```
 ***************************************************************************

              F L O O D    R O U T I N G    A N A L Y S I S
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                          Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 133C                              *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL              *
* 2-YR EV AUG 2023 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV0233CF.DAT
  TIME/DATE OF STUDY: 10:32 08/10/2023


                        ** INPUT SUMMARY **


 ************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
 ------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 ========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    5.382 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.17; 30-MINUTE =  0.33;  1-HOUR =  0.45
    3-HOUR =  0.84;    6-HOUR =  1.26; 24-HOUR =  2.22
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


 ************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
 ------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```



```
  CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ========================================================================


 ************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
 ------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.220 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.31;  1-HOUR =  0.40
    3-HOUR =  0.68;    6-HOUR =  0.93; 24-HOUR =  1.57
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


 ************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 ------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ========================================================================


 ************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 ------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ========================================================================


 ************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
 ------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ========================================================================


 ************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
 ------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.292 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.31;  1-HOUR =  0.40
    3-HOUR =  0.68;    6-HOUR =  0.93; 24-HOUR =  1.57
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.430 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.31;  1-HOUR =  0.40
    3-HOUR =  0.68;    6-HOUR =  0.93; 24-HOUR =  1.57
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```



```
**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.360 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.201; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.31;  1-HOUR =  0.40
    3-HOUR =  0.68;    6-HOUR =  0.93; 24-HOUR =  1.57
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.315 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.270; LOW LOSS FRACTION = 0.508
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.31;  1-HOUR =  0.40
    3-HOUR =  0.68;    6-HOUR =  0.93; 24-HOUR =  1.57
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.578 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.566; LOW LOSS FRACTION = 0.925
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.31;  1-HOUR =  0.40
    3-HOUR =  0.68;    6-HOUR =  0.93; 24-HOUR =  1.57
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```



```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.472 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.586; LOW LOSS FRACTION = 0.976
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.31;  1-HOUR =  0.40
    3-HOUR =  0.68;    6-HOUR =  0.93; 24-HOUR =  1.57
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.589 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.589; LOW LOSS FRACTION = 0.962
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.31;  1-HOUR =  0.40
    3-HOUR =  0.68;    6-HOUR =  0.93; 24-HOUR =  1.57
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
```

```
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936

****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.430 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.564; LOW LOSS FRACTION = 0.940
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.31;  1-HOUR =  0.40
    3-HOUR =  0.68;    6-HOUR =  0.93; 24-HOUR =  1.57
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```



```
****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.309 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.256; LOW LOSS FRACTION = 0.498
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.31;  1-HOUR =  0.40
    3-HOUR =  0.68;    6-HOUR =  0.93; 24-HOUR =  1.57
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.262 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.487; LOW LOSS FRACTION = 0.830
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.31;  1-HOUR =  0.40
    3-HOUR =  0.68;    6-HOUR =  0.93; 24-HOUR =  1.57
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =    9760.05      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    6877.24      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```



```
  *USER ENTERED "LAG" TIME =    0.948 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.449; LOW LOSS FRACTION = 0.752
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.31;  1-HOUR =  0.40
    3-HOUR =  0.68;    6-HOUR =  0.93; 24-HOUR =  1.57
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
============================================================================
============================================================================
```

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV0233CF.DAT   ]
Page:   1 of    |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|       0.0       562.0|
20.417 |             |           |
 |   119.00   12603.00| Convex Routing:       Stream #1|     562.0       560.4|
20.500 |             |           |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|       0.0        17.2|
16.250 |             |           |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|     560.4       562.7|
20.500 |             |           |
 | 12603.00   12603.00| Zero Out:             Stream #2|      17.2         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 12603.00     126.00| Convex Routing:       Stream #1|     562.7       561.7|
20.583 |             |           |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|       0.0        19.2|
16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     561.7       564.5|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      19.2         0.0|
|            |           |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         1.6|
16.500 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     564.5       564.8|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       1.6         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|     564.8       563.9|
20.750 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0        99.1|
16.417 |             |           |
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0        54.8|
16.333 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0         1.8|
16.667 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|      99.1       100.7|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       1.8         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|     100.7       154.8|
16.417 |             |           |
```



```
 |   331.00     331.00| Zero Out:             Stream #3|      54.8         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|     563.9       588.0|
20.750 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     154.8         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|     588.0       587.6|
20.833 |             |           |
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0         3.6|
16.500 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     587.6       588.2|
20.833 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Zero Out:             Stream #2|       3.6         0.0|
|            |           |
 | 50150.00     127.00| Subarea (UH) Added to Stream #2|       0.0         8.0|
16.667 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     588.2       589.7|
20.833 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       8.0         0.0|
|            |           |
 |   127.00     129.00| Convex Routing:       Stream #1|     589.7       589.3|
21.000 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 50300.00     129.00| Subarea (UH) Added to Stream #2|       0.0         8.3|
16.500 |             |           |
 |   129.00     129.00| Stream #2 Added to:   Stream #1|     589.3       590.7|
21.000 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|       8.3         0.0|
|            |           |
 |   210.00     221.00| Subarea (UH) Added to Stream #2|       0.0        26.2|
16.333 |             |           |
 |   222.00     129.00| Stream #2 Added to:   Stream #1|     590.7       594.5|
21.000 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   129.00     129.00| Zero Out:             Stream #2|      26.2         0.0|
|            |           |
 |   129.00     133.00| Convex Routing:       Stream #1|     594.5       594.2|
21.167 |             |           |
 | 13010.00     132.00| Subarea (UH) Added to Stream #2|       0.0       147.0|
17.333 |             |           |
 |   132.00   13305.00| Convex Routing:       Stream #2|     147.0       145.3|
17.917 |             |           |
 | 13305.00     133.00| Convex Routing:       Stream #2|     145.3       144.7|
18.250 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-------------------------------------------------------------------------------
-------------------------------------+
```

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                      * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV0233CF.DAT   ]
Page:   2 of    |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                               | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0        78.0|
17.000 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     144.7       211.0|
17.167 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|      78.0         0.0|
|             |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|     594.2       750.1|
17.667 |             |           |
 |   133.00     133.00| Zero Out:             Stream #2|     211.0         0.0|
|             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     133.00| View:                 Stream #1|                 750.1|
17.667 |       871.53|     3     |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-------------------------------------------------------------------------------
-------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
 ************************************************************************

            F L O O D    R O U T I N G    A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
         (c) Copyright 1989-2010 Advanced Engineering Software (aes)
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                        Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 133U                              *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL              *
* 2-YR EV AUG 2023 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV0233UF.DAT
  TIME/DATE OF STUDY: 10:33 08/10/2023


                       ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    5.382 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.17; 30-MINUTE =  0.32;  1-HOUR =  0.44
    3-HOUR =  0.82;    6-HOUR =  1.23; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```



```
  CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.220 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.292 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.430 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```



```
********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.360 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.201; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


********************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.315 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.270; LOW LOSS FRACTION = 0.508
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


********************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.578 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.566; LOW LOSS FRACTION = 0.925
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```



```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.472 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.586; LOW LOSS FRACTION = 0.976
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.589 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.589; LOW LOSS FRACTION = 0.962
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
```

```
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940

****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.622 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.564; LOW LOSS FRACTION = 0.940
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```



```
****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.309 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.256; LOW LOSS FRACTION = 0.498
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

FLOW PROCESS FROM NODE 133.00 TO NODE 133.00 IS CODE = 11

>>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<

* AES FLOODSCx PROGRAM RESULTS SUMMARY *
INPUT FILENAME: [EV0233UF.DAT]
Page: 1 of

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS FOOTNOTES		UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO MAX. STORAGE PEAK (HR)	MODELED (AF)
10100.00	119.00	Subarea (UH) Added to Stream #1		0.0	575.3	20.417	
119.00	12603.00	Convex Routing:	Stream #1	575.3	571.8	20.500	
810.00	809.00	Subarea (UH) Added to Stream #2		0.0	17.9	16.250	
12603.00	12603.00	Stream #2 Added to:	Stream #1	571.8	574.1	20.500	
12603.00	12603.00	Zero Out:	Stream #2	17.9	0.0		
12603.00	126.00	Convex Routing:	Stream #1	574.1	571.8	20.583	
920.00	905.00	Subarea (UH) Added to Stream #2		0.0	19.7	16.333	
126.00	126.00	Stream #2 Added to:	Stream #1	571.8	574.6	20.583	
126.00	126.00	Zero Out:	Stream #2	19.7	0.0		
600.00	126.00	Subarea (UH) Added to Stream #2		0.0	1.7	16.500	
126.00	126.00	Stream #2 Added to:	Stream #1	574.6	574.8	20.583	
126.00	126.00	Zero Out:	Stream #2	1.7	0.0		
126.00	12720.50	Convex Routing:	Stream #1	574.8	573.6	20.750	
320.00	331.00	Subarea (UH) Added to Stream #2		0.0	103.9	16.417	
400.00	331.00	Subarea (UH) Added to Stream #3		0.0	57.2	16.333	
390.00	331.00	Subarea (UH) Added to Stream #4		0.0	1.8	16.667	
331.00	331.00	Stream #4 Added to:	Stream #2	103.9	105.5	16.417	
331.00	331.00	Zero Out:	Stream #4	1.8	0.0		
331.00	331.00	Stream #3 Added to:	Stream #2	105.5	162.5	16.417	

```
 |   331.00     331.00| Zero Out:             Stream #3|      57.2         0.0|
|             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|     573.6       597.2|
20.750 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     162.5         0.0|
|             |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|     597.2       596.2|
20.917 |             |           |
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0         3.7|
16.500 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     596.2       596.8|
20.917 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Zero Out:             Stream #2|       3.7         0.0|
|             |           |
 | 50150.00     127.00| Subarea (UH) Added to Stream #2|       0.0         8.2|
16.667 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     596.8       598.3|
20.917 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       8.2         0.0|
|             |           |
 |   127.00     129.00| Convex Routing:       Stream #1|     598.3       597.8|
21.083 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 | 50300.00     129.00| Subarea (UH) Added to Stream #2|       0.0         7.6|
16.667 |             |           |
 |   129.00     129.00| Stream #2 Added to:   Stream #1|     597.8       599.1|
21.083 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|       7.6         0.0|
|             |           |
 |   210.00     221.00| Subarea (UH) Added to Stream #2|       0.0        27.7|
16.333 |             |           |
 |   222.00     129.00| Stream #2 Added to:   Stream #1|     599.1       602.8|
21.083 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   129.00     129.00| Zero Out:             Stream #2|      27.7         0.0|
|             |           |
 |   129.00     133.00| Convex Routing:       Stream #1|     602.8       602.2|
21.167 |             |           |
 |   133.00     133.00| View:                 Stream #1|                 602.2|
21.167 |       713.70|     3     |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-------------------------------------------------------------------------------
-------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
 ************************************************************************

            F L O O D    R O U T I N G    A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                        Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 134C                              *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL              *
* 2-YR EV AUG 2023 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV0234CF.DAT
  TIME/DATE OF STUDY: 10:31 08/10/2023


                       ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    5.382 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.17; 30-MINUTE =  0.31;  1-HOUR =  0.43
    3-HOUR =  0.81;    6-HOUR =  1.20; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```



```
  CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.220 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.17; 30-MINUTE =  0.31;  1-HOUR =  0.43
    3-HOUR =  0.81;    6-HOUR =  1.20; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.292 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.430 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```



```
********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.360 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.201; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.315 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.270; LOW LOSS FRACTION = 0.508
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.578 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.566; LOW LOSS FRACTION = 0.925
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```



```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.472 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.586; LOW LOSS FRACTION = 0.976
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.589 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.589; LOW LOSS FRACTION = 0.962
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
```

```
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933

****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.622 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.564; LOW LOSS FRACTION = 0.940
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```



```
****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.309 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.256; LOW LOSS FRACTION = 0.498
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.262 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.487; LOW LOSS FRACTION = 0.830
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =    9760.05      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    6877.24      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```



```
  *USER ENTERED "LAG" TIME =    0.948 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.449; LOW LOSS FRACTION = 0.752
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
  CHANNEL LENGTH(FT) =    6461.31      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.490; LOW LOSS FRACTION = 0.819
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.991 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.567; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```



```
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
============================================================================
============================================================================
```

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV0234CF.DAT   ]
Page:   1 of    |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|       0.0       528.9|
20.417 |             |           |
 |   119.00   12603.00| Convex Routing:       Stream #1|     528.9       527.6|
20.500 |             |           |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|       0.0        19.1|
16.250 |             |           |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|     527.6       530.9|
20.500 |             |           |
 | 12603.00   12603.00| Zero Out:             Stream #2|      19.1         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 12603.00     126.00| Convex Routing:       Stream #1|     530.9       530.1|
20.583 |             |           |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|       0.0        17.7|
16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     530.1       532.8|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      17.7         0.0|
|            |           |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         1.5|
16.500 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     532.8       533.1|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       1.5         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|     533.1       532.4|
20.750 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0        90.7|
16.417 |             |           |
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0        50.5|
16.417 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0         1.6|
16.667 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|      90.7        92.2|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       1.6         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|      92.2       142.7|
16.417 |             |           |
```



```
 |   331.00     331.00| Zero Out:             Stream #3|      50.5         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|     532.4       555.6|
20.750 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     142.7         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|     555.6       555.4|
20.833 |             |           |
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0         3.3|
16.500 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     555.4       556.0|
20.833 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Zero Out:             Stream #2|       3.3         0.0|
|            |           |
 | 50150.00     127.00| Subarea (UH) Added to Stream #2|       0.0         7.5|
16.667 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     556.0       557.5|
20.833 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       7.5         0.0|
|            |           |
 |   127.00     129.00| Convex Routing:       Stream #1|     557.5       557.3|
21.000 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 50300.00     129.00| Subarea (UH) Added to Stream #2|       0.0         7.0|
16.667 |             |           |
 |   129.00     129.00| Stream #2 Added to:   Stream #1|     557.3       558.6|
21.000 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|       7.0         0.0|
|            |           |
 |   210.00     221.00| Subarea (UH) Added to Stream #2|       0.0        24.1|
16.333 |             |           |
 |   222.00     129.00| Stream #2 Added to:   Stream #1|     558.6       562.3|
21.000 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   129.00     129.00| Zero Out:             Stream #2|      24.1         0.0|
|            |           |
 |   129.00     133.00| Convex Routing:       Stream #1|     562.3       562.1|
21.083 |             |           |
 | 13010.00     132.00| Subarea (UH) Added to Stream #2|       0.0       138.0|
17.333 |             |           |
 |   132.00   13305.00| Convex Routing:       Stream #2|     138.0       136.6|
17.917 |             |           |
 | 13305.00     133.00| Convex Routing:       Stream #2|     136.6       136.0|
18.250 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-------------------------------------------------------------------------------
-------------------------------------+
```

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                      * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV0234CF.DAT   ]
Page:   2 of    |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                               | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0        73.1|
17.000 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     136.0       198.7|
17.167 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|      73.1         0.0|
|            |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|     562.1       713.8|
17.750 |             |           |
 |   133.00     133.00| Zero Out:             Stream #2|     198.7         0.0|
|            |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     134.00| Convex Routing:       Stream #1|     713.8       713.3|
17.917 |             |           |
 |   133.00     134.00| Subarea (UH) Added to Stream #2|       0.0        61.7|
16.500 |             |           |
 |   134.00     134.00| Stream #2 Added to:   Stream #1|     713.3       749.7|
17.250 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      61.7         0.0|
|            |           |
 | 13500.00     134.00| Subarea (UH) Added to Stream #2|       0.0        50.3|
18.500 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   134.00     134.00| Stream #2 Added to:   Stream #1|     749.7       796.3|
17.917 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      50.3         0.0|
|            |           |
 |   134.00     134.00| View:                 Stream #1|                  796.3|
17.917 |       911.17|     3     |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                          |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                  |
 +-------------------------------------------------------------------------------
-------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
******************************************************************************

             F L O O D    R O U T I N G    A N A L Y S I S
             USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
          (c) Copyright 1989-2010 Advanced Engineering Software (aes)
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                          Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 134U                              *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL              *
* 2-YR EV AUG 2023 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV0234UF.DAT
  TIME/DATE OF STUDY: 10:31 08/10/2023


                        ** INPUT SUMMARY **


******************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
==============================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    5.382 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.17; 30-MINUTE =  0.32;  1-HOUR =  0.44
    3-HOUR =  0.82;    6-HOUR =  1.22; 24-HOUR =  2.15
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


******************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```



```
  CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.220 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.39
    3-HOUR =  0.66;    6-HOUR =  0.90; 24-HOUR =  1.53
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


******************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.292 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.39
    3-HOUR =  0.66;    6-HOUR =  0.90; 24-HOUR =  1.53
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.430 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.39
    3-HOUR =  0.66;    6-HOUR =  0.90; 24-HOUR =  1.53
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================
```



```
****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.360 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.201; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.39
    3-HOUR =  0.66;    6-HOUR =  0.90; 24-HOUR =  1.53
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.315 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.270; LOW LOSS FRACTION = 0.508
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.39
    3-HOUR =  0.66;    6-HOUR =  0.90; 24-HOUR =  1.53
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
============================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.578 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.566; LOW LOSS FRACTION = 0.925
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.39
    3-HOUR =  0.66;    6-HOUR =  0.90; 24-HOUR =  1.53
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
```



```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.472 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.586; LOW LOSS FRACTION = 0.976
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.39
    3-HOUR =  0.66;    6-HOUR =  0.90; 24-HOUR =  1.53
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.589 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.589; LOW LOSS FRACTION = 0.962
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.39
    3-HOUR =  0.66;    6-HOUR =  0.90; 24-HOUR =  1.53
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
```

```
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936

****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.622 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.564; LOW LOSS FRACTION = 0.940
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.39
    3-HOUR =  0.66;    6-HOUR =  0.90; 24-HOUR =  1.53
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```



```
****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.309 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.256; LOW LOSS FRACTION = 0.498
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.39
    3-HOUR =  0.66;    6-HOUR =  0.90; 24-HOUR =  1.53
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.262 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.487; LOW LOSS FRACTION = 0.830
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.39
    3-HOUR =  0.66;    6-HOUR =  0.90; 24-HOUR =  1.53
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =    9760.05      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    6877.24      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```



```
  *USER ENTERED "LAG" TIME =    0.948 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.449; LOW LOSS FRACTION = 0.752
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.39
    3-HOUR =  0.66;    6-HOUR =  0.90; 24-HOUR =  1.53
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
  CHANNEL LENGTH(FT) =    6461.31      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.490; LOW LOSS FRACTION = 0.819
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.39
    3-HOUR =  0.66;    6-HOUR =  0.90; 24-HOUR =  1.53
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
============================================================================
============================================================================
```



```
 +----------------------------------------------------------------------------
-----------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV0234UF.DAT   ]
Page:   1 of    |
 +-------------------+--------------------------------+----------------------+-
----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+--------------------------------+----------------------+-
----------+-------------+-----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|       0.0       538.4|
20.417 |             |           |
 |   119.00   12603.00| Convex Routing:       Stream #1|     538.4       537.0|
20.500 |             |           |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|       0.0        16.6|
16.250 |             |           |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|     537.0       539.3|
20.500 |             |           |
 | 12603.00   12603.00| Zero Out:             Stream #2|      16.6         0.0|
|            |           |
 +-------------------+--------------------------------+----------------------+-
----------+-------------+-----------+
 | 12603.00     126.00| Convex Routing:       Stream #1|     539.3       538.4|
20.583 |             |           |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|       0.0        18.5|
16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     538.4       541.2|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      18.5         0.0|
|            |           |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         1.6|
16.500 |             |           |
 +-------------------+--------------------------------+----------------------+-
----------+-------------+-----------+
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     541.2       541.4|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       1.6         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|     541.4       540.7|
20.750 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0        95.2|
16.417 |             |           |
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0        52.7|
16.333 |             |           |
 +-------------------+--------------------------------+----------------------+-
----------+-------------+-----------+
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0         1.7|
16.667 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|      95.2        96.7|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       1.7         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|      96.7       149.1|
16.417 |             |           |
```

331.00	331.00	Zero Out:	Stream #3	52.7	0.0	20.750		
331.00	12720.50	Stream #2 Added to:	Stream #1	540.7	564.3	20.750		
12720.50	12720.50	Zero Out:	Stream #2	149.1	0.0	20.750		
12720.50	127.00	Convex Routing:	Stream #1	564.3	564.0	20.833		
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	3.5	16.500		
127.00	127.00	Stream #2 Added to:	Stream #1	564.0	564.6	20.833		
127.00	127.00	Zero Out:	Stream #2	3.5	0.0	20.750		
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	7.8	16.667		
127.00	127.00	Stream #2 Added to:	Stream #1	564.6	566.1	20.833		
127.00	127.00	Zero Out:	Stream #2	7.8	0.0	20.750		
127.00	129.00	Convex Routing:	Stream #1	566.1	565.8	21.000		
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	7.2	16.667		
129.00	129.00	Stream #2 Added to:	Stream #1	565.8	567.2	21.000		
129.00	129.00	Zero Out:	Stream #2	7.2	0.0	20.750		
210.00	221.00	Subarea (UH) Added to	Stream #2	0.0	25.2	16.333		
222.00	129.00	Stream #2 Added to:	Stream #1	567.2	571.0	21.000		
129.00	129.00	Zero Out:	Stream #2	25.2	0.0	20.750		
129.00	133.00	Convex Routing:	Stream #1	571.0	570.7	21.083		
13010.00	132.00	Subarea (UH) Added to	Stream #2	0.0	141.9	17.333		
132.00	13305.00	Convex Routing:	Stream #2	141.9	140.3	17.917		
13305.00	133.00	Convex Routing:	Stream #2	140.3	139.7	18.250		

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL

3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV0234UF.DAT   ]
Page:   2 of    |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0        75.3|
17.000 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     139.7       203.7|
17.167 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|      75.3         0.0|
|             |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|     570.7       724.4|
17.667 |             |           |
 |   133.00     133.00| Zero Out:             Stream #2|     203.7         0.0|
|             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     134.00| Convex Routing:       Stream #1|     724.4       723.8|
17.917 |             |           |
 |   133.00     134.00| Subarea (UH) Added to Stream #2|       0.0        63.9|
16.500 |             |           |
 |   134.00     134.00| Stream #2 Added to:   Stream #1|     723.8       764.1|
17.250 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      63.9         0.0|
|             |           |
 |   134.00     134.00| View:                 Stream #1|                 764.1|
17.250 |       879.77|     3     |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                          |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                  |
 +-------------------------------------------------------------------------------
-------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
**************************************************************************

            F L O O D    R O U T I N G    A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
         (c) Copyright 1989-2010 Advanced Engineering Software (aes)
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                        Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 133C                              *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED                    *
* 5-YR EV AUG 2023 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV0533CF.DAT
  TIME/DATE OF STUDY: 09:51 08/10/2023


                       ** INPUT SUMMARY **


**************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
==========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    3.308 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.24; 30-MINUTE =  0.45;  1-HOUR =  0.64
    3-HOUR =  1.18;    6-HOUR =  1.76; 24-HOUR =  3.11
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```



```
  CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.203 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```



```
**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.330 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.167; LOW LOSS FRACTION = 0.352
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.284 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.447
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```



```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.370 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.447 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
```

```
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936

****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.444 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.470; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```



```
****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.286 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.213; LOW LOSS FRACTION = 0.446
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.986 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.406; LOW LOSS FRACTION = 0.789
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =    9760.05      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    6877.24      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```



```
  *USER ENTERED "LAG" TIME =    0.699 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.375; LOW LOSS FRACTION = 0.691
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
============================================================================
============================================================================
```

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV0533CF.DAT   ]
Page:   1 of    |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|       0.0      2327.2|
19.333 |             |           |
 |   119.00   12603.00| Convex Routing:       Stream #1|    2327.2      2303.6|
19.417 |             |           |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|       0.0        34.1|
16.250 |             |           |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|    2303.6      2307.8|
19.417 |             |           |
 | 12603.00   12603.00| Zero Out:             Stream #2|      34.1         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 12603.00     126.00| Convex Routing:       Stream #1|    2307.8      2293.5|
19.250 |             |           |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|       0.0        59.5|
16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2293.5      2299.9|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      59.5         0.0|
|            |           |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0        12.7|
16.417 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2299.9      2300.7|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      12.7         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    2300.7      2295.3|
19.583 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0       163.4|
16.417 |             |           |
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0        98.8|
16.333 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0         7.3|
16.500 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|     163.4       170.0|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       7.3         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|     170.0       263.2|
16.333 |             |           |
```



```
 |   331.00     331.00| Zero Out:             Stream #3|      98.8         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|    2295.3      2339.5|
19.417 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     263.2         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|    2339.5      2338.7|
19.500 |             |           |
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0        35.3|
16.417 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    2338.7      2341.0|
19.500 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Zero Out:             Stream #2|      35.3         0.0|
|            |           |
 | 50150.00     127.00| Subarea (UH) Added to Stream #2|       0.0        52.9|
16.500 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    2341.0      2346.7|
19.500 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|      52.9         0.0|
|            |           |
 |   127.00     129.00| Convex Routing:       Stream #1|    2346.7      2345.0|
19.750 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 50300.00     129.00| Subarea (UH) Added to Stream #2|       0.0        34.7|
16.500 |             |           |
 |   129.00     129.00| Stream #2 Added to:   Stream #1|    2345.0      2348.4|
19.750 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      34.7         0.0|
|            |           |
 |   210.00     221.00| Subarea (UH) Added to Stream #2|       0.0        46.1|
16.333 |             |           |
 |   222.00     129.00| Stream #2 Added to:   Stream #1|    2348.4      2355.3|
19.667 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   129.00     129.00| Zero Out:             Stream #2|      46.1         0.0|
|            |           |
 |   129.00     133.00| Convex Routing:       Stream #1|    2355.3      2353.7|
19.750 |             |           |
 | 13010.00     132.00| Subarea (UH) Added to Stream #2|       0.0       321.1|
17.000 |             |           |
 |   132.00   13305.00| Convex Routing:       Stream #2|     321.1       312.2|
17.500 |             |           |
 | 13305.00     133.00| Convex Routing:       Stream #2|     312.2       310.3|
17.833 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-------------------------------------------------------------------------------
-------------------------------------+
```

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                      * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV0533CF.DAT   ]
Page:   2 of    |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                               | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0       162.7|
16.750 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     310.3       419.4|
17.667 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|     162.7         0.0|
|             |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|    2353.7      2667.4|
18.417 |             |           |
 |   133.00     133.00| Zero Out:             Stream #2|     419.4         0.0|
|             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     133.00| View:                 Stream #1|                2667.4|
18.417 |      2430.79|     3     |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-------------------------------------------------------------------------------
-------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
 ************************************************************************

            F L O O D    R O U T I N G    A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                        Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 133U                              *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED                    *
* 5-YR EV AUG 2023 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV0533UF.DAT
  TIME/DATE OF STUDY: 09:52 08/10/2023


                       ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    3.308 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.24; 30-MINUTE =  0.45;  1-HOUR =  0.64
    3-HOUR =  1.18;    6-HOUR =  1.76; 24-HOUR =  3.10
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```



```
  CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.203 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```



```
********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.330 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.167; LOW LOSS FRACTION = 0.352
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


********************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.284 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.447
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


********************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```



```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.370 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.447 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
```

```
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.444 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.470; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```



```
****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.286 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.213; LOW LOSS FRACTION = 0.446
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.18
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
============================================================================
============================================================================
```

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV0533UF.DAT   ]
Page:   1 of    |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|       0.0      2432.6|
19.333 |             |           |
 |   119.00   12603.00| Convex Routing:       Stream #1|    2432.6      2404.0|
19.417 |             |           |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|       0.0        35.2|
16.250 |             |           |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|    2404.0      2408.2|
19.417 |             |           |
 | 12603.00   12603.00| Zero Out:             Stream #2|      35.2         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 12603.00     126.00| Convex Routing:       Stream #1|    2408.2      2386.2|
19.500 |             |           |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|       0.0        61.2|
16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2386.2      2392.3|
19.500 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      61.2         0.0|
|            |           |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0        13.0|
16.417 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2392.3      2393.0|
19.500 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      13.0         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    2393.0      2391.1|
19.583 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0       167.8|
16.417 |             |           |
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0       102.0|
16.333 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0         7.5|
16.500 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|     167.8       174.7|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       7.5         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|     174.7       272.2|
16.333 |             |           |
```



```
 |   331.00     331.00| Zero Out:             Stream #3|     102.0         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|    2391.1      2435.6|
19.583 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     272.2         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|    2435.6      2431.6|
19.583 |             |           |
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0        36.3|
16.417 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    2431.6      2433.8|
19.583 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Zero Out:             Stream #2|      36.3         0.0|
|            |           |
 | 50150.00     127.00| Subarea (UH) Added to Stream #2|       0.0        54.5|
16.500 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    2433.8      2439.5|
19.583 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|      54.5         0.0|
|            |           |
 |   127.00     129.00| Convex Routing:       Stream #1|    2439.5      2438.6|
19.750 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 50300.00     129.00| Subarea (UH) Added to Stream #2|       0.0        35.7|
16.500 |             |           |
 |   129.00     129.00| Stream #2 Added to:   Stream #1|    2438.6      2442.1|
19.750 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      35.7         0.0|
|            |           |
 |   210.00     221.00| Subarea (UH) Added to Stream #2|       0.0        47.5|
16.333 |             |           |
 |   222.00     129.00| Stream #2 Added to:   Stream #1|    2442.1      2449.1|
19.750 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   129.00     129.00| Zero Out:             Stream #2|      47.5         0.0|
|            |           |
 |   133.00     133.00| View:                 Stream #1|                2449.1|
19.750 |      2178.88|     3     |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                    |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM            |
 +-------------------------------------------------------------------------------
-------------------------------------+


   END OF FLOODSCx ROUTING ANALYSIS
```

```
 ************************************************************************

            F L O O D    R O U T I N G    A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                        Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 134C                              *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED                    *
* 5-YR EV AUG 2023 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV0534CF.DAT
  TIME/DATE OF STUDY: 09:49 08/10/2023


                       ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    3.308 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.24; 30-MINUTE =  0.46;  1-HOUR =  0.65
    3-HOUR =  1.20;    6-HOUR =  1.79; 24-HOUR =  3.16
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```



```
  CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.203 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.33; 24-HOUR =  2.22
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.33; 24-HOUR =  2.22
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.33; 24-HOUR =  2.22
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```



```
**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.330 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.167; LOW LOSS FRACTION = 0.352
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.33; 24-HOUR =  2.22
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


**********************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.284 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.447
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.33; 24-HOUR =  2.22
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


**********************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.33; 24-HOUR =  2.22
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```



```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.370 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.33; 24-HOUR =  2.22
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.447 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.33; 24-HOUR =  2.22
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
```

```
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.444 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.470; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.33; 24-HOUR =  2.22
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```



```


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.286 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.213; LOW LOSS FRACTION = 0.446
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.33; 24-HOUR =  2.22
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    221.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.986 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.406; LOW LOSS FRACTION = 0.789
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.33; 24-HOUR =  2.22
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =    9760.05      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    6877.24      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```



```
  *USER ENTERED "LAG" TIME =    0.699 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.375; LOW LOSS FRACTION = 0.691
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.33; 24-HOUR =  2.22
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
  CHANNEL LENGTH(FT) =    6461.31      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.390 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.409; LOW LOSS FRACTION = 0.762
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.33; 24-HOUR =  2.22
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.180 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.473; LOW LOSS FRACTION = 0.843
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.33; 24-HOUR =  2.22
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```



```
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
============================================================================
============================================================================
```

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV0534CF.DAT   ]
Page:   1 of    |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|       0.0      2295.7|
19.333 |             |           |
 |   119.00   12603.00| Convex Routing:       Stream #1|    2295.7      2274.4|
19.417 |             |           |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|       0.0        32.4|
16.250 |             |           |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|    2274.4      2278.7|
19.417 |             |           |
 | 12603.00   12603.00| Zero Out:             Stream #2|      32.4         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 12603.00     126.00| Convex Routing:       Stream #1|    2278.7      2269.5|
19.250 |             |           |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|       0.0        54.4|
16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2269.5      2276.0|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      54.4         0.0|
|            |           |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0        11.0|
16.417 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2276.0      2276.8|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      11.0         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    2276.8      2269.9|
19.417 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0       157.9|
16.417 |             |           |
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0        95.2|
16.333 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0         6.7|
16.500 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|     157.9       164.0|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       6.7         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|     164.0       255.1|
16.333 |             |           |
```



```
 |   331.00     331.00| Zero Out:             Stream #3|      95.2         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|    2269.9      2316.9|
19.333 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     255.1         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|    2316.9      2315.7|
19.500 |             |           |
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0        30.7|
16.417 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    2315.7      2318.0|
19.500 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Zero Out:             Stream #2|      30.7         0.0|
|            |           |
 | 50150.00     127.00| Subarea (UH) Added to Stream #2|       0.0        47.0|
16.500 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    2318.0      2325.6|
18.583 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|      47.0         0.0|
|            |           |
 |   127.00     129.00| Convex Routing:       Stream #1|    2325.6      2321.7|
19.667 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 50300.00     129.00| Subarea (UH) Added to Stream #2|       0.0        31.1|
16.500 |             |           |
 |   129.00     129.00| Stream #2 Added to:   Stream #1|    2321.7      2325.3|
19.667 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      31.1         0.0|
|            |           |
 |   210.00     221.00| Subarea (UH) Added to Stream #2|       0.0        44.4|
16.333 |             |           |
 |   221.00     129.00| Stream #2 Added to:   Stream #1|    2325.3      2337.7|
18.333 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   129.00     129.00| Zero Out:             Stream #2|      44.4         0.0|
|            |           |
 |   129.00     133.00| Convex Routing:       Stream #1|    2337.7      2332.7|
18.417 |             |           |
 | 13010.00     132.00| Subarea (UH) Added to Stream #2|       0.0       306.2|
17.000 |             |           |
 |   132.00   13305.00| Convex Routing:       Stream #2|     306.2       298.7|
17.500 |             |           |
 | 13305.00     133.00| Convex Routing:       Stream #2|     298.7       297.2|
17.833 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-------------------------------------------------------------------------------
-------------------------------------+
```

```
 +-------------------------------------------------------------------------------
-----------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV0534CF.DAT   ]
Page:   2 of    |
 +-------------------+-------------------------------+----------------------+-
----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                               | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+-------------------------------+----------------------+-
----------+-------------+-----------+
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0       155.5|
16.750 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     297.2       406.4|
17.667 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|     155.5         0.0|
|            |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|    2332.7      2664.6|
18.417 |             |           |
 |   133.00     133.00| Zero Out:             Stream #2|     406.4         0.0|
|            |           |
 +-------------------+-------------------------------+----------------------+-
----------+-------------+-----------+
 |   133.00     134.00| Convex Routing:       Stream #1|    2664.6      2661.7|
18.583 |             |           |
 |   133.00     134.00| Subarea (UH) Added to Stream #2|       0.0       152.0|
16.417 |             |           |
 |   134.00     134.00| Stream #2 Added to:   Stream #1|    2661.7      2701.6|
18.500 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|     152.0         0.0|
|            |           |
 | 13500.00     134.00| Subarea (UH) Added to Stream #2|       0.0       148.0|
18.083 |             |           |
 +-------------------+-------------------------------+----------------------+-
----------+-------------+-----------+
 |   134.00     134.00| Stream #2 Added to:   Stream #1|    2701.6      2844.6|
18.500 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|     148.0         0.0|
|            |           |
 |   134.00     134.00| View:                 Stream #1|                2844.6|
18.500 |      2625.85|     3     |
 +-------------------+-------------------------------+----------------------+-
----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                          |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                  |
 +-------------------------------------------------------------------------------
-----------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
**************************************************************************

            F L O O D    R O U T I N G    A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                        Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 134U                              *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED                    *
* 5-YR EV AUG 2023 ROKAMOTO                                             *
 **************************************************************************

  FILE NAME: EV0534UF.DAT
  TIME/DATE OF STUDY: 09:50 08/10/2023


                       ** INPUT SUMMARY **


**************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
==========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    3.308 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.24; 30-MINUTE =  0.46;  1-HOUR =  0.65
    3-HOUR =  1.21;    6-HOUR =  1.80; 24-HOUR =  3.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```



```
  CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.203 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.58
    3-HOUR =  0.97;    6-HOUR =  1.33; 24-HOUR =  2.23
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.58
    3-HOUR =  0.97;    6-HOUR =  1.33; 24-HOUR =  2.23
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.58
    3-HOUR =  0.97;    6-HOUR =  1.33; 24-HOUR =  2.23
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```



```
**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.330 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.167; LOW LOSS FRACTION = 0.352
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.58
    3-HOUR =  0.97;    6-HOUR =  1.33; 24-HOUR =  2.23
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.284 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.447
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.58
    3-HOUR =  0.97;    6-HOUR =  1.33; 24-HOUR =  2.23
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.58
    3-HOUR =  0.97;    6-HOUR =  1.33; 24-HOUR =  2.23
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```



```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.370 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.58
    3-HOUR =  0.97;    6-HOUR =  1.33; 24-HOUR =  2.23
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.447 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.58
    3-HOUR =  0.97;    6-HOUR =  1.33; 24-HOUR =  2.23
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
```

```
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936

****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.444 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.470; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.58
    3-HOUR =  0.97;    6-HOUR =  1.33; 24-HOUR =  2.23
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```



```
****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.286 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.213; LOW LOSS FRACTION = 0.446
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.58
    3-HOUR =  0.97;    6-HOUR =  1.33; 24-HOUR =  2.23
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.986 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.406; LOW LOSS FRACTION = 0.789
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.58
    3-HOUR =  0.97;    6-HOUR =  1.33; 24-HOUR =  2.23
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =    9760.05      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    6877.24      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```



```
  *USER ENTERED "LAG" TIME =    0.699 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.375; LOW LOSS FRACTION = 0.691
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.58
    3-HOUR =  0.97;    6-HOUR =  1.33; 24-HOUR =  2.23
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
  CHANNEL LENGTH(FT) =    6461.31      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.390 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.409; LOW LOSS FRACTION = 0.762
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.58
    3-HOUR =  0.97;    6-HOUR =  1.33; 24-HOUR =  2.23
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
============================================================================
============================================================================
```



```
 +----------------------------------------------------------------------------
-----------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV0534UF.DAT   ]
Page:   1 of    |
 +-------------------+--------------------------------+----------------------+-
----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+--------------------------------+----------------------+-
----------+-------------+-----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|       0.0      2364.5|
19.333 |             |           |
 |   119.00   12603.00| Convex Routing:       Stream #1|    2364.5      2340.3|
19.417 |             |           |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|       0.0        33.8|
16.250 |             |           |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|    2340.3      2344.6|
19.417 |             |           |
 | 12603.00   12603.00| Zero Out:             Stream #2|      33.8         0.0|
|            |           |
 +-------------------+--------------------------------+----------------------+-
----------+-------------+-----------+
 | 12603.00     126.00| Convex Routing:       Stream #1|    2344.6      2330.4|
19.250 |             |           |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|       0.0        58.2|
16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2330.4      2337.0|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      58.2         0.0|
|            |           |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0        12.2|
16.417 |             |           |
 +-------------------+--------------------------------+----------------------+-
----------+-------------+-----------+
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2337.0      2337.8|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      12.2         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    2337.8      2332.1|
19.583 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0       163.4|
16.417 |             |           |
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0        98.6|
16.333 |             |           |
 +-------------------+--------------------------------+----------------------+-
----------+-------------+-----------+
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0         7.2|
16.500 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|     163.4       169.9|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       7.2         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|     169.9       263.5|
16.333 |             |           |
```

331.00	331.00	Zero Out:	Stream #3	98.6	0.0	19.417
331.00	12720.50	Stream #2 Added to:	Stream #1	2332.1	2377.9	19.417
12720.50	12720.50	Zero Out:	Stream #2	263.5	0.0	
12720.50	127.00	Convex Routing:	Stream #1	2377.9	2377.2	19.500
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	34.0	16.417
127.00	127.00	Stream #2 Added to:	Stream #1	2377.2	2379.5	19.500
127.00	127.00	Zero Out:	Stream #2	34.0	0.0	
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	51.4	16.500
127.00	127.00	Stream #2 Added to:	Stream #1	2379.5	2385.4	19.500
127.00	127.00	Zero Out:	Stream #2	51.4	0.0	
127.00	129.00	Convex Routing:	Stream #1	2385.4	2383.6	19.667
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	33.8	16.500
129.00	129.00	Stream #2 Added to:	Stream #1	2383.6	2387.2	19.667
129.00	129.00	Zero Out:	Stream #2	33.8	0.0	
210.00	221.00	Subarea (UH) Added to	Stream #2	0.0	46.0	16.333
222.00	129.00	Stream #2 Added to:	Stream #1	2387.2	2394.4	19.667
129.00	129.00	Zero Out:	Stream #2	46.0	0.0	
129.00	133.00	Convex Routing:	Stream #1	2394.4	2392.8	19.750
13010.00	132.00	Subarea (UH) Added to	Stream #2	0.0	320.6	17.000
132.00	13305.00	Convex Routing:	Stream #2	320.6	312.2	17.500
13305.00	133.00	Convex Routing:	Stream #2	312.2	310.4	17.833

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL

3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV0534UF.DAT   ]
Page:   2 of    |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0       162.6|
16.750 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     310.4       421.2|
17.667 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|     162.6         0.0|
|             |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|    2392.8      2709.5|
18.417 |             |           |
 |   133.00     133.00| Zero Out:             Stream #2|     421.2         0.0|
|             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     134.00| Convex Routing:       Stream #1|    2709.5      2706.4|
18.583 |             |           |
 |   133.00     134.00| Subarea (UH) Added to Stream #2|       0.0       160.4|
16.500 |             |           |
 |   134.00     134.00| Stream #2 Added to:   Stream #1|    2706.4      2745.6|
18.500 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|     160.4         0.0|
|             |           |
 |   134.00     134.00| View:                 Stream #1|                2745.6|
18.500 |      2548.15|     3     |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                          |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-------------------------------------------------------------------------------
-------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
 ************************************************************************

            F L O O D    R O U T I N G    A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                        Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 127                               *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL              *
* 2-YR EV AUG 2023 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV02127F.DAT
  TIME/DATE OF STUDY: 10:33 08/10/2023


                       ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    5.382 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.17; 30-MINUTE =  0.32;  1-HOUR =  0.44
    3-HOUR =  0.82;    6-HOUR =  1.23; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```



```
  CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.220 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.292 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.430 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================
```



```
****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.360 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.201; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.315 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.270; LOW LOSS FRACTION = 0.508
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
============================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.578 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.566; LOW LOSS FRACTION = 0.925
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```



```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.472 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.586; LOW LOSS FRACTION = 0.976
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.589 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.589; LOW LOSS FRACTION = 0.962
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.30;  1-HOUR =  0.40
    3-HOUR =  0.66;    6-HOUR =  0.91; 24-HOUR =  1.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
```

3-HOUR = 0.773; 6-HOUR = 0.898; 24-HOUR = 0.941

```
**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =  11
--------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
==========================================================================
==========================================================================
```



```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                      * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV02127F.DAT   ]
Page:   1 of    |
 +-------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|       0.0       574.3|
20.417 |             |           |
 |   119.00   12603.00| Convex Routing:       Stream #1|     574.3       571.0|
20.500 |             |           |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|       0.0        18.2|
16.250 |             |           |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|     571.0       573.3|
20.500 |             |           |
 | 12603.00   12603.00| Zero Out:             Stream #2|      18.2         0.0|
|            |           |
 +-------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 12603.00     126.00| Convex Routing:       Stream #1|     573.3       571.0|
20.583 |             |           |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|       0.0        19.8|
16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     571.0       573.8|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      19.8         0.0|
|            |           |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         1.7|
16.500 |             |           |
 +-------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     573.8       574.1|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       1.7         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|     574.1       572.8|
20.750 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0       104.7|
16.417 |             |           |
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0        57.7|
16.333 |             |           |
 +-------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0         1.8|
16.667 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|     104.7       106.3|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       1.8         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|     106.3       163.9|
16.417 |             |           |
```

```
 |   331.00     331.00| Zero Out:             Stream #3|      57.7         0.0|
|             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|     572.8       596.5|
20.750 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     163.9         0.0|
|             |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|     596.5       595.4|
20.917 |             |           |
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0         3.7|
16.500 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     595.4       596.0|
20.917 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Zero Out:             Stream #2|       3.7         0.0|
|             |           |
 | 50150.00     127.00| Subarea (UH) Added to Stream #2|       0.0         8.3|
16.667 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     596.0       597.5|
20.917 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       8.3         0.0|
|             |           |
 |   127.00     127.00| View:                 Stream #1|                 597.5|
20.917 |       695.77|     3     |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-----------------------------------------------------------------------------
-----------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
******************************************************************************

             F L O O D    R O U T I N G    A N A L Y S I S
             USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                          Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 137                                *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL               *
* 2-YR EV AUG 2023 ROKAMOTO                                              *
 ************************************************************************

  FILE NAME: EV02137F.DAT
  TIME/DATE OF STUDY: 10:30 08/10/2023


                        ** INPUT SUMMARY **


******************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
==============================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    5.382 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.17; 30-MINUTE =  0.31;  1-HOUR =  0.43
    3-HOUR =  0.80;    6-HOUR =  1.20; 24-HOUR =  2.11
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


******************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```



```
  CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.220 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


******************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.292 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.430 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================
```



```
****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.360 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.201; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.315 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.270; LOW LOSS FRACTION = 0.508
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
============================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.578 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.566; LOW LOSS FRACTION = 0.925
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```



```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.472 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.586; LOW LOSS FRACTION = 0.976
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.589 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.589; LOW LOSS FRACTION = 0.962
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
```

```
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933

****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.622 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.564; LOW LOSS FRACTION = 0.940
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```



```
****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.309 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.256; LOW LOSS FRACTION = 0.498
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.15;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.262 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.487; LOW LOSS FRACTION = 0.830
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =    9760.05      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    6877.24      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```



```
  *USER ENTERED "LAG" TIME =    0.948 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.449; LOW LOSS FRACTION = 0.752
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
  CHANNEL LENGTH(FT) =    6461.31      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.490; LOW LOSS FRACTION = 0.819
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.991 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.567; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```



```
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     170.00; DOWNSTREAM ELEVATION(FT) =     135.00
  CHANNEL LENGTH(FT) =    6064.09      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.539 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.474; LOW LOSS FRACTION = 0.780
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =  11
--------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS		UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO MAX. STORAGE PEAK (HR)	MODELED (AF)	FOOTNOTES
10100.00	119.00	Subarea (UH) Added to Stream #1		0.0	524.4	20.417		
119.00	12603.00	Convex Routing:	Stream #1	524.4	523.2	20.500		
810.00	809.00	Subarea (UH) Added to Stream #2		0.0	15.8	16.250		
12603.00	12603.00	Stream #2 Added to:	Stream #1	523.2	525.4	20.500		
12603.00	12603.00	Zero Out:	Stream #2	15.8	0.0			
12603.00	126.00	Convex Routing:	Stream #1	525.4	524.6	20.583		
920.00	905.00	Subarea (UH) Added to Stream #2		0.0	17.5	16.333		
126.00	126.00	Stream #2 Added to:	Stream #1	524.6	527.4	20.583		
126.00	126.00	Zero Out:	Stream #2	17.5	0.0			
600.00	126.00	Subarea (UH) Added to Stream #2		0.0	1.5	16.500		
126.00	126.00	Stream #2 Added to:	Stream #1	527.4	527.6	20.583		
126.00	126.00	Zero Out:	Stream #2	1.5	0.0			
126.00	12720.50	Convex Routing:	Stream #1	527.6	527.0	20.750		
320.00	331.00	Subarea (UH) Added to Stream #2		0.0	89.1	16.417		
400.00	331.00	Subarea (UH) Added to Stream #3		0.0	50.0	16.333		
390.00	331.00	Subarea (UH) Added to Stream #4		0.0	1.6	16.667		
331.00	331.00	Stream #4 Added to:	Stream #2	89.1	90.5	16.417		
331.00	331.00	Zero Out:	Stream #4	1.6	0.0			
331.00	331.00	Stream #3 Added to:	Stream #2	90.5	140.3	16.417		

```
 |   331.00     331.00| Zero Out:             Stream #3|      50.0         0.0|
|             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|     527.0       550.2|
20.750 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     140.3         0.0|
|             |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|     550.2       550.0|
20.833 |             |           |
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0         3.3|
16.500 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     550.0       550.6|
20.833 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Zero Out:             Stream #2|       3.3         0.0|
|             |           |
 | 50150.00     127.00| Subarea (UH) Added to Stream #2|       0.0         7.4|
16.667 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     550.6       552.1|
20.833 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       7.4         0.0|
|             |           |
 |   127.00     129.00| Convex Routing:       Stream #1|     552.1       551.9|
21.000 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 | 50300.00     129.00| Subarea (UH) Added to Stream #2|       0.0         6.8|
16.667 |             |           |
 |   129.00     129.00| Stream #2 Added to:   Stream #1|     551.9       553.2|
21.000 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|       6.8         0.0|
|             |           |
 |   210.00     221.00| Subarea (UH) Added to Stream #2|       0.0        20.2|
15.750 |             |           |
 |   222.00     129.00| Stream #2 Added to:   Stream #1|     553.2       556.9|
21.000 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   129.00     129.00| Zero Out:             Stream #2|      20.2         0.0|
|             |           |
 |   129.00     133.00| Convex Routing:       Stream #1|     556.9       556.7|
21.083 |             |           |
 | 13010.00     132.00| Subarea (UH) Added to Stream #2|       0.0       135.1|
17.333 |             |           |
 |   132.00   13305.00| Convex Routing:       Stream #2|     135.1       133.7|
17.917 |             |           |
 | 13305.00     133.00| Convex Routing:       Stream #2|     133.7       133.2|
18.250 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-----------------------------------------------------------------------------
-------------------------------------+
```

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV02137F.DAT   ]
Page:   2 of    |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0        71.6|
17.000 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     133.2       194.5|
17.167 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|      71.6         0.0|
|             |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|     556.7       702.3|
17.750 |             |           |
 |   133.00     133.00| Zero Out:             Stream #2|     194.5         0.0|
|             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     134.00| Convex Routing:       Stream #1|     702.3       701.7|
18.000 |             |           |
 |   133.00     134.00| Subarea (UH) Added to Stream #2|       0.0        60.6|
16.500 |             |           |
 |   134.00     134.00| Stream #2 Added to:   Stream #1|     701.7       737.3|
17.250 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      60.6         0.0|
|             |           |
 | 13500.00     134.00| Subarea (UH) Added to Stream #2|       0.0        49.5|
18.000 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   134.00     134.00| Stream #2 Added to:   Stream #1|     737.3       783.8|
18.000 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      49.5         0.0|
|             |           |
 |   134.00     137.00| Convex Routing:       Stream #1|     783.8       783.5|
18.167 |             |           |
 |   134.00     137.00| Subarea (UH) Added to Stream #2|       0.0        50.7|
16.583 |             |           |
 |   137.00     137.00| Stream #2 Added to:   Stream #1|     783.5       819.9|
17.500 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   137.00     137.00| Zero Out:             Stream #2|      50.7         0.0|
|             |           |
 |   137.00     137.00| View:                 Stream #1|                  819.9|
17.500 |       933.22|     3     |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
```



```
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-------------------------------------------------------------------------------
-------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
 ************************************************************************

              F L O O D    R O U T I N G    A N A L Y S I S
              USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
          (c) Copyright 1989-2010 Advanced Engineering Software (aes)
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                          Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 138                                 *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL                *
* 2-YR EV AUG 2023 ROKAMOTO                                               *
 ************************************************************************

  FILE NAME: EV02138F.DAT
  TIME/DATE OF STUDY: 10:28 08/10/2023


                        ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    5.382 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.17; 30-MINUTE =  0.31;  1-HOUR =  0.42
    3-HOUR =  0.79;    6-HOUR =  1.18; 24-HOUR =  2.09
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```



```
  CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.220 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.292 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.430 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```



```
********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.360 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.201; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.315 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.270; LOW LOSS FRACTION = 0.508
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.578 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.566; LOW LOSS FRACTION = 0.925
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```



```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.472 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.586; LOW LOSS FRACTION = 0.976
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.589 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.589; LOW LOSS FRACTION = 0.962
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
```

```
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932

****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.622 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.564; LOW LOSS FRACTION = 0.940
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```



```
****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.309 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.256; LOW LOSS FRACTION = 0.498
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.262 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.487; LOW LOSS FRACTION = 0.830
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =    9760.05      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    6877.24      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```



```
  *USER ENTERED "LAG" TIME =    0.948 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.449; LOW LOSS FRACTION = 0.752
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
  CHANNEL LENGTH(FT) =    6461.31      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.490; LOW LOSS FRACTION = 0.819
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.14; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.50
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.991 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.567; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```



```
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     170.00; DOWNSTREAM ELEVATION(FT) =     135.00
  CHANNEL LENGTH(FT) =    6064.09      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.539 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.474; LOW LOSS FRACTION = 0.780
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
```

```
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     135.00; DOWNSTREAM ELEVATION(FT) =     119.70
  CHANNEL LENGTH(FT) =    4643.67      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================

********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    1303.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.924 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.534; LOW LOSS FRACTION = 0.861
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.88; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =  11
--------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```



```
 +--------------------------------------------------------------------------------
-----------------------------------+
 |                                      * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV02138F.DAT   ]
Page:   1 of    |
 +-------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|       0.0       518.5|
20.417 |             |           |
 |   119.00   12603.00| Convex Routing:       Stream #1|     518.5       517.4|
20.500 |             |           |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|       0.0        15.3|
16.250 |             |           |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|     517.4       519.5|
20.500 |             |           |
 | 12603.00   12603.00| Zero Out:             Stream #2|      15.3         0.0|
|            |           |
 +-------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 12603.00     126.00| Convex Routing:       Stream #1|     519.5       518.7|
20.583 |             |           |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|       0.0        17.1|
16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     518.7       521.4|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      17.1         0.0|
|            |           |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         1.5|
16.500 |             |           |
 +-------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     521.4       521.7|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       1.5         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|     521.7       521.0|
20.750 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0        88.5|
16.417 |             |           |
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0        49.6|
16.333 |             |           |
 +-------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0         1.6|
16.667 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|      88.5        89.9|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       1.6         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|      89.9       139.3|
16.417 |             |           |
```

331.00	331.00	Zero Out:	Stream #3	49.6	0.0	
331.00	12720.50	Stream #2 Added to:	Stream #1	521.0	544.3	20.750
12720.50	12720.50	Zero Out:	Stream #2	139.3	0.0	
12720.50	127.00	Convex Routing:	Stream #1	544.3	544.1	20.833
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	3.3	16.500
127.00	127.00	Stream #2 Added to:	Stream #1	544.1	544.7	20.833
127.00	127.00	Zero Out:	Stream #2	3.3	0.0	
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	7.3	16.667
127.00	127.00	Stream #2 Added to:	Stream #1	544.7	546.1	20.833
127.00	127.00	Zero Out:	Stream #2	7.3	0.0	
127.00	129.00	Convex Routing:	Stream #1	546.1	545.9	21.000
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	6.8	16.667
129.00	129.00	Stream #2 Added to:	Stream #1	545.9	547.3	21.000
129.00	129.00	Zero Out:	Stream #2	6.8	0.0	
210.00	221.00	Subarea (UH) Added to	Stream #2	0.0	23.7	16.333
222.00	129.00	Stream #2 Added to:	Stream #1	547.3	551.0	21.000
129.00	129.00	Zero Out:	Stream #2	23.7	0.0	
129.00	133.00	Convex Routing:	Stream #1	551.0	550.8	21.083
13010.00	132.00	Subarea (UH) Added to	Stream #2	0.0	134.5	17.333
132.00	13305.00	Convex Routing:	Stream #2	134.5	133.1	17.917
13305.00	133.00	Convex Routing:	Stream #2	133.1	132.5	18.250

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL

3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV02138F.DAT   ]
Page:   2 of    |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0        71.2|
17.000 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     132.5       193.6|
17.167 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|      71.2         0.0|
|            |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|     550.8       697.6|
17.750 |             |           |
 |   133.00     133.00| Zero Out:             Stream #2|     193.6         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     134.00| Convex Routing:       Stream #1|     697.6       697.0|
18.000 |             |           |
 |   133.00     134.00| Subarea (UH) Added to Stream #2|       0.0        60.2|
16.500 |             |           |
 |   134.00     134.00| Stream #2 Added to:   Stream #1|     697.0       731.4|
17.250 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      60.2         0.0|
|            |           |
 | 13500.00     134.00| Subarea (UH) Added to Stream #2|       0.0        49.3|
18.000 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   134.00     134.00| Stream #2 Added to:   Stream #1|     731.4       779.0|
18.000 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      49.3         0.0|
|            |           |
 |   134.00     137.00| Convex Routing:       Stream #1|     779.0       778.7|
18.167 |             |           |
 |   134.00     137.00| Subarea (UH) Added to Stream #2|       0.0        50.0|
16.583 |             |           |
 |   137.00     137.00| Stream #2 Added to:   Stream #1|     778.7       813.9|
17.500 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   137.00     137.00| Zero Out:             Stream #2|      50.0         0.0|
|            |           |
 |   137.00     138.00| Convex Routing:       Stream #1|     813.9       811.7|
17.750 |             |           |
 |   137.00     138.00| Subarea (UH) Added to Stream #2|       0.0        30.3|
17.000 |             |           |
 |   138.00     138.00| Stream #2 Added to:   Stream #1|     811.7       838.3|
17.750 |             |           |
```



```
 |   138.00     138.00| Zero Out:             Stream #2|      30.3         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   138.00     138.00| View:                 Stream #1|                838.3|
17.750 |       945.62|     3     |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-------------------------------------------------------------------------------
-------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
******************************************************************************

             F L O O D    R O U T I N G    A N A L Y S I S
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                          Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 139                                *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL               *
* 2-YR EV AUG 2023 ROKAMOTO                                              *
 ************************************************************************

  FILE NAME: EV02139F.DAT
  TIME/DATE OF STUDY: 10:27 08/10/2023


                        ** INPUT SUMMARY **


******************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
==============================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    5.382 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.16; 30-MINUTE =  0.31;  1-HOUR =  0.42
    3-HOUR =  0.79;    6-HOUR =  1.18; 24-HOUR =  2.08
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


******************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```



```
  CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.220 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


******************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.292 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.430 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```



```
********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.360 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.201; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.315 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.270; LOW LOSS FRACTION = 0.508
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.578 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.566; LOW LOSS FRACTION = 0.925
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```



```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.472 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.586; LOW LOSS FRACTION = 0.976
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.589 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.589; LOW LOSS FRACTION = 0.962
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
```

```
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932

****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.622 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.564; LOW LOSS FRACTION = 0.940
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```



```
****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.309 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.256; LOW LOSS FRACTION = 0.498
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.262 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.487; LOW LOSS FRACTION = 0.830
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =    9760.05      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    6877.24      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```



```
  *USER ENTERED "LAG" TIME =    0.948 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.449; LOW LOSS FRACTION = 0.752
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
  CHANNEL LENGTH(FT) =    6461.31      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.490; LOW LOSS FRACTION = 0.819
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.991 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.567; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```



```
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     170.00; DOWNSTREAM ELEVATION(FT) =     135.00
  CHANNEL LENGTH(FT) =    6064.09      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.539 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.474; LOW LOSS FRACTION = 0.780
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
```

```
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     135.00; DOWNSTREAM ELEVATION(FT) =     119.70
  CHANNEL LENGTH(FT) =    4643.67      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    1303.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.924 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.534; LOW LOSS FRACTION = 0.861
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     119.70; DOWNSTREAM ELEVATION(FT) =     100.00
  CHANNEL LENGTH(FT) =    3107.78      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
```



```
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     428.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.289 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.413; LOW LOSS FRACTION = 0.670
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.29;  1-HOUR =  0.38
    3-HOUR =  0.64;    6-HOUR =  0.87; 24-HOUR =  1.48
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =  11
--------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV02139F.DAT   ]
Page:   1 of    |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|       0.0       515.7|
20.417 |             |           |
 |   119.00   12603.00| Convex Routing:       Stream #1|     515.7       514.5|
20.500 |             |           |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|       0.0        15.3|
16.250 |             |           |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|     514.5       516.7|
20.500 |             |           |
 | 12603.00   12603.00| Zero Out:             Stream #2|      15.3         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 12603.00     126.00| Convex Routing:       Stream #1|     516.7       516.0|
20.583 |             |           |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|       0.0        17.1|
16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     516.0       518.7|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      17.1         0.0|
|            |           |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         1.4|
16.500 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     518.7       518.9|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       1.4         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|     518.9       518.3|
20.750 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0        87.0|
16.417 |             |           |
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0        48.9|
16.333 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0         1.6|
16.667 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|      87.0        88.4|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       1.6         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|      88.4       136.7|
16.417 |             |           |
```



```
 |   331.00     331.00| Zero Out:             Stream #3|      48.9         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|     518.3       541.2|
20.750 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     136.7         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|     541.2       541.0|
20.833 |             |           |
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0         3.2|
16.500 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     541.0       541.6|
20.833 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Zero Out:             Stream #2|       3.2         0.0|
|            |           |
 | 50150.00     127.00| Subarea (UH) Added to Stream #2|       0.0         7.3|
16.667 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     541.6       543.0|
20.833 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       7.3         0.0|
|            |           |
 |   127.00     129.00| Convex Routing:       Stream #1|     543.0       542.9|
21.000 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 50300.00     129.00| Subarea (UH) Added to Stream #2|       0.0         6.7|
16.667 |             |           |
 |   129.00     129.00| Stream #2 Added to:   Stream #1|     542.9       544.2|
21.000 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|       6.7         0.0|
|            |           |
 |   210.00     221.00| Subarea (UH) Added to Stream #2|       0.0        23.3|
16.333 |             |           |
 |   222.00     129.00| Stream #2 Added to:   Stream #1|     544.2       547.8|
21.000 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   129.00     129.00| Zero Out:             Stream #2|      23.3         0.0|
|            |           |
 |   129.00     133.00| Convex Routing:       Stream #1|     547.8       547.6|
21.083 |             |           |
 | 13010.00     132.00| Subarea (UH) Added to Stream #2|       0.0       133.9|
17.333 |             |           |
 |   132.00   13305.00| Convex Routing:       Stream #2|     133.9       132.5|
17.917 |             |           |
 | 13305.00     133.00| Convex Routing:       Stream #2|     132.5       132.0|
18.250 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-------------------------------------------------------------------------------
-------------------------------------+
```

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
132.00	133.00	Subarea (UH) Added to Stream #3	0.0	70.8	17.000		
133.00	133.00	Stream #3 Added to: Stream #2	132.0	193.1	17.167		
133.00	133.00	Zero Out: Stream #3	70.8	0.0			
133.00	133.00	Stream #2 Added to: Stream #1	547.6	694.5	17.667		
133.00	133.00	Zero Out: Stream #2	193.1	0.0			
133.00	134.00	Convex Routing: Stream #1	694.5	693.9	17.917		
133.00	134.00	Subarea (UH) Added to Stream #2	0.0	59.5	16.500		
134.00	134.00	Stream #2 Added to: Stream #1	693.9	727.9	17.250		
134.00	134.00	Zero Out: Stream #2	59.5	0.0			
13500.00	134.00	Subarea (UH) Added to Stream #2	0.0	49.0	18.000		
134.00	134.00	Stream #2 Added to: Stream #1	727.9	774.9	17.917		
134.00	134.00	Zero Out: Stream #2	49.0	0.0			
134.00	137.00	Convex Routing: Stream #1	774.9	774.5	18.167		
134.00	137.00	Subarea (UH) Added to Stream #2	0.0	49.9	16.583		
137.00	137.00	Stream #2 Added to: Stream #1	774.5	809.9	17.500		
137.00	137.00	Zero Out: Stream #2	49.9	0.0			
137.00	138.00	Convex Routing: Stream #1	809.9	807.8	17.750		
137.00	138.00	Subarea (UH) Added to Stream #2	0.0	30.2	17.000		
138.00	138.00	Stream #2 Added to: Stream #1	807.8	834.1	17.750		

```
 |   138.00     138.00| Zero Out:             Stream #2|      30.2         0.0|
|             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   138.00     139.00| Convex Routing:       Stream #1|     834.1       833.5|
17.833 |             |           |
 |   138.00     139.00| Subarea (UH) Added to Stream #2|       0.0        31.7|
16.333 |             |           |
 |   139.00     139.00| Stream #2 Added to:   Stream #1|     833.5       847.8|
17.833 |             |           |
 |   139.00     139.00| Zero Out:             Stream #2|      31.7         0.0|
|             |           |
 |   139.00     139.00| View:                 Stream #1|                 847.8|
17.833 |       956.40|     3     |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                              |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                      |
 +-------------------------------------------------------------------------------
-------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
 ************************************************************************

              F L O O D    R O U T I N G    A N A L Y S I S
              USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
          (c) Copyright 1989-2013 Advanced Engineering Software (aes)
              Ver. 20.0  Release Date: 06/01/2013  License ID 1237

                           Analysis prepared by:




  ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 127                                *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED                     *
MODEL                 *
 * 5-YR EV MAY 2023 ROKAMOTO                                             *
  ************************************************************************

   FILE NAME: EV05127F.DAT
   TIME/DATE OF STUDY: 09:58 05/15/2023


                         ** INPUT SUMMARY **


 ************************************************************************
   FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
 ------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 ========================================================================
   WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    3.308 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.24; 30-MINUTE =  0.45;  1-HOUR =  0.63
     3-HOUR =  1.18;    6-HOUR =  1.75; 24-HOUR =  3.09
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
     3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


 ************************************************************************
   FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
 ------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
```



```
   UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
   CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
 ------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ========================================================================
   WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.203 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
     3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
     3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


 ************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 ------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 ------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
 ------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
   CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
 ------------------------------------------------------------------------
```

```
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```



```
********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.330 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.167; LOW LOSS FRACTION = 0.352
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


********************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.284 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.447
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


********************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================================
```

```
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
```



```
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.370 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.447 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
```

```
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
============================================================================
============================================================================
```



```
 +----------------------------------------------------------------------------
-------------------------------------+
 |                                      * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV05127F.DAT   ]
Page:   1 of    |
 +-------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|       0.0      2435.3|
19.333 |             |           |
 |   119.00   12603.00| Convex Routing:       Stream #1|    2435.3      2406.1|
19.417 |             |           |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|       0.0        35.6|
16.250 |             |           |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|    2406.1      2410.2|
19.417 |             |           |
 | 12603.00   12603.00| Zero Out:             Stream #2|      35.6         0.0|
|            |           |
 +-------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 12603.00     126.00| Convex Routing:       Stream #1|    2410.2      2387.7|
19.500 |             |           |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|       0.0        62.2|
16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2387.7      2393.8|
19.500 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      62.2         0.0|
|            |           |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0        13.3|
16.417 |             |           |
 +-------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2393.8      2394.5|
19.500 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      13.3         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    2394.5      2392.7|
19.583 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0       169.1|
16.417 |             |           |
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0       102.8|
16.333 |             |           |
 +-------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0         7.6|
16.500 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|     169.1       176.0|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       7.6         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|     176.0       274.4|
16.333 |             |           |
```

```
 |   331.00     331.00| Zero Out:             Stream #3|     102.8         0.0|
|             |           |
 +------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|    2392.7      2436.8|
19.583 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     274.4         0.0|
|             |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|    2436.8      2433.2|
19.583 |             |           |
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0        37.1|
16.417 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    2433.2      2435.4|
19.583 |             |           |
 +------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Zero Out:             Stream #2|      37.1         0.0|
|             |           |
 | 50150.00     127.00| Subarea (UH) Added to Stream #2|       0.0        55.6|
16.500 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    2435.4      2440.9|
19.583 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|      55.6         0.0|
|             |           |
 |   127.00     127.00| View:                 Stream #1|                2440.9|
19.583 |      2144.46|     3     |
 +------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 +------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                          |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                  |
 +-------------------------------------------------------------------------------
-----------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
**************************************************************************

            F L O O D   R O U T I N G   A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                        Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 137                                *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED                     *
* 5-YR EV AUG 2023 ROKAMOTO                                              *
 **************************************************************************

  FILE NAME: EV05137F.DAT
  TIME/DATE OF STUDY: 09:48 08/10/2023


                       ** INPUT SUMMARY **


**************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
==========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    3.308 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.24; 30-MINUTE =  0.46;  1-HOUR =  0.64
    3-HOUR =  1.20;    6-HOUR =  1.77; 24-HOUR =  3.13
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


**************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```



```
  CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.203 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


**************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```



```
**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.330 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.167; LOW LOSS FRACTION = 0.352
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


**********************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.284 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.447
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


**********************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```



```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.370 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.447 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
```

```
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933

****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.444 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.470; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```



```
****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.286 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.213; LOW LOSS FRACTION = 0.446
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.986 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.406; LOW LOSS FRACTION = 0.789
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =    9760.05      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    6877.24      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```



```
  *USER ENTERED "LAG" TIME =    0.699 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.375; LOW LOSS FRACTION = 0.691
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
  CHANNEL LENGTH(FT) =    6461.31      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.390 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.409; LOW LOSS FRACTION = 0.762
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.180 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.473; LOW LOSS FRACTION = 0.843
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```



```
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     170.00; DOWNSTREAM ELEVATION(FT) =     135.00
  CHANNEL LENGTH(FT) =    6064.09      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.439 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.395; LOW LOSS FRACTION = 0.714
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =  11
--------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS		UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
10100.00	119.00	Subarea (UH) Added to Stream #1		0.0	2264.9	19.333		
119.00	12603.00	Convex Routing:	Stream #1	2264.9	2244.5	19.417		
810.00	809.00	Subarea (UH) Added to Stream #2		0.0	31.7	16.250		
12603.00	12603.00	Stream #2 Added to:	Stream #1	2244.5	2248.7	19.417		
12603.00	12603.00	Zero Out:	Stream #2	31.7	0.0			
12603.00	126.00	Convex Routing:	Stream #1	2248.7	2242.0	19.250		
920.00	905.00	Subarea (UH) Added to Stream #2		0.0	52.9	16.333		
126.00	126.00	Stream #2 Added to:	Stream #1	2242.0	2248.4	19.250		
126.00	126.00	Zero Out:	Stream #2	52.9	0.0			
600.00	126.00	Subarea (UH) Added to Stream #2		0.0	10.7	16.417		
126.00	126.00	Stream #2 Added to:	Stream #1	2248.4	2249.2	19.250		
126.00	126.00	Zero Out:	Stream #2	10.7	0.0			
126.00	12720.50	Convex Routing:	Stream #1	2249.2	2242.2	19.333		
320.00	331.00	Subarea (UH) Added to Stream #2		0.0	155.1	16.417		
400.00	331.00	Subarea (UH) Added to Stream #3		0.0	93.2	16.333		
390.00	331.00	Subarea (UH) Added to Stream #4		0.0	6.5	16.500		
331.00	331.00	Stream #4 Added to:	Stream #2	155.1	161.0	16.417		
331.00	331.00	Zero Out:	Stream #4	6.5	0.0			
331.00	331.00	Stream #3 Added to:	Stream #2	161.0	249.5	16.333		

331.00	331.00	Zero Out:	Stream #3	93.2	0.0	18.500
331.00	12720.50	Stream #2 Added to:	Stream #1	2242.2	2290.9	18.500
12720.50	12720.50	Zero Out:	Stream #2	249.5	0.0	18.500
12720.50	127.00	Convex Routing:	Stream #1	2290.9	2287.8	18.583
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	29.7	16.417
127.00	127.00	Stream #2 Added to:	Stream #1	2287.8	2291.1	18.583
127.00	127.00	Zero Out:	Stream #2	29.7	0.0	18.583
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	45.5	16.500
127.00	127.00	Stream #2 Added to:	Stream #1	2291.1	2300.1	18.583
127.00	127.00	Zero Out:	Stream #2	45.5	0.0	18.583
127.00	129.00	Convex Routing:	Stream #1	2300.1	2292.9	19.667
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	30.2	16.500
129.00	129.00	Stream #2 Added to:	Stream #1	2292.9	2297.9	18.333
129.00	129.00	Zero Out:	Stream #2	30.2	0.0	18.333
210.00	221.00	Subarea (UH) Added to	Stream #2	0.0	43.5	16.333
222.00	129.00	Stream #2 Added to:	Stream #1	2297.9	2311.1	18.333
129.00	129.00	Zero Out:	Stream #2	43.5	0.0	18.333
129.00	133.00	Convex Routing:	Stream #1	2311.1	2306.1	18.417
13010.00	132.00	Subarea (UH) Added to	Stream #2	0.0	300.6	17.000
132.00	13305.00	Convex Routing:	Stream #2	300.6	293.3	17.583
13305.00	133.00	Convex Routing:	Stream #2	293.3	291.9	17.833

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL

3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV05137F.DAT   ]
Page:   2 of    |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0       152.6|
16.750 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     291.9       399.0|
17.667 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|     152.6         0.0|
|             |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|    2306.1      2632.6|
18.417 |             |           |
 |   133.00     133.00| Zero Out:             Stream #2|     399.0         0.0|
|             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     134.00| Convex Routing:       Stream #1|    2632.6      2629.8|
18.583 |             |           |
 |   133.00     134.00| Subarea (UH) Added to Stream #2|       0.0       148.2|
16.417 |             |           |
 |   134.00     134.00| Stream #2 Added to:   Stream #1|    2629.8      2668.5|
18.500 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|     148.2         0.0|
|             |           |
 | 13500.00     134.00| Subarea (UH) Added to Stream #2|       0.0       145.3|
18.083 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   134.00     134.00| Stream #2 Added to:   Stream #1|    2668.5      2809.0|
18.583 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|     145.3         0.0|
|             |           |
 |   134.00     137.00| Convex Routing:       Stream #1|    2809.0      2807.6|
18.667 |             |           |
 |   134.00     137.00| Subarea (UH) Added to Stream #2|       0.0       118.0|
16.500 |             |           |
 |   137.00     137.00| Stream #2 Added to:   Stream #1|    2807.6      2848.0|
18.417 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   137.00     137.00| Zero Out:             Stream #2|     118.0         0.0|
|             |           |
 |   137.00     137.00| View:                 Stream #1|                2848.0|
18.417 |      2657.19|     3     |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                              |
```



```
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                      |
 +-------------------------------------------------------------------------------
-------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
 ************************************************************************

              F L O O D    R O U T I N G    A N A L Y S I S
              USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
          (c) Copyright 1989-2010 Advanced Engineering Software (aes)
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                           Analysis prepared by:




  ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 138                              *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED                   *
*
 * 5-YR EV AUG 2023 ROKAMOTO                                            *
  ************************************************************************

   FILE NAME: EV05138F.DAT
   TIME/DATE OF STUDY: 09:47 08/10/2023


                         ** INPUT SUMMARY **


 ************************************************************************
   FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
 ------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 ========================================================================
   WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    3.308 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.24; 30-MINUTE =  0.45;  1-HOUR =  0.64
     3-HOUR =  1.19;    6-HOUR =  1.77; 24-HOUR =  3.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
     3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


 ************************************************************************
   FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
 ------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
```



```
   UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
   CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
 ------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ========================================================================
   WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.203 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
     3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
     3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


 ************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 ------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 ------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
 ------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
   CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
 ------------------------------------------------------------------------
```

```
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```



```
********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.330 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.167; LOW LOSS FRACTION = 0.352
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.284 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.447
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================================
```

```
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
```



```
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.370 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.447 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
```

```
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.444 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.470; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```



```


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.286 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.213; LOW LOSS FRACTION = 0.446
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================
```

```
****************************************************************************
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.986 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.406; LOW LOSS FRACTION = 0.789
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =    9760.05      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    6877.24      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
```



```
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.699 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.375; LOW LOSS FRACTION = 0.691
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
  CHANNEL LENGTH(FT) =    6461.31      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.390 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.409; LOW LOSS FRACTION = 0.762
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.180 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.473; LOW LOSS FRACTION = 0.843
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
----------------------------------------------------------------------------
```



```
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     170.00; DOWNSTREAM ELEVATION(FT) =     135.00
  CHANNEL LENGTH(FT) =    6064.09      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.439 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.395; LOW LOSS FRACTION = 0.714
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```

```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     135.00; DOWNSTREAM ELEVATION(FT) =     119.70
  CHANNEL LENGTH(FT) =    4643.67      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =    1303.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.607 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.445; LOW LOSS FRACTION = 0.797
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.42;  1-HOUR =  0.57
    3-HOUR =  0.95;    6-HOUR =  1.31; 24-HOUR =  2.19
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =  11
------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
==============================================================================
==============================================================================
```



```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                      * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV05138F.DAT   ]
Page:   1 of    |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|       0.0      2244.4|
19.333 |             |           |
 |   119.00   12603.00| Convex Routing:       Stream #1|    2244.4      2224.4|
19.417 |             |           |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|       0.0        31.2|
16.250 |             |           |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|    2224.4      2228.6|
19.417 |             |           |
 | 12603.00   12603.00| Zero Out:             Stream #2|      31.2         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 12603.00     126.00| Convex Routing:       Stream #1|    2228.6      2220.8|
19.250 |             |           |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|       0.0        51.7|
16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2220.8      2227.2|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      51.7         0.0|
|            |           |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0        10.3|
16.417 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2227.2      2228.0|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      10.3         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    2228.0      2221.3|
19.333 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0       153.7|
16.417 |             |           |
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0        92.2|
16.333 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0         6.3|
16.500 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|     153.7       159.5|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       6.3         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|     159.5       247.2|
16.333 |             |           |
```

331.00	331.00	Zero Out:	Stream #3	92.2	0.0	18.500
331.00	12720.50	Stream #2 Added to:	Stream #1	2221.3	2271.9	18.500
12720.50	12720.50	Zero Out:	Stream #2	247.2	0.0	18.500
12720.50	127.00	Convex Routing:	Stream #1	2271.9	2269.1	18.583
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	28.6	16.417
127.00	127.00	Stream #2 Added to:	Stream #1	2269.1	2272.3	18.583
127.00	127.00	Zero Out:	Stream #2	28.6	0.0	18.583
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	44.2	16.500
127.00	127.00	Stream #2 Added to:	Stream #1	2272.3	2281.3	18.583
127.00	127.00	Zero Out:	Stream #2	44.2	0.0	18.583
127.00	129.00	Convex Routing:	Stream #1	2281.3	2274.6	18.667
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	29.4	16.500
129.00	129.00	Stream #2 Added to:	Stream #1	2274.6	2282.3	18.333
129.00	129.00	Zero Out:	Stream #2	29.4	0.0	18.333
210.00	221.00	Subarea (UH) Added to	Stream #2	0.0	43.1	16.333
222.00	129.00	Stream #2 Added to:	Stream #1	2282.3	2295.5	18.333
129.00	129.00	Zero Out:	Stream #2	43.1	0.0	18.333
129.00	133.00	Convex Routing:	Stream #1	2295.5	2290.7	18.417
13010.00	132.00	Subarea (UH) Added to	Stream #2	0.0	297.0	17.000
132.00	13305.00	Convex Routing:	Stream #2	297.0	289.9	17.583
13305.00	133.00	Convex Routing:	Stream #2	289.9	288.5	17.833

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL

3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV05138F.DAT   ]
Page:   2 of    |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0       150.9|
16.750 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     288.5       395.4|
17.667 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|     150.9         0.0|
|            |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|    2290.7      2615.8|
18.417 |             |           |
 |   133.00     133.00| Zero Out:             Stream #2|     395.4         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     134.00| Convex Routing:       Stream #1|    2615.8      2613.2|
18.583 |             |           |
 |   133.00     134.00| Subarea (UH) Added to Stream #2|       0.0       145.7|
16.417 |             |           |
 |   134.00     134.00| Stream #2 Added to:   Stream #1|    2613.2      2652.5|
18.500 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|     145.7         0.0|
|            |           |
 | 13500.00     134.00| Subarea (UH) Added to Stream #2|       0.0       144.0|
18.083 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   134.00     134.00| Stream #2 Added to:   Stream #1|    2652.5      2792.2|
18.250 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|     144.0         0.0|
|            |           |
 |   134.00     137.00| Convex Routing:       Stream #1|    2792.2      2790.4|
18.667 |             |           |
 |   134.00     137.00| Subarea (UH) Added to Stream #2|       0.0       116.3|
16.500 |             |           |
 |   137.00     137.00| Stream #2 Added to:   Stream #1|    2790.4      2832.7|
18.417 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   137.00     137.00| Zero Out:             Stream #2|     116.3         0.0|
|            |           |
 |   137.00     138.00| Convex Routing:       Stream #1|    2832.7      2830.2|
18.583 |             |           |
 |   137.00     138.00| Subarea (UH) Added to Stream #2|       0.0        82.2|
16.667 |             |           |
 |   138.00     138.00| Stream #2 Added to:   Stream #1|    2830.2      2863.7|
18.500 |             |           |
```



```
 |   138.00     138.00| Zero Out:             Stream #2|      82.2         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   138.00     138.00| View:                 Stream #1|                2863.7|
18.500 |      2691.38|     3     |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-------------------------------------------------------------------------------
-------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
**************************************************************************

            F L O O D    R O U T I N G    A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                        Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 139                                *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - CALIBRATED                     *
* 5-YR EV AUG 2023 ROKAMOTO                                              *
 **************************************************************************

  FILE NAME: EV05139F.DAT
  TIME/DATE OF STUDY: 09:46 08/10/2023


                       ** INPUT SUMMARY **


**************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
==========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    3.308 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.24; 30-MINUTE =  0.45;  1-HOUR =  0.64
    3-HOUR =  1.18;    6-HOUR =  1.75; 24-HOUR =  3.10
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


**************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```



```
  CHANNEL LENGTH(FT) =    3157.79      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.203 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


**************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```



```
********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.330 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.167; LOW LOSS FRACTION = 0.352
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.284 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.447
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


**************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
```



```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.370 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.447 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
```

```
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932

****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.444 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.470; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```



```
****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.286 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.213; LOW LOSS FRACTION = 0.446
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.986 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.406; LOW LOSS FRACTION = 0.789
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =    9760.05      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    6877.24      MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```



```
  *USER ENTERED "LAG" TIME =    0.699 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.375; LOW LOSS FRACTION = 0.691
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
  CHANNEL LENGTH(FT) =    6461.31      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.390 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.409; LOW LOSS FRACTION = 0.762
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.180 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.473; LOW LOSS FRACTION = 0.843
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```



```
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     170.00; DOWNSTREAM ELEVATION(FT) =     135.00
  CHANNEL LENGTH(FT) =    6064.09      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.439 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.395; LOW LOSS FRACTION = 0.714
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
```

```
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     135.00; DOWNSTREAM ELEVATION(FT) =     119.70
  CHANNEL LENGTH(FT) =    4643.67      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =    1303.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.607 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.445; LOW LOSS FRACTION = 0.797
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE = 5.2
------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     119.70; DOWNSTREAM ELEVATION(FT) =     100.00
  CHANNEL LENGTH(FT) =    3107.78      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
```



```
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =     428.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.255 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.345; LOW LOSS FRACTION = 0.606
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.42;  1-HOUR =  0.56
    3-HOUR =  0.94;    6-HOUR =  1.30; 24-HOUR =  2.17
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


******************************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =  11
------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
==============================================================================
==============================================================================
```

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV05139F.DAT   ]
Page:   1 of    |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|       0.0      2205.0|
19.333 |             |           |
 |   119.00   12603.00| Convex Routing:       Stream #1|    2205.0      2186.5|
19.417 |             |           |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|       0.0        29.5|
16.250 |             |           |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|    2186.5      2190.6|
19.417 |             |           |
 | 12603.00   12603.00| Zero Out:             Stream #2|      29.5         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 12603.00     126.00| Convex Routing:       Stream #1|    2190.6      2185.6|
19.250 |             |           |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|       0.0        46.3|
16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2185.6      2192.0|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      46.3         0.0|
|            |           |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         8.5|
16.417 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2192.0      2192.8|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       8.5         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    2192.8      2186.3|
19.333 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0       148.7|
16.417 |             |           |
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0        88.8|
16.333 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0         5.6|
16.500 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|     148.7       153.9|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       5.6         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|     153.9       239.9|
16.333 |             |           |
```



```
 |   331.00     331.00| Zero Out:             Stream #3|      88.8         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|    2186.3      2238.5|
18.500 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     239.9         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|    2238.5      2235.9|
18.583 |             |           |
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0        23.8|
16.417 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    2235.9      2239.1|
18.583 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Zero Out:             Stream #2|      23.8         0.0|
|            |           |
 | 50150.00     127.00| Subarea (UH) Added to Stream #2|       0.0        38.0|
16.500 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    2239.1      2249.5|
18.167 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|      38.0         0.0|
|            |           |
 |   127.00     129.00| Convex Routing:       Stream #1|    2249.5      2243.5|
18.333 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 50300.00     129.00| Subarea (UH) Added to Stream #2|       0.0        25.7|
16.500 |             |           |
 |   129.00     129.00| Stream #2 Added to:   Stream #1|    2243.5      2251.3|
18.333 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      25.7         0.0|
|            |           |
 |   210.00     221.00| Subarea (UH) Added to Stream #2|       0.0        41.5|
16.333 |             |           |
 |   222.00     129.00| Stream #2 Added to:   Stream #1|    2251.3      2264.4|
18.333 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   129.00     129.00| Zero Out:             Stream #2|      41.5         0.0|
|            |           |
 |   129.00     133.00| Convex Routing:       Stream #1|    2264.4      2259.8|
18.417 |             |           |
 | 13010.00     132.00| Subarea (UH) Added to Stream #2|       0.0       282.0|
17.000 |             |           |
 |   132.00   13305.00| Convex Routing:       Stream #2|     282.0       276.4|
17.583 |             |           |
 | 13305.00     133.00| Convex Routing:       Stream #2|     276.4       275.0|
17.833 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-------------------------------------------------------------------------------
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```

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
132.00	133.00	Subarea (UH) Added to Stream #3	0.0	144.0	16.750		
133.00	133.00	Stream #3 Added to: Stream #2	275.0	380.8	17.667		
133.00	133.00	Zero Out: Stream #3	144.0	0.0			
133.00	133.00	Stream #2 Added to: Stream #1	2259.8	2578.3	18.417		
133.00	133.00	Zero Out: Stream #2	380.8	0.0			
133.00	134.00	Convex Routing: Stream #1	2578.3	2575.7	18.583		
133.00	134.00	Subarea (UH) Added to Stream #2	0.0	135.7	16.417		
134.00	134.00	Stream #2 Added to: Stream #1	2575.7	2614.1	18.500		
134.00	134.00	Zero Out: Stream #2	135.7	0.0			
13500.00	134.00	Subarea (UH) Added to Stream #2	0.0	138.1	18.083		
134.00	134.00	Stream #2 Added to: Stream #1	2614.1	2747.8	18.500		
134.00	134.00	Zero Out: Stream #2	138.1	0.0			
134.00	137.00	Convex Routing: Stream #1	2747.8	2746.6	18.667		
134.00	137.00	Subarea (UH) Added to Stream #2	0.0	109.1	16.500		
137.00	137.00	Stream #2 Added to: Stream #1	2746.6	2786.6	18.417		
137.00	137.00	Zero Out: Stream #2	109.1	0.0			
137.00	138.00	Convex Routing: Stream #1	2786.6	2784.3	18.583		
137.00	138.00	Subarea (UH) Added to Stream #2	0.0	76.4	16.667		
138.00	138.00	Stream #2 Added to: Stream #1	2784.3	2817.0	18.500		

```
 |   138.00     138.00| Zero Out:             Stream #2|      76.4         0.0|
|             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   138.00     139.00| Convex Routing:       Stream #1|    2817.0      2816.2|
18.583 |             |           |
 |   138.00     139.00| Subarea (UH) Added to Stream #2|       0.0        60.3|
16.333 |             |           |
 |   139.00     139.00| Stream #2 Added to:   Stream #1|    2816.2      2829.0|
18.583 |             |           |
 |   139.00     139.00| Zero Out:             Stream #2|      60.3         0.0|
|             |           |
 |   139.00     139.00| View:                 Stream #1|                2829.0|
18.583 |      2689.46|     3     |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                              |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                      |
 +-------------------------------------------------------------------------------
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```

END OF FLOODSCx ROUTING ANALYSIS