.
1	0347	228	711.	*	1	0818	499	84.	*	1	1249	770	13.	*	1	1720	1041	6.
1	0348	229	773.	*	1	0819	500	84.	*	1	1250	771	13.	*	1	1721	1042	6.
1	0349	230	882.	*	1	0820	501	84.	*	1	1251	772	13.	*	1	1722	1043	6.
1	0350	231	941.	*	1	0821	502	83.	*	1	1252	773	13.	*	1	1723	1044	6.
1	0351	232	1000.	*	1	0822	503	83.	*	1	1253	774	12.	*	1	1724	1045	6.
1	0352	233	1062.	*	1	0823	504	83.	*	1	1254	775	12.	*	1	1725	1046	6.
1	0353	234	1126.	*	1	0824	505	82.	*	1	1255	776	12.	*	1	1726	1047	6.
1	0354	235	1191.	*	1	0825	506	82.	*	1	1256	777	12.	*	1	1727	1048	6.
1	0355	236	1257.	*	1	0826	507	82.	*	1	1257	778	12.	*	1	1728	1049	6.
1	0356	237	1325.	*	1	0827	508	81.	*	1	1258	779	12.	*	1	1729	1050	6.
1	0357	238	1398.	*	1	0828	509	81.	*	1	1259	780	12.	*	1	1730	1051	6.
1	0358	239	1470.	*	1	0829	510	80.	*	1	1300	781	12.	*	1	1731	1052	6.
1	0359	240	1540.	*	1	0830	511	80.	*	1	1301	782	12.	*	1	1732	1053	6.
1	0400	241	1611.	*	1	0831	512	80.	*	1	1302	783	12.	*	1	1733	1054	6.
1	0401	242	1682.	*	1	0832	513	79.	*	1	1303	784	12.	*	1	1734	1055	6.
1	0402	243	1750.	*	1	0833	514	79.	*	1	1304	785	12.	*	1	1735	1056	6.
1	0403	244	1812.	*	1	0834	515	79.	*	1	1305	786	12.	*	1	1736	1057	6.
1	0404	245	1970.	*	1	0835	516	78.	*	1	1306	787	12.	*	1	1737	1058	6.
1	0405	246	2022.	*	1	0836	517	78.	*	1	1307	788	12.	*	1	1738	1059	6.
1	0406	247	2067.	*	1	0837	518	78.	*	1	1308	789	11.	*	1	1739	1060	6.
1	0407	248	2055.	*	1	0838	519	78.	*	1	1309	790	11.	*	1	1740	1061	6.
1	0408	249	2083.	*	1	0839	520	77.	*	1	1310	791	11.	*	1	1741	1062	6.
1	0409	250	2100.	*	1	0840	521	77.	*	1	1311	792	11.	*	1	1742	1063	6.
1	0410	251	2059.	*	1	0841	522	77.	*	1	1312	793	11.	*	1	1743	1064	6.
1	0411	252	2061.	*	1	0842	523	77.	*	1	1313	794	11.	*	1	1744	1065	6.
1	0412	253	2057.	*	1	0843	524	76.	*	1	1314	795	11.	*	1	1745	1066	6.
1	0413	254	2048.	*	1	0844	525	76.	*	1	1315	796	11.	*	1	1746	1067	6.
1	0414	255	2037.	*	1	0845	526	76.	*	1	1316	797	11.	*	1	1747	1068	6.
1	0415	256	2025.	*	1	0846	527	75.	*	1	1317	798	11.	*	1	1748	1069	6.
1	0416	257	2013.	*	1	0847	528	75.	*	1	1318	799	11.	*	1	1749	1070	6.
1	0417	258	2000.	*	1	0848	529	75.	*	1	1319	800	11.	*	1	1750	1071	6.
1	0418	259	1988.	*	1	0849	530	74.	*	1	1320	801	11.	*	1	1751	1072	6.
1	0419	260	1974.	*	1	0850	531	74.	*	1	1321	802	11.	*	1	1752	1073	6.
1	0420	261	1958.	*	1	0851	532	74.	*	1	1322	803	11.	*	1	1753	1074	6.
1	0421	262	1941.	*	1	0852	533	73.	*	1	1323	804	11.	*	1	1754	1075	6.
1	0422	263	1823.	*	1	0853	534	73.	*	1	1324	805	11.	*	1	1755	1076	6.
1	0423	264	1803.	*	1	0854	535	73.	*	1	1325	806	11.	*	1	1756	1077	6.
1	0424	265	1829.	*	1	0855	536	72.	*	1	1326	807	10.	*	1	1757	1078	6.
1	0425	266	1801.	*	1	0856	537	72.	*	1	1327	808	10.	*	1	1758	1079	6.
1	0426	267	1770.	*	1	0857	538	72.	*	1	1328	809	10.	*	1	1759	1080	6.
1	0427	268	1735.	*	1	0858	539	71.	*	1	1329	810	10.	*	1	1800	1081	6.
1	0428	269	1699.	*	1	0859	540	71.	*	1	1330	811	10.	*				
1	0429	270	1666.	*	1	0900	541	70.	*	1	1331	812	10.	*				
1	0430	271	1641.	*	1	0901	542	70.	*	1	1332	813	10.	*				
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	18.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 2113.	4.65		589.	206.	206.	206.
		(INCHES)	1.208	1.263	1.263	1.263
		(AC-FT)	292.	306.	306.	306.

CUMULATIVE AREA = 4.54 SQ MI

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*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
1192 KK     *     B15FF  *
            *            *
            **************

1195 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           3  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE

     DT          DIVERSION
                       ISTAD       DIVFF  DIVERSION HYDROGRAPH IDENTIFICATION
                      DSTRMX       37.60  MAXIMUM VOLUME TO BE DIVERTED

     DI             INFLOW        0.00  10000.00

     DQ      DIVERTED FLOW        0.00  10000.00
                                                                  ***
      ***            ***            ***            ***            ***

                        DIVERSION HYDROGRAPH    DIVFF

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     18.00-HR
+   (CFS)       (HR)
                          (CFS)
+    1750.      4.03                 76.         25.         25.         25.
                        (INCHES)    0.155       0.155       0.155       0.155
                         (AC-FT)     38.         38.         38.         38.

                        CUMULATIVE AREA =    4.54 SQ MI

      ***            ***            ***            ***            ***

                        HYDROGRAPH AT STATION    B15FF

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     18.00-HR
+   (CFS)       (HR)
                          (CFS)
+    2113.      4.65                523.        180.        180.        180.
                        (INCHES)    1.070       1.108       1.108       1.108
                         (AC-FT)    259.        268.        268.        268.

                        CUMULATIVE AREA =    4.54 SQ MI


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            **************
            *            *
1199 KK     *     STB15  *
            *            *
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1205 KO          OUTPUT CONTROL VARIABLES
                       IPRNT          2  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE

               HYDROGRAPH ROUTING DATA

1206 RS          STORAGE ROUTING
                       NSTPS          1  NUMBER OF SUBREACHES
                        ITYP       STOR  TYPE OF INITIAL CONDITION
                      RSVRIC       0.00  INITIAL CONDITION
                           X       0.00 WORKING R AND D COEFFICIENT

1207 SV            STORAGE        0.0       1.0      15.0     109.0     228.0     275.0     321.8

1208 SQ          DISCHARGE         0.        0.        0.        0.        0.        0.        0.

1209 SE          ELEVATION     1143.00   1146.50   1150.00   1155.00   1158.00   1159.00   1160.00
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HYDROGRAPH AT STATION STB15

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	0.	0.0	1143.0	*	1		0601	362	0.	215.5	1157.7	*	1		1202	723	0.	263.9	1158.8
1		0001	2	0.	0.0	1143.0	*	1		0602	363	0.	216.2	1157.7	*	1		1203	724	0.	263.9	1158.8
1		0002	3	0.	0.0	1143.0	*	1		0603	364	0.	216.8	1157.7	*	1		1204	725	0.	263.9	1158.8
1		0003	4	0.	0.0	1143.0	*	1		0604	365	0.	217.4	1157.7	*	1		1205	726	0.	264.0	1158.8
1		0004	5	0.	0.0	1143.0	*	1		0605	366	0.	218.0	1157.7	*	1		1206	727	0.	264.0	1158.8
1		0005	6	0.	0.0	1143.0	*	1		0606	367	0.	218.7	1157.8	*	1		1207	728	0.	264.0	1158.8
1		0006	7	0.	0.0	1143.0	*	1		0607	368	0.	219.3	1157.8	*	1		1208	729	0.	264.0	1158.8
1		0007	8	0.	0.0	1143.0	*	1		0608	369	0.	220.0	1157.8	*	1		1209	730	0.	264.1	1158.8
1		0008	9	0.	0.0	1143.0	*	1		0609	370	0.	220.6	1157.8	*	1		1210	731	0.	264.1	1158.8
1		0009	10	0.	0.0	1143.0	*	1		0610	371	0.	221.2	1157.8	*	1		1211	732	0.	264.1	1158.8
1		0010	11	0.	0.0	1143.0	*	1		0611	372	0.	221.7	1157.8	*	1		1212	733	0.	264.1	1158.8
1		0011	12	0.	0.0	1143.0	*	1		0612	373	0.	222.3	1157.9	*	1		1213	734	0.	264.1	1158.8
1		0012	13	0.	0.0	1143.0	*	1		0613	374	0.	222.8	1157.9	*	1		1214	735	0.	264.2	1158.8
1		0013	14	0.	0.0	1143.0	*	1		0614	375	0.	223.3	1157.9	*	1		1215	736	0.	264.2	1158.8
1		0014	15	0.	0.0	1143.0	*	1		0615	376	0.	223.8	1157.9	*	1		1216	737	0.	264.2	1158.8
1		0015	16	0.	0.0	1143.0	*	1		0616	377	0.	224.3	1157.9	*	1		1217	738	0.	264.2	1158.8
1		0016	17	0.	0.0	1143.0	*	1		0617	378	0.	224.8	1157.9	*	1		1218	739	0.	264.3	1158.8
1		0017	18	0.	0.0	1143.0	*	1		0618	379	0.	225.2	1157.9	*	1		1219	740	0.	264.3	1158.8
1		0018	19	0.	0.0	1143.0	*	1		0619	380	0.	225.7	1157.9	*	1		1220	741	0.	264.3	1158.8
1		0019	20	0.	0.0	1143.0	*	1		0620	381	0.	226.1	1158.0	*	1		1221	742	0.	264.3	1158.8
1		0020	21	0.	0.0	1143.0	*	1		0621	382	0.	226.6	1158.0	*	1		1222	743	0.	264.3	1158.8
1		0021	22	0.	0.0	1143.0	*	1		0622	383	0.	227.0	1158.0	*	1		1223	744	0.	264.4	1158.8
1		0022	23	0.	0.0	1143.0	*	1		0623	384	0.	227.4	1158.0	*	1		1224	745	0.	264.4	1158.8
1		0023	24	0.	0.0	1143.0	*	1		0624	385	0.	227.8	1158.0	*	1		1225	746	0.	264.4	1158.8
1		0024	25	0.	0.0	1143.0	*	1		0625	386	0.	228.2	1158.0	*	1		1226	747	0.	264.4	1158.8
1		0025	26	0.	0.0	1143.0	*	1		0626	387	0.	228.6	1158.0	*	1		1227	748	0.	264.4	1158.8
1		0026	27	0.	0.0	1143.0	*	1		0627	388	0.	228.9	1158.0	*	1		1228	749	0.	264.5	1158.8
1		0027	28	0.	0.0	1143.0	*	1		0628	389	0.	229.3	1158.0	*	1		1229	750	0.	264.5	1158.8
1		0028	29	0.	0.0	1143.0	*	1		0629	390	0.	229.6	1158.0	*	1		1230	751	0.	264.5	1158.8
1		0029	30	0.	0.0	1143.0	*	1		0630	391	0.	230.0	1158.0	*	1		1231	752	0.	264.5	1158.8
1		0030	31	0.	0.0	1143.0	*	1		0631	392	0.	230.3	1158.0	*	1		1232	753	0.	264.5	1158.8
1		0031	32	0.	0.0	1143.0	*	1		0632	393	0.	230.6	1158.1	*	1		1233	754	0.	264.6	1158.8
1		0032	33	0.	0.0	1143.0	*	1		0633	394	0.	230.9	1158.1	*	1		1234	755	0.	264.6	1158.8
1		0033	34	0.	0.0	1143.0	*	1		0634	395	0.	231.2	1158.1	*	1		1235	756	0.	264.6	1158.8
1		0034	35	0.	0.0	1143.0	*	1		0635	396	0.	231.5	1158.1	*	1		1236	757	0.	264.6	1158.8
1		0035	36	0.	0.0	1143.0	*	1		0636	397	0.	231.8	1158.1	*	1		1237	758	0.	264.6	1158.8
1		0036	37	0.	0.0	1143.0	*	1		0637	398	0.	232.1	1158.1	*	1		1238	759	0.	264.6	1158.8
1		0037	38	0.	0.0	1143.0	*	1		0638	399	0.	232.4	1158.1	*	1		1239	760	0.	264.7	1158.8

1	0038	39	0.	0.0	1143.0	*	1	0639	400	0.	232.7	1158.1	*	1	1240	761	0.	264.7	1158.8
1	0039	40	0.	0.0	1143.0	*	1	0640	401	0.	233.0	1158.1	*	1	1241	762	0.	264.7	1158.8
1	0040	41	0.	0.0	1143.0	*	1	0641	402	0.	233.2	1158.1	*	1	1242	763	0.	264.7	1158.8
1	0041	42	0.	0.0	1143.0	*	1	0642	403	0.	233.5	1158.1	*	1	1243	764	0.	264.7	1158.8
1	0042	43	0.	0.0	1143.0	*	1	0643	404	0.	233.8	1158.1	*	1	1244	765	0.	264.8	1158.8
1	0043	44	0.	0.0	1143.0	*	1	0644	405	0.	234.0	1158.1	*	1	1245	766	0.	264.8	1158.8
1	0044	45	0.	0.0	1143.0	*	1	0645	406	0.	234.3	1158.1	*	1	1246	767	0.	264.8	1158.8
1	0045	46	0.	0.0	1143.0	*	1	0646	407	0.	234.5	1158.1	*	1	1247	768	0.	264.8	1158.8
1	0046	47	0.	0.0	1143.0	*	1	0647	408	0.	234.8	1158.1	*	1	1248	769	0.	264.8	1158.8
1	0047	48	0.	0.0	1143.0	*	1	0648	409	0.	235.0	1158.1	*	1	1249	770	0.	264.8	1158.8
1	0048	49	0.	0.0	1143.0	*	1	0649	410	0.	235.3	1158.2	*	1	1250	771	0.	264.9	1158.8
1	0049	50	0.	0.0	1143.0	*	1	0650	411	0.	235.5	1158.2	*	1	1251	772	0.	264.9	1158.8
1	0050	51	0.	0.0	1143.0	*	1	0651	412	0.	235.7	1158.2	*	1	1252	773	0.	264.9	1158.8
1	0051	52	0.	0.0	1143.0	*	1	0652	413	0.	236.0	1158.2	*	1	1253	774	0.	264.9	1158.8
1	0052	53	0.	0.0	1143.0	*	1	0653	414	0.	236.2	1158.2	*	1	1254	775	0.	264.9	1158.8
1	0053	54	0.	0.0	1143.0	*	1	0654	415	0.	236.4	1158.2	*	1	1255	776	0.	265.0	1158.8
1	0054	55	0.	0.0	1143.0	*	1	0655	416	0.	236.6	1158.2	*	1	1256	777	0.	265.0	1158.8
1	0055	56	0.	0.0	1143.0	*	1	0656	417	0.	236.8	1158.2	*	1	1257	778	0.	265.0	1158.8
1	0056	57	0.	0.0	1143.0	*	1	0657	418	0.	237.0	1158.2	*	1	1258	779	0.	265.0	1158.8
1	0057	58	0.	0.0	1143.0	*	1	0658	419	0.	237.3	1158.2	*	1	1259	780	0.	265.0	1158.8
1	0058	59	0.	0.0	1143.0	*	1	0659	420	0.	237.5	1158.2	*	1	1300	781	0.	265.0	1158.8
1	0059	60	0.	0.0	1143.0	*	1	0700	421	0.	237.7	1158.2	*	1	1301	782	0.	265.1	1158.8
1	0100	61	0.	0.0	1143.0	*	1	0701	422	0.	237.9	1158.2	*	1	1302	783	0.	265.1	1158.8
1	0101	62	0.	0.0	1143.0	*	1	0702	423	0.	238.1	1158.2	*	1	1303	784	0.	265.1	1158.8
1	0102	63	0.	0.0	1143.0	*	1	0703	424	0.	238.3	1158.2	*	1	1304	785	0.	265.1	1158.8
1	0103	64	0.	0.0	1143.0	*	1	0704	425	0.	238.5	1158.2	*	1	1305	786	0.	265.1	1158.8
1	0104	65	0.	0.0	1143.0	*	1	0705	426	0.	238.7	1158.2	*	1	1306	787	0.	265.1	1158.8
1	0105	66	0.	0.0	1143.0	*	1	0706	427	0.	238.8	1158.2	*	1	1307	788	0.	265.1	1158.8
1	0106	67	0.	0.0	1143.0	*	1	0707	428	0.	239.0	1158.2	*	1	1308	789	0.	265.2	1158.8
1	0107	68	0.	0.0	1143.0	*	1	0708	429	0.	239.2	1158.2	*	1	1309	790	0.	265.2	1158.8
1	0108	69	0.	0.0	1143.0	*	1	0709	430	0.	239.4	1158.2	*	1	1310	791	0.	265.2	1158.8
1	0109	70	0.	0.0	1143.0	*	1	0710	431	0.	239.6	1158.2	*	1	1311	792	0.	265.2	1158.8
1	0110	71	0.	0.0	1143.0	*	1	0711	432	0.	239.8	1158.3	*	1	1312	793	0.	265.2	1158.8
1	0111	72	0.	0.0	1143.0	*	1	0712	433	0.	239.9	1158.3	*	1	1313	794	0.	265.2	1158.8
1	0112	73	0.	0.0	1143.0	*	1	0713	434	0.	240.1	1158.3	*	1	1314	795	0.	265.3	1158.8
1	0113	74	0.	0.0	1143.0	*	1	0714	435	0.	240.3	1158.3	*	1	1315	796	0.	265.3	1158.8
1	0114	75	0.	0.0	1143.0	*	1	0715	436	0.	240.5	1158.3	*	1	1316	797	0.	265.3	1158.8
1	0115	76	0.	0.0	1143.0	*	1	0716	437	0.	240.6	1158.3	*	1	1317	798	0.	265.3	1158.8
1	0116	77	0.	0.0	1143.0	*	1	0717	438	0.	240.8	1158.3	*	1	1318	799	0.	265.3	1158.8
1	0117	78	0.	0.0	1143.0	*	1	0718	439	0.	241.0	1158.3	*	1	1319	800	0.	265.3	1158.8
1	0118	79	0.	0.0	1143.0	*	1	0719	440	0.	241.2	1158.3	*	1	1320	801	0.	265.3	1158.8
1	0119	80	0.	0.0	1143.0	*	1	0720	441	0.	241.3	1158.3	*	1	1321	802	0.	265.4	1158.8
1	0120	81	0.	0.0	1143.0	*	1	0721	442	0.	241.5	1158.3	*	1	1322	803	0.	265.4	1158.8
1	0121	82	0.	0.0	1143.0	*	1	0722	443	0.	241.7	1158.3	*	1	1323	804	0.	265.4	1158.8
1	0122	83	0.	0.0	1143.0	*	1	0723	444	0.	241.8	1158.3	*	1	1324	805	0.	265.4	1158.8
1	0123	84	0.	0.0	1143.0	*	1	0724	445	0.	242.0	1158.3	*	1	1325	806	0.	265.4	1158.8
1	0124	85	0.	0.0	1143.0	*	1	0725	446	0.	242.1	1158.3	*	1	1326	807	0.	265.4	1158.8
1	0125	86	0.	0.0	1143.0	*	1	0726	447	0.	242.3	1158.3	*	1	1327	808	0.	265.4	1158.8
1	0126	87	0.	0.0	1143.0	*	1	0727	448	0.	242.5	1158.3	*	1	1328	809	0.	265.5	1158.8
1	0127	88	0.	0.0	1143.0	*	1	0728	449	0.	242.6	1158.3	*	1	1329	810	0.	265.5	1158.8
1	0128	89	0.	0.0	1143.0	*	1	0729	450	0.	242.8	1158.3	*	1	1330	811	0.	265.5	1158.8
1	0129	90	0.	0.0	1143.0	*	1	0730	451	0.	242.9	1158.3	*	1	1331	812	0.	265.5	1158.8
1	0130	91	0.	0.0	1143.0	*	1	0731	452	0.	243.1	1158.3	*	1	1332	813	0.	265.5	1158.8
1	0131	92	0.	0.0	1143.0	*	1	0732	453	0.	243.2	1158.3	*	1	1333	814	0.	265.5	1158.8
1	0132	93	0.	0.0	1143.0	*	1	0733	454	0.	243.4	1158.3	*	1	1334	815	0.	265.5	1158.8
1	0133	94	0.	0.0	1143.0	*	1	0734	455	0.	243.5	1158.3	*	1	1335	816	0.	265.6	1158.8
1	0134	95	0.	0.0	1143.0	*	1	0735	456	0.	243.7	1158.3	*	1	1336	817	0.	265.6	1158.8
1	0135	96	0.	0.0	1143.0	*	1	0736	457	0.	243.9	1158.3	*	1	1337	818	0.	265.6	1158.8
1	0136	97	0.	0.0	1143.0	*	1	0737	458	0.	244.0	1158.3	*	1	1338	819	0.	265.6	1158.8
1	0137	98	0.	0.0	1143.0	*	1	0738	459	0.	244.1	1158.3	*	1	1339	820	0.	265.6	1158.8
1	0138	99	0.	0.0	1143.0	*	1	0739	460	0.	244.3	1158.3	*	1	1340	821	0.	265.6	1158.8
1	0139	100	0.	0.0	1143.0	*	1	0740	461	0.	244.4	1158.3	*	1	1341	822	0.	265.6	1158.8
1	0140	101	0.	0.0	1143.0	*	1	0741	462	0.	244.6	1158.4	*	1	1342	823	0.	265.7	1158.8
1	0141	102	0.	0.0	1143.0	*	1	0742	463	0.	244.7	1158.4	*	1	1343	824	0.	265.7	1158.8
1	0142	103	0.	0.0	1143.0	*	1	0743	464	0.	244.9	1158.4	*	1	1344	825	0.	265.7	1158.8
1	0143	104	0.	0.0	1143.0	*	1	0744	465	0.	245.0	1158.4	*	1	1345	826	0.	265.7	1158.8
1	0144	105	0.	0.0	1143.0	*	1	0745	466	0.	245.2	1158.4	*	1	1346	827	0.	265.7	1158.8

1	0145	106	0.	0.0	1143.0	*	1	0746	467	0.	245.3	1158.4	*	1	1347	828	0.	265.7	1158.8
1	0146	107	0.	0.0	1143.0	*	1	0747	468	0.	245.4	1158.4	*	1	1348	829	0.	265.7	1158.8
1	0147	108	0.	0.0	1143.0	*	1	0748	469	0.	245.6	1158.4	*	1	1349	830	0.	265.8	1158.8
1	0148	109	0.	0.0	1143.0	*	1	0749	470	0.	245.7	1158.4	*	1	1350	831	0.	265.8	1158.8
1	0149	110	0.	0.0	1143.0	*	1	0750	471	0.	245.8	1158.4	*	1	1351	832	0.	265.8	1158.8
1	0150	111	0.	0.0	1143.0	*	1	0751	472	0.	246.0	1158.4	*	1	1352	833	0.	265.8	1158.8
1	0151	112	0.	0.0	1143.0	*	1	0752	473	0.	246.1	1158.4	*	1	1353	834	0.	265.8	1158.8
1	0152	113	0.	0.0	1143.0	*	1	0753	474	0.	246.2	1158.4	*	1	1354	835	0.	265.8	1158.8
1	0153	114	0.	0.0	1143.0	*	1	0754	475	0.	246.4	1158.4	*	1	1355	836	0.	265.8	1158.8
1	0154	115	0.	0.0	1143.0	*	1	0755	476	0.	246.5	1158.4	*	1	1356	837	0.	265.8	1158.8
1	0155	116	0.	0.0	1143.0	*	1	0756	477	0.	246.6	1158.4	*	1	1357	838	0.	265.9	1158.8
1	0156	117	0.	0.0	1143.0	*	1	0757	478	0.	246.8	1158.4	*	1	1358	839	0.	265.9	1158.8
1	0157	118	0.	0.0	1143.0	*	1	0758	479	0.	246.9	1158.4	*	1	1359	840	0.	265.9	1158.8
1	0158	119	0.	0.0	1143.0	*	1	0759	480	0.	247.0	1158.4	*	1	1400	841	0.	265.9	1158.8
1	0159	120	0.	0.0	1143.0	*	1	0800	481	0.	247.2	1158.4	*	1	1401	842	0.	265.9	1158.8
1	0200	121	0.	0.0	1143.0	*	1	0801	482	0.	247.3	1158.4	*	1	1402	843	0.	265.9	1158.8
1	0201	122	0.	0.0	1143.0	*	1	0802	483	0.	247.4	1158.4	*	1	1403	844	0.	265.9	1158.8
1	0202	123	0.	0.0	1143.0	*	1	0803	484	0.	247.5	1158.4	*	1	1404	845	0.	265.9	1158.8
1	0203	124	0.	0.0	1143.0	*	1	0804	485	0.	247.7	1158.4	*	1	1405	846	0.	266.0	1158.8
1	0204	125	0.	0.0	1143.0	*	1	0805	486	0.	247.8	1158.4	*	1	1406	847	0.	266.0	1158.8
1	0205	126	0.	0.0	1143.0	*	1	0806	487	0.	247.9	1158.4	*	1	1407	848	0.	266.0	1158.8
1	0206	127	0.	0.0	1143.0	*	1	0807	488	0.	248.0	1158.4	*	1	1408	849	0.	266.0	1158.8
1	0207	128	0.	0.0	1143.0	*	1	0808	489	0.	248.1	1158.4	*	1	1409	850	0.	266.0	1158.8
1	0208	129	0.	0.0	1143.0	*	1	0809	490	0.	248.3	1158.4	*	1	1410	851	0.	266.0	1158.8
1	0209	130	0.	0.0	1143.0	*	1	0810	491	0.	248.4	1158.4	*	1	1411	852	0.	266.0	1158.8
1	0210	131	0.	0.0	1143.0	*	1	0811	492	0.	248.5	1158.4	*	1	1412	853	0.	266.0	1158.8
1	0211	132	0.	0.0	1143.0	*	1	0812	493	0.	248.6	1158.4	*	1	1413	854	0.	266.0	1158.8
1	0212	133	0.	0.0	1143.0	*	1	0813	494	0.	248.7	1158.4	*	1	1414	855	0.	266.1	1158.8
1	0213	134	0.	0.0	1143.0	*	1	0814	495	0.	248.9	1158.4	*	1	1415	856	0.	266.1	1158.8
1	0214	135	0.	0.0	1143.0	*	1	0815	496	0.	249.0	1158.4	*	1	1416	857	0.	266.1	1158.8
1	0215	136	0.	0.0	1143.0	*	1	0816	497	0.	249.1	1158.4	*	1	1417	858	0.	266.1	1158.8
1	0216	137	0.	0.0	1143.0	*	1	0817	498	0.	249.2	1158.5	*	1	1418	859	0.	266.1	1158.8
1	0217	138	0.	0.0	1143.0	*	1	0818	499	0.	249.3	1158.5	*	1	1419	860	0.	266.1	1158.8
1	0218	139	0.	0.0	1143.0	*	1	0819	500	0.	249.4	1158.5	*	1	1420	861	0.	266.1	1158.8
1	0219	140	0.	0.0	1143.0	*	1	0820	501	0.	249.6	1158.5	*	1	1421	862	0.	266.1	1158.8
1	0220	141	0.	0.0	1143.0	*	1	0821	502	0.	249.7	1158.5	*	1	1422	863	0.	266.2	1158.8
1	0221	142	0.	0.0	1143.0	*	1	0822	503	0.	249.8	1158.5	*	1	1423	864	0.	266.2	1158.8
1	0222	143	0.	0.0	1143.0	*	1	0823	504	0.	249.9	1158.5	*	1	1424	865	0.	266.2	1158.8
1	0223	144	0.	0.0	1143.0	*	1	0824	505	0.	250.0	1158.5	*	1	1425	866	0.	266.2	1158.8
1	0224	145	0.	0.0	1143.0	*	1	0825	506	0.	250.1	1158.5	*	1	1426	867	0.	266.2	1158.8
1	0225	146	0.	0.0	1143.0	*	1	0826	507	0.	250.2	1158.5	*	1	1427	868	0.	266.2	1158.8
1	0226	147	0.	0.0	1143.0	*	1	0827	508	0.	250.4	1158.5	*	1	1428	869	0.	266.2	1158.8
1	0227	148	0.	0.0	1143.0	*	1	0828	509	0.	250.5	1158.5	*	1	1429	870	0.	266.2	1158.8
1	0228	149	0.	0.0	1143.0	*	1	0829	510	0.	250.6	1158.5	*	1	1430	871	0.	266.2	1158.8
1	0229	150	0.	0.0	1143.0	*	1	0830	511	0.	250.7	1158.5	*	1	1431	872	0.	266.3	1158.8
1	0230	151	0.	0.0	1143.0	*	1	0831	512	0.	250.8	1158.5	*	1	1432	873	0.	266.3	1158.8
1	0231	152	0.	0.0	1143.0	*	1	0832	513	0.	250.9	1158.5	*	1	1433	874	0.	266.3	1158.8
1	0232	153	0.	0.0	1143.0	*	1	0833	514	0.	251.0	1158.5	*	1	1434	875	0.	266.3	1158.8
1	0233	154	0.	0.0	1143.0	*	1	0834	515	0.	251.1	1158.5	*	1	1435	876	0.	266.3	1158.8
1	0234	155	0.	0.0	1143.0	*	1	0835	516	0.	251.2	1158.5	*	1	1436	877	0.	266.3	1158.8
1	0235	156	0.	0.0	1143.0	*	1	0836	517	0.	251.3	1158.5	*	1	1437	878	0.	266.3	1158.8
1	0236	157	0.	0.0	1143.0	*	1	0837	518	0.	251.4	1158.5	*	1	1438	879	0.	266.3	1158.8
1	0237	158	0.	0.0	1143.0	*	1	0838	519	0.	251.6	1158.5	*	1	1439	880	0.	266.3	1158.8
1	0238	159	0.	0.0	1143.0	*	1	0839	520	0.	251.7	1158.5	*	1	1440	881	0.	266.4	1158.8
1	0239	160	0.	0.0	1143.0	*	1	0840	521	0.	251.8	1158.5	*	1	1441	882	0.	266.4	1158.8
1	0240	161	0.	0.0	1143.0	*	1	0841	522	0.	251.9	1158.5	*	1	1442	883	0.	266.4	1158.8
1	0241	162	0.	0.0	1143.0	*	1	0842	523	0.	252.0	1158.5	*	1	1443	884	0.	266.4	1158.8
1	0242	163	0.	0.0	1143.0	*	1	0843	524	0.	252.1	1158.5	*	1	1444	885	0.	266.4	1158.8
1	0243	164	0.	0.0	1143.0	*	1	0844	525	0.	252.2	1158.5	*	1	1445	886	0.	266.4	1158.8
1	0244	165	0.	0.0	1143.0	*	1	0845	526	0.	252.3	1158.5	*	1	1446	887	0.	266.4	1158.8
1	0245	166	0.	0.0	1143.0	*	1	0846	527	0.	252.4	1158.5	*	1	1447	888	0.	266.4	1158.8
1	0246	167	0.	0.0	1143.0	*	1	0847	528	0.	252.5	1158.5	*	1	1448	889	0.	266.4	1158.8
1	0247	168	0.	0.0	1143.0	*	1	0848	529	0.	252.6	1158.5	*	1	1449	890	0.	266.5	1158.8
1	0248	169	0.	0.0	1143.0	*	1	0849	530	0.	252.7	1158.5	*	1	1450	891	0.	266.5	1158.8
1	0249	170	0.	0.0	1143.0	*	1	0850	531	0.	252.8	1158.5	*	1	1451	892	0.	266.5	1158.8
1	0250	171	0.	0.0	1143.0	*	1	0851	532	0.	252.9	1158.5	*	1	1452	893	0.	266.5	1158.8
1	0251	172	0.	0.0	1143.0	*	1	0852	533	0.	253.0	1158.5	*	1	1453	894	0.	266.5	1158.8

1	0252	173	0.	0.0	1143.0	*	1	0853	534	0.	253.1	1158.5	*	1	1454 895	0.	266.5	1158.8
1	0253	174	0.	0.0	1143.0	*	1	0854	535	0.	253.2	1158.5	*	1	1455 896	0.	266.5	1158.8
1	0254	175	0.	0.0	1143.0	*	1	0855	536	0.	253.3	1158.5	*	1	1456 897	0.	266.5	1158.8
1	0255	176	0.	0.0	1143.0	*	1	0856	537	0.	253.4	1158.5	*	1	1457 898	0.	266.5	1158.8
1	0256	177	0.	0.0	1143.0	*	1	0857	538	0.	253.5	1158.5	*	1	1458 899	0.	266.5	1158.8
1	0257	178	0.	0.0	1143.0	*	1	0858	539	0.	253.6	1158.5	*	1	1459 900	0.	266.6	1158.8
1	0258	179	0.	0.0	1143.0	*	1	0859	540	0.	253.7	1158.5	*	1	1500 901	0.	266.6	1158.8
1	0259	180	0.	0.0	1143.0	*	1	0900	541	0.	253.8	1158.5	*	1	1501 902	0.	266.6	1158.8
1	0300	181	0.	0.0	1143.0	*	1	0901	542	0.	253.9	1158.6	*	1	1502 903	0.	266.6	1158.8
1	0301	182	0.	0.0	1143.0	*	1	0902	543	0.	254.0	1158.6	*	1	1503 904	0.	266.6	1158.8
1	0302	183	0.	0.0	1143.0	*	1	0903	544	0.	254.1	1158.6	*	1	1504 905	0.	266.6	1158.8
1	0303	184	0.	0.0	1143.0	*	1	0904	545	0.	254.2	1158.6	*	1	1505 906	0.	266.6	1158.8
1	0304	185	0.	0.0	1143.0	*	1	0905	546	0.	254.3	1158.6	*	1	1506 907	0.	266.6	1158.8
1	0305	186	0.	0.0	1143.0	*	1	0906	547	0.	254.4	1158.6	*	1	1507 908	0.	266.6	1158.8
1	0306	187	0.	0.0	1143.0	*	1	0907	548	0.	254.5	1158.6	*	1	1508 909	0.	266.6	1158.8
1	0307	188	0.	0.0	1143.0	*	1	0908	549	0.	254.6	1158.6	*	1	1509 910	0.	266.7	1158.8
1	0308	189	0.	0.0	1143.0	*	1	0909	550	0.	254.7	1158.6	*	1	1510 911	0.	266.7	1158.8
1	0309	190	0.	0.0	1143.0	*	1	0910	551	0.	254.8	1158.6	*	1	1511 912	0.	266.7	1158.8
1	0310	191	0.	0.0	1143.0	*	1	0911	552	0.	254.8	1158.6	*	1	1512 913	0.	266.7	1158.8
1	0311	192	0.	0.0	1143.0	*	1	0912	553	0.	254.9	1158.6	*	1	1513 914	0.	266.7	1158.8
1	0312	193	0.	0.0	1143.0	*	1	0913	554	0.	255.0	1158.6	*	1	1514 915	0.	266.7	1158.8
1	0313	194	0.	0.0	1143.0	*	1	0914	555	0.	255.1	1158.6	*	1	1515 916	0.	266.7	1158.8
1	0314	195	0.	0.0	1143.0	*	1	0915	556	0.	255.2	1158.6	*	1	1516 917	0.	266.7	1158.8
1	0315	196	0.	0.0	1143.0	*	1	0916	557	0.	255.3	1158.6	*	1	1517 918	0.	266.7	1158.8
1	0316	197	0.	0.0	1143.0	*	1	0917	558	0.	255.4	1158.6	*	1	1518 919	0.	266.8	1158.8
1	0317	198	0.	0.0	1143.0	*	1	0918	559	0.	255.5	1158.6	*	1	1519 920	0.	266.8	1158.8
1	0318	199	0.	0.0	1143.0	*	1	0919	560	0.	255.6	1158.6	*	1	1520 921	0.	266.8	1158.8
1	0319	200	0.	0.0	1143.0	*	1	0920	561	0.	255.7	1158.6	*	1	1521 922	0.	266.8	1158.8
1	0320	201	0.	0.0	1143.0	*	1	0921	562	0.	255.7	1158.6	*	1	1522 923	0.	266.8	1158.8
1	0321	202	0.	0.0	1143.0	*	1	0922	563	0.	255.8	1158.6	*	1	1523 924	0.	266.8	1158.8
1	0322	203	0.	0.0	1143.0	*	1	0923	564	0.	255.9	1158.6	*	1	1524 925	0.	266.8	1158.8
1	0323	204	0.	0.0	1143.0	*	1	0924	565	0.	256.0	1158.6	*	1	1525 926	0.	266.8	1158.8
1	0324	205	0.	0.0	1143.0	*	1	0925	566	0.	256.1	1158.6	*	1	1526 927	0.	266.8	1158.8
1	0325	206	0.	0.0	1143.0	*	1	0926	567	0.	256.2	1158.6	*	1	1527 928	0.	266.8	1158.8
1	0326	207	0.	0.0	1143.0	*	1	0927	568	0.	256.3	1158.6	*	1	1528 929	0.	266.8	1158.8
1	0327	208	0.	0.0	1143.0	*	1	0928	569	0.	256.4	1158.6	*	1	1529 930	0.	266.9	1158.8
1	0328	209	0.	0.0	1143.0	*	1	0929	570	0.	256.4	1158.6	*	1	1530 931	0.	266.9	1158.8
1	0329	210	0.	0.0	1143.0	*	1	0930	571	0.	256.5	1158.6	*	1	1531 932	0.	266.9	1158.8
1	0330	211	0.	0.0	1143.0	*	1	0931	572	0.	256.6	1158.6	*	1	1532 933	0.	266.9	1158.8
1	0331	212	0.	0.0	1143.0	*	1	0932	573	0.	256.7	1158.6	*	1	1533 934	0.	266.9	1158.8
1	0332	213	0.	0.0	1143.0	*	1	0933	574	0.	256.8	1158.6	*	1	1534 935	0.	266.9	1158.8
1	0333	214	0.	0.0	1143.0	*	1	0934	575	0.	256.9	1158.6	*	1	1535 936	0.	266.9	1158.8
1	0334	215	0.	0.0	1143.0	*	1	0935	576	0.	257.0	1158.6	*	1	1536 937	0.	266.9	1158.8
1	0335	216	0.	0.0	1143.0	*	1	0936	577	0.	257.0	1158.6	*	1	1537 938	0.	266.9	1158.8
1	0336	217	0.	0.0	1143.0	*	1	0937	578	0.	257.1	1158.6	*	1	1538 939	0.	266.9	1158.8
1	0337	218	0.	0.0	1143.0	*	1	0938	579	0.	257.2	1158.6	*	1	1539 940	0.	267.0	1158.8
1	0338	219	0.	0.0	1143.0	*	1	0939	580	0.	257.3	1158.6	*	1	1540 941	0.	267.0	1158.8
1	0339	220	0.	0.0	1143.0	*	1	0940	581	0.	257.4	1158.6	*	1	1541 942	0.	267.0	1158.8
1	0340	221	0.	0.0	1143.0	*	1	0941	582	0.	257.5	1158.6	*	1	1542 943	0.	267.0	1158.8
1	0341	222	0.	0.0	1143.0	*	1	0942	583	0.	257.5	1158.6	*	1	1543 944	0.	267.0	1158.8
1	0342	223	0.	0.0	1143.0	*	1	0943	584	0.	257.6	1158.6	*	1	1544 945	0.	267.0	1158.8
1	0343	224	0.	0.0	1143.0	*	1	0944	585	0.	257.7	1158.6	*	1	1545 946	0.	267.0	1158.8
1	0344	225	0.	0.0	1143.0	*	1	0945	586	0.	257.8	1158.6	*	1	1546 947	0.	267.0	1158.8
1	0345	226	0.	0.0	1143.0	*	1	0946	587	0.	257.9	1158.6	*	1	1547 948	0.	267.0	1158.8
1	0346	227	0.	0.0	1143.0	*	1	0947	588	0.	257.9	1158.6	*	1	1548 949	0.	267.0	1158.8
1	0347	228	0.	0.0	1143.0	*	1	0948	589	0.	258.0	1158.6	*	1	1549 950	0.	267.0	1158.8
1	0348	229	0.	0.0	1143.0	*	1	0949	590	0.	258.1	1158.6	*	1	1550 951	0.	267.1	1158.8
1	0349	230	0.	0.0	1143.0	*	1	0950	591	0.	258.2	1158.6	*	1	1551 952	0.	267.1	1158.8
1	0350	231	0.	0.0	1143.0	*	1	0951	592	0.	258.3	1158.6	*	1	1552 953	0.	267.1	1158.8
1	0351	232	0.	0.0	1143.0	*	1	0952	593	0.	258.3	1158.6	*	1	1553 954	0.	267.1	1158.8
1	0352	233	0.	0.0	1143.0	*	1	0953	594	0.	258.4	1158.6	*	1	1554 955	0.	267.1	1158.8
1	0353	234	0.	0.0	1143.0	*	1	0954	595	0.	258.5	1158.6	*	1	1555 956	0.	267.1	1158.8
1	0354	235	0.	0.0	1143.0	*	1	0955	596	0.	258.6	1158.7	*	1	1556 957	0.	267.1	1158.8
1	0355	236	0.	0.0	1143.0	*	1	0956	597	0.	258.7	1158.7	*	1	1557 958	0.	267.1	1158.8
1	0356	237	0.	0.0	1143.0	*	1	0957	598	0.	258.7	1158.7	*	1	1558 959	0.	267.1	1158.8
1	0357	238	0.	0.0	1143.0	*	1	0958	599	0.	258.8	1158.7	*	1	1559 960	0.	267.1	1158.8
1	0358	239	0.	0.0	1143.0	*	1	0959	600	0.	258.9	1158.7	*	1	1600 961	0.	267.1	1158.8

1	0359	240	0.	0.0	1143.0	*	1	1000	601	0.	259.0	1158.7	*	1	1601	962	0.	267.2	1158.8
1	0400	241	0.	0.0	1143.0	*	1	1001	602	0.	259.0	1158.7	*	1	1602	963	0.	267.2	1158.8
1	0401	242	0.	0.0	1143.0	*	1	1002	603	0.	259.1	1158.7	*	1	1603	964	0.	267.2	1158.8
1	0402	243	0.	0.0	1143.0	*	1	1003	604	0.	259.2	1158.7	*	1	1604	965	0.	267.2	1158.8
1	0403	244	0.	0.9	1146.1	*	1	1004	605	0.	259.2	1158.7	*	1	1605	966	0.	267.2	1158.8
1	0404	245	0.	3.1	1147.0	*	1	1005	606	0.	259.3	1158.7	*	1	1606	967	0.	267.2	1158.8
1	0405	246	0.	5.9	1147.7	*	1	1006	607	0.	259.4	1158.7	*	1	1607	968	0.	267.2	1158.8
1	0406	247	0.	8.7	1148.4	*	1	1007	608	0.	259.4	1158.7	*	1	1608	969	0.	267.2	1158.8
1	0407	248	0.	11.5	1149.1	*	1	1008	609	0.	259.5	1158.7	*	1	1609	970	0.	267.2	1158.8
1	0408	249	0.	14.4	1149.8	*	1	1009	610	0.	259.6	1158.7	*	1	1610	971	0.	267.2	1158.8
1	0409	250	0.	17.2	1150.1	*	1	1010	611	0.	259.6	1158.7	*	1	1611	972	0.	267.2	1158.8
1	0410	251	0.	20.1	1150.3	*	1	1011	612	0.	259.7	1158.7	*	1	1612	973	0.	267.3	1158.8
1	0411	252	0.	22.9	1150.4	*	1	1012	613	0.	259.7	1158.7	*	1	1613	974	0.	267.3	1158.8
1	0412	253	0.	25.8	1150.6	*	1	1013	614	0.	259.8	1158.7	*	1	1614	975	0.	267.3	1158.8
1	0413	254	0.	28.6	1150.7	*	1	1014	615	0.	259.9	1158.7	*	1	1615	976	0.	267.3	1158.8
1	0414	255	0.	31.4	1150.9	*	1	1015	616	0.	259.9	1158.7	*	1	1616	977	0.	267.3	1158.8
1	0415	256	0.	34.2	1151.0	*	1	1016	617	0.	260.0	1158.7	*	1	1617	978	0.	267.3	1158.8
1	0416	257	0.	37.0	1151.2	*	1	1017	618	0.	260.0	1158.7	*	1	1618	979	0.	267.3	1158.8
1	0417	258	0.	39.8	1151.3	*	1	1018	619	0.	260.1	1158.7	*	1	1619	980	0.	267.3	1158.8
1	0418	259	0.	42.5	1151.5	*	1	1019	620	0.	260.1	1158.7	*	1	1620	981	0.	267.3	1158.8
1	0419	260	0.	45.2	1151.6	*	1	1020	621	0.	260.2	1158.7	*	1	1621	982	0.	267.3	1158.8
1	0420	261	0.	47.9	1151.8	*	1	1021	622	0.	260.3	1158.7	*	1	1622	983	0.	267.3	1158.8
1	0421	262	0.	50.6	1151.9	*	1	1022	623	0.	260.3	1158.7	*	1	1623	984	0.	267.4	1158.8
1	0422	263	0.	53.2	1152.0	*	1	1023	624	0.	260.4	1158.7	*	1	1624	985	0.	267.4	1158.8
1	0423	264	0.	55.7	1152.2	*	1	1024	625	0.	260.4	1158.7	*	1	1625	986	0.	267.4	1158.8
1	0424	265	0.	58.2	1152.3	*	1	1025	626	0.	260.5	1158.7	*	1	1626	987	0.	267.4	1158.8
1	0425	266	0.	60.7	1152.4	*	1	1026	627	0.	260.5	1158.7	*	1	1627	988	0.	267.4	1158.8
1	0426	267	0.	63.2	1152.6	*	1	1027	628	0.	260.6	1158.7	*	1	1628	989	0.	267.4	1158.8
1	0427	268	0.	65.6	1152.7	*	1	1028	629	0.	260.6	1158.7	*	1	1629	990	0.	267.4	1158.8
1	0428	269	0.	68.0	1152.8	*	1	1029	630	0.	260.7	1158.7	*	1	1630	991	0.	267.4	1158.8
1	0429	270	0.	70.3	1152.9	*	1	1030	631	0.	260.7	1158.7	*	1	1631	992	0.	267.4	1158.8
1	0430	271	0.	72.6	1153.1	*	1	1031	632	0.	260.8	1158.7	*	1	1632	993	0.	267.4	1158.8
1	0431	272	0.	74.8	1153.2	*	1	1032	633	0.	260.8	1158.7	*	1	1633	994	0.	267.4	1158.8
1	0432	273	0.	77.1	1153.3	*	1	1033	634	0.	260.9	1158.7	*	1	1634	995	0.	267.5	1158.8
1	0433	274	0.	79.4	1153.4	*	1	1034	635	0.	260.9	1158.7	*	1	1635	996	0.	267.5	1158.8
1	0434	275	0.	81.9	1153.6	*	1	1035	636	0.	261.0	1158.7	*	1	1636	997	0.	267.5	1158.8
1	0435	276	0.	84.4	1153.7	*	1	1036	637	0.	261.0	1158.7	*	1	1637	998	0.	267.5	1158.8
1	0436	277	0.	87.2	1153.8	*	1	1037	638	0.	261.1	1158.7	*	1	1638	999	0.	267.5	1158.8
1	0437	278	0.	90.0	1154.0	*	1	1038	639	0.	261.1	1158.7	*	1	16391000		0.	267.5	1158.8
1	0438	279	0.	92.9	1154.1	*	1	1039	640	0.	261.2	1158.7	*	1	16401001		0.	267.5	1158.8
1	0439	280	0.	95.8	1154.3	*	1	1040	641	0.	261.2	1158.7	*	1	16411002		0.	267.5	1158.8
1	0440	281	0.	98.7	1154.5	*	1	1041	642	0.	261.3	1158.7	*	1	16421003		0.	267.5	1158.8
1	0441	282	0.	101.6	1154.6	*	1	1042	643	0.	261.3	1158.7	*	1	16431004		0.	267.5	1158.8
1	0442	283	0.	104.4	1154.8	*	1	1043	644	0.	261.4	1158.7	*	1	16441005		0.	267.5	1158.8
1	0443	284	0.	107.3	1154.9	*	1	1044	645	0.	261.4	1158.7	*	1	16451006		0.	267.5	1158.8
1	0444	285	0.	110.0	1155.0	*	1	1045	646	0.	261.4	1158.7	*	1	16461007		0.	267.6	1158.8
1	0445	286	0.	112.8	1155.1	*	1	1046	647	0.	261.5	1158.7	*	1	16471008		0.	267.6	1158.8
1	0446	287	0.	115.5	1155.2	*	1	1047	648	0.	261.5	1158.7	*	1	16481009		0.	267.6	1158.8
1	0447	288	0.	118.1	1155.2	*	1	1048	649	0.	261.6	1158.7	*	1	16491010		0.	267.6	1158.8
1	0448	289	0.	120.7	1155.3	*	1	1049	650	0.	261.6	1158.7	*	1	16501011		0.	267.6	1158.8
1	0449	290	0.	123.2	1155.4	*	1	1050	651	0.	261.7	1158.7	*	1	16511012		0.	267.6	1158.8
1	0450	291	0.	125.6	1155.4	*	1	1051	652	0.	261.7	1158.7	*	1	16521013		0.	267.6	1158.8
1	0451	292	0.	128.1	1155.5	*	1	1052	653	0.	261.7	1158.7	*	1	16531014		0.	267.6	1158.8
1	0452	293	0.	130.5	1155.5	*	1	1053	654	0.	261.8	1158.7	*	1	16541015		0.	267.6	1158.8
1	0453	294	0.	132.9	1155.6	*	1	1054	655	0.	261.8	1158.7	*	1	16551016		0.	267.6	1158.8
1	0454	295	0.	135.2	1155.7	*	1	1055	656	0.	261.9	1158.7	*	1	16561017		0.	267.6	1158.8
1	0455	296	0.	137.4	1155.7	*	1	1056	657	0.	261.9	1158.7	*	1	16571018		0.	267.6	1158.8
1	0456	297	0.	139.6	1155.8	*	1	1057	658	0.	261.9	1158.7	*	1	16581019		0.	267.7	1158.8
1	0457	298	0.	141.7	1155.8	*	1	1058	659	0.	262.0	1158.7	*	1	16591020		0.	267.7	1158.8
1	0458	299	0.	143.7	1155.9	*	1	1059	660	0.	262.0	1158.7	*	1	17001021		0.	267.7	1158.8
1	0459	300	0.	145.7	1155.9	*	1	1100	661	0.	262.1	1158.7	*	1	17011022		0.	267.7	1158.8
1	0500	301	0.	147.7	1156.0	*	1	1101	662	0.	262.1	1158.7	*	1	17021023		0.	267.7	1158.8
1	0501	302	0.	149.6	1156.0	*	1	1102	663	0.	262.1	1158.7	*	1	17031024		0.	267.7	1158.8
1	0502	303	0.	151.5	1156.1	*	1	1103	664	0.	262.2	1158.7	*	1	17041025		0.	267.7	1158.8
1	0503	304	0.	153.4	1156.1	*	1	1104	665	0.	262.2	1158.7	*	1	17051026		0.	267.7	1158.8
1	0504	305	0.	155.3	1156.2	*	1	1105	666	0.	262.2	1158.7	*	1	17061027		0.	267.7	1158.8
1	0505	306	0.	157.1	1156.2	*	1	1106	667	0.	262.3	1158.7	*	1	17071028		0.	267.7	1158.8

1	0506	307	0.	158.8	1156.3 *	1	1107	668	0.	262.3	1158.7 *	1	17081029	0.	267.7	1158.8
1	0507	308	0.	160.5	1156.3 *	1	1108	669	0.	262.4	1158.7 *	1	17091030	0.	267.7	1158.8
1	0508	309	0.	162.2	1156.3 *	1	1109	670	0.	262.4	1158.7 *	1	17101031	0.	267.8	1158.8
1	0509	310	0.	163.8	1156.4 *	1	1110	671	0.	262.4	1158.7 *	1	17111032	0.	267.8	1158.8
1	0510	311	0.	165.4	1156.4 *	1	1111	672	0.	262.5	1158.7 *	1	17121033	0.	267.8	1158.8
1	0511	312	0.	166.9	1156.5 *	1	1112	673	0.	262.5	1158.7 *	1	17131034	0.	267.8	1158.8
1	0512	313	0.	168.4	1156.5 *	1	1113	674	0.	262.5	1158.7 *	1	17141035	0.	267.8	1158.8
1	0513	314	0.	169.9	1156.5 *	1	1114	675	0.	262.6	1158.7 *	1	17151036	0.	267.8	1158.8
1	0514	315	0.	171.4	1156.6 *	1	1115	676	0.	262.6	1158.7 *	1	17161037	0.	267.8	1158.8
1	0515	316	0.	172.9	1156.6 *	1	1116	677	0.	262.6	1158.7 *	1	17171038	0.	267.8	1158.8
1	0516	317	0.	174.3	1156.6 *	1	1117	678	0.	262.7	1158.7 *	1	17181039	0.	267.8	1158.8
1	0517	318	0.	175.6	1156.7 *	1	1118	679	0.	262.7	1158.7 *	1	17191040	0.	267.8	1158.8
1	0518	319	0.	177.0	1156.7 *	1	1119	680	0.	262.7	1158.7 *	1	17201041	0.	267.8	1158.8
1	0519	320	0.	178.2	1156.7 *	1	1120	681	0.	262.8	1158.7 *	1	17211042	0.	267.8	1158.8
1	0520	321	0.	179.5	1156.8 *	1	1121	682	0.	262.8	1158.7 *	1	17221043	0.	267.9	1158.8
1	0521	322	0.	180.7	1156.8 *	1	1122	683	0.	262.8	1158.7 *	1	17231044	0.	267.9	1158.8
1	0522	323	0.	181.9	1156.8 *	1	1123	684	0.	262.9	1158.7 *	1	17241045	0.	267.9	1158.8
1	0523	324	0.	183.1	1156.9 *	1	1124	685	0.	262.9	1158.7 *	1	17251046	0.	267.9	1158.8
1	0524	325	0.	184.2	1156.9 *	1	1125	686	0.	262.9	1158.7 *	1	17261047	0.	267.9	1158.8
1	0525	326	0.	185.4	1156.9 *	1	1126	687	0.	262.9	1158.7 *	1	17271048	0.	267.9	1158.8
1	0526	327	0.	186.5	1157.0 *	1	1127	688	0.	263.0	1158.7 *	1	17281049	0.	267.9	1158.8
1	0527	328	0.	187.5	1157.0 *	1	1128	689	0.	263.0	1158.7 *	1	17291050	0.	267.9	1158.8
1	0528	329	0.	188.6	1157.0 *	1	1129	690	0.	263.0	1158.7 *	1	17301051	0.	267.9	1158.8
1	0529	330	0.	189.6	1157.0 *	1	1130	691	0.	263.1	1158.7 *	1	17311052	0.	267.9	1158.8
1	0530	331	0.	190.7	1157.1 *	1	1131	692	0.	263.1	1158.7 *	1	17321053	0.	267.9	1158.8
1	0531	332	0.	191.8	1157.1 *	1	1132	693	0.	263.1	1158.7 *	1	17331054	0.	267.9	1158.8
1	0532	333	0.	192.8	1157.1 *	1	1133	694	0.	263.2	1158.7 *	1	17341055	0.	268.0	1158.8
1	0533	334	0.	193.8	1157.1 *	1	1134	695	0.	263.2	1158.7 *	1	17351056	0.	268.0	1158.9
1	0534	335	0.	194.7	1157.2 *	1	1135	696	0.	263.2	1158.7 *	1	17361057	0.	268.0	1158.9
1	0535	336	0.	195.7	1157.2 *	1	1136	697	0.	263.2	1158.7 *	1	17371058	0.	268.0	1158.9
1	0536	337	0.	196.6	1157.2 *	1	1137	698	0.	263.3	1158.8 *	1	17381059	0.	268.0	1158.9
1	0537	338	0.	197.5	1157.2 *	1	1138	699	0.	263.3	1158.8 *	1	17391060	0.	268.0	1158.9
1	0538	339	0.	198.3	1157.3 *	1	1139	700	0.	263.3	1158.8 *	1	17401061	0.	268.0	1158.9
1	0539	340	0.	199.2	1157.3 *	1	1140	701	0.	263.3	1158.8 *	1	17411062	0.	268.0	1158.9
1	0540	341	0.	200.0	1157.3 *	1	1141	702	0.	263.4	1158.8 *	1	17421063	0.	268.0	1158.9
1	0541	342	0.	200.9	1157.3 *	1	1142	703	0.	263.4	1158.8 *	1	17431064	0.	268.0	1158.9
1	0542	343	0.	201.7	1157.3 *	1	1143	704	0.	263.4	1158.8 *	1	17441065	0.	268.0	1158.9
1	0543	344	0.	202.5	1157.4 *	1	1144	705	0.	263.5	1158.8 *	1	17451066	0.	268.0	1158.9
1	0544	345	0.	203.3	1157.4 *	1	1145	706	0.	263.5	1158.8 *	1	17461067	0.	268.0	1158.9
1	0545	346	0.	204.1	1157.4 *	1	1146	707	0.	263.5	1158.8 *	1	17471068	0.	268.1	1158.9
1	0546	347	0.	204.8	1157.4 *	1	1147	708	0.	263.5	1158.8 *	1	17481069	0.	268.1	1158.9
1	0547	348	0.	205.6	1157.4 *	1	1148	709	0.	263.6	1158.8 *	1	17491070	0.	268.1	1158.9
1	0548	349	0.	206.4	1157.5 *	1	1149	710	0.	263.6	1158.8 *	1	17501071	0.	268.1	1158.9
1	0549	350	0.	207.2	1157.5 *	1	1150	711	0.	263.6	1158.8 *	1	17511072	0.	268.1	1158.9
1	0550	351	0.	208.0	1157.5 *	1	1151	712	0.	263.6	1158.8 *	1	17521073	0.	268.1	1158.9
1	0551	352	0.	208.7	1157.5 *	1	1152	713	0.	263.7	1158.8 *	1	17531074	0.	268.1	1158.9
1	0552	353	0.	209.5	1157.5 *	1	1153	714	0.	263.7	1158.8 *	1	17541075	0.	268.1	1158.9
1	0553	354	0.	210.2	1157.6 *	1	1154	715	0.	263.7	1158.8 *	1	17551076	0.	268.1	1158.9
1	0554	355	0.	210.9	1157.6 *	1	1155	716	0.	263.7	1158.8 *	1	17561077	0.	268.1	1158.9
1	0555	356	0.	211.6	1157.6 *	1	1156	717	0.	263.8	1158.8 *	1	17571078	0.	268.1	1158.9
1	0556	357	0.	212.2	1157.6 *	1	1157	718	0.	263.8	1158.8 *	1	17581079	0.	268.1	1158.9
1	0557	358	0.	212.9	1157.6 *	1	1158	719	0.	263.8	1158.8 *	1	17591080	0.	268.1	1158.9
1	0558	359	0.	213.6	1157.6 *	1	1159	720	0.	263.8	1158.8 *	1	18001081	0.	268.2	1158.9
1	0559	360	0.	214.2	1157.7 *	1	1200	721	0.	263.9	1158.8 *					
1	0600	361	0.	214.9	1157.7 *	1	1201	722	0.	263.9	1158.8 *					
					*						*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	18.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 0.	0.00		0.	0.	0.	0.
		(INCHES)	0.000	0.000	0.000	0.000
		(AC-FT)	0.	0.	0.	0.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE

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                                        6-HR       24-HR       72-HR     18.00-HR
+  (AC-FT)      (HR)
     268.     18.00                     266.        187.        187.        187.

  PEAK STAGE    TIME                            MAXIMUM AVERAGE STAGE
                                        6-HR       24-HR       72-HR     18.00-HR
+   (FEET)      (HR)
   1158.85     18.00                  1158.82     1154.74     1154.74     1154.74

                          CUMULATIVE AREA =    4.54 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
 1212 KK    *      STFF  *
            *            *
            **************

 1214 KO          OUTPUT CONTROL VARIABLES
                        IPRNT          3  PRINT CONTROL
                        IPLOT          0  PLOT CONTROL
                        QSCAL         0.  HYDROGRAPH PLOT SCALE

                HYDROGRAPH ROUTING DATA

 1215 RS          STORAGE ROUTING
                        NSTPS          1  NUMBER OF SUBREACHES
                         ITYP       STOR  TYPE OF INITIAL CONDITION
                        RSVRIC      0.00  INITIAL CONDITION
                             X      0.00 WORKING R AND D COEFFICIENT

 1216 SV            STORAGE        0.0      37.6

 1217 SQ          DISCHARGE         0.        0.

 1218 SE          ELEVATION    1144.00   1158.00
                                                                  ***

      ***            ***            ***            ***            ***

                        HYDROGRAPH AT STATION     STFF

  PEAK FLOW     TIME                            MAXIMUM AVERAGE FLOW
                                        6-HR       24-HR       72-HR     18.00-HR
+   (CFS)       (HR)
                                     (CFS)
+       0.      0.00                     0.          0.          0.          0.
                                  (INCHES)     0.000       0.000       0.000       0.000
                                   (AC-FT)        0.          0.          0.          0.

 PEAK STORAGE   TIME                           MAXIMUM AVERAGE STORAGE
                                        6-HR       24-HR       72-HR     18.00-HR
+  (AC-FT)      (HR)
       38.      4.07                    38.         30.         30.         30.

  PEAK STAGE    TIME                            MAXIMUM AVERAGE STAGE
                                        6-HR       24-HR       72-HR     18.00-HR
+   (FEET)      (HR)
   1158.00      4.07                  1158.00     1155.02     1155.02     1155.02

                          CUMULATIVE AREA =    0.00 SQ MI
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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	M1	447.	4.13	80.	27.	27.	0.28		
+	ROUTED TO	RtC1	440.	4.18	80.	27.	27.	0.28	2.64	4.18
+	HYDROGRAPH AT	M2	337.	4.07	57.	19.	19.	0.20		
+	ROUTED TO	RtC2	336.	4.10	57.	19.	19.	0.20	3.24	4.10
+	HYDROGRAPH AT	A1	39.	4.10	6.	2.	2.	0.04		
+	3 COMBINED AT	COMB1	804.	4.13	143.	48.	48.	0.52		
+	DIVERSION TO	Splt1	482.	4.13	86.	29.	29.	0.52		
+	HYDROGRAPH AT	Splt1	321.	4.13	57.	19.	19.	0.52		
+	ROUTED TO	RtC3	321.	4.15	57.	19.	19.	0.52	1.95	4.15
+	HYDROGRAPH AT	M3	53.	4.00	8.	3.	3.	0.03		
+	ROUTED TO	RtC4	52.	4.00	8.	3.	3.	0.03	1.66	4.00
+	HYDROGRAPH AT	A2	21.	4.05	3.	1.	1.	0.02		
+	3 COMBINED AT	COMB2	377.	4.12	69.	23.	23.	0.57		
+	ROUTED TO	RtC5	373.	4.17	69.	23.	23.	0.57	2.04	4.17
+	HYDROGRAPH AT	M4	485.	4.42	109.	36.	36.	0.38		
+	ROUTED TO	RtR1	485.	4.43	109.	36.	36.	0.38	1.93	4.43
+	HYDROGRAPH AT	A3	37.	4.07	5.	2.	2.	0.04		

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+          HYDROGRAPH AT
                          A4      78.   4.07      12.     4.     4.   0.07
+          4 COMBINED AT
                       COMB3     900.   4.28     194.    65.    65.   1.05
+          DIVERSION TO
                        RET1      50.   4.28       6.     2.     2.   1.05
+          HYDROGRAPH AT
                        RET1     850.   4.28     188.    63.    63.   1.05
+          ROUTED TO
+                        RtC6     849.   4.32     188.    63.    63.   1.05
+                                                                      3.33      4.32
+          HYDROGRAPH AT
                          A5      37.   4.07       5.     2.     2.   0.03
+          2 COMBINED AT
                       COMB4     875.   4.30     194.    65.    65.   1.08
+          DIVERSION TO
                       Splt2     263.   4.30      58.    19.    19.   1.08
+          HYDROGRAPH AT
                       Splt2     613.   4.30     136.    45.    45.   1.08
+          ROUTED TO
+                        RtC7     608.   4.35     136.    45.    45.   1.08
+                                                                      4.01      4.35
+          HYDROGRAPH AT
                         A6b      22.   4.07       3.     1.     1.   0.02
+          ROUTED TO
+                        RtR2      22.   4.10       3.     1.     1.   0.02
+                                                                      1.09      4.10
+          HYDROGRAPH AT
                          R1      12.   4.03       2.     1.     1.   0.01
+          2 COMBINED AT
                       Comb5      34.   4.08       6.     2.     2.   0.03
+          DIVERSION TO
                       DivR1      34.   0.00       6.     2.     2.   0.03
+          HYDROGRAPH AT
                       DivR1       0.   0.00       0.     0.     0.   0.03
+          HYDROGRAPH AT
                         A6a      43.   4.08       7.     2.     2.   0.04
+          ROUTED TO
+                        RtC8      42.   4.13       7.     2.     2.   0.04
+                                                                      1.91      4.13
+          HYDROGRAPH AT
                          A7      10.   4.05       1.     0.     0.   0.01
+          4 COMBINED AT
                       Comb6     649.   4.33     144.    48.    48.   1.15
+          ROUTED TO
+                        RtC9     647.   4.37     144.    48.    48.   1.15
+                                                                      4.67      4.37
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+          HYDROGRAPH AT
                          A8      62.   4.13      10.      3.      3.   0.06
+          HYDROGRAPH AT
                          R2      11.   4.02       2.      1.      1.   0.01
+          HYDROGRAPH AT
                         A29       8.   4.03       1.      0.      0.   0.01
+          4 COMBINED AT
                       COMB7     709.   4.33     156.     52.     52.   1.23
+          ROUTED TO
+                       RtC10     708.   4.37     156.     52.     52.   1.23
+                                                                          4.80      4.37
+          HYDROGRAPH AT
                          A9      45.   4.12       7.      2.      2.   0.04
+          HYDROGRAPH AT
                         A30       8.   4.03       1.      0.      0.   0.01
+          3 COMBINED AT
                       COMB8     748.   4.35     165.     55.     55.   1.27
+          DIVERSION TO
                       Splt3     140.   4.35      41.     14.     14.   1.27
+          HYDROGRAPH AT
                       SPLT3     608.   4.35     124.     41.     41.   1.27
+          ROUTED TO
+                       RtC11     605.   4.38     123.     41.     41.   1.27
+                                                                          4.55      4.38
+          HYDROGRAPH AT
                         A11      39.   4.08       6.      2.      2.   0.03
+          HYDROGRAPH AT
                         A12       3.   4.02       0.      0.      0.   0.00
+          DIVERSION TO
                       DvA12       3.   4.02       0.      0.      0.   0.00
+          HYDROGRAPH AT
                       DvA12       3.   4.02       0.      0.      0.   0.00
+          2 COMBINED AT
                       Comb9      41.   4.07       6.      2.      2.   0.04
+          ROUTED TO
+                        RtR3      38.   4.15       6.      2.      2.   0.04
+                                                                          1.19      4.15
+          HYDROGRAPH AT
                         A10      51.   4.05       8.      3.      3.   0.04
+          DIVERSION TO
                       DvA10      51.   4.25       4.      1.      1.   0.04
+          HYDROGRAPH AT
                       DvA10      39.   4.25       3.      1.      1.   0.04
+          HYDROGRAPH AT
                          R3      12.   4.05       2.      1.      1.   0.01
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+	HYDROGRAPH AT	R4	9.	4.02	2.	1.	1.	0.00	
+	5 COMBINED AT	Comb10	683.	4.33	136.	46.	46.	1.36	
+	ROUTED TO	RtC12	682.	4.37	136.	46.	46.	1.36	
+									4.80 4.37
+	HYDROGRAPH AT	RetR1	34.	4.08	6.	2.	2.	0.00	
+	ROUTED TO	RtR4	30.	4.20	6.	2.	2.	0.00	
+									1.14 4.20
+	HYDROGRAPH AT	R6	15.	4.10	3.	1.	1.	0.01	
+	HYDROGRAPH AT	A13	1.	4.00	0.	0.	0.	0.00	
+	DIVERSION TO	DvA13	1.	0.00	0.	0.	0.	0.00	
+	HYDROGRAPH AT	DvA13	0.	0.00	0.	0.	0.	0.00	
+	3 COMBINED AT	Comb11	44.	4.17	8.	3.	3.	0.01	
+	ROUTED TO	RtC13	43.	4.22	8.	3.	3.	0.01	
+									1.99 4.22
+	HYDROGRAPH AT	A14	64.	4.18	10.	3.	3.	0.08	
+	DIVERSION TO	DvA14	64.	4.93	9.	3.	3.	0.08	
+	HYDROGRAPH AT	DvA14	18.	4.93	2.	1.	1.	0.08	
+	HYDROGRAPH AT	R7a	7.	4.00	1.	0.	0.	0.00	
+	3 COMBINED AT	Comb12	48.	4.22	12.	4.	4.	0.09	
+	ROUTED TO	RtC14	47.	4.27	12.	4.	4.	0.09	
+									2.05 4.27
+	HYDROGRAPH AT	A15	67.	4.02	10.	3.	3.	0.05	
+	HYDROGRAPH AT	A31	8.	4.03	1.	0.	0.	0.00	
+	HYDROGRAPH AT	R7b	7.	4.00	1.	0.	0.	0.00	
+	HYDROGRAPH AT	R5	7.	4.00	1.	0.	0.	0.00	

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+          6 COMBINED AT
                          Comb13    774.   4.32     161.    54.    54.   1.51
+          ROUTED TO
                          RtC15     773.   4.33     161.    54.    54.   1.51
+                                                                        4.55      4.33
+          ROUTED TO
                          RtR5      771.   4.35     161.    54.    54.   1.51
+                                                                        1.91      4.35
+          HYDROGRAPH AT
                          R12A        9.   4.02       2.     1.     1.   0.00
+          HYDROGRAPH AT
                          A16        24.   4.02       4.     1.     1.   0.01
+          DIVERSION TO
                          DvA16      24.   4.30       3.     1.     1.   0.01
+          HYDROGRAPH AT
                          DvA16      15.   4.30       1.     0.     0.   0.01
+          HYDROGRAPH AT
                          A17        89.   4.13      15.     5.     5.   0.07
+          4 COMBINED AT
                          Comb14    862.   4.33     178.    60.    60.   1.60
+          ROUTED TO
                          RtR6      860.   4.37     178.    60.    60.   1.60
+                                                                        1.97      4.37
+          DIVERSION TO
                          48-Est    430.   4.37      89.    30.    30.   1.60
+          HYDROGRAPH AT
                          48-Sth    430.   4.37      89.    30.    30.   1.60
+          HYDROGRAPH AT
                          A18         6.   4.02       1.     0.     0.   0.00
+          HYDROGRAPH AT
                          R8          5.   4.00       1.     0.     0.   0.00
+          2 COMBINED AT
                          Comb15     12.   4.02       2.     1.     1.   0.01
+          ROUTED TO
                          RtR7       11.   4.05       2.     1.     1.   0.01
+                                                                        1.07      4.05
+          HYDROGRAPH AT
                          R9          4.   4.00       1.     0.     0.   0.00
+          HYDROGRAPH AT
                          A19        42.   4.13       7.     2.     2.   0.04
+          3 COMBINED AT
                          Comb16     56.   4.10       9.     3.     3.   0.05
+          ROUTED TO
                          RtR8       55.   4.13       9.     3.     3.   0.05
+                                                                        1.20      4.13
+          HYDROGRAPH AT
                          A20        24.   4.07       4.     1.     1.   0.02
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+	DIVERSION TO	DvA20	24.	4.40	2.	1.	1.	0.02	
+	HYDROGRAPH AT	DvA20	14.	4.40	1.	0.	0.	0.02	
+	HYDROGRAPH AT	R10	7.	4.00	1.	0.	0.	0.00	
+	3 COMBINED AT	Comb17	61.	4.10	12.	4.	4.	0.07	
+	ROUTED TO	RtR9	57.	4.22	12.	4.	4.	0.07	
+									1.19 4.22
+	HYDROGRAPH AT	A21	79.	4.20	13.	4.	4.	0.08	
+	DIVERSION TO	21-Est	70.	4.20	13.	4.	4.	0.08	
+	HYDROGRAPH AT	21-Sth	9.	4.20	0.	0.	0.	0.08	
+	ROUTED TO	RtR10	5.	4.32	0.	0.	0.	0.08	
+									1.05 4.32
+	HYDROGRAPH AT	R11	13.	4.08	3.	1.	1.	0.01	
+	HYDROGRAPH AT	A22	53.	4.02	8.	3.	3.	0.03	
+	DIVERSION TO	DvA22	53.	4.28	6.	2.	2.	0.03	
+	HYDROGRAPH AT	DvA22	34.	4.28	2.	1.	1.	0.03	
+	HYDROGRAPH AT	R12b	9.	4.02	2.	1.	1.	0.00	
+	HYDROGRAPH AT	Retn48	430.	4.37	89.	30.	30.	0.00	
+	6 COMBINED AT	Comb18	532.	4.33	107.	36.	36.	0.19	
+	DIVERSION TO	RayEst	140.	4.33	59.	20.	20.	0.19	
+	HYDROGRAPH AT	RaySth	392.	4.33	48.	16.	16.	0.19	
+	2 COMBINED AT	Comb19	821.	4.35	137.	46.	46.	1.80	
+	ROUTED TO	RtC16	813.	4.38	137.	46.	46.	1.80	
+									3.51 4.38
+	HYDROGRAPH AT	A27	39.	4.47	9.	3.	3.	0.04	

+	ROUTED TO	RtC17	38.	4.53	9.	3.	3.	0.04		
+									1.29	4.53
+	HYDROGRAPH AT	A28	197.	4.35	37.	12.	12.	0.22		
+	HYDROGRAPH AT	R13	12.	4.12	2.	1.	1.	0.01		
+	4 COMBINED AT	Comb20	1054.	4.38	185.	62.	62.	2.06		
+	ROUTED TO	RET2	942.	4.55	167.	59.	59.	2.06		
+									20.53	4.55
+	DIVERSION TO	South	85.	4.55	70.	26.	26.	2.06		
+	HYDROGRAPH AT	East	857.	4.55	97.	32.	32.	2.06		
+	ROUTED TO	RtEAST	853.	4.60	97.	32.	32.	2.06		
+									3.61	4.60
+	HYDROGRAPH AT	C	77.	4.03	11.	4.	4.	0.06		
+	2 COMBINED AT	COMBC	876.	4.58	108.	36.	36.	2.12		
+	ROUTED TO	RtC	874.	4.60	108.	36.	36.	2.12		
+									4.19	4.60
+	HYDROGRAPH AT	B	77.	4.03	11.	4.	4.	0.06		
+	2 COMBINED AT	COMBB	895.	4.60	119.	40.	40.	2.17		
+	HYDROGRAPH AT	Retn21	70.	4.07	13.	4.	4.	0.00		
+	ROUTED TO	RtP1	70.	4.22	13.	4.	4.	0.00		
+									2.44	4.32
+	HYDROGRAPH AT	A25	47.	4.15	8.	3.	3.	0.04		
+	2 COMBINED AT	Comb21	117.	4.15	21.	7.	7.	0.04		
+	ROUTED TO	RtP2	117.	4.15	21.	7.	7.	0.04		
+									2.93	4.15
+	HYDROGRAPH AT	A23	44.	4.12	7.	2.	2.	0.04		
+	DIVERSION TO	ST23	44.	4.48	5.	2.	2.	0.04		
	HYDROGRAPH AT									

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+                    DvA23     26.   4.48      2.      1.      1.    0.04
        ROUTED TO
+                    RtC18     14.   4.77      2.      1.      1.    0.04
+                                                                   0.19     4.77
        HYDROGRAPH AT
+                     A24      23.   4.37      4.      1.      1.    0.06
        3 COMBINED AT
+                   Comb22    136.   4.22     27.      9.      9.    0.15
        ROUTED TO
+                     RET3     85.   4.73     26.      9.      9.    0.15
+                                                                  22.82     4.73
        ROUTED TO
+                    RtC19     85.   4.77     26.      9.      9.    0.15
+                                                                   1.92     4.77
        HYDROGRAPH AT
+                     A26      77.   4.02     12.      4.      4.    0.05
        DIVERSION TO
+                     ST26     77.   4.28      8.      3.      3.    0.05
        HYDROGRAPH AT
+                    DvA26     49.   4.28      3.      1.      1.    0.05
        HYDROGRAPH AT
+                   RtnRay    140.   3.83     59.     20.     20.    0.00
        ROUTED TO
+                    RtR11    140.   4.75     59.     20.     20.    0.00
+                                                                   1.33     4.70
        HYDROGRAPH AT
+                     R14      14.   4.07      3.      1.      1.    0.01
        4 COMBINED AT
+                   Comb23    268.   4.28     91.     31.     31.    0.20
        DIVERSION TO
+                   DIVBOX    116.   4.28     24.      8.      8.    0.20
        HYDROGRAPH AT
+                   DIV520    151.   4.28     67.     23.     23.    0.20
        HYDROGRAPH AT
+                   DIVBOX    116.   4.28     24.      8.      8.    0.00
        2 COMBINED AT
+                   ADDBOX    268.   4.28     91.     31.     31.    0.20
        ROUTED TO
+                    RTE23    253.   4.42     91.     31.     31.    0.20
+                                                                   1.64     4.42
        HYDROGRAPH AT
+                     VA1     129.   4.08     20.      7.      7.    0.11
        ROUTED TO
+                    RTEA1    126.   4.13     20.      7.      7.    0.11
+                                                                   1.74     4.13
        HYDROGRAPH AT
+                     VA2     195.   4.10     31.     10.     10.    0.17
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                                                                                                                                  2 COMBINED AT
+                                                                  COMBA     321.   4.12      50.      17.      17.    0.28
                                                                                                                                  ROUTED TO
+                                                                  STORA2     72.   4.92       7.       2.       2.    0.28
                                                                                                                                  ROUTED TO
+                                                                  RTEA2      54.   5.02       7.       2.       2.    0.28
+                                                                                                                                                  0.72      5.02
                                                                                                                                  3 COMBINED AT
+                                                                  COMBB    1145.   4.60     217.      73.      73.    2.66
                                                                                                                                  ROUTED TO
+                                                                  RtB      1144.   4.62     217.      73.      73.    2.66
+                                                                                                                                                  4.19      4.62
                                                                                                                                  HYDROGRAPH AT
+                                                                  D          38.   4.03       5.       2.       2.    0.03
                                                                                                                                  HYDROGRAPH AT
+                                                                  E          38.   4.03       5.       2.       2.    0.03
                                                                                                                                  2 COMBINED AT
+                                                                  COMBE      76.   4.03      11.       4.       4.    0.06
                                                                                                                                  ROUTED TO
+                                                                  RTEE       75.   4.05      11.       4.       4.    0.06
+                                                                                                                                                  1.00      4.05
                                                                                                                                  HYDROGRAPH AT
+                                                                  F          51.   4.03       7.       2.       2.    0.04
                                                                                                                                  3 COMBINED AT
+                                                                  COMBF    1181.   4.62     235.      79.      79.    2.76
                                                                                                                                  ROUTED TO
+                                                                  RTEF     1177.   4.63     235.      79.      79.    2.76
+                                                                                                                                                  4.45      4.63
                                                                                                                                  HYDROGRAPH AT
+                                                                  DA522A     68.   4.08      10.       3.       3.    0.06
                                                                                                                                  ROUTED TO
+                                                                  RT522A     67.   4.12      10.       3.       3.    0.06
+                                                                                                                                                  0.94      4.13
                                                                                                                                  HYDROGRAPH AT
+                                                                  DA10       10.   4.02       1.       0.       0.    0.01
                                                                                                                                  HYDROGRAPH AT
+                                                                  DA11        3.   4.02       1.       0.       0.    0.00
                                                                                                                                  HYDROGRAPH AT
+                                                                  DA12       12.   4.02       2.       1.       1.    0.01
                                                                                                                                  3 COMBINED AT
+                                                                  ADD12      25.   4.02       4.       1.       1.    0.02
                                                                                                                                  ROUTED TO
+                                                                  RTE12      25.   4.02       4.       1.       1.    0.02
                                                                                                                                  HYDROGRAPH AT
+                                                                  DA13        4.   4.02       1.       0.       0.    0.00
                                                                                                                                  ROUTED TO
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+		RTE13	4.	4.03	1.	0.	0.	0.00		
+	HYDROGRAPH AT	DA14	6.	4.03	1.	0.	0.	0.00		
+	3 COMBINED AT	ADD14	35.	4.03	5.	2.	2.	0.02		
+	ROUTED TO	RTE14	35.	4.05	5.	2.	2.	0.02		
+	HYDROGRAPH AT	DA15	8.	4.02	1.	0.	0.	0.00		
+	HYDROGRAPH AT	DA16	3.	4.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	DA17	8.	4.02	1.	0.	0.	0.01		
+	HYDROGRAPH AT	DA18	3.	4.02	0.	0.	0.	0.00		
+	5 COMBINED AT	ADD17	56.	4.03	9.	3.	3.	0.04		
+	ROUTED TO	RTE18	55.	4.05	9.	3.	3.	0.04		
+	HYDROGRAPH AT	DA522C	54.	4.07	8.	3.	3.	0.04		
+	4 COMBINED AT	AD522C	1238.	4.63	262.	88.	88.	2.90		
+	ROUTED TO	RT522C	1237.	4.65	262.	88.	88.	2.90	5.17	4.65
+	HYDROGRAPH AT	DA522D	54.	4.05	8.	3.	3.	0.04		
+	HYDROGRAPH AT	DA522B	68.	4.08	10.	3.	3.	0.06		
+	3 COMBINED AT	AD522D	1277.	4.65	280.	94.	94.	3.00		
+	ROUTED TO	RT522D	1276.	4.68	280.	94.	94.	3.00	5.25	4.68
+	HYDROGRAPH AT	DA522E	64.	4.03	9.	3.	3.	0.05		
+	2 COMBINED AT	AD522E	1291.	4.68	289.	97.	97.	3.05		
+	HYDROGRAPH AT	DA513	99.	4.12	16.	5.	5.	0.09		
+	HYDROGRAPH AT	DA514	66.	4.07	10.	3.	3.	0.06		
+	HYDROGRAPH AT	DA515	52.	4.10	8.	3.	3.	0.05		

+	3 COMBINED AT	AD515	216.	4.10	34.	11.	11.	0.19		
+	ROUTED TO	RT515	190.	4.23	34.	11.	11.	0.19		
+									6.29	4.23
+	HYDROGRAPH AT	DA517	126.	4.23	21.	7.	7.	0.17		
+	HYDROGRAPH AT	South	85.	4.33	70.	26.	26.	0.00		
+	3 COMBINED AT	AD517	390.	4.30	121.	44.	44.	0.36		
+	ROUTED TO	RT517	387.	4.33	121.	44.	44.	0.36		
+									11.03	4.33
+	HYDROGRAPH AT	DA518	67.	4.58	15.	5.	5.	0.10		
+	2 COMBINED AT	AD518	444.	4.35	136.	49.	49.	0.46		
+	ROUTED TO	RT518	443.	4.38	136.	49.	49.	0.46		
+									2.69	4.38
+	HYDROGRAPH AT	DA519A	57.	4.05	8.	3.	3.	0.05		
+	ROUTED TO	RT519A	51.	4.13	8.	3.	3.	0.05		
+									0.92	4.13
+	HYDROGRAPH AT	DA519B	156.	4.10	24.	8.	8.	0.14		
+	3 COMBINED AT	AD519B	607.	4.33	167.	60.	60.	0.64		
+	ROUTED TO	RT519B	606.	4.35	167.	60.	60.	0.64		
+									3.02	4.35
+	HYDROGRAPH AT	DA519C	133.	4.10	21.	7.	7.	0.12		
+	ROUTED TO	RT519C	132.	4.13	21.	7.	7.	0.12		
+									1.79	4.13
+	HYDROGRAPH AT	DA519D	90.	4.10	14.	5.	5.	0.08		
+	3 COMBINED AT	AD519D	791.	4.28	201.	72.	72.	0.84		
+	ROUTED TO	RT519D	790.	4.30	201.	72.	72.	0.84		
+									3.22	4.30
+	HYDROGRAPH AT	DA519E	39.	4.03	6.	2.	2.	0.03		

+	ROUTED TO	RT519E	35.	4.12	6.	2.	2.	0.03	
+									0.83 4.12
+	HYDROGRAPH AT	DA519F	109.	4.15	18.	6.	6.	0.10	
+	2 COMBINED AT	AD519F	143.	4.13	23.	8.	8.	0.13	
+	HYDROGRAPH AT	DA519G	40.	4.03	6.	2.	2.	0.03	
+	4 COMBINED AT	AD519G	1929.	4.65	518.	179.	179.	4.05	
+	ROUTED TO	RTI-10	1926.	4.65	518.	179.	179.	4.05	
+									4.73 4.65
+	HYDROGRAPH AT	B1	126.	4.08	19.	6.	6.	0.11	
+	ROUTED TO	RTEB1	119.	4.15	19.	6.	6.	0.11	
+									1.31 4.15
+	2 COMBINED AT	ADI-10	1980.	4.65	537.	185.	185.	4.15	
+	HYDROGRAPH AT	B15	139.	4.17	23.	8.	8.	0.13	
+	2 COMBINED AT	ADBA15	2049.	4.65	560.	193.	193.	4.28	
+	HYDROGRAPH AT	DA01	17.	4.02	3.	1.	1.	0.01	
+	ROUTED TO	RTE01	17.	4.03	3.	1.	1.	0.01	
+	HYDROGRAPH AT	DA02	13.	4.02	2.	1.	1.	0.01	
+	HYDROGRAPH AT	DA03	7.	4.02	1.	0.	0.	0.00	
+	3 COMBINED AT	ADD03	37.	4.02	6.	2.	2.	0.02	
+	ROUTED TO	RTE03	37.	4.03	6.	2.	2.	0.02	
+	HYDROGRAPH AT	DA04	6.	4.02	1.	0.	0.	0.00	
+	HYDROGRAPH AT	DA05	10.	4.02	1.	0.	0.	0.01	
+	3 COMBINED AT	ADD05	53.	4.03	8.	3.	3.	0.03	
+	ROUTED TO	RTE05	53.	4.05	8.	3.	3.	0.03	
	HYDROGRAPH AT								

```
+                    DA06    14.   4.02     2.    1.    1.   0.01
     2 COMBINED AT
+                   ADD06    67.   4.03    10.    3.    3.   0.04
     ROUTED TO
+                   RTE06    66.   4.05    10.    3.    3.   0.04
     HYDROGRAPH AT
+                    DA07    22.   4.03     3.    1.    1.   0.02
     2 COMBINED AT
+                   ADD07    89.   4.05    13.    4.    4.   0.06
     ROUTED TO
+                   RTE07    88.   4.07    13.    4.    4.   0.06
     HYDROGRAPH AT
+                    DA08    10.   4.02     2.    1.    1.   0.01
     ROUTED TO
+                   RTE08    10.   4.03     2.    1.    1.   0.01
     2 COMBINED AT
+                   ADD08    98.   4.05    15.    5.    5.   0.07
     HYDROGRAPH AT
+                    DA09    31.   4.03     4.    1.    1.   0.03
     2 COMBINED AT
+                   ADD09   128.   4.05    19.    6.    6.   0.10
     PUMP FLOW TO
+                    PUMP   200.   4.07    19.    6.    6.   0.10
     HYDROGRAPH AT
+                    PUMP     0.   4.05     0.    0.    0.   0.10
+                                                              1136.18      4.05
     HYDROGRAPH AT
+                   PUMPR   200.   4.07    19.    6.    6.   0.00
     2 COMBINED AT
+                    PUMP   200.   4.07    19.    6.    6.   0.10
     HYDROGRAPH AT
+                    DA19     9.   4.05     1.    0.    0.   0.01
     ROUTED TO
+                   RTE19     9.   4.05     1.    0.    0.   0.01
     HYDROGRAPH AT
+                    DA20    16.   4.02     2.    1.    1.   0.01
     2 COMBINED AT
+                   ADD20    25.   4.03     4.    1.    1.   0.02
     ROUTED TO
+                   RTE20    25.   4.03     4.    1.    1.   0.02
     HYDROGRAPH AT
+                    DA21     3.   4.00     0.    0.    0.   0.00
     2 COMBINED AT
+                   ADD21    28.   4.03     4.    1.    1.   0.02
     ROUTED TO
```

```
+                    RTE21     28.   4.03      4.     1.     1.    0.02
        HYDROGRAPH AT
+                    DA22      21.   4.02      3.     1.     1.    0.01
        2 COMBINED AT
+                    ADD22     49.   4.03      7.     2.     2.    0.04
        ROUTED TO
+                    RTE22     49.   4.03      7.     2.     2.    0.04
        HYDROGRAPH AT
+                    DA23      35.   4.03      5.     2.     2.    0.03
        2 COMBINED AT
+                    ADD23     84.   4.03     12.     4.     4.    0.07
        ROUTED TO
+                    RTE23     15.   4.85     10.     4.     4.    0.07
+                                                                        1163.54      4.85
        HYDROGRAPH AT
+                    DA24       4.   4.02      1.     0.     0.    0.00
        2 COMBINED AT
+                    ADD24     16.   4.57     10.     4.     4.    0.07
        HYDROGRAPH AT
+                    DA25      24.   4.03      3.     1.     1.    0.02
        2 COMBINED AT
+                    ADD25     37.   4.05     14.     5.     5.    0.09
        ROUTED TO
+                    RTE25      9.   7.20      9.     5.     5.    0.09
+                                                                        1161.80      7.22
        HYDROGRAPH AT
+                    DA26      15.   4.03      2.     1.     1.    0.02
        2 COMBINED AT
+                    ADD26     19.   4.05     10.     6.     6.    0.11
        ROUTED TO
+                    RTE26      6.  12.53      6.     4.     4.    0.11
+                                                                        1160.48     12.55
        HYDROGRAPH AT
+                    DA27      31.   4.03      4.     1.     1.    0.03
        2 COMBINED AT
+                    ADD27     32.   4.03      8.     5.     5.    0.13
        ROUTED TO
+                    RTE27      9.   4.68      6.     5.     5.    0.13
+                                                                        1160.02      4.70
        HYDROGRAPH AT
+                    DA28       4.   4.02      1.     0.     0.    0.00
        2 COMBINED AT
+                    ADD28     11.   4.30      7.     5.     5.    0.13
        HYDROGRAPH AT
+                    DA29      34.   4.03      5.     2.     2.    0.03
        2 COMBINED AT
```

```
+                    ADD29      44.   4.03       12.       7.       7.     0.16
        ROUTED TO
+                    RTE29      14.   4.92       11.       7.       7.     0.16
+                                                                        1159.79      4.92
        2 COMBINED AT
+                      PMP     211.   4.10       30.      13.      13.     0.26
        2 COMBINED AT
+                    ADPMP    2113.   4.65      589.     206.     206.     4.54
        DIVERSION TO
+                    DIVFF    1750.   4.65       76.      25.      25.     4.54
        HYDROGRAPH AT
+                    B15FF    2113.   4.65      523.     180.     180.     4.54
        ROUTED TO
+                    STB15       0.   0.00        0.       0.       0.     4.54
+                                                                        1158.85     18.00
        HYDROGRAPH AT
+                     RTFF    1750.   4.03       76.      25.      25.     0.00
        ROUTED TO
+                     STFF       0.   0.00        0.       0.       0.     0.00
+                                                                        1158.00      4.07
1
                                SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                   (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                   INTERPOLATED TO
                                                                COMPUTATION INTERVAL
          ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME      DT      PEAK    TIME TO     VOLUME
                                                   PEAK                                    PEAK

                              (MIN)     (CFS)     (MIN)      (IN)    (MIN)     (CFS)     (MIN)       (IN)

            RTE12  MANE        0.33     25.18    241.31      2.28     1.00     25.17    241.00       2.28

 CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1924E+01 EXCESS=0.0000E+00 OUTFLOW=0.1924E+01 BASIN STORAGE=0.2431E-04 PERCENT ERROR=   0.0

            RTE13  MANE        1.00      3.90    242.00      2.08     1.00      3.90    242.00       2.08

 CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2891E+00 EXCESS=0.0000E+00 OUTFLOW=0.2889E+00 BASIN STORAGE=0.7287E-04 PERCENT ERROR=   0.0

            RTE14  MANE        1.00     35.03    243.00      2.19     1.00     35.03    243.00       2.19

 CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2658E+01 EXCESS=0.0000E+00 OUTFLOW=0.2657E+01 BASIN STORAGE=0.1968E-03 PERCENT ERROR=   0.0

            RTE18  MANE        1.00     55.14    243.00      2.20     1.00     55.14    243.00       2.20

 CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4261E+01 EXCESS=0.0000E+00 OUTFLOW=0.4248E+01 BASIN STORAGE=0.1430E-03 PERCENT ERROR=   0.3

            RTE01  MANE        1.00     17.18    242.00      2.62     1.00     17.18    242.00       2.62

 CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1383E+01 EXCESS=0.0000E+00 OUTFLOW=0.1383E+01 BASIN STORAGE=0.1097E-03 PERCENT ERROR=   0.0
```

```
            RTE03  MANE        0.76     36.88    241.69      2.46      1.00     36.88    242.00        2.46

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2905E+01 EXCESS=0.0000E+00 OUTFLOW=0.2905E+01 BASIN STORAGE=0.6220E-04 PERCENT ERROR=   0.0

            RTE05  MANE        1.00     53.08    243.00      2.38      1.00     53.08    243.00        2.38

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4132E+01 EXCESS=0.0000E+00 OUTFLOW=0.4132E+01 BASIN STORAGE=0.1114E-03 PERCENT ERROR=   0.0

            RTE06  MANE        1.00     66.42    243.00      2.33      1.00     66.42    243.00        2.33

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5135E+01 EXCESS=0.0000E+00 OUTFLOW=0.5134E+01 BASIN STORAGE=0.1019E-03 PERCENT ERROR=   0.0

            RTE07  MANE        1.00     88.14    244.00      2.03      1.00     88.14    244.00        2.03

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.6662E+01 EXCESS=0.0000E+00 OUTFLOW=0.6658E+01 BASIN STORAGE=0.1307E-03 PERCENT ERROR=   0.1

            RTE08  MANE        1.00      9.54    242.00      2.53      1.00      9.54    242.00        2.53

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.7547E+00 EXCESS=0.0000E+00 OUTFLOW=0.7546E+00 BASIN STORAGE=0.9730E-04 PERCENT ERROR=   0.0

            RTE19  MANE        0.33      9.45    243.02      1.06      1.00      9.45    243.00        1.06

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.6334E+00 EXCESS=0.0000E+00 OUTFLOW=0.6333E+00 BASIN STORAGE=0.2085E-04 PERCENT ERROR=   0.0

            RTE20  MANE        0.22     25.30    242.00      1.58      1.00     25.30    242.00        1.58

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1819E+01 EXCESS=0.0000E+00 OUTFLOW=0.1819E+01 BASIN STORAGE=0.1667E-04 PERCENT ERROR=   0.0

            RTE21  MANE        0.21     28.12    242.16      1.67      1.00     28.11    242.00        1.67

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2064E+01 EXCESS=0.0000E+00 OUTFLOW=0.2064E+01 BASIN STORAGE=0.1652E-04 PERCENT ERROR=   0.0

            RTE22  MANE        0.54     48.74    242.03      1.86      1.00     48.73    242.00        1.86

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3618E+01 EXCESS=0.0000E+00 OUTFLOW=0.3618E+01 BASIN STORAGE=0.5060E-04 PERCENT ERROR=   0.0


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

```
1*****************************************                    *****************************************
*                                         *                    *                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)     *                    *   U.S. ARMY CORPS OF ENGINEERS        *
*             JUN 09 1992                 *                    *   HYDROLOGIC ENGINEERING CENTER       *
*            VERSION 4.0.3E               *                    *         609 SECOND STREET             *
*                                         *                    *      DAVIS, CALIFORNIA 95616          *
*  RUN DATE  12/02/98  TIME  16:37:26     *                    *          (916) 551-1748               *
*                                         *                    *                                       *
*****************************************                    *****************************************

                                        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        FN: H2  6cl.DAT     November 1998
        2           ID            48TH STREET BASIN/REVISED BASIN 15
        3           ID            HDR 2-YR  6-HR MULTI-USE RETENTION BASIN WITH 1' FREEBOARD
        4           ID            42" RCP OUTLET CLOSED-BASIN RETAINS INFLOW
        5           IT       1                    1081
        6           IO       5
        7           IN      12                     310
                    *DIAGRAM
                    * ******************************************************************
                    * THIS FILE USES        FCDMC 2-YR  6-HR RAINFALL
                    * ***********************************************************************
                    *        BEGIN 2-YR 6-HR RAINFALL

        8           KK      M1
        9           KM        Mountain Area 1
       10           KO       3
                    *             0    0.77    1.50    2.64    2.89    3.06    3.37    3.68    4.00
       11           IN      15
                    * 2-YR 6 HOUR POINT PRECIP. OF 1.1" REDUCED BY FACTOR OF 0.96 TO 1.8".
                    * SEE FCDMC DRAINAGE MANUAL, FIG. 2.2 & TABLE 2.2 STORM PATTERN 2.3(5.0 SQ.MI)
       12           PB     1.8
       13           PC       0    .011    .017    .027    .038    .048    .059    .068    .078    .089
       14           PC    .101    .116    .137    .181    .268    .457    .687    .825    .890    .930
       15           PC    .949    .962    .974    .988   1.000
       16           BA    .280
                    * IA = 0.25 as per Maricopa Drainage Design Manual (Vol. 1) Table 4.1
       17           LS     .25      98
       18           UD    .252

       19           KK    RtC1
```

```
 20          KM        Route M1 flow to split
 21          RS       1    FLOW      -1
 22          RC   0.035   0.035   0.035    2300    0.02
 23          RX       3       4       5      20      45      55      65      66
 24          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

 25          KK      M2
 26          KM        Mountain Area 2
 27          BA    .200
             * IA = 0.25 as per Maricopa Drainage Design Manual (Vol. 1) Table 4.1
 28          LS     .25      98
 29          UD    .190

 30          KK    RtC2
 31          KM        Route M2 flow to split
 32          RS       1    FLOW      -1
 33          RC   0.035   0.035   0.035     900    0.02
 34          RX       3       4       5      20      25      35      45      46
 35          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1
1                                          HEC-1 INPUT                                                          PAGE  2
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 36          KK      A1
 37          KM       Developed Area 1
 38          BA    .041
 39          LS              80
 40          UD    .169

 41          KK   COMB1
 42          KM   Combine flows
 43          HC       3

 44          KK   Splt1
 45          KM      Channel splits (divert flow out of model)
 46          DT   Splt1
 47          DI       0      50     100     150     200     250     500
 48          DQ       0      30      60      90     120     150     300

 49          KK    RtC3
 50          KM        Route flows from split to next tributary
 51          RS       1    FLOW      -1
 52          RC   0.035   0.035   0.035     600    0.02
 53          RX       3       4       5      20      75      85      95      96
 54          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

 55          KK      M3
 56          KM        Mountain Area 3
 57          BA    .029
             * IA = 0.25 as per Maricopa Drainage Design Manual (Vol. 1) Table 4.1
 58          LS     .25      98
 59          UD    .035

 60          KK    RtC4
 61          KM        Route flows To convergence of tributary.
 62          RS       1    FLOW      -1
 63          RC   0.035   0.035   0.035    1100    0.02
 64          RX       3       4       5      20      35      45      55      56
 65          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

 66          KK      A2
 67          KM       Developed  Area 2
 68          BA    .020
 69          LS              81
 70          UD    .115
```

```
 71          KK   COMB2
 72          KM        Combine, M3, A2, Flows from split
 73          HC       3

 74          KK    RtC5
 75          KM   Route combined flows from convergence of tributary to weir of detention basin
 76          RS       1    FLOW      -1
 77          RC   0.035   0.035   0.035    1500    0.02
 78          RX       3       4       5      20      75      85      95      96
 79          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1
1                                        HEC-1 INPUT                                                    PAGE  3

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


 80          KK      M4
 81          KM        Mountain Area 4
 82          BA    .380
             * IA = 0.25 as per Maricopa Drainage Design Manual (Vol. 1) Table 4.1
 83          LS     .25      98
 84          UD    .525

 85          KK    RtR1
 86          KM        Route Mountain flows to weir  (through streets in area 4)
 87          RS       1    FLOW      -1
 88          RC   0.012   0.012   0.012    1600    0.02
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING
 89          RX       2      18      19      20      50      51      52      68
 90          RY     2.2     2.0     1.5     1.0     1.0     1.5     2.0     2.2

 91          KK      A3
 92          KM         Developed Area 3
 93          BA    .036
 94          LS              81
 95          UD    .145

 96          KK      A4
 97          KM        Developed Area 4
 98          BA    .067
 99          LS              84
100          UD    .139

101          KK   COMB3
102          KM        Combine A3, A4, M4, and routed flows (RtC5)
103          HC       4

104          KK    RET1
105          KM        Flows spill over the weir to retention basin (Divert Flow)
106          DT    RET1    4.61
107          DI       0     200     400     600     800    1000
108          DQ       0       0       4      17      37      63

109          KK    RtC6
110          KM        Route flows in channel to next split in channel
111          RS       1    FLOW      -1
112          RC   0.035   0.035   0.035    1200    0.02
113          RX       3       4       5      20      45      55      65      66
114          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

115          KK      A5
116          KM        Developed Area 5
117          BA    .030
118          LS              85
119          UD    .137
1                                        HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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120          KK   COMB4
121          KM        Combine A5 and routed flows
122          HC       2
             * splt2 revised using South Mountain run data (70-30 SPLIT)

123          KK   Splt2
124          KM         Channel splits (Flow diverted from model)
125          DT   Splt2
126          DI       0    1000    1500
127          DQ       0     300     450

128          KK    RtC7
129          KM        Route flows from split to 40th St & Knox RD
130          RS       1    FLOW      -1
131          RC   0.035   0.035   0.035    2800    0.02
132          RX       8       9      10      20      30      35      40      41
133          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1
             *     Flows from Area 6b flow through the streets to Knox Rd and 40th St.
             *     All flow is assumed to stay in road.

134          KK     A6b
135          KM        Developed Area 6b
136          BA    .019
137          LS              84
138          UD    .137

139          KK    RtR2
140          KM        Route flows through Knox Rd from 38th St to 40th St
141          RS       1    FLOW      -1
142          RC   0.012   0.012   0.012    1000    0.02
143          RX       7       8       9      10      75      76      77      78
144          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

145          KK      R1
146          KM        Road segment on Knox Rd from 37th St to 40th St.
147          BA    .007
148          LS             100
149          UD    .145

150          KK   Comb5
151          KM   Combine flows from Area 6b and Road 1
152          HC       2

153          KK   DivR1
154          KM       Flow across Knox Road
155          DT   DivR1
156          DI       0      50     100     150     200     500    1000
157          DQ       0      50     100     150     200     250     250
             *  If flows from Area 6 and Road 1 can be carried on Knox Rd, no diversion to
             *  channel.  If they cannot be carried, then excess diverted to channel.
             *  Capacity of channel (based on Manning's equation) is 250 cfs.
             *
1                                        HEC-1 INPUT                                    PAGE  5

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

158          KK     A6a
159          KM        Developed Area 6a
160          BA    .038
161          LS              84
162          UD    .159

163          KK    RtC8
164          KM        Route flows from A6a through channel to Knox and 40th St
```

```
165          RS       1    FLOW      -1
166          RC   0.035   0.035   0.035    1000    0.01
167          RX       8       9      10      20      30      35      40      41
168          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

169          KK      A7
170          KM        Developed Area 7
171          BA    .008
172          LS              84
173          UD    .115

174          KK   Comb6
175          KM   Combine flows in channel at 40th St and Knox Rd
176          HC       4

177          KK    RtC9
178          KM       Route flows from Knox to Ranch Circle North
179          RS       1    FLOW      -1
180          RC   0.035   0.035   0.035    1150    0.01
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING ORIGINAL RX AND
             * RY:
             * RX   0       1      10      20      30      40      49      50
             * RY 4.5     4.4     4.3     1.0     1.0     4.0     4.1     4.2
181          RX       0       1      10      20      30      40      49      50
182          RY       6     4.4     4.3     1.0     1.0     4.0     4.1       6

183          KK      A8
184          KM       Developed Area 8
185          BA    .058
186          LS              84
187          UD    .217

188          KK      R2
189          KM       Road segment on Ranch Circle North from 37th PL to Channel near 40th St.
190          BA    .006
191          LS             100
192          UD    .130

193          KK     A29
194          KM       Area 29 - Trail area from Knox to Ranch Circle North
195          BA   0.006
196          LS              85
197          UD   0.091
```



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


198          KK   COMB7
199          KM        Combine flows from A8, Road 2, and A29
200          HC       4

201          KK   RtC10
202          KM        Route flows from Ranch Circle N to Ray Road
203          RS       1    FLOW      -1
204          RC   0.035   0.035   0.035    1150    0.01
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
             * RX   0       1      10      20      30      40      49      50
             * RY 4.5     4.4     4.3     1.0     1.0     4.0     4.1     4.2
205          RX       0       1      10      20      30      40      49      50
206          RY       6     4.4     4.3     1.0     1.0     4.0     4.1       6

207          KK      A9
208          KM        Developed Area 9
209          BA    .040
210          LS              85
211          UD    .201
```

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212          KK     A30
213          KM       Area 30 - Trail area from Ranch Circle North to Ray Road
214          BA   0.006
215          LS              85
216          UD   0.091

217          KK   COMB8
218          KM        Combine flows from A9, A30, and routed flows
219          HC       3

220          KK   SPLT3
221          KM        Split along Ray Rd near 40th St. (Divert flows to park)
222          DT   Splt3
223          DI       0      74     145     234     340     462     600     750
224          DQ       0      20      43      72     107     131     140     140

225          KK   RtC11
226          KM      Route flows along Ray Road from split at 40th St to Ranch Circle N
227          RS       1    FLOW      -1
228          RC   0.035   0.035   0.035    1600    0.01
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
             * RX   8       9      10      20      30      35      40      41
             * RY 4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1
229          RX       8       9      10      20      30      35      40      41
230          RY       6     4.4     4.3     1.0     1.0     2.0     5.0       6

231          KK     A11
232          KM       Developed Area 11
233          BA    .034
234          LS              84
235          UD    .161
1                                        HEC-1 INPUT                                        PAGE  7

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


236          KK     A12
237          KM       Developed Area 12
238          BA    .002
239          LS              85
240          UD    .067

241          KK   DvA12
242          KM      Simulate Detention Area for Development A12
243          DT   DvA12    0.07
244          DI       0      50     100     150     200     250     500
245          DQ       0      50     100     150     200     250     500

246          KK   Comb9
247          KM      Combine flows from A11 & A12
248          HC       2

249          KK    RtR3
250          KM        Route flows from A11 & A12 to Ray Rd
251          RS       1    FLOW      -1
252          RC   0.012   0.012   0.012    1900    0.01
253          RX       0       8       9      10      60      61      62      70
254          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

255          KK     A10
256          KM        Developed Area 10
257          BA    .042
258          LS              85
259          UD    .133

260          KK   DvA10
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 261          KM      Simulate Detention Area for Development A10
 262          DT   DvA10    2.16
 263          DI       0      50     100     150     200     250     500
 264          DQ       0      50     100     150     200     250     500

 265          KK      R3
 266          KM       Road Segment on Ranch Circle N 40TH ST TO RAY
 267          BA    .007
 268          LS             100
 269          UD    .158

 270          KK      R4
 271          KM       Road segment on Ray Rd from 40TH ST TO RANCH CIRCLE N
 272          BA    .005
 273          LS             100
 274          UD    .125

 275          KK  Comb10
 276          KM       Combine flow from A10, Road3, Road4, and RtR3
 277          HC       5
1                                        HEC-1 INPUT                                          PAGE  8

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


 278          KK   RtC12
 279          KM       Route combined flows (along Ray Road from Ranch Circle N to 44th ST)
 280          RS       1    FLOW      -1
 281          RC   0.035   0.035   0.035    1000    0.01
              * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
              * RX   7       8       9      10      30      31      32      33
              * RY 5.2     5.1     5.0     1.0     1.0     5.0     5.1     5.2
 282          RX       7       8       9      10      30      31      32      33
 283          RY       7     5.1     5.0     1.0     1.0     5.0     5.1       7
              *
              *     At this point, the model returns to Knox Road and 40th Street to
              *     simulate flows carried down Knox Road from 40th Street to 44th Street.
              *     Returning flows from R1:

 284          KK   RetR1
 285          KM       Return (to model) the flow coming down Knox Rd
 286          DR   DivR1

 287          KK    RtR4
 288          KM       Route flows through Knox Rd from 40th St to 44th St.
 289          RS       1    FLOW      -1
 290          RC   0.012   0.012   0.012    2600    0.01
 291          RX       7       8       9      10      75      76      77      78
 292          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

 293          KK      R6
 294          KM       Road segment on Knox Rd from 40th St to 44th St.
 295          BA    .009
 296          LS             100
 297          UD    .217

 298          KK     A13
 299          KM       Developed Area 13
 300          BA    .001
 301          LS              87
 302          UD    .058

 303          KK   DvA13
 304          KM      Simulate Detention Area for Development A13
 305          DT   DvA13    0.10
 306          DI       0      50     100     150     200     250     500
 307          DQ       0      50     100     150     200     250     500
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308          KK  Comb11
309          KM      Combine flows from A13, R6 and from R1 (DivR1)
310          HC      3

311          KK   RtC13
312          KM      Route flows from Knox and 44th St to middle of 44th St (entrance to schl)
313          RS      1    FLOW     -1
314          RC   0.035   0.035   0.035    1100    0.01
315          RX     13      14      15      20      30      35      36      37
316          RY    4.7     4.6     4.5     1.0     1.0     4.5     4.6     4.7
1                                          HEC-1 INPUT                                                    PAGE  9

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

317          KK     A14
318          KM      Developed Area 14
319          BA    .076
320          LS             79
321          UD    .233

322          KK   DvA14
323          KM     Simulate Detention Area for Development A14
324          DT   DvA14    4.24
325          DI      0      50     100     150     200     250     500
326          DQ      0      50     100     150     200     250     500

327          KK     R7a
328          KM       Road Segment on 44th St from Knox Rd to Midway between Knox and Ray Rd
329          BA    .004
330          LS            100
331          UD    .100

332          KK  Comb12
333          KM      Combine R7a, A14, and combined flows at A13
334          HC      3

335          KK   RtC14
336          KM       ROUTE combined flows to Ray Road
337          RS      1    FLOW     -1
338          RC   0.035   0.035   0.035    1100    0.01
339          RX     13      14      15      20      30      31      35      36
340          RY    4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

341          KK     A15
342          KM      Developed Area 15
343          BA    .047
344          LS             88
345          UD    .083

346          KK     A31
347          KM      Developed Area 31
348          BA    .005
349          LS             92
350          UD    .113

351          KK     R7b
352          KM       Road Segment on 44th St from Midway between Knox and Ray Rd to Ray Rd
353          BA    .004
354          LS            100
355          UD    .100

356          KK      R5
357          KM      Road Segment on Ray Rd from Ranch Circle North to 44th St
358          BA    .004
359          LS            100
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 360          UD    .083
1                                        HEC-1 INPUT                                                PAGE 10
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 361          KK  Comb13
 362          KM      Combine flows
 363          HC       6

 364          KK   RtC15
 365          KM       Route flows in channel along Ray Rd from 44th St to clogged pipes
 366          RS       1    FLOW     -1
 367          RC   0.035   0.035   0.035     500   0.008
              * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
              * RX   0       5      10      20      40      50      55      60
              * RY 4.7     4.6     4.5     1.0     1.0     4.5     4.6     4.7
 368          RX       0       5      10      20      40      50      55      60
 369          RY       6     4.6     4.5     1.0     1.0     4.5     4.6       6
              *    At this point, there are 3-48" pipes at Ray Road where the water was
              *    designed to flow; however, a field visit showed that the pipes were
              *    clogged, and therefore the flow will be carried along Ray Road.

 370          KK    RtR5
 371          KM       Route flows along Ray Rd from clogged pipes to 46th Place
 372          RS       1    FLOW     -1
 373          RC   0.012   0.012   0.012    1000   0.008
              * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
              * RX   0       8       9      10      90      91      92     100
              * RY 2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1
 374          RX       0       8       9      10      90      91      92     100
 375          RY     2.3     2.0     1.5       1       1     1.5       2     2.3

 376          KK    R12A
 377          KM       Road segment on Ray Rd from 44th St to 46th PL
 378          BA   0.005
 379          LS             100
 380          UD   0.127

 381          KK     A16
 382          KM       Developed Area 16
 383          BA    .015
 384          LS              92
 385          UD    .089

 386          KK   DvA16
 387          KM      Simulate Detention Area for Development A16
 388          DT   DvA16   1.28
 389          DI       0      50     100     150     200     250     500
 390          DQ       0      50     100     150     200     250     500

 391          KK     A17
 392          KM       Developed Area 17
 393          BA    .072
 394          LS              88
 395          UD    .233
1                                        HEC-1 INPUT                                                PAGE 11
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 396          KK  Comb14
 397          KM       Combine flows from A16, A17, R12a, RtR5, RtC15
 398          HC       4

 399          KK    RtR6
 400          KM       Route combined flows along Ray Rd from 46th PL to 48th St
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401          RS       1    FLOW      -1
402          RC   0.012   0.012   0.012    1100   0.008
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
             * RX  0       8       9      10      90      91      92     100
             * RY 2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1
403          RX       0       8       9      10      90      91      92     100
404          RY     2.3       2     1.5       1       1     1.5       2     2.3
             *    At this point, 50% of flow coming down Ray Road (flow in southern portion
             *    of the street) is assumed to flow south down 48th St and into the channel
             *    flowing south down 48th St.
             *    The other 50% of the flow is combined with the flow coming down 48th Street
             *    north of the intersection. Ray Road is assumed to take all of the flow up
             *    to capacity, at which time the excess flow continues south down 48th St.

405          KK  48-Sth
406          KM      Simulate flow coming down Ray and flowing down 48th Street
407          DT  48-Est
408          DI       0      50     100     200     500    1000    1500    2000
409          DQ       0      25      50     100     250     500     750    1000

410          KK     A18
411          KM      Developed Area 18 (church)
412          BA    .005
413          LS              84
414          UD    .082

415          KK      R8
416          KM        Road Segment on Knox Rd from 44th St to 46th St
417          BA    .003
418          LS             100
419          UD    .092

420          KK  Comb15
421          KM       Combine flows from R8 and A18
422          HC       2

423          KK    RtR7
424          KM       Route flows along Knox Road from A18 to 47th St
425          RS       1    FLOW      -1
426          RC   0.012   0.012   0.012     950    0.01
427          RX       0       8       9      10      75      76      77      85
428          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

429          KK      R9
430          KM        Road Segment on Knox Rd from 46th St to 47th St
431          BA    .002
432          LS             100
433          UD    .075

434          KK     A19
435          KM       Developed Area 19
436          BA    .038
437          LS              85
438          UD    .217

439          KK  Comb16
440          KM       Combine flows from R9, A19, and RtR7
441          HC       3

442          KK    RtR8
443          KM       Route Combined Flows on Knox Rd from 46th St to 47th St
444          RS       1    FLOW      -1
445          RC   0.012   0.012   0.012     800    0.01
```

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446          RX      0       8       9      10      75      76      77      85
447          RY    2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

448          KK    A20
449          KM      Developed Area 20
450          BA   .020
451          LS             85
452          UD   .142

453          KK   DvA20
454          KM     Simulate Detention Area for Development A20
455          DT   DvA20    1.22
456          DI      0      50     100     150     200     250     500
457          DQ      0      50     100     150     200     250     500

458          KK    R10
459          KM      Road segment on Knox Rd from 47th St to 48th St
460          BA   .004
461          LS            100
462          UD   .083

463          KK  Comb17
464          KM      Combine flows from A20, R10, and RtR8
465          HC      3

466          KK   RtR9
467          KM      Route flows along 48th St from Knox Rd to Ray Rd
468          RS      1    FLOW     -1
469          RC  0.012   0.012   0.012    2100   0.008
470          RX      0       8       9      10      90      91      92     100
471          RY    2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1
             *
             *    Note:   Developments A21, A23, A24, and A25 drain to basin behind KMart.
             *            Area 21 runoff:  capacity of pipe to basin, remaining heads
             *                             south down 48th street to Ray Road
1                                      HEC-1 INPUT                                    PAGE 13

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

472          KK    A21
473          KM      Developed Area 21
474          BA   .075
475          LS             85
476          UD   .275

477          KK  21-Sth
478          KM     Simulate Detention Area for Development 21
479          DT  21-Est
480          DI      0      50      60      70     100     200     500
481          DQ      0      50      60      70      70      70      70

482          KK  RtR10
483          KM      Route flows along 48th St from Development A21 to Ray Rd
484          RS      1    FLOW     -1
485          RC  0.012   0.012   0.012    1000   0.008
486          RX      0       8       9      10      80      81      82      90
487          RY    2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

488          KK    R11
489          KM      Road segment on 48th St from Knox to Ray Rd
490          BA   .008
491          LS            100
492          UD   .216

493          KK    A22
494          KM      Developed Area 22
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495          BA    .033
496          LS              92
497          UD    .099

498          KK   DvA22
499          KM      Simulate Detention Area for Development A22
500          DT   DvA22    2.75
501          DI       0      50     100     150     200     250     500
502          DQ       0      50     100     150     200     250     500

503          KK    R12b
504          KM        Road segment on Ray Rd from 46th PL to 48th St
505          BA   0.005
506          LS             100
507          UD   0.127

508          KK  Retn48
509          KM       Return divided flow from Ray Road as it reaches 48th ST.
510          DR  48-Est

511          KK  Comb18
512          KM    Combine A21, A22, R11, R12B, RtR10, and Dv48th
513          HC       6
1                                        HEC-1 INPUT                                        PAGE 14

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

514          KK  RaySth
515          KM       Split at 48th St and Ray - Capacity of 1/2 of Ray Rd is 140 cfs.
516          DT  RayEst
517          DI       0      50     100     140     300     500    1000
518          DQ       0      50     100     140     140     140     140

519          KK  Comb19
520          KM    Combine split flows from ray and flows carried down 1/2 of Ray Road
521          HC       2

522          KK   RtC16
523          KM       Route flows along 48th St to Detention Basin
524          RS       1    FLOW      -1
525          RC   0.012   0.012   0.012    2000   0.008
526          RX      13      14      15      20      30      55      56      57
527          RY     4.5     4.4     4.3     1.0     1.0     4.3     4.4     4.5

528          KK     A27
529          KM       Developed Area 27
530          BA    .036
531          LS              92
532          UD    .540

533          KK   RtC17
534          KM       Route flows along 48th St to Detention Basin
535          RS       1    FLOW      -1
536          RC   0.012   0.012   0.012    2000   0.008
537          RX      13      14      15      20      45      55      56      57
538          RY     4.5     4.4     4.3     1.0     1.0     4.3     4.4     4.5

539          KK     A28
540          KM       Developed Area 28
541          BA    .216
542          LS              84
543          UD    .383

544          KK     R13
545          KM        Road segment of 48th St from Ray Rd to detention basin
546          BA   0.007
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547          LS              100
548          UD   0.235

549          KK  Comb20
550          KM       Combine flows from A27, A28, R13, and RtC16 (flows from 48th St and Ray)
551          HC       4

552          KK    RET2
553          KM       Retention Basin - At 48th Street and Thistle Landing
554          RS       1    STOR      0      0
555          SV       0    25.2    27.3    29.5    31.8    34.1    36.4
556          SE    11.5      19    19.5      20    20.5      21    21.5
557          SS      19     150       3     1.5
558          SL      13     7.1     0.6     0.5
1                                        HEC-1 INPUT                                          PAGE 15

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

559          KK    East
560          KM       Account for flow traveling south through pipe and east over road (weir)
561          DT   South
562          DI       0      41      45      48      53      58      65      73      84      85
563          DI      91     108     140     192     269     375     516     696     920
564          DQ       0      41      45      48      53      58      65      73      84      84
565          DQ      85      85      85      85      85      85      85      85      85
             *
             * DITCH PARAMETERS ASSUMED. 10'BW, 2:1SS, n=0.015, D=5'
             * LENGTH ASSUMED. SLOPE ASSUMED SIMILAR TO PREVIOUS ROUTING.

566          KK  RtEAST
567          KM        ROUTE EAST SPLIT TO BOTTOM OF PEPPERWOOD BASIN C
568          RS       4    FLOW      -1
569          RC    .035    .015    .035    2600    .006
570          RX       0       5      10      22      32      44      54      64
571          RY       6       6       6       0       0       6       6       6
             *

572          KK       C
573          KM   FROM PEPPERWOOD REPORT
574          BA    0.06
             * CN ASSUMED 85 (COMMERCIAL, B SOIL)
575          LS              85
576          UD    0.09
             *

577          KK   COMBC
578          KM   COMBINE FLOW FROM BASIN C AND EAST SPLIT
579          HC       2
             *

580          KK     RtC
581          KM   ROUTE COMBINED FLOWS TO BOTTOM OF BASIN B
582          RS       2    FLOW
583          RC    .015    .015    .015    1050   .0035
584          RX       0      10      20      32      42      54      64      74
585          RY       6       6       6       0       0       6       6       6
             *

586          KK       B KYRENE SCHOOL DISTRICT
587          KM   CN ASSUMED TO BE 85 (COMMERCIAL, B SOIL)
588          BA    0.06
589          LS              85
590          UD    0.09
             *

591          KK   COMBB
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592          KM   COMBINE HYDROGRAPHS FROM RTC AND BASIN B
593          HC      2
             * ******************* FLOWS TO RET 3 CONCENTRATION POINT
             * ************************
             *
             *     Note:   Developments A21, A23, A24, and A25 drain to basin behind KMart.
             *             Area 21 runoff:   capacity of pipe to basin, remaining heads
             *                               south down 48th street to Ray Road
             *             Area 23 runoff:   70% retained on-site, 30% to basin
             *             Area 24 runoff:   All to basin
             *             Area 25 runoff:   All to basin
1                                        HEC-1 INPUT                                          PAGE 16

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


594          KK  Retn21
595          KM       Return flow from Development 21 that travels through pipe
596          DR  21-Est

597          KK    RtP1
598          KM       Route flows from development 21 to basin  (36" pipe)
599          RS       1    FLOW      -1
600          RC   0.013   0.013   0.013    1320   0.008
601          RX     4.8     4.9       5       6       7       8     8.1     8.2
602          RY     3.0     2.0     1.5       0       0     1.5     2.0     3.0

603          KK     A25
604          KM       Developed Area 25
605          BA    .043
606          LS              85
607          UD    .226

608          KK  Comb21
609          KM       Combine flows from A25 and RtP1 (routed flows from A21)
610          HC       2

611          KK    RtP2
612          KM       Route flows from A21 and A25 to basin  (54" pipe)
613          RS       1    FLOW      -1
614          RC   0.013   0.013   0.013     100   0.008
615          RX     4.9       5       6       7     7.5     8.5     9.5     9.6
616          RY     4.5     2.3     1.0       0       0     1.0     2.3     4.5

617          KK     A23
618          KM       Developed Area 23
619          BA    .039
620          LS              85
621          UD    .200

622          KK   DvA23
623          KM      Simulate Detention Area for Development A23
624          DT    ST23    2.37
625          DI       0      50     100     150     200     250     500
626          DQ       0      50     100     150     200     250     500

627          KK   RtC18
628          KM       Route flows through park
629          RS       1    FLOW      -1
630          RC   0.035   0.035   0.035    1000   0.008
631          RX      10      20      50     100     150     200     230     240
632          RY     2.5     2.3     1.0       0       0     1.0     2.3     2.5
             * A24 - CN CHANGED FROM 85 TO 65 BASED ON PLANS FOR CITY PARK.
             *       10% @ CN=98 AND 90% @CN=61 (FROM TR-55)
1                                        HEC-1 INPUT                                          PAGE 17

        LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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633          KK     A24
634          KM       Developed Area 24
635          BA    .064
636          LS              65
637          UD    .285

638          KK  Comb22
639          KM       Combine flows from A21 & A25 (RtP2), A23 (RtC18), A24
640          HC       3

641          KK    RET3
642          KM      Retention Basin - in south portion of A24 (north of KMart - A26)
643          RS       1    STOR       0       0
644          SV       0    0.59    2.68    5.01    7.58     9.0
645          SE    20.5      21      22      23      24      25
646          SS      24     100       3     1.5
647          SL      21   13.14     0.6     0.5

648          KK   RtC19
649          KM       Route flows along I-10 in channel from Basin
650          RS       1    FLOW      -1
651          RC   0.035   0.035   0.035     700   0.008
652          RX      13      14      15      20      45      55      56      57
653          RY     4.5     4.4     4.3     1.0     1.0     4.3     4.4     4.5

654          KK     A26
655          KM       Developed Area 26
656          BA    .048
657          LS              92
658          UD    .089

659          KK   DvA26
660          KM      Simulate Detention Area for Development A26
661          DT    ST26    4.04
662          DI       0      50     100     150     200     250     500
663          DQ       0      50     100     150     200     250     500

664          KK  RtnRay
665          KM       Return divided flow from Ray and 48th ST
666          DR  RayEst

667          KK   RtR11
668          KM       Route flows along Ray Rd
669          RS       1    FLOW      -1
670          RC   0.012   0.012   0.012    2000   0.008
671          RX       0       8       9      10      90      91      92     100
672          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

673          KK     R14
674          KM       Road Segment along Ray from 48th to I-10
675          BA    .008
676          LS             100
677          UD    .186
```



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

678          KK  Comb23
679          KM       Combine flows from A26, R14, RtR11, and RtC19 (basin)
680          HC       4
             * DIV520, DIVBOX, & ADDBOX FROM HDR SOUTH MOUNTAIN RUN.

681          KK  DIV520 DIVERT WEIR FLOW THRU EQUIP. CROSSING UNDER EB OFF-RAMP
682          KM   FROM HDR SOUTH MONTAIN RUN
```

```
683          DT  DIVBOX
684          DI       0     100     200     300     400     500
685          DQ       0       0      60     143     230     320

686          KK  DIVBOX RETREIVE FLOW THRU EQUIPMENT CROSSING
687          DR  DIVBOX
             * NOTE: FLOW RE-COMBINES AT APPROX. BOTTOM OF BASIN A1

688          KK  ADDBOX RE-COMBINE FLOW DIVERTED THRU EQUIP. CROSSING.
689          KM   RE-COMBINE FLOW DIVERTED THRU EQUIP. CROSSING
690          HC       2
             *

691          KK   RTE23 ROUTE CHANNEL FLOW SOUTH ALONG I-10 TO COMBB
692          KM   ASSUME BW=10', 2:1ss, D=5', n=0.015, s & l FROM SOUTH MONTAIN RUN
693          RS       1    FLOW      -1
694          RC    .015    .015    .015    4000   .0099
695          RX       0      10      20      30      40      50      60      70
696          RY       5       5       5       0       0       5       5       5
             *
             * PEPPERWOOD MODEL, MODIFIED TO REFLECT NEW DEVELOPMENT PLANS
             * EAST OF 48th
             * FROM RAY ROAD TO CHANDLER BLVD.  NO LOCAL RETENTION CONSIDERED.
             *

697          KK     VA1 VESTAR PHASE I & II DEVELOPMENTS.
698          KM   ASSUMED COMMERCIAL (ZONING R-3), B SOILS, AREA FROM KIMLEY HORN
699          KM   GRADING PLAN
700          BA    0.11
701          LS              85
702          UD    0.17
             *
             *

703          KK   RTEA1 ROUTE A1 TO A2 VIA DITCH ON I-10 R.O.W.
704          KM   ASSUME BW=10', 2:1ss, D=5', n=0.015
705          RS       1    FLOW
706          RC    .015    .015    .015    1320    .002
707          RX       0      10      20      30      40      50      60      70
708          RY       5       5       5       0       0       5       5       5
             *
```



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

709          KK     VA2 MARK DEVELOPMENT APARTMENTS, COMMERCE PARK I & II
710          KM   CN ASSUMES COMMERCIAL AND APARTMENT DEVELOPMENT ON B SOIL
711          BA    0.17
712          LS              85
713          UD    0.19
             *

714          KK   COMBA
715          KM   COMBINE A1 & A2 HYDROGRPAHS
716          HC       2
             *

717          KK  STORA2
718          KM   RETENTION CELL IN SE CORNER OF BASIN VA2.
             * SEE KIMLEY/HORN GRADING & DRAINAGE PLANS
719          RS       1    STOR      -1
720          SQ       0    0.01    1500
721          SV       0   21.44   21.44
             *

722          KK   RTEA2 ROUTE A2 TO B VIA DITCH ON I-10 R.O.W.
```

```
723          KM   ASSUME BW=10', 2:1ss, D=5', n=0.015
724          RS       1    FLOW
725          RC    .015    .015    .015    1320    .008
726          RX       0      10      20      30      40      50      60      70
727          RY       5       5       5       0       0       5       5       5
             *

728          KK   COMBB
729          KM   COMBINE HYDROGRAPHS RTE23,RTEA2 AND COMBB
730          HC       3
             *

731          KK     RtB
732          KM   ROUTE FLOW TO BOTTOM OF PEPPERWOOD BASIN F PARALLEL TO I-10
733          RS       2    FLOW
734          RC    .015    .015    .015    1320    .006
735          RX       0       5      10      22      32      44      54      64
736          RY       6       6       6       0       0       6       6       6
             *

737          KK       D PEPPERWOOD BASIN D
738          KM   CN ASSUMED COMMERCIAL, B SOILS
739          BA     .03
740          LS             85
741          UD      .1
             *
             *
1                                          HEC-1 INPUT                                          PAGE 20
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

742          KK       E PEPPERWOOD BASIN E
743          KM   CN ASSUMED COMMERCIAL, B SOILS
744          BA     .03
745          LS             85
746          UD      .1
             *
             *

747          KK   COMBE
748          KM   COMBINE HYDROGRAPHS FROM D& E
749          HC       2
             *

750          KK    RTEE
751          KM   ROUTE COMBINED HYDROGRAPHS TO BOTTOM OF BASIN F
752          RS       1    FLOW      -1
753          RC    .015    .015    .015    1000    .005
754          RX       0      10      20      32      42      54      64      74
755          RY       6       6       6       0       0       6       6       6
             *

756          KK       F PEPPERWOOD BASIN F
757          KM   CN ASSUMED, COMMERCIAL, B SOILS
758          BA     .04
759          LS             85
760          UD     .09
             *

761          KK   COMBF
762          KM   COMBINE HYDROGRAPHS FROM RTEE,BASIN F, AND RTB
763          HC       3
             *

764          KK    RTEF
765          KM   ROUTE FLOW THROUGH CONCRETE CHANNEL ALONG I-10 R.O.W TO BOTTOM
```

```
766          KM   OF DA522C
767          RS       1    FLOW      -1
768          RC    .015    .015    .015    1320    .005
769          RX       0      10      20      32      42      54      64      74
770          RY       6       6       6       0       0       6       6       6
             *
             * ORIG. BASIN 522A THRU 522D MODIFIED TO REFLECT FUTURE DEVELOPMENT
             * AND DRAINAGE CORRIDORS.  ORIG. BASINS HAD CN OF 81
             * ASSUMED FOR NEW BASINS.
             *

771          KK  DA522A
772          BA   0.058
773          LS              85
774          UD     .17
1                                          HEC-1 INPUT                                                    PAGE 21

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

775          KK  RT522A
776          KM   ROUTE COMBINED FLOW THROUGH CONC. CHANNEL ALONG 1/4-Section
777          RS       1    FLOW      -1
778          RC    .015    .015    .015    1200    .005
779          RX       0      10      20      32      42      54      64      74
780          RY       6       6       6       0       0       6       6       6
             *
             * ****BEGIN I-10/CHANDLER BLVD TI ON-SITE TO COLLECTOR CHAN*****

781          KK    DA10  UPPER 1-10 DRAINAGE AREAS WHICH DRAIN TO WEST CHANNEL
782          BA    .006
783          LS              92
784          UD     .10

785          KK    DA11
786          BA   .0019
787          LS              98
788          UD     .10

789          KK    DA12
790          BA   .0079
791          LS              91
792          UD     .10

793          KK   ADD12
794          HC       3

795          KK   RTE12
796          RD     140   .0036    .012            CIRC     2.5

797          KK    DA13
798          BA   .0026
799          LS            90.1
800          UD     .10

801          KK   RTE13
802          RD     300   .0017    .012            CIRC     2.0

803          KK    DA14
804          BA   .0043
805          LS            88.4
806          UD     .10

807          KK   ADD14
808          HC       3

809          KK   RTE14
```

```
          810          RD    1060   .0029    .012            CIRC     4.0
1                                                HEC-1 INPUT                                                PAGE 22
         LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          811          KK    DA15
          812          BA   .0050
          813          LS             90.9
          814          UD     .10

          815          KK    DA16
          816          BA   .0016
          817          LS               98
          818          UD     .10

          819          KK    DA17
          820          BA   .0052
          821          LS             90.6
          822          UD     .10

          823          KK    DA18
          824          BA   .0017
          825          LS             90.7
          826          UD     .10

          827          KK   ADD17
          828          HC       5

          829          KK   RTE18
          830          KM   ONSITE FLOW FROM I-10 NORTH - CHANDLER BLVD. TO COLLECTOR
          831          KM   CHANNEL
          832          RD     380   .0008    .012            CIRC     4.5
                       * *****END I-10/ CHANDLER/TI MODEL *****

          833          KK  DA522C
          834          BA   0.044
          835          LS               85
          836          UD    0.14

          837          KK  AD522C
          838          KM   COMBINE HYDROGRAPHS FROM RT522A, I-10, DA522C AND RTEF
          839          HC       4

          840          KK  RT522C
          841          KM   ROUTE FLOW THROUGH CONC. ADOT CHANNEL TO BOTTOM OF DA522D
          842          RS       1     FLOW      -1
          843          RC    .015    .015    .015    1450    .003
          844          RX       0      10      20      32      42      54      64      74
          845          RY       6       6       6       0       0       6       6       6
                       *
                       * AREAS FOR DA522D & DA522E BASED ON ALIGNMENT SHOWN IN SOUTH
                       * MOUNTAIN REPORT.

          846          KK  DA522DA 0.024
          847          LS               85
          848          UD     .13
1                                                HEC-1 INPUT                                                PAGE 23
         LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          849          KK  DA522B
          850          BA   0.058
          851          LS               85
          852          UD     .17
                       *
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```
853          KK  AD522D
854          KM   COMBINE HYDROGRAPHS FROM RT522C,DA522B AND DA522D
855          HC       3

856          KK  RT522D
857          KM   ROUTE COMBINED FLOW THROUGH CONC. ADOT CHANNEL TO BOT OF 522E
858          RS      1     FLOW      -1
859          RC    .015    .015    .015    1490    .003
860          RX       0      10      20      32      42      54      64      74
861          RY       6       6       6       0       0       6       6       6
             *

862          KK  DA522E
863          BA    0.05
864          LS              85
865          UD    0.09

866          KK  AD522E
867          KM   COMBINE HYDROGRAPHS FROM RT522D, RT522B, AND DA522E
868          HC       2
             *
             *
             *
             *
             * ****************************
             * THE FOLLOWING IS FROM THE HDR SOUTH MOUNTAIN MODEL

869          KK   DA513  (CVL195) CVL data
870          BA  0.0879
871          LS              85
872          UD   0.204

873          KK   DA514  (CVL197) CVL data
874          BA  0.0564
875          LS            84.1
876          UD   0.144

877          KK   DA515  (CVL199) CVL data
878          BA  0.0466
879          LS              84
880          UD   0.186

881          KK   AD515  Combine 515, 514 and 513
882          HC       3
1                                   HEC-1 INPUT                                    PAGE 24

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

883          KK   RT515  Channel info from Clouse plans.
884          RS       1    FLOW      -1
885          RC   0.040   0.020   0.040    2600  0.0059
886          RX      80      90     100     106     116     122     132     142
887          RY      10      10      10       6       6      10      10      10

888          KK   DA517  (CVL320) CVL data
889          BA  0.1700
890          LS              77
891          UD   0.258
             * RETREIVE SOUTH SPLIT AT 48th & THISTLE (KIMLEY/HORN DATA)

892          KK   South
893          KM   RETREIVE SOUTH SPLIT FROM 48th & THISTLE
894          DR   South
             * CONTINUE WITH HDR SOUTH MONTAIN DATA
```

```
895          KK   AD517  Add in 517
896          HC       3

897          KK   RT517  Assumed channel shape based on estimated 48th St. cross-section.
898          RS     1    FLOW      -1
899          RC   0.020   0.025   0.040     850   0.005
900          RX      78      80     100     112     116     118     122     222
901          RY      12     9.6      10    9.76    7.76    7.76      10      12

902          KK   DA518
903          BA   0.099
904          LS              81
905          UD    0.58

906          KK   AD518  Combine 518 with flow moving south in 48th St.
907          HC       2
             * HDR SOUTH MOUNTAIN RUN SHOWS SPLIT AT 48th & CHANDLER. ASSUME THAT
             * SPLIT HAS BEEN CORRECTED, AND ALL FLOW GOES SOUTH ALONG 48th.
             * ORIGINAL SPLIT CARDS:
             * KKDIV518 Assume 50-50 split at 48th & Chandler IC.
             * DT DIVSE
             * DI      0    2000
             * DQ      0    1000
             *
             *
             * CHANNEL GEOMETRY FOR RT518 HAS BEEN EXTENDED TO STABILIZE ROUTING
             * ORIG. RX & RY:
             * RX  80      90     100     105     110     115     125     135
             * RY10.4    10.2      10       5       5      10    10.2    10.4
             * RT518 MODIFIED TO REFLECT NEW CONC. CHANNEL PARALLEL TO 48th STR.
             * ORIGINAL CARDS
             *  RT518  Assume channel size based on existing tail-water ditch.
             * RS   1    FLOW      -1
             * RC 0.035   0.025   0.035    3600  0.0061
             * RX  50      90     100     105     110     115     125     165
             * RY  11    10.2      10       5       5      10    10.2      11
1                                          HEC-1 INPUT                                                    PAGE 25

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

908          KK   RT518
909          KM   ROUTE FLOW TO BOTTOM OF 519B
910          RS       1    FLOW      -1
911          RC    .015    .015    .015    1320    .005
912          RX       0      10      20      30      40      50      60      70
913          RY       5       5       5       0       0       5       5       5
             *
             * ORIGINAL BASINS 519a AND 519b SPLIT UP TO REFLECT EXPECTED ROAD AND
             * DRAINAGE PATTERNS.  ORIGINAL DATA:
             * KKDA519a
             * BA0.22
             * LS          81
             * UD0.62
             * KKAD519a  Combine 519a and flow from N. at 48th & SMF.
             * HC   2
             *
             * ORIGINAL RETRIEVAL CARDS FOR SPLIT AT 48th & CHANDLER DELETED.
             *
             * KK DIVSE   Retrieve SE part of diversion from 48th St and Chandler Blvd IC.
             * DR DIVSE
             * KK  RTSE  Route to approx 50th St. thru assumed channel overland
             * RS     5    FLOW      -1
             * RC 0.035   0.035   0.035    3100   0.005
             * RX    80      90     100     110     610     620     630     640
             * RY    10      10      10       9       9      10      10      10
             *
```

```
                 * KKDA519b
                 * BA 0.322
                 * LS          85
                 * UD0.43
                 *
                 * KKRT519b  Assume channel size and route 519b back to 48th St.
                 * RS    1    FLOW      -1
                 * RC 0.035   0.018   0.035    2800  0.0011
                 * RX  80      90     100     112     124     136     146     156
                 * RY  10      10      10       4       4      10      10      10
                 * KKAD519b  Combine all flows approx. 400ft West of 48th St. Design Q - C219.
                 * HC   3
                 *
                 * MODIFIED AREAS
                 *

914              KK  DA519A
915              BA   0.046
916              LS              85
917              UD    0.13
                 *

918              KK  RT519A
919              KM   ROUTE EAST TO END OF 519B (AT 48th STR.)
920              RS       1    FLOW      -1
921              RC    .015    .015    .015    2750    .003
922              RX       0      10      20      30      40      50      60      70
923              RY       5       5       5       0       0       5       5       5
                 *
1                                          HEC-1 INPUT                                          PAGE 26

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

924              KK  DA519B
925              BA   0.136
926              LS              85
927              UD    0.19
                 *

928              KK  AD519B
929              KM   COMBINE HYDROGRAPHS FROM RT518, RT519A, & DA519B
930              HC       3
                 *

931              KK  RT519B
932              KM   ROUTE COMBINED HYDROGRAPHS SOUTH TO WEST SIDE OF 48th & FRYE
933              RS       1    FLOW      -1
934              RC    .015    .015    .015    1320    .006
935              RX       0      10      20      32      42      54      64      74
936              RY       6       6       6       0       0       6       6       6
                 *

937              KK  DA519C
938              BA   0.116
939              LS              85
940              UD    0.19
                 *

941              KK  RT519C
942              KM   ROUTE FLOW EAST TO 48th & FRYE
943              RS       1    FLOW      -1
944              RC    .015    .015    .015     900    .002
945              RX       0      10      20      30      40      50      60      70
946              RY       5       5       5       0       0       5       5       5
                 *
```

```
 947          KK  DA519D
 948          BA    .078
 949          LS              85
 950          UD     .19
              *

 951          KK  AD519D
 952          KM   COMBINE HYDROGRAPHS FROM RT519B, RT519C, & DA519D
 953          HC       3
              *

 954          KK  RT519D
 955          KM   ROUTE FLOW TO ADOT CHANNEL
 956          RS       1    FLOW      -1
 957          RC    .015    .015    .015     800    .008
 958          RX       0      10      20      32      42      54      64      74
 959          RY       6       6       6       0       0       6       6       6
              *
1                                          HEC-1 INPUT                                                    PAGE 27
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 960          KK  DA519E
 961          BA    .031
 962          LS              85
 963          UD    .11
              *

 964          KK  RT519E
 965          KM   ROUTE FLOW THROUGH ADOT CHANNEL TO BOTTOM OF DA519F
 966          RS       1    FLOW      -1
 967          RC    .015    .015    .015    2200    .002
 968          RX       0      10      20      32      42      54      64      74
 969          RY       6       6       6       0       0       6       6       6
              *

 970          KK  DA519F
 971          BA    .099
 972          LS              85
 973          UD     .23
              *

 974          KK  AD519F
 975          KM   COMBINE HYDROGRAPHS FROM RT519E AND DA519F
 976          HC       2
              *

 977          KK  DA519G
 978          BA   0.032
 979          LS              85
 980          UD     .11
              *

 981          KK  AD519G
 982          KM   COMBINE HYDROGRAPHS FROM AD519F, DA519G, RT519D, & AD522E
 983          HC       4
              *

 984          KK  RTI-10
 985          KM   ROUTE FLOWS THROUGH OPEN CHANNEL ACROSS I-10 R.O.W.
 986          KM   SIMULATES (3) 10X6 RCBC
 987          RS       1    FLOW      -1
 988          RC    .012    .012    .012     750    .002
 989          RX       0       5       9      10      40      41      45      50
 990          RY      10       8       6       0       0       6       8      10
              *  ADD ADITIONAL AREA FOR BASN 15 AND AREA WEST OF BASIN
```

```
 991          KK      B1 Area west of Basin 15
 992          KM   CN=85 assumed (commercial, B soil)
 993          BA   0.106
 994          LS              85
 995          UD    0.16
              *
1                                        HEC-1 INPUT                                          PAGE 28

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

 996          KK   RTEB1
 997          KM   Route flow to Basin 15
 998          RS       1    FLOW     -1
 999          RC    .015    .015    .015    3000    .005
1000          RX       0      10      20      30      40      50      60      70
1001          RY       5       5       5       0       0       5       5       5
              *

1002          KK  ADI-10
1003          KM   COMBINE HYDROGRAPHS FROM RTI-10 AND RTEB1
1004          HC       2
              *

1005          KK     B15
1006          KM   Drainage Area of Retention Basin 15
1007          BA   0.129
1008          LS              85
1009          UD    0.25
              *

1010          KK  ADBA15
1011          KM   COMBINE HYDROGRAPHS FROM ADI-10 AND B15
1012          HC       2
              *
              *     PRICE ROAD HYDROLOGY
              *     I-10 AND SOUTH MOUNTAIN FREEWAY INTERCHANGE
              *     ON-SITE INFIELD BASIN ROUTING, ON-SITE COLLECTION AND PUMP STATION
              *     DISCHARGE COMBINED FLOW @ PMP TO EQUALIZATION BASIN

1013          KK    DA01
1014          BA   .0099
1015          LS             95.7
1016          UD    0.10

1017          KK   RTE01
1018          RD     840   .0094    .012            CIRC     2.5

1019          KK    DA02
1020          BA   .0075
1021          LS             94.8
1022          UD    0.10

1023          KK    DA03
1024          BA   .0047
1025          LS             89.6
1026          UD     .10

1027          KK   ADD03   ADD HYD. 01 THRU 03
1028          HC       3
1                                        HEC-1 INPUT                                          PAGE 29

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

1029          KK   RTE03
```

```
1030          RD     490   .0074    .012            CIRC     3.5

1031          KK    DA04
1032          BA   .0038
1033          LS            93.4
1034          UD     .10

1035          KK    DA05
1036          BA   .0066
1037          LS            90.4
1038          UD     .10

1039          KK   ADD05
1040          HC       3

1041          KK   RTE05
1042          RD     685   .0045    .012            CIRC     4.0

1043          KK    DA06
1044          BA   .0088
1045          LS            90.7
1046          UD     .10

1047          KK   ADD06
1048          HC       2

1049          KK   RTE06
1050          RD     700   .0045    .012            CIRC     4.0

1051          KK    DA07
1052          BA   .0203
1053          LS            81.3
1054          UD     .10

1055          KK   ADD07
1056          HC       2

1057          KK   RTE07
1058          RD     605   .0022    .012            CIRC       5

1059          KK    DA08
1060          BA   .0056
1061          LS            94.8
1062          UD     .10

1063          KK   RTE08
1064          RD     700   .0072    .012            CIRC     2.5
1                                          HEC-1 INPUT                                          PAGE 30

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


1065          KK   ADD08
1066          HC       2

1067          KK    DA09
1068          BA   .0284
1069          LS            80.8
1070          UD     .10

1071          KK   ADD09
1072          HC       2

1073          KK    PUMP  96" STORAGE RCP'S
1074          KM          L=1070 FEET     200 CFS STATION
1075          RS       1    ELEV    1132       0
1076          SV       0     .24    0.62    0.99    1.24
```

```
1077          SE    1132    1134    1136    1138    1140
1078          SQ     .01     .02     .03     .04     .05
1079          WP                            PUMP
1080          WP    1134      50    1133    PUMP
1081          WP    1135      50    1134    PUMP
1082          WP    1136      50    1135    PUMP
1083          WP    1136      50    1133    PUMP

1084          KK   PUMPR
1085          WR    PUMP

1086          KK    PUMP
1087          HC       2

1088          KK    DA19
1089          BA   .0112
1090          LS            75.6
1091          UD     .10

1092          KK   RTE19
1093          RD     150  .00670    .012            CIRC     2.5

1094          KK    DA20
1095          BA   .0104
1096          LS            90.7
1097          UD     .10

1098          KK   ADD20
1099          HC       2

1100          KK   RTE20
1101          RD      90   .0028    .012            CIRC     3.5

1102          KK    DA21
1103          BA   .0016
1104          LS              98
1105          UD     .10
```



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

1106          KK   ADD21
1107          HC       2

1108          KK   RTE21
1109          RD      90   .0028    .012            CIRC       4

1110          KK    DA22
1111          BA   .0133
1112          LS            91.3
1113          UD     .10

1114          KK   ADD22
1115          HC       2

1116          KK   RTE22
1117          RD     260   .0028    .012            CIRC     4.5

1118          KK    DA23
1119          BA   .0319
1120          LS            81.5
1121          UD     .10

1122          KK   ADD23
1123          HC       2
```

```
1124          KK   RTE23  INFIELD AREA - 30" OUTLET (INLET CONTROL) basin 12
1125          RS       1    STOR     0.0
1126          SV       0    0.24    0.91    7.44
1127          SE    1160    1161    1162    1165
1128          SQ       0       0       4      25

1129          KK    DA24
1130          BA   .0025
1131          LS              98
1132          UD     .10

1133          KK   ADD24
1134          HC       2

1135          KK    DA25
1136          BA   .0195
1137          LS            84.4
1138          UD     .10

1139          KK   ADD25
1140          HC       2

1141          KK   RTE25  INFIELD AREA - 24" OUTLET (INLET CONTROL) basin 11
1142          RS       1    STOR     0.0
1143          SV       0     .16     .91   13.37
1144          SE    1159    1160    1161    1165
1145          SQ       0       0       4      30
1                                   HEC-1 INPUT                                    PAGE 32

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


1146          KK    DA26
1147          BA   .0156
1148          LS            78.5
1149          UD     .10

1150          KK   ADD26
1151          HC       2

1152          KK   RTE26  INFIELD AREA - 18" OUTLET (INLET CONTROL) basin 10
1153          RS       1    STOR     0.0
1154          SV       0    0.01    1.91    5.31
1155          SE    1158    1159    1160    1161
1156          SQ       0       0     3.4       9

1157          KK    DA27
1158          BA   .0253
1159          LS            84.3
1160          UD     .10

1161          KK   ADD27
1162          HC       2

1163          KK   RTE27  INFIELD AREA - 24" OUTLET (INLET CONTROL) basin 9
1164          RS       1    STOR     0.0
1165          SV       0    0.01    1.34    3.53
1166          SE  1157.9  1158.4    1160    1161
1167          SQ       0       0       9      17

1168          KK    DA28
1169          BA   .0025
1170          LS              98
1171          UD     .10

1172          KK   ADD28
1173          HC       2
```

```
1174          KK    DA29
1175          BA   .0286
1176          LS            83.5
1177          UD     .10

1178          KK   ADD29
1179          HC       2

1180          KK   RTE29  INFIELD AREA - 24" OUTLET (INLET CONTROL) basin 8
1181          RS       1    STOR     0.0
1182          SV       0     .01    0.02    4.41
1183          SE  1157.0  1157.5    1159    1161
1184          SQ       0       0       8      23
1                                   HEC-1 INPUT                                          PAGE 33

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


1185          KK     PMP
1186          KM        ADD INFIELD RUNOFF AND PUMP STATION OUTFLOW
1187          KM        COMBINED DISCHARGE TO EQUALIZATION BASIN
1188          HC       2
              * ****END INTERCHANGE ON-SITE MODEL*****

1189          KK   ADPMP  combine flows from IC onsite pumpstation and route thru basin.
1190          KO       3
1191          HC       2
              *
              * *****Original ADOT BASIN 15 Design Concept not used in this run.
              * KK DET  Route thru detention basin S. side of SMF, outlet to Gila Floodw
              * KM        thru 54" RCP.
              * RS     1    STOR       0
              * SV     0    13.8    23.0   118.9   221.8   243.2   264.9   286.9   309.2   331
              * SE  1143  1144.5    1145    1150    1155    1156    1157    1158    1159    11
              * SQ     0      13      20      79      98     102     105     108     111     1
              *
              *
              * ***********************************************************************
              * PREVIOUS BASIN 15 ROUTINE KEPT FOR RECORD PURPOSES ONLY
              *
              * ***********************************************************************
              * ***********************************************************************
              * Begin Basin 15/48th Street Detention Basin Routing
              * ***********************************************************************

1192          KK   B15FF
1193          KM   DIVERT FIRST 37 ac-ft EQUALIZATION BASIN
1194          KM   EQ BASIN RETAINS 37.6 AC-FT TO OVERFLOW ELEV. 1158
1195          KO       3
1196          DT   DIVFF    37.6
1197          DI       0   10000
1198          DQ       0   10000
              *

1199          KK   STB15
1200          KM        ROUTE MAIN VOLUME INTO BASIN 15
1201          KM        100-YR  6-HOUR MULTI-USE BASIN WITH 1' FREEBORAD
1202          KM        TOP OF BASIN, INCLUDING FREEBOARD, AT ELEV. 1160.
1203          KM        OUTLET PIPE IS CLOSED
1204          KM        OUTLET IS 42" RCP TO SANTAN CHANNEL
1205          KO       3
1206          RS       1    STOR
1207          SV       0       1      35     109     228     275   321.8
1208          SQ       0       0       0       0       0       0       0
1209          SE    1142  1146.5    1152    1155    1158    1159    1160
              *
```

```
1                                                HEC-1 INPUT                                                PAGE 34

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


          1210          KK    RTFF
          1211          DR   DIVFF

          1212          KK    STFF
          1213          KM    ROUTE FF INTO EQUAL BASIN
          1214          KO       3
          1215          RS       1    STOR
          1216          SV       0    37.6
          1217          SQ       0       0
          1218          SE    1144    1158
          1219          ZZ
1
               SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

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

     8          M1
                 V
                 V
    19        RtC1
                 .
                 .
    25           .          M2
                 .           V
                 .           V
    30           .        RtC2
                 .           .
                 .           .
    36           .           .          A1
                 .           .           .
                 .           .           .
    41       COMB1.......................
                 .
                 .
    46           .-------->   Splt1
    44       Splt1
                 V
                 V
    49        RtC3
                 .
                 .
    55           .          M3
                 .           V
                 .           V
    60           .        RtC4
                 .           .
                 .           .
    66           .           .          A2
                 .           .           .
                 .           .           .
    71       COMB2.......................
                 V
                 V
    74        RtC5
                 .
                 .
    80           .          M4
                 .           V
                 .           V
    85           .        RtR1
```

```
                 :          :
 91              :          :        A3
                 :          :         :
 96              :          :         :        A4
                 :          :         :         :
101          COMB3.......................................
                 :
                 :
106              :-------->   RET1
104           RET1
                 V
                 V
109           RtC6
                 :
                 :
115              :        A5
                 :         :
                 :         :
120          COMB4............
                 :
                 :
125              :-------->  Splt2
123          Splt2
                 V
                 V
128           RtC7
                 :
                 :
134              :       A6b
                 :         V
                 :         V
139              :      RtR2
                 :         :
                 :         :
145              :         :        R1
                 :         :         :
                 :         :         :
150              :     Comb5............
                 :         :
                 :         :
155              :         :-------->  DivR1
153              :     DivR1
                 :         :
                 :         :
158              :         :       A6a
                 :         :         V
                 :         :         V
163              :         :      RtC8
                 :         :         :
                 :         :         :
169              :         :         :        A7
                 :         :         :         :
                 :         :         :         :
174          Comb6.......................................
                 V
                 V
177           RtC9
                 :
                 :
183              :        A8
                 :         :
                 :         :
188              :         :        R2
                 :         :         :
```

```
193          :          :          :        A29
             :          :          :          :
198      COMB7..............................
             V
             V
201      RtC10
             :
             :
207          :        A9
             :          :
             :          :
212          :          :        A30
             :          :          :
             :          :          :
217      COMB8.......................
             :
             :
222          :-------->   Split3
220      SPLT3
             V
             V
225      RtC11
             :
             :
231          :       A11
             :          :
             :          :
236          :          :        A12
             :          :          :
             :          :          :
243          :          :          :-------->   DvA12
241          :          :      DvA12
             :          :          :
             :          :          :
246          :      Comb9...........
             :          V
             :          V
249          :      RtR3
             :          :
             :          :
255          :          :        A10
             :          :          :
             :          :          :
262          :          :          :-------->   DvA10
260          :          :      DvA10
             :          :          :
             :          :          :
265          :          :          :         R3
             :          :          :          :
             :          :          :          :
270          :          :          :          :         R4
             :          :          :          :          :
             :          :          :          :          :
275      Comb10.............................................
             V
             V
278      RtC12
             :
             :
286          :          :<-------   DivR1
284          :      RetR1
             :          V
             :          V
287          :      RtR4
             :          :
```

```
293                R6
298                          A13
305                                  -------> DvA13
303                          DvA13
308          Comb11.......................
                 V
                 V
311          RtC13
317                A14
324                      -------> DvA14
322                DvA14
327                          R7a
332          Comb12.......................
                 V
                 V
335          RtC14
341                A15
346                          A31
351                                     R7b
356                                                R5
361     Comb13.............................................
            V
            V
364      RtC15
            V
            V
370       RtR5
376          R12A
381                A16
388                      -------> DvA16
386                DvA16
391                          A17
```

```
 396     Comb14.................................
             V
             V
 399       RtR6
             .
             .
 407         .-------> 48-Est
 405     48-Sth
             .
             .
 410         .        A18
             .          .
             .          .
 415         .          .         R8
             .          .          .
             .          .          .
 420         .     Comb15...........
             .          V
             .          V
 423         .       RtR7
             .          .
             .          .
 429         .          .         R9
             .          .          .
             .          .          .
 434         .          .          .        A19
             .          .          .          .
             .          .          .          .
 439         .     Comb16......................
             .          V
             .          V
 442         .       RtR8
             .          .
             .          .
 448         .          .        A20
             .          .          .
             .          .          .
 455         .          .          .-------> DvA20
 453         .          .      DvA20
             .          .          .
             .          .          .
 458         .          .          .        R10
             .          .          .          .
             .          .          .          .
 463         .     Comb17......................
             .          V
             .          V
 466         .       RtR9
             .          .
             .          .
 472         .          .        A21
             .          .          .
             .          .          .
 479         .          .          .-------> 21-Est
 477         .          .     21-Sth
             .          .          V
             .          .          V
 482         .          .      RtR10
             .          .          .
             .          .          .
 488         .          .          .        R11
             .          .          .          .
             .          .          .          .
 493         .          .          .          .        A22
             .          .          .          .          .
             .          .          .          .          .
 500         .          .          .          .          .-------> DvA22
```

```
498                                                   DvA22
                                                        .
503                                                     .        R12b
                                                        .          .
510                                                     .          .<-------  48-Est
508                                                     .     Retn48
                                                        .          .
511                 Comb18.......................................................
                                                        .
516                         .------->  RayEst
514                 RaySth                              .
                                                        .
519          Comb19............
                     V
                     V
522           RtC16
                                                        .
528                   A27
                       V
                       V
533                 RtC17
                                                        .
539                         .        A28
                                       .
544                         .          .        R13
                                       .          .
549          Comb20.................................
                     V
                     V
552             RET2
                                                        .
561                 .------->   South
559             East
                     V
                     V
566          RtEAST
                                                        .
572                         C
                                       .
                                       .
577           COMBC............
                     V
                     V
580              RtC
                                       .
586                         B
                                       .
                                       .
591           COMBB............
                                       .
596                         .<-------  21-Est
594                 Retn21
                                       V
                                       V
```

```
597          .      RtP1
             .        .
             .        .
603          .        .        A25
             .        .         .
             .        .         .
608          .   Comb21............
             .       V
             .       V
611          .      RtP2
             .        .
             .        .
617          .        .        A23
             .        .         .
             .        .         .
624          .        .         .-------->    ST23
622          .        .     DvA23
             .        .        V
             .        .        V
627          .        .     RtC18
             .        .         .
             .        .         .
633          .        .         .        A24
             .        .         .         .
             .        .         .         .
638          .   Comb22.......................
             .       V
             .       V
641          .      RET3
             .       V
             .       V
648          .     RtC19
             .        .
             .        .
654          .        .        A26
             .        .         .
             .        .         .
661          .        .         .-------->    ST26
659          .        .     DvA26
             .        .         .
             .        .         .
666          .        .         .          .<-------  RayEst
664          .        .         .     RtnRay
             .        .         .          V
             .        .         .          V
667          .        .         .      RtR11
             .        .         .         .
             .        .         .         .
673          .        .         .         .        R14
             .        .         .         .         .
             .        .         .         .         .
678          .   Comb23.................................
             .        .
             .        .
683          .        .-------> DIVBOX
681          .   DIV520
             .        .
             .        .
687          .        .         .<-------  DIVBOX
686          .        .    DIVBOX
             .        .         .
             .        .         .
688          .   ADDBOX............
             .       V
             .       V
691          .     RTE23
             .        .
```

```
697          .           .        VA1
             .           .         V
             .           .         V
703          .           .      RTEA1
             .           .         .
709          .           .         .        VA2
             .           .         .         .
             .           .         .         .
714          .           .      COMBA.........
             .           .         V
             .           .         V
717          .           .     STORA2
             .           .         V
             .           .         V
722          .           .      RTEA2
             .           .         .
             .           .         .
728     COMBB.......................
           V
           V
731       RtB
             .
             .
737          .          D
             .           .
             .           .
742          .           .         E
             .           .         .
             .           .         .
747          .       COMBE.........
             .           V
             .           V
750          .        RTEE
             .           .
             .           .
756          .           .         F
             .           .         .
             .           .         .
761     COMBF.......................
           V
           V
764      RTEF
             .
             .
771          .     DA522A
             .          V
             .          V
775          .     RT522A
             .           .
             .           .
781          .           .      DA10
             .           .         .
             .           .         .
785          .           .         .      DA11
             .           .         .         .
             .           .         .         .
789          .           .         .         .        DA12
             .           .         .         .         .
             .           .         .         .         .
793          .           .      ADD12.......................
             .           .         V
             .           .         V
795          .           .      RTE12
             .           .         .
             .           .         .
```

```
797                 .         .         .      DA13
                    .         .         .        V
                    .         .         .        V
801                 .         .         .     RTE13
                    .         .         .        .
                    .         .         .        .
803                 .         .         .        .      DA14
                    .         .         .        .        .
                    .         .         .        .        .
807                 .         .      ADD14.......................
                    .         .         V
                    .         .         V
809                 .         .      RTE14
                    .         .         .
                    .         .         .
811                 .         .         .      DA15
                    .         .         .        .
                    .         .         .        .
815                 .         .         .        .      DA16
                    .         .         .        .        .
                    .         .         .        .        .
819                 .         .         .        .        .      DA17
                    .         .         .        .        .        .
                    .         .         .        .        .        .
823                 .         .         .        .        .        .      DA18
                    .         .         .        .        .        .        .
                    .         .         .        .        .        .        .
827                 .         .      ADD17.............................................
                    .         .         V
                    .         .         V
829                 .         .      RTE18
                    .         .         .
                    .         .         .
833                 .         .         .     DA522C
                    .         .         .        .
                    .         .         .        .
837            AD522C.............................
                    V
                    V
840            RT522C
                    .
                    .
846                 .     DA522D
                    .        .
                    .        .
849                 .         .      DA522B
                    .         .        .
                    .         .        .
853            AD522D......................
                    V
                    V
856            RT522D
                    .
                    .
862                 .     DA522E
                    .        .
                    .        .
866            AD522E............
                    .
                    .
869                 .      DA513
                    .        .
                    .        .
873                 .         .      DA514
                    .         .        .
                    .         .        .
877                 .         .         .     DA515
```

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881          AD515.......................
                 V
                 V
883          RT515
                 .
                 .
888                  DA517
                         .
                         .
894                      .<-------   South
892                      .      South
                         .          .
                         .          .
895          AD517.......................
                 V
                 V
897          RT517
                 .
                 .
902                  DA518
                         .
                         .
906          AD518............
                 V
                 V
908          RT518
                 .
                 .
914                 DA519A
                        V
                        V
918                 RT519A
                        .
                        .
924                     .      DA519B
                        .          .
                        .          .
928          AD519B......................
                 V
                 V
931          RT519B
                 .
                 .
937                 DA519C
                        V
                        V
941                 RT519C
                        .
                        .
947                     .      DA519D
                        .          .
                        .          .
951          AD519D......................
                 V
                 V
954          RT519D
                 .
                 .
960                 DA519E
                        V
                        V
964                 RT519E
                        .
                        .
970                     .      DA519F
```

```
                 .          .          .          .
                 .          .          .          .
  974            .          .     AD519F...........
                 .          .          .
  977            .          .          .     DA519G
                 .          .          .          .
  981      AD519G.................................
                V
                V
  984      RTI-10
                .
                .
  991           .         B1
                .          V
                .          V
  996           .      RTEB1
                .          .
                .          .
 1002      ADI-10...........
                .
                .
 1005           .        B15
                .          .
                .          .
 1010      ADBA15...........
                .
                .
 1013           .       DA01
                .          V
                .          V
 1017           .      RTE01
                .          .
                .          .
 1019           .          .       DA02
                .          .          .
                .          .          .
 1023           .          .          .       DA03
                .          .          .          .
                .          .          .          .
 1027           .      ADD03.......................
                .          V
                .          V
 1029           .      RTE03
                .          .
                .          .
 1031           .          .       DA04
                .          .          .
                .          .          .
 1035           .          .          .       DA05
                .          .          .          .
                .          .          .          .
 1039           .      ADD05.......................
                .          V
                .          V
 1041           .      RTE05
                .          .
                .          .
 1043           .          .       DA06
                .          .          .
                .          .          .
 1047           .      ADD06...........
                .          V
                .          V
 1049           .      RTE06
                .          .
```

```
1051                DA07
                      .
1055          ADD07.......
                  V
                  V
1057          RTE07
                      .
1059                DA08
                      V
                      V
1063                RTE08
                      .
1065          ADD08.......
                      .
1067                DA09
                      .
1071          ADD09.......
                  V
                  V
1079                .------->    PUMP
1073           PUMP
                      .
1085                      .<-------    PUMP
1084                PUMPR
                      .
1086           PUMP.......
                      .
1088                DA19
                      V
                      V
1092                RTE19
                      .
1094                      .       DA20
                      .          .
1098                ADD20.......
                      V
                      V
1100                RTE20
                      .
1102                      .       DA21
                      .          .
1106                ADD21.......
                      V
                      V
1108                RTE21
                      .
1110                      .       DA22
                      .          .
1114                ADD22.......
                      V
                      V
1116                RTE22
```

```
1118                    DA23
1122            ADD23.........
                    V
                    V
1124            RTE23
1129                    DA24
1133            ADD24.........
1135                    DA25
1139            ADD25.........
                    V
                    V
1141            RTE25
1146                    DA26
1150            ADD26.........
                    V
                    V
1152            RTE26
1157                    DA27
1161            ADD27.........
                    V
                    V
1163            RTE27
1168                    DA28
1172            ADD28.........
1174                    DA29
1178            ADD29.........
                    V
                    V
1180            RTE29
1185        PMP.........
1189    ADPMP.........
1196        -------> DIVFF
1192    B15FF
```

```
                V
                V
 1199       STB15
                .
                .
 1211           .          .<-------   DIVFF
 1210           .       RTFF
                .          V
                .          V
 1212           .       STFF

 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *             JUN 09 1992              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.0.3E             *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE  12/02/98  TIME  16:37:26  *                                    *          (916) 551-1748              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************


                              FN: H2_6cl.DAT     November 1998
                                  48TH STREET BASIN/REVISED BASIN 15
                                  HDR 2-YR  6-HR MULTI-USE RETENTION BASIN WITH 1' FREEBOARD
                                  42" RCP OUTLET CLOSED-BASIN RETAINS INFLOW

   6 IO          OUTPUT CONTROL VARIABLES
                       IPRNT           5  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE

     IT          HYDROGRAPH TIME DATA
                        NMIN           1  MINUTES IN COMPUTATION INTERVAL
                       IDATE      1    0  STARTING DATE
                       ITIME        0000  STARTING TIME
                          NQ        1081  NUMBER OF HYDROGRAPH ORDINATES
                      NDDATE      1    0  ENDING DATE
                      NDTIME        1800  ENDING TIME
                       ICENT          19  CENTURY MARK

                 COMPUTATION INTERVAL    0.02 HOURS
                      TOTAL TIME BASE   18.00 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


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
   8 KK     *        M1  *
            *            *
            **************
```

```
10 KO        OUTPUT CONTROL VARIABLES
                   IPRNT          3  PRINT CONTROL
                   IPLOT          0  PLOT CONTROL
                   QSCAL         0.  HYDROGRAPH PLOT SCALE

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

           SUBBASIN RUNOFF DATA

16 BA        SUBBASIN CHARACTERISTICS
                   TAREA       0.28  SUBBASIN AREA

             PRECIPITATION DATA

12 PB              STORM       1.80  BASIN TOTAL PRECIPITATION

13 PI          INCREMENTAL PRECIPITATION PATTERN
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01
                 0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                 0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                 0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
                 0.02      0.02      0.02      0.02      0.02      0.02      0.02      0.02      0.02      0.02
                 0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                 0.01      0.01      0.01      0.01      0.01      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

17 LS        SCS LOSS RATE
                   STRTL       0.25  INITIAL ABSTRACTION
                  CRVNBR      98.00  CURVE NUMBER
                   RTIMP       0.00  PERCENT IMPERVIOUS AREA

18 UD        SCS DIMENSIONLESS UNITGRAPH
                    TLAG       0.25  LAG
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UNIT HYDROGRAPH
78 END-OF-PERIOD ORDINATES

10.	26.	49.	78.	111.	151.	201.	256.	319.	376.
428.	465.	493.	513.	517.	518.	515.	498.	477.	454.
428.	401.	368.	331.	291.	257.	229.	205.	185.	166.
149.	136.	124.	112.	101.	91.	81.	73.	66.	60.
54.	49.	44.	39.	35.	32.	28.	26.	23.	21.
19.	17.	15.	14.	13.	11.	10.	9.	8.	7.
7.	6.	6.	5.	5.	4.	4.	4.	3.	3.
2.	2.	2.	1.	1.	1.	0.	0.		

*** *** *** *** ***

HYDROGRAPH AT STATION M1

TOTAL RAINFALL = 1.80, TOTAL LOSS = 0.43, TOTAL EXCESS = 1.37

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	18.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 248.	4.13		41.	14.	14.	14.
		(INCHES)	1.370	1.370	1.370	1.370
		(AC-FT)	20.	20.	20.	20.

CUMULATIVE AREA = 0.28 SQ MI

```
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
MANE2 NPLAN,NSTM        1       0
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MANE2 NPLAN,NSTM	1	0
MANE2 NPLAN,NSTM	1	0
MANE2 NPLAN,NSTM	1	0
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MANE2 NPLAN,NSTM	1	0
MANE2 NPLAN,NSTM	1	0
MANE2 NPLAN,NSTM	1	0
MANE2 NPLAN,NSTM	1	0
MANE2 NPLAN,NSTM	1	0
MANE2 NPLAN,NSTM	1	0
MANE2 NPLAN,NSTM	1	0

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MANE2 NPLAN,NSTM       1      0
MANE2 NPLAN,NSTM       1      0
MANE2 NPLAN,NSTM       1      0
MANE2 NPLAN,NSTM       1      0
MANE2 NPLAN,NSTM       1      0
MANE2 NPLAN,NSTM       1      0


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
 1189 KK    *     ADPMP  *       combine flows from IC onsite pumpstation and route thru basin.
            *            *
            **************

 1190 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           3  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE

 1191 HC          HYDROGRAPH COMBINATION
                       ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                   ***
MANE2 NPLAN,NSTM       1      0
       ***             ***             ***             ***             ***

                          HYDROGRAPH AT STATION    ADPMP

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     18.00-HR
+   (CFS)       (HR)
                            (CFS)
+     795.      4.35                225.         79.         79.         79.
                        (INCHES)   0.462       0.485       0.485       0.485
                         (AC-FT)    112.        117.        117.        117.

                         CUMULATIVE AREA =    4.54 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
 1192 KK    *     B15FF  *
            *            *
            **************

 1195 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           3  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE

      DT          DIVERSION
                       ISTAD       DIVFF  DIVERSION HYDROGRAPH IDENTIFICATION
                      DSTRMX       37.60  MAXIMUM VOLUME TO BE DIVERTED

      DI             INFLOW        0.00  10000.00

      DQ      DIVERTED FLOW        0.00  10000.00
```

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                                                                  ***
      ***            ***            ***            ***            ***

                        DIVERSION HYDROGRAPH    DIVFF

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     18.00-HR
+   (CFS)       (HR)
                          (CFS)
+     795.      4.35                  76.         25.         25.         25.
                        (INCHES)    0.155       0.155       0.155       0.155
                         (AC-FT)     38.         38.         38.         38.

                        CUMULATIVE AREA =    4.54 SQ MI

      ***            ***            ***            ***            ***

                        HYDROGRAPH AT STATION    B15FF

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     18.00-HR
+   (CFS)       (HR)
                          (CFS)
+     721.      4.55                 154.         54.         54.         54.
                        (INCHES)    0.316       0.330       0.330       0.330
                         (AC-FT)     76.         80.         80.         80.

                        CUMULATIVE AREA =    4.54 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
 1199 KK    *     STB15  *
            *            *
            **************

 1205 KO          OUTPUT CONTROL VARIABLES
                        IPRNT           3  PRINT CONTROL
                        IPLOT           0  PLOT CONTROL
                        QSCAL          0.  HYDROGRAPH PLOT SCALE

                HYDROGRAPH ROUTING DATA

 1206 RS          STORAGE ROUTING
                        NSTPS           1  NUMBER OF SUBREACHES
                         ITYP        STOR  TYPE OF INITIAL CONDITION
                       RSVRIC        0.00  INITIAL CONDITION
                            X        0.00 WORKING R AND D COEFFICIENT

 1207 SV            STORAGE         0.0       1.0      35.0     109.0     228.0     275.0     321.8

 1208 SQ          DISCHARGE          0.        0.        0.        0.        0.        0.        0.

 1209 SE          ELEVATION     1142.00   1146.50   1152.00   1155.00   1158.00   1159.00   1160.00
                                                                  ***
      ***            ***            ***            ***            ***
```

```
                        HYDROGRAPH AT STATION    STB15

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     18.00-HR
+   (CFS)       (HR)
                            (CFS)
+       0.      0.00                 0.          0.          0.          0.
                         (INCHES)  0.000       0.000       0.000       0.000
                          (AC-FT)     0.          0.          0.          0.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     18.00-HR
+  (AC-FT)      (HR)
      80.      18.00                 79.         52.         52.         52.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     18.00-HR
+   (FEET)      (HR)
   1153.82     18.00             1153.79     1150.45     1150.45     1150.45

                        CUMULATIVE AREA =    4.54 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
 1212 KK    *      STFF  *
            *            *
            **************

 1214 KO          OUTPUT CONTROL VARIABLES
                        IPRNT          3  PRINT CONTROL
                        IPLOT          0  PLOT CONTROL
                        QSCAL         0.  HYDROGRAPH PLOT SCALE

                HYDROGRAPH ROUTING DATA

 1215 RS          STORAGE ROUTING
                        NSTPS          1  NUMBER OF SUBREACHES
                         ITYP       STOR  TYPE OF INITIAL CONDITION
                        RSVRIC      0.00  INITIAL CONDITION
                             X      0.00 WORKING R AND D COEFFICIENT

 1216 SV            STORAGE        0.0      37.6

 1217 SQ          DISCHARGE         0.        0.

 1218 SE          ELEVATION     1144.00   1158.00
                                                          ***
      ***             ***            ***            ***            ***

                        HYDROGRAPH AT STATION     STFF

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     18.00-HR
+   (CFS)       (HR)
                            (CFS)
+       0.      0.00                 0.          0.          0.          0.
                         (INCHES)  0.000       0.000       0.000       0.000
                          (AC-FT)     0.          0.          0.          0.
```

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	18.00-HR
+ 38.	4.53	38.	29.	29.	29.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	18.00-HR
+ 1158.00	4.53	1158.00	1154.75	1154.75	1154.75

CUMULATIVE AREA = 0.00 SQ MI

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	M1	248.	4.13	41.	14.	14.	0.28		
+	ROUTED TO	RtC1	241.	4.20	41.	14.	14.	0.28		
+									2.20	4.20
+	HYDROGRAPH AT	M2	188.	4.08	29.	10.	10.	0.20		
+	ROUTED TO	RtC2	187.	4.10	29.	10.	10.	0.20		
+									2.71	4.10
+	HYDROGRAPH AT	A1	13.	4.13	2.	1.	1.	0.04		
+	3 COMBINED AT	COMB1	434.	4.15	73.	24.	24.	0.52		
+	DIVERSION TO	Splt1	260.	4.15	44.	15.	15.	0.52		
+	HYDROGRAPH AT	Splt1	174.	4.15	29.	10.	10.	0.52		
+	ROUTED TO	RtC3	173.	4.18	29.	10.	10.	0.52		
+									1.66	4.18
+	HYDROGRAPH AT	M3	30.	4.00	4.	1.	1.	0.03		
+	ROUTED TO	RtC4	29.	4.02	4.	1.	1.	0.03		
+									1.48	4.02
+	HYDROGRAPH AT	A2	8.	4.07	1.	0.	0.	0.02		
+	3 COMBINED AT	COMB2	200.	4.15	34.	11.	11.	0.57		
+	ROUTED TO	RtC5	197.	4.22	34.	11.	11.	0.57		
+									1.71	4.22

+	HYDROGRAPH AT	M4	264.	4.43	56.	19.	19.	0.38		
+	ROUTED TO	RtR1	264.	4.47	56.	19.	19.	0.38	1.65	4.47
+	HYDROGRAPH AT	A3	13.	4.10	2.	1.	1.	0.04		
+	HYDROGRAPH AT	A4	31.	4.08	4.	1.	1.	0.07		
+	4 COMBINED AT	COMB3	474.	4.32	97.	32.	32.	1.05		
+	DIVERSION TO	RET1	9.	4.32	1.	0.	0.	1.05		
+	HYDROGRAPH AT	RET1	465.	4.32	96.	32.	32.	1.05		
+	ROUTED TO	RtC6	464.	4.35	96.	32.	32.	1.05	2.69	4.35
+	HYDROGRAPH AT	A5	15.	4.07	2.	1.	1.	0.03		
+	2 COMBINED AT	COMB4	475.	4.35	98.	33.	33.	1.08		
+	DIVERSION TO	Splt2	142.	4.35	29.	10.	10.	1.08		
+	HYDROGRAPH AT	Splt2	332.	4.35	69.	23.	23.	1.08		
+	ROUTED TO	RtC7	327.	4.40	69.	23.	23.	1.08	3.19	4.40
+	HYDROGRAPH AT	A6b	9.	4.08	1.	0.	0.	0.02		
+	ROUTED TO	RtR2	8.	4.17	1.	0.	0.	0.02	1.05	4.17
+	HYDROGRAPH AT	R1	7.	4.03	1.	0.	0.	0.01		
+	2 COMBINED AT	Comb5	14.	4.10	3.	1.	1.	0.03		
+	DIVERSION TO	DivR1	14.	0.00	3.	1.	1.	0.03		
+	HYDROGRAPH AT	DivR1	0.	0.00	0.	0.	0.	0.03		
+	HYDROGRAPH AT	A6a	17.	4.10	2.	1.	1.	0.04		
+	ROUTED TO	RtC8	16.	4.18	2.	1.	1.	0.04		

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+                                                                                  1.52      4.18
        HYDROGRAPH AT
+                          A7      4.   4.05      1.      0.      0.    0.01
        4 COMBINED AT
+                       Comb6    343.   4.40     72.     24.     24.    1.15
        ROUTED TO
+                        RtC9    342.   4.43     72.     24.     24.    1.15
+                                                                                  3.81      4.43
        HYDROGRAPH AT
+                          A8     24.   4.17      4.      1.      1.    0.06
        HYDROGRAPH AT
+                          R2      6.   4.02      1.      0.      0.    0.01
        HYDROGRAPH AT
+                         A29      3.   4.03      0.      0.      0.    0.01
        4 COMBINED AT
+                       COMB7    365.   4.42     77.     26.     26.    1.23
        ROUTED TO
+                       RtC10    363.   4.45     77.     26.     26.    1.23
+                                                                                  3.90      4.45
        HYDROGRAPH AT
+                          A9     18.   4.15      3.      1.      1.    0.04
        HYDROGRAPH AT
+                         A30      3.   4.03      0.      0.      0.    0.01
        3 COMBINED AT
+                       COMB8    378.   4.43     80.     27.     27.    1.27
        DIVERSION TO
+                       Splt3    114.   4.43     24.      8.      8.    1.27
        HYDROGRAPH AT
+                       SPLT3    263.   4.43     56.     19.     19.    1.27
        ROUTED TO
+                       RtC11    261.   4.48     56.     19.     19.    1.27
+                                                                                  3.33      4.48
        HYDROGRAPH AT
+                         A11     15.   4.10      2.      1.      1.    0.03
        HYDROGRAPH AT
+                         A12      1.   4.02      0.      0.      0.    0.00
        DIVERSION TO
+                       DvA12      1.   0.00      0.      0.      0.    0.00
        HYDROGRAPH AT
+                       DvA12      0.   0.00      0.      0.      0.    0.00
        2 COMBINED AT
+                       Comb9     15.   4.10      2.      1.      1.    0.04
        ROUTED TO
+                        RtR3     13.   4.28      2.      1.      1.    0.04
+                                                                                  1.10      4.28
        HYDROGRAPH AT
```

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+                    A10     21.   4.07     3.     1.     1.    0.04
        DIVERSION TO
+                   DvA10    21.   0.00     3.     1.     1.    0.04
        HYDROGRAPH AT
+                   DvA10     0.   0.00     0.     0.     0.    0.04
        HYDROGRAPH AT
+                     R3      7.   4.05     1.     0.     0.    0.01
        HYDROGRAPH AT
+                     R4      5.   4.02     1.     0.     0.    0.00
        5 COMBINED AT
+                  Comb10   277.   4.47    60.    20.    20.    1.36
        ROUTED TO
+                   RtC12   276.   4.50    60.    20.    20.    1.36
+                                                                     3.13     4.50
        HYDROGRAPH AT
+                   RetR1    14.   4.10     3.     1.     1.    0.00
        ROUTED TO
+                   RtR4     12.   4.33     3.     1.     1.    0.00
+                                                                     1.08     4.33
        HYDROGRAPH AT
+                     R6      9.   4.10     2.     1.     1.    0.01
        HYDROGRAPH AT
+                    A13      1.   4.02     0.     0.     0.    0.00
        DIVERSION TO
+                   DvA13     1.   0.00     0.     0.     0.    0.00
        HYDROGRAPH AT
+                   DvA13     0.   0.00     0.     0.     0.    0.00
        3 COMBINED AT
+                  Comb11    19.   4.22     4.     1.     1.    0.01
        ROUTED TO
+                   RtC13    19.   4.30     4.     1.     1.    0.01
+                                                                     1.61     4.30
        HYDROGRAPH AT
+                    A14     21.   4.27     3.     1.     1.    0.08
        DIVERSION TO
+                   DvA14    21.   0.00     3.     1.     1.    0.08
        HYDROGRAPH AT
+                   DvA14     0.   0.00     0.     0.     0.    0.08
        HYDROGRAPH AT
+                    R7a      4.   4.00     1.     0.     0.    0.00
        3 COMBINED AT
+                  Comb12    21.   4.28     5.     2.     2.    0.09
        ROUTED TO
+                   RtC14    21.   4.33     5.     2.     2.    0.09
+                                                                     1.65     4.33
        HYDROGRAPH AT
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+                    A15      30.   4.03      4.      1.      1.    0.05
        HYDROGRAPH AT
+                    A31       4.   4.03      1.      0.      0.    0.00
        HYDROGRAPH AT
+                    R7b       4.   4.00      1.      0.      0.    0.00
        HYDROGRAPH AT
+                    R5        4.   4.00      1.      0.      0.    0.00
        6 COMBINED AT
+                  Comb13    310.   4.48     71.     24.     24.    1.51
        ROUTED TO
+                   RtC15    310.   4.50     71.     24.     24.    1.51
+                                                                   3.17      4.50
        ROUTED TO
+                    RtR5    309.   4.53     71.     24.     24.    1.51
+                                                                   1.53      4.53
        HYDROGRAPH AT
+                   R12A       5.   4.02      1.      0.      0.    0.00
        HYDROGRAPH AT
+                    A16      12.   4.02      2.      1.      1.    0.01
        DIVERSION TO
+                   DvA16     12.   0.00      2.      1.      1.    0.01
        HYDROGRAPH AT
+                   DvA16      0.   0.00      0.      0.      0.    0.01
        HYDROGRAPH AT
+                    A17      39.   4.17      6.      2.      2.    0.07
        4 COMBINED AT
+                  Comb14    337.   4.50     78.     26.     26.    1.60
        ROUTED TO
+                    RtR6    336.   4.52     78.     26.     26.    1.60
+                                                                   1.56      4.52
        DIVERSION TO
+                  48-Est    168.   4.52     39.     13.     13.    1.60
        HYDROGRAPH AT
+                  48-Sth    168.   4.52     39.     13.     13.    1.60
        HYDROGRAPH AT
+                    A18       2.   4.03      0.      0.      0.    0.00
        HYDROGRAPH AT
+                    R8        3.   4.00      1.      0.      0.    0.00
        2 COMBINED AT
+                  Comb15      6.   4.02      1.      0.      0.    0.01
        ROUTED TO
+                    RtR7      5.   4.08      1.      0.      0.    0.01
+                                                                   1.04      4.08
        HYDROGRAPH AT
+                    R9        2.   4.00      0.      0.      0.    0.00
        HYDROGRAPH AT
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+                    A19     17.   4.17      3.    1.    1.   0.04
+   3 COMBINED AT  Comb16    23.   4.13      4.    1.    1.   0.05
+   ROUTED TO        RtR8    23.   4.20      4.    1.    1.   0.05
+                                                                    1.12      4.20
+   HYDROGRAPH AT    A20     10.   4.08      1.    0.    0.   0.02
+   DIVERSION TO   DvA20     10.   0.00      1.    0.    0.   0.02
+   HYDROGRAPH AT  DvA20      0.   0.00      0.    0.    0.   0.02
+   HYDROGRAPH AT    R10      4.   4.00      1.    0.    0.   0.00
+   3 COMBINED AT  Comb17    25.   4.18      5.    2.    2.   0.07
+   ROUTED TO        RtR9    23.   4.35      5.    2.    2.   0.07
+                                                                    1.11      4.35
+   HYDROGRAPH AT    A21     31.   4.25      5.    2.    2.   0.08
+   DIVERSION TO  21-Est     31.   0.00      5.    2.    2.   0.08
+   HYDROGRAPH AT 21-Sth      0.   0.00      0.    0.    0.   0.08
+   ROUTED TO       RtR10     0.   0.00      0.    0.    0.   0.08
+                                                                    1.00      0.00
+   HYDROGRAPH AT    R11      8.   4.08      2.    1.    1.   0.01
+   HYDROGRAPH AT    A22     26.   4.03      4.    1.    1.   0.03
+   DIVERSION TO   DvA22     26.   0.00      4.    1.    1.   0.03
+   HYDROGRAPH AT  DvA22      0.   0.00      0.    0.    0.   0.03
+   HYDROGRAPH AT    R12b     5.   4.02      1.    0.    0.   0.00
+   HYDROGRAPH AT  Retn48   168.   4.52     39.   13.   13.   0.00
+   6 COMBINED AT  Comb18   195.   4.48     46.   16.   16.   0.19
+   DIVERSION TO   RayEst   140.   4.48     42.   14.   14.   0.19
+   HYDROGRAPH AT  RaySth    55.   4.48      4.    1.    1.   0.19
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                2 COMBINED AT
+                          Comb19     223.   4.50      43.      15.      15.     1.80
                ROUTED TO
+                           RtC16     221.   4.53      43.      15.      15.     1.80
+                                                                                        2.31      4.53
                HYDROGRAPH AT
+                             A27      19.   4.50       4.       1.       1.     0.04
                ROUTED TO
+                           RtC17      18.   4.62       4.       1.       1.     0.04
+                                                                                        1.19      4.62
                HYDROGRAPH AT
+                             A28      76.   4.40      14.       5.       5.     0.22
                HYDROGRAPH AT
+                             R13       7.   4.12       1.       0.       0.     0.01
                4 COMBINED AT
+                          Comb20     314.   4.52      62.      21.      21.     2.06
                ROUTED TO
+                            RET2      72.   5.60      50.      18.      18.     2.06
+                                                                                       17.46      5.60
                DIVERSION TO
+                           South      72.   0.00      50.      18.      18.     2.06
                HYDROGRAPH AT
+                            East       0.   0.00       0.       0.       0.     2.06
                ROUTED TO
+                          RtEAST       0.   0.00       0.       0.       0.     2.06
+                                                                                        0.00      9.60
                HYDROGRAPH AT
+                               C      31.   4.03       4.       1.       1.     0.06
                2 COMBINED AT
+                           COMBC      31.   4.03       4.       1.       1.     2.12
                ROUTED TO
+                             RtC      31.   4.07       4.       1.       1.     2.12
+                                                                                        0.66      4.07
                HYDROGRAPH AT
+                               B      31.   4.03       4.       1.       1.     0.06
                2 COMBINED AT
+                           COMBB      62.   4.05       8.       3.       3.     2.17
                HYDROGRAPH AT
+                          Retn21      31.   4.25       5.       2.       2.     0.00
                ROUTED TO
+                            RtP1      31.   4.28       5.       2.       2.     0.00
+                                                                                        1.69      4.28
                HYDROGRAPH AT
+                             A25      19.   4.18       3.       1.       1.     0.04
                2 COMBINED AT
+                          Comb21      49.   4.25       8.       3.       3.     0.04
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+	ROUTED TO	RtP2	49.	4.25	8.	3.	3.	0.04	
+									1.99 4.25
+	HYDROGRAPH AT	A23	18.	4.15	3.	1.	1.	0.04	
+	DIVERSION TO	ST23	18.	0.00	3.	1.	1.	0.04	
+	HYDROGRAPH AT	DvA23	0.	0.00	0.	0.	0.	0.04	
+	ROUTED TO	RtC18	0.	0.00	0.	0.	0.	0.04	
+									0.00 4.40
+	HYDROGRAPH AT	A24	3.	4.55	1.	0.	0.	0.06	
+	3 COMBINED AT	Comb22	51.	4.28	9.	3.	3.	0.15	
+	ROUTED TO	RET3	34.	4.63	8.	3.	3.	0.15	
+									21.54 4.63
+	ROUTED TO	RtC19	34.	4.70	8.	3.	3.	0.15	
+									1.53 4.70
+	HYDROGRAPH AT	A26	38.	4.02	5.	2.	2.	0.05	
+	DIVERSION TO	ST26	38.	0.00	5.	2.	2.	0.05	
+	HYDROGRAPH AT	DvA26	0.	0.00	0.	0.	0.	0.05	
+	HYDROGRAPH AT	RtnRay	140.	4.22	42.	14.	14.	0.00	
+	ROUTED TO	RtR11	140.	4.87	42.	14.	14.	0.00	
+									1.33 4.90
+	HYDROGRAPH AT	R14	8.	4.07	2.	1.	1.	0.01	
+	4 COMBINED AT	Comb23	176.	4.67	51.	17.	17.	0.20	
+	DIVERSION TO	DIVBOX	46.	4.67	7.	2.	2.	0.20	
+	HYDROGRAPH AT	DIV520	130.	4.67	44.	15.	15.	0.20	
+	HYDROGRAPH AT	DIVBOX	46.	4.67	7.	2.	2.	0.00	
+	2 COMBINED AT	ADDBOX	176.	4.67	51.	17.	17.	0.20	
+	ROUTED TO	RTE23	175.	4.75	51.	17.	17.	0.20	

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+                                                                                                  1.34       4.75
        HYDROGRAPH AT
+                          VA1      52.    4.10        8.        3.        3.      0.11
        ROUTED TO
+                         RTEA1     50.    4.18        8.        3.        3.      0.11
+                                                                                                  1.03       4.18
        HYDROGRAPH AT
+                          VA2      78.    4.13       12.        4.        4.      0.17
        2 COMBINED AT
+                         COMBA    127.    4.15       20.        7.        7.      0.28
        ROUTED TO
+                        STORA2      0.    5.37        0.        0.        0.      0.28
        ROUTED TO
+                         RTEA2      0.    5.42        0.        0.        0.      0.28
+                                                                                                  0.00       7.85
        3 COMBINED AT
+                         COMBB    194.    4.57       59.       20.       20.      2.66
        ROUTED TO
+                           RtB    194.    4.60       59.       20.       20.      2.66
+                                                                                                  1.63       4.60
        HYDROGRAPH AT
+                             D     16.    4.05        2.        1.        1.      0.03
        HYDROGRAPH AT
+                             E     16.    4.05        2.        1.        1.      0.03
        2 COMBINED AT
+                         COMBE     31.    4.05        4.        1.        1.      0.06
        ROUTED TO
+                          RTEE     30.    4.08        4.        1.        1.      0.06
+                                                                                                  0.58       4.08
        HYDROGRAPH AT
+                             F     21.    4.03        3.        1.        1.      0.04
        3 COMBINED AT
+                         COMBF    213.    4.55       66.       22.       22.      2.76
        ROUTED TO
+                          RTEF    213.    4.58       66.       22.       22.      2.76
+                                                                                                  1.81       4.58
        HYDROGRAPH AT
+                        DA522A     27.    4.10        4.        1.        1.      0.06
        ROUTED TO
+                        RT522A     26.    4.17        4.        1.        1.      0.06
+                                                                                                  0.53       4.17
        HYDROGRAPH AT
+                          DA10      5.    4.03        1.        0.        0.      0.01
        HYDROGRAPH AT
+                          DA11      2.    4.02        0.        0.        0.      0.00
        HYDROGRAPH AT
+                          DA12      6.    4.03        1.        0.        0.      0.01
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                3 COMBINED AT
+                                ADD12      13.   4.03      2.      1.      1.    0.02
                ROUTED TO
+                                RTE12      13.   4.03      2.      1.      1.    0.02
                HYDROGRAPH AT
+                                 DA13       2.   4.03      0.      0.      0.    0.00
                ROUTED TO
+                                RTE13       2.   4.05      0.      0.      0.    0.00
                HYDROGRAPH AT
+                                 DA14       3.   4.03      0.      0.      0.    0.00
                3 COMBINED AT
+                                ADD14      17.   4.03      2.      1.      1.    0.02
                ROUTED TO
+                                RTE14      17.   4.07      2.      1.      1.    0.02
                HYDROGRAPH AT
+                                 DA15       4.   4.03      1.      0.      0.    0.00
                HYDROGRAPH AT
+                                 DA16       2.   4.02      0.      0.      0.    0.00
                HYDROGRAPH AT
+                                 DA17       4.   4.03      1.      0.      0.    0.01
                HYDROGRAPH AT
+                                 DA18       1.   4.03      0.      0.      0.    0.00
                5 COMBINED AT
+                                ADD17      27.   4.05      4.      1.      1.    0.04
                ROUTED TO
+                                RTE18      27.   4.07      4.      1.      1.    0.04
                HYDROGRAPH AT
+                               DA522C      22.   4.08      3.      1.      1.    0.04
                4 COMBINED AT
+                               AD522C     264.   4.37     77.     26.     26.    2.90
                ROUTED TO
+                               RT522C     264.   4.40     77.     26.     26.    2.90
+                                                                                      2.34      4.40
                HYDROGRAPH AT
+                               DA522D      22.   4.07      3.      1.      1.    0.04
                HYDROGRAPH AT
+                               DA522B      27.   4.10      4.      1.      1.    0.06
                3 COMBINED AT
+                               AD522D     298.   4.38     85.     29.     29.    3.00
                ROUTED TO
+                               RT522D     298.   4.42     85.     29.     29.    3.00
+                                                                                      2.49      4.42
                HYDROGRAPH AT
+                               DA522E      26.   4.03      4.      1.      1.    0.05
                2 COMBINED AT
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+                    AD522E    309.   4.42     88.    30.    30.    3.05
        HYDROGRAPH AT
+                    DA513      40.   4.15      6.     2.     2.    0.09
        HYDROGRAPH AT
+                    DA514      26.   4.08      4.     1.     1.    0.06
        HYDROGRAPH AT
+                    DA515      20.   4.13      3.     1.     1.    0.05
        3 COMBINED AT
+                    AD515      84.   4.12     13.     4.     4.    0.19
        ROUTED TO
+                    RT515      78.   4.25     13.     4.     4.    0.19
+                                                                        4.55      4.25
        HYDROGRAPH AT
+                    DA517      38.   4.33      6.     2.     2.    0.17
        HYDROGRAPH AT
+                    South      72.   5.60     50.    18.    18.    0.00
        3 COMBINED AT
+                    AD517     135.   4.50     67.    24.    24.    0.36
        ROUTED TO
+                    RT517     134.   4.55     67.    24.    24.    0.36
+                                                                       10.39      4.55
        HYDROGRAPH AT
+                    DA518      23.   4.65      5.     2.     2.    0.10
        2 COMBINED AT
+                    AD518     156.   4.55     72.    26.    26.    0.46
        ROUTED TO
+                    RT518     155.   4.58     72.    26.    26.    0.46
+                                                                        1.52      4.58
        HYDROGRAPH AT
+                    DA519A     23.   4.07      3.     1.     1.    0.05
        ROUTED TO
+                    RT519A     18.   4.27      3.     1.     1.    0.05
+                                                                        0.51      4.27
        HYDROGRAPH AT
+                    DA519B     62.   4.13     10.     3.     3.    0.14
        3 COMBINED AT
+                    AD519B    204.   4.45     84.    30.    30.    0.64
        ROUTED TO
+                    RT519B    204.   4.47     84.    30.    30.    0.64
+                                                                        1.68      4.47
        HYDROGRAPH AT
+                    DA519C     53.   4.13      8.     3.     3.    0.12
        ROUTED TO
+                    RT519C     52.   4.18      8.     3.     3.    0.12
+                                                                        1.06      4.18
        HYDROGRAPH AT
+                    DA519D     36.   4.13      5.     2.     2.    0.08
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                3 COMBINED AT
+                               AD519D     276.   4.37      98.      35.      35.    0.84
                ROUTED TO
+                               RT519D     276.   4.37      98.      35.      35.    0.84
+                                                                                          1.83      4.37
                HYDROGRAPH AT
+                               DA519E      16.   4.05       2.       1.       1.    0.03
                ROUTED TO
+                               RT519E      12.   4.22       2.       1.       1.    0.03
+                                                                                          0.44      4.22
                HYDROGRAPH AT
+                               DA519F      43.   4.18       7.       2.       2.    0.10
                2 COMBINED AT
+                               AD519F      56.   4.18       9.       3.       3.    0.13
                HYDROGRAPH AT
+                               DA519G      16.   4.05       2.       1.       1.    0.03
                4 COMBINED AT
+                               AD519G     643.   4.37     197.      68.      68.    4.05
                ROUTED TO
+                               RTI-10     642.   4.38     196.      68.      68.    4.05
+                                                                                          2.35      4.38
                HYDROGRAPH AT
+                                   B1      50.   4.10       7.       2.       2.    0.11
                ROUTED TO
+                                 RTEB1     45.   4.22       7.       2.       2.    0.11
+                                                                                          0.75      4.22
                2 COMBINED AT
+                               ADI-10     685.   4.37     204.      71.      71.    4.15
                HYDROGRAPH AT
+                                   B15     55.   4.22       9.       3.       3.    0.13
                2 COMBINED AT
+                               ADBA15     736.   4.35     213.      74.      74.    4.28
                HYDROGRAPH AT
+                                  DA01      9.   4.02       1.       0.       0.    0.01
                ROUTED TO
+                                 RTE01      9.   4.05       1.       0.       0.    0.01
                HYDROGRAPH AT
+                                  DA02      7.   4.02       1.       0.       0.    0.01
                HYDROGRAPH AT
+                                  DA03      3.   4.03       0.       0.       0.    0.00
                3 COMBINED AT
+                                 ADD03     19.   4.03       3.       1.       1.    0.02
                ROUTED TO
+                                 RTE03     19.   4.05       3.       1.       1.    0.02
                HYDROGRAPH AT
+                                  DA04      3.   4.03       0.       0.       0.    0.00
```

```
+          HYDROGRAPH AT
                          DA05      5.   4.03      1.      0.      0.   0.01
+          3 COMBINED AT
                          ADD05    27.   4.03      4.      1.      1.   0.03
+          ROUTED TO
                          RTE05    27.   4.05      4.      1.      1.   0.03
+          HYDROGRAPH AT
                          DA06      6.   4.03      1.      0.      0.   0.01
+          2 COMBINED AT
                          ADD06    34.   4.05      5.      2.      2.   0.04
+          ROUTED TO
                          RTE06    34.   4.07      5.      2.      2.   0.04
+          HYDROGRAPH AT
                          DA07      8.   4.05      1.      0.      0.   0.02
+          2 COMBINED AT
                          ADD07    42.   4.07      6.      2.      2.   0.06
+          ROUTED TO
                          RTE07    41.   4.08      6.      2.      2.   0.06
+          HYDROGRAPH AT
                          DA08      5.   4.02      1.      0.      0.   0.01
+          ROUTED TO
                          RTE08     5.   4.05      1.      0.      0.   0.01
+          2 COMBINED AT
                          ADD08    46.   4.08      7.      2.      2.   0.07
+          HYDROGRAPH AT
                          DA09     11.   4.05      1.      0.      0.   0.03
+          2 COMBINED AT
                          ADD09    57.   4.07      8.      3.      3.   0.10
+          PUMP FLOW TO
                          PUMP     50.   3.68      8.      3.      3.   0.10
+          HYDROGRAPH AT
                          PUMP      0.   4.10      0.      0.      0.   0.10
+                                                                          1134.45      4.17
+          HYDROGRAPH AT
                          PUMPR    50.   3.68      8.      3.      3.   0.00
+          2 COMBINED AT
                          PUMP     50.   4.13      8.      3.      3.   0.10
+          HYDROGRAPH AT
                          DA19      3.   4.07      0.      0.      0.   0.01
+          ROUTED TO
                          RTE19     3.   4.07      0.      0.      0.   0.01
+          HYDROGRAPH AT
                          DA20      8.   4.03      1.      0.      0.   0.01
+          2 COMBINED AT
                          ADD20    10.   4.05      1.      0.      0.   0.02
```

```
+          ROUTED TO
                          RTE20      10.    4.05        1.        0.        0.      0.02
+          HYDROGRAPH AT
                           DA21       2.    4.02        0.        0.        0.      0.00
+          2 COMBINED AT
                          ADD21      12.    4.05        2.        1.        1.      0.02
+          ROUTED TO
                          RTE21      12.    4.05        2.        1.        1.      0.02
+          HYDROGRAPH AT
                           DA22      10.    4.03        1.        0.        0.      0.01
+          2 COMBINED AT
                          ADD22      22.    4.03        3.        1.        1.      0.04
+          ROUTED TO
                          RTE22      22.    4.05        3.        1.        1.      0.04
+          HYDROGRAPH AT
                           DA23      13.    4.05        2.        1.        1.      0.03
+          2 COMBINED AT
                          ADD23      35.    4.05        5.        2.        2.      0.07
+          ROUTED TO
+                          RTE23       6.    4.87        4.        1.        1.      0.07
+                                                                                          1162.35       4.87
+          HYDROGRAPH AT
                           DA24       3.    4.02        0.        0.        0.      0.00
+          2 COMBINED AT
                          ADD24       7.    4.32        4.        2.        2.      0.07
+          HYDROGRAPH AT
                           DA25      10.    4.05        1.        0.        0.      0.02
+          2 COMBINED AT
                          ADD25      16.    4.07        6.        2.        2.      0.09
+          ROUTED TO
+                          RTE25       5.    6.63        4.        2.        2.      0.09
+                                                                                          1161.11       6.67
+          HYDROGRAPH AT
                           DA26       5.    4.05        1.        0.        0.      0.02
+          2 COMBINED AT
                          ADD26       7.    4.30        5.        2.        2.      0.11
+          ROUTED TO
+                          RTE26       3.   10.53        3.        2.        2.      0.11
+                                                                                          1159.81      10.60
+          HYDROGRAPH AT
                           DA27      12.    4.05        2.        1.        1.      0.03
+          2 COMBINED AT
                          ADD27      13.    4.05        3.        2.        2.      0.13
+          ROUTED TO
+                          RTE27       3.    4.82        3.        2.        2.      0.13
+                                                                                          1159.02       4.82
```

```
+          HYDROGRAPH AT
                          DA28        3.    4.02          0.          0.          0.       0.00
+          2 COMBINED AT
                          ADD28       4.    4.30          3.          2.          2.       0.13
+          HYDROGRAPH AT
                          DA29       13.    4.05          2.          1.          1.       0.03
+          2 COMBINED AT
                          ADD29      18.    4.05          5.          3.          3.       0.16
+          ROUTED TO
                          RTE29       9.    4.57          5.          3.          3.       0.16
+                                                                                        1159.14        4.57
+          2 COMBINED AT
                            PMP      59.    4.55         13.          5.          5.       0.26
+          2 COMBINED AT
                          ADPMP     795.    4.35        225.         79.         79.       4.54
+          DIVERSION TO
                          DIVFF     795.    4.55         76.         25.         25.       4.54
+          HYDROGRAPH AT
                          B15FF     721.    4.55        154.         54.         54.       4.54
+          ROUTED TO
                          STB15       0.    0.00          0.          0.          0.       4.54
+                                                                                        1153.82       18.00
+          HYDROGRAPH AT
                           RTFF     795.    4.35         76.         25.         25.       0.00
+          ROUTED TO
                           STFF       0.    0.00          0.          0.          0.       0.00
+                                                                                        1158.00        4.53
1
                                   SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                       (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                          INTERPOLATED TO
                                                                       COMPUTATION INTERVAL
          ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME      DT       PEAK    TIME TO     VOLUME
                                                   PEAK                                     PEAK

                              (MIN)     (CFS)     (MIN)      (IN)    (MIN)     (CFS)     (MIN)      (IN)
            RTE12  MANE        0.38     12.59    241.89      1.09     1.00     12.59    242.00      1.09

 CONTINUITY SUMMARY (AC-FT) - INFLOW=0.9162E+00 EXCESS=0.0000E+00 OUTFLOW=0.9161E+00 BASIN STORAGE=0.2495E-04 PERCENT ERROR=   0.0

            RTE13  MANE        1.00      1.84    243.00      0.93     1.00      1.84    243.00      0.93

 CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1293E+00 EXCESS=0.0000E+00 OUTFLOW=0.1292E+00 BASIN STORAGE=0.8051E-04 PERCENT ERROR=   0.0

            RTE14  MANE        1.00     17.09    244.00      1.02     1.00     17.09    244.00      1.02

 CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1236E+01 EXCESS=0.0000E+00 OUTFLOW=0.1235E+01 BASIN STORAGE=0.1961E-03 PERCENT ERROR=   0.0
```

```
            RTE18  MANE        1.00     26.82    244.00      1.03      1.00     26.82    244.00        1.03

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1987E+01 EXCESS=0.0000E+00 OUTFLOW=0.1983E+01 BASIN STORAGE=0.1378E-03 PERCENT ERROR=   0.2

            RTE01  MANE        1.00      9.35    243.00      1.35      1.00      9.35    243.00        1.35

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.7151E+00 EXCESS=0.0000E+00 OUTFLOW=0.7150E+00 BASIN STORAGE=0.1067E-03 PERCENT ERROR=   0.0

            RTE03  MANE        0.86     19.39    242.87      1.23      1.00     19.37    243.00        1.23

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1451E+01 EXCESS=0.0000E+00 OUTFLOW=0.1451E+01 BASIN STORAGE=0.6597E-04 PERCENT ERROR=   0.0

            RTE05  MANE        1.00     27.31    243.00      1.17      1.00     27.31    243.00        1.17

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2022E+01 EXCESS=0.0000E+00 OUTFLOW=0.2022E+01 BASIN STORAGE=0.1191E-03 PERCENT ERROR=   0.0

            RTE06  MANE        1.00     33.69    244.00      1.12      1.00     33.69    244.00        1.12

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2477E+01 EXCESS=0.0000E+00 OUTFLOW=0.2477E+01 BASIN STORAGE=0.1127E-03 PERCENT ERROR=   0.0

            RTE07  MANE        1.00     41.47    245.00      0.92      1.00     41.47    245.00        0.92

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3011E+01 EXCESS=0.0000E+00 OUTFLOW=0.3010E+01 BASIN STORAGE=0.1141E-03 PERCENT ERROR=   0.0

            RTE08  MANE        1.00      5.09    243.00      1.28      1.00      5.09    243.00        1.28

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3811E+00 EXCESS=0.0000E+00 OUTFLOW=0.3811E+00 BASIN STORAGE=0.9273E-04 PERCENT ERROR=   0.0

            RTE19  MANE        0.43      2.65    244.28      0.30      1.00      2.65    244.00        0.30

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1817E+00 EXCESS=0.0000E+00 OUTFLOW=0.1817E+00 BASIN STORAGE=0.2018E-04 PERCENT ERROR=   0.0

            RTE20  MANE        0.27     10.21    243.04      0.63      1.00     10.21    243.00        0.63

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.7202E+00 EXCESS=0.0000E+00 OUTFLOW=0.7201E+00 BASIN STORAGE=0.1638E-04 PERCENT ERROR=   0.0

            RTE21  MANE        0.25     11.80    242.86      0.69      1.00     11.80    243.00        0.69

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.8547E+00 EXCESS=0.0000E+00 OUTFLOW=0.8546E+00 BASIN STORAGE=0.1645E-04 PERCENT ERROR=   0.0

            RTE22  MANE        0.64     21.84    242.71      0.81      1.00     21.83    243.00        0.81

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1572E+01 EXCESS=0.0000E+00 OUTFLOW=0.1572E+01 BASIN STORAGE=0.5166E-04 PERCENT ERROR=   0.0
```

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

APPENDIX C

HEC-1 Output File H10024pr.OUT (100 yr-24 hr ADOT Run)

```
1****************************************
 *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
 *             JUN 09 1992              *
 *           VERSION 4.0.3E             *
 *                                      *
 *  RUN DATE  12/02/98  TIME  15:57:50  *
 *                                      *
 ****************************************
```

```
****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    HYDROLOGIC ENGINEERING CENTER     *
*          609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616        *
*           (916) 551-1748             *
*                                      *
****************************************
```

```
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        FN: H10024PR.DAT     OCTOBER, 1998
  2           ID            48TH STREET BASIN/REVISED BASIN 15
  3           ID            HDR 100-YR  24-HR
  4           ID            ADOT RUN
  5           IT       2                     721
  6           IO       5
              * IN    12                     310
              *DIAGRAM
              * ******************************************************************
              * THIS FILE USES  ADOT 100-YR 24-HR RAINFALL W/BALANCED STORM(PH CARD)
              *
              * ************************************************************************
              *        BEGIN 100-YR 24-HR RAINFALL

  7           KK      M1
  8           KM        Mountain Area 1
  9           KO       2
 10           PH             4.5    0.77    1.50    2.64    2.89    3.06    3.37    3.68    4.00
 11           BA    .280
              * IA = 0.25 as per Maricopa Drainage Design Manual (Vol. 1) Table 4.1
 12           LS     .25      98
 13           UD    .252

 14           KK    RtC1
 15           KM        Route M1 flow to split
 16           RS       1    FLOW      -1
 17           RC   0.035   0.035   0.035    2300    0.02
 18           RX       3       4       5      20      45      55      65      66
 19           RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1
```

```
 20          KK      M2
 21          KM        Mountain Area 2
 22          BA    .200
             * IA = 0.25 as per Maricopa Drainage Design Manual (Vol. 1) Table 4.1
 23          LS     .25      98
 24          UD    .190

 25          KK    RtC2
 26          KM        Route M2 flow to split
 27          RS       1    FLOW      -1
 28          RC   0.035   0.035   0.035     900    0.02
 29          RX       3       4       5      20      25      35      45      46
 30          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

 31          KK      A1
 32          KM       Developed Area 1
 33          BA    .041
 34          LS              80
 35          UD    .169
1                                        HEC-1 INPUT                                          PAGE  2

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

 36          KK   COMB1
 37          KM   Combine flows
 38          HC       3

 39          KK   Splt1
 40          KM      Channel splits (divert flow out of model)
 41          DT   Splt1
 42          DI       0      50     100     150     200     250     500
 43          DQ       0      30      60      90     120     150     300

 44          KK    RtC3
 45          KM        Route flows from split to next tributary
 46          RS       1    FLOW      -1
 47          RC   0.035   0.035   0.035     600    0.02
 48          RX       3       4       5      20      75      85      95      96
 49          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

 50          KK      M3
 51          KM        Mountain Area 3
 52          BA    .029
             * IA = 0.25 as per Maricopa Drainage Design Manual (Vol. 1) Table 4.1
 53          LS     .25      98
 54          UD    .035

 55          KK    RtC4
 56          KM        Route flows To convergence of tributary.
 57          RS       1    FLOW      -1
 58          RC   0.035   0.035   0.035    1100    0.02
 59          RX       3       4       5      20      35      45      55      56
 60          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

 61          KK      A2
 62          KM        Developed  Area 2
 63          BA    .020
 64          LS              81
 65          UD    .115

 66          KK   COMB2
 67          KM        Combine, M3, A2, Flows from split
 68          HC       3

 69          KK    RtC5
 70          KM   Route combined flows from convergence of tributary to weir of detention basin
```

```
 71          RS       1    FLOW      -1
 72          RC   0.035   0.035   0.035    1500    0.02
 73          RX       3       4       5      20      75      85      95      96
 74          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

 75          KK      M4
 76          KM        Mountain Area 4
 77          BA    .380
             * IA = 0.25 as per Maricopa Drainage Design Manual (Vol. 1) Table 4.1
 78          LS     .25      98
 79          UD    .525
1                                        HEC-1 INPUT                                          PAGE  3

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


 80          KK    RtR1
 81          KM        Route Mountain flows to weir  (through streets in area 4)
 82          RS       1    FLOW      -1
 83          RC   0.012   0.012   0.012    1600    0.02
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING
 84          RX       2      18      19      20      50      51      52      68
 85          RY     2.2     2.0     1.5     1.0     1.0     1.5     2.0     2.2

 86          KK      A3
 87          KM        Developed Area 3
 88          BA    .036
 89          LS              81
 90          UD    .145

 91          KK      A4
 92          KM        Developed Area 4
 93          BA    .067
 94          LS              84
 95          UD    .139

 96          KK   COMB3
 97          KM        Combine A3, A4, M4, and routed flows (RtC5)
 98          HC       4

 99          KK    RET1
100          KM        Flows spill over the weir to retention basin (Divert Flow)
101          DT    RET1    4.61
102          DI       0     200     400     600     800    1000
103          DQ       0       0       4      17      37      63

104          KK    RtC6
105          KM        Route flows in channel to next split in channel
106          RS       1    FLOW      -1
107          RC   0.035   0.035   0.035    1200    0.02
108          RX       3       4       5      20      45      55      65      66
109          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

110          KK      A5
111          KM        Developed Area 5
112          BA    .030
113          LS              85
114          UD    .137

115          KK   COMB4
116          KM        Combine A5 and routed flows
117          HC       2
             * splt2 revised using South Mountain run data (70-30 SPLIT)

118          KK   Splt2
119          KM        Channel splits (Flow diverted from model)
120          DT   Splt2
```

```
 121          DI       0    1000    1500
 122          DQ       0     300     450
1                                   HEC-1 INPUT                                                    PAGE  4

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

 123          KK    RtC7
 124          KM        Route flows from split to 40th St & Knox RD
 125          RS       1    FLOW      -1
 126          RC   0.035   0.035   0.035    2800    0.02
 127          RX       8       9      10      20      30      35      40      41
 128          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1
              *     Flows from Area 6b flow through the streets to Knox Rd and 40th St.
              *     All flow is assumed to stay in road.

 129          KK     A6b
 130          KM        Developed Area 6b
 131          BA    .019
 132          LS              84
 133          UD    .137

 134          KK    RtR2
 135          KM        Route flows through Knox Rd from 38th St to 40th St
 136          RS       1    FLOW      -1
 137          RC   0.012   0.012   0.012    1000    0.02
 138          RX       7       8       9      10      75      76      77      78
 139          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

 140          KK      R1
 141          KM        Road segment on Knox Rd from 37th St to 40th St.
 142          BA    .007
 143          LS             100
 144          UD    .145

 145          KK   Comb5
 146          KM   Combine flows from Area 6b and Road 1
 147          HC       2

 148          KK   DivR1
 149          KM        Flow across Knox Road
 150          DT   DivR1
 151          DI       0      50     100     150     200     500    1000
 152          DQ       0      50     100     150     200     250     250
              *  If flows from Area 6 and Road 1 can be carried on Knox Rd, no diversion to
              *  channel.  If they cannot be carried, then excess diverted to channel.
              *  Capacity of channel (based on Manning's equation) is 250 cfs.
              *

 153          KK     A6a
 154          KM        Developed Area 6a
 155          BA    .038
 156          LS              84
 157          UD    .159

 158          KK    RtC8
 159          KM        Route flows from A6a through channel to Knox and 40th St
 160          RS       1    FLOW      -1
 161          RC   0.035   0.035   0.035    1000    0.01
 162          RX       8       9      10      20      30      35      40      41
 163          RY     4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1
1                                   HEC-1 INPUT                                                    PAGE  5

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

 164          KK      A7
```

```
165          KM        Developed Area 7
166          BA    .008
167          LS              84
168          UD    .115

169          KK   Comb6
170          KM   Combine flows in channel at 40th St and Knox Rd
171          HC       4

172          KK    RtC9
173          KM       Route flows from Knox to Ranch Circle North
174          RS       1    FLOW      -1
175          RC   0.035   0.035   0.035    1150    0.01
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING ORIGINAL RX AND
             * RY:
             * RX   0       1      10      20      30      40      49      50
             * RY 4.5     4.4     4.3     1.0     1.0     4.0     4.1     4.2
176          RX       0       1      10      20      30      40      49      50
177          RY       6     4.4     4.3     1.0     1.0     4.0     4.1       6

178          KK      A8
179          KM       Developed Area 8
180          BA    .058
181          LS              84
182          UD    .217

183          KK      R2
184          KM       Road segment on Ranch Circle North from 37th PL to Channel near 40th St.
185          BA    .006
186          LS             100
187          UD    .130

188          KK     A29
189          KM       Area 29 - Trail area from Knox to Ranch Circle North
190          BA   0.006
191          LS              85
192          UD   0.091

193          KK   COMB7
194          KM        Combine flows from A8, Road 2, and A29
195          HC       4

196          KK   RtC10
197          KM        Route flows from Ranch Circle N to Ray Road
198          RS       1    FLOW      -1
199          RC   0.035   0.035   0.035    1150    0.01
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
             * RX   0       1      10      20      30      40      49      50
             * RY 4.5     4.4     4.3     1.0     1.0     4.0     4.1     4.2
200          RX       0       1      10      20      30      40      49      50
201          RY       6     4.4     4.3     1.0     1.0     4.0     4.1       6
```

1 HEC-1 INPUT PAGE 6

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

202          KK      A9
203          KM       Developed Area 9
204          BA    .040
205          LS              85
206          UD    .201

207          KK     A30
208          KM       Area 30 - Trail area from Ranch Circle North to Ray Road
209          BA   0.006
210          LS              85
211          UD   0.091
```

```
 212          KK   COMB8
 213          KM       Combine flows from A9, A30, and routed flows
 214          HC      3

 215          KK   SPLT3
 216          KM       Split along Ray Rd near 40th St. (Divert flows to park)
 217          DT   Splt3
 218          DI      0      74     145     234     340     462     600     750
 219          DQ      0      20      43      72     107     131     140     140

 220          KK   RtC11
 221          KM      Route flows along Ray Road from split at 40th St to Ranch Circle N
 222          RS      1    FLOW      -1
 223          RC  0.035   0.035   0.035    1600    0.01
              * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
              * RX   8      9      10      20      30      35      40      41
              * RY 4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1
 224          RX      8      9      10      20      30      35      40      41
 225          RY      6    4.4     4.3     1.0     1.0     2.0     5.0       6

 226          KK    A11
 227          KM      Developed Area 11
 228          BA   .034
 229          LS             84
 230          UD   .161

 231          KK    A12
 232          KM      Developed Area 12
 233          BA   .002
 234          LS             85
 235          UD   .067

 236          KK   DvA12
 237          KM      Simulate Detention Area for Development A12
 238          DT   DvA12    0.07
 239          DI      0      50     100     150     200     250     500
 240          DQ      0      50     100     150     200     250     500
```



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

 241          KK   Comb9
 242          KM      Combine flows from A11 & A12
 243          HC      2

 244          KK    RtR3
 245          KM       Route flows from A11 & A12 to Ray Rd
 246          RS      1    FLOW      -1
 247          RC  0.012   0.012   0.012    1900    0.01
 248          RX      0       8       9      10      60      61      62      70
 249          RY    2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

 250          KK    A10
 251          KM       Developed Area 10
 252          BA   .042
 253          LS             85
 254          UD   .133

 255          KK   DvA10
 256          KM      Simulate Detention Area for Development A10
 257          DT   DvA10    2.16
 258          DI      0      50     100     150     200     250     500
 259          DQ      0      50     100     150     200     250     500

 260          KK      R3
```

```
261          KM        Road Segment on Ranch Circle N 40TH ST TO RAY
262          BA    .007
263          LS             100
264          UD    .158

265          KK      R4
266          KM        Road segment on Ray Rd from 40TH ST TO RANCH CIRCLE N
267          BA    .005
268          LS             100
269          UD    .125

270          KK  Comb10
271          KM        Combine flow from A10, Road3, Road4, and RtR3
272          HC        5

273          KK   RtC12
274          KM        Route combined flows (along Ray Road from Ranch Circle N to 44th ST)
275          RS        1    FLOW      -1
276          RC   0.035   0.035   0.035    1000    0.01
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
             * RX   7       8       9      10      30      31      32      33
             * RY 5.2     5.1     5.0     1.0     1.0     5.0     5.1     5.2
277          RX        7       8       9      10      30      31      32      33
278          RY        7     5.1     5.0     1.0     1.0     5.0     5.1       7
             *
             *     At this point, the model returns to Knox Road and 40th Street to
             *     simulate flows carried down Knox Road from 40th Street to 44th Street.
             *     Returning flows from R1:
1                                        HEC-1 INPUT                                          PAGE  8

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


279          KK   RetR1
280          KM        Return (to model) the flow coming down Knox Rd
281          DR   DivR1

282          KK    RtR4
283          KM        Route flows through Knox Rd from 40th St to 44th St.
284          RS        1    FLOW      -1
285          RC   0.012   0.012   0.012    2600    0.01
286          RX        7       8       9      10      75      76      77      78
287          RY      2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

288          KK      R6
289          KM        Road segment on Knox Rd from 40th St to 44th St.
290          BA    .009
291          LS             100
292          UD    .217

293          KK     A13
294          KM        Developed Area 13
295          BA    .001
296          LS              87
297          UD    .058

298          KK   DvA13
299          KM      Simulate Detention Area for Development A13
300          DT   DvA13    0.10
301          DI        0      50     100     150     200     250     500
302          DQ        0      50     100     150     200     250     500

303          KK  Comb11
304          KM        Combine flows from A13, R6 and from R1 (DivR1)
305          HC        3

306          KK   RtC13
```

```
307          KM       Route flows from Knox and 44th St to middle of 44th St (entrance to schl)
308          RS        1    FLOW      -1
309          RC    0.035   0.035   0.035    1100    0.01
310          RX       13      14      15      20      30      35      36      37
311          RY      4.7     4.6     4.5     1.0     1.0     4.5     4.6     4.7

312          KK      A14
313          KM       Developed Area 14
314          BA     .076
315          LS               79
316          UD     .233

317          KK    DvA14
318          KM      Simulate Detention Area for Development A14
319          DT    DvA14    4.24
320          DI        0      50     100     150     200     250     500
321          DQ        0      50     100     150     200     250     500
1                                          HEC-1 INPUT                                                    PAGE  9

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


322          KK      R7a
323          KM        Road Segment on 44th St from Knox Rd to Midway between Knox and Ray Rd
324          BA     .004
325          LS              100
326          UD     .100

327          KK   Comb12
328          KM       Combine R7a, A14, and combined flows at A13
329          HC        3

330          KK    RtC14
331          KM        ROUTE combined flows to Ray Road
332          RS        1    FLOW      -1
333          RC    0.035   0.035   0.035    1100    0.01
334          RX       13      14      15      20      30      31      35      36
335          RY      4.5     4.4     4.3     1.0     1.0     2.0     5.0     5.1

336          KK      A15
337          KM       Developed Area 15
338          BA     .047
339          LS               88
340          UD     .083

341          KK      A31
342          KM       Developed Area 31
343          BA     .005
344          LS               92
345          UD     .113

346          KK      R7b
347          KM        Road Segment on 44th St from Midway between Knox and Ray Rd to Ray Rd
348          BA     .004
349          LS              100
350          UD     .100

351          KK       R5
352          KM       Road Segment on Ray Rd from Ranch Circle North to 44th St
353          BA     .004
354          LS              100
355          UD     .083

356          KK   Comb13
357          KM      Combine flows
358          HC        6
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359          KK   RtC15
360          KM       Route flows in channel along Ray Rd from 44th St to clogged pipes
361          RS       1    FLOW      -1
362          RC   0.035   0.035   0.035     500   0.008
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
             * RX   0      5      10      20      40      50      55      60
             * RY 4.7     4.6     4.5     1.0     1.0     4.5     4.6     4.7
363          RX       0      5      10      20      40      50      55      60
364          RY       6     4.6     4.5     1.0     1.0     4.5     4.6      6
             *    At this point, there are 3-48" pipes at Ray Road where the water was
             *    designed to flow; however, a field visit showed that the pipes were
             *    clogged, and therefore the flow will be carried along Ray Road.
1                                          HEC-1 INPUT                                          PAGE 10

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


365          KK    RtR5
366          KM       Route flows along Ray Rd from clogged pipes to 46th Place
367          RS       1    FLOW      -1
368          RC   0.012   0.012   0.012    1000   0.008
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
             * RX   0       8       9      10      90      91      92     100
             * RY 2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1
369          RX       0       8       9      10      90      91      92     100
370          RY     2.3     2.0     1.5       1       1     1.5       2     2.3

371          KK    R12A
372          KM        Road segment on Ray Rd from 44th St to 46th PL
373          BA   0.005
374          LS             100
375          UD   0.127

376          KK     A16
377          KM       Developed Area 16
378          BA    .015
379          LS              92
380          UD    .089

381          KK   DvA16
382          KM      Simulate Detention Area for Development A16
383          DT   DvA16   1.28
384          DI       0      50     100     150     200     250     500
385          DQ       0      50     100     150     200     250     500

386          KK     A17
387          KM       Developed Area 17
388          BA    .072
389          LS              88
390          UD    .233

391          KK  Comb14
392          KM       Combine flows from A16, A17, R12a, RtR5, RtC15
393          HC       4

394          KK    RtR6
395          KM       Route combined flows along Ray Rd from 46th PL to 48th St
396          RS       1    FLOW      -1
397          RC   0.012   0.012   0.012    1100   0.008
             * CHANNEL GEOMETRY EXTENDED TO STABILIZE ROUTING. ORIG. RX & RY:
             * RX   0       8       9      10      90      91      92     100
             * RY 2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1
398          RX       0       8       9      10      90      91      92     100
399          RY     2.3       2     1.5       1       1     1.5       2     2.3
             *    At this point, 50% of flow coming down Ray Road (flow in southern portion
             *    of the street) is assumed to flow south down 48th St and into the channel
             *    flowing south down 48th St.
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                    *    The other 50% of the flow is combined with the flow coming down 48th Street
                    *    north of the intersection. Ray Road is assumed to take all of the flow up
                    *    to capacity, at which time the excess flow continues south down 48th St.
1                                          HEC-1 INPUT                                          PAGE 11

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

         400        KK  48-Sth
         401        KM     Simulate flow coming down Ray and flowing down 48th Street
         402        DT  48-Est
         403        DI      0      50     100     200     500    1000    1500    2000
         404        DQ      0      25      50     100     250     500     750    1000

         405        KK     A18
         406        KM      Developed Area 18 (church)
         407        BA    .005
         408        LS             84
         409        UD    .082

         410        KK      R8
         411        KM        Road Segment on Knox Rd from 44th St to 46th St
         412        BA    .003
         413        LS            100
         414        UD    .092

         415        KK  Comb15
         416        KM      Combine flows from R8 and A18
         417        HC      2

         418        KK    RtR7
         419        KM      Route flows along Knox Road from A18 to 47th St
         420        RS      1    FLOW      -1
         421        RC   0.012   0.012   0.012     950    0.01
         422        RX      0       8       9      10      75      76      77      85
         423        RY    2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

         424        KK      R9
         425        KM        Road Segment on Knox Rd from 46th St to 47th St
         426        BA    .002
         427        LS            100
         428        UD    .075

         429        KK     A19
         430        KM       Developed Area 19
         431        BA    .038
         432        LS             85
         433        UD    .217

         434        KK  Comb16
         435        KM       Combine flows from R9, A19, and RtR7
         436        HC      3

         437        KK    RtR8
         438        KM      Route Combined Flows on Knox Rd from 46th St to 47th St
         439        RS      1    FLOW      -1
         440        RC   0.012   0.012   0.012     800    0.01
         441        RX      0       8       9      10      75      76      77      85
         442        RY    2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1
1                                          HEC-1 INPUT                                          PAGE 12

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

         443        KK     A20
         444        KM      Developed Area 20
         445        BA    .020
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```
446          LS              85
447          UD    .142

448          KK   DvA20
449          KM      Simulate Detention Area for Development A20
450          DT   DvA20    1.22
451          DI       0      50     100     150     200     250     500
452          DQ       0      50     100     150     200     250     500

453          KK     R10
454          KM        Road segment on Knox Rd from 47th St to 48th St
455          BA    .004
456          LS             100
457          UD    .083

458          KK  Comb17
459          KM        Combine flows from A20, R10, and RtR8
460          HC       3

461          KK    RtR9
462          KM       Route flows along 48th St from Knox Rd to Ray Rd
463          RS       1    FLOW      -1
464          RC   0.012   0.012   0.012    2100   0.008
465          RX       0       8       9      10      90      91      92     100
466          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1
             *
             *     Note:   Developments A21, A23, A24, and A25 drain to basin behind KMart.
             *             Area 21 runoff:  capacity of pipe to basin, remaining heads
             *                              south down 48th street to Ray Road

467          KK     A21
468          KM       Developed Area 21
469          BA    .075
470          LS              85
471          UD    .275

472          KK  21-Sth
473          KM      Simulate Detention Area for Development 21
474          DT  21-Est
475          DI       0      50      60      70     100     200     500
476          DQ       0      50      60      70      70      70      70

477          KK   RtR10
478          KM       Route flows along 48th St from Development A21 to Ray Rd
479          RS       1    FLOW      -1
480          RC   0.012   0.012   0.012    1000   0.008
481          RX       0       8       9      10      80      81      82      90
482          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1
```



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

483          KK     R11
484          KM       Road segment on 48th St from Knox to Ray Rd
485          BA    .008
486          LS             100
487          UD    .216

488          KK     A22
489          KM        Developed Area 22
490          BA    .033
491          LS              92
492          UD    .099

493          KK   DvA22
494          KM      Simulate Detention Area for Development A22
```

```
495          DT   DvA22    2.75
496          DI       0      50     100     150     200     250     500
497          DQ       0      50     100     150     200     250     500

498          KK    R12b
499          KM        Road segment on Ray Rd from 46th PL to 48th St
500          BA   0.005
501          LS             100
502          UD   0.127

503          KK  Retn48
504          KM       Return divided flow from Ray Road as it reaches 48th ST.
505          DR  48-Est

506          KK  Comb18
507          KM    Combine A21, A22, R11, R12B, RtR10, and Dv48th
508          HC       6

509          KK  RaySth
510          KM       Split at 48th St and Ray - Capacity of 1/2 of Ray Rd is 140 cfs.
511          DT  RayEst
512          DI       0      50     100     140     300     500    1000
513          DQ       0      50     100     140     140     140     140

514          KK  Comb19
515          KM    Combine split flows from ray and flows carried down 1/2 of Ray Road
516          HC       2

517          KK   RtC16
518          KM       Route flows along 48th St to Detention Basin
519          RS       1    FLOW      -1
520          RC   0.012   0.012   0.012    2000   0.008
521          RX      13      14      15      20      30      55      56      57
522          RY     4.5     4.4     4.3     1.0     1.0     4.3     4.4     4.5
1                                          HEC-1 INPUT                                                    PAGE 14

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

523          KK     A27
524          KM       Developed Area 27
525          BA    .036
526          LS              92
527          UD    .540

528          KK   RtC17
529          KM       Route flows along 48th St to Detention Basin
530          RS       1    FLOW      -1
531          RC   0.012   0.012   0.012    2000   0.008
532          RX      13      14      15      20      45      55      56      57
533          RY     4.5     4.4     4.3     1.0     1.0     4.3     4.4     4.5

534          KK     A28
535          KM       Developed Area 28
536          BA    .216
537          LS              84
538          UD    .383

539          KK     R13
540          KM        Road segment of 48th St from Ray Rd to detention basin
541          BA   0.007
542          LS             100
543          UD   0.235

544          KK  Comb20
545          KM       Combine flows from A27, A28, R13, and RtC16 (flows from 48th St and Ray)
546          HC       4
```

```
547          KK    RET2
548          KM       Retention Basin - At 48th Street and Thistle Landing
549          RS       1    STOR      0       0
550          SV       0    25.2    27.3    29.5    31.8    34.1    36.4
551          SE    11.5      19    19.5      20    20.5      21    21.5
552          SS      19     150       3     1.5
553          SL      13     7.1     0.6     0.5

554          KK    East
555          KM       Account for flow traveling south through pipe and east over road (weir)
556          DT   South
557          DI       0      41      45      48      53      58      65      73      84      85
558          DI      91     108     140     192     269     375     516     696     920
559          DQ       0      41      45      48      53      58      65      73      84      84
560          DQ      85      85      85      85      85      85      85      85      85
             *
             * DITCH PARAMETERS ASSUMED. 10'BW, 2:1SS, n=0.015, D=5'
             * LENGTH ASSUMED. SLOPE ASSUMED SIMILAR TO PREVIOUS ROUTING.

561          KK  RtEAST
562          KM        ROUTE EAST SPLIT TO BOTTOM OF PEPPERWOOD BASIN C
563          RS       4    FLOW      -1
564          RC    .035    .015    .035    2600    .006
565          RX       0       5      10      22      32      44      54      64
566          RY       6       6       6       0       0       6       6       6
             *
1                                          HEC-1 INPUT                                          PAGE 15

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

567          KK       C
568          KM   FROM PEPPERWOOD REPORT
569          BA    0.06
             * CN ASSUMED 85 (COMMERCIAL, B SOIL)
570          LS              85
571          UD    0.09
             *

572          KK   COMBC
573          KM   COMBINE FLOW FROM BASIN C AND EAST SPLIT
574          HC       2
             *

575          KK     RtC
576          KM   ROUTE COMBINED FLOWS TO BOTTOM OF BASIN B
577          RS       2    FLOW
578          RC    .015    .015    .015    1050   .0035
579          RX       0      10      20      32      42      54      64      74
580          RY       6       6       6       0       0       6       6       6
             *

581          KK       B KYRENE SCHOOL DISTRICT
582          KM   CN ASSUMED TO BE 85 (COMMERCIAL, B SOIL)
583          BA    0.06
584          LS              85
585          UD    0.09
             *

586          KK   COMBB
587          KM   COMBINE HYDROGRAPHS FROM RTC AND BASIN B
588          HC       2
             * ******************* FLOWS TO RET 3 CONCENTRATION POINT
             * ************************
             *
             *     Note:   Developments A21, A23, A24, and A25 drain to basin behind KMart.
```

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                 *            Area 21 runoff:   capacity of pipe to basin, remaining heads
                 *                              south down 48th street to Ray Road
                 *            Area 23 runoff:   70% retained on-site, 30% to basin
                 *            Area 24 runoff:   All to basin
                 *            Area 25 runoff:   All to basin

589              KK  Retn21
590              KM       Return flow from Development 21 that travels through pipe
591              DR  21-Est

592              KK    RtP1
593              KM       Route flows from development 21 to basin  (36" pipe)
594              RS       1    FLOW     -1
595              RC   0.013   0.013   0.013    1320   0.008
596              RX     4.8     4.9       5       6       7       8     8.1     8.2
597              RY     3.0     2.0     1.5       0       0     1.5     2.0     3.0
1                                          HEC-1 INPUT                                                    PAGE 16

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

598              KK     A25
599              KM       Developed Area 25
600              BA    .043
601              LS              85
602              UD    .226

603              KK  Comb21
604              KM       Combine flows from A25 and RtP1 (routed flows from A21)
605              HC       2

606              KK    RtP2
607              KM       Route flows from A21 and A25 to basin  (54" pipe)
608              RS       1    FLOW     -1
609              RC   0.013   0.013   0.013     100   0.008
610              RX     4.9       5       6       7     7.5     8.5     9.5     9.6
611              RY     4.5     2.3     1.0       0       0     1.0     2.3     4.5

612              KK     A23
613              KM       Developed Area 23
614              BA    .039
615              LS              85
616              UD    .200

617              KK   DvA23
618              KM       Simulate Detention Area for Development A23
619              DT    ST23    2.37
620              DI       0      50     100     150     200     250     500
621              DQ       0      50     100     150     200     250     500

622              KK   RtC18
623              KM       Route flows through park
624              RS       1    FLOW     -1
625              RC   0.035   0.035   0.035    1000   0.008
626              RX      10      20      50     100     150     200     230     240
627              RY     2.5     2.3     1.0       0       0     1.0     2.3     2.5
                 * A24 - CN CHANGED FROM 85 TO 65 BASED ON PLANS FOR CITY PARK.
                 *       10% @ CN=98 AND 90% @CN=61 (FROM TR-55)

628              KK     A24
629              KM       Developed Area 24
630              BA    .064
631              LS              65
632              UD    .285

633              KK  Comb22
634              KM       Combine flows from A21 & A25 (RtP2), A23 (RtC18), A24
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 635          HC       3

 636          KK    RET3
 637          KM      Retention Basin - in south portion of A24 (north of KMart - A26)
 638          RS       1    STOR       0       0
 639          SV       0    0.59    2.68    5.01    7.58     9.0
 640          SE    20.5      21      22      23      24      25
 641          SS      24     100       3     1.5
1                                        HEC-1 INPUT                                                    PAGE 17

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

 642          SL      21   13.14     0.6     0.5

 643          KK   RtC19
 644          KM       Route flows along I-10 in channel from Basin
 645          RS       1    FLOW      -1
 646          RC   0.035   0.035   0.035     700   0.008
 647          RX      13      14      15      20      45      55      56      57
 648          RY     4.5     4.4     4.3     1.0     1.0     4.3     4.4     4.5

 649          KK     A26
 650          KM        Developed Area 26
 651          BA    .048
 652          LS              92
 653          UD    .089

 654          KK   DvA26
 655          KM      Simulate Detention Area for Development A26
 656          DT    ST26    4.04
 657          DI       0      50     100     150     200     250     500
 658          DQ       0      50     100     150     200     250     500

 659          KK  RtnRay
 660          KM       Return divided flow from Ray and 48th ST
 661          DR  RayEst

 662          KK   RtR11
 663          KM       Route flows along Ray Rd
 664          RS       1    FLOW      -1
 665          RC   0.012   0.012   0.012    2000   0.008
 666          RX       0       8       9      10      90      91      92     100
 667          RY     2.1     2.0     1.5     1.0     1.0     1.5     2.0     2.1

 668          KK     R14
 669          KM        Road Segment along Ray from 48th to I-10
 670          BA    .008
 671          LS             100
 672          UD    .186

 673          KK  Comb23
 674          KM       Combine flows from A26, R14, RtR11, and RtC19 (basin)
 675          HC       4
              * DIV520, DIVBOX, & ADDBOX FROM HDR SOUTH MOUNTAIN RUN.

 676          KK  DIV520 DIVERT WEIR FLOW THRU EQUIP. CROSSING UNDER EB OFF-RAMP
 677          KM   FROM HDR SOUTH MONTAIN RUN
 678          DT  DIVBOX
 679          DI       0     100     200     300     400     500
 680          DQ       0       0      60     143     230     320

 681          KK  DIVBOX RETREIVE FLOW THRU EQUIPMENT CROSSING
 682          DR  DIVBOX
              * NOTE: FLOW RE-COMBINES AT APPROX. BOTTOM OF BASIN A1
1                                        HEC-1 INPUT                                                    PAGE 18

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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683          KK  ADDBOX RE-COMBINE FLOW DIVERTED THRU EQUIP. CROSSING.
684          KM   RE-COMBINE FLOW DIVERTED THRU EQUIP. CROSSING
685          HC       2
             *

686          KK   RTE23 ROUTE CHANNEL FLOW SOUTH ALONG I-10 TO COMBB
687          KM   ASSUME BW=10', 2:1ss, D=5', n=0.015, s & l FROM SOUTH MONTAIN RUN
688          RS       1    FLOW      -1
689          RC    .015    .015    .015    4000   .0099
690          RX       0      10      20      30      40      50      60      70
691          RY       5       5       5       0       0       5       5       5
             *
             * PEPPERWOOD MODEL, MODIFIED TO REFLECT NEW DEVELOPMENT PLANS
             * EAST OF 48th
             * FROM RAY ROAD TO CHANDLER BLVD.  NO LOCAL RETENTION CONSIDERED.
             *

692          KK     VA1 VESTAR PHASE I & II DEVELOPMENTS.
693          KM   ASSUMED COMMERCIAL (ZONING R-3), B SOILS, AREA FROM KIMLEY HORN
694          KM   GRADING PLAN
695          BA    0.11
696          LS              85
697          UD    0.17
             *
             *

698          KK   RTEA1 ROUTE A1 TO A2 VIA DITCH ON I-10 R.O.W.
699          KM   ASSUME BW=10', 2:1ss, D=5', n=0.015
700          RS       1    FLOW
701          RC    .015    .015    .015    1320    .002
702          RX       0      10      20      30      40      50      60      70
703          RY       5       5       5       0       0       5       5       5
             *

704          KK     VA2 MARK DEVELOPMENT APARTMENTS, COMMERCE PARK I & II
705          KM   CN ASSUMES COMMERCIAL AND APARTMENT DEVELOPMENT ON B SOIL
706          BA    0.17
707          LS              85
708          UD    0.19
             *

709          KK   COMBA
710          KM   COMBINE A1 & A2 HYDROGRPAHS
711          HC       2
             *

712          KK  STORA2
713          KM   RETENTION CELL IN SE CORNER OF BASIN VA2.
             * SEE KIMLEY/HORN GRADING & DRAINAGE PLANS
714          RS       1    STOR      -1
715          SQ       0    0.01    1500
716          SV       0   21.44   21.44
             *
1                                    HEC-1 INPUT                                    PAGE 19

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

717          KK   RTEA2 ROUTE A2 TO B VIA DITCH ON I-10 R.O.W.
718          KM   ASSUME BW=10', 2:1ss, D=5', n=0.015
719          RS       1    FLOW
720          RC    .015    .015    .015    1320    .008
721          RX       0      10      20      30      40      50      60      70
722          RY       5       5       5       0       0       5       5       5
             *
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```
723          KK   COMBB
724          KM   COMBINE HYDROGRAPHS RTE23,RTEA2 AND COMBB
725          HC       3
             *

726          KK     RtB
727          KM   ROUTE FLOW TO BOTTOM OF PEPPERWOOD BASIN F PARALLEL TO I-10
728          RS       2    FLOW
729          RC    .015    .015    .015    1320    .006
730          RX       0       5      10      22      32      44      54      64
731          RY       6       6       6       0       0       6       6       6
             *

732          KK       D PEPPERWOOD BASIN D
733          KM   CN ASSUMED COMMERCIAL, B SOILS
734          BA     .03
735          LS              85
736          UD      .1
             *
             *

737          KK       E PEPPERWOOD BASIN E
738          KM       CN ASSUMED COMMERCIAL, B SOILS
739          BA     .03
740          LS              85
741          UD      .1
             *
             *

742          KK   COMBE
743          KM   COMBINE HYDROGRAPHS FROM D& E
744          HC       2
             *

745          KK    RTEE
746          KM   ROUTE COMBINED HYDROGRAPHS TO BOTTOM OF BASIN F
747          RS       1    FLOW      -1
748          RC    .015    .015    .015    1000    .005
749          RX       0      10      20      32      42      54      64      74
750          RY       6       6       6       0       0       6       6       6
             *
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

751          KK       F PEPPERWOOD BASIN F
752          KM   CN ASSUMED, COMMERCIAL, B SOILS
753          BA     .04
754          LS              85
755          UD     .09
             *

756          KK   COMBF
757          KM   COMBINE HYDROGRAPHS FROM RTEE,BASIN F, AND RTB
758          HC       3
             *

759          KK    RTEF
760          KM   ROUTE FLOW THROUGH CONCRETE CHANNEL ALONG I-10 R.O.W TO BOTTOM
761          KM   OF DA522C
762          RS       1    FLOW      -1
763          RC    .015    .015    .015    1320    .005
764          RX       0      10      20      32      42      54      64      74
765          RY      10      10      10       0       0      10      10      10
             *
```

```
                    * ORIG. BASIN 522A THRU 522D MODIFIED TO REFLECT FUTURE DEVELOPMENT
                    * AND DRAINAGE CORRIDORS.  ORIG. BASINS HAD CN OF 81
                    * 85 ASSUMED FOR NEW BASINS.
                    *

        766         KK  DA522A
        767         BA   0.058
        768         LS              85
        769         UD     .17

        770         KK  RT522A
        771         KM   ROUTE COMBINED FLOW THROUGH CONC. CHANNEL ALONG 1/4-Section
        772         RS       1    FLOW      -1
        773         RC    .015    .015    .015    1200    .005
        774         RX       0      10      20      32      42      54      64      74
        775         RY      10      10      10       0       0      10      10      10
                    *
                    * ****BEGIN I-10/CHANDLER BLVD TI ON-SITE TO COLLECTOR CHAN*****

        776         KK    DA10  UPPER 1-10 DRAINAGE AREAS WHICH DRAIN TO WEST CHANNEL
        777         BA    .006
        778         LS              92
        779         UD     .10

        780         KK    DA11
        781         BA   .0019
        782         LS              98
        783         UD     .10
1                                          HEC-1 INPUT                                          PAGE 21

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

        784         KK    DA12
        785         BA   .0079
        786         LS              91
        787         UD     .10

        788         KK   ADD12
        789         HC       3

        790         KK   RTE12
        791         RD     140   .0036    .012            CIRC     2.5

        792         KK    DA13
        793         BA   .0026
        794         LS            90.1
        795         UD     .10

        796         KK   RTE13
        797         RD     300   .0017    .012            CIRC     2.0

        798         KK    DA14
        799         BA   .0043
        800         LS            88.4
        801         UD     .10

        802         KK   ADD14
        803         HC       3

        804         KK   RTE14
        805         RD    1060   .0029    .012            CIRC     4.0

        806         KK    DA15
        807         BA   .0050
        808         LS            90.9
        809         UD     .10
```

```
810          KK    DA16
811          BA   .0016
812          LS              98
813          UD     .10

814          KK    DA17
815          BA   .0052
816          LS            90.6
817          UD     .10

818          KK    DA18
819          BA   .0017
820          LS            90.7
821          UD     .10
1                                        HEC-1 INPUT                                                PAGE 22
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

822          KK   ADD17
823          HC       5

824          KK   RTE18
825          KM   ONSITE FLOW FROM I-10 NORTH - CHANDLER BLVD. TO COLLECTOR
826          KM   CHANNEL
827          RD     380   .0008    .012            CIRC     4.5
             * *****END I-10/ CHANDLER/TI MODEL *****

828          KK  DA522C
829          BA   0.044
830          LS              85
831          UD    0.14

832          KK  AD522C
833          KM   COMBINE HYDROGRAPHS FROM RT522A, I-10, DA522C AND RTEF
834          HC       4

835          KK  RT522C
836          KM   ROUTE FLOW THROUGH CONC. ADOT CHANNEL TO BOTTOM OF DA522D
837          RS       1     FLOW      -1
838          RC    .015    .015    .015    1450    .003
839          RX       0      10      20      32      42      54      64      74
840          RY      10      10      10       0       0      10      10      10
             *
             * AREAS FOR DA522D & DA522E BASED ON ALIGNMENT SHOWN IN SOUTH
             * MOUNTAIN REPORT.

841          KK  DA522DA 0.024
842          LS              85
843          UD     .13

844          KK  DA522B
845          BA   0.058
846          LS              85
847          UD     .17
             *

848          KK  AD522D
849          KM   COMBINE HYDROGRAPHS FROM RT522C,DA522B AND DA522D
850          HC       3

851          KK  RT522D
852          KM   ROUTE COMBINED FLOW THROUGH CONC. ADOT CHANNEL TO BOT OF 522E
853          RS       1     FLOW      -1
854          RC    .015    .015    .015    1490    .003
855          RX       0      10      20      32      42      54      64      74
```

```
          856          RY      10      10      10       0       0      10      10      10
                       *
1                                                HEC-1 INPUT                                                    PAGE 23

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

          857          KK  DA522E
          858          BA    0.05
          859          LS              85
          860          UD    0.09

          861          KK  AD522E
          862          KM   COMBINE HYDROGRAPHS FROM RT522D, RT522B, AND DA522E
          863          HC       2
                       *
                       *
                       *
                       *
                       * ****************************
                       * THE FOLLOWING IS FROM THE HDR SOUTH MOUNTAIN MODEL

          864          KK   DA513  (CVL195) CVL data
          865          BA  0.0879
          866          LS              85
          867          UD   0.204

          868          KK   DA514  (CVL197) CVL data
          869          BA  0.0564
          870          LS            84.1
          871          UD   0.144

          872          KK   DA515  (CVL199) CVL data
          873          BA  0.0466
          874          LS              84
          875          UD   0.186

          876          KK   AD515  Combine 515, 514 and 513
          877          HC       3

          878          KK   RT515  Channel info from Clouse plans.
          879          RS       1    FLOW      -1
          880          RC   0.040   0.020   0.040    2600  0.0059
          881          RX      80      90     100     106     116     122     132     142
          882          RY      10      10      10       6       6      10      10      10

          883          KK   DA517  (CVL320) CVL data
          884          BA  0.1700
          885          LS              77
          886          UD   0.258
                       * RETREIVE SOUTH SPLIT AT 48th & THISTLE (KIMLEY/HORN DATA)

          887          KK   South
          888          KM   RETREIVE SOUTH SPLIT FROM 48th & THISTLE
          889          DR   South
                       * CONTINUE WITH HDR SOUTH MONTAIN DATA
1                                                HEC-1 INPUT                                                    PAGE 24

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

          890          KK   AD517  Add in 517
          891          HC       3

          892          KK   RT517  Assumed channel shape based on estimated 48th St. cross-section.
          893          RS       1    FLOW      -1
          894          RC   0.020   0.025   0.040     850   0.005
```

```
895     RX      78      80     100     112     116     118     122     222
896     RY      12     9.6      10    9.76    7.76    7.76      10      12

897     KK   DA518
898     BA   0.099
899     LS              81
900     UD    0.58

901     KK   AD518  Combine 518 with flow moving south in 48th St.
902     HC       2
        * HDR SOUTH MOUNTAIN RUN SHOWS SPLIT AT 48th & CHANDLER. ASSUME THAT
        * SPLIT HAS BEEN CORRECTED, AND ALL FLOW GOES SOUTH ALONG 48th.
        * ORIGINAL SPLIT CARDS:
        * KKDIV518 Assume 50-50 split at 48th & Chandler IC.
        * DT DIVSE
        * DI      0    2000
        * DQ      0    1000
        *
        *
        * CHANNEL GEOMETRY FOR RT518 HAS BEEN EXTENDED TO STABILIZE ROUTING
        * ORIG. RX & RY:
        * RX  80      90     100     105     110     115     125     135
        * RY10.4    10.2      10       5       5      10    10.2    10.4
        * RT518 MODIFIED TO REFLECT NEW CONC. CHANNEL PARALLEL TO 48th STR.
        * ORIGINAL CARDS
        *  RT518  Assume channel size based on existing tail-water ditch.
        * RS   1    FLOW      -1
        * RC 0.035   0.025   0.035    3600  0.0061
        * RX  50      90     100     105     110     115     125     165
        * RY  11    10.2      10       5       5      10    10.2      11

903     KK   RT518
904     KM   ROUTE FLOW TO BOTTOM OF 519B
905     RS       1    FLOW      -1
906     RC    .015    .015    .015    1320    .005
907     RX       0      10      20      30      40      50      60      70
908     RY       5       5       5       0       0       5       5       5
        *
        * ORIGINAL BASINS 519a AND 519b SPLIT UP TO REFLECT EXPECTED ROAD AND
        * DRAINAGE PATTERNS.  ORIGINAL DATA:
        * KKDA519a
        * BA0.22
        * LS          81
        * UD0.62
        * KKAD519a  Combine 519a and flow from N. at 48th & SMF.
        * HC   2
        *
        * ORIGINAL RETRIEVAL CARDS FOR SPLIT AT 48th & CHANDLER DELETED.
        *
        * KK DIVSE   Retrieve SE part of diversion from 48th St and Chandler Blvd IC.
        * DR DIVSE
        * KK  RTSE  Route to approx 50th St. thru assumed channel overland
        * RS      5    FLOW      -1
        * RC 0.035   0.035   0.035    3100   0.005
        * RX    80      90     100     110     610     620     630     640
        * RY    10      10      10       9       9      10      10      10
        *
        * KKDA519b
        * BA 0.322
        * LS          85
        * UD0.43
        *
        * KKRT519b  Assume channel size and route 519b back to 48th St.
        * RS   1    FLOW      -1
        * RC 0.035   0.018   0.035    2800  0.0011
        * RX  80      90     100     112     124     136     146     156
        * RY  10      10      10       4       4      10      10      10
```

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                    * KKAD519b  Combine all flows approx. 400ft West of 48th St. Design Q - C219.
                    * HC   3
                    *
                    * MODIFIED AREAS
                    *
1                                                HEC-1 INPUT                                                PAGE 25

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

         909        KK  DA519A
         910        BA   0.046
         911        LS              85
         912        UD    0.13
                    *

         913        KK  RT519A
         914        KM   ROUTE EAST TO END OF 519B (AT 48th STR.)
         915        RS       1    FLOW      -1
         916        RC    .015    .015    .015    2750    .003
         917        RX       0      10      20      30      40      50      60      70
         918        RY       5       5       5       0       0       5       5       5
                    *

         919        KK  DA519B
         920        BA   0.136
         921        LS              85
         922        UD    0.19
                    *

         923        KK  AD519B
         924        KM   COMBINE HYDROGRAPHS FROM RT518, RT519A, & DA519B
         925        HC       3
                    *

         926        KK  RT519B
         927        KM   ROUTE COMBINED HYDROGRAPHS SOUTH TO WEST SIDE OF 48th & FRYE
         928        RS       1    FLOW      -1
         929        RC    .015    .015    .015    1320    .006
         930        RX       0      10      20      32      42      54      64      74
         931        RY       6       6       6       0       0       6       6       6
                    *

         932        KK  DA519C
         933        BA   0.116
         934        LS              85
         935        UD    0.19
                    *

         936        KK  RT519C
         937        KM   ROUTE FLOW EAST TO 48th & FRYE
         938        RS       1    FLOW      -1
         939        RC    .015    .015    .015     900    .002
         940        RX       0      10      20      30      40      50      60      70
         941        RY       5       5       5       0       0       5       5       5
                    *

         942        KK  DA519D
         943        BA    .078
         944        LS              85
         945        UD     .19
                    *
1                                                HEC-1 INPUT                                                PAGE 26

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

```
946          KK  AD519D
947          KM   COMBINE HYDROGRAPHS FROM RT519B, RT519C, & DA519D
948          HC       3
             *

949          KK  RT519D
950          KM   ROUTE FLOW TO ADOT CHANNEL
951          RS       1    FLOW      -1
952          RC    .015    .015    .015     800    .008
953          RX       0      10      20      32      42      54      64      74
954          RY       6       6       6       0       0       6       6       6
             *

955          KK  DA519E
956          BA    .031
957          LS              85
958          UD     .11
             *

959          KK  RT519E
960          KM   ROUTE FLOW THROUGH ADOT CHANNEL TO BOTTOM OF DA519F
961          RS       1    FLOW      -1
962          RC    .015    .015    .015    2200    .002
963          RX       0      10      20      32      42      54      64      74
964          RY       6       6       6       0       0       6       6       6
             *

965          KK  DA519F
966          BA    .099
967          LS              85
968          UD     .23
             *

969          KK  AD519F
970          KM   COMBINE HYDROGRAPHS FROM RT519E AND DA519F
971          HC       2
             *

972          KK  DA519G
973          BA   0.032
974          LS              85
975          UD     .11
             *

976          KK  AD519G
977          KM   COMBINE HYDROGRAPHS FROM AD519F, DA519G, RT519D, & AD522E
978          HC       4
             *
```



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

979          KK  RTI-10
980          KM   ROUTE FLOWS THROUGH OPEN CHANNEL ACROSS I-10 R.O.W.
981          KM   SIMULATES (3) 10X6 RCBC
982          RS       1    FLOW      -1
983          RC    .012    .012    .012     750    .002
984          RX       0       5       9      10      40      41      45      50
985          RY      10       8       6       0       0       6       8      10
             *  ADD ADITIONAL AREA FOR BASN 15 AND AREA WEST OF BASIN

986          KK      B1 Area west of Basin 15
987          KM   CN=85 assumed (commercial, B soil)
988          BA   0.106
989          LS              85
990          UD    0.16
```

```
                 *

 991             KK   RTEB1
 992             KM   Route flow to Basin 15
 993             RS       1    FLOW      -1
 994             RC    .015    .015    .015    3000    .005
 995             RX       0      10      20      30      40      50      60      70
 996             RY       5       5       5       0       0       5       5       5
                 *

 997             KK  ADI-10
 998             KM   COMBINE HYDROGRAPHS FROM RTI-10 AND RTEB1
 999             HC       2
                 *

1000             KK     B15
1001             KM   Drainage Area of Retention Basin 15
1002             BA   0.129
1003             LS             85
1004             UD    0.25
                 *

1005             KK  ADBA15
1006             KM   COMBINE HYDROGRAPHS FROM ADI-10 AND B15
1007             HC       2
                 *
                 *     PRICE ROAD HYDROLOGY
                 *     I-10 AND SOUTH MOUNTAIN FREEWAY INTERCHANGE
                 *    ON-SITE INFIELD BASIN ROUTING, ON-SITE COLLECTION AND PUMP STATION
                 *    DISCHARGE COMBINED FLOW @ PMP TO EQUALIZATION BASIN

1008             KK    DA01
1009             PH              0    0.77    1.50    2.64    2.89    3.06    3.37    3.68    4.00
1010             BA   .0099
1011             LS           95.7
1012             UD    0.10
1                                          HEC-1 INPUT                                          PAGE 28

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

1013             KK   RTE01
1014             RD     840   .0094    .012            CIRC     2.5

1015             KK    DA02
1016             BA   .0075
1017             LS           94.8
1018             UD    0.10

1019             KK    DA03
1020             BA   .0047
1021             LS           89.6
1022             UD     .10

1023             KK   ADD03   ADD HYD. 01 THRU 03
1024             HC       3

1025             KK   RTE03
1026             RD     490   .0074    .012            CIRC     3.5

1027             KK    DA04
1028             BA   .0038
1029             LS           93.4
1030             UD     .10

1031             KK    DA05
1032             BA   .0066
```

```
1033          LS            90.4
1034          UD     .10

1035          KK   ADD05
1036          HC       3

1037          KK   RTE05
1038          RD     685   .0045    .012            CIRC     4.0

1039          KK    DA06
1040          BA   .0088
1041          LS            90.7
1042          UD     .10

1043          KK   ADD06
1044          HC       2

1045          KK   RTE06
1046          RD     700   .0045    .012            CIRC     4.0

1047          KK    DA07
1048          BA   .0203
1049          LS            81.3
1050          UD     .10
1                                   HEC-1 INPUT                                    PAGE 29

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


1051          KK   ADD07
1052          HC       2

1053          KK   RTE07
1054          RD     605   .0022    .012            CIRC       5

1055          KK    DA08
1056          BA   .0056
1057          LS            94.8
1058          UD     .10

1059          KK   RTE08
1060          RD     700   .0072    .012            CIRC     2.5

1061          KK   ADD08
1062          HC       2

1063          KK    DA09
1064          BA   .0284
1065          LS            80.8
1066          UD     .10

1067          KK   ADD09
1068          HC       2

1069          KK    PUMP  96" STORAGE RCP'S
1070          KM          L=1070 FEET     200 CFS STATION
1071          RS       1    ELEV    1132       0
1072          SV       0     .24    0.62    0.99    1.24
1073          SE    1132    1134    1136    1138    1140
1074          SQ     .01     .02     .03     .04     .05
1075          WP                            PUMP
1076          WP    1134      50    1133    PUMP
1077          WP    1135      50    1134    PUMP
1078          WP    1136      50    1135    PUMP
1079          WP    1136      50    1133    PUMP

1080          KK   PUMPR
```

```
1081          WR    PUMP

1082          KK    PUMP
1083          HC       2

1084          KK    DA19
1085          BA   .0112
1086          LS            75.6
1087          UD     .10

1088          KK   RTE19
1089          RD     150  .00670    .012           CIRC     2.5
1                                   HEC-1 INPUT                                          PAGE 30

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


1090          KK    DA20
1091          BA   .0104
1092          LS            90.7
1093          UD     .10

1094          KK   ADD20
1095          HC       2

1096          KK   RTE20
1097          RD      90  .0028    .012           CIRC     3.5

1098          KK    DA21
1099          BA   .0016
1100          LS              98
1101          UD     .10

1102          KK   ADD21
1103          HC       2

1104          KK   RTE21
1105          RD      90  .0028    .012           CIRC       4

1106          KK    DA22
1107          BA   .0133
1108          LS            91.3
1109          UD     .10

1110          KK   ADD22
1111          HC       2

1112          KK   RTE22
1113          RD     260  .0028    .012           CIRC     4.5

1114          KK    DA23
1115          BA   .0319
1116          LS            81.5
1117          UD     .10

1118          KK   ADD23
1119          HC       2

1120          KK   RTE23  INFIELD AREA - 30" OUTLET (INLET CONTROL) basin 12
1121          RS       1   STOR     0.0
1122          SV       0   0.24    0.91    7.44
1123          SE    1160   1161    1162    1165
1124          SQ       0      0       4      25

1125          KK    DA24
1126          BA   .0025
1127          LS              98
```

```
        1128          UD     .10
1                                          HEC-1 INPUT                                                PAGE 31
        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        1129          KK   ADD24
        1130          HC       2

        1131          KK    DA25
        1132          BA   .0195
        1133          LS            84.4
        1134          UD     .10

        1135          KK   ADD25
        1136          HC       2

        1137          KK   RTE25  INFIELD AREA - 24" OUTLET (INLET CONTROL) basin 11
        1138          RS       1    STOR     0.0
        1139          SV       0     .16     .91   13.37
        1140          SE    1159    1160    1161    1165
        1141          SQ       0       0       4      30

        1142          KK    DA26
        1143          BA   .0156
        1144          LS            78.5
        1145          UD     .10

        1146          KK   ADD26
        1147          HC       2

        1148          KK   RTE26  INFIELD AREA - 18" OUTLET (INLET CONTROL) basin 10
        1149          RS       1    STOR     0.0
        1150          SV       0    0.01    1.91    5.31
        1151          SE    1158    1159    1160    1161
        1152          SQ       0       0     3.4       9

        1153          KK    DA27
        1154          BA   .0253
        1155          LS            84.3
        1156          UD     .10

        1157          KK   ADD27
        1158          HC       2

        1159          KK   RTE27  INFIELD AREA - 24" OUTLET (INLET CONTROL) basin 9
        1160          RS       1    STOR     0.0
        1161          SV       0    0.01    1.34    3.53
        1162          SE  1157.9  1158.4    1160    1161
        1163          SQ       0       0       9      17

        1164          KK    DA28
        1165          BA   .0025
        1166          LS              98
        1167          UD     .10
1                                          HEC-1 INPUT                                                PAGE 32
        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        1168          KK   ADD28
        1169          HC       2

        1170          KK    DA29
        1171          BA   .0286
        1172          LS            83.5
        1173          UD     .10
```

```
1174          KK   ADD29
1175          HC       2

1176          KK   RTE29  INFIELD AREA - 24" OUTLET (INLET CONTROL) basin 8
1177          RS       1    STOR     0.0
1178          SV       0     .01    0.02    4.41
1179          SE  1157.0  1157.5    1159    1161
1180          SQ       0       0       8      23

1181          KK     PMP
1182          KM        ADD INFIELD RUNOFF AND PUMP STATION OUTFLOW
1183          KM        COMBINED DISCHARGE TO EQUALIZATION BASIN
1184          HC       2
              * ****END INTERCHANGE ON-SITE MODEL*****

1185          KK   ADPMP  combine flows from IC onsite pumpstation and route thru basin.
1186          HC       2
              *
              * *****Original ADOT BASIN 15 Design Concept not used in this run.
              * KK DET  Route thru detention basin S. side of SMF, outlet to Gila Floodw
              * KM        thru 54" RCP.
              * RS     1    STOR       0
              * SV     0    13.8    23.0   118.9   221.8   243.2   264.9   286.9   309.2   331
              * SE  1143  1144.5    1145    1150    1155    1156    1157    1158    1159    11
              * SQ     0      13      20      79      98     102     105     108     111     1
              *
              *
              * ***********************************************************************
              * PREVIOUS BASIN 15 ROUTINE KEPT FOR RECORD PURPOSES ONLY
              *
              * ***********************************************************************
              * ***********************************************************************
              * Begin Basin 15/48th Street Detention Basin Routing
              * ***********************************************************************

1187          KK   B15FF
1188          KM   DIVERT FIRST 37 ac-ft EQUALIZATION BASIN
1189          KM   EQ BASIN RETAINS 37.6 AC-FT TO OVERFLOW ELEV. 1158
1190          KO       3
1191          DT   DIVFF    37.6
1192          DI       0   10000
1193          DQ       0   10000
              *
1                                    HEC-1 INPUT                                    PAGE 33

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

1194          KK   STB15
1195          KM        ROUTE MAIN VOLUME INTO BASIN 15
1196          KM        100-YR  6-HOUR MULTI-USE BASIN WITH 1' FREEBORAD
1197          KM        TOP OF BASIN, INCLUDING FREEBOARD, AT ELEV. 1160.
1198          KM        100-YR 24-HOUR RUN ASSUMES OUTLET PIPE IS OPEN
1199          KM        OUTLET IS 42" RCP TO SANTAN CHANNEL
1200          KO       2
1201          RS       1    STOR
1202          SV       0       1      15     109     228     275   321.8
1203          SQ       0      99     113     137     153     157     161
1204          SE    1143  1146.5    1150    1155    1158    1159    1160
              *

1205          KK    RTFF
1206          DR   DIVFF

1207          KK    STFF
1208          KM    ROUTE FF INTO EQUAL BASIN
```

```
        1209          KO       3
        1210          RS       1    STOR
        1211          SV       0    37.6
        1212          SQ       0       0
        1213          SE    1144    1158
        1214          ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

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

   7          M1
               V
               V
  14        RtC1
               .
               .
  20           .          M2
               .           V
               .           V
  25           .        RtC2
               .           .
               .           .
  31           .           .          A1
               .           .           .
               .           .           .
  36      COMB1.......................
               .
               .
  41           .------->   Splt1
  39      Splt1
               V
               V
  44        RtC3
               .
               .
  50           .          M3
               .           V
               .           V
  55           .        RtC4
               .           .
               .           .
  61           .           .          A2
               .           .           .
               .           .           .
  66      COMB2.......................
               V
               V
  69        RtC5
               .
               .
  75           .          M4
               .           V
               .           V
  80           .        RtR1
               .           .
               .           .
  86           .           .          A3
               .           .           .
               .           .           .
  91           .           .           .          A4
               .           .           .           .
               .           .           .           .
  96      COMB3.................................
               .
```

```
101          .------->   RET1
 99       RET1
             V
             V
104       RtC6
             .
             .
110          .         A5
             .          .
             .          .
115      COMB4............
             .
             .
120          .------->  Splt2
118      Splt2
             V
             V
123       RtC7
             .
             .
129          .        A6b
             .          V
             .          V
134          .       RtR2
             .          .
             .          .
140          .          .         R1
             .          .          .
             .          .          .
145          .      Comb5............
             .          .
             .          .
150          .          .------->  DivR1
148          .      DivR1
             .          .
             .          .
153          .          .        A6a
             .          .          V
             .          .          V
158          .          .       RtC8
             .          .          .
             .          .          .
164          .          .          .         A7
             .          .          .          .
             .          .          .          .
169      Comb6.................................
             V
             V
172       RtC9
             .
             .
178          .         A8
             .          .
             .          .
183          .          .         R2
             .          .          .
             .          .          .
188          .          .          .        A29
             .          .          .          .
             .          .          .          .
193      COMB7.................................
             V
             V
196      RtC10
             .
             .
```

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202          .          A9
             .          .
207          .          .          A30
             .          .          .
212      COMB8.......................
             .
             .
217          .-------->   Splt3
215      SPLT3
             V
             V
220      RtC11
             .
             .
226          .        A11
             .          .
231          .          .          A12
             .          .          .
238          .          .          .-------->   DvA12
236          .          .      DvA12
             .          .          .
             .          .          .
241          .      Comb9...........
             .          V
             .          V
244          .       RtR3
             .          .
             .          .
250          .          .          A10
             .          .          .
257          .          .          .-------->   DvA10
255          .          .      DvA10
             .          .          .
             .          .          .
260          .          .          .          R3
             .          .          .          .
265          .          .          .          .          R4
             .          .          .          .          .
270      Comb10.......................................
             V
             V
273      RtC12
             .
             .
281          .          .<-------   DivR1
279          .      RetR1
             .          V
             .          V
282          .       RtR4
             .          .
             .          .
288          .          .          R6
             .          .          .
293          .          .          .          A13
             .          .          .          .
300          .          .          .          .-------->   DvA13
298          .          .          .      DvA13
             .          .          .          .
```

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303          Comb11
306           RtC13
312                     A14
319                     ------->  DvA14
317                   DvA14
322                                R7a
327          Comb12
330           RtC14
336                     A15
341                                A31
346                                          R7b
351                                                        R5
356     Comb13
359      RtC15
365       RtR5
371          R12A
376                     A16
383                     ------->  DvA16
381                   DvA16
386                                A17
391     Comb14
394       RtR6
402          ------->  48-Est
400     48-Sth
```

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405          .        A18
             .         .
410          .         .          R8
             .         .          .
             .         .          .
415          .     Comb15.........
             .        V
             .        V
418          .      RtR7
             .         .
             .         .
424          .         .          R9
             .         .          .
             .         .          .
429          .         .          .        A19
             .         .          .         .
             .         .          .         .
434          .     Comb16.......................
             .        V
             .        V
437          .      RtR8
             .         .
             .         .
443          .         .        A20
             .         .          .
             .         .          .
450          .         .          .-------> DvA20
448          .         .      DvA20
             .         .          .
             .         .          .
453          .         .          .        R10
             .         .          .         .
             .         .          .         .
458          .     Comb17.......................
             .        V
             .        V
461          .      RtR9
             .         .
             .         .
467          .         .        A21
             .         .          .
             .         .          .
474          .         .          .-------> 21-Est
472          .         .     21-Sth
             .         .        V
             .         .        V
477          .         .     RtR10
             .         .          .
             .         .          .
483          .         .          .        R11
             .         .          .         .
             .         .          .         .
488          .         .          .         .        A22
             .         .          .         .         .
             .         .          .         .         .
495          .         .          .         .         .-------> DvA22
493          .         .          .         .      DvA22
             .         .          .         .         .
             .         .          .         .         .
498          .         .          .         .         .       R12b
             .         .          .         .         .         .
             .         .          .         .         .         .
505          .         .          .         .         .         .<------- 48-Est
503          .         .          .         .         .     Retn48
             .         .          .         .         .         .
             .         .          .         .         .         .
```

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506          .      Comb18.......................................................
             .           .
511          .           .-------> RayEst
509          .      RaySth
             .           .
             .           .
514     Comb19............
             V
             V
517      RtC16
             .
             .
523          .        A27
             .          V
             .          V
528          .      RtC17
             .           .
             .           .
534          .           .        A28
             .           .          .
             .           .          .
539          .           .          .        R13
             .           .          .          .
             .           .          .          .
544     Comb20.................................
             V
             V
547       RET2
             .
             .
556          .------->   South
554       East
             V
             V
561     RtEAST
             .
             .
567          .           C
             .           .
             .           .
572      COMBC............
             V
             V
575        RtC
             .
             .
581          .           B
             .           .
             .           .
586      COMBB............
             .
             .
591          .           .<-------  21-Est
589          .      Retn21
             .           V
             .           V
592          .        RtP1
             .           .
             .           .
598          .           .        A25
             .           .          .
             .           .          .
603          .      Comb21............
             .           V
             .           V
606          .        RtP2
```

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                .          .
612             .          .        A23
                .          .          .
                .          .          .
619             .          .          .-------->    ST23
617             .          .      DvA23
                .          .          V
                .          .          V
622             .          .      RtC18
                .          .          .
                .          .          .
628             .          .          .        A24
                .          .          .          .
                .          .          .          .
633             .     Comb22.......................
                .          V
                .          V
636             .       RET3
                .          V
                .          V
643             .      RtC19
                .          .
                .          .
649             .          .        A26
                .          .          .
                .          .          .
656             .          .          .-------->    ST26
654             .          .      DvA26
                .          .          .
                .          .          .
661             .          .          .          .<-------  RayEst
659             .          .          .     RtnRay
                .          .          .          V
                .          .          .          V
662             .          .          .      RtR11
                .          .          .          .
                .          .          .          .
668             .          .          .          .        R14
                .          .          .          .          .
                .          .          .          .          .
673             .     Comb23.................................
                .          .
                .          .
678             .          .-------->  DIVBOX
676             .     DIV520
                .          .
                .          .
682             .          .          .<-------  DIVBOX
681             .          .     DIVBOX
                .          .          .
                .          .          .
683             .     ADDBOX............
                .          V
                .          V
686             .      RTE23
                .          .
                .          .
692             .          .        VA1
                .          .          V
                .          .          V
698             .          .      RTEA1
                .          .          .
                .          .          .
704             .          .          .        VA2
                .          .          .          .
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709          .          .       COMBA............
             .          .           V
             .          .           V
712          .          .      STORA2
             .          .           V
             .          .           V
717          .          .       RTEA2
             .          .           .
             .          .           .
723      COMBB......................
             V
             V
726        RtB
             .
             .
732          .          D
             .          .
             .          .
737          .          .           E
             .          .           .
             .          .           .
742          .      COMBE............
             .          V
             .          V
745          .       RTEE
             .          .
             .          .
751          .          .           F
             .          .           .
             .          .           .
756      COMBF......................
             V
             V
759       RTEF
             .
             .
766          .     DA522A
             .          V
             .          V
770          .     RT522A
             .          .
             .          .
776          .          .       DA10
             .          .           .
             .          .           .
780          .          .           .       DA11
             .          .           .           .
             .          .           .           .
784          .          .           .           .       DA12
             .          .           .           .           .
             .          .           .           .           .
788          .          .      ADD12.......................
             .          .           V
             .          .           V
790          .          .      RTE12
             .          .           .
             .          .           .
792          .          .           .       DA13
             .          .           .           V
             .          .           .           V
796          .          .           .      RTE13
             .          .           .           .
             .          .           .           .
798          .          .           .           .       DA14
             .          .           .           .           .
             .          .           .           .           .
802          .          .      ADD14.......................
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                 .         .         V
                 .         .         V
804              .         .      RTE14
                 .         .         .
806              .         .         .      DA15
                 .         .         .         .
810              .         .         .         .      DA16
                 .         .         .         .         .
814              .         .         .         .         .      DA17
                 .         .         .         .         .         .
818              .         .         .         .         .         .      DA18
                 .         .         .         .         .         .         .
822              .         .      ADD17.......................................
                 .         .         V
824              .         .         V
                 .         .      RTE18
                 .         .         .
828              .         .         .      DA522C
                 .         .         .         .
832      AD522C...............................
             V
             V
835      RT522C
             .
841          .      DA522D
             .         .
844          .         .      DA522B
             .         .         .
848      AD522D.......................
             V
             V
851      RT522D
             .
857          .      DA522E
             .         .
861      AD522E............
             .
864          .      DA513
             .         .
868          .         .      DA514
             .         .         .
872          .         .         .      DA515
             .         .         .         .
876          .      AD515........................
             .         V
             .         V
878          .      RT515
             .         .
883          .         .      DA517
             .         .         .
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889                                          <-------   South
887                                   South
890          AD517.......................
                 V
                 V
892          RT517
897                       DA518
901          AD518............
                 V
                 V
903          RT518
909                       DA519A
                               V
                               V
913                       RT519A
919                                   DA519B
923          AD519B......................
                 V
                 V
926          RT519B
932                       DA519C
                               V
                               V
936                       RT519C
942                                   DA519D
946          AD519D......................
                 V
                 V
949          RT519D
955                       DA519E
                               V
                               V
959                       RT519E
965                                   DA519F
969                       AD519F............
972                                   DA519G
976     AD519G.................................
             V
```

```
                V
979     RTI-10
                .
986             .        B1
                .         V
                .         V
991             .     RTEB1
                .         .
997     ADI-10...........
                .
1000            .       B15
                .         .
1005    ADBA15...........
                .
1008            .      DA01
                .         V
                .         V
1013            .     RTE01
                .         .
1015            .         .       DA02
                .         .         .
1019            .         .         .       DA03
                .         .         .         .
1023            .     ADD03.......................
                .         V
                .         V
1025            .     RTE03
                .         .
1027            .         .       DA04
                .         .         .
1031            .         .         .       DA05
                .         .         .         .
1035            .     ADD05.......................
                .         V
                .         V
1037            .     RTE05
                .         .
1039            .         .       DA06
                .         .         .
1043            .     ADD06...........
                .         V
                .         V
1045            .     RTE06
                .         .
1047            .         .       DA07
                .         .         .
1051            .     ADD07...........
                .         V
                .         V
1053            .     RTE07
                .         .
                .         .
```

```
1055                DA08
                     V
                     V
1059               RTE08
                     .
                     .
1061        ADD08............
                     .
                     .
1063                DA09
                     .
                     .
1067        ADD09............
                     V
                     V
1075                 .-------->    PUMP
1069         PUMP
                     .
                     .
1081                 .<-------     PUMP
1080               PUMPR
                     .
                     .
1082         PUMP............
                     .
                     .
1084                DA19
                     V
                     V
1088               RTE19
                     .
                     .
1090                 .            DA20
                     .              .
                     .              .
1094               ADD20............
                     V
                     V
1096               RTE20
                     .
                     .
1098                 .            DA21
                     .              .
                     .              .
1102               ADD21............
                     V
                     V
1104               RTE21
                     .
                     .
1106                 .            DA22
                     .              .
                     .              .
1110               ADD22............
                     V
                     V
1112               RTE22
                     .
                     .
1114                 .            DA23
                     .              .
                     .              .
1118               ADD23............
                     V
                     V
1120               RTE23
                     .
```

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1125                                  DA24
                                        .
1129                            ADD24.......
                                        .
1131                                  DA25
                                        .
1135                            ADD25.......
                                        V
                                        V
1137                            RTE25
                                        .
1142                                  DA26
                                        .
1146                            ADD26.......
                                        V
                                        V
1148                            RTE26
                                        .
1153                                  DA27
                                        .
1157                            ADD27.......
                                        V
                                        V
1159                            RTE27
                                        .
1164                                  DA28
                                        .
1168                            ADD28.......
                                        .
1170                                  DA29
                                        .
1174                            ADD29.......
                                        V
                                        V
1176                            RTE29
                                        .
1181                      PMP.......
                                  .
1185                 ADPMP.......
                          .
1191                      .-------> DIVFF
1187                 B15FF
                         V
                         V
1194                 STB15
                          .
1206                      .<-------   DIVFF
1205                      .     RTFF
                          .        V
                          .        V
1207                      .     STFF
```

```
 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *             JUN 09 1992              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.0.3E             *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE  12/02/98  TIME  15:57:50  *                                    *          (916) 551-1748              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************


                              FN: H10024RB.DAT     OCTOBER, 1998
                                  48TH STREET BASIN/REVISED BASIN 15
                                  HDR 100-YR  24-HR
                                  ADOT RUN

   6 IO          OUTPUT CONTROL VARIABLES
                       IPRNT           5  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE

     IT          HYDROGRAPH TIME DATA
                        NMIN           2  MINUTES IN COMPUTATION INTERVAL
                       IDATE      1    0  STARTING DATE
                       ITIME        0000  STARTING TIME
                          NQ         721  NUMBER OF HYDROGRAPH ORDINATES
                      NDDATE      2    0  ENDING DATE
                      NDTIME        0000  ENDING TIME
                       ICENT          19  CENTURY MARK

                 COMPUTATION INTERVAL    0.03 HOURS
                      TOTAL TIME BASE   24.00 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


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


           **************
           *            *
   7 KK    *       M1   *
           *            *
           **************

   9 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           2  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE

              SUBBASIN RUNOFF DATA

  11 BA          SUBBASIN CHARACTERISTICS
                       TAREA        0.28  SUBBASIN AREA
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PRECIPITATION DATA

10 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

HYDRO-35			TP-40					TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
0.77	1.50	2.64	2.89	3.06	3.37	3.68	4.00	0.00	0.00	0.00	0.00

STORM AREA = 4.50

12 LS SCS LOSS RATE

STRTL	0.25	INITIAL ABSTRACTION
CRVNBR	98.00	CURVE NUMBER
RTIMP	0.00	PERCENT IMPERVIOUS AREA

13 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	0.25	LAG

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UNIT HYDROGRAPH
40 END-OF-PERIOD ORDINATES

24.	72.	139.	234.	349.	438.	489.	503.	494.	454.
407.	348.	276.	219.	178.	145.	121.	99.	80.	66.
53.	44.	36.	29.	24.	19.	16.	13.	11.	9.
7.	6.	5.	4.	3.	3.	2.	1.	1.	0.

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HYDROGRAPH AT STATION M1

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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	0.00	0.00	0.00	0.	*	1		1202	362	0.30	0.00	0.30	312.
1		0002	2	0.00	0.00	0.00	0.	*	1		1204	363	0.24	0.00	0.24	379.
1		0004	3	0.00	0.00	0.00	0.	*	1		1206	364	0.15	0.00	0.15	460.
1		0006	4	0.00	0.00	0.00	0.	*	1		1208	365	0.11	0.00	0.11	551.
1		0008	5	0.00	0.00	0.00	0.	*	1		1210	366	0.08	0.00	0.08	639.
1		0010	6	0.00	0.00	0.00	0.	*	1		1212	367	0.07	0.00	0.07	712.
1		0012	7	0.00	0.00	0.00	0.	*	1		1214	368	0.07	0.00	0.07	761.
1		0014	8	0.00	0.00	0.00	0.	*	1		1216	369	0.06	0.00	0.06	784.
1		0016	9	0.00	0.00	0.00	0.	*	1		1218	370	0.05	0.00	0.05	780.
1		0018	10	0.00	0.00	0.00	0.	*	1		1220	371	0.04	0.00	0.04	755.
1		0020	11	0.00	0.00	0.00	0.	*	1		1222	372	0.04	0.00	0.04	713.
1		0022	12	0.00	0.00	0.00	0.	*	1		1224	373	0.04	0.00	0.04	659.
1		0024	13	0.00	0.00	0.00	0.	*	1		1226	374	0.04	0.00	0.04	600.
1		0026	14	0.00	0.00	0.00	0.	*	1		1228	375	0.03	0.00	0.03	543.
1		0028	15	0.00	0.00	0.00	0.	*	1		1230	376	0.03	0.00	0.03	490.
1		0030	16	0.00	0.00	0.00	0.	*	1		1232	377	0.01	0.00	0.01	443.
1		0032	17	0.00	0.00	0.00	0.	*	1		1234	378	0.01	0.00	0.01	400.
1		0034	18	0.00	0.00	0.00	0.	*	1		1236	379	0.01	0.00	0.01	361.
1		0036	19	0.00	0.00	0.00	0.	*	1		1238	380	0.01	0.00	0.01	325.
1		0038	20	0.00	0.00	0.00	0.	*	1		1240	381	0.01	0.00	0.01	290.
1		0040	21	0.00	0.00	0.00	0.	*	1		1242	382	0.01	0.00	0.01	257.
1		0042	22	0.00	0.00	0.00	0.	*	1		1244	383	0.01	0.00	0.01	227.
1		0044	23	0.00	0.00	0.00	0.	*	1		1246	384	0.01	0.00	0.01	200.
1		0046	24	0.00	0.00	0.00	0.	*	1		1248	385	0.01	0.00	0.01	175.
1		0048	25	0.00	0.00	0.00	0.	*	1		1250	386	0.01	0.00	0.01	154.
1		0050	26	0.00	0.00	0.00	0.	*	1		1252	387	0.01	0.00	0.01	135.
1		0052	27	0.00	0.00	0.00	0.	*	1		1254	388	0.01	0.00	0.01	119.
1		0054	28	0.00	0.00	0.00	0.	*	1		1256	389	0.01	0.00	0.01	105.
1		0056	29	0.00	0.00	0.00	0.	*	1		1258	390	0.01	0.00	0.01	94.
1		0058	30	0.00	0.00	0.00	0.	*	1		1300	391	0.01	0.00	0.01	85.
1		0100	31	0.00	0.00	0.00	0.	*	1		1302	392	0.01	0.00	0.01	77.
1		0102	32	0.00	0.00	0.00	0.	*	1		1304	393	0.01	0.00	0.01	70.

1	0104	33	0.00	0.00	0.00	0.	*	1	1306	394	0.01	0.00	0.01	65.
1	0106	34	0.00	0.00	0.00	0.	*	1	1308	395	0.01	0.00	0.01	60.
1	0108	35	0.00	0.00	0.00	0.	*	1	1310	396	0.01	0.00	0.01	56.
1	0110	36	0.00	0.00	0.00	0.	*	1	1312	397	0.01	0.00	0.01	52.
1	0112	37	0.00	0.00	0.00	0.	*	1	1314	398	0.01	0.00	0.01	49.
1	0114	38	0.00	0.00	0.00	0.	*	1	1316	399	0.01	0.00	0.01	46.
1	0116	39	0.00	0.00	0.00	0.	*	1	1318	400	0.01	0.00	0.01	44.
1	0118	40	0.00	0.00	0.00	0.	*	1	1320	401	0.01	0.00	0.01	42.
1	0120	41	0.00	0.00	0.00	0.	*	1	1322	402	0.01	0.00	0.01	40.
1	0122	42	0.00	0.00	0.00	0.	*	1	1324	403	0.01	0.00	0.01	38.
1	0124	43	0.00	0.00	0.00	0.	*	1	1326	404	0.01	0.00	0.01	37.
1	0126	44	0.00	0.00	0.00	0.	*	1	1328	405	0.01	0.00	0.01	36.
1	0128	45	0.00	0.00	0.00	0.	*	1	1330	406	0.01	0.00	0.01	35.
1	0130	46	0.00	0.00	0.00	0.	*	1	1332	407	0.00	0.00	0.00	34.
1	0132	47	0.00	0.00	0.00	0.	*	1	1334	408	0.00	0.00	0.00	33.
1	0134	48	0.00	0.00	0.00	0.	*	1	1336	409	0.00	0.00	0.00	32.
1	0136	49	0.00	0.00	0.00	0.	*	1	1338	410	0.00	0.00	0.00	31.
1	0138	50	0.00	0.00	0.00	0.	*	1	1340	411	0.00	0.00	0.00	30.
1	0140	51	0.00	0.00	0.00	0.	*	1	1342	412	0.00	0.00	0.00	29.
1	0142	52	0.00	0.00	0.00	0.	*	1	1344	413	0.00	0.00	0.00	29.
1	0144	53	0.00	0.00	0.00	0.	*	1	1346	414	0.00	0.00	0.00	28.
1	0146	54	0.00	0.00	0.00	0.	*	1	1348	415	0.00	0.00	0.00	27.
1	0148	55	0.00	0.00	0.00	0.	*	1	1350	416	0.00	0.00	0.00	27.
1	0150	56	0.00	0.00	0.00	0.	*	1	1352	417	0.00	0.00	0.00	26.
1	0152	57	0.00	0.00	0.00	0.	*	1	1354	418	0.00	0.00	0.00	26.
1	0154	58	0.00	0.00	0.00	0.	*	1	1356	419	0.00	0.00	0.00	25.
1	0156	59	0.00	0.00	0.00	0.	*	1	1358	420	0.00	0.00	0.00	25.
1	0158	60	0.00	0.00	0.00	0.	*	1	1400	421	0.00	0.00	0.00	24.
1	0200	61	0.00	0.00	0.00	0.	*	1	1402	422	0.00	0.00	0.00	24.
1	0202	62	0.00	0.00	0.00	0.	*	1	1404	423	0.00	0.00	0.00	23.
1	0204	63	0.00	0.00	0.00	0.	*	1	1406	424	0.00	0.00	0.00	23.
1	0206	64	0.00	0.00	0.00	0.	*	1	1408	425	0.00	0.00	0.00	23.
1	0208	65	0.00	0.00	0.00	0.	*	1	1410	426	0.00	0.00	0.00	22.
1	0210	66	0.00	0.00	0.00	0.	*	1	1412	427	0.00	0.00	0.00	22.
1	0212	67	0.00	0.00	0.00	0.	*	1	1414	428	0.00	0.00	0.00	22.
1	0214	68	0.00	0.00	0.00	0.	*	1	1416	429	0.00	0.00	0.00	21.
1	0216	69	0.00	0.00	0.00	0.	*	1	1418	430	0.00	0.00	0.00	21.
1	0218	70	0.00	0.00	0.00	0.	*	1	1420	431	0.00	0.00	0.00	21.
1	0220	71	0.00	0.00	0.00	0.	*	1	1422	432	0.00	0.00	0.00	20.
1	0222	72	0.00	0.00	0.00	0.	*	1	1424	433	0.00	0.00	0.00	20.
1	0224	73	0.00	0.00	0.00	0.	*	1	1426	434	0.00	0.00	0.00	20.
1	0226	74	0.00	0.00	0.00	0.	*	1	1428	435	0.00	0.00	0.00	19.
1	0228	75	0.00	0.00	0.00	0.	*	1	1430	436	0.00	0.00	0.00	19.
1	0230	76	0.00	0.00	0.00	0.	*	1	1432	437	0.00	0.00	0.00	19.
1	0232	77	0.00	0.00	0.00	0.	*	1	1434	438	0.00	0.00	0.00	19.
1	0234	78	0.00	0.00	0.00	0.	*	1	1436	439	0.00	0.00	0.00	18.
1	0236	79	0.00	0.00	0.00	0.	*	1	1438	440	0.00	0.00	0.00	18.
1	0238	80	0.00	0.00	0.00	0.	*	1	1440	441	0.00	0.00	0.00	18.
1	0240	81	0.00	0.00	0.00	0.	*	1	1442	442	0.00	0.00	0.00	18.
1	0242	82	0.00	0.00	0.00	0.	*	1	1444	443	0.00	0.00	0.00	18.
1	0244	83	0.00	0.00	0.00	0.	*	1	1446	444	0.00	0.00	0.00	17.
1	0246	84	0.00	0.00	0.00	0.	*	1	1448	445	0.00	0.00	0.00	17.
1	0248	85	0.00	0.00	0.00	0.	*	1	1450	446	0.00	0.00	0.00	17.
1	0250	86	0.00	0.00	0.00	0.	*	1	1452	447	0.00	0.00	0.00	17.
1	0252	87	0.00	0.00	0.00	0.	*	1	1454	448	0.00	0.00	0.00	17.
1	0254	88	0.00	0.00	0.00	0.	*	1	1456	449	0.00	0.00	0.00	16.
1	0256	89	0.00	0.00	0.00	0.	*	1	1458	450	0.00	0.00	0.00	16.
1	0258	90	0.00	0.00	0.00	0.	*	1	1500	451	0.00	0.00	0.00	16.
1	0300	91	0.00	0.00	0.00	0.	*	1	1502	452	0.00	0.00	0.00	16.
1	0302	92	0.00	0.00	0.00	0.	*	1	1504	453	0.00	0.00	0.00	16.
1	0304	93	0.00	0.00	0.00	0.	*	1	1506	454	0.00	0.00	0.00	15.
1	0306	94	0.00	0.00	0.00	0.	*	1	1508	455	0.00	0.00	0.00	15.
1	0308	95	0.00	0.00	0.00	0.	*	1	1510	456	0.00	0.00	0.00	15.
1	0310	96	0.00	0.00	0.00	0.	*	1	1512	457	0.00	0.00	0.00	15.
1	0312	97	0.00	0.00	0.00	0.	*	1	1514	458	0.00	0.00	0.00	15.
1	0314	98	0.00	0.00	0.00	0.	*	1	1516	459	0.00	0.00	0.00	14.
1	0316	99	0.00	0.00	0.00	0.	*	1	1518	460	0.00	0.00	0.00	14.

1	0318	100	0.00	0.00	0.00	0.	*	1	1520	461	0.00	0.00	0.00	14.
1	0320	101	0.00	0.00	0.00	0.	*	1	1522	462	0.00	0.00	0.00	14.
1	0322	102	0.00	0.00	0.00	0.	*	1	1524	463	0.00	0.00	0.00	13.
1	0324	103	0.00	0.00	0.00	0.	*	1	1526	464	0.00	0.00	0.00	13.
1	0326	104	0.00	0.00	0.00	0.	*	1	1528	465	0.00	0.00	0.00	13.
1	0328	105	0.00	0.00	0.00	0.	*	1	1530	466	0.00	0.00	0.00	13.
1	0330	106	0.00	0.00	0.00	0.	*	1	1532	467	0.00	0.00	0.00	13.
1	0332	107	0.00	0.00	0.00	0.	*	1	1534	468	0.00	0.00	0.00	12.
1	0334	108	0.00	0.00	0.00	0.	*	1	1536	469	0.00	0.00	0.00	12.
1	0336	109	0.00	0.00	0.00	0.	*	1	1538	470	0.00	0.00	0.00	12.
1	0338	110	0.00	0.00	0.00	0.	*	1	1540	471	0.00	0.00	0.00	12.
1	0340	111	0.00	0.00	0.00	0.	*	1	1542	472	0.00	0.00	0.00	12.
1	0342	112	0.00	0.00	0.00	0.	*	1	1544	473	0.00	0.00	0.00	12.
1	0344	113	0.00	0.00	0.00	0.	*	1	1546	474	0.00	0.00	0.00	12.
1	0346	114	0.00	0.00	0.00	0.	*	1	1548	475	0.00	0.00	0.00	12.
1	0348	115	0.00	0.00	0.00	0.	*	1	1550	476	0.00	0.00	0.00	12.
1	0350	116	0.00	0.00	0.00	0.	*	1	1552	477	0.00	0.00	0.00	11.
1	0352	117	0.00	0.00	0.00	0.	*	1	1554	478	0.00	0.00	0.00	11.
1	0354	118	0.00	0.00	0.00	0.	*	1	1556	479	0.00	0.00	0.00	11.
1	0356	119	0.00	0.00	0.00	0.	*	1	1558	480	0.00	0.00	0.00	11.
1	0358	120	0.00	0.00	0.00	0.	*	1	1600	481	0.00	0.00	0.00	11.
1	0400	121	0.00	0.00	0.00	0.	*	1	1602	482	0.00	0.00	0.00	11.
1	0402	122	0.00	0.00	0.00	0.	*	1	1604	483	0.00	0.00	0.00	11.
1	0404	123	0.00	0.00	0.00	0.	*	1	1606	484	0.00	0.00	0.00	11.
1	0406	124	0.00	0.00	0.00	0.	*	1	1608	485	0.00	0.00	0.00	11.
1	0408	125	0.00	0.00	0.00	0.	*	1	1610	486	0.00	0.00	0.00	11.
1	0410	126	0.00	0.00	0.00	0.	*	1	1612	487	0.00	0.00	0.00	11.
1	0412	127	0.00	0.00	0.00	0.	*	1	1614	488	0.00	0.00	0.00	10.
1	0414	128	0.00	0.00	0.00	0.	*	1	1616	489	0.00	0.00	0.00	10.
1	0416	129	0.00	0.00	0.00	0.	*	1	1618	490	0.00	0.00	0.00	10.
1	0418	130	0.00	0.00	0.00	0.	*	1	1620	491	0.00	0.00	0.00	10.
1	0420	131	0.00	0.00	0.00	0.	*	1	1622	492	0.00	0.00	0.00	10.
1	0422	132	0.00	0.00	0.00	0.	*	1	1624	493	0.00	0.00	0.00	10.
1	0424	133	0.00	0.00	0.00	0.	*	1	1626	494	0.00	0.00	0.00	10.
1	0426	134	0.00	0.00	0.00	0.	*	1	1628	495	0.00	0.00	0.00	10.
1	0428	135	0.00	0.00	0.00	0.	*	1	1630	496	0.00	0.00	0.00	10.
1	0430	136	0.00	0.00	0.00	0.	*	1	1632	497	0.00	0.00	0.00	10.
1	0432	137	0.00	0.00	0.00	0.	*	1	1634	498	0.00	0.00	0.00	10.
1	0434	138	0.00	0.00	0.00	0.	*	1	1636	499	0.00	0.00	0.00	10.
1	0436	139	0.00	0.00	0.00	0.	*	1	1638	500	0.00	0.00	0.00	10.
1	0438	140	0.00	0.00	0.00	0.	*	1	1640	501	0.00	0.00	0.00	10.
1	0440	141	0.00	0.00	0.00	0.	*	1	1642	502	0.00	0.00	0.00	10.
1	0442	142	0.00	0.00	0.00	0.	*	1	1644	503	0.00	0.00	0.00	9.
1	0444	143	0.00	0.00	0.00	0.	*	1	1646	504	0.00	0.00	0.00	9.
1	0446	144	0.00	0.00	0.00	0.	*	1	1648	505	0.00	0.00	0.00	9.
1	0448	145	0.00	0.00	0.00	0.	*	1	1650	506	0.00	0.00	0.00	9.
1	0450	146	0.00	0.00	0.00	0.	*	1	1652	507	0.00	0.00	0.00	9.
1	0452	147	0.00	0.00	0.00	0.	*	1	1654	508	0.00	0.00	0.00	9.
1	0454	148	0.00	0.00	0.00	0.	*	1	1656	509	0.00	0.00	0.00	9.
1	0456	149	0.00	0.00	0.00	0.	*	1	1658	510	0.00	0.00	0.00	9.
1	0458	150	0.00	0.00	0.00	0.	*	1	1700	511	0.00	0.00	0.00	9.
1	0500	151	0.00	0.00	0.00	0.	*	1	1702	512	0.00	0.00	0.00	9.
1	0502	152	0.00	0.00	0.00	0.	*	1	1704	513	0.00	0.00	0.00	9.
1	0504	153	0.00	0.00	0.00	0.	*	1	1706	514	0.00	0.00	0.00	9.
1	0506	154	0.00	0.00	0.00	0.	*	1	1708	515	0.00	0.00	0.00	9.
1	0508	155	0.00	0.00	0.00	0.	*	1	1710	516	0.00	0.00	0.00	9.
1	0510	156	0.00	0.00	0.00	0.	*	1	1712	517	0.00	0.00	0.00	9.
1	0512	157	0.00	0.00	0.00	0.	*	1	1714	518	0.00	0.00	0.00	9.
1	0514	158	0.00	0.00	0.00	0.	*	1	1716	519	0.00	0.00	0.00	9.
1	0516	159	0.00	0.00	0.00	0.	*	1	1718	520	0.00	0.00	0.00	9.
1	0518	160	0.00	0.00	0.00	0.	*	1	1720	521	0.00	0.00	0.00	8.
1	0520	161	0.00	0.00	0.00	0.	*	1	1722	522	0.00	0.00	0.00	8.
1	0522	162	0.00	0.00	0.00	0.	*	1	1724	523	0.00	0.00	0.00	8.
1	0524	163	0.00	0.00	0.00	0.	*	1	1726	524	0.00	0.00	0.00	8.
1	0526	164	0.00	0.00	0.00	0.	*	1	1728	525	0.00	0.00	0.00	8.
1	0528	165	0.00	0.00	0.00	0.	*	1	1730	526	0.00	0.00	0.00	8.
1	0530	166	0.00	0.00	0.00	0.	*	1	1732	527	0.00	0.00	0.00	8.

1	0532	167	0.00	0.00	0.00	0.	*	1	1734	528	0.00	0.00	0.00	8.
1	0534	168	0.00	0.00	0.00	0.	*	1	1736	529	0.00	0.00	0.00	8.
1	0536	169	0.00	0.00	0.00	0.	*	1	1738	530	0.00	0.00	0.00	8.
1	0538	170	0.00	0.00	0.00	0.	*	1	1740	531	0.00	0.00	0.00	8.
1	0540	171	0.00	0.00	0.00	0.	*	1	1742	532	0.00	0.00	0.00	8.
1	0542	172	0.00	0.00	0.00	0.	*	1	1744	533	0.00	0.00	0.00	8.
1	0544	173	0.00	0.00	0.00	0.	*	1	1746	534	0.00	0.00	0.00	8.
1	0546	174	0.00	0.00	0.00	0.	*	1	1748	535	0.00	0.00	0.00	8.
1	0548	175	0.00	0.00	0.00	0.	*	1	1750	536	0.00	0.00	0.00	8.
1	0550	176	0.00	0.00	0.00	0.	*	1	1752	537	0.00	0.00	0.00	8.
1	0552	177	0.00	0.00	0.00	0.	*	1	1754	538	0.00	0.00	0.00	8.
1	0554	178	0.00	0.00	0.00	0.	*	1	1756	539	0.00	0.00	0.00	8.
1	0556	179	0.00	0.00	0.00	0.	*	1	1758	540	0.00	0.00	0.00	8.
1	0558	180	0.00	0.00	0.00	0.	*	1	1800	541	0.00	0.00	0.00	8.
1	0600	181	0.00	0.00	0.00	0.	*	1	1802	542	0.00	0.00	0.00	8.
1	0602	182	0.00	0.00	0.00	0.	*	1	1804	543	0.00	0.00	0.00	7.
1	0604	183	0.00	0.00	0.00	0.	*	1	1806	544	0.00	0.00	0.00	7.
1	0606	184	0.00	0.00	0.00	0.	*	1	1808	545	0.00	0.00	0.00	7.
1	0608	185	0.00	0.00	0.00	0.	*	1	1810	546	0.00	0.00	0.00	7.
1	0610	186	0.00	0.00	0.00	0.	*	1	1812	547	0.00	0.00	0.00	7.
1	0612	187	0.00	0.00	0.00	0.	*	1	1814	548	0.00	0.00	0.00	7.
1	0614	188	0.00	0.00	0.00	0.	*	1	1816	549	0.00	0.00	0.00	7.
1	0616	189	0.00	0.00	0.00	0.	*	1	1818	550	0.00	0.00	0.00	7.
1	0618	190	0.00	0.00	0.00	0.	*	1	1820	551	0.00	0.00	0.00	7.
1	0620	191	0.00	0.00	0.00	0.	*	1	1822	552	0.00	0.00	0.00	7.
1	0622	192	0.00	0.00	0.00	0.	*	1	1824	553	0.00	0.00	0.00	7.
1	0624	193	0.00	0.00	0.00	0.	*	1	1826	554	0.00	0.00	0.00	7.
1	0626	194	0.00	0.00	0.00	0.	*	1	1828	555	0.00	0.00	0.00	7.
1	0628	195	0.00	0.00	0.00	0.	*	1	1830	556	0.00	0.00	0.00	7.
1	0630	196	0.00	0.00	0.00	0.	*	1	1832	557	0.00	0.00	0.00	7.
1	0632	197	0.00	0.00	0.00	0.	*	1	1834	558	0.00	0.00	0.00	7.
1	0634	198	0.00	0.00	0.00	0.	*	1	1836	559	0.00	0.00	0.00	7.
1	0636	199	0.00	0.00	0.00	0.	*	1	1838	560	0.00	0.00	0.00	7.
1	0638	200	0.00	0.00	0.00	0.	*	1	1840	561	0.00	0.00	0.00	6.
1	0640	201	0.00	0.00	0.00	0.	*	1	1842	562	0.00	0.00	0.00	6.
1	0642	202	0.00	0.00	0.00	0.	*	1	1844	563	0.00	0.00	0.00	6.
1	0644	203	0.00	0.00	0.00	0.	*	1	1846	564	0.00	0.00	0.00	6.
1	0646	204	0.00	0.00	0.00	0.	*	1	1848	565	0.00	0.00	0.00	6.
1	0648	205	0.00	0.00	0.00	0.	*	1	1850	566	0.00	0.00	0.00	6.
1	0650	206	0.00	0.00	0.00	0.	*	1	1852	567	0.00	0.00	0.00	6.
1	0652	207	0.00	0.00	0.00	0.	*	1	1854	568	0.00	0.00	0.00	6.
1	0654	208	0.00	0.00	0.00	0.	*	1	1856	569	0.00	0.00	0.00	6.
1	0656	209	0.00	0.00	0.00	0.	*	1	1858	570	0.00	0.00	0.00	6.
1	0658	210	0.00	0.00	0.00	0.	*	1	1900	571	0.00	0.00	0.00	6.
1	0700	211	0.00	0.00	0.00	0.	*	1	1902	572	0.00	0.00	0.00	6.
1	0702	212	0.00	0.00	0.00	0.	*	1	1904	573	0.00	0.00	0.00	6.
1	0704	213	0.00	0.00	0.00	0.	*	1	1906	574	0.00	0.00	0.00	6.
1	0706	214	0.00	0.00	0.00	0.	*	1	1908	575	0.00	0.00	0.00	6.
1	0708	215	0.00	0.00	0.00	0.	*	1	1910	576	0.00	0.00	0.00	6.
1	0710	216	0.00	0.00	0.00	0.	*	1	1912	577	0.00	0.00	0.00	6.
1	0712	217	0.00	0.00	0.00	0.	*	1	1914	578	0.00	0.00	0.00	6.
1	0714	218	0.00	0.00	0.00	0.	*	1	1916	579	0.00	0.00	0.00	6.
1	0716	219	0.00	0.00	0.00	0.	*	1	1918	580	0.00	0.00	0.00	6.
1	0718	220	0.00	0.00	0.00	0.	*	1	1920	581	0.00	0.00	0.00	6.
1	0720	221	0.00	0.00	0.00	0.	*	1	1922	582	0.00	0.00	0.00	6.
1	0722	222	0.00	0.00	0.00	0.	*	1	1924	583	0.00	0.00	0.00	6.
1	0724	223	0.00	0.00	0.00	0.	*	1	1926	584	0.00	0.00	0.00	6.
1	0726	224	0.00	0.00	0.00	0.	*	1	1928	585	0.00	0.00	0.00	6.
1	0728	225	0.00	0.00	0.00	0.	*	1	1930	586	0.00	0.00	0.00	6.
1	0730	226	0.00	0.00	0.00	0.	*	1	1932	587	0.00	0.00	0.00	6.
1	0732	227	0.00	0.00	0.00	0.	*	1	1934	588	0.00	0.00	0.00	6.
1	0734	228	0.00	0.00	0.00	0.	*	1	1936	589	0.00	0.00	0.00	6.
1	0736	229	0.00	0.00	0.00	0.	*	1	1938	590	0.00	0.00	0.00	6.
1	0738	230	0.00	0.00	0.00	0.	*	1	1940	591	0.00	0.00	0.00	6.
1	0740	231	0.00	0.00	0.00	0.	*	1	1942	592	0.00	0.00	0.00	6.
1	0742	232	0.00	0.00	0.00	0.	*	1	1944	593	0.00	0.00	0.00	6.
1	0744	233	0.00	0.00	0.00	0.	*	1	1946	594	0.00	0.00	0.00	6.

1	0746	234	0.00	0.00	0.00	0.	*	1	1948	595	0.00	0.00	0.00	6.
1	0748	235	0.00	0.00	0.00	0.	*	1	1950	596	0.00	0.00	0.00	6.
1	0750	236	0.00	0.00	0.00	0.	*	1	1952	597	0.00	0.00	0.00	6.
1	0752	237	0.00	0.00	0.00	0.	*	1	1954	598	0.00	0.00	0.00	6.
1	0754	238	0.00	0.00	0.00	0.	*	1	1956	599	0.00	0.00	0.00	6.
1	0756	239	0.00	0.00	0.00	0.	*	1	1958	600	0.00	0.00	0.00	5.
1	0758	240	0.00	0.00	0.00	0.	*	1	2000	601	0.00	0.00	0.00	5.
1	0800	241	0.00	0.00	0.00	0.	*	1	2002	602	0.00	0.00	0.00	5.
1	0802	242	0.00	0.00	0.00	0.	*	1	2004	603	0.00	0.00	0.00	5.
1	0804	243	0.00	0.00	0.00	0.	*	1	2006	604	0.00	0.00	0.00	5.
1	0806	244	0.00	0.00	0.00	0.	*	1	2008	605	0.00	0.00	0.00	5.
1	0808	245	0.00	0.00	0.00	0.	*	1	2010	606	0.00	0.00	0.00	5.
1	0810	246	0.00	0.00	0.00	0.	*	1	2012	607	0.00	0.00	0.00	5.
1	0812	247	0.00	0.00	0.00	0.	*	1	2014	608	0.00	0.00	0.00	5.
1	0814	248	0.00	0.00	0.00	0.	*	1	2016	609	0.00	0.00	0.00	5.
1	0816	249	0.00	0.00	0.00	1.	*	1	2018	610	0.00	0.00	0.00	5.
1	0818	250	0.00	0.00	0.00	1.	*	1	2020	611	0.00	0.00	0.00	5.
1	0820	251	0.00	0.00	0.00	1.	*	1	2022	612	0.00	0.00	0.00	5.
1	0822	252	0.00	0.00	0.00	1.	*	1	2024	613	0.00	0.00	0.00	5.
1	0824	253	0.00	0.00	0.00	1.	*	1	2026	614	0.00	0.00	0.00	5.
1	0826	254	0.00	0.00	0.00	1.	*	1	2028	615	0.00	0.00	0.00	5.
1	0828	255	0.00	0.00	0.00	1.	*	1	2030	616	0.00	0.00	0.00	5.
1	0830	256	0.00	0.00	0.00	2.	*	1	2032	617	0.00	0.00	0.00	5.
1	0832	257	0.00	0.00	0.00	2.	*	1	2034	618	0.00	0.00	0.00	5.
1	0834	258	0.00	0.00	0.00	2.	*	1	2036	619	0.00	0.00	0.00	5.
1	0836	259	0.00	0.00	0.00	2.	*	1	2038	620	0.00	0.00	0.00	5.
1	0838	260	0.00	0.00	0.00	2.	*	1	2040	621	0.00	0.00	0.00	5.
1	0840	261	0.00	0.00	0.00	2.	*	1	2042	622	0.00	0.00	0.00	5.
1	0842	262	0.00	0.00	0.00	3.	*	1	2044	623	0.00	0.00	0.00	5.
1	0844	263	0.00	0.00	0.00	3.	*	1	2046	624	0.00	0.00	0.00	5.
1	0846	264	0.00	0.00	0.00	3.	*	1	2048	625	0.00	0.00	0.00	5.
1	0848	265	0.00	0.00	0.00	3.	*	1	2050	626	0.00	0.00	0.00	5.
1	0850	266	0.00	0.00	0.00	3.	*	1	2052	627	0.00	0.00	0.00	5.
1	0852	267	0.00	0.00	0.00	3.	*	1	2054	628	0.00	0.00	0.00	5.
1	0854	268	0.00	0.00	0.00	4.	*	1	2056	629	0.00	0.00	0.00	5.
1	0856	269	0.00	0.00	0.00	4.	*	1	2058	630	0.00	0.00	0.00	5.
1	0858	270	0.00	0.00	0.00	4.	*	1	2100	631	0.00	0.00	0.00	5.
1	0900	271	0.00	0.00	0.00	4.	*	1	2102	632	0.00	0.00	0.00	5.
1	0902	272	0.00	0.00	0.00	4.	*	1	2104	633	0.00	0.00	0.00	5.
1	0904	273	0.00	0.00	0.00	5.	*	1	2106	634	0.00	0.00	0.00	5.
1	0906	274	0.00	0.00	0.00	5.	*	1	2108	635	0.00	0.00	0.00	5.
1	0908	275	0.00	0.00	0.00	5.	*	1	2110	636	0.00	0.00	0.00	5.
1	0910	276	0.00	0.00	0.00	5.	*	1	2112	637	0.00	0.00	0.00	5.
1	0912	277	0.00	0.00	0.00	5.	*	1	2114	638	0.00	0.00	0.00	5.
1	0914	278	0.00	0.00	0.00	6.	*	1	2116	639	0.00	0.00	0.00	5.
1	0916	279	0.00	0.00	0.00	6.	*	1	2118	640	0.00	0.00	0.00	5.
1	0918	280	0.00	0.00	0.00	6.	*	1	2120	641	0.00	0.00	0.00	5.
1	0920	281	0.00	0.00	0.00	6.	*	1	2122	642	0.00	0.00	0.00	5.
1	0922	282	0.00	0.00	0.00	7.	*	1	2124	643	0.00	0.00	0.00	5.
1	0924	283	0.00	0.00	0.00	7.	*	1	2126	644	0.00	0.00	0.00	5.
1	0926	284	0.00	0.00	0.00	7.	*	1	2128	645	0.00	0.00	0.00	5.
1	0928	285	0.00	0.00	0.00	7.	*	1	2130	646	0.00	0.00	0.00	5.
1	0930	286	0.00	0.00	0.00	8.	*	1	2132	647	0.00	0.00	0.00	5.
1	0932	287	0.00	0.00	0.00	8.	*	1	2134	648	0.00	0.00	0.00	5.
1	0934	288	0.00	0.00	0.00	8.	*	1	2136	649	0.00	0.00	0.00	5.
1	0936	289	0.00	0.00	0.00	8.	*	1	2138	650	0.00	0.00	0.00	5.
1	0938	290	0.00	0.00	0.00	9.	*	1	2140	651	0.00	0.00	0.00	5.
1	0940	291	0.00	0.00	0.00	9.	*	1	2142	652	0.00	0.00	0.00	5.
1	0942	292	0.00	0.00	0.00	9.	*	1	2144	653	0.00	0.00	0.00	5.
1	0944	293	0.00	0.00	0.00	9.	*	1	2146	654	0.00	0.00	0.00	5.
1	0946	294	0.00	0.00	0.00	9.	*	1	2148	655	0.00	0.00	0.00	5.
1	0948	295	0.00	0.00	0.00	10.	*	1	2150	656	0.00	0.00	0.00	5.
1	0950	296	0.00	0.00	0.00	10.	*	1	2152	657	0.00	0.00	0.00	5.
1	0952	297	0.00	0.00	0.00	10.	*	1	2154	658	0.00	0.00	0.00	5.
1	0954	298	0.00	0.00	0.00	11.	*	1	2156	659	0.00	0.00	0.00	4.
1	0956	299	0.00	0.00	0.00	11.	*	1	2158	660	0.00	0.00	0.00	4.
1	0958	300	0.00	0.00	0.00	11.	*	1	2200	661	0.00	0.00	0.00	4.

1	1000	301	0.00	0.00	0.00	11.	*	1	2202	662	0.00	0.00	0.00	4.
1	1002	302	0.00	0.00	0.00	12.	*	1	2204	663	0.00	0.00	0.00	4.
1	1004	303	0.00	0.00	0.00	12.	*	1	2206	664	0.00	0.00	0.00	4.
1	1006	304	0.00	0.00	0.00	12.	*	1	2208	665	0.00	0.00	0.00	4.
1	1008	305	0.00	0.00	0.00	12.	*	1	2210	666	0.00	0.00	0.00	4.
1	1010	306	0.00	0.00	0.00	13.	*	1	2212	667	0.00	0.00	0.00	4.
1	1012	307	0.00	0.00	0.00	13.	*	1	2214	668	0.00	0.00	0.00	4.
1	1014	308	0.00	0.00	0.00	13.	*	1	2216	669	0.00	0.00	0.00	4.
1	1016	309	0.00	0.00	0.00	14.	*	1	2218	670	0.00	0.00	0.00	4.
1	1018	310	0.00	0.00	0.00	14.	*	1	2220	671	0.00	0.00	0.00	4.
1	1020	311	0.00	0.00	0.00	14.	*	1	2222	672	0.00	0.00	0.00	4.
1	1022	312	0.00	0.00	0.00	15.	*	1	2224	673	0.00	0.00	0.00	4.
1	1024	313	0.00	0.00	0.00	15.	*	1	2226	674	0.00	0.00	0.00	4.
1	1026	314	0.00	0.00	0.00	15.	*	1	2228	675	0.00	0.00	0.00	4.
1	1028	315	0.00	0.00	0.00	16.	*	1	2230	676	0.00	0.00	0.00	4.
1	1030	316	0.00	0.00	0.00	16.	*	1	2232	677	0.00	0.00	0.00	4.
1	1032	317	0.00	0.00	0.00	16.	*	1	2234	678	0.00	0.00	0.00	4.
1	1034	318	0.01	0.00	0.00	17.	*	1	2236	679	0.00	0.00	0.00	4.
1	1036	319	0.01	0.00	0.00	17.	*	1	2238	680	0.00	0.00	0.00	4.
1	1038	320	0.01	0.00	0.00	18.	*	1	2240	681	0.00	0.00	0.00	4.
1	1040	321	0.01	0.00	0.00	18.	*	1	2242	682	0.00	0.00	0.00	4.
1	1042	322	0.01	0.00	0.00	19.	*	1	2244	683	0.00	0.00	0.00	4.
1	1044	323	0.01	0.00	0.00	19.	*	1	2246	684	0.00	0.00	0.00	4.
1	1046	324	0.01	0.00	0.00	20.	*	1	2248	685	0.00	0.00	0.00	4.
1	1048	325	0.01	0.00	0.00	20.	*	1	2250	686	0.00	0.00	0.00	4.
1	1050	326	0.01	0.00	0.00	21.	*	1	2252	687	0.00	0.00	0.00	4.
1	1052	327	0.01	0.00	0.01	21.	*	1	2254	688	0.00	0.00	0.00	4.
1	1054	328	0.01	0.00	0.01	22.	*	1	2256	689	0.00	0.00	0.00	4.
1	1056	329	0.01	0.00	0.01	23.	*	1	2258	690	0.00	0.00	0.00	4.
1	1058	330	0.01	0.00	0.01	23.	*	1	2300	691	0.00	0.00	0.00	4.
1	1100	331	0.01	0.00	0.01	24.	*	1	2302	692	0.00	0.00	0.00	4.
1	1102	332	0.01	0.00	0.01	25.	*	1	2304	693	0.00	0.00	0.00	4.
1	1104	333	0.01	0.00	0.01	25.	*	1	2306	694	0.00	0.00	0.00	4.
1	1106	334	0.01	0.00	0.01	26.	*	1	2308	695	0.00	0.00	0.00	4.
1	1108	335	0.01	0.00	0.01	27.	*	1	2310	696	0.00	0.00	0.00	4.
1	1110	336	0.01	0.00	0.01	28.	*	1	2312	697	0.00	0.00	0.00	4.
1	1112	337	0.01	0.00	0.01	28.	*	1	2314	698	0.00	0.00	0.00	4.
1	1114	338	0.01	0.00	0.01	29.	*	1	2316	699	0.00	0.00	0.00	4.
1	1116	339	0.01	0.00	0.01	30.	*	1	2318	700	0.00	0.00	0.00	4.
1	1118	340	0.01	0.00	0.01	31.	*	1	2320	701	0.00	0.00	0.00	4.
1	1120	341	0.01	0.00	0.01	31.	*	1	2322	702	0.00	0.00	0.00	4.
1	1122	342	0.01	0.00	0.01	32.	*	1	2324	703	0.00	0.00	0.00	4.
1	1124	343	0.01	0.00	0.01	34.	*	1	2326	704	0.00	0.00	0.00	4.
1	1126	344	0.01	0.00	0.01	35.	*	1	2328	705	0.00	0.00	0.00	4.
1	1128	345	0.01	0.00	0.01	36.	*	1	2330	706	0.00	0.00	0.00	4.
1	1130	346	0.01	0.00	0.01	37.	*	1	2332	707	0.00	0.00	0.00	4.
1	1132	347	0.03	0.00	0.03	39.	*	1	2334	708	0.00	0.00	0.00	4.
1	1134	348	0.03	0.00	0.03	42.	*	1	2336	709	0.00	0.00	0.00	4.
1	1136	349	0.04	0.00	0.03	47.	*	1	2338	710	0.00	0.00	0.00	4.
1	1138	350	0.04	0.00	0.03	54.	*	1	2340	711	0.00	0.00	0.00	4.
1	1140	351	0.04	0.00	0.04	63.	*	1	2342	712	0.00	0.00	0.00	4.
1	1142	352	0.04	0.00	0.04	74.	*	1	2344	713	0.00	0.00	0.00	4.
1	1144	353	0.04	0.00	0.04	87.	*	1	2346	714	0.00	0.00	0.00	4.
1	1146	354	0.05	0.00	0.05	101.	*	1	2348	715	0.00	0.00	0.00	4.
1	1148	355	0.06	0.00	0.06	117.	*	1	2350	716	0.00	0.00	0.00	4.
1	1150	356	0.07	0.00	0.07	133.	*	1	2352	717	0.00	0.00	0.00	4.
1	1152	357	0.08	0.00	0.08	151.	*	1	2354	718	0.00	0.00	0.00	4.
1	1154	358	0.10	0.00	0.09	171.	*	1	2356	719	0.00	0.00	0.00	4.
1	1156	359	0.12	0.00	0.12	194.	*	1	2358	720	0.00	0.00	0.00	4.
1	1158	360	0.17	0.00	0.17	223.	*	2	0000	721	0.00	0.00	0.00	4.
1	1200	361	0.30	0.00	0.29	261.	*							
							*							

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TOTAL RAINFALL = 3.98, TOTAL LOSS = 0.44, TOTAL EXCESS = 3.53

PEAK FLOW TIME MAXIMUM AVERAGE FLOW

```
                                                6-HR        24-HR       72-HR      24.00-HR
+   (CFS)      (HR)
                                (CFS)
+    784.      12.27                             96.          27.         27.          27.
                              (INCHES)        3.204        3.526       3.526        3.526
                               (AC-FT)          48.          53.         53.          53.

                             CUMULATIVE AREA =    0.28 SQ MI

MANE2 NPLAN,NSTM        1      0
MANE2 NPLAN,NSTM        1      0
MANE2 NPLAN,NSTM        1      0
MANE2 NPLAN,NSTM        1      0
MANE2 NPLAN,NSTM        1      0
MANE2 NPLAN,NSTM        1      0
MANE2 NPLAN,NSTM        1      0
MANE2 NPLAN,NSTM        1      0
MANE2 NPLAN,NSTM        1      0
MANE2 NPLAN,NSTM        1      0
MANE2 NPLAN,NSTM        1      0
MANE2 NPLAN,NSTM        1      0
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MANE2 NPLAN,NSTM      1       0


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             **************
             *            *
 1187 KK     *     B15FF  *
             *            *
             **************
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```
 1190 KO          OUTPUT CONTROL VARIABLES
                        IPRNT           3  PRINT CONTROL
                        IPLOT           0  PLOT CONTROL
                        QSCAL          0.  HYDROGRAPH PLOT SCALE

      DT          DIVERSION
                        ISTAD       DIVFF  DIVERSION HYDROGRAPH IDENTIFICATION
                       DSTRMX       37.60  MAXIMUM VOLUME TO BE DIVERTED

      DI             INFLOW        0.00  10000.00

      DQ      DIVERTED FLOW        0.00  10000.00

                                                                  ***

       ***            ***            ***            ***            ***

                         DIVERSION HYDROGRAPH    DIVFF

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     24.00-HR
+   (CFS)       (HR)
                           (CFS)
+    2409.     12.13        75.         19.         19.         19.
                        (INCHES)     0.154       0.155       0.155       0.155
                         (AC-FT)      37.         38.         38.         38.

                         CUMULATIVE AREA =    4.54 SQ MI

       ***            ***            ***            ***            ***

                         HYDROGRAPH AT STATION    B15FF

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     24.00-HR
+   (CFS)       (HR)
                           (CFS)
+    3803.     12.27       753.        210.        210.        210.
                        (INCHES)     1.543       1.719       1.719       1.719
                         (AC-FT)     373.        416.        416.        416.

                         CUMULATIVE AREA =    4.54 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
 1194 KK    *     STB15  *
            *            *
            **************

 1200 KO          OUTPUT CONTROL VARIABLES
                        IPRNT           2  PRINT CONTROL
                        IPLOT           0  PLOT CONTROL
                        QSCAL          0.  HYDROGRAPH PLOT SCALE

                HYDROGRAPH ROUTING DATA

 1201 RS          STORAGE ROUTING
                        NSTPS           1  NUMBER OF SUBREACHES
                         ITYP        STOR  TYPE OF INITIAL CONDITION
                       RSVRIC        0.00  INITIAL CONDITION
```

X 0.00 WORKING R AND D COEFFICIENT

1202 SV	STORAGE	0.0	1.0	15.0	109.0	228.0	275.0	321.8
1203 SQ	DISCHARGE	0.	99.	113.	137.	153.	157.	161.
1204 SE	ELEVATION	1143.00	1146.50	1150.00	1155.00	1158.00	1159.00	1160.00

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HYDROGRAPH AT STATION STB15

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	0.	0.0	1143.0	*	1		0802	242	0.	0.0	1143.0	*	1		1604	483	159.	295.7	1159.4
1		0002	2	0.	0.0	1143.0	*	1		0804	243	0.	0.0	1143.0	*	1		1606	484	159.	295.8	1159.4
1		0004	3	0.	0.0	1143.0	*	1		0806	244	0.	0.0	1143.0	*	1		1608	485	159.	295.9	1159.4
1		0006	4	0.	0.0	1143.0	*	1		0808	245	0.	0.0	1143.0	*	1		1610	486	159.	296.0	1159.4
1		0008	5	0.	0.0	1143.0	*	1		0810	246	0.	0.0	1143.0	*	1		1612	487	159.	296.1	1159.5
1		0010	6	0.	0.0	1143.0	*	1		0812	247	0.	0.0	1143.0	*	1		1614	488	159.	296.2	1159.5
1		0012	7	0.	0.0	1143.0	*	1		0814	248	0.	0.0	1143.0	*	1		1616	489	159.	296.3	1159.5
1		0014	8	0.	0.0	1143.0	*	1		0816	249	0.	0.0	1143.0	*	1		1618	490	159.	296.4	1159.5
1		0016	9	0.	0.0	1143.0	*	1		0818	250	0.	0.0	1143.0	*	1		1620	491	159.	296.4	1159.5
1		0018	10	0.	0.0	1143.0	*	1		0820	251	0.	0.0	1143.0	*	1		1622	492	159.	296.5	1159.5
1		0020	11	0.	0.0	1143.0	*	1		0822	252	0.	0.0	1143.0	*	1		1624	493	159.	296.7	1159.5
1		0022	12	0.	0.0	1143.0	*	1		0824	253	0.	0.0	1143.0	*	1		1626	494	159.	296.8	1159.5
1		0024	13	0.	0.0	1143.0	*	1		0826	254	0.	0.0	1143.0	*	1		1628	495	159.	296.9	1159.5
1		0026	14	0.	0.0	1143.0	*	1		0828	255	0.	0.0	1143.0	*	1		1630	496	159.	296.9	1159.5
1		0028	15	0.	0.0	1143.0	*	1		0830	256	0.	0.0	1143.0	*	1		1632	497	159.	297.0	1159.5
1		0030	16	0.	0.0	1143.0	*	1		0832	257	0.	0.0	1143.0	*	1		1634	498	159.	297.1	1159.5
1		0032	17	0.	0.0	1143.0	*	1		0834	258	0.	0.0	1143.0	*	1		1636	499	159.	297.1	1159.5
1		0034	18	0.	0.0	1143.0	*	1		0836	259	0.	0.0	1143.0	*	1		1638	500	159.	297.2	1159.5
1		0036	19	0.	0.0	1143.0	*	1		0838	260	0.	0.0	1143.0	*	1		1640	501	159.	297.2	1159.5
1		0038	20	0.	0.0	1143.0	*	1		0840	261	0.	0.0	1143.0	*	1		1642	502	159.	297.3	1159.5
1		0040	21	0.	0.0	1143.0	*	1		0842	262	0.	0.0	1143.0	*	1		1644	503	159.	297.3	1159.5
1		0042	22	0.	0.0	1143.0	*	1		0844	263	0.	0.0	1143.0	*	1		1646	504	159.	297.3	1159.5
1		0044	23	0.	0.0	1143.0	*	1		0846	264	0.	0.0	1143.0	*	1		1648	505	159.	297.4	1159.5
1		0046	24	0.	0.0	1143.0	*	1		0848	265	0.	0.0	1143.0	*	1		1650	506	159.	297.4	1159.5
1		0048	25	0.	0.0	1143.0	*	1		0850	266	0.	0.0	1143.0	*	1		1652	507	159.	297.4	1159.5
1		0050	26	0.	0.0	1143.0	*	1		0852	267	0.	0.0	1143.0	*	1		1654	508	159.	297.5	1159.5
1		0052	27	0.	0.0	1143.0	*	1		0854	268	0.	0.0	1143.0	*	1		1656	509	159.	297.5	1159.5
1		0054	28	0.	0.0	1143.0	*	1		0856	269	0.	0.0	1143.0	*	1		1658	510	159.	297.5	1159.5
1		0056	29	0.	0.0	1143.0	*	1		0858	270	0.	0.0	1143.0	*	1		1700	511	159.	297.5	1159.5
1		0058	30	0.	0.0	1143.0	*	1		0900	271	0.	0.0	1143.0	*	1		1702	512	159.	297.6	1159.5
1		0100	31	0.	0.0	1143.0	*	1		0902	272	0.	0.0	1143.0	*	1		1704	513	159.	297.7	1159.5
1		0102	32	0.	0.0	1143.0	*	1		0904	273	0.	0.0	1143.0	*	1		1706	514	159.	297.7	1159.5
1		0104	33	0.	0.0	1143.0	*	1		0906	274	0.	0.0	1143.0	*	1		1708	515	159.	297.7	1159.5
1		0106	34	0.	0.0	1143.0	*	1		0908	275	0.	0.0	1143.0	*	1		1710	516	159.	297.7	1159.5
1		0108	35	0.	0.0	1143.0	*	1		0910	276	0.	0.0	1143.0	*	1		1712	517	159.	297.8	1159.5
1		0110	36	0.	0.0	1143.0	*	1		0912	277	0.	0.0	1143.0	*	1		1714	518	159.	297.8	1159.5
1		0112	37	0.	0.0	1143.0	*	1		0914	278	0.	0.0	1143.0	*	1		1716	519	159.	297.8	1159.5
1		0114	38	0.	0.0	1143.0	*	1		0916	279	0.	0.0	1143.0	*	1		1718	520	159.	297.8	1159.5
1		0116	39	0.	0.0	1143.0	*	1		0918	280	0.	0.0	1143.0	*	1		1720	521	159.	297.7	1159.5
1		0118	40	0.	0.0	1143.0	*	1		0920	281	0.	0.0	1143.0	*	1		1722	522	159.	297.7	1159.5
1		0120	41	0.	0.0	1143.0	*	1		0922	282	0.	0.0	1143.0	*	1		1724	523	159.	297.7	1159.5
1		0122	42	0.	0.0	1143.0	*	1		0924	283	0.	0.0	1143.0	*	1		1726	524	159.	297.7	1159.5
1		0124	43	0.	0.0	1143.0	*	1		0926	284	0.	0.0	1143.0	*	1		1728	525	159.	297.7	1159.5
1		0126	44	0.	0.0	1143.0	*	1		0928	285	0.	0.0	1143.0	*	1		1730	526	159.	297.7	1159.5
1		0128	45	0.	0.0	1143.0	*	1		0930	286	0.	0.0	1143.0	*	1		1732	527	159.	297.7	1159.5
1		0130	46	0.	0.0	1143.0	*	1		0932	287	0.	0.0	1143.0	*	1		1734	528	159.	297.6	1159.5
1		0132	47	0.	0.0	1143.0	*	1		0934	288	0.	0.0	1143.0	*	1		1736	529	159.	297.6	1159.5
1		0134	48	0.	0.0	1143.0	*	1		0936	289	0.	0.0	1143.0	*	1		1738	530	159.	297.6	1159.5
1		0136	49	0.	0.0	1143.0	*	1		0938	290	0.	0.0	1143.0	*	1		1740	531	159.	297.6	1159.5

1	0138	50	0.	0.0	1143.0	*	1	0940	291	0.	0.0	1143.0	*	1	1742	532	159.	297.5	1159.5
1	0140	51	0.	0.0	1143.0	*	1	0942	292	0.	0.0	1143.0	*	1	1744	533	159.	297.6	1159.5
1	0142	52	0.	0.0	1143.0	*	1	0944	293	0.	0.0	1143.0	*	1	1746	534	159.	297.6	1159.5
1	0144	53	0.	0.0	1143.0	*	1	0946	294	0.	0.0	1143.0	*	1	1748	535	159.	297.6	1159.5
1	0146	54	0.	0.0	1143.0	*	1	0948	295	0.	0.0	1143.0	*	1	1750	536	159.	297.5	1159.5
1	0148	55	0.	0.0	1143.0	*	1	0950	296	0.	0.0	1143.0	*	1	1752	537	159.	297.5	1159.5
1	0150	56	0.	0.0	1143.0	*	1	0952	297	0.	0.0	1143.0	*	1	1754	538	159.	297.5	1159.5
1	0152	57	0.	0.0	1143.0	*	1	0954	298	0.	0.0	1143.0	*	1	1756	539	159.	297.4	1159.5
1	0154	58	0.	0.0	1143.0	*	1	0956	299	0.	0.0	1143.0	*	1	1758	540	159.	297.4	1159.5
1	0156	59	0.	0.0	1143.0	*	1	0958	300	0.	0.0	1143.0	*	1	1800	541	159.	297.3	1159.5
1	0158	60	0.	0.0	1143.0	*	1	1000	301	0.	0.0	1143.0	*	1	1802	542	159.	297.3	1159.5
1	0200	61	0.	0.0	1143.0	*	1	1002	302	0.	0.0	1143.0	*	1	1804	543	159.	297.2	1159.5
1	0202	62	0.	0.0	1143.0	*	1	1004	303	0.	0.0	1143.0	*	1	1806	544	159.	297.2	1159.5
1	0204	63	0.	0.0	1143.0	*	1	1006	304	0.	0.0	1143.0	*	1	1808	545	159.	297.1	1159.5
1	0206	64	0.	0.0	1143.0	*	1	1008	305	0.	0.0	1143.0	*	1	1810	546	159.	297.0	1159.5
1	0208	65	0.	0.0	1143.0	*	1	1010	306	0.	0.0	1143.0	*	1	1812	547	159.	297.0	1159.5
1	0210	66	0.	0.0	1143.0	*	1	1012	307	0.	0.0	1143.0	*	1	1814	548	159.	296.9	1159.5
1	0212	67	0.	0.0	1143.0	*	1	1014	308	0.	0.0	1143.0	*	1	1816	549	159.	296.9	1159.5
1	0214	68	0.	0.0	1143.0	*	1	1016	309	0.	0.0	1143.0	*	1	1818	550	159.	296.8	1159.5
1	0216	69	0.	0.0	1143.0	*	1	1018	310	0.	0.0	1143.0	*	1	1820	551	159.	296.7	1159.5
1	0218	70	0.	0.0	1143.0	*	1	1020	311	0.	0.0	1143.0	*	1	1822	552	159.	296.6	1159.5
1	0220	71	0.	0.0	1143.0	*	1	1022	312	0.	0.0	1143.0	*	1	1824	553	159.	296.6	1159.5
1	0222	72	0.	0.0	1143.0	*	1	1024	313	0.	0.0	1143.0	*	1	1826	554	159.	296.5	1159.5
1	0224	73	0.	0.0	1143.0	*	1	1026	314	0.	0.0	1143.0	*	1	1828	555	159.	296.4	1159.5
1	0226	74	0.	0.0	1143.0	*	1	1028	315	0.	0.0	1143.0	*	1	1830	556	159.	296.3	1159.5
1	0228	75	0.	0.0	1143.0	*	1	1030	316	0.	0.0	1143.0	*	1	1832	557	159.	296.2	1159.5
1	0230	76	0.	0.0	1143.0	*	1	1032	317	0.	0.0	1143.0	*	1	1834	558	159.	296.2	1159.5
1	0232	77	0.	0.0	1143.0	*	1	1034	318	0.	0.0	1143.0	*	1	1836	559	159.	296.2	1159.5
1	0234	78	0.	0.0	1143.0	*	1	1036	319	0.	0.0	1143.0	*	1	1838	560	159.	296.1	1159.5
1	0236	79	0.	0.0	1143.0	*	1	1038	320	0.	0.0	1143.0	*	1	1840	561	159.	296.0	1159.4
1	0238	80	0.	0.0	1143.0	*	1	1040	321	0.	0.0	1143.0	*	1	1842	562	159.	295.9	1159.4
1	0240	81	0.	0.0	1143.0	*	1	1042	322	0.	0.0	1143.0	*	1	1844	563	159.	295.8	1159.4
1	0242	82	0.	0.0	1143.0	*	1	1044	323	0.	0.0	1143.0	*	1	1846	564	159.	295.7	1159.4
1	0244	83	0.	0.0	1143.0	*	1	1046	324	0.	0.0	1143.0	*	1	1848	565	159.	295.6	1159.4
1	0246	84	0.	0.0	1143.0	*	1	1048	325	0.	0.0	1143.0	*	1	1850	566	159.	295.5	1159.4
1	0248	85	0.	0.0	1143.0	*	1	1050	326	0.	0.0	1143.0	*	1	1852	567	159.	295.4	1159.4
1	0250	86	0.	0.0	1143.0	*	1	1052	327	0.	0.0	1143.0	*	1	1854	568	159.	295.3	1159.4
1	0252	87	0.	0.0	1143.0	*	1	1054	328	0.	0.0	1143.0	*	1	1856	569	159.	295.2	1159.4
1	0254	88	0.	0.0	1143.0	*	1	1056	329	0.	0.0	1143.0	*	1	1858	570	159.	295.1	1159.4
1	0256	89	0.	0.0	1143.0	*	1	1058	330	0.	0.0	1143.0	*	1	1900	571	159.	295.0	1159.4
1	0258	90	0.	0.0	1143.0	*	1	1100	331	0.	0.0	1143.0	*	1	1902	572	159.	294.9	1159.4
1	0300	91	0.	0.0	1143.0	*	1	1102	332	0.	0.0	1143.0	*	1	1904	573	159.	294.8	1159.4
1	0302	92	0.	0.0	1143.0	*	1	1104	333	0.	0.0	1143.0	*	1	1906	574	159.	294.6	1159.4
1	0304	93	0.	0.0	1143.0	*	1	1106	334	0.	0.0	1143.0	*	1	1908	575	159.	294.5	1159.4
1	0306	94	0.	0.0	1143.0	*	1	1108	335	0.	0.0	1143.0	*	1	1910	576	159.	294.4	1159.4
1	0308	95	0.	0.0	1143.0	*	1	1110	336	0.	0.0	1143.0	*	1	1912	577	159.	294.3	1159.4
1	0310	96	0.	0.0	1143.0	*	1	1112	337	0.	0.0	1143.0	*	1	1914	578	159.	294.1	1159.4
1	0312	97	0.	0.0	1143.0	*	1	1114	338	0.	0.0	1143.0	*	1	1916	579	159.	294.0	1159.4
1	0314	98	0.	0.0	1143.0	*	1	1116	339	0.	0.0	1143.0	*	1	1918	580	159.	293.9	1159.4
1	0316	99	0.	0.0	1143.0	*	1	1118	340	0.	0.0	1143.0	*	1	1920	581	159.	293.8	1159.4
1	0318	100	0.	0.0	1143.0	*	1	1120	341	0.	0.0	1143.0	*	1	1922	582	159.	293.6	1159.4
1	0320	101	0.	0.0	1143.0	*	1	1122	342	0.	0.0	1143.0	*	1	1924	583	159.	293.5	1159.4
1	0322	102	0.	0.0	1143.0	*	1	1124	343	0.	0.0	1143.0	*	1	1926	584	159.	293.4	1159.4
1	0324	103	0.	0.0	1143.0	*	1	1126	344	0.	0.0	1143.0	*	1	1928	585	159.	293.2	1159.4
1	0326	104	0.	0.0	1143.0	*	1	1128	345	0.	0.0	1143.0	*	1	1930	586	159.	293.1	1159.4
1	0328	105	0.	0.0	1143.0	*	1	1130	346	0.	0.0	1143.0	*	1	1932	587	159.	293.0	1159.4
1	0330	106	0.	0.0	1143.0	*	1	1132	347	0.	0.0	1143.0	*	1	1934	588	159.	292.9	1159.4
1	0332	107	0.	0.0	1143.0	*	1	1134	348	0.	0.0	1143.0	*	1	1936	589	159.	292.8	1159.4
1	0334	108	0.	0.0	1143.0	*	1	1136	349	0.	0.0	1143.0	*	1	1938	590	159.	292.7	1159.4
1	0336	109	0.	0.0	1143.0	*	1	1138	350	0.	0.0	1143.0	*	1	1940	591	159.	292.5	1159.4
1	0338	110	0.	0.0	1143.0	*	1	1140	351	0.	0.0	1143.0	*	1	1942	592	158.	292.4	1159.4
1	0340	111	0.	0.0	1143.0	*	1	1142	352	0.	0.0	1143.0	*	1	1944	593	158.	292.3	1159.4
1	0342	112	0.	0.0	1143.0	*	1	1144	353	0.	0.0	1143.0	*	1	1946	594	158.	292.1	1159.4
1	0344	113	0.	0.0	1143.0	*	1	1146	354	0.	0.0	1143.0	*	1	1948	595	158.	292.0	1159.4
1	0346	114	0.	0.0	1143.0	*	1	1148	355	0.	0.0	1143.0	*	1	1950	596	158.	291.8	1159.4
1	0348	115	0.	0.0	1143.0	*	1	1150	356	0.	0.0	1143.0	*	1	1952	597	158.	291.7	1159.4
1	0350	116	0.	0.0	1143.0	*	1	1152	357	0.	0.0	1143.0	*	1	1954	598	158.	291.5	1159.4

1	0352	117	0.	0.0	1143.0	*	1	1154	358	0.	0.0	1143.0	*	1	1956	599	158.	291.4	1159.3
1	0354	118	0.	0.0	1143.0	*	1	1156	359	0.	0.0	1143.0	*	1	1958	600	158.	291.2	1159.3
1	0356	119	0.	0.0	1143.0	*	1	1158	360	0.	0.0	1143.0	*	1	2000	601	158.	291.1	1159.3
1	0358	120	0.	0.0	1143.0	*	1	1200	361	0.	0.0	1143.0	*	1	2002	602	158.	290.9	1159.3
1	0400	121	0.	0.0	1143.0	*	1	1202	362	0.	0.0	1143.0	*	1	2004	603	158.	290.7	1159.3
1	0402	122	0.	0.0	1143.0	*	1	1204	363	0.	0.0	1143.0	*	1	2006	604	158.	290.5	1159.3
1	0404	123	0.	0.0	1143.0	*	1	1206	364	0.	0.0	1143.0	*	1	2008	605	158.	290.4	1159.3
1	0406	124	0.	0.0	1143.0	*	1	1208	365	0.	0.0	1143.0	*	1	2010	606	158.	290.2	1159.3
1	0408	125	0.	0.0	1143.0	*	1	1210	366	100.	1.9	1146.7	*	1	2012	607	158.	290.0	1159.3
1	0410	126	0.	0.0	1143.0	*	1	1212	367	106.	8.5	1148.4	*	1	2014	608	158.	289.8	1159.3
1	0412	127	0.	0.0	1143.0	*	1	1214	368	114.	18.0	1150.2	*	1	2016	609	158.	289.7	1159.3
1	0414	128	0.	0.0	1143.0	*	1	1216	369	116.	28.0	1150.7	*	1	2018	610	158.	289.5	1159.3
1	0416	129	0.	0.0	1143.0	*	1	1218	370	119.	38.1	1151.2	*	1	2020	611	158.	289.3	1159.3
1	0418	130	0.	0.0	1143.0	*	1	1220	371	121.	48.1	1151.8	*	1	2022	612	158.	289.1	1159.3
1	0420	131	0.	0.0	1143.0	*	1	1222	372	124.	57.7	1152.3	*	1	2024	613	158.	288.9	1159.3
1	0422	132	0.	0.0	1143.0	*	1	1224	373	126.	66.8	1152.8	*	1	2026	614	158.	288.7	1159.3
1	0424	133	0.	0.0	1143.0	*	1	1226	374	128.	75.3	1153.2	*	1	2028	615	158.	288.5	1159.3
1	0426	134	0.	0.0	1143.0	*	1	1228	375	130.	83.3	1153.6	*	1	2030	616	158.	288.3	1159.3
1	0428	135	0.	0.0	1143.0	*	1	1230	376	132.	90.9	1154.0	*	1	2032	617	158.	288.1	1159.3
1	0430	136	0.	0.0	1143.0	*	1	1232	377	134.	98.2	1154.4	*	1	2034	618	158.	287.9	1159.3
1	0432	137	0.	0.0	1143.0	*	1	1234	378	136.	105.7	1154.8	*	1	2036	619	158.	287.7	1159.3
1	0434	138	0.	0.0	1143.0	*	1	1236	379	138.	113.9	1155.1	*	1	2038	620	158.	287.5	1159.3
1	0436	139	0.	0.0	1143.0	*	1	1238	380	139.	123.2	1155.4	*	1	2040	621	158.	287.3	1159.3
1	0438	140	0.	0.0	1143.0	*	1	1240	381	140.	132.8	1155.6	*	1	2042	622	158.	287.2	1159.3
1	0440	141	0.	0.0	1143.0	*	1	1242	382	141.	142.1	1155.8	*	1	2044	623	158.	287.1	1159.3
1	0442	142	0.	0.0	1143.0	*	1	1244	383	143.	150.8	1156.1	*	1	2046	624	158.	286.9	1159.3
1	0444	143	0.	0.0	1143.0	*	1	1246	384	144.	159.1	1156.3	*	1	2048	625	158.	286.7	1159.2
1	0446	144	0.	0.0	1143.0	*	1	1248	385	145.	166.8	1156.5	*	1	2050	626	158.	286.5	1159.2
1	0448	145	0.	0.0	1143.0	*	1	1250	386	146.	173.9	1156.6	*	1	2052	627	158.	286.3	1159.2
1	0450	146	0.	0.0	1143.0	*	1	1252	387	147.	180.6	1156.8	*	1	2054	628	158.	286.0	1159.2
1	0452	147	0.	0.0	1143.0	*	1	1254	388	147.	186.9	1157.0	*	1	2056	629	158.	285.8	1159.2
1	0454	148	0.	0.0	1143.0	*	1	1256	389	148.	192.8	1157.1	*	1	2058	630	158.	285.6	1159.2
1	0456	149	0.	0.0	1143.0	*	1	1258	390	149.	198.3	1157.3	*	1	2100	631	158.	285.4	1159.2
1	0458	150	0.	0.0	1143.0	*	1	1300	391	150.	203.4	1157.4	*	1	2102	632	158.	285.2	1159.2
1	0500	151	0.	0.0	1143.0	*	1	1302	392	150.	208.1	1157.5	*	1	2104	633	158.	285.0	1159.2
1	0502	152	0.	0.0	1143.0	*	1	1304	393	151.	212.5	1157.6	*	1	2106	634	158.	284.8	1159.2
1	0504	153	0.	0.0	1143.0	*	1	1306	394	151.	216.7	1157.7	*	1	2108	635	158.	284.5	1159.2
1	0506	154	0.	0.0	1143.0	*	1	1308	395	152.	220.6	1157.8	*	1	2110	636	158.	284.3	1159.2
1	0508	155	0.	0.0	1143.0	*	1	1310	396	152.	224.3	1157.9	*	1	2112	637	158.	284.1	1159.2
1	0510	156	0.	0.0	1143.0	*	1	1312	397	153.	227.8	1158.0	*	1	2114	638	158.	283.9	1159.2
1	0512	157	0.	0.0	1143.0	*	1	1314	398	153.	231.1	1158.1	*	1	2116	639	158.	283.7	1159.2
1	0514	158	0.	0.0	1143.0	*	1	1316	399	154.	234.2	1158.1	*	1	2118	640	158.	283.4	1159.2
1	0516	159	0.	0.0	1143.0	*	1	1318	400	154.	237.0	1158.2	*	1	2120	641	158.	283.2	1159.2
1	0518	160	0.	0.0	1143.0	*	1	1320	401	154.	239.8	1158.3	*	1	2122	642	158.	283.0	1159.2
1	0520	161	0.	0.0	1143.0	*	1	1322	402	154.	242.3	1158.3	*	1	2124	643	158.	282.8	1159.2
1	0522	162	0.	0.0	1143.0	*	1	1324	403	154.	244.7	1158.4	*	1	2126	644	158.	282.5	1159.2
1	0524	163	0.	0.0	1143.0	*	1	1326	404	155.	247.0	1158.4	*	1	2128	645	158.	282.3	1159.2
1	0526	164	0.	0.0	1143.0	*	1	1328	405	155.	249.3	1158.5	*	1	2130	646	158.	282.1	1159.2
1	0528	165	0.	0.0	1143.0	*	1	1330	406	155.	251.4	1158.5	*	1	2132	647	158.	281.8	1159.1
1	0530	166	0.	0.0	1143.0	*	1	1332	407	155.	253.5	1158.5	*	1	2134	648	158.	281.6	1159.1
1	0532	167	0.	0.0	1143.0	*	1	1334	408	155.	255.3	1158.6	*	1	2136	649	158.	281.4	1159.1
1	0534	168	0.	0.0	1143.0	*	1	1336	409	155.	257.1	1158.6	*	1	2138	650	158.	281.2	1159.1
1	0536	169	0.	0.0	1143.0	*	1	1338	410	156.	258.7	1158.7	*	1	2140	651	158.	280.9	1159.1
1	0538	170	0.	0.0	1143.0	*	1	1340	411	156.	260.3	1158.7	*	1	2142	652	157.	280.7	1159.1
1	0540	171	0.	0.0	1143.0	*	1	1342	412	156.	261.8	1158.7	*	1	2144	653	157.	280.4	1159.1
1	0542	172	0.	0.0	1143.0	*	1	1344	413	156.	263.2	1158.7	*	1	2146	654	157.	280.2	1159.1
1	0544	173	0.	0.0	1143.0	*	1	1346	414	156.	264.6	1158.8	*	1	2148	655	157.	280.0	1159.1
1	0546	174	0.	0.0	1143.0	*	1	1348	415	156.	265.9	1158.8	*	1	2150	656	157.	279.7	1159.1
1	0548	175	0.	0.0	1143.0	*	1	1350	416	156.	267.1	1158.8	*	1	2152	657	157.	279.5	1159.1
1	0550	176	0.	0.0	1143.0	*	1	1352	417	156.	268.3	1158.9	*	1	2154	658	157.	279.3	1159.1
1	0552	177	0.	0.0	1143.0	*	1	1354	418	157.	269.4	1158.9	*	1	2156	659	157.	279.0	1159.1
1	0554	178	0.	0.0	1143.0	*	1	1356	419	157.	270.4	1158.9	*	1	2158	660	157.	278.8	1159.1
1	0556	179	0.	0.0	1143.0	*	1	1358	420	157.	271.5	1158.9	*	1	2200	661	157.	278.5	1159.1
1	0558	180	0.	0.0	1143.0	*	1	1400	421	157.	272.6	1158.9	*	1	2202	662	157.	278.4	1159.1
1	0600	181	0.	0.0	1143.0	*	1	1402	422	157.	273.6	1159.0	*	1	2204	663	157.	278.2	1159.1
1	0602	182	0.	0.0	1143.0	*	1	1404	423	157.	274.5	1159.0	*	1	2206	664	157.	277.9	1159.1
1	0604	183	0.	0.0	1143.0	*	1	1406	424	157.	275.4	1159.0	*	1	2208	665	157.	277.7	1159.1

1	0606	184	0.	0.0	1143.0	*	1	1408	425	157.	276.2	1159.0	*	1	2210	666	157.	277.5	1159.1
1	0608	185	0.	0.0	1143.0	*	1	1410	426	157.	277.0	1159.0	*	1	2212	667	157.	277.2	1159.0
1	0610	186	0.	0.0	1143.0	*	1	1412	427	157.	277.7	1159.1	*	1	2214	668	157.	277.0	1159.0
1	0612	187	0.	0.0	1143.0	*	1	1414	428	157.	278.4	1159.1	*	1	2216	669	157.	276.7	1159.0
1	0614	188	0.	0.0	1143.0	*	1	1416	429	157.	279.1	1159.1	*	1	2218	670	157.	276.5	1159.0
1	0616	189	0.	0.0	1143.0	*	1	1418	430	157.	279.8	1159.1	*	1	2220	671	157.	276.2	1159.0
1	0618	190	0.	0.0	1143.0	*	1	1420	431	157.	280.4	1159.1	*	1	2222	672	157.	276.0	1159.0
1	0620	191	0.	0.0	1143.0	*	1	1422	432	158.	281.0	1159.1	*	1	2224	673	157.	275.7	1159.0
1	0622	192	0.	0.0	1143.0	*	1	1424	433	158.	281.6	1159.1	*	1	2226	674	157.	275.5	1159.0
1	0624	193	0.	0.0	1143.0	*	1	1426	434	158.	282.1	1159.2	*	1	2228	675	157.	275.2	1159.0
1	0626	194	0.	0.0	1143.0	*	1	1428	435	158.	282.6	1159.2	*	1	2230	676	157.	275.0	1159.0
1	0628	195	0.	0.0	1143.0	*	1	1430	436	158.	283.1	1159.2	*	1	2232	677	157.	274.7	1159.0
1	0630	196	0.	0.0	1143.0	*	1	1432	437	158.	283.6	1159.2	*	1	2234	678	157.	274.5	1159.0
1	0632	197	0.	0.0	1143.0	*	1	1434	438	158.	284.1	1159.2	*	1	2236	679	157.	274.2	1159.0
1	0634	198	0.	0.0	1143.0	*	1	1436	439	158.	284.6	1159.2	*	1	2238	680	157.	274.0	1159.0
1	0636	199	0.	0.0	1143.0	*	1	1438	440	158.	285.2	1159.2	*	1	2240	681	157.	273.7	1159.0
1	0638	200	0.	0.0	1143.0	*	1	1440	441	158.	285.7	1159.2	*	1	2242	682	157.	273.4	1159.0
1	0640	201	0.	0.0	1143.0	*	1	1442	442	158.	286.1	1159.2	*	1	2244	683	157.	273.2	1159.0
1	0642	202	0.	0.0	1143.0	*	1	1444	443	158.	286.5	1159.2	*	1	2246	684	157.	272.9	1159.0
1	0644	203	0.	0.0	1143.0	*	1	1446	444	158.	286.9	1159.3	*	1	2248	685	157.	272.7	1159.0
1	0646	204	0.	0.0	1143.0	*	1	1448	445	158.	287.3	1159.3	*	1	2250	686	157.	272.4	1158.9
1	0648	205	0.	0.0	1143.0	*	1	1450	446	158.	287.6	1159.3	*	1	2252	687	157.	272.2	1158.9
1	0650	206	0.	0.0	1143.0	*	1	1452	447	158.	288.0	1159.3	*	1	2254	688	157.	271.9	1158.9
1	0652	207	0.	0.0	1143.0	*	1	1454	448	158.	288.3	1159.3	*	1	2256	689	157.	271.6	1158.9
1	0654	208	0.	0.0	1143.0	*	1	1456	449	158.	288.7	1159.3	*	1	2258	690	157.	271.4	1158.9
1	0656	209	0.	0.0	1143.0	*	1	1458	450	158.	289.0	1159.3	*	1	2300	691	157.	271.1	1158.9
1	0658	210	0.	0.0	1143.0	*	1	1500	451	158.	289.3	1159.3	*	1	2302	692	157.	270.9	1158.9
1	0700	211	0.	0.0	1143.0	*	1	1502	452	158.	289.6	1159.3	*	1	2304	693	157.	270.6	1158.9
1	0702	212	0.	0.0	1143.0	*	1	1504	453	158.	289.9	1159.3	*	1	2306	694	157.	270.3	1158.9
1	0704	213	0.	0.0	1143.0	*	1	1506	454	158.	290.2	1159.3	*	1	2308	695	157.	270.1	1158.9
1	0706	214	0.	0.0	1143.0	*	1	1508	455	158.	290.5	1159.3	*	1	2310	696	157.	269.8	1158.9
1	0708	215	0.	0.0	1143.0	*	1	1510	456	158.	290.7	1159.3	*	1	2312	697	157.	269.5	1158.9
1	0710	216	0.	0.0	1143.0	*	1	1512	457	158.	291.0	1159.3	*	1	2314	698	157.	269.3	1158.9
1	0712	217	0.	0.0	1143.0	*	1	1514	458	158.	291.2	1159.3	*	1	2316	699	156.	269.0	1158.9
1	0714	218	0.	0.0	1143.0	*	1	1516	459	158.	291.5	1159.4	*	1	2318	700	156.	268.8	1158.9
1	0716	219	0.	0.0	1143.0	*	1	1518	460	158.	291.7	1159.4	*	1	2320	701	156.	268.5	1158.9
1	0718	220	0.	0.0	1143.0	*	1	1520	461	158.	291.9	1159.4	*	1	2322	702	156.	268.2	1158.9
1	0720	221	0.	0.0	1143.0	*	1	1522	462	158.	292.2	1159.4	*	1	2324	703	156.	268.0	1158.9
1	0722	222	0.	0.0	1143.0	*	1	1524	463	158.	292.5	1159.4	*	1	2326	704	156.	267.7	1158.8
1	0724	223	0.	0.0	1143.0	*	1	1526	464	159.	292.7	1159.4	*	1	2328	705	156.	267.4	1158.8
1	0726	224	0.	0.0	1143.0	*	1	1528	465	159.	292.9	1159.4	*	1	2330	706	156.	267.2	1158.8
1	0728	225	0.	0.0	1143.0	*	1	1530	466	159.	293.1	1159.4	*	1	2332	707	156.	266.9	1158.8
1	0730	226	0.	0.0	1143.0	*	1	1532	467	159.	293.3	1159.4	*	1	2334	708	156.	266.7	1158.8
1	0732	227	0.	0.0	1143.0	*	1	1534	468	159.	293.5	1159.4	*	1	2336	709	156.	266.5	1158.8
1	0734	228	0.	0.0	1143.0	*	1	1536	469	159.	293.7	1159.4	*	1	2338	710	156.	266.2	1158.8
1	0736	229	0.	0.0	1143.0	*	1	1538	470	159.	293.8	1159.4	*	1	2340	711	156.	266.0	1158.8
1	0738	230	0.	0.0	1143.0	*	1	1540	471	159.	294.0	1159.4	*	1	2342	712	156.	265.7	1158.8
1	0740	231	0.	0.0	1143.0	*	1	1542	472	159.	294.2	1159.4	*	1	2344	713	156.	265.4	1158.8
1	0742	232	0.	0.0	1143.0	*	1	1544	473	159.	294.3	1159.4	*	1	2346	714	156.	265.1	1158.8
1	0744	233	0.	0.0	1143.0	*	1	1546	474	159.	294.5	1159.4	*	1	2348	715	156.	264.9	1158.8
1	0746	234	0.	0.0	1143.0	*	1	1548	475	159.	294.6	1159.4	*	1	2350	716	156.	264.6	1158.8
1	0748	235	0.	0.0	1143.0	*	1	1550	476	159.	294.7	1159.4	*	1	2352	717	156.	264.3	1158.8
1	0750	236	0.	0.0	1143.0	*	1	1552	477	159.	294.9	1159.4	*	1	2354	718	156.	264.1	1158.8
1	0752	237	0.	0.0	1143.0	*	1	1554	478	159.	295.1	1159.4	*	1	2356	719	156.	263.8	1158.8
1	0754	238	0.	0.0	1143.0	*	1	1556	479	159.	295.3	1159.4	*	1	2358	720	156.	263.5	1158.8
1	0756	239	0.	0.0	1143.0	*	1	1558	480	159.	295.4	1159.4	*	2	0000	721	156.	263.2	1158.7
1	0758	240	0.	0.0	1143.0	*	1	1600	481	159.	295.5	1159.4	*						
1	0800	241	0.	0.0	1143.0	*	1	1602	482	159.	295.6	1159.4	*						
						*							*						

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 159.	17.17		159.	77.	77.	77.
		(INCHES)	0.325	0.631	0.631	0.631

```
                        (AC-FT)       79.        153.        153.        153.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                      6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)      (HR)
     298.     17.23                   294.        134.        134.        134.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                      6-HR       24-HR       72-HR     24.00-HR
+   (FEET)      (HR)
   1159.49     17.23                1159.41     1150.81     1150.81     1150.81

                        CUMULATIVE AREA =    4.54 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
 1207 KK    *      STFF  *
            *            *
            **************

 1209 KO          OUTPUT CONTROL VARIABLES
                        IPRNT           3  PRINT CONTROL
                        IPLOT           0  PLOT CONTROL
                        QSCAL          0.  HYDROGRAPH PLOT SCALE

                HYDROGRAPH ROUTING DATA

 1210 RS          STORAGE ROUTING
                        NSTPS           1  NUMBER OF SUBREACHES
                         ITYP        STOR  TYPE OF INITIAL CONDITION
                        RSVRIC       0.00  INITIAL CONDITION
                             X       0.00 WORKING R AND D COEFFICIENT

 1211 SV            STORAGE         0.0      37.6

 1212 SQ          DISCHARGE          0.        0.

 1213 SE          ELEVATION     1144.00   1158.00
                                                                  ***

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION     STFF

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                      6-HR       24-HR       72-HR     24.00-HR
+   (CFS)       (HR)
                          (CFS)
+       0.      0.00                  0.          0.          0.          0.
                       (INCHES)     0.000       0.000       0.000       0.000
                        (AC-FT)       0.          0.          0.          0.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                      6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)      (HR)
      38.     12.20                    38.         19.         19.         19.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                      6-HR       24-HR       72-HR     24.00-HR
+   (FEET)      (HR)
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1158.00 12.20 1158.00 1151.11 1151.11 1151.11

CUMULATIVE AREA = 0.00 SQ MI

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	M1	784.	12.27	96.	27.	27.	0.28		
+	ROUTED TO	RtC1	758.	12.33	96.	26.	26.	0.28		
+									3.20	12.33
+	HYDROGRAPH AT	M2	640.	12.20	69.	19.	19.	0.20		
+	ROUTED TO	RtC2	638.	12.23	69.	19.	19.	0.20		
+									4.01	12.23
+	HYDROGRAPH AT	A1	83.	12.20	8.	2.	2.	0.04		
+	3 COMBINED AT	COMB1	1416.	12.27	173.	48.	48.	0.52		
+	DIVERSION TO	Splt1	850.	12.27	104.	29.	29.	0.52		
+	HYDROGRAPH AT	Splt1	567.	12.27	69.	19.	19.	0.52		
+	ROUTED TO	RtC3	565.	12.30	69.	19.	19.	0.52		
+									2.31	12.30
+	HYDROGRAPH AT	M3	148.	12.07	10.	3.	3.	0.03		
+	ROUTED TO	RtC4	132.	12.10	10.	3.	3.	0.03		
+									2.09	12.10
+	HYDROGRAPH AT	A2	49.	12.17	4.	1.	1.	0.02		
+	3 COMBINED AT	COMB2	644.	12.27	83.	23.	23.	0.57		
+	ROUTED TO	RtC5	633.	12.30	83.	23.	23.	0.57		
+									2.39	12.30
+	HYDROGRAPH AT	M4	700.	12.57	131.	36.	36.	0.38		
+	ROUTED TO	RtR1	698.	12.60	131.	36.	36.	0.38		
+									2.15	12.60

+	HYDROGRAPH AT	A3	81.	12.20	7.	2.	2.	0.04	
+	HYDROGRAPH AT	A4	172.	12.17	16.	4.	4.	0.07	
+	4 COMBINED AT	COMB3	1304.	12.37	237.	65.	65.	1.05	
+	DIVERSION TO	RET1	103.	12.37	9.	2.	2.	1.05	
+	HYDROGRAPH AT	RET1	1201.	12.37	228.	63.	63.	1.05	
+	ROUTED TO	RtC6	1197.	12.40	228.	63.	63.	1.05	
+									3.80 12.40
+	HYDROGRAPH AT	A5	80.	12.17	7.	2.	2.	0.03	
+	2 COMBINED AT	COMB4	1236.	12.37	235.	65.	65.	1.08	
+	DIVERSION TO	Splt2	371.	12.37	70.	19.	19.	1.08	
+	HYDROGRAPH AT	Splt2	865.	12.37	164.	45.	45.	1.08	
+	ROUTED TO	RtC7	857.	12.43	164.	45.	45.	1.08	
+									4.55 12.43
+	HYDROGRAPH AT	A6b	49.	12.17	4.	1.	1.	0.02	
+	ROUTED TO	RtR2	47.	12.20	4.	1.	1.	0.02	
+									1.15 12.20
+	HYDROGRAPH AT	R1	26.	12.17	3.	1.	1.	0.01	
+	2 COMBINED AT	Comb5	72.	12.20	7.	2.	2.	0.03	
+	DIVERSION TO	DivR1	72.	0.00	7.	2.	2.	0.03	
+	HYDROGRAPH AT	DivR1	0.	0.00	0.	0.	0.	0.03	
+	HYDROGRAPH AT	A6a	92.	12.20	9.	2.	2.	0.04	
+	ROUTED TO	RtC8	87.	12.23	9.	2.	2.	0.04	
+									2.32 12.23
+	HYDROGRAPH AT	A7	22.	12.13	2.	1.	1.	0.01	
+	4 COMBINED AT	Comb6	922.	12.40	175.	48.	48.	1.15	

+	ROUTED TO	RtC9	919.	12.43	175.	48.	48.	1.15		
+									5.19	12.43
+	HYDROGRAPH AT	A8	121.	12.27	13.	4.	4.	0.06		
+	HYDROGRAPH AT	R2	23.	12.17	2.	1.	1.	0.01		
+	HYDROGRAPH AT	A29	19.	12.13	1.	0.	0.	0.01		
+	4 COMBINED AT	COMB7	1023.	12.40	192.	53.	53.	1.23		
+	ROUTED TO	RtC10	1019.	12.43	192.	53.	53.	1.23		
+									5.36	12.43
+	HYDROGRAPH AT	A9	90.	12.23	10.	3.	3.	0.04		
+	HYDROGRAPH AT	A30	19.	12.13	1.	0.	0.	0.01		
+	3 COMBINED AT	COMB8	1087.	12.40	203.	56.	56.	1.27		
+	DIVERSION TO	Splt3	140.	12.40	43.	12.	12.	1.27		
+	HYDROGRAPH AT	SPLT3	947.	12.40	160.	44.	44.	1.27		
+	ROUTED TO	RtC11	941.	12.43	160.	43.	43.	1.27		
+									5.36	12.43
+	HYDROGRAPH AT	A11	82.	12.20	8.	2.	2.	0.03		
+	HYDROGRAPH AT	A12	7.	12.10	0.	0.	0.	0.00		
+	DIVERSION TO	DvA12	5.	12.10	0.	0.	0.	0.00		
+	HYDROGRAPH AT	DvA12	7.	12.10	0.	0.	0.	0.00		
+	2 COMBINED AT	Comb9	86.	12.20	8.	2.	2.	0.04		
+	ROUTED TO	RtR3	78.	12.27	8.	2.	2.	0.04		
+									1.29	12.27
+	HYDROGRAPH AT	A10	114.	12.17	10.	3.	3.	0.04		
+	DIVERSION TO	DvA10	114.	12.23	4.	1.	1.	0.04		
+	HYDROGRAPH AT	DvA10	99.	12.23	6.	2.	2.	0.04		

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+          HYDROGRAPH AT
                        R3      25.  12.17      3.      1.      1.    0.01
+          HYDROGRAPH AT
                        R4      19.  12.13      2.      1.      1.    0.00
+          5 COMBINED AT
                     Comb10    1060.  12.40    178.     49.     49.    1.36
+          ROUTED TO
                      RtC12    1057.  12.43    178.     49.     49.    1.36
+                                                                          5.89     12.43
+          HYDROGRAPH AT
                      RetR1      72.  12.20      7.      2.      2.    0.00
+          ROUTED TO
                       RtR4      56.  12.30      7.      2.      2.    0.00
+                                                                          1.20     12.30
+          HYDROGRAPH AT
                        R6      28.  12.23      3.      1.      1.    0.01
+          HYDROGRAPH AT
                       A13       4.  12.07      0.      0.      0.    0.00
+          DIVERSION TO
                     DvA13       4.  12.50      0.      0.      0.    0.00
+          HYDROGRAPH AT
                     DvA13       1.  12.50      0.      0.      0.    0.00
+          3 COMBINED AT
                     Comb11      83.  12.27     10.      3.      3.    0.01
+          ROUTED TO
                      RtC13      80.  12.33     10.      3.      3.    0.01
+                                                                          2.42     12.33
+          HYDROGRAPH AT
                       A14     126.  12.30     15.      4.      4.    0.08
+          DIVERSION TO
                     DvA14     126.  12.57      9.      2.      2.    0.08
+          HYDROGRAPH AT
                     DvA14      68.  12.57      6.      2.      2.    0.08
+          HYDROGRAPH AT
                       R7a      17.  12.13      1.      0.      0.    0.00
+          3 COMBINED AT
                     Comb12     122.  12.57     17.      5.      5.    0.09
+          ROUTED TO
                      RtC14     111.  12.60     17.      5.      5.    0.09
+                                                                          2.71     12.60
+          HYDROGRAPH AT
                       A15     165.  12.10     12.      3.      3.    0.05
+          HYDROGRAPH AT
                       A31      18.  12.13      2.      0.      0.    0.00
+          HYDROGRAPH AT
                       R7b      17.  12.13      1.      0.      0.    0.00
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+	HYDROGRAPH AT	R5	18.	12.10	1.	0.	0.	0.00	
+	6 COMBINED AT	Comb13	1194.	12.40	212.	58.	58.	1.51	
+	ROUTED TO	RtC15	1191.	12.40	212.	58.	58.	1.51	
+									5.30 12.40
+	ROUTED TO	RtR5	1191.	12.43	212.	58.	58.	1.51	
+									2.18 12.43
+	HYDROGRAPH AT	R12A	19.	12.13	2.	1.	1.	0.00	
+	HYDROGRAPH AT	A16	57.	12.10	5.	1.	1.	0.01	
+	DIVERSION TO	DvA16	57.	12.23	3.	1.	1.	0.01	
+	HYDROGRAPH AT	DvA16	34.	12.23	2.	1.	1.	0.01	
+	HYDROGRAPH AT	A17	167.	12.27	19.	5.	5.	0.07	
+	4 COMBINED AT	Comb14	1339.	12.40	235.	65.	65.	1.60	
+	ROUTED TO	RtR6	1336.	12.43	235.	65.	65.	1.60	
+									2.26 12.43
+	DIVERSION TO	48-Est	668.	12.43	117.	32.	32.	1.60	
+	HYDROGRAPH AT	48-Sth	668.	12.43	117.	32.	32.	1.60	
+	HYDROGRAPH AT	A18	15.	12.10	1.	0.	0.	0.00	
+	HYDROGRAPH AT	R8	13.	12.10	1.	0.	0.	0.00	
+	2 COMBINED AT	Comb15	28.	12.10	2.	1.	1.	0.01	
+	ROUTED TO	RtR7	25.	12.17	2.	1.	1.	0.01	
+									1.12 12.17
+	HYDROGRAPH AT	R9	9.	12.10	1.	0.	0.	0.00	
+	HYDROGRAPH AT	A19	82.	12.27	9.	2.	2.	0.04	
+	3 COMBINED AT	Comb16	107.	12.23	12.	3.	3.	0.05	
+	ROUTED TO	RtR8	106.	12.27	12.	3.	3.	0.05	
+									1.29 12.27

+	HYDROGRAPH AT	A20	53.	12.17	5.	1.	1.	0.02	
+	DIVERSION TO	DvA20	53.	12.30	2.	1.	1.	0.02	
+	HYDROGRAPH AT	DvA20	37.	12.30	2.	1.	1.	0.02	
+	HYDROGRAPH AT	R10	18.	12.10	1.	0.	0.	0.00	
+	3 COMBINED AT	Comb17	147.	12.30	16.	4.	4.	0.07	
+	ROUTED TO	RtR9	126.	12.37	16.	4.	4.	0.07	
+									1.31 12.37
+	HYDROGRAPH AT	A21	144.	12.33	18.	5.	5.	0.08	
+	DIVERSION TO	21-Est	70.	12.33	14.	4.	4.	0.08	
+	HYDROGRAPH AT	21-Sth	74.	12.33	4.	1.	1.	0.08	
+	ROUTED TO	RtR10	70.	12.37	4.	1.	1.	0.08	
+									1.24 12.37
+	HYDROGRAPH AT	R11	25.	12.23	3.	1.	1.	0.01	
+	HYDROGRAPH AT	A22	123.	12.13	10.	3.	3.	0.03	
+	DIVERSION TO	DvA22	123.	12.23	6.	1.	1.	0.03	
+	HYDROGRAPH AT	DvA22	80.	12.23	5.	1.	1.	0.03	
+	HYDROGRAPH AT	R12b	19.	12.13	2.	1.	1.	0.00	
+	HYDROGRAPH AT	Retn48	668.	12.43	117.	32.	32.	0.00	
+	6 COMBINED AT	Comb18	916.	12.40	146.	40.	40.	0.19	
+	DIVERSION TO	RayEst	140.	12.40	66.	20.	20.	0.19	
+	HYDROGRAPH AT	RaySth	776.	12.40	81.	20.	20.	0.19	
+	2 COMBINED AT	Comb19	1441.	12.40	198.	53.	53.	1.80	
+	ROUTED TO	RtC16	1433.	12.43	198.	52.	52.	1.80	
+									4.27 12.43

	HYDROGRAPH AT								
+		A27	58.	12.60	11.	3.	3.	0.04	
	ROUTED TO								
+		RtC17	57.	12.67	11.	3.	3.	0.04	
+									1.38 12.67
	HYDROGRAPH AT								
+		A28	330.	12.43	50.	14.	14.	0.22	
	HYDROGRAPH AT								
+		R13	21.	12.27	3.	1.	1.	0.01	
	4 COMBINED AT								
+		Comb20	1821.	12.43	261.	70.	70.	2.06	
	ROUTED TO								
+		RET2	1674.	12.57	240.	67.	67.	2.06	
+									21.30 12.57
	DIVERSION TO								
+		South	85.	12.57	75.	25.	25.	2.06	
	HYDROGRAPH AT								
+		East	1589.	12.57	165.	41.	41.	2.06	
	ROUTED TO								
+		RtEAST	1587.	12.57	165.	41.	41.	2.06	
+									4.93 12.57
	HYDROGRAPH AT								
+		C	185.	12.13	14.	4.	4.	0.06	
	2 COMBINED AT								
+		COMBC	1618.	12.57	180.	45.	45.	2.12	
	ROUTED TO								
+		RtC	1620.	12.60	180.	45.	45.	2.12	
+									5.68 12.60
	HYDROGRAPH AT								
+		B	185.	12.13	14.	4.	4.	0.06	
	2 COMBINED AT								
+		COMBB	1645.	12.60	194.	49.	49.	2.17	
	HYDROGRAPH AT								
+		Retn21	70.	12.13	14.	4.	4.	0.00	
	ROUTED TO								
+		RtP1	70.	12.27	14.	4.	4.	0.00	
+									2.44 12.37
	HYDROGRAPH AT								
+		A25	91.	12.27	10.	3.	3.	0.04	
	2 COMBINED AT								
+		Comb21	161.	12.27	24.	7.	7.	0.04	
	ROUTED TO								
+		RtP2	161.	12.27	24.	7.	7.	0.04	
+									3.42 12.27
	HYDROGRAPH AT								
+		A23	88.	12.23	9.	3.	3.	0.04	
	DIVERSION TO								

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+                          ST23     88.  12.40      5.     1.     1.   0.04
        HYDROGRAPH AT
+                          DvA23    62.  12.40      5.     1.     1.   0.04
        ROUTED TO
+                          RtC18    35.  12.57      5.     1.     1.   0.04
+                                                                        0.33     12.57
        HYDROGRAPH AT
+                          A24      45.  12.40      6.     2.     2.   0.06
        3 COMBINED AT
+                          Comb22  201.  12.30     35.    10.    10.   0.15
        ROUTED TO
+                          RET3    104.  12.80     34.     9.     9.   0.15
+                                                                       23.71     12.80
        ROUTED TO
+                          RtC19   104.  12.87     34.     9.     9.   0.15
+                                                                        2.04     12.87
        HYDROGRAPH AT
+                          A26     184.  12.10     14.     4.     4.   0.05
        DIVERSION TO
+                          ST26    184.  12.20      8.     2.     2.   0.05
        HYDROGRAPH AT
+                          DvA26   118.  12.20      7.     2.     2.   0.05
        HYDROGRAPH AT
+                          RtnRay  140.  12.03     66.    20.    20.   0.00
        ROUTED TO
+                          RtR11   140.  12.73     65.    20.    20.   0.00
+                                                                        1.33     12.90
        HYDROGRAPH AT
+                          R14      26.  12.20      3.     1.     1.   0.01
        4 COMBINED AT
+                          Comb23  320.  12.23    109.    32.    32.   0.20
        DIVERSION TO
+                          DIVBOX  161.  12.23     29.     7.     7.   0.20
        HYDROGRAPH AT
+                          DIV520  160.  12.23     80.    25.    25.   0.20
        HYDROGRAPH AT
+                          DIVBOX  161.  12.23     29.     7.     7.   0.00
        2 COMBINED AT
+                          ADDBOX  320.  12.23    109.    32.    32.   0.20
        ROUTED TO
+                          RTE23   290.  12.37    109.    32.    32.   0.20
+                                                                        1.78     12.37
        HYDROGRAPH AT
+                          VA1     268.  12.20     26.     7.     7.   0.11
        ROUTED TO
+                          RTEA1   256.  12.23     26.     7.     7.   0.11
+                                                                        2.56     12.23
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+          HYDROGRAPH AT
                          VA2      394.  12.23      41.      11.      11.     0.17
+          2 COMBINED AT
                         COMBA      650.  12.23      67.      18.      18.     0.28
+          ROUTED TO
                        STORA2      317.  12.50      26.       7.       7.     0.28
+          ROUTED TO
+                         RTEA2      267.  12.57      26.       7.       7.     0.28
+                                                                             1.80     12.57
+          3 COMBINED AT
                         COMBB     2165.  12.60     328.      89.      89.     2.66
+          ROUTED TO
+                           RtB     2168.  12.60     328.      89.      89.     2.66
+                                                                             5.74     12.60
+          HYDROGRAPH AT
                             D       91.  12.13       7.       2.       2.     0.03
+          HYDROGRAPH AT
                             E       91.  12.13       7.       2.       2.     0.03
+          2 COMBINED AT
                         COMBE      181.  12.13      14.       4.       4.     0.06
+          ROUTED TO
+                          RTEE      175.  12.17      14.       4.       4.     0.06
+                                                                             1.62     12.17
+          HYDROGRAPH AT
                             F      124.  12.13      10.       3.       3.     0.04
+          3 COMBINED AT
                         COMBF     2218.  12.60     352.      96.      96.     2.76
+          ROUTED TO
+                          RTEF     2219.  12.60     352.      95.      95.     2.76
+                                                                             6.88     12.60
+          HYDROGRAPH AT
                        DA522A      141.  12.20      14.       4.       4.     0.06
+          ROUTED TO
+                        RT522A      138.  12.23      14.       4.       4.     0.06
+                                                                             1.47     12.23
+          HYDROGRAPH AT
                           DA10       22.  12.13       2.       0.       0.     0.01
+          HYDROGRAPH AT
                           DA11        8.  12.13       1.       0.       0.     0.00
+          HYDROGRAPH AT
                           DA12       29.  12.13       2.       1.       1.     0.01
+          3 COMBINED AT
                          ADD12       59.  12.13       5.       1.       1.     0.02
+          ROUTED TO
                          RTE12       58.  12.13       5.       1.       1.     0.02
           HYDROGRAPH AT
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+                    DA13      9.  12.13      1.      0.      0.   0.00
        ROUTED TO
+                   RTE13      9.  12.13      1.      0.      0.   0.00
        HYDROGRAPH AT
+                    DA14     14.  12.13      1.      0.      0.   0.00
        3 COMBINED AT
+                   ADD14     82.  12.13      7.      2.      2.   0.02
        ROUTED TO
+                   RTE14     79.  12.17      7.      2.      2.   0.02
        HYDROGRAPH AT
+                    DA15     18.  12.13      1.      0.      0.   0.00
        HYDROGRAPH AT
+                    DA16      7.  12.13      1.      0.      0.   0.00
        HYDROGRAPH AT
+                    DA17     19.  12.13      1.      0.      0.   0.01
        HYDROGRAPH AT
+                    DA18      6.  12.13      0.      0.      0.   0.00
        5 COMBINED AT
+                   ADD17    126.  12.13     11.      3.      3.   0.04
        ROUTED TO
+                   RTE18    118.  12.17     11.      3.      3.   0.04
        HYDROGRAPH AT
+                  DA522C    117.  12.17     11.      3.      3.   0.04
        4 COMBINED AT
+                  AD522C   2317.  12.60    386.    105.    105.   2.90
        ROUTED TO
+                  RT522C   2317.  12.63    386.    105.    105.   2.90
+                                                                   7.99    12.63
        HYDROGRAPH AT
+                  DA522D    121.  12.17     11.      3.      3.   0.04
        HYDROGRAPH AT
+                  DA522B    141.  12.20     14.      4.      4.   0.06
        3 COMBINED AT
+                  AD522D   2375.  12.63    410.    112.    112.   3.00
        ROUTED TO
+                  RT522D   2419.  12.63    410.    112.    112.   3.00
+                                                                   8.16    12.63
        HYDROGRAPH AT
+                  DA522E    154.  12.13     12.      3.      3.   0.05
        2 COMBINED AT
+                  AD522E   2435.  12.63    422.    115.    115.   3.05
        HYDROGRAPH AT
+                   DA513    196.  12.23     21.      6.      6.   0.09
        HYDROGRAPH AT
+                   DA514    143.  12.17     13.      4.      4.   0.06
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+	HYDROGRAPH AT	DA515	105.	12.23	11.	3.	3.	0.05	
+	3 COMBINED AT	AD515	434.	12.20	45.	12.	12.	0.19	
+	ROUTED TO	RT515	390.	12.30	45.	12.	12.	0.19	
+									7.16 12.30
+	HYDROGRAPH AT	DA517	245.	12.33	30.	8.	8.	0.17	
+	HYDROGRAPH AT	South	85.	12.37	75.	25.	25.	0.00	
+	3 COMBINED AT	AD517	706.	12.33	147.	46.	46.	0.36	
+	ROUTED TO	RT517	690.	12.37	146.	46.	46.	0.36	
+									11.53 12.37
+	HYDROGRAPH AT	DA518	104.	12.67	20.	6.	6.	0.10	
+	2 COMBINED AT	AD518	757.	12.37	167.	51.	51.	0.46	
+	ROUTED TO	RT518	753.	12.40	167.	51.	51.	0.46	
+									3.55 12.40
+	HYDROGRAPH AT	DA519A	126.	12.17	11.	3.	3.	0.05	
+	ROUTED TO	RT519A	102.	12.23	11.	3.	3.	0.05	
+									1.38 12.23
+	HYDROGRAPH AT	DA519B	315.	12.23	33.	9.	9.	0.14	
+	3 COMBINED AT	AD519B	1065.	12.33	209.	63.	63.	0.64	
+	ROUTED TO	RT519B	1063.	12.37	209.	63.	63.	0.64	
+									4.04 12.37
+	HYDROGRAPH AT	DA519C	269.	12.23	28.	8.	8.	0.12	
+	ROUTED TO	RT519C	264.	12.27	28.	8.	8.	0.12	
+									2.61 12.27
+	HYDROGRAPH AT	DA519D	181.	12.23	19.	5.	5.	0.08	
+	3 COMBINED AT	AD519D	1438.	12.33	254.	76.	76.	0.84	
+	ROUTED TO	RT519D	1437.	12.33	254.	76.	76.	0.84	
+									4.37 12.33

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+        HYDROGRAPH AT
                          DA519E      90.  12.13       7.       2.       2.    0.03
         ROUTED TO
+                         RT519E      70.  12.23       7.       2.       2.    0.03
+                                                                                     1.26     12.23
         HYDROGRAPH AT
+                         DA519F     209.  12.27      24.       6.       6.    0.10
         2 COMBINED AT
+                         AD519F     277.  12.27      31.       8.       8.    0.13
         HYDROGRAPH AT
+                         DA519G      93.  12.13       8.       2.       2.    0.03
         4 COMBINED AT
+                         AD519G    3437.  12.63     715.     201.     201.    4.05
         ROUTED TO
+                         RTI-10    3423.  12.63     715.     201.     201.    4.05
+                                                                                     6.77     12.63
         HYDROGRAPH AT
+                             B1     266.  12.20      25.       7.       7.    0.11
         ROUTED TO
+                          RTEB1     239.  12.27      25.       7.       7.    0.11
+                                                                                     1.92     12.27
         2 COMBINED AT
+                         ADI-10    3511.  12.63     740.     208.     208.    4.15
         HYDROGRAPH AT
+                            B15     260.  12.30      31.       8.       8.    0.13
         2 COMBINED AT
+                         ADBA15    3630.  12.63     771.     216.     216.    4.28
         HYDROGRAPH AT
+                           DA01      41.  12.13       3.       1.       1.    0.01
         ROUTED TO
+                          RTE01      40.  12.13       3.       1.       1.    0.01
         HYDROGRAPH AT
+                           DA02      31.  12.13       2.       1.       1.    0.01
         HYDROGRAPH AT
+                           DA03      17.  12.13       1.       0.       0.    0.00
         3 COMBINED AT
+                          ADD03      88.  12.13       7.       2.       2.    0.02
         ROUTED TO
+                          RTE03      86.  12.13       7.       2.       2.    0.02
         HYDROGRAPH AT
+                           DA04      15.  12.13       1.       0.       0.    0.00
         HYDROGRAPH AT
+                           DA05      24.  12.13       2.       1.       1.    0.01
         3 COMBINED AT
+                          ADD05     126.  12.13      10.       3.       3.    0.03
         ROUTED TO
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+		RTE05	122.	12.17	10.	3.	3.	0.03		
+	HYDROGRAPH AT	DA06	33.	12.13	3.	1.	1.	0.01		
+	2 COMBINED AT	ADD06	154.	12.13	13.	4.	4.	0.04		
+	ROUTED TO	RTE06	152.	12.17	13.	4.	4.	0.04		
+	HYDROGRAPH AT	DA07	56.	12.13	4.	1.	1.	0.02		
+	2 COMBINED AT	ADD07	204.	12.17	17.	5.	5.	0.06		
+	ROUTED TO	RTE07	199.	12.17	17.	5.	5.	0.06		
+	HYDROGRAPH AT	DA08	23.	12.13	2.	1.	1.	0.01		
+	ROUTED TO	RTE08	23.	12.13	2.	1.	1.	0.01		
+	2 COMBINED AT	ADD08	221.	12.17	19.	5.	5.	0.07		
+	HYDROGRAPH AT	DA09	76.	12.13	6.	2.	2.	0.03		
+	2 COMBINED AT	ADD09	293.	12.17	25.	7.	7.	0.10		
+	PUMP FLOW TO	PUMP	200.	12.10	24.	6.	6.	0.10		
+	HYDROGRAPH AT	PUMP	0.	12.27	0.	0.	0.	0.10		
+									1144.12	12.27
+	HYDROGRAPH AT	PUMPR	200.	12.10	24.	6.	6.	0.00		
+	2 COMBINED AT	PUMP	200.	12.27	24.	6.	6.	0.10		
+	HYDROGRAPH AT	DA19	24.	12.13	2.	1.	1.	0.01		
+	ROUTED TO	RTE19	24.	12.13	2.	1.	1.	0.01		
+	HYDROGRAPH AT	DA20	39.	12.13	3.	1.	1.	0.01		
+	2 COMBINED AT	ADD20	62.	12.13	5.	1.	1.	0.02		
+	ROUTED TO	RTE20	62.	12.13	5.	1.	1.	0.02		
+	HYDROGRAPH AT	DA21	7.	12.13	1.	0.	0.	0.00		
	2 COMBINED AT									

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+                    ADD21    69.  12.13     5.     2.     2.   0.02
        ROUTED TO
+                    RTE21    68.  12.13     5.     2.     2.   0.02
        HYDROGRAPH AT
+                     DA22    50.  12.13     4.     1.     1.   0.01
        2 COMBINED AT
+                    ADD22   119.  12.13     9.     3.     3.   0.04
        ROUTED TO
+                    RTE22   117.  12.13     9.     3.     3.   0.04
        HYDROGRAPH AT
+                     DA23    88.  12.13     7.     2.     2.   0.03
        2 COMBINED AT
+                    ADD23   205.  12.13    16.     4.     4.   0.07
        ROUTED TO
+                    RTE23    20.  12.67    13.     4.     4.   0.07
+                                                                     1164.24      12.67
        HYDROGRAPH AT
+                     DA24    11.  12.13     1.     0.     0.   0.00
        2 COMBINED AT
+                    ADD24    21.  12.20    14.     4.     4.   0.07
        HYDROGRAPH AT
+                     DA25    60.  12.13     5.     1.     1.   0.02
        2 COMBINED AT
+                    ADD25    80.  12.13    18.     6.     6.   0.09
        ROUTED TO
+                    RTE25    12.  15.90    11.     5.     5.   0.09
+                                                                     1162.16      15.90
        HYDROGRAPH AT
+                     DA26    38.  12.13     3.     1.     1.   0.02
        2 COMBINED AT
+                    ADD26    43.  12.13    13.     6.     6.   0.11
        ROUTED TO
+                    RTE26     8.  21.80     8.     3.     3.   0.11
+                                                                     1160.86      21.77
        HYDROGRAPH AT
+                     DA27    77.  12.13     6.     2.     2.   0.03
        2 COMBINED AT
+                    ADD27    78.  12.13    10.     5.     5.   0.13
        ROUTED TO
+                    RTE27    11.  12.63     9.     4.     4.   0.13
+                                                                     1160.29      12.63
        HYDROGRAPH AT
+                     DA28    11.  12.13     1.     0.     0.   0.00
        2 COMBINED AT
+                    ADD28    17.  12.17     9.     4.     4.   0.13
        HYDROGRAPH AT
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+                    DA29      85.  12.13        7.        2.        2.      0.03
        2 COMBINED AT
+                   ADD29     102.  12.13       16.        6.        6.      0.16
        ROUTED TO
+                   RTE29      16.  12.80       14.        6.        6.      0.16
+                                                                        1160.13      12.80
        2 COMBINED AT
+                     PMP     216.  12.53       37.       13.       13.      0.26
        2 COMBINED AT
+                   ADPMP    3803.  12.27      808.      229.      229.      4.54
        DIVERSION TO
+                   DIVFF    2409.  12.27       75.       19.       19.      4.54
        HYDROGRAPH AT
+                   B15FF    3803.  12.27      753.      210.      210.      4.54
        ROUTED TO
+                   STB15     159.  17.17      159.       77.       77.      4.54
+                                                                        1159.49      17.23
        HYDROGRAPH AT
+                    RTFF    2409.  12.13       75.       19.       19.      0.00
        ROUTED TO
+                    STFF      0.   0.00        0.        0.        0.      0.00
+                                                                        1158.00      12.20
1
                                SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                   (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                   INTERPOLATED TO
                                                                COMPUTATION INTERVAL
          ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME      DT      PEAK    TIME TO     VOLUME
                                                   PEAK                                   PEAK

                              (MIN)     (CFS)     (MIN)      (IN)    (MIN)     (CFS)     (MIN)       (IN)
            RTE12  MANE        0.28     58.49    727.97      3.12     2.00     58.45    728.00       3.12

 CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2629E+01 EXCESS=0.0000E+00 OUTFLOW=0.2628E+01 BASIN STORAGE=0.2615E-03 PERCENT ERROR=   0.0

            RTE13  MANE        1.19      8.88    728.44      2.90     2.00      8.80    728.00       2.90

 CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4027E+00 EXCESS=0.0000E+00 OUTFLOW=0.4017E+00 BASIN STORAGE=0.1818E-03 PERCENT ERROR=   0.2

            RTE14  MANE        2.00     79.44    730.00      3.02     2.00     79.44    730.00       3.02

 CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3660E+01 EXCESS=0.0000E+00 OUTFLOW=0.3651E+01 BASIN STORAGE=0.2698E-02 PERCENT ERROR=   0.2

            RTE18  MANE        1.09    118.59    729.27      3.00     2.00    117.85    730.00       3.01

 CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5853E+01 EXCESS=0.0000E+00 OUTFLOW=0.5801E+01 BASIN STORAGE=0.2319E-02 PERCENT ERROR=   0.9

            RTE01  MANE        1.21     40.72    728.79      3.50     2.00     40.38    728.00       3.50
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CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1850E+01 EXCESS=0.0000E+00 OUTFLOW=0.1850E+01 BASIN STORAGE=0.7397E-03 PERCENT ERROR=   0.0

            RTE03  MANE        0.64     86.98    728.38      3.34      2.00     86.40    728.00        3.34

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3933E+01 EXCESS=0.0000E+00 OUTFLOW=0.3932E+01 BASIN STORAGE=0.8555E-03 PERCENT ERROR=   0.0

            RTE05  MANE        1.00    123.41    729.47      3.25      2.00    122.06    730.00        3.25

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5633E+01 EXCESS=0.0000E+00 OUTFLOW=0.5629E+01 BASIN STORAGE=0.1944E-02 PERCENT ERROR=   0.0

            RTE06  MANE        0.98    152.39    729.73      3.19      2.00    151.93    730.00        3.19

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.7030E+01 EXCESS=0.0000E+00 OUTFLOW=0.7024E+01 BASIN STORAGE=0.2400E-02 PERCENT ERROR=   0.1

            RTE07  MANE        1.03    198.96    729.74      2.84      2.00    198.79    730.00        2.84

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.9345E+01 EXCESS=0.0000E+00 OUTFLOW=0.9320E+01 BASIN STORAGE=0.3566E-02 PERCENT ERROR=   0.2

            RTE08  MANE        1.26     22.58    729.28      3.41      2.00     22.53    728.00        3.41

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1018E+01 EXCESS=0.0000E+00 OUTFLOW=0.1017E+01 BASIN STORAGE=0.4331E-03 PERCENT ERROR=   0.0

            RTE19  MANE        0.28     23.92    728.45      1.71      2.00     23.80    728.00        1.71

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1020E+01 EXCESS=0.0000E+00 OUTFLOW=0.1020E+01 BASIN STORAGE=0.1348E-03 PERCENT ERROR=   0.0

            RTE20  MANE        0.19     62.03    727.97      2.32      2.00     62.02    728.00        2.32

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2676E+01 EXCESS=0.0000E+00 OUTFLOW=0.2675E+01 BASIN STORAGE=0.2036E-03 PERCENT ERROR=   0.0

            RTE21  MANE        0.18     68.44    728.05      2.42      2.00     68.40    728.00        2.42

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2997E+01 EXCESS=0.0000E+00 OUTFLOW=0.2996E+01 BASIN STORAGE=0.2138E-03 PERCENT ERROR=   0.0

            RTE22  MANE        0.46    116.81    727.94      2.65      2.00    116.81    728.00        2.65

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5156E+01 EXCESS=0.0000E+00 OUTFLOW=0.5152E+01 BASIN STORAGE=0.9023E-03 PERCENT ERROR=   0.1


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