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

             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 133C                              *
* PHASE NO PA45 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL             *
* 2-YR EV FEB 2023 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV0233CF.DAT
  TIME/DATE OF STUDY: 09:52 02/20/2023


                        ** 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 =   49511.801 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    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) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.428 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.592; LOW LOSS FRACTION = 0.982
  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 =     125.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.419 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.582; LOW LOSS FRACTION = 0.967
  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 =    0.486 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 =    0.627 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       562.2|
20.417 |             |           |
 |   119.00     126.00| Convex Routing:       Stream #1|     562.2       559.6|
20.583 |             |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0         3.1|
16.500 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     559.6       560.1|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       3.1         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         0.9|
16.500 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     560.1       560.3|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       0.9         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|     560.3       559.4|
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|     559.4       583.4|
20.750 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     154.8         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|     583.4       583.0|
20.833 |             |           |
```

```
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0         3.5|
16.583 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     583.0       583.6|
20.833 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       3.5         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|     583.6       585.1|
20.833 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       8.0         0.0|
|             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   127.00     129.00| Convex Routing:       Stream #1|     585.1       584.7|
21.000 |             |           |
 | 50300.00     129.00| Subarea (UH) Added to Stream #2|       0.0         7.4|
16.667 |             |           |
 |   129.00     129.00| Stream #2 Added to:   Stream #1|     584.7       586.1|
21.000 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|       7.4         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|     586.1       589.9|
21.000 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      26.2         0.0|
|             |           |
 |   129.00     133.00| Convex Routing:       Stream #1|     589.9       589.6|
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 |             |           |
 |   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|     589.6       728.8|
17.667 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |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 |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     133.00| Zero Out:             Stream #2|     211.0         0.0|
|             |           |
 |   133.00     133.00| View:                 Stream #1|                 728.8|
17.667 |       856.15|     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)
         (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 133U                              *
* PHASE NO PA45 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL             *
* 2-YR EV FEB 2023 ROKAMOTO                                             *
 **************************************************************************

  FILE NAME: EV0233UF.DAT
  TIME/DATE OF STUDY: 09:52 02/20/2023


                       ** 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 =   49511.801 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    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) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.428 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.592; LOW LOSS FRACTION = 0.982
  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 =     125.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.419 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.582; LOW LOSS FRACTION = 0.967
  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 =    0.486 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 =    0.627 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  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       575.5|
20.417 |             |           |
 |   119.00     126.00| Convex Routing:       Stream #1|     575.5       569.9|
20.583 |             |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0         3.2|
16.500 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     569.9       570.4|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       3.2         0.0|
|            |           |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         0.9|
16.500 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     570.4       570.6|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       0.9         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|     570.6       569.1|
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|     569.1       592.8|
20.750 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     162.5         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|     592.8       591.7|
20.917 |             |           |
```



```
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0         3.6|
16.583 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     591.7       592.3|
20.917 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       3.6         0.0|
|            |           |
 | 50150.00     127.00| Subarea (UH) Added to Stream #2|       0.0         8.2|
16.667 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     592.3       593.8|
20.917 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       8.2         0.0|
|            |           |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     129.00| Convex Routing:       Stream #1|     593.8       593.3|
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|     593.3       594.6|
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|     594.6       598.3|
21.083 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      27.7         0.0|
|            |           |
 |   129.00     133.00| Convex Routing:       Stream #1|     598.3       597.7|
21.167 |             |           |
 |   133.00     133.00| View:                 Stream #1|                 597.7|
21.167 |       698.55|     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 PA45 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL          *
* 2-YR EV AUG 2023 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV0234CF.DAT
  TIME/DATE OF STUDY: 15:44 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 =   49511.801 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 =  1.25; 24-HOUR =  2.21
  *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    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) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.428 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.592; LOW LOSS FRACTION = 0.982
  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 = 0.294; 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 =     125.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.419 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.582; LOW LOSS FRACTION = 0.967
  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 = 0.294; 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 =  0.31;  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 = 0.294; 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 =  0.31;  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 = 0.294; 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 =  0.31;  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 = 0.294; 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 =    0.486 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 = 0.294; 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 =  0.31;  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 = 0.294; 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 =    0.627 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 = 0.294; 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 =  0.31;  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 = 0.294; 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 =  0.31;  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 = 0.294; 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 =  0.31;  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 = 0.294; 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 =    0.453 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 =  0.31;  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 = 0.294; 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 =  0.31;  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 = 0.294; 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       549.5|
20.417 |             |           |
 |   119.00     126.00| Convex Routing:       Stream #1|     549.5       547.6|
20.583 |             |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0         3.0|
16.500 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     547.6       548.1|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       3.0         0.0|
|            |           |
 +-------------------+---------------------------------+----------------------+-
----------+-------------+-----------+
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         0.9|
16.500 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     548.1       548.3|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       0.9         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|     548.3       547.5|
20.750 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0        94.4|
16.417 |             |           |
 +-------------------+---------------------------------+----------------------+-
----------+-------------+-----------+
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0        53.0|
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|      94.4        95.9|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       1.7         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|      95.9       148.3|
16.417 |             |           |
 +-------------------+---------------------------------+----------------------+-
----------+-------------+-----------+
 |   331.00     331.00| Zero Out:             Stream #3|      53.0         0.0|
|            |           |
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|     547.5       571.6|
20.750 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     148.3         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|     571.6       571.3|
20.833 |             |           |
```

```
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0         3.4|
16.583 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     571.3       571.9|
20.833 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       3.4         0.0|
|             |           |
 | 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|     571.9       573.4|
20.833 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       7.8         0.0|
|             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   127.00     129.00| Convex Routing:       Stream #1|     573.4       573.2|
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|     573.2       574.6|
21.000 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|       7.2         0.0|
|             |           |
 |   210.00     221.00| Subarea (UH) Added to Stream #2|       0.0        25.3|
16.333 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   222.00     129.00| Stream #2 Added to:   Stream #1|     574.6       578.4|
21.000 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      25.3         0.0|
|             |           |
 |   129.00     133.00| Convex Routing:       Stream #1|     578.4       578.1|
21.083 |             |           |
 | 13010.00     132.00| Subarea (UH) Added to Stream #2|       0.0       143.7|
17.333 |             |           |
 |   132.00   13305.00| Convex Routing:       Stream #2|     143.7       142.2|
17.917 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 | 13305.00     133.00| Convex Routing:       Stream #2|     142.2       141.6|
18.250 |             |           |
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0        76.0|
17.000 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     141.6       207.1|
17.167 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|      76.0         0.0|
|             |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|     578.1       719.7|
17.750 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |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 |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     133.00| Zero Out:             Stream #2|     207.1         0.0|
|            |           |
 |   133.00     134.00| Convex Routing:       Stream #1|     719.7       719.1|
18.000 |             |           |
 |   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|     719.1       754.2|
17.833 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      63.9         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 13500.00     134.00| Subarea (UH) Added to Stream #2|       0.0        52.6|
18.000 |             |           |
 |   134.00     134.00| Stream #2 Added to:   Stream #1|     754.2       805.9|
17.917 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      52.6         0.0|
|            |           |
 |   134.00     134.00| View:                 Stream #1|                 805.9|
17.917 |       929.07|     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 PA45 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL          *
* 2-YR EV AUG 2023 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV0234UF.DAT
  TIME/DATE OF STUDY: 15:45 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 =   49511.801 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 =  2.16
  *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    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) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.428 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.592; LOW LOSS FRACTION = 0.982
  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 =     125.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.419 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.582; LOW LOSS FRACTION = 0.967
  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 =    0.486 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 =    0.627 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 =    0.453 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       539.8|
20.417 |            |           |
 |   119.00     126.00| Convex Routing:       Stream #1|     539.8       537.5|
20.583 |            |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0         3.0|
16.500 |            |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     537.5       538.0|
20.583 |            |           |
 |   126.00     126.00| Zero Out:             Stream #2|       3.0         0.0|
|            |           |
 +-------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         0.9|
16.500 |            |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     538.0       538.2|
20.583 |            |           |
 |   126.00     126.00| Zero Out:             Stream #2|       0.9         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|     538.2       537.3|
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|
|            |           |
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|     537.3       561.0|
20.750 |            |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     149.1         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|     561.0       560.6|
20.833 |            |           |
```



```
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0         3.4|
16.583 |            |           |
 +-------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     560.6       561.2|
20.833 |            |           |
 |   127.00     127.00| Zero Out:             Stream #2|       3.4         0.0|
|            |           |
 | 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|     561.2       562.7|
20.833 |            |           |
 |   127.00     127.00| Zero Out:             Stream #2|       7.8         0.0|
|            |           |
 +-------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   127.00     129.00| Convex Routing:       Stream #1|     562.7       562.4|
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|     562.4       563.8|
21.000 |            |           |
 |   129.00     129.00| Zero Out:             Stream #2|       7.2         0.0|
|            |           |
 |   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|     563.8       567.5|
21.000 |            |           |
 |   129.00     129.00| Zero Out:             Stream #2|      25.2         0.0|
|            |           |
 |   129.00     133.00| Convex Routing:       Stream #1|     567.5       567.2|
21.167 |            |           |
 | 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 |            |           |
 |   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|     567.2       703.9|
17.667 |            |           |
 +-------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |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 |
 +-------------------+--------------------------------+----------------------+-------------+-----------+
 |   133.00     133.00| Zero Out:             Stream #2|     203.7         0.0|             |           |
 |   133.00     134.00| Convex Routing:       Stream #1|     703.9       703.4|17.917 |             |           |
 |   133.00     134.00| Subarea (UH) Added to Stream #2|       0.0        63.7|16.500 |             |           |
 |   134.00     134.00| Stream #2 Added to:   Stream #1|     703.4       738.6|17.250 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      63.7         0.0|             |           |
 +-------------------+--------------------------------+----------------------+-------------+-----------+
 |   134.00     134.00| View:                 Stream #1|                 738.6|17.250 |       866.92|     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 133C                              *
* PHASE NO PA45 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL             *
* 5-YR EV FEB 2023 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV0533CF.DAT
  TIME/DATE OF STUDY: 10:26 02/20/2023


                       ** 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 =   49511.801 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 =  1.78; 24-HOUR =  3.15
  *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    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) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.335 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.493; LOW LOSS FRACTION = 0.948
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.19; 30-MINUTE =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.32; 24-HOUR =  2.21
  *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 =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.32; 24-HOUR =  2.21
  *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 =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.32; 24-HOUR =  2.21
  *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 =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.32; 24-HOUR =  2.21
  *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 =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.32; 24-HOUR =  2.21
  *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 =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.32; 24-HOUR =  2.21
  *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 =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.32; 24-HOUR =  2.21
  *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 =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.32; 24-HOUR =  2.21
  *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 =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.32; 24-HOUR =  2.21
  *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 =  0.43;  1-HOUR =  0.57
    3-HOUR =  0.96;    6-HOUR =  1.32; 24-HOUR =  2.21
  *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 =    0.700 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 =  1.32; 24-HOUR =  2.21
  *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      2366.0|
19.333 |             |           |
 |   119.00     126.00| Convex Routing:       Stream #1|    2366.0      2324.4|
19.250 |             |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0        43.3|
16.417 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2324.4      2327.1|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      43.3         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|    2327.1      2327.9|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      12.7         0.0|
|             |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    2327.9      2325.4|
19.583 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0       164.9|
16.417 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0       100.0|
16.333 |             |           |
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0         7.4|
16.500 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|     164.9       171.6|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       7.4         0.0|
|             |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|     171.6       266.8|
16.333 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   331.00     331.00| Zero Out:             Stream #3|     100.0         0.0|
|             |           |
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|    2325.4      2370.3|
19.583 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     266.8         0.0|
|             |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|    2370.3      2369.8|
19.583 |             |           |
```

```
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0        35.4|
16.417 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    2369.8      2372.0|
19.583 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|      35.4         0.0|
|             |           |
 | 50150.00     127.00| Subarea (UH) Added to Stream #2|       0.0        53.2|
16.500 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    2372.0      2377.7|
19.583 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|      53.2         0.0|
|             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   127.00     129.00| Convex Routing:       Stream #1|    2377.7      2376.0|
19.750 |             |           |
 | 50300.00     129.00| Subarea (UH) Added to Stream #2|       0.0        34.9|
16.500 |             |           |
 |   129.00     129.00| Stream #2 Added to:   Stream #1|    2376.0      2379.6|
19.750 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      34.9         0.0|
|             |           |
 |   210.00     221.00| Subarea (UH) Added to Stream #2|       0.0        46.6|
16.333 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   222.00     129.00| Stream #2 Added to:   Stream #1|    2379.6      2386.6|
19.750 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      46.6         0.0|
|             |           |
 |   129.00     133.00| Convex Routing:       Stream #1|    2386.6      2383.6|
19.750 |             |           |
 | 13010.00     132.00| Subarea (UH) Added to Stream #2|       0.0       323.2|
17.000 |             |           |
 |   132.00   13305.00| Convex Routing:       Stream #2|     323.2       314.4|
17.500 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 | 13305.00     133.00| Convex Routing:       Stream #2|     314.4       312.4|
17.833 |             |           |
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0       163.8|
16.750 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     312.4       422.7|
17.667 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|     163.8         0.0|
|             |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|    2383.6      2683.2|
18.417 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |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 |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     133.00| Zero Out:             Stream #2|     422.7         0.0|
|             |           |
 |   133.00     133.00| View:                 Stream #1|                2683.2|
18.417 |      2442.72|     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 133U                              *
* PHASE NO PA45 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL             *
* 5-YR EV DEC 2022 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV0533UF.DAT
  TIME/DATE OF STUDY: 08:26 12/13/2022


                        ** 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 =   49511.801 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    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) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.335 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.493; LOW LOSS FRACTION = 0.948
  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 =     125.000 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) =  0.485; LOW LOSS FRACTION = 0.933
  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      2433.4|
19.333 |             |           |
 |   119.00     126.00| Convex Routing:       Stream #1|    2433.4      2382.0|
19.417 |             |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0        44.4|
16.417 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2382.0      2384.6|
19.417 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      44.4         0.0|
|            |           |
 +-------------------+--------------------------------+---------------------+-
-----------+-------------+-----------+
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         7.7|
16.417 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2384.6      2385.1|
19.417 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       7.7         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    2385.1      2384.5|
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|    2384.5      2428.9|
19.583 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     272.2         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|    2428.9      2426.0|
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|    2426.0      2428.3|
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|    2428.3      2433.9|
19.583 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|      54.5         0.0|
|             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   127.00     129.00| Convex Routing:       Stream #1|    2433.9      2432.2|
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|    2432.2      2435.7|
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|    2435.7      2442.6|
19.750 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      47.5         0.0|
|             |           |
 |   133.00     133.00| View:                 Stream #1|                2442.6|
19.750 |      2157.16|     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 PA45 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL             *
* 5-YR EV AUG 2023 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV0534CF.DAT
  TIME/DATE OF STUDY: 15:37 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 =   49511.801 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    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) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.335 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.493; LOW LOSS FRACTION = 0.948
  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 =     125.000 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) =  0.485; LOW LOSS FRACTION = 0.933
  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 =    0.700 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 =    2.179 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      2296.5|
19.333 |             |           |
 |   119.00     126.00| Convex Routing:       Stream #1|    2296.5      2264.4|
19.250 |             |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0        37.4|
16.417 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2264.4      2267.1|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      37.4         0.0|
|            |           |
 +-------------------+---------------------------------+----------------------+-
----------+-------------+-----------+
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         6.5|
16.417 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2267.1      2267.7|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       6.5         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    2267.7      2262.1|
19.500 |             |           |
 |   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|    2262.1      2308.0|
19.333 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     255.1         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|    2308.0      2307.5|
19.583 |             |           |
```

```
 | 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|    2307.5      2309.8|
19.583 |             |           |
 |   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|    2309.8      2315.5|
19.583 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|      47.0         0.0|
|             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   127.00     129.00| Convex Routing:       Stream #1|    2315.5      2314.0|
19.750 |             |           |
 | 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|    2314.0      2317.5|
19.750 |             |           |
 |   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|    2317.5      2324.5|
19.667 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      44.4         0.0|
|             |           |
 |   129.00     133.00| Convex Routing:       Stream #1|    2324.5      2323.1|
19.750 |             |           |
 | 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 |             |           |
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0       155.4|
16.750 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     297.2       406.5|
17.667 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|     155.4         0.0|
|             |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|    2323.1      2643.8|
18.417 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |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 |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     133.00| Zero Out:             Stream #2|     406.5         0.0|
|            |           |
 |   133.00     134.00| Convex Routing:       Stream #1|    2643.8      2640.9|
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|    2640.9      2680.3|
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|    2680.3      2823.5|
18.583 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|     148.0         0.0|
|            |           |
 |   134.00     134.00| View:                 Stream #1|                2823.5|
18.583 |      2603.84|     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 PA45 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL             *
* 5-YR EV AUG 2023 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV0534UF.DAT
  TIME/DATE OF STUDY: 15:36 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 =   49511.801 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    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) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.335 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.493; LOW LOSS FRACTION = 0.948
  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 =     125.000 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) =  0.485; LOW LOSS FRACTION = 0.933
  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 =    0.700 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      2365.3|
19.333 |             |           |
 |   119.00     126.00| Convex Routing:       Stream #1|    2365.3      2325.2|
19.250 |             |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0        41.4|
16.417 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2325.2      2327.9|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      41.4         0.0|
|            |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         7.2|
16.417 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2327.9      2328.5|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       7.2         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    2328.5      2325.2|
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|
|            |           |
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|    2325.2      2371.1|
19.500 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     263.5         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|    2371.1      2370.6|
19.583 |             |           |
```



```
 | 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|    2370.6      2372.9|
19.583 |             |           |
 |   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|    2372.9      2378.6|
19.583 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|      51.4         0.0|
|            |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     129.00| Convex Routing:       Stream #1|    2378.6      2376.9|
19.750 |             |           |
 | 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|    2376.9      2380.4|
19.750 |             |           |
 |   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|    2380.4      2387.5|
19.750 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      46.0         0.0|
|            |           |
 |   129.00     133.00| Convex Routing:       Stream #1|    2387.5      2384.9|
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 |             |           |
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0       162.5|
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|     162.5         0.0|
|            |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|    2384.9      2689.3|
18.417 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |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 |
 +-------------------+--------------------------------+----------------------+-
----------+-------------+-----------+
 |   133.00     133.00| Zero Out:             Stream #2|     421.2         0.0|
|             |           |
 |   133.00     134.00| Convex Routing:       Stream #1|    2689.3      2686.1|
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|    2686.1      2724.9|
18.500 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|     160.4         0.0|
|             |           |
 +-------------------+--------------------------------+----------------------+-
----------+-------------+-----------+
 |   134.00     134.00| View:                 Stream #1|                2724.9|
18.500 |      2526.01|     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 PA45 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL             *
* 10-YR EV FEB 2023 ROKAMOTO                                            *
 ************************************************************************

  FILE NAME: EV1033UF.DAT
  TIME/DATE OF STUDY: 12:02 02/20/2023


                        ** 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 =   49511.801 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.320 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.746
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.33; 30-MINUTE =  0.64;  1-HOUR =  0.89
    3-HOUR =  1.67;    6-HOUR =  2.47; 24-HOUR =  4.36
  *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    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) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.312 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.296; LOW LOSS FRACTION = 0.889
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.25; 30-MINUTE =  0.60;  1-HOUR =  0.79
    3-HOUR =  1.32;    6-HOUR =  1.83; 24-HOUR =  3.06
  *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 =     125.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.318 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.291; LOW LOSS FRACTION = 0.874
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.60;  1-HOUR =  0.79
    3-HOUR =  1.32;    6-HOUR =  1.83; 24-HOUR =  3.06
  *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) =  200.00     CHANNEL Z =  5.00
  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 =    0.305 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.297
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.60;  1-HOUR =  0.79
    3-HOUR =  1.32;    6-HOUR =  1.83; 24-HOUR =  3.06
  *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 =    0.260 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.385
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.60;  1-HOUR =  0.79
    3-HOUR =  1.32;    6-HOUR =  1.83; 24-HOUR =  3.06
  *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 =    0.394 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.778
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.60;  1-HOUR =  0.79
    3-HOUR =  1.32;    6-HOUR =  1.83; 24-HOUR =  3.06
  *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) =  200.00     CHANNEL Z =  5.00
  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 =    0.446 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.898
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.60;  1-HOUR =  0.79
    3-HOUR =  1.32;    6-HOUR =  1.83; 24-HOUR =  3.06
  *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 =    0.389 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.855
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.60;  1-HOUR =  0.79
    3-HOUR =  1.32;    6-HOUR =  1.83; 24-HOUR =  3.06
  *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) =  200.00     CHANNEL Z =  5.00
  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 =    0.408 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.855
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.60;  1-HOUR =  0.79
    3-HOUR =  1.32;    6-HOUR =  1.83; 24-HOUR =  3.06
  *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 =    0.268 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.391
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.60;  1-HOUR =  0.79
    3-HOUR =  1.32;    6-HOUR =  1.83; 24-HOUR =  3.06
  *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    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) =  200.00     CHANNEL Z =  5.00
  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: [EV1033UF.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      7091.6|
18.333 |             |           |
 |   119.00     126.00| Convex Routing:       Stream #1|    7091.6      7049.8|
18.500 |             |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0       165.9|
16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    7049.8      7060.8|
18.500 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|     165.9         0.0|
|            |           |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0        26.9|
16.417 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    7060.8      7062.8|
18.500 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      26.9         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    7062.8      7032.9|
18.583 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0       286.8|
16.333 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0       188.0|
16.333 |             |           |
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0        23.8|
16.417 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|     286.8       307.8|
16.333 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|      23.8         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|     307.8       495.8|
16.333 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   331.00     331.00| Zero Out:             Stream #3|     188.0         0.0|
|            |           |
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|    7032.9      7123.7|
18.583 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     495.8         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|    7123.7      7110.3|
18.667 |             |           |
```



```
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0       121.8|
16.500 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    7110.3      7119.4|
18.667 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|     121.8         0.0|
|            |           |
 | 50150.00     127.00| Subarea (UH) Added to Stream #2|       0.0       200.8|
16.417 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    7119.4      7137.5|
18.667 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|     200.8         0.0|
|            |           |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     129.00| Convex Routing:       Stream #1|    7137.5      7115.3|
18.833 |             |           |
 | 50300.00     129.00| Subarea (UH) Added to Stream #2|       0.0       120.4|
16.500 |             |           |
 |   129.00     129.00| Stream #2 Added to:   Stream #1|    7115.3      7125.2|
18.833 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|     120.4         0.0|
|            |           |
 |   210.00     221.00| Subarea (UH) Added to Stream #2|       0.0        86.5|
16.333 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   221.00     129.00| Stream #2 Added to:   Stream #1|    7125.2      7138.1|
18.833 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      86.5         0.0|
|            |           |
 |   129.00     133.00| Convex Routing:       Stream #1|    7138.1      7124.5|
18.917 |             |           |
 |   133.00     133.00| View:                 Stream #1|                7124.5|
18.917 |      5242.43|     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 PA45 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL               *
* 2-YR EV DEC 2022 ROKAMOTO                                               *
 ************************************************************************

  FILE NAME: EV02127F.DAT
  TIME/DATE OF STUDY: 10:04 12/13/2022


                        ** 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 =   49511.801 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    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) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.428 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.592; LOW LOSS FRACTION = 0.982
  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 =    0.419 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.582; LOW LOSS FRACTION = 0.982
  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 =    0.486 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       574.5|
20.417 |             |           |
 |   119.00     126.00| Convex Routing:       Stream #1|     574.5       569.0|
20.583 |             |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0         3.3|
16.500 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     569.0       569.6|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       3.3         0.0|
|            |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         0.9|
16.500 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     569.6       569.7|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       0.9         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|     569.7       568.3|
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|     568.3       592.0|
20.750 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     163.9         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|     592.0       590.9|
20.917 |             |           |
```



```
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0         3.7|
16.583 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     590.9       591.5|
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|     591.5       593.0|
20.917 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       8.3         0.0|
|            |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| View:                 Stream #1|                 593.0|
20.917 |      680.58|     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 PA45 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
* 2-YR EV AUG 2023 ROKAMOTO                                              *
 ************************************************************************

  FILE NAME: EV02137F.DAT
  TIME/DATE OF STUDY: 15:44 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 =   49511.801 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 =  0.43
    3-HOUR =  0.81;    6-HOUR =  1.21; 24-HOUR =  2.13
  *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    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) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.428 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.592; LOW LOSS FRACTION = 0.982
  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 = 0.291; 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 =     125.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.419 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.582; LOW LOSS FRACTION = 0.967
  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 = 0.291; 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 =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *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 =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *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 =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *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 =    0.486 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 = 0.291; 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 =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *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 =    0.627 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 = 0.291; 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 =  0.29;  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 = 0.291; 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 =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *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 =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *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 =    0.453 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 = 0.291; 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 =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *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 =    0.563 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 =  0.39
    3-HOUR =  0.65;    6-HOUR =  0.89; 24-HOUR =  1.51
  *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<<<<<
================================================================================
================================================================================
```

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV02137F.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       530.3|
20.417 |             |           |
 |   119.00     126.00| Convex Routing:       Stream #1|     530.3       528.3|
20.583 |             |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0         2.9|
16.500 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     528.3       528.9|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       2.9         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         0.8|
16.500 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     528.9       529.0|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       0.8         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|     529.0       528.3|
20.750 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0        89.8|
16.417 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0        50.2|
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|      89.8        91.3|
16.417 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|       1.6         0.0|
|            |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|      91.3       141.4|
16.417 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   331.00     331.00| Zero Out:             Stream #3|      50.2         0.0|
|            |           |
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|     528.3       551.6|
20.750 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     141.4         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|     551.6       551.3|
20.833 |             |           |
```



```
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0         3.3|
16.583 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     551.3       551.9|
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|     551.9       553.4|
20.833 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       7.5         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     129.00| Convex Routing:       Stream #1|     553.4       553.2|
21.000 |             |           |
 | 50300.00     129.00| Subarea (UH) Added to Stream #2|       0.0         6.9|
16.667 |             |           |
 |   129.00     129.00| Stream #2 Added to:   Stream #1|     553.2       554.5|
21.000 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|       6.9         0.0|
|            |           |
 |   210.00     221.00| Subarea (UH) Added to Stream #2|       0.0        24.0|
16.333 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   222.00     129.00| Stream #2 Added to:   Stream #1|     554.5       558.2|
21.000 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      24.0         0.0|
|            |           |
 |   129.00     133.00| Convex Routing:       Stream #1|     558.2       558.0|
21.083 |             |           |
 | 13010.00     132.00| Subarea (UH) Added to Stream #2|       0.0       137.3|
17.333 |             |           |
 |   132.00   13305.00| Convex Routing:       Stream #2|     137.3       136.0|
17.917 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 | 13305.00     133.00| Convex Routing:       Stream #2|     136.0       135.4|
18.250 |             |           |
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0        72.7|
17.000 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     135.4       197.8|
17.167 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|      72.7         0.0|
|            |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|     558.0       690.7|
17.750 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |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 |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     133.00| Zero Out:             Stream #2|     197.8         0.0|
|            |           |
 |   133.00     134.00| Convex Routing:       Stream #1|     690.7       690.2|
18.000 |             |           |
 |   133.00     134.00| Subarea (UH) Added to Stream #2|       0.0        61.1|
16.500 |             |           |
 |   134.00     134.00| Stream #2 Added to:   Stream #1|     690.2       723.6|
17.917 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      61.1         0.0|
|            |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 | 13500.00     134.00| Subarea (UH) Added to Stream #2|       0.0        50.2|
18.500 |             |           |
 |   134.00     134.00| Stream #2 Added to:   Stream #1|     723.6       773.2|
18.000 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      50.2         0.0|
|            |           |
 |   134.00     137.00| Convex Routing:       Stream #1|     773.2       772.9|
18.167 |             |           |
 |   134.00     137.00| Subarea (UH) Added to Stream #2|       0.0        50.6|
16.667 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   137.00     137.00| Stream #2 Added to:   Stream #1|     772.9       805.8|
17.500 |             |           |
 |   137.00     137.00| Zero Out:             Stream #2|      50.6         0.0|
|            |           |
 |   137.00     137.00| View:                 Stream #1|                 805.8|
17.500 |       926.01|     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 138                                *
* PHASE NO PA45 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
* 2-YR EV AUG 2023 ROKAMOTO                                              *
 **************************************************************************

  FILE NAME: EV02138F.DAT
  TIME/DATE OF STUDY: 15:43 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 =   49511.801 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) =       0.29
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.428 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.592; LOW LOSS FRACTION = 0.982
  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 =    0.419 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 =    0.486 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 =    0.627 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 =    0.453 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 =    0.563 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 =    0.928 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<<<<<
================================================================================
================================================================================
```

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	518.7	20.417		
119.00	12603.00	Convex Routing: Stream #1	518.7	517.4	20.500		
40400.00	126.00	Subarea (UH) Added to Stream #2	0.0	2.8	16.500		
126.00	126.00	Stream #2 Added to: Stream #1	517.4	517.9	20.500		
126.00	126.00	Zero Out: Stream #2	2.8	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	517.9	518.2	20.500		
126.00	126.00	Zero Out: Stream #2	1.5	0.0			
126.00	12720.50	Convex Routing: Stream #1	518.2	517.1	20.667		
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	517.1	540.6	20.667		
12720.50	12720.50	Zero Out: Stream #2	139.3	0.0			
12720.50	127.00	Convex Routing: Stream #1	540.6	540.4	20.750		

```
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0         3.2|
16.583 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     540.4       541.0|
20.750 |             |           |
 |   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|     541.0       542.5|
20.750 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       7.3         0.0|
|             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   127.00     129.00| Convex Routing:       Stream #1|     542.5       542.3|
20.917 |             |           |
 | 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|     542.3       543.7|
20.917 |             |           |
 |   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|     543.7       547.4|
20.917 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      23.7         0.0|
|             |           |
 |   129.00     133.00| Convex Routing:       Stream #1|     547.4       547.2|
21.000 |             |           |
 | 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 |             |           |
 |   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|     547.2       686.4|
17.750 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |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 |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     133.00| Zero Out:             Stream #2|     193.6         0.0|
|            |           |
 |   133.00     134.00| Convex Routing:       Stream #1|     686.4       685.8|
18.000 |             |           |
 |   133.00     134.00| Subarea (UH) Added to Stream #2|       0.0        60.0|
16.500 |             |           |
 |   134.00     134.00| Stream #2 Added to:   Stream #1|     685.8       719.0|
17.917 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      60.0         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|     719.0       767.9|
18.000 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      49.3         0.0|
|            |           |
 |   134.00     137.00| Convex Routing:       Stream #1|     767.9       767.3|
18.167 |             |           |
 |   134.00     137.00| Subarea (UH) Added to Stream #2|       0.0        49.1|
16.667 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   137.00     137.00| Stream #2 Added to:   Stream #1|     767.3       798.5|
17.500 |             |           |
 |   137.00     137.00| Zero Out:             Stream #2|      49.1         0.0|
|            |           |
 |   137.00     138.00| Convex Routing:       Stream #1|     798.5       797.1|
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|     797.1       823.7|
17.750 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   138.00     138.00| Zero Out:             Stream #2|      30.3         0.0|
|            |           |
 |   138.00     138.00| View:                 Stream #1|                 823.7|
17.750 |       931.57|     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)
              Ver. 17.0  Release Date: 07/01/2010  License ID 1527

                          Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 139                                *
* PHASE NO PA45 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
* 2-YR EV AUG 2023 ROKAMOTO                                              *
 ************************************************************************

  FILE NAME: EV02139F.DAT
  TIME/DATE OF STUDY: 15:40 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 =   49511.801 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    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) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.428 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.592; LOW LOSS FRACTION = 0.982
  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 =     125.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.419 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.582; LOW LOSS FRACTION = 0.967
  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 =    0.486 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 =    0.627 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 =    0.453 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 =    0.563 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 =    0.928 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 =    0.290 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       515.8|
20.417 |             |           |
 |   119.00     126.00| Convex Routing:       Stream #1|     515.8       514.0|
20.583 |             |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0         2.8|
16.500 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     514.0       514.5|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       2.8         0.0|
|            |           |
 +-------------------+--------------------------------+---------------------+-
----------+-------------+-----------+
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         0.8|
16.500 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|     514.5       514.6|
20.583 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       0.8         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|     514.6       514.0|
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|     514.0       536.8|
20.750 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     136.7         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|     536.8       536.6|
20.833 |             |           |
```

```
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0         3.2|
16.583 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Stream #2 Added to:   Stream #1|     536.6       537.2|
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|     537.2       538.6|
20.833 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|       7.3         0.0|
|             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     129.00| Convex Routing:       Stream #1|     538.6       538.4|
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|     538.4       539.8|
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|     539.8       543.4|
21.000 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      23.3         0.0|
|             |           |
 |   129.00     133.00| Convex Routing:       Stream #1|     543.4       543.1|
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 |             |           |
 |   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|     543.1       674.5|
17.750 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |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: [EV02139F.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 |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     133.00| Zero Out:             Stream #2|     193.1         0.0|
|            |          |
 |   133.00     134.00| Convex Routing:       Stream #1|     674.5       674.0|
18.000 |             |           |
 |   133.00     134.00| Subarea (UH) Added to Stream #2|       0.0        59.2|
16.500 |             |           |
 |   134.00     134.00| Stream #2 Added to:   Stream #1|     674.0       706.6|
17.917 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      59.2         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|     706.6       754.9|
18.000 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      49.0         0.0|
|            |          |
 |   134.00     137.00| Convex Routing:       Stream #1|     754.9       754.7|
18.167 |             |           |
 |   134.00     137.00| Subarea (UH) Added to Stream #2|       0.0        49.1|
16.667 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   137.00     137.00| Stream #2 Added to:   Stream #1|     754.7       786.4|
17.500 |             |           |
 |   137.00     137.00| Zero Out:             Stream #2|      49.1         0.0|
|            |          |
 |   137.00     138.00| Convex Routing:       Stream #1|     786.4       785.1|
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|     785.1       811.5|
17.750 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   138.00     138.00| Zero Out:             Stream #2|      30.2         0.0|
|            |          |
 |   138.00     139.00| Convex Routing:       Stream #1|     811.5       810.9|
17.833 |             |           |
 |   138.00     139.00| Subarea (UH) Added to Stream #2|       0.0        31.6|
16.333 |             |           |
 |   139.00     139.00| Stream #2 Added to:   Stream #1|     810.9       825.3|
17.833 |             |           |
```



```
 |   139.00     139.00| Zero Out:             Stream #2|      31.6         0.0|
|            |          |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   139.00     139.00| View:                 Stream #1|                825.3|
17.833 |       941.97|     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 PA45 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL              *
* 5-YR EV DEC 2022 ROKAMOTO                                              *
 **************************************************************************

  FILE NAME: EV05127F.DAT
  TIME/DATE OF STUDY: 08:27 12/13/2022


                       ** 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 =   49511.801 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    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) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.335 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.493; LOW LOSS FRACTION = 0.948
  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 =     125.000 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) =  0.485; LOW LOSS FRACTION = 0.933
  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      2436.1|
19.333 |            |           |
 |   119.00     126.00| Convex Routing:       Stream #1|    2436.1      2384.1|
19.417 |            |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0        45.4|
16.417 |            |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2384.1      2386.7|
19.417 |            |           |
 |   126.00     126.00| Zero Out:             Stream #2|      45.4         0.0|
|            |           |
 +-------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         7.8|
16.417 |            |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2386.7      2387.2|
19.417 |            |           |
 |   126.00     126.00| Zero Out:             Stream #2|       7.8         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    2387.2      2386.2|
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|    2386.2      2430.2|
19.583 |            |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     274.4         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|    2430.2      2427.7|
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|    2427.7      2429.9|
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|    2429.9      2435.5|
19.583 |            |           |
 |   127.00     127.00| Zero Out:             Stream #2|      55.6         0.0|
|            |           |
 +-------------------+-------------------------------+----------------------+-
-----------+------------+-----------+
 |   127.00     127.00| View:                 Stream #1|                2435.5|
19.583 |      2122.82|     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 PA45 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL              *
* 5-YR EV AUG 2023 ROKAMOTO                                              *
 ************************************************************************

  FILE NAME: EV05137F.DAT
  TIME/DATE OF STUDY: 15:36 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 =   49511.801 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    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) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.335 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.493; LOW LOSS FRACTION = 0.948
  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 =     125.000 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) =  0.485; LOW LOSS FRACTION = 0.933
  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 =    0.700 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 =    2.179 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<<<<<
================================================================================
================================================================================
```

```
 +-------------------------------------------------------------------------------
-------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV05137F.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      2265.7|
19.333 |             |           |
 |   119.00     126.00| Convex Routing:       Stream #1|    2265.7      2237.0|
19.250 |             |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0        36.0|
16.417 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2237.0      2239.8|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      36.0         0.0|
|            |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         6.3|
16.417 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2239.8      2240.3|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       6.3         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    2240.3      2233.4|
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|
|            |           |
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|    2233.4      2280.0|
19.333 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     249.5         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|    2280.0      2278.4|
19.500 |             |           |
```



```
 | 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|    2278.4      2280.7|
19.500 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|      29.7         0.0|
|            |           |
 | 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|    2280.7      2287.3|
18.583 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|      45.5         0.0|
|            |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     129.00| Convex Routing:       Stream #1|    2287.3      2285.2|
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|    2285.2      2288.7|
19.667 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      30.2         0.0|
|            |           |
 |   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|    2288.7      2295.7|
19.667 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      43.5         0.0|
|            |           |
 |   129.00     133.00| Convex Routing:       Stream #1|    2295.7      2294.3|
19.750 |             |           |
 | 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 |             |           |
 |   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|    2294.3      2612.2|
18.417 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |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 |
 +-------------------+-------------------------------+---------------------+-
----------+-------------+-----------+
 |   133.00     133.00| Zero Out:             Stream #2|     399.0         0.0|
|            |           |
 |   133.00     134.00| Convex Routing:       Stream #1|    2612.2      2609.3|
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|    2609.3      2647.6|
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|    2647.6      2788.5|
18.583 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|     145.3         0.0|
|            |           |
 |   134.00     137.00| Convex Routing:       Stream #1|    2788.5      2786.5|
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|    2786.5      2824.9|
18.417 |             |           |
 |   137.00     137.00| Zero Out:             Stream #2|     118.0         0.0|
|            |           |
 |   137.00     137.00| View:                 Stream #1|                2824.9|
18.417 |      2635.49|     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)
              Ver. 17.0  Release Date: 07/01/2010  License ID 1527

                          Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 138                                *
* PHASE NO PA45 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL              *
* 5-YR EV AUG 2023 ROKAMOTO                                              *
 ************************************************************************

  FILE NAME: EV05138F.DAT
  TIME/DATE OF STUDY: 15:35 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 =   49511.801 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    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) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.335 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.493; LOW LOSS FRACTION = 0.948
  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 =     125.000 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) =  0.485; LOW LOSS FRACTION = 0.933
  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 =    0.700 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 =    2.179 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<<<<<
================================================================================
================================================================================
```

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	2245.1	19.333		
119.00	126.00	Convex Routing: Stream #1	2245.1	2215.8	19.250		
40400.00	126.00	Subarea (UH) Added to Stream #2	0.0	34.7	16.417		
126.00	126.00	Stream #2 Added to: Stream #1	2215.8	2218.6	19.250		
126.00	126.00	Zero Out: Stream #2	34.7	0.0			
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	6.1	16.417		
126.00	126.00	Stream #2 Added to: Stream #1	2218.6	2219.1	19.250		
126.00	126.00	Zero Out: Stream #2	6.1	0.0			
126.00	12720.50	Convex Routing: Stream #1	2219.1	2213.1	19.500		
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			
331.00	12720.50	Stream #2 Added to: Stream #1	2213.1	2259.2	18.500		
12720.50	12720.50	Zero Out: Stream #2	247.2	0.0			
12720.50	127.00	Convex Routing: Stream #1	2259.2	2258.1	19.583		

```
 | 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|    2258.1      2260.3|
19.583 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|      28.6         0.0|
|             |           |
 | 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|    2260.3      2268.5|
18.583 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|      44.2         0.0|
|             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     129.00| Convex Routing:       Stream #1|    2268.5      2264.7|
19.667 |             |           |
 | 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|    2264.7      2268.3|
19.667 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      29.4         0.0|
|             |           |
 |   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|    2268.3      2275.3|
19.667 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      43.1         0.0|
|             |           |
 |   129.00     133.00| Convex Routing:       Stream #1|    2275.3      2273.9|
19.750 |             |           |
 | 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 |             |           |
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0       150.8|
16.750 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     288.5       395.5|
17.667 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|     150.8         0.0|
|             |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|    2273.9      2595.4|
18.417 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |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 |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     133.00| Zero Out:             Stream #2|     395.5         0.0|
|            |           |
 |   133.00     134.00| Convex Routing:       Stream #1|    2595.4      2592.7|
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|    2592.7      2631.7|
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|    2631.7      2770.9|
18.500 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|     144.0         0.0|
|            |           |
 |   134.00     137.00| Convex Routing:       Stream #1|    2770.9      2769.5|
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|    2769.5      2809.8|
18.417 |             |           |
 |   137.00     137.00| Zero Out:             Stream #2|     116.3         0.0|
|            |           |
 |   137.00     138.00| Convex Routing:       Stream #1|    2809.8      2807.0|
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|    2807.0      2840.2|
18.500 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   138.00     138.00| Zero Out:             Stream #2|      82.2         0.0|
|            |           |
 |   138.00     138.00| View:                 Stream #1|                2840.2|
18.500 |      2669.69|     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 PA45 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL              *
* 5-YR EV AUG 2023 ROKAMOTO                                              *
 ************************************************************************

  FILE NAME: EV05139F.DAT
  TIME/DATE OF STUDY: 15:22 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 =   49511.801 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    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) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.334 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.493; LOW LOSS FRACTION = 0.948
  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 =     125.000 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) =  0.485; LOW LOSS FRACTION = 0.933
  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 =    0.700 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 =    2.179 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      2205.7|
19.333 |             |           |
 |   119.00     126.00| Convex Routing:       Stream #1|    2205.7      2180.8|
19.250 |             |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0        28.6|
16.417 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2180.8      2183.5|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      28.6         0.0|
|            |           |
 +-------------------+--------------------------------+---------------------+-
----------+-------------+-----------+
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0         5.1|
16.417 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    2183.5      2184.0|
19.250 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|       5.1         0.0|
|            |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    2184.0      2177.7|
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|    2177.7      2225.9|
18.500 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     239.9         0.0|
|            |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|    2225.9      2223.2|
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|    2223.2      2226.4|
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|    2226.4      2235.3|
18.583 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|      38.0         0.0|
|             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     129.00| Convex Routing:       Stream #1|    2235.3      2228.7|
19.667 |             |           |
 | 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|    2228.7      2233.0|
18.667 |             |           |
 |   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|    2233.0      2243.9|
18.333 |             |           |
 |   129.00     129.00| Zero Out:             Stream #2|      41.5         0.0|
|             |           |
 |   129.00     133.00| Convex Routing:       Stream #1|    2243.9      2240.3|
18.750 |             |           |
 | 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 |             |           |
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0       143.9|
16.750 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     275.0       380.9|
17.667 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|     143.9         0.0|
|             |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|    2240.3      2557.9|
18.417 |             |           |
 +--------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |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: [EV05139F.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 |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     133.00| Zero Out:             Stream #2|     380.9         0.0|
|            |           |
 |   133.00     134.00| Convex Routing:       Stream #1|    2557.9      2555.2|
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|    2555.2      2593.2|
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|    2593.2      2727.0|
18.583 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|     138.1         0.0|
|            |           |
 |   134.00     137.00| Convex Routing:       Stream #1|    2727.0      2725.7|
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|    2725.7      2763.7|
18.417 |             |           |
 |   137.00     137.00| Zero Out:             Stream #2|     109.1         0.0|
|            |           |
 |   137.00     138.00| Convex Routing:       Stream #1|    2763.7      2761.2|
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|    2761.2      2793.5|
18.500 |             |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   138.00     138.00| Zero Out:             Stream #2|      76.4         0.0|
|            |           |
 |   138.00     139.00| Convex Routing:       Stream #1|    2793.5      2792.6|
18.667 |             |           |
 |   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|    2792.6      2805.4|
18.583 |             |           |
```



```
 |   139.00     139.00| Zero Out:             Stream #2|      60.3         0.0|
|            |           |
 +--------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   139.00     139.00| View:                 Stream #1|                2805.4|
18.583 |      2667.94|     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)
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                        Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 127                                *
* PHASE NO PA45 REGIONAL UNIT HYDROGRAPH - CALIBRATED MODEL              *
* 10-YR EV FEB 2023 ROKAMOTO                                             *
 **************************************************************************

  FILE NAME: EV10127F.DAT
  TIME/DATE OF STUDY: 11:29 02/20/2023


                       ** 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 =   49511.801 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.320 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.746
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.65;  1-HOUR =  0.90
    3-HOUR =  1.70;    6-HOUR =  2.52; 24-HOUR =  4.44
  *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    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) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     286.00
```



```
  CHANNEL LENGTH(FT) =    6204.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  40400.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     801.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.312 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.296; LOW LOSS FRACTION = 0.889
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.27; 30-MINUTE =  0.61;  1-HOUR =  0.80
    3-HOUR =  1.35;    6-HOUR =  1.86; 24-HOUR =  3.11
  *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 =     125.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.318 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.291; LOW LOSS FRACTION = 0.874
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.27; 30-MINUTE =  0.61;  1-HOUR =  0.80
    3-HOUR =  1.35;    6-HOUR =  1.86; 24-HOUR =  3.11
  *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) =  200.00     CHANNEL Z =  5.00
  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 =    0.305 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.297
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.27; 30-MINUTE =  0.61;  1-HOUR =  0.80
    3-HOUR =  1.35;    6-HOUR =  1.86; 24-HOUR =  3.11
  *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 =    0.260 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.385
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.27; 30-MINUTE =  0.61;  1-HOUR =  0.80
    3-HOUR =  1.35;    6-HOUR =  1.86; 24-HOUR =  3.11
  *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 =    0.394 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.778
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.27; 30-MINUTE =  0.61;  1-HOUR =  0.80
    3-HOUR =  1.35;    6-HOUR =  1.86; 24-HOUR =  3.11
  *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) =  200.00     CHANNEL Z =  5.00
  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 =    0.446 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.898
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.27; 30-MINUTE =  0.61;  1-HOUR =  0.80
    3-HOUR =  1.35;    6-HOUR =  1.86; 24-HOUR =  3.11
  *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 =    0.389 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.855
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.27; 30-MINUTE =  0.61;  1-HOUR =  0.80
    3-HOUR =  1.35;    6-HOUR =  1.86; 24-HOUR =  3.11
  *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: [EV10127F.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      7378.9|
18.333 |             |           |
 |   119.00     126.00| Convex Routing:       Stream #1|    7378.9      7332.6|
18.500 |             |           |
 | 40400.00     126.00| Subarea (UH) Added to Stream #2|       0.0       180.2|
16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    7332.6      7343.8|
18.500 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|     180.2         0.0|
|             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0        28.5|
16.417 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|    7343.8      7345.8|
18.500 |             |           |
 |   126.00     126.00| Zero Out:             Stream #2|      28.5         0.0|
|             |           |
 |   126.00   12720.50| Convex Routing:       Stream #1|    7345.8      7320.6|
18.583 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|       0.0       296.0|
16.333 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   400.00     331.00| Subarea (UH) Added to Stream #3|       0.0       195.1|
16.333 |             |           |
 |   390.00     331.00| Subarea (UH) Added to Stream #4|       0.0        25.0|
16.417 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|     296.0       318.0|
16.333 |             |           |
 |   331.00     331.00| Zero Out:             Stream #4|      25.0         0.0|
|             |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|     318.0       513.1|
16.333 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   331.00     331.00| Zero Out:             Stream #3|     195.1         0.0|
|             |           |
 |   331.00   12720.50| Stream #2 Added to:   Stream #1|    7320.6      7412.6|
18.583 |             |           |
 | 12720.50   12720.50| Zero Out:             Stream #2|     513.1         0.0|
|             |           |
 | 12720.50     127.00| Convex Routing:       Stream #1|    7412.6      7401.3|
18.667 |             |           |
```



```
 | 12710.00     127.00| Subarea (UH) Added to Stream #2|       0.0       128.9|
16.500 |             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    7401.3      7410.5|
18.667 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|     128.9         0.0|
|             |           |
 | 50150.00     127.00| Subarea (UH) Added to Stream #2|       0.0       211.9|
16.417 |             |           |
 |   127.00     127.00| Stream #2 Added to:   Stream #1|    7410.5      7428.8|
18.667 |             |           |
 |   127.00     127.00| Zero Out:             Stream #2|     211.9         0.0|
|             |           |
 +-------------------+-------------------------------+----------------------+-
-----------+-------------+-----------+
 |   127.00     127.00| View:                 Stream #1|                7428.8|
18.667 |      5334.89|     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
```