FINAL

DRAINAGE REPORT

SUPERSTITION FREEWAY

POWER ROAD TO ELLSWORTH ROAD

Appendix C-Attachment No. 1

HEC-1

HEC-2 (Channel 2)

ADOT PROJECT NO. SBM-028-1-311PE, 511C

STATE OF ARIZONA

DEPARTMENT OF TRANSPORTATION

1988

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DRAINAGE REPORT

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STATE OF ARIZONA
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1988

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<OPS183>PROJ>PJ6114>DATA>HEC1>EX50.OUT

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W   W W     WW  W  WW   W   W W  W
W   W W     W W W   W   W   W W  W
W   W WWWW  W W W   W   W W W WWWWW
W   W W     W W W   W   W   W    W
W   W W     W  WW   W   W   W    W
WWWW  WWWWW W   W  WWW   WWW     W



WWWWW W   W WWWWW  WWW         WWW  W   W WWWWW
W     W   W W     W   W       W   W W   W   W
W      W W  WWWW  W   W       W   W W   W   W
WWWW    W       W W W W       W   W W   W   W
W      W W      W W   W       W   W W   W   W
W     W   W W   W W   W   WW  W   W W   W   W
WWWWW W   W  WWW   WWW    WW   WWW   WWW    W

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[Spooler rev 20.0.6HB (c) Prime Computer, Inc., 1986]

Label: PRT116 -form DENPRT

Pathname: <OPS183>PROJ>PJ6114>DATA>HEC1>EX50.OUT
File last modified: 88-06-02.10:06:36.Thu

Spooled: 88-09-13.13:00:16.Tue
Started: 88-09-13.13:00:20.Tue on: AMLC by: DENPRT

****
FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
****

THIS HEC-1 VERSION CONTAINS ALL OPTIONS EXCEPT ECONOMICS, AND THE NUMBER OF PLANS ARE REDUCED TO 3

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

  1           ID        SUPERSTITION FREEWAY  -  OFFSITE DRAINAGE ANALYSIS
  2           ID        ELLSWORTH TO POWER ROAD - 50 YEAR, 24 HOUR PRECIPITATION
  3           ID        SIMULATION NUMBER 1: EXISTING CONDITIONS
              *DIAGRAM
  4           IT      15                      120
  5           IO       6
  6           PG       1    3.35
  7           PG      10
  8           IN      30                       48
  9           PI   0.018   0.018   0.018   0.018   0.022   0.022   0.022   0.022   0.024   0.017
 10           PI   0.034   0.034   0.034   0.050   0.025   0.025   0.044   0.044   0.054   0.060
 11           PI   0.077   0.104   0.161   1.273   0.241   0.124   0.091   0.070   0.050   0.050
 12           PI   0.050   0.050   0.030   0.030   0.030   0.030   0.030   0.030   0.030   0.030
 13           PI   0.020   0.020   0.020   0.020   0.020   0.020   0.020   0.020

 14           KK   SUB11
 15           KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
 16           PR      10
 17           PW       1
 18           PT       1
 19           PW       1
 20           BA    0.50
 21           LS              83
 22           UK     500  0.0133   0.200     100
 23           RK    5700  0.0148   0.040   0.158    TRAP     2.0     4.0
 24           RK    1700  0.0055   0.035            TRAP     8.0     1.5

 25           KK    RO11
 26           KM   ROUTE SUB 11 FROM C.A.P. TO BROADWAY
 27           RK    6200  0.0102   0.035            TRAP     5.0     2.0

 28           KK   SUB10
 29           KM        LOCAL RUNOFF TO C.A.P. OVERCHUTES
 30           BA    2.09
 31           LS              82
 32           UK    1000  0.0150   0.200     100
 33           RK    4800  0.0115   0.040  0.1033    TRAP     2.0     4.0
 34           RK   10000  0.0102   0.035            TRAP    10.0     3.0

 35           KK    RO10
 36           KM        ROUTE FLOWS FROM C.A.P. TO BROADWAY
 37           RK    7600  0.0102   0.035            TRAP     5.0     2.0

 38           KK   SUB16
 39           KM        LOCAL RUNOFF TO BROADWAY ROAD 950 FT. WEST
 40           KM        OF ELLSWORTH
 41           BA    0.59
 42           LS              84
 43           UK      90   0.005   0.200     100
 44           RK    5250  0.0090   0.050   0.118    TRAP    20.0    0.01
 45           RK    7600  0.0102   0.035            TRAP     5.0     2.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  46          KK    CO16
  47          KM        COMBINE RUNOFF  950 FEET WEST OF ELLSWORTH ON BROADWAY
  48          HC       3

  49          KK   DIV16
  50          KM        DIVERT EXCESS FLOW SOUTH ACROSS BROADWAY 950 FT. WEST
  51          KM        OF ELLSWORTH AT CBC BELOW 90th STREET
  52          DT     D16
  53          DI       0    1185    1585
  54          DQ       0     140     400

  55          KK    RO16
  56          KM        ROUTE FLOWS TO FLOW DIVISION 2740 FT. WEST
  57          KM        OF ELLSWORTH AT CBC BELOW GLENMAR ROAD
  58          RK    1790  0.0093   0.016            TRAP    16.0     1.0

  59          KK   SUB12
  60          KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
  61          BA    0.69
  62          LS              83
  63          UK     500  0.0180   0.200     100
  64          RK    6600  0.0174   0.040   0.071    TRAP     2.0     4.0
  65          RK    1060  0.0056   0.035            TRAP     8.0     1.5

  66          KK    RO12
  67          KM        ROUTE FLOW FROM OVERCHUTE (SUB 12) TO BROADWAY (SUB 15)
  68          RK    7500  0.0098   0.035           TRAP     5.0     3.0

  69          KK   SUB15
  70          KM        LOCAL RUNOFF FROM SUB 15
  71          BA    0.41
  72          LS              84
  73          UK      85   0.005   0.200     100
  74          RK    7300  0.0150   0.050   0.082    TRAP     5.0    3.00
  75          RK    1790  0.0093   0.016            TRAP    16.0     1.0

  76          KK    CO15
  77          KM         COMBINE ROUTED OVERCHUTE FLOW (SUB 12) WITH SUB 15
  78          KM         AND ROUTED FLOW FROM CO16
  79          HC       3

  80          KK   DIV15
  81          KM        DIVERT EXCESS FLOW SOUTH ACROSS BROADWAY 2740 FT. WEST
  82          KM        OF ELLSWORTH (GLENMAR ROAD).
  83          DT     D15
  84          DI       0     735    1405    2460
  85          DQ       0       0     140     400

  86          KK    RO15
  87          KM         ROUTE FLOWS PASSING THROUGH THE CBC BELOW GLENMAR
  88          KM         ROAD WEST ALONG BROADWAY TO HAWES
  89          RK    2470  0.0084   0.016            TRAP    10.0     1.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  90          KK   SUB13
  91          KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
  92          BA    0.35
  93          LS              82
  94          UK     500  0.0230   0.200     100
  95          RK    3000  0.0167   0.040  0.0646    TRAP     2.0     4.0
  96          RK    1480  0.0042   0.035            TRAP     8.0     1.5

  97          KK    RO13
  98          KM         ROUTE FLOW FROM SUB 13 (OVERCHUTE) TO BROADWAY AND HAWES
  99          KM         THROUGH SUB 14.
 100          RK    8500  0.0100   0.050            TRAP     5.0     2.0

 101          KK   SUB14
 102          KM        LOCAL RUNOFF TO HAWES AND BROADWAY
 103          BA    1.10
 104          LS              85
 105          UK      85   0.005   0.200     100
 106          RK    8500  0.0067   0.050   0.036    TRAP    20.0    0.01
 107          RK    2470  0.0084   0.016            TRAP    10.0     1.0

 108          KK    CO14
 109          KM        COMBINE LOCAL AND OVERCHUTE FLOW (SUB 13) WITH SUB 14
 110          KM        AT BROADWAY AND HAWES- NO FLOW DIVERSION TO THE WEST
 111          KM        DUE TO A ONE WAY ROAD CROWN SLOPING SOUTH.
 112          HC       3

 113          KK    RO14
 114          KM        ROUTE FLOWS SOUTH TO SOUTHERN AT HAWES ROAD
 115          RK    5300  0.0068   0.025            TRAP    35.0     2.3

 116          KK   RET16
 117          KM        RETRIEVE FLOWS DIVERTED S. ACROSS BROADWAY 950
 118          KM        FEET WEST OF ELLSWORTH
 119          DR     D16

 120          KK   ROD16
 121          KM        ROUTE DIVERTED FLOWS FROM BROADWAY TO HAWES AND SOUTHERN
 122          RK    9000  0.0067   0.035            TRAP    10.0     4.0

 123          KK   RET15
 124          KM        RETRIEVE FLOW DIVERTED S. ACROSS BROADWAY 2740
 125          KM        FEET WEST OF ELLSWORTH (GLENMAR ROAD).
 126          DR     D15

 127          KK   ROD15
 128          KM        ROUTE DIVERTED FLOWS TO HAWES ROAD AND SOUTHERN
 129          RK    7700  0.0067   0.035            TRAP    20.0     4.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 130          KK   SUB17
 131          KM        LOCAL RUNOFF TO HAWES ROAD AND SOUTHERN
 132          BA    1.19
 133          LS              84
 134          UK    1250   0.010   0.200     100
 135          RK    6500   0.009   0.040   0.117    TRAP     2.0     4.0
 136          RK    5300  0.0068   0.025            TRAP    35.0     2.3

 137          KK    CO17
 138          KM        COMBINE FLOWS ALONG HAWES ROAD AT SOUTHERN
 139          HC       4

 140          KK   DIV17
 141          KM        DIVERT FLOWS AT SOUTHERN AND HAWES
 142          DT     D17
 143          DI       0    1400    1450    2350    6115
 144          DQ       0     525     615     815    2230

 145          KK    RO17
 146          KM        ROUTE  17 ALONG SOUTHERN TO 90 DEGREE BEND
 147          KM        IN SOSSAMAN CHANNEL.
 148          RK    4000  0.0085   0.025            TRAP     8.0     1.2

 149          KK   SUB20
 150          KM        LOCAL RUNOFF AT SOSSAMAN CHANNEL AND SOUTHERN AVE
 151          BA   0.430
 152          LS              85
 153          UK     150   0.005   0.200     100
 154          RK    3100  0.0061   0.050   0.035    TRAP    40.0    0.01
 155          RK    4000  0.0085   0.025            TRAP     8.0     1.2

 156          KK    CO20
 157          KM         COMBINE FLOW WEST ALONG SOUTHERN FROM HAWES (RO17)
 158          HC       2

 159          KK   DIV20
 160          KM        DIVERT FLOW AT SOUTHERN AND SOSSAMAN CHANNEL
 161          DT     D20
 162          DI       0    1208    5000
 163          DQ       0       0    3792

 164          KK    RO20
 165          KM        ROUTE FLOWS IN SOSSAMAN CHANNEL FROM SOUTHERN TO FREEWAY
 166          RK    2600  0.0022   0.035            TRAP    15.0     2.6

 167          KK   RET17
 168          KM        RETRIEVE DIVERTED FLOW FROM HAWES AND SOUTHERN
 169          DR     D17
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 170          KK   ROD17
 171          KM        ROUTE DIVERTED FLOW FROM HAWES AND SOUTHERN SOUTH
 172          KM        ALONG HAWES TO THE FRWY. R.O.W. (APPROX. STA 970+00)
 173          RK    2600  0.0026   0.025            TRAP    22.0     2.0

 174          KK   SUB18
 175          KM        LOCAL FLOWS TO 3200 FEET WEST OF ELLSWORTH AT THE
 176          KM        NORTH R.O.W. OF THE SUPERSTITION FREEWAY.
 177          BA    0.41
 178          LS              84
 179          UK    1250   0.005   0.200     100
 180          RK    2500   0.007   0.040    0.03    TRAP     2.0     4.0
 181          RK    3200  0.0075   0.035            TRAP    20.0     2.0

 182          KK  SUB224
 183          KM        INFLOW TO SYSTEM FROM EAST OF ELLSWORTH
 184          KM        HYDROGRAPH RESULTING  FROM AN-WEST SIMULATION OF THE AREA
 185          KM        BETWEEN IRONWOOD AND ELLSWORTH. A PORTION OF THESE FLOWS
 186          KM        ENTER THE AREA BETWEEN ELLSWORTH AND POWER RD. AT ELLSWORTH.
 187          BA    0.30
 188          IN      15
 189          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 190          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 191          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 192          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 193          QI     0.0     0.0     0.0     1.0     1.0     3.0     6.0    12.0    95.0    693.
 194          QI   2005.   3308.   3509.   3212.   2653.   2151.   1664.   1316.   1097.    960.
 195          QI    848.    755.    679.    622.    578.    542.    510.    479.    449.    421.
 196          QI    395.    373.    354.    337.    322.    310.    299.    290.    282.    275.
 197          QI    270.    265.    260.    255.    248.    241.    234.    227.    220.    213.
 198          QI    207.    202.    197.    192.    188.    185.    182.    179.    176.    171.
 199          QI    163.    155.    146.    136.    127.    118.    109.    101.     94.     87.
 200          QI     81.     75.     70.     65.     61.     57.     53.     50.     47.     44.

 201          KK  DIV224
 202          KM        DIVERTED FLOWS FROM EAST OF ELLSWORTH THAT WILL NOT
 203          KM        ENTER THE SYSTEM BETWEEN POWER RD. AND ELLSWORTH.
 204          DT    D224
 205          DI       0    1275    2712    5000
 206          DQ       0       0    1287    3440

 207          KK  DIV225
 208          KM        FLOW DIVISION DUE TO A LACK OF CAPACITY IN THE
 209          KM        CHANNEL ALONG THE R.O.W. BETWEEN ELLSWORTH AND
 210          KM        APPROX. FREEWAY STA 992+00
 211          DT    D225
 212          DI       0    1155    2000
 213          DQ       0       0     845
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 214          KK  RO224
 215          KM       ROUTE FLOW ENTERING SYSTEM FROM EAST OF ELLSWORTH
 216          KM       TO 3200 FT. WEST OF ELLSWORTH.
 217          RK    3200  0.0060   0.035            TRAP    10.4     2.3

 218          KK    CO18
 219          KM        COMBINE ROUTED FLOWS FROM INFLOW TO SYSTEM FROM EAST OF
 220          KM        OF ELLSWORTH WITH HYDROGRAPH FROM SUB 222 AT APPROX.
 221          KM        FREEWAY STA 992+00.
 222          HC       2

 223          KK    RO18
 224          KM        ROUTE CO224 FLOWS TO SOUTHERN EXTENSION OF HAWES
 225          KM        ROAD. (APPROX. FREEWAY STA 970+00)
 226          RK    2200  0.0050   0.035            TRAP    12.6     2.6

 227          KK   SUB19
 228          KM        LOCAL RUNOFF TO THE N-S LEG OF THE HAWES CHANNEL AT
 229          KM        THE FREEWAY R.O.W..
 230          BA   0.187
 231          LS              84
 232          UK     110   0.005   0.200     100
 233          RK    2200  0.0100   0.035    0.05    TRAP    20.0    6.00
 234          RK    2600  0.0026   0.025            TRAP    22.0    2.00

 235          KK   CO19A
 236          KM        COMBINE FLOWS ROUTED WEST FROM SUB 18 ALONG THE R.O.W.
 237          KM        WITH LOCAL RUNOFF FROM SUB  19 AT APPROX. STA 970+00
 238          HC       2

 239          KK    CO19
 240          KM        COMBINE FLOWS FROM HAWES CHANNEL SPLIT WITH LOCAL
 241          KM        RUNOFF AND FLOWS ROUTED WEST ALONG THE SOUTH R.O.W.
 242          HC       2

 243          KK   DIV19
 244          KM        FLOW DIVISION DUE TO A LACK OF CHANNEL CAPACITY
 245          KM        BETWEEN THE N-S LEG OF THE HAWES CHANNEL AND SOSSAMAN
 246          KM        CHANNEL (APPROX. STA 970+00 TO 930+50). DIVERTED FLOWS
 247          KM        LEAVE THE SYSTEM BY TRAVELING SOUTH OVER THE R.O.W.
 248          DT     D19
 249          DI       0    1600    3000
 250          DQ       0       0    1400

 251          KK    RO19
 252          KM         ROUTE FLOWS ALONG FREEWAY R.O.W. FROM APPROX.
 253          KM         STA 970+00 TO SOSSAMAN CHANNEL.
 254          RK    3950   .0060   0.035            TRAP    40.0    2.00
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 255          KK   SUB21
 256          KM        LOCAL RUNOFF AT SOSSAMAN CHANNEL
 257          BA     .37
 258          LS              86
 259          UK     110   0.005   0.200     100
 260          RK    2600  0.0038   0.025    0.05    TRAP    40.0    0.01
 261          RK    3950   0.006   0.035            TRAP    32.9    2.85

 262          KK   CO21A
 263          KM        COMBINE FLOWS ROUTED WEST FROM APPROX. STA 970+00 TO
 264          KM        SOSSAMAN CHANNEL WITH LOCAL RUNOFF FROM SUB 228
 265          HC       2

 266          KK    CO21
 267          KM        COMBINE FLOWS IN SOSSAMAN CHANNEL AT FREEWAY
 268          HC       2

 269          KK   RET20
 270          KM        RETRIEVE DIVERTED FLOWS FROM SOUTHERN AVE. AND SOSSAMAN
 271          KM        CHANNEL.
 272          DR     D20

 273          KK   ROD20
 274          KM        ROUTE DIVERTED FLOWS FROM SOUTHERN AVE AND SOSSAMAN CHANNEL
 275          KM        ACROSS SUB 32.
 276          RK    3600   0.005   0.025            TRAP    20.0     2.0

 277          KK   SUB32
 278          KM         LOCAL FLOWS FROM EAST OF SOSSAMAN ROAD AND WEST OF
 279          KM         SOSSAMAN CHANNEL.
 280          BA    .172
 281          LS              84
 282          UK    200.   0.005    0.20    100.
 283          RK   1000.   0.005   0.025    0.01    TRAP    20.0    0.01
 284          RK   3900.   0.005   0.025            TRAP    20.0    2.00

 285          KK   CO32A
 286          KM        COMBINE FLOWS DIVERTED FROM SOSSAMAN AND SOUTHERN (D20)
 287          KM        WITH LOCAL FLOWS
 288          HC       2

 289          KK   SUB31
 290          KM         LOCAL RUNOFF FROM SUBAREA 31
 291          BA    .954
 292          LS              84
 293          UK    1000  0.0060   0.20     100
 294          RK    3995  0.0070   0.025    0.42    TRAP    20.0    0.01
 295          RK    3800  0.0045   0.025            TRAP    30.0    3.00
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 296          KK   SUB30
 297          KM        LOCAL RUNOFF FROM SUB 30
 298          BA   0.950
 299          LS              86
 300          UK     100  0.0050    0.20     100
 301          RK    2000  0.0070   0.025    0.10    TRAP    20.0    0.01
 302          RK    9600  0.0100   0.016            TRAP     2.0     1.0

 303          KK    RO30
 304          KM        ROUTE FLOWS FROM SUB  30 ACROSS SUB 31 TO THE FLOW
 305          KM        DIVISION IN THE SOSSAMAN ROAD CHANNEL.
 306          RK    3800  0.0045   0.025            TRAP    30.0     3.0

 307          KK    CO31
 308          KM        COMBINE FLOWS FROM SUB 31 WITH ROUTED FLOWS FROM
 309          KM        SUB 30
 310          HC       2

 311          KK   DIV31
 312          KM        FLOW DIVISION IN THE SOSSAMAN ROAD CHANNEL. DIVERTED FLOWS
 313          KM        TRAVEL DOWN THE WEST FORK OF THE SOSSAMAN ROAD CHANNEL.
 314          DT     D31
 315          DI      0.    500.  10000.
 316          DQ      0.    500.    500.

 317          KK   RO31
 318          KM        ROUTE FLOWS FROM DIVISION ALONG THE EAST FORK OF THE SOSSAMAN
 319          KM        ROAD CHANNEL TO THE R.O.W.
 320          RK    3900  0.0045   0.025            TRAP    30.0     3.0

 321          KK    CO32
 322          KM         COMBINE FLOWS ON THE WEST SIDE OF SOSSAMAN ROAD AT THE R.O.W.
 323          HC       2

 324          KK   SUB33
 325          KM        LOCAL FLOWS FROM SUB 33
 326          BA    .211
 327          LS              84
 328          UK    200.  0.0050    0.20    100.
 329          RK   2600.   0.007   0.035    0.03    TRAP    20.0    6.00
 330          RK   3900.   0.005   0.025            TRAP    20.0    2.00

 331          KK   RET31
 332          KM        RETRIEVE FLOWS DIVERTED DOWN THE WEST FORK OF THE
 333          KM        SOSSAMAN ROAD CHANNEL
 334          DR     D31

 335          KK   ROD31
 336          KM        ROUTE FLOWS DIVERTED DOWN THE EAST LEG OF THE SOSSAMAN
 337          KM        ROAD CHANNEL TO THE FREEWAY R.O.W.
 338          RK    3900  0.0045   0.025            TRAP    20.0     2.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 339          KK    CO33
 340          KM        COMBINE FLOWS FROM SUB BASIN 33 WITH FLOWS ROUTED
 341          KM        ALONG THE EAST FORK OF THE SOSSAMAN ROAD CHANNEL
 342          KM        TO THE FREEWAY.
 343          HC       2

 344          KK    RO33
 345          KM        ROUTE FLOWS FROM THE WEST FORK OF THE SOSSAMAN ROAD
 346          KM        CHANNEL ALONG THE R.O.W. TO THE 72nd STREET CHANNEL
 347          KM        (APPROX. STA 891+30).
 348          RK   1500.  0.0074   0.035            TRAP    24.0     2.0

 349          KK   SUB34
 350          KM         LOCAL RUNOFF FROM SUBAREA 34
 351          BA    1.16
 352          LS              84
 353          UK    1250   0.006    0.20     100
 354          RK   10000   0.013    0.05    0.39    TRAP    10.0    3.00
 355          RK    5000   0.008   0.025            TRAP    20.0    4.00

 356          KK    RO34
 357          KM        ROUTE FLOWS FROM SUB  34 THROUGH SUB 35
 358          RK    7400   0.004   0.025            TRAP    40.0     3.0

 359          KK   SUB35
 360          KM        LOCAL RUNOFF FROM SUBAREA 35
 361          BA     .85
 362          LS              84
 363          UK     200  0.0050   0.200     100
 364          RK    2600   0.007   0.025    0.11    TRAP    20.0    0.01
 365          RK    7500  0.0050   0.025            TRAP    20.0     2.0

 366          KK   CO35A
 367          KM        COMBINE FLOWS ROUTED FROM THE NORTH WITH LOCAL
 368          KM        FLOWS AT THE 72nd STREET CHANNEL.
 369          HC       2

 370          KK    CO35
 371          KM        COMBINE FLOWS IN THE NORTH R.O.W. CHANNEL WITH FLOWS
 372          KM        ENTERING FROM THE 72nd STREET CHANNEL.
 373          HC       2

 374          KK    RO35
 375          KM        ROUTE FLOWS FROM 72nd ST. CHANNEL TO POWER ROAD
 376          KM        ALONG THE NORTH R.O.W. LINE.(APPROX. STA 891+30
 377          KM        TO STA 866+00)
 378          RK    2530  0.0056   0.035            TRAP    65.0     1.0

 379          KK   SUB36
 380          KM        LOCAL FLOWS TO POWER ROAD
 381          BA    0.60
 382          LS              84
 383          UK     300  0.0050   0.200     100
 384          RK    7800   0.006   0.025    0.15    TRAP    40.0    0.01
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 385          RK    2530  0.0056   0.035            TRAP   65.0     1.0

 386          KK    C036
 387          KM        COMBINE FLOWS AT POWER ROAD IN FREEWAY CHANNEL
 388          HC       2

 389          KK   ROPOW
 390          KM        ROUTE FLOWS THROUGH POWER ROAD
 391          RS     1.0    ELEV  1358.2
 392          SV     0.0   0.582   0.780   0.897   0.956   1.108   1.299   1.570   1.826   2.138
 393          SV   2.317
 394          SE  1358.2  1362.2  1362.9  1363.3  1363.5  1364.0  1364.6  1365.4  1366.1  1366.9
 395          SE  1367.3
 396          SQ      0.     500.    700.    900.   1000.   1200.   1400.   1500.   1600.   1700.
 397          SQ   1800.

 398          KK   R036A
 399          KM        ROUTE FLOWS FROM POWER ROAD TO THE WEST FOR 500 FEET.
 400          RK    500.  0.0053   0.016            TRAP   12.0     2.0

 401          KK   R036B
 402          KM        ROUTE FLOW TO 2000 FEET WEST OF POWER ROAD
 403          RK   1500.   0.015   0.016            TRAP   12.0     2.0

 404          KK   R036C
 405          KM        ROUTE FLOW TO THE R.W.C.D., 5175 FEET WEST OF POWER ROAD.
 406          RK   3175. 0.00157   0.016            TRAP   12.0     2.0

 407          KK  SUB26C
 408          KM         LOCAL RUNOFF FROM POWER ROAD TO THE R.W.C.D.
 409          BA    0.44
 410          LS            77.3
 411          UK   1250.   0.005    0.20     100
 412          RK   2600.  0.0038   0.035            TRAP   10.0     3.0
 413          RK   5200.  0.0015   0.016            TRAP   12.0     2.0

 414          KK    C037
 415          KM        COMBINE LOCAL FLOWS WITH FLOWS IN THE R.O.W. CHANNEL
 416          KM        AT THE R.W.C.D.
 417          HC       2
 418          ZZ
```

```
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

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

   14       SUB11
                V
                V
   25        RO11
                .
                .
   28           .       SUB10
                .           V
                .           V
   35           .        RO10
                .           .
                .           .
   38           .           .       SUB16
                .           .           .
                .           .           .
   46        CO16.......................
                .
                .
   52           .------->     D16
   49       DIV16
                V
                V
   55        RO16
                .
                .
   59           .       SUB12
                .           V
                .           V
   66           .        RO12
                .           .
                .           .
   69           .           .       SUB15
                .           .           .
                .           .           .
   76        CO15.......................
                .
                .
   83           .------->     D15
   80       DIV15
                V
                V
   86        RO15
                .
                .
   90           .       SUB13
                .           V
                .           V
   97           .        RO13
                .           .
                .           .
  101           .           .       SUB14
                .           .           .
                .           .           .
  108        CO14.......................
                V
                V
  113        RO14
  118           :       RET16<-------     D16
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```
                .          V
                .          V
120             .      ROD16
                .          .
                .          .
126             .          .          .<-------     D15
123             .          .      RET15
                .          .          V
                .          .          V
127             .          .      ROD15
                .          .          .
                .          .          .
130             .          .          .       SUB17
                .          .          .           .
                .          .          .           .
137          CO17.................................
                .
                .
142             .------->     D17
140         DIV17
                V
                V
145          RO17
                .
                .
149             .      SUB20
                .          .
                .          .
156          CO20............
                .
                .
161             .------->     D20
159         DIV20
                V
                V
164          RO20
                .
                .
169             .          .<-------     D17
167             .      RET17
                .          V
                .          V
170             .      ROD17
                .          .
                .          .
174             .          .      SUB18
                .          .          .
                .          .          .
182             .          .          .      SUB224
                .          .          .           .
                .          .          .           .
204             .          .          .           .------->    D224
201             .          .          .      DIV224
                .          .          .           .
                .          .          .           .
211             .          .          .           .------->    D225
207             .          .          .      DIV225
                .          .          .           V
                .          .          .           V
214             .          .          .      RO224
                .          .          .           .
                .          .          .           .
218             .          .        CO18............
                .          .          V
223             :          :        RO18
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227          .          .          .      SUB19
             .          .          .          .
             .          .          .          .
235          .          .      CO19A............
             .          .          .
             .          .          .
239          .       CO19............
             .          .
             .          .
248          .          .-------->     D19
243          .      DIV19
             .          V
             .          V
251          .       RO19
             .          .
             .          .
255          .          .      SUB21
             .          .          .
             .          .          .
262          .      CO21A............
             .          .
             .          .
266       CO21............
             .
             .
272          .          .<--------     D20
269          .      RET20
             .          V
             .          V
273          .      ROD20
             .          .
             .          .
277          .          .      SUB32
             .          .          .
             .          .          .
285          .      CO32A............
             .          .
             .          .
289          .          .      SUB31
             .          .          .
             .          .          .
296          .          .          .      SUB30
             .          .          .          V
             .          .          .          V
303          .          .          .       RO30
             .          .          .          .
             .          .          .          .
307          .          .       CO31............
             .          .          .
             .          .          .
314          .          .          .-------->     D31
311          .          .      DIV31
             .          .          V
             .          .          V
317          .          .      RO31
             .          .          .
             .          .          .
321          .       CO32............
             .          .
             .          .
324          .          .      SUB33
             .          .          .
             .          .          .
334          .          .          .          .<--------     D31
331          :          :          :      RET31
333          :          :          :      ROD31
```

```
                .          .          .          .
                .          .          .          .
339             .          .       CO33...........
                .          .          V
                .          .          V
344             .          .       RO33
                .          .          .
                .          .          .
349             .          .          .      SUB34
                .          .          .          V
                .          .          .          V
356             .          .          .       RO34
                .          .          .          .
                .          .          .          .
359             .          .          .          .      SUB35
                .          .          .          .        .
                .          .          .          .        .
366             .          .          .      CO35A...........
                .          .          .          .
                .          .          .          .
370             .          .       CO35...........
                .          .          V
                .          .          V
374             .          .       RO35
                .          .          .
                .          .          .
379             .          .          .      SUB36
                .          .          .          .
                .          .          .          .
386             .          .       CO36...........
                .          .          V
                .          .          V
389             .          .      ROPOW
                .          .          V
                .          .          V
398             .          .      RO36A
                .          .          V
                .          .          V
401             .          .      RO36B
                .          .          V
                .          .          V
404             .          .      RO36C
                .          .          .
                .          .          .
407             .          .          .     SUB26C
                .          .          .          .
                .          .          .          .
414             .          .       CO37...........
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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                    ****
          FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
                                        ****


                    SUPERSTITION FREEWAY  -  OFFSITE DRAINAGE ANALYSIS
                    ELLSWORTH TO POWER ROAD - 50 YEAR, 24 HOUR PRECIPITATION
                    SIMULATION NUMBER 1: EXISTING CONDITIONS

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

  IT        HYDROGRAPH TIME DATA
                 NMIN         15  MINUTES IN COMPUTATION INTERVAL
                IDATE      1    0  STARTING DATE
                ITIME       0000  STARTING TIME
                   NQ        120  NUMBER OF HYDROGRAPH ORDINATES
               NDDATE      2    0  ENDING DATE
               NDTIME       0545  ENDING TIME

          COMPUTATION INTERVAL     .25 HOURS
               TOTAL TIME BASE   29.75 HOURS

     ENGLISH UNITS
```

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

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
HYDROGRAPH AT	SUB11	264.	12.50	70.	22.	18.	.50		
ROUTED TO	RO11	233.	12.75	69.	22.	18.	.50		
HYDROGRAPH AT	SUB10	691.	12.75	266.	88.	71.	2.09		
ROUTED TO	RO10	679.	13.00	264.	87.	70.	2.09		
HYDROGRAPH AT	SUB16	453.	12.50	90.	28.	22.	.59		
3 COMBINED AT	CO16	1156.	12.75	419.	137.	111.	3.18		
DIVERSION TO	D16	137.	12.75	50.	16.	13.	3.18		
HYDROGRAPH AT	DIV16	1019.	12.75	370.	121.	98.	3.18		
ROUTED TO	RO16	1012.	12.75	370.	121.	98.	3.18		
HYDROGRAPH AT	SUB12	405.	12.50	95.	30.	25.	.69		
ROUTED TO	RO12	396.	12.75	98.	31.	25.	.69		
HYDROGRAPH AT	SUB15	323.	12.50	62.	19.	16.	.41		
3 COMBINED AT	CO15	1585.	12.75	528.	172.	138.	4.28		
DIVERSION TO	D15	184.	12.75	24.	6.	5.	4.28		
HYDROGRAPH AT	DIV15	1400.	12.75	505.	166.	134.	4.28		
ROUTED TO	RO15	1398.	12.75	505.	166.	134.	4.28		
HYDROGRAPH AT	SUB13	201.	12.50	47.	15.	12.	.35		
ROUTED TO	RO13	201.	12.75	48.	15.	12.	.35		
HYDROGRAPH AT	SUB14	442.	12.75	162.	53.	43.	1.10		
3 COMBINED AT	CO14	2041.	12.75	714.	234.	189.	5.73		
ROUTED TO	RO14	1974.	12.75	707.	233.	188.	5.73		
HYDROGRAPH AT	RET16	137.	12.75	50.	16.	13.	.00		
ROUTED TO	ROD16	138.	13.00	51.	17.	14.	.00		
HYDROGRAPH AT	RET15	184.	12.75	24.	6.	5.	.00		
ROUTED TO	ROD15	151.	13.00	24.	6.	5.	.00		
HYDROGRAPH AT	SUB17	351.	13.00	159.	54.	43.	1.19		
4 COMBINED AT	CO17	2515.	13.00	939.	309.	250.	6.92		
DIVERSION TO	D17	877.	13.00	350.	115.	93.	6.92		
HYDROGRAPH AT	DIV17	1638.	13.00	589.	194.	156.	6.92		
ROUTED TO	RO17	1633.	13.00	588.	194.	156.	6.92		

HYDROGRAPH AT	SUB20	360.	12.50	68.	21.	17.	.43
2 COMBINED AT	CO20	1745.	13.00	655.	215.	174.	7.35
DIVERSION TO	D20	537.	12.50	60.	15.	12.	7.35
HYDROGRAPH AT	DIV20	1208.	12.50	594.	200.	161.	7.35
ROUTED TO	RO20	1208.	12.75	593.	200.	162.	7.35
HYDROGRAPH AT	RET17	877.	13.00	350.	115.	93.	.00
ROUTED TO	ROD17	873.	13.00	349.	115.	93.	.00
HYDROGRAPH AT	SUB18	97.	13.50	54.	19.	15.	.41
HYDROGRAPH AT	SUB224	3509.	13.00	1227.	395.	319.	.30
DIVERSION TO	D224	2037.	13.00	362.	91.	73.	.30
HYDROGRAPH AT	DIV224	1472.	13.00	864.	305.	246.	.30
DIVERSION TO	D225	317.	12.50	78.	20.	16.	.30
HYDROGRAPH AT	DIV225	1155.	12.50	786.	285.	230.	.30
ROUTED TO	RO224	1155.	12.75	786.	285.	230.	.30
2 COMBINED AT	CO18	1252.	13.50	840.	304.	245.	.71
ROUTED TO	RO18	1252.	13.50	840.	304.	245.	.71
HYDROGRAPH AT	SUB19	154.	12.25	29.	9.	7.	.19
2 COMBINED AT	CO19A	1285.	13.00	864.	313.	252.	.90
2 COMBINED AT	CO19	2158.	13.00	1213.	428.	345.	.90
DIVERSION TO	D19	558.	12.50	104.	26.	21.	.90
HYDROGRAPH AT	DIV19	1600.	12.50	1109.	402.	324.	.90
ROUTED TO	RO19	1600.	12.75	1109.	402.	324.	.90
HYDROGRAPH AT	SUB21	309.	12.25	61.	19.	15.	.37
2 COMBINED AT	CO21A	1774.	12.75	1161.	421.	339.	1.27
2 COMBINED AT	CO21	2982.	12.75	1754.	621.	501.	8.62
HYDROGRAPH AT	RET20	537.	13.00	60.	15.	12.	.00
ROUTED TO	ROD20	531.	13.00	61.	15.	12.	.00
HYDROGRAPH AT	SUB32	130.	12.50	26.	8.	6.	.17
2 COMBINED AT	CO32A	570.	13.00	87.	23.	19.	.17
HYDROGRAPH AT	SUB31	280.	13.00	131.	44.	35.	.95
HYDROGRAPH AT	SUB30	954.	12.25	159.	50.	40.	.95
ROUTED TO	RO30	794.	12.50	163.	51.	41.	.95
2 COMBINED AT	CO31	1016.	12.50	293.	95.	76.	1.80
DIVERSION TO	D31	500.	12.50	242.	82.	68.	1.90

HYDROGRAPH AT	DIV31	516.	12.50	50.	13.	10.	1.90		
ROUTED TO	RO31	465.	12.50	50.	12.	10.	1.90		
2 COMBINED AT	CO32	831.	12.75	137.	36.	29.	2.08		
HYDROGRAPH AT	SUB33	158.	12.50	31.	10.	8.	.21		
HYDROGRAPH AT	RET31	500.	12.25	242.	82.	66.	.00		
ROUTED TO	ROD31	500.	12.50	241.	82.	66.	.00		
2 COMBINED AT	CO33	658.	12.50	272.	92.	74.	.21		
ROUTED TO	RO33	636.	12.50	272.	92.	74.	.21		
HYDROGRAPH AT	SUB34	282.	13.50	147.	51.	41.	1.16		
ROUTED TO	RO34	277.	13.75	145.	51.	41.	1.16		
HYDROGRAPH AT	SUB35	641.	12.50	126.	40.	32.	.85		
2 COMBINED AT	CO35A	648.	12.50	263.	90.	73.	2.01		
2 COMBINED AT	CO35	1284.	12.50	534.	182.	147.	2.22		
ROUTED TO	RO35	1198.	12.50	535.	182.	147.	2.22		
HYDROGRAPH AT	SUB36	288.	12.75	83.	27.	22.	.60		
2 COMBINED AT	CO36	1468.	12.50	618.	209.	168.	2.82		
ROUTED TO	ROPOW	1455.	12.50	618.	209.	168.	2.82	1365.04	12.50
ROUTED TO	RO36A	1438.	12.50	618.	209.	168.	2.82		
ROUTED TO	RO36B	1421.	12.75	617.	209.	169.	2.82		
ROUTED TO	RO36C	1416.	12.75	615.	209.	168.	2.82		
HYDROGRAPH AT	SUB26C	62.	14.00	40.	15.	12.	.44		
2 COMBINED AT	CO37	1459.	12.75	654.	223.	180.	3.26		

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

User: DEN104 -at

<OPS183>PROJ>PJ6114>DATA>HEC1>EXI.OUT

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


WWWW  WWWWW W   W   W    WWW  W
W   W W     WW  W  WW   W   W W  W
W   W WWWW  W W W   W   W   W W  W
W   W W     W W W   W   W W W WWWWW
W   W W     W  WW   W   W   W    W
WWWW  WWWWW W   W  WWW   WWW     W



WWWWW W   W  WWW         WWW  W   W WWWWW
W     W   W   W         W   W W   W   W
W      W W    W         W   W W   W   W
WWWW    W     W         W   W W   W   W
W      W W    W         W   W W   W   W
W     W   W   W     WW  W   W W   W   W
WWWWW W   W  WWW    WW   WWW   WWW    W

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[Spooler rev 20.0.6HB (c) Prime Computer, Inc., 1986]

Label: PRT117 -form DENPRT

Pathname: <OPS183>PROJ>PJ6114>DATA>HEC1>EXI.OUT
File last modified: 88-06-02.09:58:44.Thu

Spooled: 88-09-13.13:01:24.Tue
Started: 88-09-13.13:03:00.Tue on: AMLC by: DENPRT

FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
****

THIS HEC-1 VERSION CONTAINS ALL OPTIONS EXCEPT ECONOMICS, AND THE NUMBER OF PLANS ARE REDUCED TO 3

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

  1           ID        SUPERSTITION FREEWAY  -  OFFSITE DRAINAGE ANALYSIS
  2           ID        ELLSWORTH TO POWER ROAD- 100 YEAR, 24 HOUR PRECIPITATION
  3           ID        SIMULATION NUMBER 1: EXISTING CONDITIONS
              *DIAGRAM
  4           IT      15                      120
  5           IO       6
  6           PG       1    3.65
  7           PG      10
  8           IN      30                       48
  9           PI   0.019   0.020   0.020   0.022   0.022   0.023   0.025   0.025   0.026   0.028
 10           PI   0.029   0.031   0.033   0.035   0.038   0.042   0.046   0.051   0.057   0.067
 11           PI   0.085   0.113   0.176   1.387   0.262   0.136   0.097   0.076   0.067   0.058
 12           PI   0.050   0.046   0.041   0.038   0.035   0.033   0.031   0.029   0.027   0.027
 13           PI   0.025   0.024   0.023   0.022   0.022   0.020   0.020   0.019

 14           KK   SUB11
 15           KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
 16           PR      10
 17           PW       1
 18           PT       1
 19           PW       1
 20           BA    0.50
 21           LS              83
 22           UK     500  0.0133   0.200     100
 23           RK    5700  0.0148   0.040   0.158    TRAP     2.0     4.0
 24           RK    1700  0.0055   0.035            TRAP     8.0     1.5

 25           KK    RO11
 26           KM   ROUTE SUB 11 FROM C.A.P. TO BROADWAY
 27           RK    6200  0.0102   0.035            TRAP     5.0     2.0

 28           KK   SUB10
 29           KM        LOCAL RUNOFF TO C.A.P. OVERCHUTES
 30           BA    2.09
 31           LS              82
 32           UK    1000  0.0150   0.200     100
 33           RK    4800  0.0115   0.040  0.1033    TRAP     2.0     4.0
 34           RK   10000  0.0102   0.035            TRAP    10.0     3.0

 35           KK    RO10
 36           KM        ROUTE FLOWS FROM C.A.P. TO BROADWAY
 37           RK    7600  0.0102   0.035            TRAP     5.0     2.0

 38           KK   SUB16
 39           KM        LOCAL RUNOFF TO BROADWAY ROAD 950 FT. WEST
 40           KM        OF ELLSWORTH
 41           BA    0.59
 42           LS              84
 43           UK      90   0.005   0.200     100
 44           RK    5250  0.0090   0.050   0.118    TRAP    20.0    0.01
 45           RK    7600  0.0102   0.035            TRAP     5.0     2.0
```

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

  46          KK    CO16
  47          KM        COMBINE RUNOFF  950 FEET WEST OF ELLSWORTH ON BROADWAY
  48          HC       3

  49          KK   DIV16
  50          KM        DIVERT EXCESS FLOW SOUTH ACROSS BROADWAY 950 FT. WEST
  51          KM        OF ELLSWORTH
  52          DT     D16
  53          DI       0    1185    1585
  54          DQ       0     140     400

  55          KK    RO16
  56          KM        ROUTE FLOWS TO FLOW DIVISION 2740 FT. WEST
  57          KM        OF ELLSWORTH AT CBC BELOW GLENMAR ROAD
  58          RK    1790  0.0093   0.016            TRAP    16.0     1.0

  59          KK   SUB12
  60          KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
  61          BA    0.69
  62          LS              83
  63          UK     500  0.0180   0.200     100
  64          RK    6600  0.0174   0.040   0.071    TRAP     2.0     4.0
  65          RK    1060  0.0056   0.035            TRAP     8.0     1.5

  66          KK    RO12
  67          KM        ROUTE FLOW FROM OVERCHUTE (SUB 12) TO BROADWAY (SUB 15)
  68          RK    7500  0.0098   0.035            TRAP     5.0     3.0

  69          KK   SUB15
  70          KM        LOCAL RUNOFF FROM SUB 15
  71          BA    0.41
  72          LS              84
  73          UK      85   0.005   0.200     100
  74          RK    7300  0.0150   0.050   0.082    TRAP     5.0    3.00
  75          RK    1790  0.0093   0.016            TRAP    16.0     1.0

  76          KK    CO15
  77          KM         COMBINE ROUTED OVERCHUTE FLOW (SUB 12) WITH SUB 15
  78          KM         AND ROUTED FLOW FROM CO16
  79          HC       3

  80          KK   DIV15
  81          KM        DIVERT EXCESS FLOW SOUTH ACROSS BROADWAY 2740 FT. WEST
  82          KM        OF ELLSWORTH (GLENMAR ROAD).
  83          DT     D15
  84          DI       0     735    1405    2460
  85          DQ       0       0     140     400

  86          KK    RO15
  87          KM         ROUTE FLOWS PASSING THROUGH THE CBC BELOW GLENMAR
  88          KM         ROAD WEST ALONG BROADWAY TO HAWES
  89          RK    2470  0.0084   0.016            TRAP    10.0     1.0
```

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

  90          KK   SUB13
  91          KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
  92          BA    0.35
  93          LS              82
  94          UK     500  0.0230   0.200     100
  95          RK    3000  0.0167   0.040  0.0646    TRAP     2.0     4.0
  96          RK    1480  0.0042   0.035            TRAP     8.0     1.5

  97          KK    RO13
  98          KM         ROUTE FLOW FROM SUB 13 (OVERCHUTE) TO BROADWAY AND HAWES
  99          KM         THROUGH SUB 14.
 100          RK    8500  0.0100   0.050            TRAP     5.0     2.0

 101          KK   SUB14
 102          KM        LOCAL RUNOFF TO HAWES AND BROADWAY
 103          BA    1.10
 104          LS              85
 105          UK      85   0.005   0.200     100
 106          RK    8500  0.0067   0.050   0.036    TRAP    20.0    0.01
 107          RK    2470  0.0084   0.016            TRAP    10.0     1.0

 108          KK    CO14
 109          KM        COMBINE LOCAL AND OVERCHUTE FLOW (SUB 13) WITH SUB 14
 110          KM        AT BROADWAY AND HAWES- NO FLOW DIVERSION TO THE WEST
 111          KM        DUE TO A ONE WAY ROAD CROWN SLOPING SOUTH.
 112          HC       3

 113          KK    RO14
 114          KM        ROUTE FLOWS SOUTH TO SOUTHERN AT HAWES ROAD
 115          RK    5300  0.0068   0.025            TRAP    35.0     2.3

 116          KK   RET16
 117          KM        RETRIEVE FLOWS DIVERTED S. ACROSS BROADWAY 950
 118          KM        FEET WEST OF ELLSWORTH
 119          DR     D16

 120          KK   ROD16
 121          KM        ROUTE DIVERTED FLOWS FROM BROADWAY TO HAWES AND SOUTHERN
 122          RK    9000  0.0067   0.035            TRAP    10.0     4.0

 123          KK   RET15
 124          KM        RETRIEVE FLOW DIVERTED S. ACROSS BROADWAY 2740
 125          KM        FEET WEST OF ELLSWORTH (GLENMAR ROAD).
 126          DR     D15

 127          KK   ROD15
 128          KM        ROUTE DIVERTED FLOWS TO HAWES ROAD AND SOUTHERN
 129          RK    7700  0.0067   0.035            TRAP    20.0     4.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  130         KK   SUB17
  131         KM        LOCAL RUNOFF TO HAWES ROAD AND SOUTHERN
  132         BA    1.19
  133         LS              84
  134         UK    1250   0.010   0.200     100
  135         RK    6500   0.009   0.040   0.117    TRAP     2.0     4.0
  136         RK    5300  0.0068   0.025            TRAP    35.0     2.3

  137         KK    CO17
  138         KM        COMBINE FLOWS ALONG HAWES ROAD AT SOUTHERN
  139         HC       4

  140         KK   DIV17
  141         KM        DIVERT FLOWS AT SOUTHERN AND HAWES
  142         DT     D17
  143         DI       0    1400    1450    2350    6115
  144         DQ       0     525     615     815    2230

  145         KK    RO17
  146         KM        ROUTE  17 ALONG SOUTHERN TO 90 DEGREE BEND
  147         KM        IN SOSSAMAN CHANNEL.
  148         RK    4000  0.0085   0.025            TRAP     8.0     1.2

  149         KK   SUB20
  150         KM        LOCAL RUNOFF AT SOSSAMAN CHANNEL AND SOUTHERN AVE
  151         BA   0.430
  152         LS              85
  153         UK     150   0.005   0.200     100
  154         RK    3100  0.0061   0.050   0.035    TRAP    40.0    0.01
  155         RK    4000  0.0085   0.025            TRAP     8.0     1.2

  156         KK    CO20
  157         KM         COMBINE FLOW WEST ALONG SOUTHERN FROM HAWES (RO17)
  158         HC       2

  159         KK   DIV20
  160         KM        DIVERT FLOW AT SOUTHERN AND SOSSAMAN CHANNEL
  161         DT     D20
  162         DI       0    1208    5000
  163         DQ       0       0    3792

  164         KK    RO20
  165         KM        ROUTE FLOWS IN SOSSAMAN CHANNEL FROM SOUTHERN TO FREEWAY
  166         RK    2600  0.0022   0.035            TRAP    15.0     2.6

  167         KK   RET17
  168         KM        RETRIEVE DIVERTED FLOW FROM HAWES AND SOUTHERN
  169         DR     D17
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  170         KK   ROD17
  171         KM        ROUTE DIVERTED FLOW FROM HAWES AND SOUTHERN SOUTH
  172         KM        ALONG HAWES TO THE FRWY. R.O.W. (APPROX. STA 970+00)
  173         RK    2600  0.0026   0.025            TRAP    22.0     2.0

  174         KK   SUB18
  175         KM        LOCAL FLOWS TO 3200 FEET WEST OF ELLSWORTH AT THE
  176         KM        NORTH R.O.W. OF THE SUPERSTITION FREEWAY.
  177         BA    0.41
  178         LS              84
  179         UK    1250   0.005   0.200     100
  180         RK    2500   0.007   0.040    0.03    TRAP     2.0     4.0
  181         RK    3200  0.0075   0.035            TRAP    20.0     2.0

  182         KK  SUB224
  183         KM        INFLOW TO SYSTEM FROM EAST OF ELLSWORTH
  184         KM        HYDROGRAPH RESULTING  FROM AN-WEST SIMULATION OF THE AREA
  185         KM        BETWEEN IRONWOOD AND ELLSWORTH. A PORTION OF THESE FLOWS
  186         KM        ENTER THE AREA BETWEEN ELLSWORTH AND POWER RD. AT ELLSWORTH.
  187         BA    0.30
  188         IN      15
  189         QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
  190         QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
  191         QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
  192         QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
  193         QI     0.0     0.0     1.0     2.0     3.0     7.0    14.0    28.0   167.0   1062.
  194         QI   3006.   4105.   4200.   3716.   2953.   2352.   1809.   1435.   1187.   1037.
  195         QI    928.    839.    764.    700.    646.    601.    561.    527.    496.    468.
  196         QI    442.    420.    401.    383.    367.    353.    339.    327.    316.    305.
  197         QI    294.    285.    276.    268.    261.    254.    248.    242.    236.    230.
  198         QI    225.    220.    216.    211.    207.    203.    199.    195.    190.    183.
  199         QI    174.    164.    154.    143.    133.    123.    114.    105.     97.     90.
  200         QI     84.     78.     72.     68.     63.     59.     55.     52.     48.     46.

  201         KK  DIV224
  202         KM        DIVERTED FLOWS FROM EAST OF ELLSWORTH THAT WILL NOT
  203         KM        ENTER THE SYSTEM BETWEEN POWER RD. AND ELLSWORTH.
  204         DT    D224
  205         DI       0    1275    2712    5000
  206         DQ       0       0    1287    3440

  207         KK  DIV225
  208         KM        FLOW DIVISION DUE TO A LACK OF CAPACITY IN THE
  209         KM        CHANNEL ALONG THE R.O.W. BETWEEN ELLSWORTH AND
  210         KM        APPROX. FREEWAY STA 992+00
  211         DT    D225
  212         DI       0    1155    2000
  213         DQ       0       0     845
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 214          KK  RO224
 215          KM       ROUTE FLOW ENTERING SYSTEM FROM EAST OF ELLSWORTH
 216          KM       TO 3200 FT. WEST OF ELLSWORTH.
 217          RK    3200  0.0060   0.035            TRAP    10.4     2.3

 218          KK    CO18
 219          KM        COMBINE ROUTED FLOWS FROM INFLOW TO SYSTEM FROM EAST OF
 220          KM        OF ELLSWORTH WITH HYDROGRAPH FROM SUB 222 AT APPROX.
 221          KM        FREEWAY STA 992+00.
 222          HC       2

 223          KK    RO18
 224          KM        ROUTE CO224 FLOWS TO SOUTHERN EXTENSION OF HAWES
 225          KM        ROAD. (APPROX. FREEWAY STA 970+00)
 226          RK    2200  0.0050   0.035            TRAP    12.6     2.6

 227          KK   SUB19
 228          KM        LOCAL RUNOFF TO THE N-S LEG OF THE HAWES CHANNEL AT
 229          KM        THE FREEWAY R.O.W..
 230          BA   0.187
 231          LS              84
 232          UK     110   0.005   0.200     100
 233          RK    2200  0.0100   0.035    0.05    TRAP    20.0    6.00
 234          RK    2600  0.0026   0.025            TRAP    22.0    2.00

 235          KK   CO19A
 236          KM        COMBINE FLOWS ROUTED WEST FROM SUB 18 ALONG THE R.O.W.
 237          KM        WITH LOCAL RUNOFF FROM SUB  19 AT APPROX. STA 970+00
 238          HC       2

 239          KK    CO19
 240          KM        COMBINE FLOWS FROM HAWES CHANNEL SPLIT WITH LOCAL
 241          KM        RUNOFF AND FLOWS ROUTED WEST ALONG THE SOUTH R.O.W.
 242          HC       2

 243          KK   DIV19
 244          KM        FLOW DIVISION DUE TO A LACK OF CHANNEL CAPACITY
 245          KM        BETWEEN THE N-S LEG OF THE HAWES CHANNEL AND SOSSAMAN
 246          KM        CHANNEL (APPROX. STA 970+00 TO 930+50). DIVERTED FLOWS
 247          KM        LEAVE THE SYSTEM BY TRAVELING SOUTH OVER THE R.O.W.
 248          DT     D19
 249          DI       0    1600    3000
 250          DQ       0       0    1400

 251          KK    RO19
 252          KM         ROUTE FLOWS ALONG FREEWAY R.O.W. FROM APPROX.
 253          KM         STA 970+00 TO SOSSAMAN CHANNEL.
 254          RK    3950   .0060   0.035            TRAP    40.0    2.00
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 255          KK   SUB21
 256          KM        LOCAL RUNOFF AT SOSSAMAN CHANNEL
 257          BA     .37
 258          LS              86
 259          UK     110   0.005   0.200     100
 260          RK    2600  0.0038   0.025    0.05    TRAP    40.0    0.01
 261          RK    3950   0.006   0.035            TRAP    32.9    2.85

 262          KK   CO21A
 263          KM        COMBINE FLOWS ROUTED WEST FROM APPROX. STA 970+00 TO
 264          KM        SOSSAMAN CHANNEL WITH LOCAL RUNOFF FROM SUB 228
 265          HC       2

 266          KK    CO21
 267          KM        COMBINE FLOWS IN SOSSAMAN CHANNEL AT FREEWAY
 268          HC       2

 269          KK   RET20
 270          KM        RETRIEVE DIVERTED FLOWS FROM SOUTHERN AVE. AND SOSSAMAN
 271          KM        CHANNEL.
 272          DR     D20

 273          KK   ROD20
 274          KM        ROUTE DIVERTED FLOWS FROM SOUTHERN AVE AND SOSSAMAN CHANNEL
 275          KM        ACROSS SUB 32.
 276          RK    3600   0.005   0.025            TRAP    20.0     2.0

 277          KK   SUB32
 278          KM         LOCAL FLOWS FROM EAST OF SOSSAMAN ROAD AND WEST OF
 279          KM         SOSSAMAN CHANNEL.
 280          BA    .172
 281          LS              84
 282          UK    200.   0.005    0.20    100.
 283          RK   1000.   0.005   0.025    0.01    TRAP    20.0    0.01
 284          RK   3900.   0.005   0.025            TRAP    20.0    2.00

 285          KK   CO32A
 286          KM        COMBINE FLOWS DIVERTED FROM SOSSAMAN AND SOUTHERN (D20)
 287          KM        WITH LOCAL FLOWS
 288          HC       2

 289          KK   SUB31
 290          KM         LOCAL RUNOFF FROM SUBAREA 31
 291          BA    .954
 292          LS              84
 293          UK    1000  0.0060   0.20      100
 294          RK    3995  0.0070   0.025    0.42    TRAP    20.0    0.01
 295          RK    3800  0.0045   0.025            TRAP    30.0    3.00
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 296          KK   SUB30
 297          KM        LOCAL RUNOFF FROM SUB 30
 298          BA   0.950
 299          LS              86
 300          UK     100  0.0050    0.20     100
 301          RK    2000  0.0070   0.025    0.10    TRAP    20.0    0.01
 302          RK    9600  0.0100   0.016            TRAP     2.0     1.0

 303          KK    RO30
 304          KM        ROUTE FLOWS FROM SUB  30 ACROSS SUB 31 TO THE FLOW
 305          KM        DIVISION IN THE SOSSAMAN ROAD CHANNEL.
 306          RK    3800  0.0045   0.025            TRAP    30.0     3.0

 307          KK    CO31
 308          KM        COMBINE FLOWS FROM SUB 31 WITH ROUTED FLOWS FROM
 309          KM        SUB 30
 310          HC       2

 311          KK   DIV31
 312          KM        FLOW DIVISION IN THE SOSSAMAN ROAD CHANNEL. DIVERTED FLOWS
 313          KM        TRAVEL DOWN THE WEST FORK OF THE SOSSAMAN ROAD CHANNEL.
 314          DT     D31
 315          DI      0.    500.  10000.
 316          DQ      0.    500.    500.

 317          KK   RO31
 318          KM        ROUTE FLOWS FROM DIVISION ALONG THE EAST FORK OF THE SOSSAMAN
 319          KM        ROAD CHANNEL TO THE R.O.W.
 320          RK    3900  0.0045   0.025            TRAP    30.0     3.0

 321          KK    CO32
 322          KM         COMBINE FLOWS ON THE WEST SIDE OF SOSSAMAN ROAD AT THE R.O.W.
 323          HC       2

 324          KK   SUB33
 325          KM        LOCAL FLOWS FROM SUB 33
 326          BA    .211
 327          LS              84
 328          UK    200.  0.0050    0.20    100.
 329          RK   2600.   0.007   0.035    0.03    TRAP    20.0    6.00
 330          RK   3900.   0.005   0.025            TRAP    20.0    2.00

 331          KK   RET31
 332          KM        RETRIEVE FLOWS DIVERTED DOWN THE WEST FORK OF THE
 333          KM        SOSSAMAN ROAD CHANNEL
 334          DR     D31

 335          KK   ROD31
 336          KM        ROUTE FLOWS DIVERTED DOWN THE EAST LEG OF THE SOSSAMAN
 337          KM        ROAD CHANNEL TO THE FREEWAY R.O.W.
 338          RK    3900  0.0045   0.025            TRAP    20.0     2.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 339          KK    CO33
 340          KM        COMBINE FLOWS FROM SUB BASIN 33 WITH FLOWS ROUTED
 341          KM        ALONG THE EAST FORK OF THE SOSSAMAN ROAD CHANNEL
 342          KM        TO THE FREEWAY.
 343          HC       2

 344          KK    RO33
 345          KM        ROUTE FLOWS FROM THE WEST FORK OF THE SOSSAMAN ROAD
 346          KM        CHANNEL ALONG THE R.O.W. TO THE 72nd STREET CHANNEL
 347          KM        (APPROX. STA 891+30).
 348          RK   1500.  0.0074   0.035            TRAP    24.0     2.0

 349          KK   SUB34
 350          KM         LOCAL RUNOFF FROM SUBAREA 34
 351          BA    1.16
 352          LS              84
 353          UK    1250   0.006    0.20     100
 354          RK   10000   0.013    0.05    0.39    TRAP    10.0    3.00
 355          RK    5000   0.008   0.025            TRAP    20.0    4.00

 356          KK    RO34
 357          KM        ROUTE FLOWS FROM SUB  34 THROUGH SUB 35
 358          RK    7400   0.004   0.025            TRAP    40.0     3.0

 359          KK   SUB35
 360          KM        LOCAL RUNOFF FROM SUBAREA 35
 361          BA     .85
 362          LS              84
 363          UK     200  0.0050   0.200     100
 364          RK    2600   0.007   0.025    0.11    TRAP    20.0    0.01
 365          RK    7500  0.0050   0.025            TRAP    20.0     2.0

 366          KK   CO35A
 367          KM        COMBINE FLOWS ROUTED FROM THE NORTH WITH LOCAL
 368          KM        FLOWS AT THE 72nd STREET CHANNEL.
 369          HC       2

 370          KK    CO35
 371          KM        COMBINE FLOWS IN THE NORTH R.O.W. CHANNEL WITH FLOWS
 372          KM        ENTERING FROM THE 72nd STREET CHANNEL.
 373          HC       2

 374          KK    RO35
 375          KM        ROUTE FLOWS FROM 72nd ST. CHANNEL TO POWER ROAD
 376          KM        ALONG THE NORTH R.O.W. LINE.(APPROX. STA 891+30
 377          KM        TO STA 866+00)
 378          RK    2530  0.0056   0.035            TRAP    65.0     1.0

 379          KK   SUB36
 380          KM        LOCAL FLOWS TO POWER ROAD
 381          BA    0.60
 382          LS              84
 383          UK     300  0.0050   0.200     100
 384          RK    7800   0.006   0.025    0.15    TRAP    40.0    0.01
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 385          RK    2530  0.0056   0.035            TRAP    65.0     1.0

 386          KK    C036
 387          KM        COMBINE FLOWS AT POWER ROAD IN FREEWAY CHANNEL
 388          HC       2

 389          KK   ROPOW
 390          KM        ROUTE FLOWS THROUGH POWER ROAD
 391          RS     1.0    ELEV  1358.2
 392          SV     0.0   0.582   0.780   0.897   0.956   1.108   1.299   1.570   1.826   2.138
 393          SV   2.317
 394          SE  1358.2  1362.2  1362.9  1363.3  1363.5  1364.0  1364.6  1365.4  1366.1  1366.9
 395          SE  1367.3
 396          SQ      0.    500.    700.    900.   1000.   1200.   1400.   1500.   1600.   1700.
 397          SQ   1800.

 398          KK   R036A
 399          KM        ROUTE FLOWS FROM POWER ROAD TO THE WEST FOR 500 FEET.
 400          RK    500.  0.0053   0.016            TRAP    12.0     2.0

 401          KK   R036B
 402          KM        ROUTE FLOW TO 2000 FEET WEST OF POWER ROAD
 403          RK   1500.   0.015   0.016            TRAP    12.0     2.0

 404          KK   R036C
 405          KM        ROUTE FLOW TO THE R.W.C.D., 5175 FEET WEST OF POWER ROAD.
 406          RK   3175. 0.00157   0.016            TRAP    12.0     2.0

 407          KK  SUB26C
 408          KM         LOCAL RUNOFF FROM POWER ROAD TO THE R.W.C.D.
 409          BA    0.44
 410          LS           77.3
 411          UK   1250.   0.005    0.20     100
 412          RK   2600.  0.0038   0.035            TRAP    10.0     3.0
 413          RK   5200.  0.0015   0.016            TRAP    12.0     2.0

 414          KK    C037
 415          KM        COMBINE LOCAL FLOWS WITH FLOWS IN THE R.O.W. CHANNEL
 416          KM        AT THE R.W.C.D.
 417          HC       2
 418          ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

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

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

  14        SUB11
                V
                V
  25         RO11
                .
                .
  28            .        SUB10
                .            V
                .            V
  35            .         RO10
                .            .
                .            .
  38            .            .       SUB16
                .            .           .
                .            .           .
  46         CO16.......................
                .
                .
  52            .------->     D16
  49        DIV16
                V
                V
  55         RO16
                .
                .
  59            .        SUB12
                .            V
                .            V
  66            .         RO12
                .            .
                .            .
  69            .            .       SUB15
                .            .           .
                .            .           .
  76         CO15.......................
                .
                .
  83            .------->     D15
  80        DIV15
                V
                V
  86         RO15
                .
                .
  90            .        SUB13
                .            V
                .            V
  97            .         RO13
                .            .
                .            .
 101            .            .       SUB14
                .            .           .
                .            .           .
 108         CO14.......................
                V
                V
 113         RO14
 118            :        RET16<-------     D16
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                .          V
                .          V
120             .      ROD16
                .          .
                .          .
126             .          .          .<-------     D15
123             .          .      RET15
                .          .          V
                .          .          V
127             .          .      ROD15
                .          .          .
                .          .          .
130             .          .          .       SUB17
                .          .          .           .
                .          .          .           .
137          CO17.................................
                .
                .
142             .------->     D17
140         DIV17
                V
                V
145          RO17
                .
                .
149             .      SUB20
                .          .
                .          .
156          CO20............
                .
                .
161             .------->     D20
159         DIV20
                V
                V
164          RO20
                .
                .
169             .          .<-------     D17
167             .      RET17
                .          V
                .          V
170             .      ROD17
                .          .
                .          .
174             .          .      SUB18
                .          .          .
                .          .          .
182             .          .          .      SUB224
                .          .          .           .
                .          .          .           .
204             .          .          .           .------->    D224
201             .          .          .      DIV224
                .          .          .           .
                .          .          .           .
211             .          .          .           .------->    D225
207             .          .          .      DIV225
                .          .          .           V
                .          .          .           V
214             .          .          .      RO224
                .          .          .           .
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218             .          .       CO18............
                .          .          V
223             :          :       RO18
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227          .          .          .       SUB19
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             .          .          .          .
235          .          .      CO19A...........
             .          .          .
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239          .       CO19...........
             .          .
             .          .
248          .          .------->     D19
243          .      DIV19
             .          V
             .          V
251          .       RO19
             .          .
             .          .
255          .          .      SUB21
             .          .          .
             .          .          .
262          .      CO21A...........
             .          .
             .          .
266       CO21...........
             .
             .
272          .          .<-------     D20
269          .      RET20
             .          V
             .          V
273          .      ROD20
             .          .
             .          .
277          .          .      SUB32
             .          .          .
             .          .          .
285          .      CO32A...........
             .          .
             .          .
289          .          .      SUB31
             .          .          .
             .          .          .
296          .          .          .       SUB30
             .          .          .          V
             .          .          .          V
303          .          .          .       RO30
             .          .          .          .
             .          .          .          .
307          .          .       CO31...........
             .          .          .
             .          .          .
314          .          .          .------->     D31
311          .          .      DIV31
             .          .          V
             .          .          V
317          .          .      RO31
             .          .          .
             .          .          .
321          .       CO32...........
             .          .
             .          .
324          .          .      SUB33
             .          .          .
             .          .          .
334          .          .          .          .<-------     D31
333          :          :          :       ROD31
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 339            .          .       CO33...........
                .          .          V
                .          .          V
 344            .          .       RO33
                .          .          .
                .          .          .
 349            .          .          .      SUB34
                .          .          .          V
                .          .          .          V
 356            .          .          .       RO34
                .          .          .          .
                .          .          .          .
 359            .          .          .          .      SUB35
                .          .          .          .          .
                .          .          .          .          .
 366            .          .          .      CO35A...........
                .          .          .          .
                .          .          .          .
 370            .          .       CO35...........
                .          .          V
                .          .          V
 374            .          .       RO35
                .          .          .
                .          .          .
 379            .          .          .      SUB36
                .          .          .          .
                .          .          .          .
 386            .          .       CO36...........
                .          .          V
                .          .          V
 389            .          .      ROPOW
                .          .          V
                .          .          V
 398            .          .      RO36A
                .          .          V
                .          .          V
 401            .          .      RO36B
                .          .          V
                .          .          V
 404            .          .      RO36C
                .          .          .
                .          .          .
 407            .          .          .     SUB26C
                .          .          .          .
                .          .          .          .
 414            .          .       CO37...........
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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                                   ****
          FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
                                   ****


                    SUPERSTITION FREEWAY  -  OFFSITE DRAINAGE ANALYSIS
                    ELLSWORTH TO POWER ROAD- 100 YEAR, 24 HOUR PRECIPITATION
                    SIMULATION NUMBER 1: EXISTING CONDITIONS

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

  IT        HYDROGRAPH TIME DATA
                  NMIN         15  MINUTES IN COMPUTATION INTERVAL
                 IDATE      1    0  STARTING DATE
                 ITIME       0000  STARTING TIME
                    NQ        120  NUMBER OF HYDROGRAPH ORDINATES
                NDDATE      2    0  ENDING DATE
                NDTIME       0545  ENDING TIME

            COMPUTATION INTERVAL     .25 HOURS
                 TOTAL TIME BASE   29.75 HOURS

      ENGLISH UNITS
```

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

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
HYDROGRAPH AT	SUB11	324.	12.50	81.	26.	21.	.50		
ROUTED TO	RO11	299.	12.50	80.	25.	20.	.50		
HYDROGRAPH AT	SUB10	878.	12.75	314.	101.	82.	2.09		
ROUTED TO	RO10	856.	13.00	312.	101.	82.	2.09		
HYDROGRAPH AT	SUB16	510.	12.50	103.	32.	26.	.59		
3 COMBINED AT	CO16	1420.	12.75	491.	158.	128.	3.18		
DIVERSION TO	D16	292.	12.75	69.	21.	17.	3.18		
HYDROGRAPH AT	DIV16	1127.	12.75	423.	137.	110.	3.18		
ROUTED TO	RO16	1126.	12.75	423.	137.	111.	3.18		
HYDROGRAPH AT	SUB12	492.	12.50	111.	35.	28.	.69		
ROUTED TO	RO12	473.	12.75	113.	36.	29.	.69		
HYDROGRAPH AT	SUB15	361.	12.50	71.	22.	18.	.41		
3 COMBINED AT	CO15	1828.	12.50	605.	195.	157.	4.28		
DIVERSION TO	D15	244.	12.50	36.	9.	7.	4.28		
HYDROGRAPH AT	DIV15	1584.	12.50	569.	186.	150.	4.28		
ROUTED TO	RO15	1559.	12.75	570.	186.	150.	4.28		
HYDROGRAPH AT	SUB13	254.	12.50	55.	17.	14.	.35		
ROUTED TO	RO13	216.	12.75	54.	17.	14.	.35		
HYDROGRAPH AT	SUB14	543.	12.75	186.	60.	49.	1.10		
3 COMBINED AT	CO14	2318.	12.75	810.	264.	213.	5.73		
ROUTED TO	RO14	2282.	12.75	809.	264.	213.	5.73		
HYDROGRAPH AT	RET16	292.	12.75	69.	21.	17.	.00		
ROUTED TO	ROD16	293.	13.00	70.	22.	18.	.00		
HYDROGRAPH AT	RET15	244.	12.50	36.	9.	7.	.00		
ROUTED TO	ROD15	211.	13.00	35.	9.	7.	.00		
HYDROGRAPH AT	SUB17	444.	13.00	186.	62.	50.	1.19		
4 COMBINED AT	CO17	3085.	12.75	1100.	356.	287.	6.92		
DIVERSION TO	D17	1091.	12.75	404.	131.	106.	6.92		
HYDROGRAPH AT	DIV17	1994.	12.75	686.	225.	181.	6.92		
ROUTED TO	RO17	1978.	13.00	695.	225.	181.	6.92		

HYDROGRAPH AT	SUB20	405.	12.50	77.	24.	19.	.43
2 COMBINED AT	CO20	2137.	12.75	771.	249.	201.	7.35
DIVERSION TO	D20	929.	12.50	130.	33.	26.	7.35
HYDROGRAPH AT	DIV20	1208.	12.50	641.	216.	175.	7.35
ROUTED TO	RO20	1208.	12.75	637.	216.	174.	7.35
HYDROGRAPH AT	RET17	1091.	12.75	404.	131.	106.	.00
ROUTED TO	ROD17	1081.	13.00	403.	132.	106.	.00
HYDROGRAPH AT	SUB18	121.	13.25	63.	21.	17.	.41
HYDROGRAPH AT	SUB224	4200.	13.00	1439.	456.	368.	.30
DIVERSION TO	D224	2687.	13.00	508.	127.	102.	.30
HYDROGRAPH AT	DIV224	1513.	13.00	932.	329.	266.	.30
DIVERSION TO	D225	358.	12.50	91.	23.	18.	.30
HYDROGRAPH AT	DIV225	1155.	12.50	840.	307.	247.	.30
ROUTED TO	RO224	1155.	12.75	835.	306.	247.	.30
2 COMBINED AT	CO18	1276.	13.25	898.	327.	264.	.71
ROUTED TO	RO18	1275.	13.25	898.	327.	264.	.71
HYDROGRAPH AT	SUB19	182.	12.25	33.	10.	8.	.19
2 COMBINED AT	CO19A	1329.	12.75	926.	337.	272.	.90
2 COMBINED AT	CO19	2396.	13.00	1329.	469.	379.	.90
DIVERSION TO	D19	796.	12.50	157.	39.	32.	.90
HYDROGRAPH AT	DIV19	1600.	12.50	1173.	430.	347.	.90
ROUTED TO	RO19	1600.	12.75	1168.	429.	346.	.90
HYDROGRAPH AT	SUB21	364.	12.25	70.	21.	17.	.37
2 COMBINED AT	CO21A	1790.	12.75	1230.	451.	364.	1.27
2 COMBINED AT	CO21	2998.	12.75	1866.	667.	538.	8.62
HYDROGRAPH AT	RET20	929.	12.75	130.	33.	26.	.00
ROUTED TO	ROD20	901.	13.00	131.	33.	26.	.00
HYDROGRAPH AT	SUB32	147.	12.50	29.	9.	7.	.17
2 COMBINED AT	CO32A	943.	13.00	161.	42.	34.	.17
HYDROGRAPH AT	SUB31	349.	13.00	153.	50.	41.	.95
HYDROGRAPH AT	SUB30	1098.	12.25	181.	56.	45.	.95
ROUTED TO	RO30	889.	12.50	186.	57.	46.	.95
2 COMBINED AT	CO31	1377.	12.50	337.	108.	87.	1.90
DIVERSION TO	D31	500.	12:50	282.	89.	72.	1:90

HYDROGRAPH AT	DIV31	677.	12.50	75.	19.	15.	1.90		
ROUTED TO	RO31	642.	12.50	75.	19.	15.	1.90		
2 COMBINED AT	CO32	1323.	12.75	235.	61.	49.	2.08		
HYDROGRAPH AT	SUB33	181.	12.50	36.	11.	9.	.21		
HYDROGRAPH AT	RET31	500.	12.25	262.	89.	72.	.00		
ROUTED TO	ROD31	500.	12.50	262.	89.	72.	.00		
2 COMBINED AT	CO33	681.	12.50	298.	100.	81.	.21		
ROUTED TO	RO33	668.	12.50	298.	100.	81.	.21		
HYDROGRAPH AT	SUB34	353.	13.25	173.	59.	48.	1.16		
ROUTED TO	RO34	349.	13.50	169.	58.	47.	1.16		
HYDROGRAPH AT	SUB35	728.	12.50	145.	45.	36.	.85		
2 COMBINED AT	CO35A	747.	12.50	307.	103.	83.	2.01		
2 COMBINED AT	CO35	1415.	12.50	604.	204.	165.	2.22		
ROUTED TO	RO35	1358.	12.50	603.	204.	164.	2.22		
HYDROGRAPH AT	SUB36	362.	12.50	96.	31.	25.	.60		
2 COMBINED AT	CO36	1720.	12.50	699.	235.	189.	2.82		
ROUTED TO	ROPOW	1663.	12.50	700.	235.	189.	2.82	1366.61	12.50
ROUTED TO	RO36A	1649.	12.50	700.	235.	189.	2.82		
ROUTED TO	RO36B	1623.	12.75	700.	235.	189.	2.82		
ROUTED TO	RO36C	1622.	12.75	699.	235.	189.	2.82		
HYDROGRAPH AT	SUB26C	80.	13.75	48.	17.	14.	.44		
2 COMBINED AT	CO37	1681.	12.75	747.	252.	203.	3.26		

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

User: DEN104 -at

<OPS183>PROJ>PJ6114>DATA>HEC1>PR50.OUT

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*****************************************************************************************************
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WWWW  WWWWW W   W   W    WWW  W
W   W W     WW  W  WW   W   W W  W
W   W W     W W W   W   W   W W  W
W   W WWWW  W W W   W   W W W WWWWW
W   W W     W W W   W   W   W    W
W   W W     W  WW   W   W   W    W
WWWW  WWWWW W   W  WWW   WWW     W



WWWW  WWWW  WWWWW  WWW         WWW  W   W WWWWW
W   W W   W W     W   W       W   W W   W   W
W   W W   W WWWW  W   W       W   W W   W   W
WWWW  WWWW      W W W W       W   W W   W   W
W     W W       W W   W       W   W W   W   W
W     W  W  W   W W   W   WW  W   W W   W   W
W     W   W  WWW   WWW    WW   WWW   WWW    W

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[Spooler rev 20.0.6HB (c) Prime Computer, Inc., 1986]

Label: PRT118 -form DENPRT

Pathname: <OPS183>PROJ>PJ6114>DATA>HEC1>PR50.OUT
File last modified: 88-06-02.10:14:16.Thu

Spooled: 88-09-13.13:02:32.Tue
Started: 88-09-13.13:03:20.Tue on: AMLC by: DENPRT

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

  1           ID        SUPERSTITION FREEWAY  -  OFFSITE DRAINAGE ANALYSIS
  2           ID        ELLSWORTH TO POWER ROAD- 50 YEAR, 24 HOUR PRECIPITATION
  3           ID        SIMULATION NUMBER 2: PROPOSED WITHOUT DETENTION
              *DIAGRAM
  4           IT      15                      120
  5           IO       6
  6           PG       1    3.35
  7           PG      10
  8           IN      30                       48
  9           PI   0.018   0.018   0.018   0.018   0.022   0.022   0.022   0.022   0.024   0.017
 10           PI   0.034   0.034   0.034   0.050   0.025   0.025   0.044   0.044   0.054   0.060
 11           PI   0.077   0.104   0.161   1.273   0.241   0.124   0.091   0.070   0.050   0.050
 12           PI   0.050   0.050   0.030   0.030   0.030   0.030   0.030   0.030   0.030   0.030
 13           PI   0.020   0.020   0.020   0.020   0.020   0.020   0.020   0.020

 14           KK   SUB11
 15           KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
 16           PR      10
 17           PW       1
 18           PT       1
 19           PW       1
 20           BA    0.50
 21           LS              83
 22           UK     500  0.0133   0.200     100
 23           RK    5700  0.0148   0.040   0.158    TRAP     2.0     4.0
 24           RK    1700  0.0055   0.035            TRAP     8.0     1.5

 25           KK    RO11
 26           KM   ROUTE SUB 11 FROM C.A.P. TO BROADWAY
 27           RK    6200  0.0102   0.035            TRAP     5.0     2.0

 28           KK   SUB10
 29           KM        LOCAL RUNOFF TO C.A.P. OVERCHUTES
 30           BA    2.09
 31           LS              82
 32           UK    1000  0.0150   0.200     100
 33           RK    4800  0.0115   0.040  0.1033    TRAP     2.0     4.0
 34           RK   10000  0.0102   0.035            TRAP    10.0     3.0

 35           KK    RO10
 36           KM        ROUTE FLOWS FROM C.A.P. TO BROADWAY
 37           RK    7600  0.0102   0.035            TRAP     5.0     2.0

 38           KK   SUB16
 39           KM        LOCAL RUNOFF TO BROADWAY ROAD 950 FT. WEST
 40           KM        OF ELLSWORTH
 41           BA    0.59
 42           LS              84
 43           UK      90   0.005   0.200     100
 44           RK    5250  0.0090   0.050   0.118    TRAP    20.0    0.01
 45           RK    7600  0.0102   0.035            TRAP     5.0     2.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  46          KK    CO16
  47          KM        COMBINE RUNOFF  950 FEET WEST OF ELLSWORTH ON BROADWAY
  48          HC       3

  49          KK   DIV16
  50          KM        DIVERT EXCESS FLOW SOUTH ACROSS BROADWAY 950 FT. WEST
  51          KM        OF ELLSWORTH
  52          DT     D16
  53          DI       0    1185    1585
  54          DQ       0     140     400

  55          KK    RO16
  56          KM        ROUTE FLOWS TO FLOW DIVISION 2740 FT. WEST
  57          KM        OF ELLSWORTH
  58          RK    1790  0.0093   0.016            TRAP    16.0     1.0

  59          KK   SUB12
  60          KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
  61          BA    0.69
  62          LS              83
  63          UK     500  0.0180   0.200     100
  64          RK    6600  0.0174   0.040   0.071    TRAP     2.0     4.0
  65          RK    1060  0.0056   0.035            TRAP     8.0     1.5

  66          KK    RO12
  67          KM        ROUTE FLOW FROM OVERCHUTE (SUB 12) TO BROADWAY (SUB 15)
  68          RK    7500  0.0098   0.035           TRAP     5.0     3.0

  69          KK   SUB15
  70          KM        LOCAL RUNOFF FROM SUB 15
  71          BA    0.41
  72          LS              84
  73          UK      85   0.005   0.200     100
  74          RK    7300  0.0150   0.050   0.082    TRAP     5.0    3.00
  75          RK    1790  0.0093   0.016            TRAP    16.0     1.0

  76          KK    CO15
  77          KM         COMBINE ROUTED OVERCHUTE FLOW (SUB 12) WITH SUB 15
  78          KM         AND ROUTED FLOW FROM CO16
  79          HC       3

  80          KK   DIV15
  81          KM        DIVERT EXCESS FLOW SOUTH ACROSS BROADWAY 2740 FT. WEST
  82          KM        OF ELLSWORTH (GLENMAR ROAD).
  83          DT     D15
  84          DI       0     735    1405    2460
  85          DQ       0       0     140     400

  86          KK    RO15
  87          KM         ROUTE  15 WEST ALONG BROADWAY TO HAWES FROM 2740 FT.
  88          KM         WEST OF ELLSWORTH (GLENMAR ROAD).
  89          RK    2470  0.0084   0.016            TRAP    10.0     1.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  90          KK   SUB13
  91          KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
  92          BA    0.35
  93          LS              82
  94          UK     500  0.0230   0.200     100
  95          RK    3000  0.0167   0.040  0.0646    TRAP     2.0     4.0
  96          RK    1480  0.0042   0.035            TRAP     8.0     1.5

  97          KK    RO13
  98          KM         ROUTE FLOW FROM SUB 13 (OVERCHUTE) TO BROADWAY AND HAWES
  99          KM         THROUGH SUB 14.
 100          RK    8500  0.0100   0.050            TRAP     5.0     2.0

 101          KK   SUB14
 102          KM        LOCAL RUNOFF TO HAWES AND BROADWAY
 103          BA    1.10
 104          LS              85
 105          UK      85   0.005   0.200     100
 106          RK    8500  0.0067   0.050   0.036    TRAP    20.0    0.01
 107          RK    2470  0.0084   0.016            TRAP    10.0     1.0

 108          KK    CO14
 109          KM        COMBINE LOCAL AND OVERCHUTE FLOW (SUB 10) WITH SUB 15
 110          KM        AT BROADWAY AND HAWES- NO FLOW DIVERSION TO THE WEST
 111          KM        DUE TO A ONE WAY ROAD CROWN SLOPING SOUTH.
 112          HC       3

 113          KK    RO14
 114          KM        ROUTE FLOWS SOUTH TO SOUTHERN AT HAWES ROAD
 115          RK    5300  0.0068   0.025            TRAP    35.0     2.3

 116          KK   RET16
 117          KM        RETRIEVE FLOWS DIVERTED S. ACROSS BROADWAY 950
 118          KM        FEET WEST OF ELLSWORTH
 119          DR     D16

 120          KK   ROD16
 121          KM        ROUTE DIVERTED FLOWS FROM BROADWAY TO HAWES AND SOUTHERN
 122          RK    9000  0.0067   0.035            TRAP    10.0     4.0

 123          KK   RET15
 124          KM        RETRIEVE FLOW DIVERTED S. ACROSS BROADWAY 2740
 125          KM        FEET WEST OF ELLSWORTH (GLENMAR ROAD).
 126          DR     D15

 127          KK   ROD15
 128          KM        ROUTE DIVERTED FLOWS TO HAWES ROAD AND SOUTHERN
 129          RK    7700  0.0067   0.035            TRAP    20.0     4.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  130         KK   SUB17
  131         KM        LOCAL RUNOFF TO HAWES ROAD AND SOUTHERN
  132         BA    1.19
  133         LS              84
  134         UK    1250   0.010   0.200     100
  135         RK    6500   0.009   0.040   0.117    TRAP     2.0     4.0
  136         RK    5300  0.0068   0.025            TRAP    35.0     2.3

  137         KK    C017
  138         KM        COMBINE FLOWS ALONG HAWES ROAD AT SOUTHERN
  139         HC       4

  140         KK   DIV17
  141         KM        DIVERT FLOWS AT SOUTHERN AND HAWES
  142         DT     D17
  143         DI       0    1400    1450    2350    6115
  144         DQ       0     525     615     815    2230

  145         KK    R017
  146         KM        ROUTE 226 ALONG SOUTHERN TO 90 DEGREE BEND
  147         KM        IN SOSSAMAN CHANNEL.
  148         RK    4000  0.0085   0.025            TRAP     8.0     1.2

  149         KK   SUB20
  150         KM        LOCAL RUNOFF AT SOSSAMAN CHANNEL AND SOUTHERN AVE
  151         BA   0.430
  152         LS              85
  153         UK     150   0.005   0.200     100
  154         RK    3100  0.0061   0.050   0.035    TRAP    40.0    0.01
  155         RK    4000  0.0085   0.025            TRAP     8.0     1.2

  156         KK    C020
  157         KM         COMBINE FLOW WEST ALONG SOUTHERN FROM HAWES (R017)
  158         HC       2

  159         KK   DIV20
  160         KM        DIVERT FLOW AT SOUTHERN AND SOSSAMAN CHANNEL
  161         DT     D20
  162         DI       0    1208    5000
  163         DQ       0       0    3792

  164         KK    R020
  165         KM        ROUTE FLOWS IN SOSSAMAN CHANNEL FROM SOUTHERN TO FREEWAY
  166         RK    2600  0.0022   0.035            TRAP    15.0     2.6

  167         KK   RET17
  168         KM        RETRIEVE DIVERTED FLOW FROM HAWES AND SOUTHERN
  169         DR     D17
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 170          KK   ROD17
 171          KM        ROUTE DIVERTED FLOW FROM HAWES AND SOUTHERN SOUTH
 172          KM        ALONG HAWES TO THE FRWY. R.O.W. (APPROX. STA 970+00)
 173          RK    2600  0.0026   0.025            TRAP    22.0     2.0

 174          KK   SUB18
 175          KM        LOCAL FLOWS TO 3200 FEET WEST OF ELLSWORTH AT THE
 176          KM        NORTH R.O.W. OF THE SUPERSTITION FREEWAY.
 177          BA    0.41
 178          LS              86
 179          UK    1250   0.005   0.200     100
 180          RK    2500   0.007   0.040    0.03    TRAP     2.0     4.0
 181          RK    3200  0.0075   0.035            TRAP    20.0     2.0

 182          KK  SUB224
 183          KM        INFLOW TO SYSTEM FROM EAST OF ELLSWORTH ROAD.
 184          KM        HYDROGRAPH RESULTING  FROM AN-WEST SIMULATION OF
 185          KM        DISCHARGE FROM THE DETENTION POND AT ELLSWORTH ROAD
 186          KM        FOR THE 50 YEAR PRECIPITATION EVENT.
 187          BA    0.30
 188          IN      15
 189          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 190          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 191          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 192          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 193          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0      2.
 194          QI      9.     19.     25.     30.     33.     36.     38.     40.     41.     43.
 195          QI     44.     45.     45.     46.     47.     47.     48.     48.     48.     49.
 196          QI     49.     49.     50.     50.     50.     50.     51.     51.     51.     51.
 197          QI     51.     52.     52.     52.     52.     52.     52.     53.     53.     53.
 198          QI     53.     53.     53.     53.     53.     54.     54.     54.     54.     54.
 199          QI     54.     54.     54.     54.     54.     54.     54.     54.     54.     54.
 200          QI     54.     54.     54.     54.     54.     54.     54.     54.     54.     54.

 201          KK  RO224
 202          KM       ROUTE FLOW ENTERING SYSTEM FROM EAST OF ELLSWORTH
 203          KM       TO 3200 FT. WEST OF ELLSWORTH. (APPROX. STA 1024+00 TO
 204          KM        STA 992+00)
 205          RK    3200  0.0050   0.016            TRAP     6.0     2.0

 206          KK    CO18
 207          KM        COMBINE ROUTED FLOWS FROM INFLOW TO SYSTEM FROM EAST OF
 208          KM        OF ELLSWORTH WITH HYDROGRAPH FROM SUB  18 AT APPROX.
 209          KM        FREEWAY STA 992+00.
 210          HC       2

 211          KK    RO18
 212          KM        ROUTE CO224 FLOWS TO SOUTHERN EXTENSION OF HAWES
 213          KM        ROAD. (APPROX. FREEWAY STA 970+00)
 214          RK    2200  0.0060   0.016            TRAP     6.0     2.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 215          KK   SUB19
 216          KM        LOCAL RUNOFF TO THE N-S LEG OF THE HAWES CHANNEL AT
 217          KM        THE FREEWAY R.O.W..
 218          BA   0.187
 219          LS              86
 220          UK     110   0.005   0.200     100
 221          RK    2200  0.0100   0.035    0.05    TRAP    20.0    6.00
 222          RK    2600  0.0026   0.025            TRAP    22.0    2.00

 223          KK   CO19A
 224          KM        COMBINE LOCAL RUNOFF AND FLOWS ROUTED WEST ALONG THE R.O.W.
 225          HC       2

 226          KK    CO19
 227          KM        COMBINE FLOWS FROM HAWES CHANNEL SPLIT WITH LOCAL
 228          KM        RUNOFF AND FLOWS ROUTED WEST ALONG THE SOUTH R.O.W.
 229          HC       2

 230          KK    RO19
 231          KM         ROUTE FLOWS ALONG FREEWAY R.O.W. FROM APPROX.
 232          KM         STA 970+00 TO STA 930+50.
 233          RK    3950   .0060   0.016            TRAP    16.0    2.00

 234          KK   SUB21
 235          KM        LOCAL RUNOFF AT SOSSAMAN CHANNEL (MAIN CHANNEL WIDTH IS
 236          KM        A WEIGHTED AVERAGE)
 237          BA     .37
 238          LS              86
 239          UK     110   0.005   0.200     100
 240          RK    2600  0.0038   0.025    0.05    TRAP    40.0    0.01
 241          RK    3950  0.0060   0.016            TRAP    12.0    2.00

 242          KK  SUBFY2
 243          KM        ON SITE RUNOFF COLLECTED BY THE STORM SEWER SYSTEM AND
 244          KM        DISCHARGED INTO THE R.O.W. CHANNEL AT SOSSAMAN CHANNEL.
 245          BA   .0921
 246          LS             92.
 247          UK    35.0    0.33    0.06     100
 248          RK    22.0   0.006   0.012  0.0015    CIRC     2.0
 249          RK    132.   0.003   0.012  0.0015    CIRC     2.0
 250          RK   9500.  0.0044   0.012            CIRC     4.5

 251          KK   COFY1
 252          KM        COMBINE FLOWS FROM STORM SEWER WITH FLOWS FROM THE R.O.W.
 253          KM        CHANNEL BEFORE FLOWS FROM SOSSAMAN CHANNEL ARE ADDED.
 254          HC       3

 255          KK    CO21
 256          KM        COMBINE FLOWS IN SOSSAMAN CHANNEL AT FREEWAY
 257          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 258          KK   RET20
 259          KM        RETRIEVE DIVERTED FLOWS FROM SOUTHERN AVE. AND SOSSAMAN
 260          KM        CHANNEL.
 261          DR     D20

 262          KK   ROD20
 263          KM        ROUTE DIVERTED FLOWS FROM SOUTHERN AVE AND SOSSAMAN CHANNEL
 264          KM        ACROSS SUB 32.
 265          RK    3600   0.005   0.025            TRAP    20.0     2.0

 266          KK   SUB32
 267          KM         LOCAL FLOWS FROM EAST OF SOSSAMAN ROAD AND WEST OF SOSSAMAN
 268          KM         CHANNEL.
 269          BA   0.172
 270          LS             84
 271          UK    200.   0.005    0.20    100.
 272          RK   1000.   0.005   0.025    0.01    TRAP    20.0    0.01
 273          RK   3900.   0.005   0.025            TRAP    20.0    2.00

 274          KK   CO32A
 275          KM        COMBINE FLOWS DIVERTED FROM SOSSAMAN AND SOUTHERN (D20)
 276          KM        WITH LOCAL FLOWS ABOVE THE CBC UNDER SOSSAMAN ROAD.
 277          HC       2

 278          KK   SUB31
 279          KM         LOCAL RUNOFF FROM SUBAREA 31
 280          BA    .954
 281          LS             84
 282          UK    1000  0.0060   0.20      100
 283          RK    3995  0.0070   0.025    0.42    TRAP    20.0    0.01
 284          RK    3800  0.0045   0.025            TRAP    30.0    3.00

 285          KK   SUB30
 286          KM        LOCAL RUNOFF FROM SUB 30
 287          BA   0.950
 288          LS             86
 289          UK     100  0.0050    0.20     100
 290          RK    2000  0.0070   0.025    0.10    TRAP    20.0    0.01
 291          RK    9600  0.0100   0.016            TRAP     2.0     1.0

 292          KK    RO30
 293          KM        ROUTE FLOWS FROM SUB  30 ACROSS SUB 31 TO THE FLOW
 294          KM        DIVISION IN THE SOSSAMAN ROAD CHANNEL.
 295          RK    3800  0.0045   0.025            TRAP    30.0     3.0

 296          KK    CO31
 297          KM        COMBINE FLOWS FROM SUB 31 WITH ROUTED FLOWS FROM
 298          KM        SUB 30 AT THE DIVISION IN THE SOSSAMAN ROAD CHANNEL.
 299          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 300          KK   DIV31
 301          KM        FLOW DIVISION IN THE SOSSAMAN ROAD CHANNEL.  DIVERTED FLOWS
 302          KM        (D31) TRAVEL DOWN THE WEST FORK OF THE SOSSAMAN ROAD CHANNEL.
 303          DT     D31
 304          DI      0.    500.  10000.
 305          DQ      0.    500.    500.

 306          KK   RO31
 307          KM        ROUTE FLOWS FROM DIVISION ALONG THE EAST FORK OF THE SOSSAMAN
 308          KM        ROAD CHANNEL
 309          RK    3900  0.0045   0.025            TRAP    30.0     3.0

 310          KK    CO32
 311          KM         COMBINE FLOWS DOWNSTREAM FROM CBC UNDER SOSSAMAN ROAD.
 312          HC       2

 313          KK    RO32
 314          KM        ROUTE FLOWS FROM THE EAST FORK OF THE SOSSAMAN ROAD CHANNEL
 315          KM        TO THE WEST FORK OF THE SOSSAMAN ROAD CHANNEL.
 316          RK    1000  0.0074   0.016            TRAP    24.0     2.0

 317          KK   SUB33
 318          KM        LOCAL FLOWS FROM SUB 33
 319          BA    .211
 320          LS              84
 321          UK    200.  0.0050    0.20    100.
 322          RK   2600.   0.007   0.035    0.03    TRAP    20.0    6.00
 323          RK   3900.   0.005   0.025            TRAP    20.0    2.00

 324          KK   RET31
 325          KM        RETRIEVE FLOWS DIVERTED DOWN THE WEST FORK OF THE
 326          KM        SOSSAMAN ROAD CHANNEL
 327          DR     D31

 328          KK   ROD31
 329          KM        ROUTE FLOWS DIVERTED DOWN THE WEST LEG OF THE SOSSAMAN
 330          KM        ROAD CHANNEL TO THE FREEWAY R.O.W.
 331          RK    3900  0.0045   0.025            TRAP    20.0     2.0

 332          KK    CO33
 333          KM        COMBINE LOCAL FLOWS WITH FLOWS IN THE SOSSAMAN ROAD
 334          KM        CHANNEL.
 335          HC       2

 336          KK   CO33A
 337          KM        COMBINE FLOWS AT FREEWAY AND THE WEST FORK OF THE
 338          KM        SOSSAMAN ROAD CHANNEL WITH FLOWS ROUTED ALONG THE R.O.W.
 339          KM        FROM THE EAST FORK OF THE SOSSAMAN ROAD CHANNEL.
 340          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 341          KK    RO33
 342          KM        ROUTE FLOWS FROM THE WEST FORK OF THE SOSSAMAN ROAD
 343          KM        CHANNEL ALONG THE R.O.W. TO THE 72nd STREET CHANNEL.
 344          KM        (APPROX. STA 891+30)
 345          RK    1500  0.0074   0.016            TRAP    24.0     2.0

 346          KK   SUB35
 347          KM        LOCAL RUNOFF FROM SUBAREA 35
 348          BA     .85
 349          LS              84
 350          UK     200  0.0050   0.200     100
 351          RK    2600   0.007   0.025    0.11    TRAP    20.0    0.01
 352          RK    7500  0.0050   0.025            TRAP    20.0     2.0

 353          KK   SUB34
 354          KM         LOCAL RUNOFF FROM SUBAREA 34
 355          BA    1.16
 356          LS              84
 357          UK    1250   0.006    0.20     100
 358          RK   10000   0.013    0.05    0.39    TRAP    10.0    3.00
 359          RK    5000   0.008   0.025            TRAP    20.0    4.00

 360          KK    RO34
 361          KM        ROUTE FLOWS FROM SUB  32 THROUGH SUB 33
 362          RK    7400   0.004   0.025            TRAP    40.0     3.0

 363          KK   CO35A
 364          KM        COMBINE FLOWS IN THE 72nd STREET CHANNEL WITH LOCAL
 365          KM        FLOWS FROM SUB-BASIN 35.
 366          HC       2

 367          KK    CO35
 368          KM        COMBINE FLOWS IN FREEWAY CHANNEL WITH FLOWS ENTERING
 369          KM        FROM THE 72nd STREET CHANNEL.
 370          HC       2

 371          KK   RO35A
 372          KM        ROUTE FLOWS FROM 72nd ST. CHANNEL TO CHANNEL
 373          KM        TRANSITION BETWEEN 72nd ST CHANNEL AND POWER RD.
 374          KM        (APPROX. STA 891+30 TO 885+75)
 375          RK     555  0.0074   0.016            TRAP    26.0     2.0

 376          KK   RO35B
 377          KM        ROUTE FLOWS FROM CHANNEL TRANSITION AT STA 885+75 TO
 378          KM        POWER ROAD (STA 865+55)
 379          RK    2020  0.0055   0.016            TRAP    30.0     2.0

 380          KK   SUB36
 381          KM        LOCAL FLOWS TO POWER ROAD
 382          BA    0.60
 383          LS              84
 384          UK     300  0.0050   0.200     100
 385          RK    7800   0.006   0.025    0.15    TRAP    40.0    0.01
 386          RK    2530  0.0056   0.035            TRAP    65.0     1.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 387          KK    CO36
 388          KM        COMBINE FLOWS AT POWER ROAD IN FREEWAY CHANNEL
 389          HC       2

 390          KK   ROPOW
 391          KM        ROUTE FLOWS THROUGH CBC BELOW POWER ROAD
 392          RS     1.0    ELEV  1358.0
 393          SV       0   0.518   1.379   2.273   3.214   4.231   5.174   6.398   7.159   7.555
 394          SV   8.255  10.254  11.240  11.912
 395          SE  1358.0  1360.6  1362.1  1363.2  1364.1  1365.0  1365.8  1366.8  1367.4  1367.7
 396          SE  1368.2  1369.5  1370.1  1370.5
 397          SQ      0.    400.    600.    800.   1000.   1200.   1400.   1600.   1700.   1800.
 398          SQ   2000.   2500.   3000.   3200.

 399          KK   RO36A
 400          KM        ROUTE FLOWS FROM POWER ROAD TO 500 FEET WEST OF POWER ROAD
 401          RK    500.  0.0053   0.016            TRAP    12.0     2.0

 402          KK   RO36B
 403          KM        ROUTE FLOWS TO 2000 FEET WEST OF POWER ROAD
 404          RK   1500.   0.015   0.016            TRAP    12.0     2.0

 405          KK  SUBFY1
 406          KM        ON SITE FLOWS COLLECTED BY THE STORM SEWER SYSTEM
 407          KM        AND DISCHARGED AT APPROX. STA 850+00
 408          BA   0.039
 409          LS            92.0
 410          UK    35.0    0.33    0.06     100
 411          RK    22.0   0.006   0.012  0.0015    CIRC     2.0
 412          RK     132   0.006   0.012  0.0015    CIRC     2.0
 413          RK    8000   0.003   0.012            CIRC     4.5

 414          KK   COFY1
 415          KM       COMBINE STORM SEWER FLOWS WITH FLOWS IN THE R.O.W. CHANNEL
 416          HC       2

 417          KK   RO36C
 418          KM        ROUTE FLOW TO R.W.C.D., 5175 FEET WEST OF POWER ROAD
 419          RK   3175. 0.00157   0.016            TRAP    12.0     2.0

 420          KK  SUB26C
 421          KM        LOCAL RIUNOFF FROM POWER ROAD TO R.W.C.D.
 422          BA    0.44
 423          LS            77.3
 424          UK   1250.   0.005    0.20     100
 425          RK   2600.  0.0038   0.035            TRAP    10.0     3.0
 426          RK   5200.  0.0015   0.016            TRAP    12.0     2.0

 427          KK    CO37
 428          KM        COMBINE FLOWS IN THE R.O.W. CHANNEL  WITH LOCAL FLOWS
 429          KM        TO FIND THE TOTAL FLOWS AT THE R.W.C.D.
 430          HC       2
 431          ZZ
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                 SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

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

   14       SUB11
                V
                V
   25        RO11
                .
                .
   28           .       SUB10
                .           V
                .           V
   35           .        RO10
                .           .
                .           .
   38           .           .       SUB16
                .           .           .
                .           .           .
   46        CO16.......................
                .
                .
   52           .------->     D16
   49       DIV16
                V
                V
   55        RO16
                .
                .
   59           .       SUB12
                .           V
                .           V
   66           .        RO12
                .           .
                .           .
   69           .           .       SUB15
                .           .           .
                .           .           .
   76        CO15.......................
                .
                .
   83           .------->     D15
   80       DIV15
                V
                V
   86        RO15
                .
                .
   90           .       SUB13
                .           V
                .           V
   97           .        RO13
                .           .
                .           .
  101           .           .       SUB14
                .           .           .
                .           .           .
  108        CO14.......................
                V
                V
  113        RO14
  118           :       RET16<-------     D16
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                .          V
                .          V
120             .      ROD16
                .          .
                .          .
126             .          .          .<-------     D15
123             .          .      RET15
                .          .          V
                .          .          V
127             .          .      ROD15
                .          .          .
                .          .          .
130             .          .          .       SUB17
                .          .          .           .
                .          .          .           .
137          CO17.................................
                .
                .
142             .------->     D17
140         DIV17
                V
                V
145          RO17
                .
                .
149             .      SUB20
                .          .
                .          .
156          CO20............
                .
                .
161             .------->     D20
159         DIV20
                V
                V
164          RO20
                .
                .
169             .          .<-------     D17
167             .      RET17
                .          V
                .          V
170             .      ROD17
                .          .
                .          .
174             .          .      SUB18
                .          .          .
                .          .          .
182             .          .          .      SUB224
                .          .          .           V
                .          .          .           V
201             .          .          .      RO224
                .          .          .           .
                .          .          .           .
206             .          .       CO18............
                .          .          V
                .          .          V
211             .          .       RO18
                .          .          .
                .          .          .
215             .          .          .       SUB19
                .          .          .           .
                .          .          .           .
223             .          .      CO19A............
226             :       CO19...........:
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                 .          V
230              .       RO19
                 .          .
                 .          .
234              .          .        SUB21
                 .          .           .
                 .          .           .
242              .          .           .      SUBFY2
                 .          .           .          .
                 .          .           .          .
251              .      COFY1.......................
                 .          .
                 .          .
255           CO21............
                 .
                 .
261              .          .<-------     D20
258              .      RET20
                 .          V
                 .          V
262              .      ROD20
                 .          .
                 .          .
266              .          .        SUB32
                 .          .           .
                 .          .           .
274              .      CO32A............
                 .          .
                 .          .
278              .          .        SUB31
                 .          .           .
                 .          .           .
285              .          .           .       SUB30
                 .          .           .           V
                 .          .           .           V
292              .          .           .        RO30
                 .          .           .           .
                 .          .           .           .
296              .          .         CO31............
                 .          .           .
                 .          .           .
303              .          .           .------->     D31
300              .          .        DIV31
                 .          .           V
                 .          .           V
306              .          .        RO31
                 .          .           .
                 .          .           .
310              .       CO32............
                 .          V
                 .          V
313              .       RO32
                 .          .
                 .          .
317              .          .        SUB33
                 .          .           .
                 .          .           .
327              .          .           .          .<-------     D31
324              .          .           .       RET31
                 .          .           .           V
                 .          .           .           V
328              .          .           .       ROD31
                 .          .           .           .
                 .          .           .           .
332              :      CO33A.........CO33............
336
```

```
                .          V
                .          V
341             .       RO33
                .          .
                .          .
346             .          .       SUB35
                .          .          .
                .          .          .
353             .          .          .       SUB34
                .          .          .          V
                .          .          .          V
360             .          .          .       RO34
                .          .          .          .
                .          .          .          .
363             .          .       CO35A............
                .          .          .
                .          .          .
367             .       CO35............
                .          V
                .          V
371             .      RO35A
                .          V
                .          V
376             .      RO35B
                .          .
                .          .
380             .          .       SUB36
                .          .          .
                .          .          .
387             .       CO36............
                .          V
                .          V
390             .      ROPOW
                .          V
                .          V
399             .      RO36A
                .          V
                .          V
402             .      RO36B
                .          .
                .          .
405             .          .      SUBFY1
                .          .          .
                .          .          .
414             .      COFY1............
                .          V
                .          V
417             .      RO36C
                .          .
                .          .
420             .          .      SUB26C
                .          .          .
                .          .          .
427             .       CO37............
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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                                   ****
                    FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
          U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
                                   ****


                         SUPERSTITION FREEWAY  -  OFFSITE DRAINAGE ANALYSIS
                         ELLSWORTH TO POWER ROAD- 50 YEAR, 24 HOUR PRECIPITATION
                         SIMULATION NUMBER 2: PROPOSED WITHOUT DETENTION

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

  IT          HYDROGRAPH TIME DATA
                     NMIN          15  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1    0  STARTING DATE
                    ITIME        0000  STARTING TIME
                       NQ         120  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      2    0  ENDING DATE
                   NDTIME        0545  ENDING TIME

               COMPUTATION INTERVAL     .25 HOURS
                    TOTAL TIME BASE   29.75 HOURS

      ENGLISH UNITS
```

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

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
HYDROGRAPH AT	SUB11	264.	12.50	70.	22.	18.	.50		
ROUTED TO	RO11	233.	12.75	69.	22.	18.	.50		
HYDROGRAPH AT	SUB10	691.	12.75	266.	88.	71.	2.09		
ROUTED TO	RO10	679.	13.00	264.	87.	70.	2.09		
HYDROGRAPH AT	SUB16	453.	12.50	90.	28.	22.	.59		
3 COMBINED AT	CO16	1156.	12.75	419.	137.	111.	3.18		
DIVERSION TO	D16	137.	12.75	50.	16.	13.	3.18		
HYDROGRAPH AT	DIV16	1019.	12.75	370.	121.	98.	3.18		
ROUTED TO	RO16	1012.	12.75	370.	121.	98.	3.18		
HYDROGRAPH AT	SUB12	405.	12.50	95.	30.	25.	.69		
ROUTED TO	RO12	396.	12.75	98.	31.	25.	.69		
HYDROGRAPH AT	SUB15	323.	12.50	62.	19.	16.	.41		
3 COMBINED AT	CO15	1585.	12.75	528.	172.	138.	4.28		
DIVERSION TO	D15	184.	12.75	24.	6.	5.	4.28		
HYDROGRAPH AT	DIV15	1400.	12.75	505.	166.	134.	4.28		
ROUTED TO	RO15	1398.	12.75	505.	166.	134.	4.28		
HYDROGRAPH AT	SUB13	201.	12.50	47.	15.	12.	.35		
ROUTED TO	RO13	201.	12.75	48.	15.	12.	.35		
HYDROGRAPH AT	SUB14	442.	12.75	162.	53.	43.	1.10		
3 COMBINED AT	CO14	2041.	12.75	714.	234.	189.	5.73		
ROUTED TO	RO14	1974.	12.75	707.	233.	188.	5.73		
HYDROGRAPH AT	RET16	137.	12.75	50.	16.	13.	.00		
ROUTED TO	ROD16	138.	13.00	51.	17.	14.	.00		
HYDROGRAPH AT	RET15	184.	12.75	24.	6.	5.	.00		
ROUTED TO	ROD15	151.	13.00	24.	6.	5.	.00		
HYDROGRAPH AT	SUB17	351.	13.00	159.	54.	43.	1.19		
4 COMBINED AT	CO17	2515.	13.00	939.	309.	250.	6.92		
DIVERSION TO	D17	877.	13.00	350.	115.	93.	6.92		
HYDROGRAPH AT	DIV17	1638.	13.00	589.	194.	156.	6.92		
ROUTED TO	RO17	1633.	13.00	588.	194.	156.	6.92		

HYDROGRAPH AT	SUB20	360.	12.50	68.	21.	17.	.43
2 COMBINED AT	CO20	1745.	13.00	655.	215.	174.	7.35
DIVERSION TO	D20	537.	12.50	60.	15.	12.	7.35
HYDROGRAPH AT	DIV20	1208.	12.50	594.	200.	161.	7.35
ROUTED TO	RO20	1208.	12.75	593.	200.	162.	7.35
HYDROGRAPH AT	RET17	877.	13.00	350.	115.	93.	.00
ROUTED TO	ROD17	873.	13.00	349.	115.	93.	.00
HYDROGRAPH AT	SUB18	113.	13.25	60.	20.	16.	.41
HYDROGRAPH AT	SUB224	54.	23.75	54.	35.	29.	.30
ROUTED TO	RO224	54.	24.00	54.	35.	28.	.30
2 COMBINED AT	CO18	143.	13.50	99.	55.	45.	.71
ROUTED TO	RO18	143.	13.50	99.	55.	45.	.71
HYDROGRAPH AT	SUB19	172.	12.25	31.	10.	8.	.19
2 COMBINED AT	CO19A	219.	12.50	126.	65.	52.	.90
2 COMBINED AT	CO19	1043.	13.00	474.	180.	146.	.90
ROUTED TO	RO19	1031.	13.00	473.	180.	145.	.90
HYDROGRAPH AT	SUB21	338.	12.25	61.	19.	15.	.37
HYDROGRAPH AT	SUBFY2	131.	12.25	19.	6.	5.	.09
3 COMBINED AT	COFY1	1136.	13.00	547.	205.	165.	1.36
2 COMBINED AT	CO21	2344.	13.00	1139.	405.	327.	8.71
HYDROGRAPH AT	RET20	537.	13.00	60.	15.	12.	.00
ROUTED TO	ROD20	531.	13.00	61.	15.	12.	.00
HYDROGRAPH AT	SUB32	130.	12.50	26.	8.	6.	.17
2 COMBINED AT	CO32A	570.	13.00	87.	23.	19.	.17
HYDROGRAPH AT	SUB31	280.	13.00	131.	44.	35.	.95
HYDROGRAPH AT	SUB30	954.	12.25	159.	50.	40.	.95
ROUTED TO	RO30	794.	12.50	163.	51.	41.	.95
2 COMBINED AT	CO31	1016.	12.50	293.	95.	76.	1.90
DIVERSION TO	D31	500.	12.50	242.	82.	66.	1.90
HYDROGRAPH AT	DIV31	516.	12.50	50.	13.	10.	1.90
ROUTED TO	RO31	465.	12.50	50.	12.	10.	1.90
2 COMBINED AT	CO32	831.	12.75	137.	36.	29.	2.08
ROUTED TO	RO32	817.	13.75	137.	36.	28.	2.08
HYDROGRAPH AT	SUB33	158.	12.50	31.	10.	8.	.21

HYDROGRAPH AT	RET31	500.	12.25	242.	82.	66.	.00		
ROUTED TO	ROD31	500.	12.50	241.	82.	66.	.00		
2 COMBINED AT	CO33	658.	12.50	272.	92.	74.	.21		
2 COMBINED AT	CO33A	1419.	12.75	409.	127.	103.	2.29		
ROUTED TO	RO33	1405.	12.75	410.	128.	103.	2.29		
HYDROGRAPH AT	SUB35	641.	12.50	126.	40.	32.	.85		
HYDROGRAPH AT	SUB34	282.	13.50	147.	51.	41.	1.16		
ROUTED TO	RO34	277.	13.75	145.	51.	41.	1.16		
2 COMBINED AT	CO35A	648.	12.50	263.	90.	73.	2.01		
2 COMBINED AT	CO35	1841.	12.50	672.	218.	176.	4.30		
ROUTED TO	RO35A	1828.	12.75	672.	218.	176.	4.30		
ROUTED TO	RO35B	1828.	12.75	673.	218.	176.	4.30		
HYDROGRAPH AT	SUB36	288.	12.75	83.	27.	22.	.60		
2 COMBINED AT	CO36	2116.	12.75	756.	245.	198.	4.90		
ROUTED TO	ROPOW	2192.	12.75	756.	245.	198.	4.90	1368.70	12.75
ROUTED TO	RO36A	2183.	12.75	756.	245.	198.	4.90		
ROUTED TO	RO36B	2163.	12.75	756.	245.	198.	4.90		
HYDROGRAPH AT	SUBFY1	55.	12.25	8.	3.	2.	.04		
2 COMBINED AT	COFY1	2175.	12.75	763.	248.	200.	4.94		
ROUTED TO	RO36C	2079.	12.75	762.	248.	200.	4.94		
HYDROGRAPH AT	SUB26C	62.	14.00	40.	15.	12.	.44		
2 COMBINED AT	CO37	2123.	12.75	802.	263.	212.	5.38		

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

User: DEN104 -at

<OPS183>PROJ>PJ6114>DATA>HEC1>PRO.OUT

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W   W W     W W W   W   W   W W  W
W   W WWWW  W W W   W   W W W WWWWW
W   W W     W W W   W   W   W    W
W   W W     W  WW   W   W   W    W
WWWW  WWWWW W   W  WWW   WWW     W



WWWW  WWWW   WWW         WWW  W   W WWWWW
W   W W   W W   W       W   W W   W   W
W   W W   W W   W       W   W W   W   W
WWWW  WWWW  W   W       W   W W   W   W
W     W W   W   W       W   W W   W   W
W     W  W  W   W   WW  W   W W   W   W
W     W   W  WWW    WW   WWW   WWW    W

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[Spooler rev 20.0.6HB (c) Prime Computer, Inc., 1986]

Label: PRT119 -form DENPRT

Pathname: <OPS183>PROJ>PJ6114>DATA>HEC1>PRO.OUT
File last modified: 88-06-01.13:03:16.Wed

Spooled: 88-09-13.13:00:48.Tue
Started: 88-09-13.13:06:44.Tue on: AMLC by: DENPRT

****
FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
****

THIS HEC-1 VERSION CONTAINS ALL OPTIONS EXCEPT ECONOMICS, AND THE NUMBER OF PLANS ARE REDUCED TO 3

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

  1           ID        SUPERSTITION FREEWAY  -  OFFSITE DRAINAGE ANALYSIS
  2           ID        ELLSWORTH TO POWER ROAD- 100 YEAR, 24 HOUR PRECIPITATION
  3           ID        SIMULATION NUMBER 2: PROPOSED WITHOUT DETENTION
              *DIAGRAM
  4           IT      15                      120
  5           IO       6
  6           PG       1    3.65
  7           PG      10
  8           IN      30                       48
  9           PI   0.019   0.020   0.020   0.022   0.022   0.023   0.025   0.025   0.026   0.028
 10           PI   0.029   0.031   0.033   0.035   0.038   0.042   0.046   0.051   0.057   0.067
 11           PI   0.085   0.113   0.176   1.387   0.262   0.136   0.097   0.076   0.067   0.058
 12           PI   0.050   0.046   0.041   0.038   0.035   0.033   0.031   0.029   0.027   0.027
 13           PI   0.025   0.024   0.023   0.022   0.022   0.020   0.020   0.019

 14           KK   SUB11
 15           KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
 16           PR      10
 17           PW       1
 18           PT       1
 19           PW       1
 20           BA    0.50
 21           LS              83
 22           UK     500  0.0133   0.200     100
 23           RK    5700  0.0148   0.040   0.158    TRAP     2.0     4.0
 24           RK    1700  0.0055   0.035            TRAP     8.0     1.5

 25           KK    RO11
 26           KM   ROUTE SUB 11 FROM C.A.P. TO BROADWAY
 27           RK    6200  0.0102   0.035            TRAP     5.0     2.0

 28           KK   SUB10
 29           KM        LOCAL RUNOFF TO C.A.P. OVERCHUTES
 30           BA    2.09
 31           LS              82
 32           UK    1000  0.0150   0.200     100
 33           RK    4800  0.0115   0.040  0.1033    TRAP     2.0     4.0
 34           RK   10000  0.0102   0.035            TRAP    10.0     3.0

 35           KK    RO10
 36           KM        ROUTE FLOWS FROM C.A.P. TO BROADWAY
 37           RK    7600  0.0102   0.035            TRAP     5.0     2.0

 38           KK   SUB16
 39           KM        LOCAL RUNOFF TO BROADWAY ROAD 950 FT. WEST
 40           KM        OF ELLSWORTH
 41           BA    0.59
 42           LS              84
 43           UK      90   0.005   0.200     100
 44           RK    5250  0.0090   0.050   0.118    TRAP    20.0    0.01
 45           RK    7600  0.0102   0.035            TRAP     5.0     2.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  46          KK    CO16
  47          KM        COMBINE RUNOFF  950 FEET WEST OF ELLSWORTH ON BROADWAY
  48          HC       3

  49          KK   DIV16
  50          KM        DIVERT EXCESS FLOW SOUTH ACROSS BROADWAY 950 FT. WEST
  51          KM        OF ELLSWORTH
  52          DT     D16
  53          DI       0    1185    1585
  54          DQ       0     140     400

  55          KK    RO16
  56          KM        ROUTE FLOWS TO FLOW DIVISION 2740 FT. WEST
  57          KM        OF ELLSWORTH
  58          RK    1790  0.0093   0.016            TRAP    16.0     1.0

  59          KK   SUB12
  60          KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
  61          BA    0.69
  62          LS              83
  63          UK     500  0.0180   0.200     100
  64          RK    6600  0.0174   0.040   0.071    TRAP     2.0     4.0
  65          RK    1060  0.0056   0.035            TRAP     8.0     1.5

  66          KK    RO12
  67          KM        ROUTE FLOW FROM OVERCHUTE (SUB 12) TO BROADWAY (SUB 15)
  68          RK    7500  0.0098   0.035           TRAP     5.0     3.0

  69          KK   SUB15
  70          KM        LOCAL RUNOFF FROM SUB 15
  71          BA    0.41
  72          LS              84
  73          UK      85   0.005   0.200     100
  74          RK    7300  0.0150   0.050   0.082    TRAP     5.0    3.00
  75          RK    1790  0.0093   0.016            TRAP    16.0     1.0

  76          KK    CO15
  77          KM         COMBINE ROUTED OVERCHUTE FLOW (SUB 12) WITH SUB 15
  78          KM         AND ROUTED FLOW FROM CO16
  79          HC       3

  80          KK   DIV15
  81          KM        DIVERT EXCESS FLOW SOUTH ACROSS BROADWAY 2740 FT. WEST
  82          KM        OF ELLSWORTH (GLENMAR ROAD).
  83          DT     D15
  84          DI       0     735    1405    2460
  85          DQ       0     140     400

  86          KK    RO15
  87          KM         ROUTE  15 WEST ALONG BROADWAY TO HAWES FROM 2740 FT.
  88          KM         WEST OF ELLSWORTH (GLENMAR ROAD).
  89          RK    2470  0.0084   0.016            TRAP    10.0     1.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  90          KK   SUB13
  91          KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
  92          BA    0.35
  93          LS              82
  94          UK     500  0.0230   0.200     100
  95          RK    3000  0.0167   0.040  0.0646    TRAP     2.0     4.0
  96          RK    1480  0.0042   0.035            TRAP     8.0     1.5

  97          KK    RO13
  98          KM         ROUTE FLOW FROM SUB 13 (OVERCHUTE) TO BROADWAY AND HAWES
  99          KM         THROUGH SUB 14.
 100          RK    8500  0.0100   0.050            TRAP     5.0     2.0

 101          KK   SUB14
 102          KM        LOCAL RUNOFF TO HAWES AND BROADWAY
 103          BA    1.10
 104          LS              85
 105          UK      85   0.005   0.200     100
 106          RK    8500  0.0067   0.050   0.036    TRAP    20.0    0.01
 107          RK    2470  0.0084   0.016            TRAP    10.0     1.0

 108          KK    CO14
 109          KM        COMBINE LOCAL AND OVERCHUTE FLOW (SUB 10) WITH SUB 15
 110          KM        AT BROADWAY AND HAWES- NO FLOW DIVERSION TO THE WEST
 111          KM        DUE TO A ONE WAY ROAD CROWN SLOPING SOUTH.
 112          HC       3

 113          KK    RO14
 114          KM        ROUTE FLOWS SOUTH TO SOUTHERN AT HAWES ROAD
 115          RK    5300  0.0068   0.025            TRAP    35.0     2.3

 116          KK   RET16
 117          KM        RETRIEVE FLOWS DIVERTED S. ACROSS BROADWAY 950
 118          KM        FEET WEST OF ELLSWORTH
 119          DR     D16

 120          KK   ROD16
 121          KM        ROUTE DIVERTED FLOWS FROM BROADWAY TO HAWES AND SOUTHERN
 122          RK    9000  0.0067   0.035            TRAP    10.0     4.0

 123          KK   RET15
 124          KM        RETRIEVE FLOW DIVERTED S. ACROSS BROADWAY 2740
 125          KM        FEET WEST OF ELLSWORTH (GLENMAR ROAD).
 126          DR     D15

 127          KK   ROD15
 128          KM        ROUTE DIVERTED FLOWS TO HAWES ROAD AND SOUTHERN
 129          RK    7700  0.0067   0.035            TRAP    20.0     4.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 130          KK   SUB17
 131          KM        LOCAL RUNOFF TO HAWES ROAD AND SOUTHERN
 132          BA    1.19
 133          LS              84
 134          UK    1250   0.010   0.200     100
 135          RK    6500   0.009   0.040   0.117    TRAP     2.0     4.0
 136          RK    5300  0.0068   0.025            TRAP    35.0     2.3

 137          KK    CO17
 138          KM        COMBINE FLOWS ALONG HAWES ROAD AT SOUTHERN
 139          HC       4

 140          KK   DIV17
 141          KM        DIVERT FLOWS AT SOUTHERN AND HAWES
 142          DT     D17
 143          DI       0    1400    1450    2350    6115
 144          DQ       0     525     615     815    2230

 145          KK    RO17
 146          KM        ROUTE 226 ALONG SOUTHERN TO 90 DEGREE BEND
 147          KM        IN SOSSAMAN CHANNEL.
 148          RK    4000  0.0085   0.025            TRAP     8.0     1.2

 149          KK   SUB20
 150          KM        LOCAL RUNOFF AT SOSSAMAN CHANNEL AND SOUTHERN AVE
 151          BA   0.430
 152          LS              85
 153          UK     150   0.005   0.200     100
 154          RK    3100  0.0061   0.050   0.035    TRAP    40.0    0.01
 155          RK    4000  0.0085   0.025            TRAP     8.0     1.2

 156          KK    CO20
 157          KM         COMBINE FLOW WEST ALONG SOUTHERN FROM HAWES (RO17)
 158          HC       2

 159          KK   DIV20
 160          KM        DIVERT FLOW AT SOUTHERN AND SOSSAMAN CHANNEL
 161          DT     D20
 162          DI       0    1208    5000
 163          DQ       0       0    3792

 164          KK    RO20
 165          KM        ROUTE FLOWS IN SOSSAMAN CHANNEL FROM SOUTHERN TO FREEWAY
 166          RK    2600  0.0022   0.035            TRAP    15.0     2.6

 167          KK   RET17
 168          KM        RETRIEVE DIVERTED FLOW FROM HAWES AND SOUTHERN
 169          DR     D17
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 170          KK   ROD17
 171          KM        ROUTE DIVERTED FLOW FROM HAWES AND SOUTHERN SOUTH
 172          KM        ALONG HAWES TO THE FRWY. R.O.W. (APPROX. STA 970+00)
 173          RK    2600  0.0026   0.025            TRAP    22.0     2.0

 174          KK   SUB18
 175          KM        LOCAL FLOWS TO 3200 FEET WEST OF ELLSWORTH AT THE
 176          KM        NORTH R.O.W. OF THE SUPERSTITION FREEWAY.
 177          BA    0.41
 178          LS              84
 179          UK    1250   0.005   0.200     100
 180          RK    2500   0.007   0.040    0.03    TRAP     2.0     4.0
 181          RK    3200  0.0075   0.035            TRAP    20.0     2.0

 182          KK  SUB224
 183          KM        INFLOW TO SYSTEM FROM EAST OF ELLSWORTH ROAD.
 184          KM        HYDROGRAPH RESULTING  FROM AN-WEST SIMULATION
 185          KM        OF THE DETENTION POND EAST OF ELLSWORTH ROAD.
 186          BA    0.30
 187          IN      15
 188          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 189          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 190          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 191          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 192          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     1.0      5.
 193          QI     16.     25.     31.     36.     40.     43.     45.     47.     48.     49.
 194          QI     50.     50.     51.     52.     52.     53.     53.     54.     54.     55.
 195          QI     55.     56.     56.     56.     56.     57.     57.     57.     58.     58.
 196          QI     58.     58.     58.     58.     59.     59.     59.     59.     60.     60.
 197          QI     60.     60.     60.     60.     60.     60.     61.     61.     61.     61.
 198          QI     61.     61.     61.     61.     61.     61.     61.     61.     62.     62.
 199          QI     62.     62.     62.     62.     62.     62.     61.     61.     61.     61.

 200          KK  RO224
 201          KM       ROUTE FLOW ENTERING SYSTEM FROM EAST OF ELLSWORTH
 202          KM       TO 3200 FT. WEST OF ELLSWORTH. (APPROX. STA 1024+00 TO
 203          KM        STA 992+00)
 204          RK    3200  0.0050   0.016            TRAP     6.0     2.0

 205          KK    CO18
 206          KM        COMBINE ROUTED FLOWS FROM INFLOW TO SYSTEM FROM EAST OF
 207          KM        OF ELLSWORTH WITH HYDROGRAPH FROM SUB  18 AT APPROX.
 208          KM        FREEWAY STA 992+00.
 209          HC       2

 210          KK    RO18
 211          KM        ROUTE CO224 FLOWS TO SOUTHERN EXTENSION OF HAWES
 212          KM        ROAD. (APPROX. FREEWAY STA 970+00)
 213          RK    2200  0.0060   0.016            TRAP     6.0     2.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 214          KK   SUB19
 215          KM        LOCAL RUNOFF TO THE N-S LEG OF THE HAWES CHANNEL AT
 216          KM        THE FREEWAY R.O.W..
 217          BA   0.187
 218          LS             84
 219          UK     110   0.005   0.200     100
 220          RK    2200  0.0100   0.035    0.05    TRAP    20.0    6.00
 221          RK    2600  0.0026   0.025            TRAP    22.0    2.00

 222          KK   CO19A
 223          KM        COMBINE LOCAL RUNOFF AND FLOWS ROUTED WEST ALONG THE R.O.W.
 224          HC       2

 225          KK    CO19
 226          KM        COMBINE FLOWS FROM HAWES CHANNEL SPLIT WITH LOCAL
 227          KM        RUNOFF AND FLOWS ROUTED WEST ALONG THE SOUTH R.O.W.
 228          HC       2

 229          KK    RO19
 230          KM         ROUTE FLOWS ALONG FREEWAY R.O.W. FROM APPROX.
 231          KM         STA 970+00 TO STA 930+50.
 232          RK    3950   .0060   0.016            TRAP    16.0    2.00

 233          KK   SUB21
 234          KM        LOCAL RUNOFF AT SOSSAMAN CHANNEL (MAIN CHANNEL WIDTH IS
 235          KM        A WEIGHTED AVERAGE)
 236          BA     .37
 237          LS             86
 238          UK     110   0.005   0.200     100
 239          RK    2600  0.0038   0.025    0.05    TRAP    40.0    0.01
 240          RK    3950  0.0060   0.016            TRAP    12.0    2.00

 241          KK  SUBFY2
 242          KM        ON SITE RUNOFF COLLECTED BY THE STORM SEWER SYSTEM AND
 243          KM        DISCHARGED INTO THE R.O.W. CHANNEL AT SOSSAMAN CHANNEL.
 244          BA   .0921
 245          LS            92.
 246          UK    35.0    0.33    0.06     100
 247          RK    22.0   0.006   0.012  0.0015    CIRC     2.0
 248          RK    132.   0.003   0.012  0.0015    CIRC     2.0
 249          RK   9500.  0.0044   0.012            CIRC     4.5

 250          KK   COFY2
 251          KM        COMBINE FLOWS FROM STORM SEWER WITH FLOWS FROM THE R.O.W.
 252          KM        CHANNEL BEFORE FLOWS FROM SOSSAMAN CHANNEL ARE ADDED.
 253          HC       3

 254          KK    CO21
 255          KM        COMBINE FLOWS IN SOSSAMAN CHANNEL AT FREEWAY
 256          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 257          KK   RET20
 258          KM        RETRIEVE DIVERTED FLOWS FROM SOUTHERN AVE. AND SOSSAMAN
 259          KM        CHANNEL.
 260          DR     D20

 261          KK   ROD20
 262          KM        ROUTE DIVERTED FLOWS FROM SOUTHERN AVE AND SOSSAMAN CHANNEL
 263          KM        ACROSS SUB 32.
 264          RK    3600   0.005   0.025            TRAP    20.0     2.0

 265          KK   SUB32
 266          KM         LOCAL FLOWS FROM EAST OF SOSSAMAN ROAD AND WEST OF SOSSAMAN
 267          KM         CHANNEL.
 268          BA   0.172
 269          LS              84
 270          UK    200.   0.005    0.20    100.
 271          RK   1000.   0.005   0.025    0.01    TRAP    20.0    0.01
 272          RK   3900.   0.005   0.025            TRAP    20.0    2.00

 273          KK   CO32A
 274          KM        COMBINE FLOWS DIVERTED FROM SOSSAMAN AND SOUTHERN (D20)
 275          KM        WITH LOCAL FLOWS ABOVE THE CBC UNDER SOSSAMAN ROAD.
 276          HC       2

 277          KK   SUB31
 278          KM         LOCAL RUNOFF FROM SUBAREA 31
 279          BA    .954
 280          LS              84
 281          UK    1000  0.0060   0.20      100
 282          RK    3995  0.0070   0.025    0.42    TRAP    20.0    0.01
 283          RK    3800  0.0045   0.025            TRAP    30.0    3.00

 284          KK   SUB30
 285          KM        LOCAL RUNOFF FROM SUB 30
 286          BA   0.950
 287          LS              86
 288          UK     100  0.0050    0.20     100
 289          RK    2000  0.0070   0.025    0.10    TRAP    20.0    0.01
 290          RK    9600  0.0100   0.016            TRAP     2.0     1.0

 291          KK    RO30
 292          KM        ROUTE FLOWS FROM SUB  30 ACROSS SUB 31 TO THE FLOW
 293          KM        DIVISION IN THE SOSSAMAN ROAD CHANNEL.
 294          RK    3800  0.0045   0.025            TRAP    30.0     3.0

 295          KK    CO31
 296          KM        COMBINE FLOWS FROM SUB 31 WITH ROUTED FLOWS FROM
 297          KM        SUB 30 AT THE DIVISION IN THE SOSSAMAN ROAD CHANNEL.
 298          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 299          KK   DIV31
 300          KM        FLOW DIVISION IN THE SOSSAMAN ROAD CHANNEL.  DIVERTED FLOWS
 301          KM        (D31) TRAVEL DOWN THE WEST FORK OF THE SOSSAMAN ROAD CHANNEL.
 302          DT     D31
 303          DI      0.    500.  10000.
 304          DQ      0.    500.    500.

 305          KK   RO31
 306          KM        ROUTE FLOWS FROM DIVISION ALONG THE EAST FORK OF THE SOSSAMAN
 307          KM        ROAD CHANNEL
 308          RK    3900  0.0045   0.025            TRAP    30.0     3.0

 309          KK    CO32
 310          KM         COMBINE FLOWS DOWNSTREAM FROM CBC UNDER SOSSAMAN ROAD.
 311          HC       2

 312          KK    RO32
 313          KM        ROUTE FLOWS FROM THE EAST FORK OF THE SOSSAMAN ROAD CHANNEL
 314          KM        TO THE WEST FORK OF THE SOSSAMAN ROAD CHANNEL.
 315          RK    1000  0.0074   0.016            TRAP    24.0     2.0

 316          KK   SUB33
 317          KM        LOCAL FLOWS FROM SUB 33
 318          BA    .211
 319          LS              84
 320          UK    200.  0.0050    0.20    100.
 321          RK   2600.   0.007   0.035    0.03    TRAP    20.0    6.00
 322          RK   3900.   0.005   0.025            TRAP    20.0    2.00

 323          KK   RET31
 324          KM        RETRIEVE FLOWS DIVERTED DOWN THE WEST FORK OF THE
 325          KM        SOSSAMAN ROAD CHANNEL
 326          DR     D31

 327          KK   ROD31
 328          KM        ROUTE FLOWS DIVERTED DOWN THE WEST LEG OF THE SOSSAMAN
 329          KM        ROAD CHANNEL TO THE FREEWAY R.O.W.
 330          RK    3900  0.0045   0.025            TRAP    20.0     2.0

 331          KK    CO33
 332          KM        COMBINE LOCAL FLOWS WITH FLOWS IN THE SOSSAMAN ROAD
 333          KM        CHANNEL.
 334          HC       2

 335          KK   CO33A
 336          KM        COMBINE FLOWS AT FREEWAY AND THE WEST FORK OF THE
 337          KM        SOSSAMAN ROAD CHANNEL WITH FLOWS ROUTED ALONG THE R.O.W.
 338          KM        FROM THE EAST FORK OF THE SOSSAMAN ROAD CHANNEL.
 339          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 340          KK    R033
 341          KM        ROUTE FLOWS FROM THE WEST FORK OF THE SOSSAMAN ROAD
 342          KM        CHANNEL ALONG THE R.O.W. TO THE 72nd STREET CHANNEL.
 343          KM        (APPROX. STA 891+30)
 344          RK    1500  0.0074   0.016            TRAP    24.0     2.0

 345          KK   SUB35
 346          KM        LOCAL RUNOFF FROM SUBAREA 35
 347          BA     .85
 348          LS              84
 349          UK     200  0.0050   0.200     100
 350          RK    2600   0.007   0.025    0.11    TRAP    20.0    0.01
 351          RK    7500  0.0050   0.025            TRAP    20.0     2.0

 352          KK   SUB34
 353          KM         LOCAL RUNOFF FROM SUBAREA 34
 354          BA    1.16
 355          LS              84
 356          UK    1250   0.006    0.20     100
 357          RK   10000   0.013    0.05    0.39    TRAP    10.0    3.00
 358          RK    5000   0.008   0.025            TRAP    20.0    4.00

 359          KK    R034
 360          KM        ROUTE FLOWS FROM SUB  32 THROUGH SUB 33
 361          RK    7400   0.004   0.025            TRAP    40.0     3.0

 362          KK   CO35A
 363          KM        COMBINE FLOWS IN THE 72nd STREET CHANNEL WITH LOCAL
 364          KM        FLOWS FROM SUB-BASIN 35.
 365          HC       2

 366          KK    CO35
 367          KM        COMBINE FLOWS IN FREEWAY CHANNEL WITH FLOWS ENTERING
 368          KM        FROM THE 72nd STREET CHANNEL.
 369          HC       2

 370          KK   RO35A
 371          KM        ROUTE FLOWS FROM 72nd ST. CHANNEL TO CHANNEL
 372          KM        TRANSITION BETWEEN 72nd ST CHANNEL AND POWER RD.
 373          KM        (APPROX. STA 891+30 TO 885+75)
 374          RK     555  0.0074   0.016            TRAP    26.0     2.0

 375          KK   RO35B
 376          KM        ROUTE FLOWS FROM CHANNEL TRANSITION AT STA 885+75 TO
 377          KM        POWER ROAD (STA 865+55)
 378          RK    2020  0.0055   0.016            TRAP    30.0     2.0

 379          KK   SUB36
 380          KM        LOCAL FLOWS TO POWER ROAD
 381          BA    0.60
 382          LS              84
 383          UK     300  0.0050   0.200     100
 384          RK    7800   0.006   0.025    0.15    TRAP    40.0    0.01
 385          RK    2530  0.0056   0.035            TRAP    65.0     1.0
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```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 386          KK    CO36
 387          KM        COMBINE FLOWS AT POWER ROAD IN FREEWAY CHANNEL
 388          HC       2

 389          KK   ROPOW
 390          KM        ROUTE FLOWS THROUGH CBC BELOW POWER ROAD
 391          RS     1.0    ELEV  1358.2
 392          SV     0.0   1.394   2.228   3.203   4.197   5.150   5.596   6.310   7.409   8.430
 393          SV   9.209
 394          SE  1358.2 1362.12 1363.15 1364.09 1364.97 1365.78 1366.15 1366.73 1367.59 1368.32
 395          SE  1368.4
 396          SQ      0.    600.    800.   1000.   1200.   1400.   1500.   1600.   1700.   1800.
 397          SQ   1900.

 398          KK   RO36A
 399          KM        ROUTE FLOWS FROM POWER ROAD TO 500 FEET WEST OF POWER ROAD
 400          RK    500.  0.0053   0.016            TRAP    12.0     2.0

 401          KK   RO36B
 402          KM        ROUTE FLOWS TO 2000 FEET WEST OF POWER ROAD
 403          RK   1500.   0.015   0.016            TRAP    12.0     2.0

 404          KK  SUBFY1
 405          KM        ON SITE FLOWS COLLECTED BY THE STORM SEWER SYSTEM
 406          KM        AND DISCHARGED AT APPROX. STA 850+00
 407          BA   0.039
 408          LS            92.0
 409          UK    35.0    0.33    0.06     100
 410          RK    22.0   0.006   0.012  0.0015    CIRC     2.0
 411          RK     132   0.006   0.012  0.0015    CIRC     2.0
 412          RK    8000   0.003   0.012            CIRC     4.5

 413          KK   COFY1
 414          KM       COMBINE STORM SEWER FLOWS WITH FLOWS IN THE R.O.W. CHANNEL
 415          HC       2

 416          KK   RO36C
 417          KM        ROUTE FLOW TO R.W.C.D., 5175 FEET WEST OF POWER ROAD
 418          RK   3175. 0.00157   0.016            TRAP    12.0     2.0

 419          KK  SUB26C
 420          KM        LOCAL RIUNOFF FROM POWER ROAD TO R.W.C.D.
 421          BA    0.44
 422          LS            77.3
 423          UK   1250.   0.005    0.20     100
 424          RK   2600.  0.0038   0.035            TRAP    10.0     3.0
 425          RK   5200.  0.0015   0.016            TRAP    12.0     2.0

 426          KK    CO37
 427          KM        COMBINE FLOWS IN THE R.O.W. CHANNEL  WITH LOCAL FLOWS
 428          KM        TO FIND THE TOTAL FLOWS AT THE R.W.C.D.
 429          HC       2
 430          ZZ
```

```
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

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

   14       SUB11
                V
                V
   25        RO11
                .
                .
   28           .       SUB10
                .           V
                .           V
   35           .        RO10
                .           .
                .           .
   38           .           .       SUB16
                .           .           .
                .           .           .
   46        CO16.......................
                .
                .
   52           .------->     D16
   49       DIV16
                V
                V
   55        RO16
                .
                .
   59           .       SUB12
                .           V
                .           V
   66           .        RO12
                .           .
                .           .
   69           .           .       SUB15
                .           .           .
                .           .           .
   76        CO15.......................
                .
                .
   83           .------->     D15
   80       DIV15
                V
                V
   86        RO15
                .
                .
   90           .       SUB13
                .           V
                .           V
   97           .        RO13
                .           .
                .           .
  101           .           .       SUB14
                .           .           .
                .           .           .
  108        CO14.......................
                V
                V
  113        RO14
  118           :       RET16<-------     D16
```

```
                .          V
                .          V
120             .      ROD16
                .          .
                .          .
126             .          .          .<-------     D15
123             .          .      RET15
                .          .          V
                .          .          V
127             .          .      ROD15
                .          .          .
                .          .          .
130             .          .          .       SUB17
                .          .          .           .
                .          .          .           .
137          CO17.....................................
                .
                .
142             .------->     D17
140         DIV17
                V
                V
145          RO17
                .
                .
149             .      SUB20
                .          .
                .          .
156          CO20............
                .
                .
161             .------->     D20
159         DIV20
                V
                V
164          RO20
                .
                .
169             .          .<-------     D17
167             .      RET17
                .          V
                .          V
170             .      ROD17
                .          .
                .          .
174             .          .      SUB18
                .          .          .
                .          .          .
182             .          .          .      SUB224
                .          .          .           V
                .          .          .           V
200             .          .          .      RO224
                .          .          .           .
                .          .          .           .
205             .          .       CO18............
                .          .          V
                .          .          V
210             .          .       RO18
                .          .          .
                .          .          .
214             .          .          .       SUB19
                .          .          .           .
                .          .          .           .
222             .          .      CO19A............
225             :       CO19............:
```

```
                 .          V
229              .       RO19
                 .          .
                 .          .
233              .          .       SUB21
                 .          .          .
                 .          .          .
241              .          .          .      SUBFY2
                 .          .          .          .
                 .          .          .          .
250              .      COFY2.......................
                 .          .
                 .          .
254          CO21............
                 .
                 .
260              .          .<-------     D20
257              .      RET20
                 .          V
                 .          V
261              .      ROD20
                 .          .
                 .          .
265              .          .       SUB32
                 .          .          .
                 .          .          .
273              .      CO32A...........
                 .          .
                 .          .
277              .          .       SUB31
                 .          .          .
                 .          .          .
284              .          .          .      SUB30
                 .          .          .          V
                 .          .          .          V
291              .          .          .       RO30
                 .          .          .          .
                 .          .          .          .
295              .          .        CO31..........
                 .          .          .
                 .          .          .
302              .          .          .------->     D31
299              .          .       DIV31
                 .          .          V
                 .          .          V
305              .          .       RO31
                 .          .          .
                 .          .          .
309              .       CO32...........
                 .          V
                 .          V
312              .       RO32
                 .          .
                 .          .
316              .          .       SUB33
                 .          .          .
                 .          .          .
326              .          .          .          .<-------     D31
323              .          .          .      RET31
                 .          .          .          V
                 .          .          .          V
327              .          .          .      ROD31
                 .          .          .          .
                 .          .          .          .
333              :      CO33A.........CO33..........
```

```
                 .          V
                 .          V
340              .       RO33
                 .          .
                 .          .
345              .          .       SUB35
                 .          .          .
                 .          .          .
352              .          .          .       SUB34
                 .          .          .          V
                 .          .          .          V
359              .          .          .       RO34
                 .          .          .          .
                 .          .          .          .
362              .          .       CO35A.............
                 .          .          .
                 .          .          .
366              .       CO35.............
                 .          V
                 .          V
370              .      RO35A
                 .          V
                 .          V
375              .      RO35B
                 .          .
                 .          .
379              .          .       SUB36
                 .          .          .
                 .          .          .
386              .       CO36.............
                 .          V
                 .          V
389              .      ROPOW
                 .          V
                 .          V
398              .      RO36A
                 .          V
                 .          V
401              .      RO36B
                 .          .
                 .          .
404              .          .      SUBFY1
                 .          .          .
                 .          .          .
413              .      COFY1.............
                 .          V
                 .          V
416              .      RO36C
                 .          .
                 .          .
419              .          .      SUB26C
                 .          .          .
                 .          .          .
426              .       CO37.............
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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                    FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
          U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
                                                  ****


                         SUPERSTITION FREEWAY  -  OFFSITE DRAINAGE ANALYSIS
                         ELLSWORTH TO POWER ROAD- 100 YEAR, 24 HOUR PRECIPITATION
                         SIMULATION NUMBER 2: PROPOSED WITHOUT DETENTION

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

  IT          HYDROGRAPH TIME DATA
                     NMIN          15  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1    0  STARTING DATE
                    ITIME        0000  STARTING TIME
                       NQ         120  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      2    0  ENDING DATE
                   NDTIME        0545  ENDING TIME

                COMPUTATION INTERVAL     .25 HOURS
                     TOTAL TIME BASE   29.75 HOURS

      ENGLISH UNITS
```

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

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
HYDROGRAPH AT	SUB11	324.	12.50	81.	26.	21.	.50		
ROUTED TO	R011	299.	12.50	80.	25.	20.	.50		
HYDROGRAPH AT	SUB10	878.	12.75	314.	101.	82.	2.09		
ROUTED TO	R010	856.	13.00	312.	101.	82.	2.09		
HYDROGRAPH AT	SUB16	510.	12.50	103.	32.	26.	.59		
3 COMBINED AT	C016	1420.	12.75	491.	158.	128.	3.18		
DIVERSION TO	D16	292.	12.75	69.	21.	17.	3.18		
HYDROGRAPH AT	DIV16	1127.	12.75	423.	137.	110.	3.18		
ROUTED TO	R016	1126.	12.75	423.	137.	111.	3.18		
HYDROGRAPH AT	SUB12	492.	12.50	111.	35.	28.	.69		
ROUTED TO	R012	473.	12.75	113.	36.	29.	.69		
HYDROGRAPH AT	SUB15	361.	12.50	71.	22.	18.	.41		
3 COMBINED AT	C015	1828.	12.50	605.	195.	157.	4.28		
DIVERSION TO	D15	363.	12.50	119.	38.	31.	4.28		
HYDROGRAPH AT	DIV15	1588.	12.50	486.	157.	127.	4.28		
ROUTED TO	R015	1543.	12.75	487.	157.	127.	4.28		
HYDROGRAPH AT	SUB13	254.	12.50	55.	17.	14.	.35		
ROUTED TO	R013	216.	12.75	54.	17.	14.	.35		
HYDROGRAPH AT	SUB14	543.	12.75	186.	60.	49.	1.10		
3 COMBINED AT	C014	2302.	12.75	727.	235.	189.	5.73		
ROUTED TO	R014	2266.	12.75	724.	234.	189.	5.73		
HYDROGRAPH AT	RET16	292.	12.75	69.	21.	17.	.00		
ROUTED TO	ROD16	293.	13.00	70.	22.	18.	.00		
HYDROGRAPH AT	RET15	363.	13.00	119.	38.	31.	.00		
ROUTED TO	ROD15	339.	13.25	116.	38.	30.	.00		
HYDROGRAPH AT	SUB17	444.	13.00	186.	62.	50.	1.19		
4 COMBINED AT	C017	3130.	12.75	1095.	355.	287.	6.92		
DIVERSION TO	D17	1108.	12.75	401.	131.	106.	6.92		
HYDROGRAPH AT	DIV17	2022.	12.75	693.	224.	181.	6.92		
ROUTED TO	R017	1959.	13.00	692.	224.	181.	6.92		

HYDROGRAPH AT	SUB20	405.	12.50	77.	24.	19.	.43
2 COMBINED AT	CO20	2172.	12.75	768.	249.	200.	7.35
DIVERSION TO	D20	964.	12.50	130.	33.	26.	7.35
HYDROGRAPH AT	DIV20	1208.	12.50	638.	216.	174.	7.35
ROUTED TO	RO20	1208.	12.75	633.	215.	174.	7.35
HYDROGRAPH AT	RET17	1108.	12.75	401.	131.	106.	.00
ROUTED TO	ROD17	1074.	13.00	401.	131.	106.	.00
HYDROGRAPH AT	SUB18	121.	13.25	63.	21.	17.	.41
HYDROGRAPH AT	SUB224	62.	27.00	61.	40.	32.	.30
ROUTED TO	RO224	62.	27.25	61.	40.	32.	.30
2 COMBINED AT	CO18	157.	13.50	108.	61.	50.	.71
ROUTED TO	RO18	157.	13.50	108.	61.	49.	.71
HYDROGRAPH AT	SUB19	182.	12.25	33.	10.	8.	.19
2 COMBINED AT	CO19A	234.	12.50	137.	71.	58.	.90
2 COMBINED AT	CO19	1260.	13.00	537.	203.	164.	.90
ROUTED TO	RO19	1252.	13.00	536.	202.	163.	.90
HYDROGRAPH AT	SUB21	394.	12.25	70.	22.	17.	.37
HYDROGRAPH AT	SUBFY2	145.	12.25	22.	7.	6.	.09
3 COMBINED AT	COFY2	1371.	13.00	621.	231.	186.	1.36
2 COMBINED AT	CO21	2579.	13.00	1253.	446.	360.	8.71
HYDROGRAPH AT	RET20	964.	12.75	130.	33.	26.	.00
ROUTED TO	ROD20	901.	13.00	131.	33.	27.	.00
HYDROGRAPH AT	SUB32	147.	12.50	29.	9.	7.	.17
2 COMBINED AT	CO32A	943.	13.00	161.	42.	34.	.17
HYDROGRAPH AT	SUB31	349.	13.00	153.	50.	41.	.95
HYDROGRAPH AT	SUB30	1098.	12.25	181.	56.	45.	.95
ROUTED TO	RO30	889.	12.50	186.	57.	46.	.95
2 COMBINED AT	CO31	1177.	12.50	337.	108.	87.	1.90
DIVERSION TO	D31	500.	12.50	262.	89.	72.	1.90
HYDROGRAPH AT	DIV31	677.	12.50	75.	19.	15.	1.90
ROUTED TO	RO31	642.	12.50	75.	19.	15.	1.90
2 COMBINED AT	CO32	1358.	12.75	236.	61.	49.	2.08
ROUTED TO	RO32	1346.	13.25	237.	61.	49.	2.08
HYDROGRAPH AT	SUB33	181.	12.50	36.	11.	9.	.21

HYDROGRAPH AT	RET31	500.	12.25	262.	89.	72.	.00		
ROUTED TO	ROD31	500.	12.50	262.	89.	72.	.00		
2 COMBINED AT	CO33	681.	12.50	298.	100.	81.	.21		
2 COMBINED AT	CO33A	1956.	12.75	535.	161.	130.	2.29		
ROUTED TO	RO33	1943.	12.75	535.	162.	130.	2.29		
HYDROGRAPH AT	SUB35	728.	12.50	145.	45.	36.	.85		
HYDROGRAPH AT	SUB34	353.	13.25	173.	59.	48.	1.16		
ROUTED TO	RO34	349.	13.50	169.	58.	47.	1.16		
2 COMBINED AT	CO35A	747.	12.50	307.	103.	83.	2.01		
2 COMBINED AT	CO35	2456.	12.75	841.	265.	214.	4.30		
ROUTED TO	RO35A	2456.	12.75	841.	265.	214.	4.30		
ROUTED TO	RO35B	2454.	12.75	841.	265.	214.	4.30		
HYDROGRAPH AT	SUB36	362.	12.50	96.	31.	25.	.60		
2 COMBINED AT	CO36	2788.	12.75	937.	296.	239.	4.90		
ROUTED TO	ROPOW	2812.	12.75	938.	296.	239.	4.90	1369.13	12.75
ROUTED TO	RO36A	2800.	12.75	938.	296.	239.	4.90		
ROUTED TO	RO36B	2775.	12.75	938.	297.	239.	4.90		
HYDROGRAPH AT	SUBFY1	61.	12.25	9.	3.	2.	.04		
2 COMBINED AT	COFY1	2788.	12.75	946.	299.	242.	4.94		
ROUTED TO	RO36C	2668.	12.75	947.	300.	242.	4.94		
HYDROGRAPH AT	SUB26C	80.	13.75	48.	17.	14.	.44		
2 COMBINED AT	CO37	2734.	13.00	995.	317.	256.	5.38		

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

User: DEN104 -at

<OPS183>PROJ>PJ6114>DATA>HEC2>PD50.OUT

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


WWWW  WWWWW W   W   W    WWW  W
W   W W     WW  W  WW   W   W W  W
W   W W     W W W   W   W   W W  W
W   W WWWW  W W W   W   W W W WWWWW
W   W W     W W W   W   W   W    W
W   W W     W  WW   W   W   W    W
WWWW  WWWWW W   W  WWW   WWW     W



WWWW  WWWW  WWWWW  WWW         WWW  W   W WWWWW
W   W W   W W     W   W       W   W W   W   W
W   W W   W WWWW  W   W       W   W W   W   W
WWWW  W   W     W W W W       W   W W   W   W
W     W   W     W W   W       W   W W   W   W
W     W   W W   W W   W   WW  W   W W   W   W
W     WWWW   WWW   WWW    WW   WWW   WWW    W

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[Spooler rev 20.0.6HB (c) Prime Computer, Inc., 1986]

Label: PRT115 -form DENPRT

Pathname: <OPS183>PROJ>PJ6114>DATA>HEC2>PD50.OUT
File last modified: 88-08-17.19:37:12.Wed

Spooled: 88-09-13.12:01:00.Tue
Started: 88-09-13.12:04:08.Tue on: AMLC by: DENPRT

FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
****

THIS HEC-1 VERSION CONTAINS ALL OPTIONS EXCEPT ECONOMICS, AND THE NUMBER OF PLANS ARE REDUCED TO 3

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

  1           ID        SUPERSTITION FREEWAY  -  OFFSITE DRAINAGE ANALYSIS
  2           ID        ELLSWORTH TO POWER ROAD- 50 YEAR, 24 HOUR PRECIPITATION
  3           ID        SIMULATION NUMBER 3:   DETENTION BASINS IN PLACE
              *DIAGRAM
  4           IT      15                      120
  5           IO       6
  6           PG       1    3.35
  7           PG      10
  8           IN      30                       48
  9           PI   0.018   0.018   0.018   0.018   0.022   0.022   0.022   0.022   0.024   0.017
 10           PI   0.034   0.034   0.034   0.050   0.025   0.025   0.044   0.044   0.054   0.060
 11           PI   0.077   0.104   0.161   1.273   0.241   0.124   0.091   0.070   0.050   0.050
 12           PI   0.050   0.050   0.030   0.030   0.030   0.030   0.030   0.030   0.030   0.030
 13           PI   0.020   0.020   0.020   0.020   0.020   0.020   0.020   0.020

 14           KK   SUB11
 15           KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
 16           PR      10
 17           PW       1
 18           PT       1
 19           PW       1
 20           BA    0.50
 21           LS              83
 22           UK     500  0.0133   0.200     100
 23           RK    5700  0.0148   0.040   0.158    TRAP     2.0     4.0
 24           RK    1700  0.0055   0.035            TRAP     8.0     1.5

 25           KK    R011
 26           KM   ROUTE SUB 11 FROM C.A.P. TO BROADWAY
 27           RK    6200  0.0102   0.035            TRAP     5.0     2.0

 28           KK   SUB10
 29           KM        LOCAL RUNOFF TO C.A.P. OVERCHUTES
 30           BA    2.09
 31           LS              82
 32           UK    1000  0.0150   0.200     100
 33           RK    4800  0.0115   0.040  0.1033    TRAP     2.0     4.0
 34           RK   10000  0.0102   0.035            TRAP    10.0     3.0

 35           KK    R010
 36           KM        ROUTE FLOWS FROM C.A.P. TO BROADWAY AND 90th STREET
 37           RK    7600  0.0102   0.035            TRAP     5.0     2.0

 38           KK   SUB16
 39           KM        LOCAL RUNOFF TO BROADWAY ROAD 950 FT. WEST
 40           KM        OF ELLSWORTH AT 90th STREET.
 41           BA    0.59
 42           LS              84
 43           UK      90   0.005   0.200     100
 44           RK    5250  0.0090   0.050   0.118    TRAP    20.0    0.01
 45           RK    7600  0.0102   0.035            TRAP     5.0     2.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  46          KK    CO16
  47          KM        COMBINE RUNOFF  950 FEET WEST OF ELLSWORTH ON BROADWAY AT 90th
  48          HC       3

  49          KK   DIV16
  50          KM        DIVERT EXCESS FLOW SOUTH ACROSS BROADWAY 950 FT. WEST
  51          KM        OF ELLSWORTH AT 90th STREET.
  52          DT     D16
  53          DI       0    1185    1585
  54          DQ       0     140     400

  55          KK    RO16
  56          KM        ROUTE FLOWS ALONG BROADWAY TO FLOW DIVISION 2740 FT. WEST
  57          KM        OF ELLSWORTH AT GLENMAR ROAD.
  58          RK    1790  0.0093   0.016            TRAP    16.0     1.0

  59          KK   SUB12
  60          KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
  61          BA    0.69
  62          LS              83
  63          UK     500  0.0180   0.200     100
  64          RK    6600  0.0174   0.040   0.071    TRAP     2.0     4.0
  65          RK    1060  0.0056   0.035            TRAP     8.0     1.5

  66          KK    RO12
  67          KM        ROUTE FLOW FROM CAP OVERCHUTE ACROSS SUB 15 TO BROADWAY
  68          KM        AND GLENMAR ROAD.
  69          RK    7500  0.0098   0.035           TRAP     5.0     3.0

  70          KK   SUB15
  71          KM        LOCAL RUNOFF FROM SUB 15
  72          BA    0.41
  73          LS              84
  74          UK      85   0.005   0.200     100
  75          RK    7300  0.0150   0.050   0.082    TRAP     5.0    3.00
  76          RK    1790  0.0093   0.016            TRAP    16.0     1.0

  77          KK    CO15
  78          KM         COMBINE ROUTED OVERCHUTE FLOW (SUB 12) WITH SUB 15
  79          KM         AND FLOW ROUTED ALONG BROADWAY FROM 90th AT BROADWAY
  80          KM         AND GLENMAR ROAD.
  81          HC       3

  82          KK   DIV15
  83          KM        DIVERT EXCESS FLOW SOUTH ACROSS BROADWAY 2740 FT. WEST
  84          KM        OF ELLSWORTH AT GLENMAR ROAD.
  85          DT     D15
  86          DI       0     735    1405    2460
  87          DQ       0       0     140     400
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  88          KK    RO15
  89          KM         ROUTE FLOWS WEST ALONG BROADWAY FROM GLENMAR ROAD
  90          KM         (2740 FT. WEST OF ELLSWORTH) TO HAWES AND BROADWAY.
  91          RK    2470  0.0084   0.016            TRAP    10.0     1.0

  92          KK   SUB13
  93          KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
  94          BA    0.35
  95          LS              82
  96          UK     500  0.0230   0.200     100
  97          RK    3000  0.0167   0.040  0.0646    TRAP     2.0     4.0
  98          RK    1480  0.0042   0.035            TRAP     8.0     1.5

  99          KK    RO13
 100          KM         ROUTE FLOW FROM SUB 10 (OVERCHUTE) TO BROADWAY AND HAWES
 101          KM         THROUGH SUB 14.
 102          RK    8500  0.0100   0.050            TRAP     5.0     2.0

 103          KK   SUB14
 104          KM        LOCAL RUNOFF TO HAWES AND BROADWAY
 105          BA    1.10
 106          LS              85
 107          UK      85   0.005   0.200     100
 108          RK    8500  0.0067   0.050   0.036    TRAP    20.0    0.01
 109          RK    2470  0.0084   0.016            TRAP    10.0     1.0

 110          KK    CO14
 111          KM        COMBINE FLOWS ROUTED WEST ALONG BROADWAY WITH FLOWS FROM
 112          KM        SUB 13 AND SUB 14 AT BROADWAY AND HAWES. NO FLOW DIVERSION
 113          KM        TO THE WEST DUE TO A ONE WAY ROAD CROWN SLOPING SOUTH.
 114          HC       3

 115          KK    RO14
 116          KM        ROUTE FLOWS SOUTH ALONG HAWES TO SOUTHERN AND HAWES ROAD.
 117          RK    5300  0.0068   0.025            TRAP    35.0     2.3

 118          KK   RET16
 119          KM        RETRIEVE FLOWS DIVERTED S. ACROSS BROADWAY 950
 120          KM        FEET WEST OF ELLSWORTH AT 90th STREET.
 121          DR     D16

 122          KK   ROD16
 123          KM        ROUTE DIVERTED FLOWS FROM BROADWAY AND 90th STREET TO HAWES
 124          KM        ROAD AND SOUTHERN AVENUE.
 125          RK    9000  0.0067   0.035            TRAP    10.0     4.0

 126          KK   RET15
 127          KM        RETRIEVE FLOW DIVERTED S. ACROSS BROADWAY 2740
 128          KM        FEET WEST OF ELLSWORTH AT GLENMAR ROAD.
 129          DR     D15
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 130          KK   ROD15
 131          KM        ROUTE DIVERTED FLOWS FROM BROADWAY AND GLENMAR ROAD TO
 132          KM        HAWES ROAD AND SOUTHERN AVENUE.
 133          RK    7700  0.0067   0.035            TRAP    20.0     4.0

 134          KK   SUB17
 135          KM        LOCAL RUNOFF TO HAWES ROAD AND SOUTHERN AVENUE.
 136          BA    1.19
 137          LS              84
 138          UK    1250   0.010   0.200     100
 139          RK    6500   0.009   0.040   0.117    TRAP     2.0     4.0
 140          RK    5300  0.0068   0.025            TRAP    35.0     2.3

 141          KK    CO17
 142          KM        COMBINE FLOWS DIVERTED ACROSS BROADWAY AT 90th STREET AND
 143          KM        GLENMAR ROAD WITH FLOWS ROUTED SOUTH ALONG HAWES AND FLOWS
 144          KM        FROM SUB-BASIN 17.
 145          HC       4

 146          KK   DIV17
 147          KM        SPLIT FLOWS AT SOUTHERN AND HAWES. DIVERTED FLOWS PASS THROUGH
 148          KM        THE BOX CULVERT BELOW SOUTHERN AND CONTINUE SOUTH TO THE RIGHT
 149          KM        OF WAY.
 150          DT     D17
 151          DI       0    1400    1450    2350    6115
 152          DQ       0     525     615     815    2230

 153          KK    RO17
 154          KM        ROUTE FLOWS WEST ALONG SOUTHERN FROM HAWES TO THE 90 DEGREE
 155          KM        BEND IN THE SOSSAMAN CHANNEL AT SOUTHERN.
 156          RK    4000  0.0085   0.025            TRAP     8.0     1.2

 157          KK   SUB20
 158          KM        LOCAL RUNOFF AT SOSSAMAN CHANNEL AND SOUTHERN AVE
 159          BA   0.430
 160          LS              85
 161          UK     150   0.005   0.200     100
 162          RK    3100  0.0061   0.050   0.035    TRAP    40.0    0.01
 163          RK    4000  0.0085   0.025            TRAP     8.0     1.2

 164          KK    CO20
 165          KM         COMBINE FLOWS ROUTED WEST ALONG SOUTHERN FROM HAWES WITH LOCAL
 166          KM         FLOWS AT THE SOSSAMAN CHANNEL AND SOUTHERN AVENUE.
 167          HC       2

 168          KK   DIV20
 169          KM        SPLIT FLOWS AT SOUTHERN AND SOSSAMAN CHANNEL TO REPRESENT
 170          KM        OVERTOPPING AT THE 90 DEGREE BEND.  DIVERTED FLOWS OVERTOP
 171          KM        THE CHANNEL AND CONTINUE WEST AS OVERLAND FLOW.
 172          DT     D20
 173          DI       0    1208    5000
 174          DQ       0       0    3792
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 175          KK    RO20
 176          KM        ROUTE FLOWS IN SOSSAMAN CHANNEL FROM SOUTHERN TO FREEWAY
 177          RK    2600  0.0022   0.035            TRAP    15.0     2.6

 178          KK   RET17
 179          KM        RETRIEVE DIVERTED FLOW FROM HAWES AND SOUTHERN
 180          DR     D17

 181          KK   ROD17
 182          KM        ROUTE DIVERTED FLOW FROM HAWES AND SOUTHERN SOUTH
 183          KM        ALONG HAWES TO THE FRWY. R.O.W. (APPROX. STA 970+00)
 184          RK    2600  0.0026   0.025            TRAP    22.0     2.0

 185          KK  SUB224
 186          KM        INFLOW TO SYSTEM FROM EAST OF ELLSWORTH ROAD.
 187          KM        HYDROGRAPH RESULTING  FROM AN-WEST SIMULATION OF
 188          KM        DISCHARGE FROM THE DETENTION POND AT ELLSWORTH
 189          KM        FOR THE 50 YEAR PRECIPITATION EVENT.
 190          BA    0.30
 191          IN      15
 192          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 193          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 194          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 195          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
 196          QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0      2.
 197          QI      9.     19.     25.     30.     33.     36.     38.     40.     41.     43.
 198          QI     44.     45.     45.     46.     47.     47.     48.     48.     48.     49.
 199          QI     49.     49.     50.     50.     50.     50.     51.     51.     51.     51.
 200          QI     51.     52.     52.     52.     52.     52.     52.     53.     53.     53.
 201          QI     53.     53.     53.     53.     53.     54.     54.     54.     54.     54.
 202          QI     54.     54.     54.     54.     54.     54.     54.     54.     54.     54.
 203          QI     54.     54.     54.     54.     54.     54.     54.     54.     54.     54.

 204          KK  RO224
 205          KM       ROUTE FLOW ENTERING SYSTEM FROM EAST OF ELLSWORTH
 206          KM       TO 3200 FT. WEST OF ELLSWORTH. (APPROX. STA 1024+00 TO
 207          KM        STA 992+00)
 208          RK    3200  0.0050   0.016            TRAP    12.0     2.0

 209          KK   SUB18
 210          KM        LOCAL FLOWS TO 3200 FEET WEST OF ELLSWORTH AT THE
 211          KM        NORTH R.O.W. OF THE SUPERSTITION FREEWAY.
 212          BA    0.41
 213          LS              84
 214          UK    1250   0.005   0.200     100
 215          RK    2500   0.007   0.040    0.03    TRAP     2.0     4.0
 216          RK    3200  0.0075   0.035            TRAP    20.0     2.0

 217          KK    CO18
 218          KM        COMBINE ROUTED FLOWS FROM EAST OF ELLSWORTH WITH LOCAL
 219          KM        FLOWS FROM SUB-BASIN 18 AT APPROX. STA 992+00
 220          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 221          KK  HDET12
 222          KM        ONLINE DETENTION POND UPSTREAM FROM HAWES-POND 12 (STA 992+00
 223          KM        STA 997+00).
 224          RS      1.    ELEV  1439.8
 225          SV      0.    0.11    1.81    5.73    8.84    9.92   10.78
 226          SE  1439.8  1441.8  1443.8  1445.8  1447.3  1447.8  1448.2
 227          SQ      0.    52.0   100.0   132.0   152.0   209.0   285.0

 228          KK    R018
 229          KM        ROUTE FLOWS ALONG THE FREEWAY FROM STA 992+00
 230          KM        TO STA 972+00.
 231          RK    2000  0.0060   0.016            TRAP    12.0     2.0

 232          KK   SUB19
 233          KM        LOCAL RUNOFF TO THE R.O.W. JUST EAST OF HAWES CHANNEL
 234          BA   0.187
 235          LS              84
 236          UK     110   0.005   0.200     100
 237          RK    2200  0.0100   0.035    0.05    TRAP    20.0    6.00
 238          RK    2600  0.0026   0.025            TRAP    22.0    2.00

 239          KK   C019A
 240          KM        COMBINE LOCAL RUNOFF AND FLOWS ROUTED WEST ALONG THE R.O.W.
 241          HC       2

 242          KK  HDET11
 243          KM         ONLINE DETENTION POND UPSTREAM FROM HAWES- POND 11 (STA 977
 244          KM         TO STA 972+00).
 245          RS      1.    ELEV  1427.8
 246          SV      0.    0.11    1.87    5.88    7.10    7.96   10.09
 247          SE  1427.8  1429.8  1431.8  1433.8  1434.4  1434.8  1435.8
 248          SQ      0.    52.0   100.0   132.0   140.0   162.0   279.0

 249          KK    C019
 250          KM        COMBINE FLOWS FROM HAWES CHANNEL SPLIT WITH THE DISCHARGE
 251          KM        FROM POND NUMBER 11.
 252          HC       2

 253          KK   R019A
 254          KM         ROUTE FLOWS ALONG FREEWAY R.O.W. FROM HAWES ROAD TO THE
 255          KM         DIVERSION WEIR FOR POND 10 (STA 972+00 TO STA 966+24).
 256          RK    576.   .0060   0.016            TRAP    12.0    2.00

 257          KK   DET10
 258          KM        DIVERT FLOWS INTO DETENTION BASIN ABOVE THE SOSSAMAN CHANNEL
 259          KM        AT STA 966+24.  DIVERSION TABLE IS FOR A RECTANGULAR WEIR 50
 260          KM        FEET LONG AND 5.85 FEET ABOVE THE CHANNEL BOTTOM.
 261          DT     D10
 262          DI      0.    807.    879.    961.   1070.   1190.   1320.
 263          DQ      0.      0.     19.     61.    120.    190.    270.
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 264          KK   RO19B
 265          KM         ROUTE FLOWS ALONG FREEWAY R.O.W. FROM THE DIVERSION WEIR FOR
 266          KM         POND 10 (STA 966+24) TO THE DIVERSION WEIR FOR POND 9 (STA
 267          KM         961+21)
 268          RK    503.   .0060   0.016            TRAP    12.0    2.00

 269          KK    DET9
 270          KM        DIVERT FLOWS INTO DETENTION BASIN ABOVE THE SOSSAMAN CHANNEL
 271          KM        AT STA 961+21.  DIVERSION TABLE IS FOR A RECTANGULAR WEIR 50
 272          KM        FEET LONG AND 5.05 FEET ABOVE THE CHANNEL BOTTOM.
 273          DT      D9
 274          DI      0.    626.    660.    751.    861.    987.   1128.
 275          DQ      0.      0.     10.     51.    111.    187.    278.

 276          KK   RO19C
 277          KM         ROUTE FLOWS ALONG FREEWAY R.O.W. FROM THE DIVERSION
 278          KM         WEIR FOR POND 9 (STA 961+21) TO THE DIVERSION WEIR
 279          KM         FOR POND 8 (STA 955+21).
 280          RK     600   .0060   0.016            TRAP    12.0    2.00

 281          KK    DET8
 282          KM        DIVERT FLOWS INTO DETENTION BASIN ABOVE THE SOSSAMAN CHANNEL
 283          KM        AT STA 955+21.  DIVERSION TABLE IS FOR A RECTANGULAR WEIR 50
 284          KM        FEET LONG AND 4.25 FEET ABOVE THE CHANNEL BOTTOM.
 285          DT      D8
 286          DI      0.    464.    521.    627.    752.    898.   1059.   1236.
 287          DQ      0.      0.     21.     77.    152.    248.    359.    486.

 288          KK   RO19D
 289          KM        ROUTE FLOWS FROM STA 955+21 TO THE SOSSAMAN CHANNEL AT
 290          KM        STA 930+50.
 291          RK   2470.   0.006   0.016            TRAP    12.0     2.0

 292          KK   SUB21
 293          KM        LOCAL RUNOFF AT SOSSAMAN CHANNEL
 294          BA     .37
 295          LS              86
 296          UK     110   0.005   0.200     100
 297          RK    2600  0.0038   0.025    0.05    TRAP    40.0    0.01
 298          RK    3950  0.0060   0.016            TRAP    12.0    2.00

 299          KK  SUBFY2
 300          KM        ON SITE RUNOFF COLLECTED BY THE STORM SEWER SYSTEM AND
 301          KM        DISCHARGED INTO THE R.O.W. CHANNEL AT SOSSAMAN CHANNEL.
 302          BA   .0921
 303          LS             92.
 304          UK    35.0    0.33    0.06     100
 305          RK    22.0   0.006   0.012  0.0015    CIRC     2.0
 306          RK    132.   0.003   0.012  0.0015    CIRC     2.0
 307          RK   9500.  0.0044   0.012            CIRC     4.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 308          KK  COFY2
 309          KM        COMBINE FLOWS FROM STORM SEWER WITH FLOWS FROM THE R.O.W.
 310          KM        CHANNEL BEFORE FLOWS FROM SOSSAMAN CHANNEL ARE ADDED.
 311          HC       3

 312          KK    CO21
 313          KM        COMBINE FLOWS IN SOSSAMAN CHANNEL WITH FLOWS IN THE
 314          KM        R.O.W. CHANNEL.
 315          HC       2

 316          KK   RET20
 317          KM        RETRIEVE FLOWS DIVERTED SOUTH UNDER SOUTHERN AT SOUTHERN AND
 318          KM        THE SOSSAMAN CHANNEL.
 319          DR     D20

 320          KK   ROD20
 321          KM        ROUTE DIVERTED FLOWS FROM SOUTHERN AVE AND SOSSAMAN CHANNEL
 322          KM        ACROSS SUB 32 TO SOSSAMAN ROAD AND THE RIGHT OF WAY.
 323          RK    3600   0.005   0.025            TRAP    20.0     2.0

 324          KK   SUB32
 325          KM         LOCAL FLOWS FROM EAST OF SOSSAMAN ROAD AND WEST OF SOSSAMAN
 326          KM         CHANNEL.
 327          BA   0.172
 328          LS              84.
 329          UK    200.   0.005    0.20    100.
 330          RK   1000.   0.005   0.025    0.01    TRAP    20.0    0.01
 331          RK   3900.   0.005   0.025            TRAP    20.0    2.00

 332          KK   CO32A
 333          KM        COMBINE FLOWS DIVERTED FROM SOSSAMAN AND SOUTHERN (D20)
 334          KM        WITH LOCAL FLOWS EAST OF THE CBC UNDER SOSSAMAN ROAD.
 335          KM        PEAK FLOWS AT THIS LOCATION WERE USED TO SIZE THE BOX
 336          KM        CULVERT BELOW SOSSAMAN ROAD.
 337          HC       2

 338          KK   SUB31
 339          KM         LOCAL RUNOFF FROM SUBAREA 31
 340          BA    .954
 341          LS              84
 342          UK    1000  0.0060   0.20      100
 343          RK    3995  0.0070   0.025    0.42    TRAP    20.0    0.01
 344          RK    3800  0.0045   0.025            TRAP    30.0    3.00

 345          KK   SUB30
 346          KM        LOCAL RUNOFF FROM SUB 30
 347          BA   0.950
 348          LS              86
 349          UK     100  0.0050    0.20      100
 350          RK    2000  0.0070   0.025    0.10    TRAP    20.0    0.01
 351          RK    9600  0.0100   0.016            TRAP     2.0     1.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 352          KK    RO30
 353          KM        ROUTE FLOWS FROM SUB  30 ACROSS SUB 31 TO THE FLOW
 354          KM        DIVISION IN THE SOSSAMAN ROAD CHANNEL.
 355          RK    3800  0.0045   0.025            TRAP    30.0     3.0

 356          KK    CO31
 357          KM        COMBINE FLOWS FROM SUB 31 WITH ROUTED FLOWS FROM
 358          KM        SUB 30 AT THE DIVISION IN THE SOSSAMAN ROAD CHANNEL.
 359          HC       2

 360          KK   DIV31
 361          KM        FLOW DIVISION IN THE SOSSAMAN ROAD CHANNEL.  DIVERTED FLOWS
 362          KM        (D31) TRAVEL DOWN THE SOSSSAMAN ROAD CHANNEL.  UNDIVERTED
 363          KM        FLOWS CONTINUE SOUTH ALONG SOSSAMAN ROAD TO THE R.O.W.
 364          DT     D31
 365          DI      0.    500.  10000.
 366          DQ      0.    500.    500.

 367          KK   RO31
 368          KM        ROUTE FLOWS SOUTH ALONG SOSSAMAN ROAD TO THE RIGHT OF WAY.
 369          RK    3900  0.0045   0.025            TRAP    30.0     3.0

 370          KK    CO32
 371          KM         COMBINE FLOWS ROUTED SOUTH ALONG SOSSAMAN ROAD TO THE R.O.W.
 372          KM         WITH FLOWS PASSING THROUGH THE CBC BELOW SOSSAMAN ROAD.
 373          HC       2

 374          KK   RO32A
 375          KM        ROUTE FLOWS FROM SOSSAMAN ROAD ALONG THE RIGHT OF WAY TO THE
 376          KM        DIVERSION WEIR FOR POND 7 (STA 916+96 TO STA 913+24)
 377          RK    372.  0.0067   0.016            TRAP    12.0     2.0

 378          KK    DET7
 379          KM        DIVERT FLOWS INTO DETENTION BASIN BETWEEN SOSSAMAN ROAD AND
 380          KM        THE SOSSAMAN ROAD CHANNEL.  DIVERSION TABLE IS FOR A REC-
 381          KM        TANGULAR WEIR 50 FEET LONG AND 5.50 FEET ABOVE THE CHANNEL
 382          KM        BOTTOM.
 383          DT      D7
 384          DI      0.    770.    810.    892.    988.   1093.   1207.   1331.   1462.
 385          DQ      0.      0.     10.     42.     88.    143.    207.    281.    362.

 386          KK   RO32B
 387          KM        ROUTE FLOWS REMAINING IN THE CHANNEL FROM THE DIVERSION
 388          KM        WEIR FOR POND 7 (STA 913+24) TO THE DIVERSION WEIR
 389          KM        FOR POND 6 (STA 907+24).
 390          RK    600.  .0067   0.016            TRAP    12.0     2.0

 391          KK    DET6
 392          KM        DIVERT FLOWS INTO DETENTION BASIN BETWEEN SOSSAMAN ROAD AND
 393          KM        THE SOSSAMAN ROAD CHANNEL.  DIVERSION TABLE IS FOR A REC-
 394          KM        TANGULAR WEIR CREST 50 FEET LONG AND 5.00 FEET ABOVE THE
 395          KM        CHANNEL BOTTOM.
 396          DT      D6
 397          DI      0.    685.    703.    781.    875.    978.   1092.   1215.
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 398          DQ      0.      0.      3.     31.     75.    128.    192.    265.

 399          KK   RO32C
 400          KM        ROUTE FLOWS REMAINING IN THE CHANNEL FROM THE DIVERSION
 401          KM        WEIR FOR POND 6 (STA 907+24) TO THE SOSSAMAN ROAD CHANNEL
 402          KM        AND THE DIVERSION STRUCTURE FOR POND 5 (STA 903+24)
 403          RK    400.  0.0067   0.016            TRAP    12.0     2.0

 404          KK   SUB33
 405          KM        LOCAL FLOWS FROM SUB 33
 406          BA    .211
 407          LS              84
 408          UK    200.  0.0050    0.20    100.
 409          RK   2600.   0.007   0.035    0.03    TRAP    20.0    6.00
 410          RK   3900.   0.005   0.025            TRAP    20.0    2.00

 411          KK   RET31
 412          KM        RETRIEVE FLOWS DIVERTED DOWN THE WEST FORK OF THE
 413          KM        SOSSAMAN ROAD CHANNEL
 414          DR     D31

 415          KK   ROD31
 416          KM        ROUTE FLOWS DIVERTED DOWN THE WEST FORK OF THE SOSSAMAN
 417          KM        ROAD CHANNEL TO THE FREEWAY R.O.W.
 418          RK    3900  0.0045   0.025            TRAP    20.0     2.0

 419          KK    CO33
 420          KM        COMBINE FLOWS AT FREEWAY AND THE WEST FORK OF THE
 421          KM        SOSSAMAN ROAD CHANNEL WITH FLOWS FROM SUB-BASIN 33.
 422          HC       2

 423          KK   CO33A
 424          KM        COMBINE FLOWS FROM THE WEST FORK OF THE SOSSAMAN ROAD CHANNEL
 425          KM        WITH FLOWS IN THE R.O.W. CHANNEL.
 426          HC       2

 427          KK    DET5
 428          KM         DIVERT FLOWS INTO DETENTION BASIN AT THE SOSSAMAN ROAD
 429          KM         CHANNEL (STA 903+24).  DIVERSION TABLE IS FOR A REC-
 430          KM         TANGULAR WEIR 50 FEET LONG AND 6.04 FEET ABOVE THE
 431          KM         CHANNEL BOTTOM.
 432          DT      D5
 433          DI      0.   1005.   1063.   1141.   1227.   1320.   1421.   1527.
 434          DQ      0.      0.     13.     41.     77.    120.    171.    227.

 435          KK   RO33A
 436          KM        ROUTE FLOWS ALONG THE R.O.W. FROM THE DIVERSION WEIR
 437          KM        FOR POND 5 (STA 903+24) TO THE DIVERSION WEIR FOR POND
 438          KM        POND 4 (STA 897+24).
 439          RK    600.  0.0067   0.016            TRAP    12.0     2.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 440          KK    DET4
 441          KM        DIVERT FLOWS INTO DETENTION BASIN BELOW THE SOSSAMAN
 442          KM        ROAD CHANNEL AT STA 897+24.  DIVERSION TABLE IS FOR A
 443          KM        RECTANGULAR WEIR 50 FEET LONG AND 5.65 FEET ABOVE THE
 444          KM        CHANNEL BOTTOM.
 445          DT      D4
 446          DI      0.    877.    905.    980.   1066.   1161.   1266.   1375.
 447          DQ      0.      0.      5.     30.     66.    111.    166.    225.

 448          KK   RO33B
 449          KM         ROUTE FLOWS FROM THE DIVERSION WEIR FOR POND 4 (STA
 450          KM         897+24) TO THE DIVERSION WEIR FOR POND 3 (STA 890+24).
 451          KM         THE WEIR FOR POND 3 IS JUST DOWNSTREAM FROM THE 72nd
 452          KM         STREET CHANNEL.
 453          RK     700  0.0067   0.016            TRAP    12.0     2.0

 454          KK   SUB34
 455          KM         LOCAL RUNOFF FROM SUBAREA 34
 456          BA    1.16
 457          LS              84
 458          UK    1250   0.006    0.20     100
 459          RK   10000   0.013    0.05    0.39    TRAP    10.0    3.00
 460          RK    5000   0.008   0.025            TRAP    20.0    4.00

 461          KK    RO34
 462          KM        ROUTE FLOWS FROM SUB  34 THROUGH SUB 35
 463          RK    7400   0.004   0.025            TRAP    40.0     3.0

 464          KK   SUB35
 465          KM        LOCAL RUNOFF FROM SUBAREA 35
 466          BA     .85
 467          LS              84
 468          UK     200  0.0050   0.200     100
 469          RK    2600   0.007   0.025    0.11    TRAP    20.0    0.01
 470          RK    7500  0.0050   0.025            TRAP    20.0     2.0

 471          KK   CO35A
 472          KM        COMBINE FLOWS ROUTED FROM THE NORTH WITH LOCAL FLOWS
 473          KM        AT THE 72nd STREET CHANNEL.
 474          HC       2

 475          KK    CO35
 476          KM        COMBINE FLOWS IN FREEWAY CHANNEL WITH FLOWS ENTERING
 477          KM        FROM THE 72nd STREET CHANNEL.
 478          HC       2

 479          KK    DET3
 480          KM         DIVERT FLOWS BELOW THE 72nd STREET CHANNEL INTO DETENTION
 481          KM         BASIN BETWEEN 72nd STREET CHANNEL AND 72nd STREET.  DIVERSION
 482          KM         TABLE IS FOR A RECTANGULAR WEIR 60 FEET LONG AND 7.22 FEET
 483          KM         ABOVE THE CHANNEL BOTTOM.
 484          DT      D3
 485          DI      0.   1375.   1406.   1480.   1564.   1655.   1756.   1861.   1970.
 486          DQ      0.      0.      6.     30.     64.    105.    156.    211.    270.
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 487          KK   RO35A
 488          KM        ROUTE FLOWS FROM THE DIVERSION WEIR FOR POND 3 (STA 890+24)
 489          KM        TO 72nd STREET (STA 884+00).
 490          RK    624.  0.0067   0.016            TRAP    12.0     2.0

 491          KK   RO35B
 492          KM        ROUTE FLOWS FROM 72nd STREET TO THE DIVERSION WEIR FOR POND 2
 493          KM        (STA 879+20).
 494          RK    480.  0.0067   0.016            TRAP    16.0     2.0

 495          KK    DET2
 496          KM         DIVERT FLOWS BELOW THE 72nd STREET CHANNEL INTO DETENTION
 497          KM         BASIN BETWEEN 72nd STREET CHANNEL AND POWER ROAD.  DIVERSION
 498          KM         TABLE IS FOR A RECTANGULAR WEIR 50 FEET LONG AND 6.20 FEET
 499          KM         ABOVE THE CHANNEL BOTTOM.
 500          DT      D2
 501          DI      0.   1171.   1208.   1285.   1375.   1473.   1580.   1693.   1815.
 502          DQ      0.      0.      8.     35.     75.    124.    180.    243.    315.

 503          KK   RO35C
 504          KM        ROUTE FLOWS FROM THE DIVERSION WEIR FOR POND 2 (STA 879+20)
 505          KM        TO POND 1 (STA 872+72).
 506          RK    698.  0.0067   0.016            TRAP    16.0     2.0

 507          KK    DET1
 508          KM         DIVERT FLOWS BELOW THE 72nd STREET CHANNEL INTO DETENTION
 509          KM         BASIN BETWEEN 72nd STREET CHANNEL AND POWER ROAD.  DIVERSION
 510          KM         TABLE IS FOR A RECTANGULAR WEIR 25 FEET LONG AND 6.20 FEET
 511          KM         ABOVE THE CHANNEL BOTTOM.
 512          DT      D1
 513          DI      0.   1158.   1285.   1336.   1363.   1365.   1381.   1420.
 514          DQ      0.      0.     30.     47.     57.     58.     88.     98.

 515          KK   RO35D
 516          KM        ROUTE FLOWS FROM THE DIVERSION WEIR FOR POND 1 (STA 872+22)
 517          KM        TO POWER ROAD (STA 865+57).
 518          RK    662.  0.0067   0.016            TRAP    16.0     2.0

 519          KK   SUB36
 520          KM        LOCAL FLOWS TO POWER ROAD
 521          BA    0.60
 522          LS              84
 523          UK     300  0.0050   0.200     100
 524          RK    7800   0.006   0.025    0.15    TRAP    40.0    0.01
 525          RK    2530  0.0056   0.035            TRAP    65.0     1.0

 526          KK    CO36
 527          KM        COMBINE FLOWS AT POWER ROAD IN FREEWAY CHANNEL
 528          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 529          KK   ROPOW
 530          KM        ROUTING REACH TO REPRESENT PONDING INDUCED BY CBC BELOW
 531          KM        POWER ROAD.
 532          RS     1.0    ELEV  1358.0
 533          SV     0.0   1.394   2.228   3.203   4.197   5.150   5.596   6.310   7.409   8.430
 534          SV   9.209
 535          SE  1358.0 1362.12 1363.15 1364.09 1364.97 1365.78 1366.15 1366.73 1367.59 1368.32
 536          SE  1368.4
 537          SQ      0.    600.    800.   1000.   1200.   1400.   1500.   1600.   1700.   1800.
 538          SQ   1900.

 539          KK   RO36A
 540          KM        ROUTE FLOWS FROM POWER ROAD TO 500 FEET WEST OF POWER ROAD
 541          RK    500.  0.0053   0.016            TRAP    12.0     2.0

 542          KK   RO36B
 543          KM        ROUTE FLOWS TO 2000 FEET WEST OF POWER ROAD
 544          RK   1500.   0.015   0.016            TRAP    12.0     2.0

 545          KK  SUBFY1
 546          KM        ON SITE FLOWS COLLECTED BY THE STORM SEWER SYSTEM
 547          KM        AND DISCHARGED AT APPROX. STA 850+00
 548          BA   0.039
 549          LS            92.0
 550          UK    35.0    0.33    0.06     100
 551          RK    22.0   0.006   0.012  0.0015    CIRC     2.0
 552          RK     132   0.006   0.012  0.0015    CIRC     2.0
 553          RK    8000   0.003   0.012            CIRC     4.5

 554          KK   COFY1
 555          KM       COMBINE STORM SEWER FLOWS WITH FLOWS IN THE R.O.W. CHANNEL
 556          HC       2

 557          KK   RO36C
 558          KM        ROUTE FLOW TO R.W.C.D., 5175 FEET WEST OF POWER ROAD
 559          RK   3175. 0.00157   0.016            TRAP    12.0     2.0

 560          KK  SUB26C
 561          KM        LOCAL RUNOFF FROM POWER ROAD TO R.W.C.D.
 562          BA    0.44
 563          LS            77.3
 564          UK   1250.   0.005    0.20     100
 565          RK   2600.  0.0038   0.035            TRAP    10.0     3.0
 566          RK   5200.  0.0015   0.016            TRAP    12.0     2.0

 567          KK    CO37
 568          KM        COMBINE FLOWS IN THE R.O.W. CHANNEL  WITH LOCAL FLOWS
 569          KM        TO FIND THE TOTAL FLOWS AT THE R.W.C.D.
 570          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  571         KK    RET1
  572         KM
  573         KM
  574         KM         THE REMAINDER OF THIS FILE INCLUDES STATEMENTS WHICH WERE USED
  575         KM         TO FIND THE VOLUME OF WATER DIVERTED TO EACH POND.  DUMMY
  576         KM         OUTFLOW VALUES OF 0.001 cfs WERE USED IN THE STORAGE DISCHARGE
  577         KM         TABLES SINCE VALUES OF ZERO WERE NOT ACCEPTED BY THE PROGRAM.
  578         KM
  579         KM         RETRIEVE FLOWS DIVERTED TO POND 1
  580         DR      D1

  581         KK  1ROUTE
  582         KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
  583         RK     10.   0.006   0.016            TRAP    12.0     2.0
  584         KM       1

  585         KK  RORET1
  586         KM        ROUTE FLOWS TO POND 1 TO ESTIMATE REQUIRED VOLUME
  587         RS     1.0    ELEV  1358.7
  588         SV     0.0    0.47    2.53    3.66    4.84    6.08    7.31    8.65    9.05
  589         SE  1358.7  1360.0  1362.0  1363.0  1364.0  1365.0  1366.0  1367.0  1367.3
  590         SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
  591         KM       1

  592         KK    RET2
  593         KM         RETRIEVE FLOWS DIVERTED TO POND 2
  594         DR      D2

  595         KK  2ROUTE
  596         KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
  597         RK     10.   0.006   0.016            TRAP    12.0     2.0
  598         KM       1

  599         KK  RORET2
  600         KM        ROUTE FLOWS TO POND 2 TO ESTIMATE REQUIRED VOLUME
  601         RS     1.0    ELEV  1360.0
  602         SV     0.0    1.74    3.63    5.59    7.64    9.77   11.98   14.27   16.43   19.56
  603         SE  1360.0  1362.0  1363.0  1364.0  1365.0  1366.0  1367.0  1368.0  1369.0  1370.3
  604         SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
  605         KM       1

  606         KK    RET3
  607         KM         RETRIEVE FLOWS DIVERTED TO POND 3
  608         DR      D3

  609         KK  3ROUTE
  610         KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
  611         RK     10.   0.006   0.016            TRAP    12.0     2.0
  612         KM       1
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  613         KK  RORET3
  614         KM        ROUTE FLOWS TO POND 3 TO ESTIMATE REQUIRED VOLUME
  615         RS     1.0    ELEV  1371.6
  616         SV     0.0    0.84    2.37    3.97    5.65    7.39    9.12   10.96   12.88
  617         SE  1371.6  1373.0  1374.0  1375.0  1376.0  1377.0  1378.0  1379.0  1380.0
  618         SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
  619         KM       1

  620         KK  CORET1
  621         KM        COMBINE DIVERTED HYDROGRAPHS FOR COSMETIC REASONS
  622         HC      3.

  623         KK    RET4
  624         KM         RETRIEVE FLOWS DIVERTED TO POND 4
  625         DR      D4

  626         KK  4ROUTE
  627         KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
  628         RK     10.   0.006   0.016            TRAP    12.0     2.0
  629         KM       1

  630         KK  RORET4
  631         KM        ROUTE FLOWS TO POND 4 TO ESTIMATE REQUIRED VOLUME
  632         RS     1.0    ELEV  1373.0
  633         SV     0.0    0.38    1.65    3.02    4.44    5.92    7.45    9.03   10.66   12.35
  634         SV   13.83   15.57   16.82
  635         SE  1373.0  1374.0  1375.0  1376.0  1377.0  1378.0  1379.0  1380.0  1381.0  1382.0
  636         SE  1383.0  1384.0  1384.7
  637         SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
  638         SQ   0.001   0.001   0.001
  639         KM       1

  640         KK    RET5
  641         KM         RETRIEVE FLOWS DIVERTED TO POND 5
  642         DR      D5

  643         KK  5ROUTE
  644         KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
  645         RK     10.   0.006   0.016            TRAP    12.0     2.0
  646         KM       1

  647         KK  RORET5
  648         KM        ROUTE FLOWS TO POND 5 TO ESTIMATE REQUIRED VOLUME
  649         RS     1.0    ELEV  1374.0
  650         SV     0.0    1.51    2.78    4.11    5.49    6.94    8.44   10.00   11.63   13.31
  651         SV   15.05   15.43   17.07   19.11
  652         SE  1374.0  1376.0  1377.0  1378.0  1379.0  1380.0  1381.0  1382.0  1383.0  1384.0
  653         SE  1385.0  1386.0  1387.0  1388.2
  654         SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
  655         SQ   0.001   0.001   0.001   0.001
  656         KM       1
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 657          KK    RET6
 658          KM         RETRIEVE FLOWS DIVERTED TO POND 6
 659          DR      D6

 660          KK  6ROUTE
 661          KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
 662          RK     10.   0.006   0.016            TRAP    12.0     2.0
 663          KM       1

 664          KK  RORET6
 665          KM        ROUTE FLOWS TO POND 6 TO ESTIMATE REQUIRED VOLUME
 666          RS     1.0    ELEV  1375.2
 667          SV     0.0    0.67    1.22    1.80    2.42    3.08    3.77    4.50    5.27    6.08
 668          SV    6.92    7.81    8.65    9.70    9.97   10.91   11.96
 669          SE  1375.2  1377.0  1378.0  1379.0  1380.0  1381.0  1382.0  1383.0  1384.0  1385.0
 670          SE  1386.0  1387.0  1388.0  1389.0  1390.0  1391.0  1392.0
 671          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 672          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 673          KM       1

 674          KK  CORET2
 675          KM         COMBINE DIVERTED HYDROGRAPHS FOR COSMETIC REASONS
 676          HC      4.

 677          KK    RET7
 678          KM        RETRIEVE FLOWS DIVERTED TO POND 7
 679          DR      D7

 680          KK  7ROUTE
 681          KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
 682          RK     10.   0.006   0.016            TRAP    12.0     2.0
 683          KM       1

 684          KK  RORET7
 685          KM        ROUTE FLOWS TO POND 7 TO ESTIMATE REQUIRED VOLUME
 686          RS     1.0    ELEV  1376.0
 687          SV     0.0    1.06    1.57    2.13    2.75    3.41    4.13    4.91    5.74    6.63
 688          SV    7.57    8.56    9.61   10.72   11.65   12.44   13.62   14.72
 689          SE  1376.0  1379.0  1380.0  1381.0  1382.0  1383.0  1384.0  1385.0  1386.0  1387.0
 690          SE  1388.0  1389.0  1390.0  1391.0  1392.0  1393.0  1394.0  1394.9
 691          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 692          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 693          KM       1

 694          KK    RET8
 695          KM         RETRIEVE FLOWS DIVERTED TO POND 8
 696          DR      D8

 697          KK  8ROUTE
 698          KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
 699          RK     10.   0.006   0.016            TRAP    12.0     2.0
 700          KM       1
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 701          KK  RORET8
 702          KM        ROUTE FLOWS TO POND 8 TO ESTIMATE REQUIRED VOLUME
 703          RS     1.0    ELEV  1410.9
 704          SV     0.0    0.50    2.59    5.52    8.55   11.67   14.88   18.16   21.55   26.10
 705          SE  1410.9  1412.0  1413.0  1414.0  1415.0  1416.0  1417.0  1418.0  1419.0  1420.3
 706          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 707          KM       1

 708          KK    RET9
 709          KM         RETRIEVE FLOWS DIVERTED TO POND 9
 710          DR      D9

 711          KK  9ROUTE
 712          KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
 713          RK     10.   0.006   0.016            TRAP    12.0     2.0
 714          KM       1

 715          KK  RORET9
 716          KM        ROUTE FLOWS TO POND 9 TO ESTIMATE REQUIRED VOLUME
 717          RS     1.0    ELEV  1412.7
 718          SV     0.0    0.72    2.18    3.70    5.28    6.93    8.63   10.39   12.22   13.91
 719          SV   15.82   17.77
 720          SE  1412.7  1414.0  1415.0  1416.0  1417.0  1418.0  1419.0  1420.0  1421.0  1422.0
 721          SE  1423.0  1424.0
 722          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 723          SQ   0.001   0.001
 724          KM       1

 725          KK   RET10
 726          KM         RETRIEVE FLOWS DIVERTED TO POND 10
 727          DR     D10

 728          KK  10ROUT
 729          KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
 730          RK     10.   0.006   0.016            TRAP    12.0     2.0
 731          KM       1

 732          KK  ORET10
 733          KM        ROUTE FLOWS TO POND 10 TO ESTIMATE REQUIRED VOLUME
 734          RS     1.0    ELEV  1415.8
 735          SV     0.0    0.54    1.60    2.71    3.88    5.09    6.36    7.68    9.05   10.28
 736          SV   11.71   13.18   13.92
 737          SE  1415.8  1417.0  1418.0  1419.0  1420.0  1421.0  1422.0  1423.0  1424.0  1425.0
 738          SE  1426.0  1427.0  1427.5
 739          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 740          SQ   0.001   0.001   0.001
 741          KM       1

 742          KK  CORET3
 743          KM        COMBINE DIVERTED FLOWS FOR COSMETIC REASONS
 744          HC      5.
 745          ZZ
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                 SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

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

   14       SUB11
                V
                V
   25        RO11
                .
                .
   28           .       SUB10
                .           V
                .           V
   35           .        RO10
                .           .
                .           .
   38           .           .       SUB16
                .           .           .
                .           .           .
   46        CO16.......................
                .
                .
   52           .------->     D16
   49       DIV16
                V
                V
   55        RO16
                .
                .
   59           .       SUB12
                .           V
                .           V
   66           .        RO12
                .           .
                .           .
   70           .           .       SUB15
                .           .           .
                .           .           .
   77        CO15.......................
                .
                .
   85           .------->     D15
   82       DIV15
                V
                V
   88        RO15
                .
                .
   92           .       SUB13
                .           V
                .           V
   99           .        RO13
                .           .
                .           .
  103           .           .       SUB14
                .           .           .
                .           .           .
  110        CO14.......................
                V
                V
  115        RO14
  128           :       RET16<-------     D16
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                .          V
                .          V
122             .       ROD16
                .          .
                .          .
129             .          .          .<-------     D15
126             .          .       RET15
                .          .          V
                .          .          V
130             .          .       ROD15
                .          .          .
                .          .          .
134             .          .          .       SUB17
                .          .          .          .
                .          .          .          .
141          CO17.................................
                .
                .
150             .------->     D17
146         DIV17
                V
                V
153          RO17
                .
                .
157             .       SUB20
                .          .
                .          .
164          CO20............
                .
                .
172             .------->     D20
168         DIV20
                V
                V
175          RO20
                .
                .
180             .          .<-------     D17
178             .       RET17
                .          V
                .          V
181             .       ROD17
                .          .
                .          .
185             .          .      SUB224
                .          .          V
                .          .          V
204             .          .      RO224
                .          .          .
                .          .          .
209             .          .          .       SUB18
                .          .          .          .
                .          .          .          .
217             .          .        CO18............
                .          .          V
                .          .          V
221             .          .      HDET12
                .          .          V
                .          .          V
228             .          .        RO18
                .          .          .
                .          .          .
232             .          .          .       SUB19
239             :          :       CO19X...........:
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                .           .          V
242             .           .     HDET11
                .           .          .
                .           .          .
249             .       CO19.............
                .           V
                .           V
253             .      RO19A
                .           .
                .           .
261             .           .-------->     D10
257             .      DET10
                .           V
                .           V
264             .      RO19B
                .           .
                .           .
273             .           .-------->      D9
269             .       DET9
                .           V
                .           V
276             .      RO19C
                .           .
                .           .
285             .           .-------->      D8
281             .       DET8
                .           V
                .           V
288             .      RO19D
                .           .
                .           .
292             .           .      SUB21
                .           .          .
                .           .          .
299             .           .          .      SUBFY2
                .           .          .           .
                .           .          .           .
308             .     COFY2 .......................
                .           .
                .           .
312         CO21............
                .
                .
319             .           .<--------     D20
316             .      RET20
                .           V
                .           V
320             .      ROD20
                .           .
                .           .
324             .           .      SUB32
                .           .          .
                .           .          .
332             .      CO32A............
                .           .
                .           .
338             .           .      SUB31
                .           .          .
                .           .          .
345             .           .          .      SUB30
                .           .          .          V
                .           .          .          V
352             .           .          .       RO30
                .           .          .           .
356             :           :       CO31............:
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```
364          .          .          .------->     D31
360          .          .      DIV31
             .          .          V
             .          .          V
367          .          .      RO31
             .          .          .
             .          .          .
370          .       CO32............
             .          V
             .          V
374          .      RO32A
             .          .
             .          .
383          .          .------->     D7
378          .       DET7
             .          V
             .          V
386          .      RO32B
             .          .
             .          .
396          .          .------->     D6
391          .       DET6
             .          V
             .          V
399          .      RO32C
             .          .
             .          .
404          .          .      SUB33
             .          .          .
             .          .          .
414          .          .          .          .<-------     D31
411          .          .          .      RET31
             .          .          .          V
             .          .          .          V
415          .          .          .      ROD31
             .          .          .          .
             .          .          .          .
419          .          .       CO33............
             .          .          .
             .          .          .
423          .      CO33A............
             .          .
             .          .
432          .          .------->     D5
427          .       DET5
             .          V
             .          V
435          .      RO33A
             .          .
             .          .
445          .          .------->     D4
440          .       DET4
             .          V
             .          V
448          .      RO33B
             .          .
             .          .
454          .          .      SUB34
             .          .          V
             .          .          V
461          .          .       RO34
             .          .          .
             .          .          .
464          .          .          .      SUB35
471          :          :      CO35A............:
```

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475          .        .           .
             .     C035............
             .        .
             .        .
484          .        .------->      D3
479          .     DET3
             .        V
             .        V
487          .    RO35A
             .        V
             .        V
491          .    RO35B
             .        .
             .        .
500          .        .------->      D2
495          .     DET2
             .        V
             .        V
503          .    RO35C
             .        .
             .        .
512          .        .------->      D1
507          .     DET1
             .        V
             .        V
515          .    RO35D
             .        .
             .        .
519          .        .       SUB36
             .        .           .
             .        .           .
526          .     C036............
             .        V
             .        V
529          .    ROPOW
             .        V
             .        V
539          .    RO36A
             .        V
             .        V
542          .    RO36B
             .        .
             .        .
545          .        .      SUBFY1
             .        .           .
             .        .           .
554          .    COFY1............
             .        V
             .        V
557          .    RO36C
             .        .
             .        .
560          .        .      SUB26C
             .        .           .
             .        .           .
567          .     C037............
             .        .
             .        .
580          .        .           .<-------      D1
571          .        .        RET1
             .        .           V
             .        .           V
581          .        .      1ROUTE
             .        .           V
585          :        :      RORET1
```

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 4                                  .<-------      D2
592                              RET2
                                    V
                                    V
595                            2ROUTE
                                    V
                                    V
599                            RORET2
                                    .
                                    .
608                                 .           .<-------      D3
606                                 .        RET3
                                    .           V
                                    .           V
609                                 .      3ROUTE
                                    .           V
                                    .           V
613                                 .      RORET3
                                    .           .
                                    .           .
620                        CORET1.......................
                                    .
                                    .
625                                 .<-------      D4
623                              RET4
                                    V
                                    V
626                            4ROUTE
                                    V
                                    V
630                            RORET4
                                    .
                                    .
642                                 .           .<-------      D5
640                                 .        RET5
                                    .           V
                                    .           V
643                                 .      5ROUTE
                                    .           V
                                    .           V
647                                 .      RORET5
                                    .           .
                                    .           .
659                                 .           .           .<-------      D6
657                                 .           .        RET6
                                    .           .           V
                                    .           .           V
660                                 .           .      6ROUTE
                                    .           .           V
                                    .           .           V
664                                 .           .      RORET6
                                    .           .           .
                                    .           .           .
674                        CORET2...................................
                                    .
                                    .
679                                 .<-------      D7
677                              RET7
                                    V
                                    V
680                            7ROUTE
                                    V
                                    V
684                            RORET7
696                                 :        RET8<-------      D8
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                 .         .         .         .         .
                 .         .         .         .         V
697              .         .         .         .      8ROUTE
                 .         .         .         .         V
                 .         .         .         .         V
701              .         .         .         .      RORET8
                 .         .         .         .         .
                 .         .         .         .         .
710              .         .         .         .         .          .<-------      D9
708              .         .         .         .         .       RET9
                 .         .         .         .         .          V
                 .         .         .         .         .          V
711              .         .         .         .         .      9ROUTE
                 .         .         .         .         .          V
                 .         .         .         .         .          V
715              .         .         .         .         .      RORET9
                 .         .         .         .         .          .
                 .         .         .         .         .          .
727              .         .         .         .         .          .                .<-------      D10
725              .         .         .         .         .          .            RET10
                 .         .         .         .         .          .               V
                 .         .         .         .         .          .               V
728              .         .         .         .         .          .           10ROUT
                 .         .         .         .         .          .               V
                 .         .         .         .         .          .               V
732              .         .         .         .         .          .           ORET10
                 .         .         .         .         .          .               .
                 .         .         .         .         .          .               .
742              .         .      CORET3.......................................
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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                                   ****
                    FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
          U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
                                   ****


                         SUPERSTITION FREEWAY  -  OFFSITE DRAINAGE ANALYSIS
                         ELLSWORTH TO POWER ROAD- 50 YEAR, 24 HOUR PRECIPITATION
                         SIMULATION NUMBER 3:   DETENTION BASINS IN PLACE

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

  IT          HYDROGRAPH TIME DATA
                     NMIN          15  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1    0  STARTING DATE
                    ITIME        0000  STARTING TIME
                       NQ         120  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      2    0  ENDING DATE
                   NDTIME        0545  ENDING TIME

                COMPUTATION INTERVAL     .25 HOURS
                     TOTAL TIME BASE   29.75 HOURS

      ENGLISH UNITS
```

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

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
HYDROGRAPH AT	SUB11	264.	12.50	70.	22.	18.	.50		
ROUTED TO	RO11	233.	12.75	69.	22.	18.	.50		
HYDROGRAPH AT	SUB10	691.	12.75	266.	88.	71.	2.09		
ROUTED TO	RO10	679.	13.00	264.	87.	70.	2.09		
HYDROGRAPH AT	SUB16	453.	12.50	90.	28.	22.	.59		
3 COMBINED AT	CO16	1156.	12.75	419.	137.	111.	3.18		
DIVERSION TO	D16	137.	12.75	50.	16.	13.	3.18		
HYDROGRAPH AT	DIV16	1019.	12.75	370.	121.	98.	3.18		
ROUTED TO	RO16	1012.	12.75	370.	121.	98.	3.18		
HYDROGRAPH AT	SUB12	405.	12.50	95.	30.	25.	.69		
ROUTED TO	RO12	396.	12.75	98.	31.	25.	.69		
HYDROGRAPH AT	SUB15	323.	12.50	62.	19.	16.	.41		
3 COMBINED AT	CO15	1585.	12.75	528.	172.	138.	4.28		
DIVERSION TO	D15	184.	12.75	24.	6.	5.	4.28		
HYDROGRAPH AT	DIV15	1400.	12.75	505.	166.	134.	4.28		
ROUTED TO	RO15	1398.	12.75	505.	166.	134.	4.28		
HYDROGRAPH AT	SUB13	201.	12.50	47.	15.	12.	.35		
ROUTED TO	RO13	201.	12.75	48.	15.	12.	.35		
HYDROGRAPH AT	SUB14	442.	12.75	162.	53.	43.	1.10		
3 COMBINED AT	CO14	2041.	12.75	714.	234.	189.	5.73		
ROUTED TO	RO14	1974.	12.75	707.	233.	188.	5.73		
HYDROGRAPH AT	RET16	137.	12.75	50.	16.	13.	.00		
ROUTED TO	ROD16	138.	13.00	51.	17.	14.	.00		
HYDROGRAPH AT	RET15	184.	12.75	24.	6.	5.	.00		
ROUTED TO	ROD15	151.	13.00	24.	6.	5.	.00		
HYDROGRAPH AT	SUB17	351.	13.00	159.	54.	43.	1.19		
4 COMBINED AT	CO17	2515.	13.00	939.	309.	250.	6.92		
DIVERSION TO	D17	877.	13.00	350.	115.	93.	6.92		
HYDROGRAPH AT	DIV17	1638.	13.00	589.	194.	156.	6.92		
ROUTED TO	RO17	1635.	13.00	588.	194.	156.	6.92		

HYDROGRAPH AT	SUB20	360.	12.50	68.	21.	17.	.43		
2 COMBINED AT	CO20	1745.	13.00	655.	215.	174.	7.35		
DIVERSION TO	D20	537.	12.50	60.	15.	12.	7.35		
HYDROGRAPH AT	DIV20	1208.	12.50	594.	200.	161.	7.35		
ROUTED TO	RO20	1208.	12.75	593.	200.	162.	7.35		
HYDROGRAPH AT	RET17	877.	13.00	350.	115.	93.	.00		
ROUTED TO	ROD17	873.	13.00	349.	115.	93.	.00		
HYDROGRAPH AT	SUB224	54.	23.75	54.	35.	29.	.30		
ROUTED TO	RO224	54.	24.00	54.	35.	28.	.30		
HYDROGRAPH AT	SUB18	97.	13.50	54.	19.	15.	.41		
2 COMBINED AT	CO18	129.	13.50	93.	54.	43.	.71		
ROUTED TO	HDET12	112.	14.50	93.	54.	43.	.71	1444.54	14.50
ROUTED TO	RO18	112.	14.50	93.	53.	43.	.71		
HYDROGRAPH AT	SUB19	154.	12.25	29.	9.	7.	.19		
2 COMBINED AT	CO19A	182.	12.50	116.	62.	50.	.90		
ROUTED TO	HDET11	124.	14.75	114.	62.	50.	.90	1433.28	14.75
2 COMBINED AT	CO19	991.	13.00	463.	178.	143.	.90		
ROUTED TO	RO19A	989.	13.00	463.	178.	143.	.90		
DIVERSION TO	D10	76.	13.00	7.	2.	1.	.90		
HYDROGRAPH AT	DET10	913.	13.00	456.	176.	142.	.90		
ROUTED TO	RO19B	912.	13.00	456.	176.	142.	.90		
DIVERSION TO	D9	142.	13.00	22.	6.	5.	.90		
HYDROGRAPH AT	DET9	770.	13.00	433.	170.	137.	.90		
ROUTED TO	RO19C	769.	13.00	433.	170.	137.	.90		
DIVERSION TO	D8	163.	13.00	39.	10.	8.	.90		
HYDROGRAPH AT	DET8	606.	13.00	394.	160.	129.	.90		
ROUTED TO	RO19D	605.	13.00	394.	160.	129.	.90		
HYDROGRAPH AT	SUB21	338.	12.25	61.	19.	15.	.37		
HYDROGRAPH AT	SUBFY2	131.	12.25	19.	6.	5.	.09		
3 COMBINED AT	COFY2	816.	12.50	465.	185.	150.	1.36		
2 COMBINED AT	CO21	1981.	12.75	1057.	386.	311.	8.71		
HYDROGRAPH AT	RET20	537.	13.00	60.	15.	12.	.00		
ROUTED TO	ROD20	531.	13.00	61.	15.	12.	.00		
HYDROGRAPH AT	SUB32	130.	12.50	28.	8.	6.	.11		

2 COMBINED AT	CO32A	570.	13.00	87[illegible]	23.	19.	.17
HYDROGRAPH AT	SUB31	280.	13.00	131.	44.	35.	.95
HYDROGRAPH AT	SUB30	954.	12.25	159.	50.	40.	.95
ROUTED TO	RO30	794.	12.50	163.	51.	41.	.95
2 COMBINED AT	CO31	1016.	12.50	293.	95.	76.	1.90
DIVERSION TO	D31	500.	12.50	242.	82.	66.	1.90
HYDROGRAPH AT	DIV31	516.	12.50	50.	13.	10.	1.90
ROUTED TO	RO31	465.	12.50	50.	12.	10.	1.90
2 COMBINED AT	CO32	831.	12.75	137.	36.	29.	2.08
ROUTED TO	RO32A	826.	12.75	137.	36.	29.	2.08
DIVERSION TO	D7	16.	12.75	1.	0.	0.	2.08
HYDROGRAPH AT	DET7	810.	12.75	136.	36.	29.	2.08
ROUTED TO	RO32B	802.	12.75	137.	36.	29.	2.08
DIVERSION TO	D6	41.	12.75	2.	1.	0.	2.08
HYDROGRAPH AT	DET6	761.	12.75	134.	35.	28.	2.08
ROUTED TO	RO32C	757.	12.75	134.	35.	28.	2.08
HYDROGRAPH AT	SUB33	158.	12.50	31.	10.	8.	.21
HYDROGRAPH AT	RET31	500.	12.25	242.	82.	66.	.00
ROUTED TO	ROD31	500.	12.50	241.	82.	66.	.00
2 COMBINED AT	CO33	658.	12.50	272.	92.	74.	.21
2 COMBINED AT	CO33A	1359.	12.75	407.	127.	102.	2.29
DIVERSION TO	D5	140.	12.75	13.	3.	3.	2.29
HYDROGRAPH AT	DET5	1219.	12.75	393.	123.	100.	2.29
ROUTED TO	RO33A	1217.	12.75	393.	124.	100.	2.29
DIVERSION TO	D4	140.	12.75	17.	4.	3.	2.29
HYDROGRAPH AT	DET4	1077.	12.75	377.	119.	96.	2.29
ROUTED TO	RO33B	1075.	12.75	377.	119.	96.	2.29
HYDROGRAPH AT	SUB34	282.	13.50	147.	51.	41.	1.16
ROUTED TO	RO34	277.	13.75	145.	51.	41.	1.16
HYDROGRAPH AT	SUB35	641.	12.50	126.	40.	32.	.85
2 COMBINED AT	CO35A	648.	12.50	263.	90.	73.	2.01
2 COMBINED AT	CO35	1672.	12.50	639.	210.	169.	4.30
DIVERSION TO	D3	114.	12.50	7.	2.	1.	4.30
HYDROGRAPH AT	DET3	1558.	12.50	632.	208.	168.	4.30

ROUTED TO	RO35A	1548.	12.50	632.	208.	168.	4.30		
ROUTED TO	RO35B	1539.	12.50	632.	208.	168.	4.30		
DIVERSION TO	D2	158.	12.50	19.	5.	4.	4.30		
HYDROGRAPH AT	DET2	1380.	12.50	614.	203.	164.	4.30		
ROUTED TO	RO35C	1372.	12.50	614.	204.	164.	4.30		
DIVERSION TO	D1	71.	12.50	8.	2.	2.	4.30		
HYDROGRAPH AT	DET1	1301.	12.50	606.	201.	163.	4.30		
ROUTED TO	RO35D	1296.	12.75	606.	201.	163.	4.30		
HYDROGRAPH AT	SUB36	288.	12.75	83.	27.	22.	.60		
2 COMBINED AT	CO36	1584.	12.75	689.	229.	184.	4.90		
ROUTED TO	ROPOW	1583.	12.75	689.	228.	184.	4.90	1366.63	12.75
ROUTED TO	RO36A	1582.	12.75	689.	229.	184.	4.90		
ROUTED TO	RO36B	1578.	12.75	689.	229.	184.	4.90		
HYDROGRAPH AT	SUBFY1	55.	12.25	8.	3.	2.	.04		
2 COMBINED AT	COFY1	1590.	12.75	696.	231.	187.	4.94		
ROUTED TO	RO36C	1567.	12.75	695.	231.	186.	4.94		
HYDROGRAPH AT	SUB26C	62.	14.00	40.	15.	12.	.44		
2 COMBINED AT	CO37	1611.	12.75	734.	246.	198.	5.38		
HYDROGRAPH AT	RET1	71.	12.50	8.	2.	2.	.00		
ROUTED TO	1ROUTE	71.	12.50	8.	2.	2.	.00		
ROUTED TO	RORET1	0.	.25	0.	0.	0.	.00	1363.37	13.75
HYDROGRAPH AT	RET2	158.	12.50	19.	5.	4.	.00		
ROUTED TO	2ROUTE	158.	12.50	19.	5.	4.	.00		
ROUTED TO	RORET2	0.	.25	0.	0.	0.	.00	1365.74	13.75
HYDROGRAPH AT	RET3	114.	12.50	7.	2.	1.	.00		
ROUTED TO	3ROUTE	113.	12.50	7.	2.	1.	.00		
ROUTED TO	RORET3	0.	.25	0.	0.	0.	.00	1374.63	13.50
3 COMBINED AT	CORET1	0.	.25	0.	0.	0.	.00		
HYDROGRAPH AT	RET4	140.	12.75	17.	4.	3.	.00		
ROUTED TO	4ROUTE	140.	12.75	17.	4.	3.	.00		
ROUTED TO	RORET4	0.	.25	0.	0.	0.	.00	1379.53	13.75
HYDROGRAPH AT	RET5	140.	12.75	13.	3.	3.	.00		
ROUTED TO	5ROUTE	140.	12.75	13.	3.	3.	.00		
ROUTED TO	RORET5	0.	.25	0.	0.	0.	.00	1379.73	13.50

HYDROGRAPH AT	RET6	41.	12.75	2.	1.	0.	.00		
ROUTED TO	6ROUTE	41.	12.75	2.	1.	0.	.00		
ROUTED TO	RORET6	0.	.25	0.	0.	0.	.00	1377.91	13.50
4 COMBINED AT	CORET2	0.	.25	0.	0.	0.	.00		
HYDROGRAPH AT	RET7	16.	12.75	1.	0.	0.	.00		
ROUTED TO	7ROUTE	16.	12.75	1.	0.	0.	.00		
ROUTED TO	RORET7	0.	.25	0.	0.	0.	.00	1376.95	13.25
HYDROGRAPH AT	RET8	163.	13.00	39.	10.	8.	.00		
ROUTED TO	8ROUTE	163.	13.00	39.	10.	8.	.00		
ROUTED TO	RORET8	0.	.25	0.	0.	0.	.00	1418.36	15.00
HYDROGRAPH AT	RET9	142.	13.00	22.	6.	5.	.00		
ROUTED TO	9ROUTE	142.	13.00	23.	6.	5.	.00		
ROUTED TO	RORET9	0.	.25	0.	0.	0.	.00	1420.42	14.50
HYDROGRAPH AT	RET10	76.	13.00	7.	2.	1.	.00		
ROUTED TO	10ROUT	76.	13.00	7.	2.	1.	.00		
ROUTED TO	ORET10	0.	.25	0.	0.	0.	.00	1419.57	14.00
5 COMBINED AT	CORET3	0.	.25	0.	0.	0.	.00		

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

User: DEN104 -at

<OPS183>PROJ>PJ6114>DATA>HEC2>PROD.OUT

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*****************************************************************************************************
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WWWW  WWWWW W   W   W    WWW  W
W   W W     WW  W  WW   W   W W  W
W   W W     W W W   W   W   W W  W
W   W WWWW  W W W   W   W W W WWWWW
W   W W     W W W   W   W   W    W
W   W W     W  WW   W   W   W    W
WWWW  WWWWW W   W  WWW   WWW     W



WWWW  WWWW   WWW  WWWW         WWW  W   W WWWWW
W   W W   W W   W W   W       W   W W   W   W
W   W W   W W   W W   W       W   W W   W   W
WWWW  WWWW  W   W W   W       W   W W   W   W
W     W W   W   W W   W       W   W W   W   W
W     W  W  W   W W   W   WW  W   W W   W   W
W     W   W  WWW  WWWW    WW   WWW   WWW    W

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[Spooler rev 20.0.6HB (c) Prime Computer, Inc., 1986]

Label: PRT114 -form DENPRT

Pathname: <OPS183>PROJ>PJ6114>DATA>HEC2>PROD.OUT
File last modified: 88-08-17.19:37:00.Wed

Spooled: 88-09-13.11:59:44.Tue
Started: 88-09-13.12:00:00.Tue on: AMLC by: DENPRT

This is USED

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

  1           ID        SUPERSTITION FREEWAY  -  OFFSITE DRAINAGE ANALYSIS
  2           ID        ELLSWORTH TO POWER ROAD- 100 YEAR, 24 HOUR PRECIPITATION
  3           ID        SIMULATION NUMBER 3:   DETENTION BASINS IN PLACE
              *DIAGRAM
  4           IT      15                      240
  5           IO       6
  6           PG       1    3.65
  7           PG      10
  8           IN      30                       48
  9           PI   0.019   0.020   0.020   0.022   0.022   0.023   0.025   0.025   0.026   0.028
 10           PI   0.029   0.031   0.033   0.035   0.038   0.042   0.046   0.051   0.057   0.067
 11           PI   0.085   0.113   0.176   1.387   0.262   0.136   0.097   0.076   0.067   0.058
 12           PI   0.050   0.046   0.041   0.038   0.035   0.033   0.031   0.029   0.027   0.027
 13           PI   0.025   0.024   0.023   0.022   0.022   0.020   0.020   0.019

 14           KK   SUB11
 15           KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
 16           PR      10
 17           PW       1
 18           PT       1
 19           PW       1
 20           BA    0.50
 21           LS              83
 22           UK     500  0.0133   0.200     100
 23           RK    5700  0.0148   0.040   0.158    TRAP     2.0     4.0
 24           RK    1700  0.0055   0.035            TRAP     8.0     1.5

 25           KK    RO11
 26           KM   ROUTE SUB 11 FROM C.A.P. TO BROADWAY
 27           RK    6200  0.0102   0.035            TRAP     5.0     2.0

 28           KK   SUB10
 29           KM        LOCAL RUNOFF TO C.A.P. OVERCHUTES
 30           BA    2.09
 31           LS              82
 32           UK    1000  0.0150   0.200     100
 33           RK    4800  0.0115   0.040  0.1033    TRAP     2.0     4.0
 34           RK   10000  0.0102   0.035            TRAP    10.0     3.0

 35           KK    RO10
 36           KM        ROUTE FLOWS FROM C.A.P. TO BROADWAY AND 90th STREET
 37           RK    7600  0.0102   0.035            TRAP     5.0     2.0

 38           KK   SUB16
 39           KM        LOCAL RUNOFF TO BROADWAY ROAD 950 FT. WEST
 40           KM        OF ELLSWORTH
 41           BA    0.59
 42           LS              84
 43           UK      90   0.005   0.200     100
 44           RK    5250  0.0090   0.050   0.118    TRAP    20.0    0.01
 45           RK    7600  0.0102   0.035            TRAP     5.0     2.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  46          KK    CO16
  47          KM        COMBINE RUNOFF  950 FEET WEST OF ELLSWORTH ON BROADWAY
  48          HC       3

  49          KK   DIV16
  50          KM        DIVERT EXCESS FLOW SOUTH ACROSS BROADWAY 950 FT. WEST
  51          KM        OF ELLSWORTH
  52          DT     D16
  53          DI       0    1185    1585
  54          DQ       0     140     400

  55          KK    RO16
  56          KM        ROUTE FLOWS ALONG BROADWAY TO FLOW DIVISION 2740 FT. WEST
  57          KM        OF ELLSWORTH AT GLENMAR ROAD.
  58          RK    1790  0.0093   0.016            TRAP    16.0     1.0

  59          KK   SUB12
  60          KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
  61          BA    0.69
  62          LS              83
  63          UK     500  0.0180   0.200     100
  64          RK    6600  0.0174   0.040   0.071    TRAP     2.0     4.0
  65          RK    1060  0.0056   0.035            TRAP     8.0     1.5

  66          KK    RO12
  67          KM        ROUTE FLOW FROM CAP OVERCHUTE ACROSS SUB 15 TO BROADWAY
  68          KM        AND GLENMAR ROAD.
  69          RK    7500  0.0098   0.035           TRAP     5.0     3.0

  70          KK   SUB15
  71          KM        LOCAL RUNOFF FROM SUB 15
  72          BA    0.41
  73          LS              84
  74          UK      85   0.005   0.200     100
  75          RK    7300  0.0150   0.050   0.082    TRAP     5.0    3.00
  76          RK    1790  0.0093   0.016            TRAP    16.0     1.0

  77          KK    CO15
  78          KM         COMBINE ROUTED OVERCHUTE FLOW (SUB 12) WITH SUB 15
  79          KM         AND FLOW ROUTED ALONG BROADWAY FROM 90th AT BROADWAY
  80          KM         AND GLENMAR ROAD.
  81          HC       3

  82          KK   DIV15
  83          KM        DIVERT EXCESS FLOW SOUTH ACROSS BROADWAY 2740 FT. WEST
  84          KM        OF ELLSWORTH AT GLENMAR ROAD.
  85          DT     D15
  86          DI       0     735    1405    2460
  87          DQ       0       0     140     400
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 88           KK    RO15
 89           KM          ROUTE FLOWS WEST ALONG BROADWAY FROM GLENMAR ROAD
 90           KM          (2740 FT. WEST OF ELLSWORTH) TO HAWES AND BROADWAY.
 91           RK    2470  0.0084   0.016            TRAP    10.0     1.0

 92           KK   SUB13
 93           KM        LOCAL RUNOFF TO C.A.P. OVERCHUTE
 94           BA    0.35
 95           LS              82
 96           UK     500  0.0230   0.200     100
 97           RK    3000  0.0167   0.040  0.0646    TRAP     2.0     4.0
 98           RK    1480  0.0042   0.035            TRAP     8.0     1.5

 99           KK    RO13
100           KM          ROUTE FLOW FROM SUB 10 (OVERCHUTE) TO BROADWAY AND HAWES
101           KM          THROUGH SUB 14.
102           RK    8500  0.0100   0.050            TRAP     5.0     2.0

103           KK   SUB14
104           KM        LOCAL RUNOFF TO HAWES AND BROADWAY
105           BA    1.10
106           LS              85
107           UK      85   0.005   0.200     100
108           RK    8500  0.0067   0.050   0.036    TRAP    20.0    0.01
109           RK    2470  0.0084   0.016            TRAP    10.0     1.0

110           KK    CO14
111           KM        COMBINE FLOWS ROUTED WEST ALONG BROADWAY WITH FLOWS FROM
112           KM        SUB 13 AND SUB 14 AT BROADWAY AND HAWES. NO FLOW DIVERSION
113           KM        TO THE WEST DUE TO A ONE WAY ROAD CROWN SLOPING SOUTH.
114           HC       3

115           KK    RO14
116           KM        ROUTE FLOWS SOUTH ALONG HAWES TO SOUTHERN AND HAWES ROAD.
117           RK    5300  0.0068   0.025            TRAP    35.0     2.3

118           KK   RET16
119           KM        RETRIEVE FLOWS DIVERTED S. ACROSS BROADWAY 950
120           KM        FEET WEST OF ELLSWORTH
121           DR     D16

122           KK   ROD16
123           KM        ROUTE DIVERTED FLOWS FROM BROADWAY AND 90th STREET TO HAWES
124           KM        ROAD AND SOUTHERN AVENUE.
125           RK    9000  0.0067   0.035            TRAP    10.0     4.0

126           KK   RET15
127           KM        RETRIEVE FLOW DIVERTED S. ACROSS BROADWAY 2740
128           KM        FEET WEST OF ELLSWORTH AT GLENMAR ROAD.
129           DR     D15
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 130          KK   ROD15
 131          KM        ROUTE DIVERTED FLOWS FROM BROADWAY AND GLENMAR ROAD TO
 132          KM        HAWES ROAD AND SOUTHERN AVENUE.
 133          RK    7700  0.0067   0.035            TRAP    20.0     4.0

 134          KK   SUB17
 135          KM        LOCAL RUNOFF TO HAWES ROAD AND SOUTHERN AVENUE.
 136          BA    1.19
 137          LS              84
 138          UK    1250   0.010   0.200     100
 139          RK    6500   0.009   0.040   0.117    TRAP     2.0     4.0
 140          RK    5300  0.0068   0.025            TRAP    35.0     2.3

 141          KK    CO17
 142          KM        COMBINE FLOWS DIVERTED ACROSS BROADWAY AT 90th STREET AND
 143          KM        GLENMAR ROAD WITH FLOWS ROUTED SOUTH ALONG HAWES AND FLOWS
 144          KM        FROM SUB-BASIN 17.
 145          HC       4

 146          KK   DIV17
 147          KM        SPLIT FLOWS AT SOUTHERN AND HAWES. DIVERTED FLOWS PASS THROUGH
 148          KM        THE BOX CULVERT BELOW SOUTHERN AND CONTINUE SOUTH TO THE RIGHT
 149          KM        OF WAY.
 150          DT     D17
 151          DI       0    1400    1450    2350    6115
 152          DQ       0     525     615     815    2230

 153          KK    RO17
 154          KM        ROUTE FLOWS WEST ALONG SOUTHERN FROM HAWES TO THE 90 DEGREE
 155          KM        BEND IN THE SOSSAMAN CHANNEL AT SOUTHERN.
 156          RK    4000  0.0085   0.025            TRAP     8.0     1.2

 157          KK   SUB20
 158          KM        LOCAL RUNOFF AT SOSSAMAN CHANNEL AND SOUTHERN AVE
 159          BA   0.430
 160          LS              85
 161          UK     150   0.005   0.200     100
 162          RK    3100  0.0061   0.050   0.035    TRAP    40.0    0.01
 163          RK    4000  0.0085   0.025            TRAP     8.0     1.2

 164          KK    CO20
 165          KM         COMBINE FLOWS ROUTED WEST ALONG SOUTHERN FROM HAWES WITH LOCAL
 166          KM         FLOWS AT THE SOSSAMAN CHANNEL AND SOUTHERN AVENUE.
 167          HC       2

 168          KK   DIV20
 169          KM        SPLIT FLOWS AT SOUTHERN AND SOSSAMAN CHANNEL TO REPRESENT
 170          KM        OVERTOPPING AT THE 90 DEGREE BEND.  DIVERTED FLOWS OVERTOP
 171          KM        THE CHANNEL AND CONTINUE WEST AS OVERLAND FLOW.
 172          DT     D20
 173          DI       0    1208    5000
 174          DQ       0       0    3792
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  175         KK    RO20
  176         KM        ROUTE FLOWS IN SOSSAMAN CHANNEL FROM SOUTHERN TO FREEWAY
  177         RK    2600  0.0022   0.035            TRAP    15.0     2.6

  178         KK   RET17
  179         KM        RETRIEVE DIVERTED FLOW FROM HAWES AND SOUTHERN
  180         DR     D17

  181         KK   ROD17
  182         KM        ROUTE DIVERTED FLOW FROM HAWES AND SOUTHERN SOUTH
  183         KM        ALONG HAWES TO THE FRWY. R.O.W. (APPROX. STA 970+00)
  184         RK    2600  0.0026   0.025            TRAP    22.0     2.0

  185         KK  SUB224
  186         KM        INFLOW TO SYSTEM FROM EAST OF ELLSWORTH ROAD.
  187         KM        HYDROGRAPH RESULTING  FROM AN-WEST SIMULATION
  188         KM        OF THE DETENTION POND EAST OF ELLSWORTH ROAD.
  189         BA    0.30
  190         IN      15
  191         QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
  192         QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
  193         QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
  194         QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0
  195         QI     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     1.0      5.
  196         QI     16.     25.     31.     36.     40.     43.     45.     47.     48.     49.
  197         QI     50.     50.     51.     52.     52.     53.     53.     54.     54.     55.
  198         QI     55.     56.     56.     56.     56.     57.     57.     57.     58.     58.
  199         QI     58.     58.     58.     58.     59.     59.     59.     59.     60.     60.
  200         QI     60.     60.     60.     60.     60.     60.     61.     61.     61.     61.
  201         QI     61.     61.     61.     61.     61.     61.     61.     61.     62.     62.
  202         QI     62.     62.     62.     62.     62.     62.     61.     61.     61.     61.
  203         QI     61.     61.     61.     61.     61.     61.     61.     61.     61.     61.
  204         QI     61.     61.     61.     61.     61.     61.     61.     61.     61.     61.
  205         QI     61.     61.     61.     61.     61.     61.     61.     61.     61.     61.
  206         QI     61.     61.     61.     61.     61.     61.     61.     61.     61.     61.
  207         QI     61.     61.     61.     61.     61.     61.     61.     61.     61.     61.
  208         QI     61.     61.     61.     61.     61.     61.     61.     61.     61.     61.
  209         QI     61.     61.     61.     61.     61.     61.     61.     61.     61.     61.
  210         QI     61.     61.     61.     61.     61.     61.     61.     61.     61.     61.
  211         QI     61.     61.     61.     61.     61.     61.     61.     61.     61.     61.
  212         QI     61.     61.     61.     61.     61.     61.     61.     61.     61.     61.
  213         QI     61.     61.     61.     61.     61.     61.     61.     61.     61.     61.
  214         QI     61.     61.     61.     61.     61.     61.     61.     61.     61.     61.

  215         KK  RO224
  216         KM       ROUTE FLOW ENTERING SYSTEM FROM EAST OF ELLSWORTH
  217         KM       TO 3200 FT. WEST OF ELLSWORTH. (APPROX. STA 1024+00 TO
  218         KM        STA 992+00)
  219         RK    3200  0.0050   0.016            TRAP    16.0     2.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 220          KK   SUB18
 221          KM        LOCAL FLOWS TO 3200 FEET WEST OF ELLSWORTH AT THE
 222          KM        NORTH R.O.W. OF THE SUPERSTITION FREEWAY.
 223          BA    0.41
 224          LS              84
 225          UK    1250   0.005   0.200     100
 226          RK    2500   0.007   0.040    0.03    TRAP     2.0     4.0
 227          RK    3200  0.0075   0.035            TRAP    20.0     2.0

 228          KK    CO18
 229          KM        COMBINE ROUTED FLOWS FROM EAST OF ELLSWORTH WITH LOCAL
 230          KM        FLOWS FROM SUB-BASIN 18 AT APPROX. STA 992+00
 231          HC       2

 232          KK  HDET12
 233          KM        ONLINE DETENTION POND UPSTREAM FROM HAWES-POND 12 (STA 992+00
 234          KM        STA 997+00).
 235 #12      RS      1.     ELEV  1439.8
 236          SV      0.     0.11    1.81    5.73    8.84    9.92   10.78
 237          SE  1439.8  1441.8  1443.8  1445.8  1447.3  1447.8  1448.2
 238          SQ      0.     52.0   100.0   132.0   152.0   209.0   285.0

 239          KK    RO18
 240          KM        ROUTE FLOWS ALONG THE FREEWAY FROM STA 992+00
 241          KM        TO STA 972+00.
 242          RK    2000  0.0060   0.016            TRAP    12.0     2.0

 243          KK   SUB19
 244          KM        LOCAL RUNOFF TO THE R.O.W. JUST EAST OF HAWES CHANNEL
 245          BA   0.187
 246          LS              84
 247          UK     110   0.005   0.200     100
 248          RK    2200  0.0100   0.035    0.05    TRAP    20.0    6.00
 249          RK    2600  0.0026   0.025            TRAP    22.0    2.00

 250          KK   CO19A
 251          KM        COMBINE LOCAL RUNOFF AND FLOWS ROUTED WEST ALONG THE R.O.W.
 252          HC       2

 253          KK  HDET11
 254          KM         ONLINE DETENTION POND UPSTREAM FROM HAWES- POND 11 (STA 977
 255          KM         TO STA 972+00).
 256 #11      RS      1.     ELEV  1427.8
 257          SV      0.     0.11    1.87    5.88    7.10    7.96   10.09
 258          SE  1427.8  1429.8  1431.8  1433.8  1434.4  1434.8  1435.8
 259          SQ      0.     52.0   100.0   132.0   140.0   162.0   279.0

 260          KK    CO19
 261          KM        COMBINE FLOWS FROM HAWES CHANNEL SPLIT WITH THE DISCHARGE
 262          KM        FROM POND NUMBER 11.
 263          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 264          KK   RO19A
 265          KM        ROUTE FLOWS ALONG FREEWAY R.O.W. FROM HAWES ROAD TO THE
 266          KM        DIVERSION WEIR FOR POND 10 (STA 972+00 TO STA 966+24).
 267          RK    576.   .0060   0.016            TRAP    12.0    2.00

 268          KK   DET10
 269          KM       DIVERT FLOWS INTO DETENTION BASIN ABOVE THE SOSSAMAN CHANNEL
 270   #10    KM       AT STA 966+24.  DIVERSION TABLE IS FOR A RECTANGULAR WEIR 50
 271          KM       FEET LONG AND 5.85 FEET ABOVE THE CHANNEL BOTTOM.
 272          DT     D10
 273          DI      0.    807.    879.    961.   1070.   1190.   1320.
 274          DQ      0.      0.     19.     61.    120.    190.    270.

 275          KK   RO19B            860     900    950    1000    1050   channel capacity.
 276          KM        ROUTE FLOWS ALONG FREEWAY R.O.W. FROM THE DIVERSION WEIR FOR
 277          KM        POND 10 (STA 966+24) TO THE DIVERSION WEIR FOR POND 9 (STA
 278          KM        961+21)
 279          RK    503.   .0060   0.016            TRAP    12.0    2.00

 280          KK    DET9
 281          KM       DIVERT FLOWS INTO DETENTION BASIN ABOVE THE SOSSAMAN CHANNEL
 282          KM       AT STA 961+21.  DIVERSION TABLE IS FOR A RECTANGULAR WEIR 50
 283   #9     KM       FEET LONG AND 5.05 FEET ABOVE THE CHANNEL BOTTOM.
 284          DT      D9
 285          DI      0.    626.    660.    751.    861.    987.   1128.
 286          DQ      0.      0.     10.     51.    111.    187.    278.

 287          KK   RO19C
 288          KM        ROUTE FLOWS ALONG FREEWAY R.O.W. FROM THE DIVERSION
 289          KM        WEIR FOR POND 9 (STA 961+21) TO THE DIVERSION WEIR
 290          KM        FOR POND 8 (STA 955+21).
 291          RK     600   .0060   0.016            TRAP    12.0    2.00

 292          KK    DET8
 293          KM       DIVERT FLOWS INTO DETENTION BASIN ABOVE THE SOSSAMAN CHANNEL
 294          KM       AT STA 955+21.  DIVERSION TABLE IS FOR A RECTANGULAR WEIR 50
 295   #8     KM       FEET LONG AND 4.25 FEET ABOVE THE CHANNEL BOTTOM.
 296          DT      D8
 297          DI      0.    464.    521.    627.    752.    898.   1059.   1236.
 298          DQ      0.      0.     21.     77.    152.    248.    359.    486.

 299          KK   RO19D
 300          KM       ROUTE FLOWS FROM STA 955+21 TO THE SOSSAMAN CHANNEL AT
 301          KM       STA 930+50.
 302          RK   2470.   0.006   0.016            TRAP    12.0     2.0
 303          KM       1

 304          KK   SUB21
 305          KM       LOCAL RUNOFF AT SOSSAMAN CHANNEL
 306          BA     .37
 307          LS              86
 308          UK     110   0.005   0.200     100
 309          RK    2600  0.0038   0.025    0.05    TRAP    40.0    0.01
 310          RK    3950  0.0060   0.016            TRAP    12.0    2.00
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 311          KK  SUBFY2
 312          KM        ON SITE RUNOFF COLLECTED BY THE STORM SEWER SYSTEM AND
 313          KM        DISCHARGED INTO THE R.O.W. CHANNEL AT SOSSAMAN CHANNEL.
 314          BA   .0921
 315          LS              92.
 316          UK    35.0    0.33    0.06     100
 317          RK    22.0   0.006   0.012  0.0015    CIRC     2.0
 318          RK    132.   0.003   0.012  0.0015    CIRC     2.0
 319          RK   9500.  0.0044   0.012            CIRC     4.5

 320          KK  COFY2
 321          KM        COMBINE FLOWS FROM STORM SEWER WITH FLOWS FROM THE R.O.W.
 322          KM        CHANNEL BEFORE FLOWS FROM SOSSAMAN CHANNEL ARE ADDED.
 323          HC       3

 324          KK    CO21
 325          KM        COMBINE FLOWS IN SOSSAMAN CHANNEL WITH FLOWS IN THE
 326          KM        R.O.W. CHANNEL.
 327          HC       2

 328          KK   RET20
 329          KM        RETRIEVE FLOWS DIVERTED SOUTH UNDER SOUTHERN AT SOUTHERN AND
 330          KM        THE SOSSAMAN CHANNEL.
 331          DR     D20

 332          KK   ROD20
 333          KM        ROUTE DIVERTED FLOWS FROM SOUTHERN AVE AND SOSSAMAN CHANNEL
 334          KM        ACROSS SUB 32 TO SOSSAMAN ROAD AND THE RIGHT OF WAY.
 335          RK    3600   0.005   0.025            TRAP    20.0     2.0

 336          KK   SUB32
 337          KM         LOCAL FLOWS FROM EAST OF SOSSAMAN ROAD AND WEST OF SOSSAMAN
 338          KM         CHANNEL.
 339          BA   0.172
 340          LS              84
 341          UK    200.   0.005    0.20    100.
 342          RK   1000.   0.005   0.025    0.01     TRAP    20.0    0.01
 343          RK   3900.   0.005   0.025             TRAP    20.0    2.00

 344          KK   CO32A
 345          KM        COMBINE FLOWS DIVERTED FROM SOSSAMAN AND SOUTHERN (D20)
 346          KM        WITH LOCAL FLOWS EAST OF THE CBC UNDER SOSSAMAN ROAD.
 347          KM        PEAK FLOWS AT THIS LOCATION WERE USED TO SIZE THE BOX
 348          KM        CULVERT BELOW SOSSAMAN ROAD.
 349          HC       2

 350          KK   SUB31
 351          KM         LOCAL RUNOFF FROM SUBAREA 31
 352          BA    .954
 353          LS              84
 354          UK    1000  0.0060   0.20      100
 355          RK    3995  0.0070   0.025    0.42     TRAP    20.0    0.01
 356          RK    3800  0.0045   0.025             TRAP    30.0    3.00
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 357          KK   SUB30
 358          KM        LOCAL RUNOFF FROM SUB 30
 359          BA   0.950
 360          LS              86
 361          UK     100  0.0050    0.20     100
 362          RK    2000  0.0070   0.025    0.10    TRAP    20.0    0.01
 363          RK    9600  0.0100   0.016            TRAP     2.0     1.0

 364          KK    RO30
 365          KM        ROUTE FLOWS FROM SUB  30 ACROSS SUB 31 TO THE FLOW
 366          KM        DIVISION IN THE SOSSAMAN ROAD CHANNEL.
 367          RK    3800  0.0045   0.025            TRAP    30.0     3.0

 368          KK    CO31
 369          KM        COMBINE FLOWS FROM SUB 31 WITH ROUTED FLOWS FROM
 370          KM        SUB 30 AT THE DIVISION IN THE SOSSAMAN ROAD CHANNEL.
 371          HC       2

 372          KK   DIV31
 373          KM        FLOW DIVISION IN THE SOSSAMAN ROAD CHANNEL.  DIVERTED FLOWS
 374          KM        (D31) TRAVEL DOWN THE SOSSSAMAN ROAD CHANNEL.  UNDIVERTED
 375          KM        FLOWS CONTINUE SOUTH ALONG SOSSAMAN ROAD TO THE R.O.W.
 376          DT     D31
 377          DI      0.    500.  10000.
 378          DQ      0.    500.    500.

 379          KK   RO31
 380          KM        ROUTE FLOWS SOUTH ALONG SOSSAMAN ROAD TO THE RIGHT OF WAY.
 381          RK    3900  0.0045   0.025            TRAP    30.0     3.0

 382          KK    CO32
 383          KM         COMBINE FLOWS ROUTED SOUTH ALONG SOSSAMAN ROAD TO THE R.O.W.
 384          KM         WITH FLOWS PASSING THROUGH THE CBC BELOW SOSSAMAN ROAD.
 385          HC       2

 386          KK   RO32A
 387          KM        ROUTE FLOWS FROM SOSSAMAN ROAD ALONG THE RIGHT OF WAY TO THE
 388          KM        DIVERSION WEIR FOR POND 7 (STA 916+96 TO STA 913+24)
 389          RK    372.  0.0067   0.016            TRAP    12.0     2.0

 390          KK    DET7
 391          KM        DIVERT FLOWS INTO DETENTION BASIN BETWEEN SOSSAMAN ROAD AND
 392          KM        THE SOSSAMAN ROAD CHANNEL.  DIVERSION TABLE IS FOR A REC-
 393          KM        TANGULAR WEIR 50 FEET LONG AND 5.50 FEET ABOVE THE CHANNEL
 394          KM        BOTTOM.
 395          DT      D7
 396          DI      0.    770.    810.    892.    988.   1093.   1207.   1331.   1462.
 397          DQ      0.      0.     10.     42.     88.    143.    207.    281.    362.
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 398          KK   RO32B
 399          KM        ROUTE FLOWS REMAINING IN THE CHANNEL FROM THE DIVERSION
 400          KM        WEIR FOR POND 7 (STA 913+24) TO THE DIVERSION WEIR
 401          KM        FOR POND 6 (STA 907+24).
 402          RK    600.   .0067   0.016            TRAP    12.0     2.0

 403          KK    DET6
 404          KM        DIVERT FLOWS INTO DETENTION BASIN BETWEEN SOSSAMAN ROAD AND
 405          KM        THE SOSSAMAN ROAD CHANNEL.  DIVERSION TABLE IS FOR A REC-
 406          KM        TANGULAR WEIR CREST 50 FEET LONG AND 5.00 FEET ABOVE THE
 407          KM        CHANNEL BOTTOM.
 408          DT      D6
 409          DI      0.    685.    703.    781.    875.    978.   1092.   1215.
 410          DQ      0.      0.      3.     31.     75.    128.    192.    265.

 411          KK   RO32C
 412          KM        ROUTE FLOWS REMAINING IN THE CHANNEL FROM THE DIVERSION
 413          KM        WEIR FOR POND 6 (STA 907+24) TO THE SOSSAMAN ROAD CHANNEL
 414          KM        AND THE DIVERSION STRUCTURE FOR POND 5 (STA 903+24)
 415          RK    400.  0.0067   0.016            TRAP    12.0     2.0

 416          KK   SUB33
 417          KM        LOCAL FLOWS FROM SUB 33
 418          BA    .211
 419          LS              84
 420          UK    200.  0.0050    0.20    100.
 421          RK   2600.   0.007   0.035    0.03    TRAP    20.0    6.00
 422          RK   3900.   0.005   0.025            TRAP    20.0    2.00

 423          KK   RET31
 424          KM        RETRIEVE FLOWS DIVERTED DOWN THE WEST FORK OF THE
 425          KM        SOSSAMAN ROAD CHANNEL
 426          DR     D31

 427          KK   ROD31
 428          KM        ROUTE FLOWS DIVERTED DOWN THE WEST FORK OF THE SOSSAMAN
 429          KM        ROAD CHANNEL TO THE FREEWAY R.O.W.
 430          RK    3900  0.0045   0.025            TRAP    20.0     2.0

 431          KK    CO33
 432          KM        COMBINE FLOWS AT FREEWAY AND THE WEST FORK OF THE
 433          KM        SOSSAMAN ROAD CHANNEL WITH FLOWS FROM SUB-BASIN 33.
 434          HC       2

 435          KK   CO33A
 436          KM        COMBINE FLOWS FROM THE WEST FORK OF THE SOSSAMAN ROAD CHANNEL
 437          KM        WITH FLOWS IN THE R.O.W. CHANNEL.
 438          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 439          KK    DET5
 440          KM         DIVERT FLOWS INTO DETENTION BASIN AT THE SOSSAMAN ROAD
 441          KM         CHANNEL (STA 903+24).  DIVERSION TABLE IS FOR A REC-
 442          KM         TANGULAR WEIR 50 FEET LONG AND 6.04 FEET ABOVE THE
 443          KM         CHANNEL BOTTOM.
 444          DT      D5
 445          DI      0.   1005.   1063.   1141.   1227.   1320.   1421.   1527.
 446          DQ      0.      0.     13.     41.     77.    120.    171.    227.

 447          KK   RO33A
 448          KM        ROUTE FLOWS ALONG THE R.O.W. FROM THE DIVERSION WEIR
 449          KM        FOR POND 5 (STA 903+24) TO THE DIVERSION WEIR FOR POND
 450          KM        POND 4 (STA 897+24).
 451          RK    600.  0.0067   0.016            TRAP    12.0     2.0

 452          KK    DET4
 453          KM        DIVERT FLOWS INTO DETENTION BASIN BELOW THE SOSSAMAN
 454          KM        ROAD CHANNEL AT STA 897+24.  DIVERSION TABLE IS FOR A
 455          KM        RECTANGULAR WEIR 50 FEET LONG AND 5.65 FEET ABOVE THE
 456          KM        CHANNEL BOTTOM.
 457          DT      D4
 458          DI      0.    877.    905.    980.   1066.   1161.   1266.   1375.
 459          DQ      0.      0.      5.     30.     66.    111.    166.    225.

 460          KK   RO33B
 461          KM         ROUTE FLOWS FROM THE DIVERSION WEIR FOR POND 4 (STA
 462          KM         897+24) TO THE DIVERSION WEIR FOR POND 3 (STA 890+24).
 463          KM         THE WEIR FOR POND 3 IS JUST DOWNSTREAM FROM THE 72nd
 464          KM         STREET CHANNEL.
 465          RK     700  0.0067   0.016            TRAP    12.0     2.0

 466          KK   SUB34
 467          KM         LOCAL RUNOFF FROM SUBAREA 34
 468          BA    1.16
 469          LS              84
 470          UK    1250   0.006    0.20     100
 471          RK   10000   0.013    0.05    0.39    TRAP    10.0    3.00
 472          RK    5000   0.008   0.025            TRAP    20.0    4.00

 473          KK    RO34
 474          KM        ROUTE FLOWS FROM SUB  34 THROUGH SUB 35
 475          RK    7400   0.004   0.025            TRAP    40.0     3.0

 476          KK   SUB35
 477          KM        LOCAL RUNOFF FROM SUBAREA 35
 478          BA     .85
 479          LS              84
 480          UK     200  0.0050   0.200     100
 481          RK    2600   0.007   0.025    0.11    TRAP    20.0    0.01
 482          RK    7500  0.0050   0.025            TRAP    20.0     2.0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 483          KK   CO35A
 484          KM        COMBINE FLOWS ROUTED FROM THE NORTH WITH LOCAL FLOWS
 485          KM        AT THE 72nd STREET CHANNEL.
 486          HC       2

 487          KK    CO35
 488          KM        COMBINE FLOWS IN FREEWAY CHANNEL WITH FLOWS ENTERING
 489          KM        FROM THE 72nd STREET CHANNEL.
 490          HC       2

 491          KK    DET3
 492          KM         DIVERT FLOWS BELOW THE 72nd STREET CHANNEL INTO DETENTION
 493          KM         BASIN BETWEEN 72nd STREET CHANNEL AND 72nd STREET.  DIVERSION
 494          KM         TABLE IS FOR A RECTANGULAR WEIR 60 FEET LONG AND 7.22 FEET
 495          KM         ABOVE THE CHANNEL BOTTOM.
 496          DT      D3
 497          DI      0.   1375.   1406.   1480.   1564.   1655.   1756.   1861.   1970.
 498          DQ      0.      0.      6.     30.     64.    105.    156.    211.    270.

 499          KK   RO35A
 500          KM        ROUTE FLOWS FROM THE DIVERSION WEIR FOR POND 3 (STA 890+24)
 501          KM        TO 72nd STREET (STA 884+00).
 502          RK    624.  0.0067   0.016            TRAP    12.0     2.0
 503          KM       1

 504          KK   RO35B
 505          KM        ROUTE FLOWS FROM 72nd STREET TO THE DIVERSION WEIR FOR POND 2
 506          KM        (STA 879+20).
 507          RK    480.  0.0067   0.016            TRAP    16.0     2.0

 508          KK    DET2
 509          KM         DIVERT FLOWS BELOW THE 72nd STREET CHANNEL INTO DETENTION
 510          KM         BASIN BETWEEN 72nd STREET CHANNEL AND POWER ROAD.  DIVERSION
 511          KM         TABLE IS FOR A RECTANGULAR WEIR 50 FEET LONG AND 6.20 FEET
 512          KM         ABOVE THE CHANNEL BOTTOM.
 513          DT      D2
 514          DI      0.   1171.   1208.   1285.   1375.   1473.   1580.   1693.   1815.
 515          DQ      0.      0.      8.     35.     75.    124.    180.    243.    315.

 516          KK   RO35C
 517          KM        ROUTE FLOWS FROM THE DIVERSION WEIR FOR POND 2 (STA 879+20)
 518          KM        TO POND 1 (STA 872+72).
 519          RK    698.  0.0067   0.016            TRAP    16.0     2.0
 520          KM       Z

 521          KK    DET1
 522          KM         DIVERT FLOWS BELOW THE 72nd STREET CHANNEL INTO DETENTION
 523          KM         BASIN BETWEEN 72nd STREET CHANNEL AND POWER ROAD.  DIVERSION
 524          KM         TABLE IS FOR A RECTANGULAR WEIR 25 FEET LONG AND 6.40 FEET
 525          KM         ABOVE THE CHANNEL BOTTOM.
 526          DT      D1
 527          DI      0.   1158.   1285.   1336.   1363.   1365.   1381.   1420.
 528          DQ      0.      0.     30.     47.     57.     58.     88.     98.
 529          KM       Z
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 530          KK   RO35D
 531          KM        ROUTE FLOWS FROM THE DIVERSION WEIR FOR POND 1 (STA 872+22)
 532          KM        TO POWER ROAD (STA 865+57).
 533          RK    662.  0.0067   0.016            TRAP    16.0     2.0

 534          KK   SUB36
 535          KM        LOCAL FLOWS TO POWER ROAD
 536          BA    0.60
 537          LS              84
 538          UK     300  0.0050   0.200     100
 539          RK    7800   0.006   0.025    0.15    TRAP    40.0    0.01
 540          RK    2530  0.0056   0.035            TRAP    65.0     1.0

 541          KK    CO36
 542          KM        COMBINE FLOWS AT POWER ROAD IN FREEWAY CHANNEL
 543          HC       2

 544          KK  ROPOW
 545          KM        ROUTING REACH TO REPRESENT PONDING INDUCED BY CBC BELOW
 546          KM        POWER ROAD.
 547          RS     1.0    ELEV  1358.0
 548          SV     0.0   1.394   2.228   3.203   4.197   5.150   5.596   6.310   7.409   8.430
 549          SV   9.209
 550          SE  1358.0 1362.12 1363.15 1364.09 1364.97 1365.78 1366.15 1366.73 1367.59 1368.32
 551          SE  1368.4
 552          SQ      0.    600.    800.   1000.   1200.   1400.   1500.   1600.   1700.   1800.
 553          SQ   1900.
 554          KM       Z

 555          KK   RO36A
 556          KM        ROUTE FLOWS FROM POWER ROAD TO 500 FEET WEST OF POWER ROAD
 557          RK    500.  0.0053   0.016            TRAP    12.0     2.0

 558          KK   RO36B
 559          KM        ROUTE FLOWS TO 2000 FEET WEST OF POWER ROAD
 560          RK   1500.   0.015   0.016            TRAP    12.0     2.0

 561          KK  SUBFY1
 562          KM        ON SITE FLOWS COLLECTED BY THE STORM SEWER SYSTEM
 563          KM        AND DISCHARGED AT APPROX. STA 850+00
 564          BA   0.039
 565          LS            92.0
 566          UK    35.0    0.33    0.06     100
 567          RK    22.0   0.006   0.012  0.0015    CIRC     2.0
 568          RK     132   0.006   0.012  0.0015    CIRC     2.0
 569          RK    8000   0.003   0.012            CIRC     4.5

 570          KK   COFY1
 571          KM       COMBINE STORM SEWER FLOWS WITH FLOWS IN THE R.O.W. CHANNEL
 572          HC       2
 573          KM       Z
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  574         KK   RO36C
  575         KM        ROUTE FLOW TO R.W.C.D., 5175 FEET WEST OF POWER ROAD
  576         RK   3175. 0.00157   0.016            TRAP    12.0     2.0

  577         KK  SUB26C
  578         KM        LOCAL RUNOFF FROM POWER ROAD TO R.W.C.D.
  579         BA    0.44
  580         LS            77.3
  581         UK   1250.   0.005    0.20     100
  582         RK   2600.  0.0038   0.035            TRAP    10.0     3.0
  583         RK   5200.  0.0015   0.016            TRAP    12.0     2.0

  584         KK    CO37
  585         KM        COMBINE FLOWS IN THE R.O.W. CHANNEL  WITH LOCAL FLOWS
  586         KM        TO FIND THE TOTAL FLOWS AT THE R.W.C.D.
  587         HC       2

  588         KK    RET1
  589         KM
  590         KM
  591         KM         THE REMAINDER OF THIS FILE INCLUDES STATEMENTS WHICH WERE USED
  592         KM         TO FIND THE VOLUME OF WATER DIVERTED TO EACH POND.  DUMMY
  593         KM         OUTFLOW VALUES OF 0.001 cfs WERE USED IN THE STORAGE DISCHARGE
  594         KM         TABLES SINCE VALUES OF ZERO WERE NOT ACCEPTED BY THE PROGRAM.
  595         KM
  596         KM         RETRIEVE FLOWS DIVERTED TO POND 1
  597         DR      D1

  598         KK  1ROUTE
  599         KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
  600         RK     10.   0.006   0.016            TRAP    12.0     2.0
  601         KM       X

  602         KK  RORET1
  603         KM        ROUTE FLOWS TO POND 1 TO ESTIMATE REQUIRED VOLUME
  604         RS     1.0    ELEV  1358.7
  605         SV     0.0    0.47    2.53    3.66    4.84    6.08    7.31    8.65    9.05
  606         SE  1358.7  1360.0  1362.0  1363.0  1364.0  1365.0  1366.0  1367.0  1367.3
  607         SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
  608         KM       1

  609         KK    RET2
  610         KM         RETRIEVE FLOWS DIVERTED TO POND 2
  611         DR      D2

  612         KK  2ROUTE
  613         KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
  614         RK     10.   0.006   0.016            TRAP    12.0     2.0
  615         KM       X
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 616          KK  RORET2
 617          KM        ROUTE FLOWS TO POND 2 TO ESTIMATE REQUIRED VOLUME
 618          RS     1.0    ELEV  1360.0
 619          SV     0.0    1.74    3.63    5.59    7.64    9.77   11.98   14.27   16.43   19.56
 620          SE  1360.0  1362.0  1363.0  1364.0  1365.0  1366.0  1367.0  1368.0  1369.0  1370.3
 621          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 622          KM       1

 623          KK    RET3
 624          KM         RETRIEVE FLOWS DIVERTED TO POND 3
 625          DR      D3

 626          KK  3ROUTE
 627          KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
 628          RK     10.   0.006   0.016            TRAP    12.0     2.0
 629          KM       X

 630          KK  RORET3
 631          KM        ROUTE FLOWS TO POND 3 TO ESTIMATE REQUIRED VOLUME
 632          RS     1.0    ELEV  1371.6
 633          SV     0.0    0.84    2.37    3.97    5.65    7.39    9.12   10.96   12.88
 634          SE  1371.6  1373.0  1374.0  1375.0  1376.0  1377.0  1378.0  1379.0  1380.0
 635          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 636          KM       1

 637          KK  CORET1
 638          KM        COMBINE DIVERTED HYDROGRAPHS FOR COSMETIC REASONS
 639          HC      3.

 640          KK    RET4
 641          KM         RETRIEVE FLOWS DIVERTED TO POND 4
 642          DR      D4

 643          KK  4ROUTE
 644          KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
 645          RK     10.   0.006   0.016            TRAP    12.0     2.0
 646          KM       X

 647          KK  RORET4
 648          KM        ROUTE FLOWS TO POND 4 TO ESTIMATE REQUIRED VOLUME
 649          RS     1.0    ELEV  1373.0
 650          SV     0.0    0.38    1.65    3.02    4.44    5.92    7.45    9.03   10.66   12.35
 651          SV   13.83   15.57   16.82
 652          SE  1373.0  1374.0  1375.0  1376.0  1377.0  1378.0  1379.0  1380.0  1381.0  1382.0
 653          SE  1383.0  1384.0  1384.7
 654          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 655          SQ   0.001   0.001   0.001
 656          KM       1
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 657          KK    RET5
 658          KM          RETRIEVE FLOWS DIVERTED TO POND 5
 659          DR      D5

 660          KK  5ROUTE
 661          KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
 662          RK     10.   0.006   0.016            TRAP    12.0     2.0
 663          KM       X

 664          KK  RORET5
 665          KM        ROUTE FLOWS TO POND 5 TO ESTIMATE REQUIRED VOLUME
 666          RS     1.0    ELEV  1374.0
 667          SV     0.0    1.51    2.78    4.11    5.49    6.94    8.44   10.00   11.63   13.31
 668          SV   15.05   15.43   17.07   19.11
 669          SE  1374.0  1376.0  1377.0  1378.0  1379.0  1380.0  1381.0  1382.0  1383.0  1384.0
 670          SE  1385.0  1386.0  1387.0  1388.2
 671          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 672          SQ   0.001   0.001   0.001   0.001
 673          KM       1

 674          KK    RET6
 675          KM          RETRIEVE FLOWS DIVERTED TO POND 6
 676          DR      D6

 677          KK  6ROUTE
 678          KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
 679          RK     10.   0.006   0.016            TRAP    12.0     2.0
 680          KM       X

 681          KK  RORET6
 682          KM        ROUTE FLOWS TO POND 6 TO ESTIMATE REQUIRED VOLUME
 683          RS     1.0    ELEV  1375.2
 684          SV     0.0    0.67    1.22    1.80    2.42    3.08    3.77    4.50    5.27    6.08
 685          SV    6.92    7.81    8.65    9.70    9.97   10.91   11.96
 686          SE  1375.2  1377.0  1378.0  1379.0  1380.0  1381.0  1382.0  1383.0  1384.0  1385.0
 687          SE  1386.0  1387.0  1388.0  1389.0  1390.0  1391.0  1392.0
 688          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 689          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 690          KM       1

 691          KK  CORET2
 692          KM          COMBINE DIVERTED HYDROGRAPHS FOR COSMETIC REASONS
 693          HC      4.

 694          KK    RET7
 695          KM        RETRIEVE FLOWS DIVERTED TO POND 7
 696          DR      D7

 697          KK  7ROUTE
 698          KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
 699          RK     10.   0.006   0.016            TRAP    12.0     2.0
 700          KM       X
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 701          KK  RORET7
 702          KM        ROUTE FLOWS TO POND 7 TO ESTIMATE REQUIRED VOLUME
 703          RS     1.0    ELEV  1376.0
 704          SV     0.0    1.06    1.57    2.13    2.75    3.41    4.13    4.91    5.74    6.63
 705          SV    7.57    8.56    9.61   10.72   11.65   12.44   13.62   14.72
 706          SE  1376.0  1379.0  1380.0  1381.0  1382.0  1383.0  1384.0  1385.0  1386.0  1387.0
 707          SE  1388.0  1389.0  1390.0  1391.0  1392.0  1393.0  1394.0  1394.9
 708          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 709          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 710          KM       1

 711          KK    RET8
 712          KM         RETRIEVE FLOWS DIVERTED TO POND 8
 713          DR      D8

 714          KK  8ROUTE
 715          KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
 716          RK     10.   0.006   0.016            TRAP    12.0     2.0
 717          KM       X

 718          KK  RORET8
 719          KM        ROUTE FLOWS TO POND 8 TO ESTIMATE REQUIRED VOLUME
 720          RS     1.0    ELEV  1410.9
 721          SV     0.0    0.50    2.59    5.52    8.55   11.67   14.88   18.16   21.55   26.10
 722          SE  1410.9  1412.0  1413.0  1414.0  1415.0  1416.0  1417.0  1418.0  1419.0  1420.3
 723          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 724          KM       1

 725          KK    RET9
 726          KM         RETRIEVE FLOWS DIVERTED TO POND 9
 727          DR      D9

 728          KK  9ROUTE
 729          KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
 730          RK     10.   0.006   0.016            TRAP    12.0     2.0
 731          KM       X

 732          KK  RORET9
 733          KM        ROUTE FLOWS TO POND 9 TO ESTIMATE REQUIRED VOLUME
 734          RS     1.0    ELEV  1412.7
 735          SV     0.0    0.72    2.18    3.70    5.28    6.93    8.63   10.39   12.22   13.91
 736          SV   15.82   17.77
 737          SE  1412.7  1414.0  1415.0  1416.0  1417.0  1418.0  1419.0  1420.0  1421.0  1422.0
 738          SE  1423.0  1424.0
 739          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 740          SQ   0.001   0.001
 741          KM       1

 742          KK   RET10
 743          KM         RETRIEVE FLOWS DIVERTED TO POND 10
 744          DR     D10
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 745          KK  1OROUT
 746          KM        ROUTE FLOWS TO OBTAIN AN INFLOW VERSES TIME TABLE
 747          RK     10.   0.006   0.016            TRAP    12.0     2.0
 748          KM       X

 749          KK  ORET10
 750          KM        ROUTE FLOWS TO POND 10 TO ESTIMATE REQUIRED VOLUME
 751          RS     1.0    ELEV  1415.8
 752          SV     0.0    0.54    1.60    2.71    3.88    5.09    6.36    7.68    9.05   10.28
 753          SV   11.71   13.18   13.92
 754          SE  1415.8  1417.0  1418.0  1419.0  1420.0  1421.0  1422.0  1423.0  1424.0  1425.0
 755          SE  1426.0  1427.0  1427.5
 756          SQ   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
 757          SQ   0.001   0.001   0.001
 758          KM       1

 759          KK  CORET3
 760          KM        COMBINE DIVERTED FLOWS FOR COSMETIC REASONS
 761          HC      5.
 762          ZZ
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                 SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

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

  14        SUB11
                V
                V
  25         RO11
                .
                .
  28            .        SUB10
                .            V
                .            V
  35            .         RO10
                .            .
                .            .
  38            .            .        SUB16
                .            .            .
                .            .            .
  46         CO16.......................
                .
                .
  52            .------->     D16
  49        DIV16
                V
                V
  55         RO16
                .
                .
  59            .        SUB12
                .            V
                .            V
  66            .         RO12
                .            .
                .            .
  70            .            .        SUB15
                .            .            .
                .            .            .
  77         CO15.......................
                .
                .
  85            .------->     D15
  82        DIV15
                V
                V
  88         RO15
                .
                .
  92            .        SUB13
                .            V
                .            V
  99            .         RO13
                .            .
                .            .
 103            .            .        SUB14
                .            .            .
                .            .            .
 110         CO14.......................
                V
                V
 115         RO14
 128            :        RET16<-------     D16
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                .          V
                .          V
122             .      ROD16
                .          .
                .          .
129             .          .          .<-------     D15
126             .          .      RET15
                .          .          V
                .          .          V
130             .          .      ROD15
                .          .          .
                .          .          .
134             .          .          .       SUB17
                .          .          .           .
                .          .          .           .
141          CO17.....................................
                .
                .
150             .------->     D17
146         DIV17
                V
                V
153          RO17
                .
                .
157             .      SUB20
                .          .
                .          .
164          CO20............
                .
                .
172             .------->     D20
168         DIV20
                V
                V
175          RO20
                .
                .
180             .          .<-------     D17
178             .      RET17
                .          V
                .          V
181             .      ROD17
                .          .
                .          .
185             .          .      SUB224
                .          .          V
                .          .          V
215             .          .      RO224
                .          .          .
                .          .          .
220             .          .          .       SUB18
                .          .          .           .
                .          .          .           .
228             .          .        CO18............
                .          .          V
                .          .          V
232             .          .      HDET12
                .          .          V
                .          .          V
239             .          .        RO18
                .          .          .
                .          .          .
243             .          .          .       SUB19
250             :          :      CO19X............:
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                .           .          V
253             .           .     HDET11
                .           .          .
                .           .          .
260             .      CO19.............
                .           V
                .           V
264             .      RO19A
                .           .
                .           .
272             .           .-------->     D10
268             .      DET10
                .           V
                .           V
275             .      RO19B
                .           .
                .           .
284             .           .-------->     D9
280             .       DET9
                .           V
                .           V
287             .      RO19C
                .           .
                .           .
296             .           .-------->     D8
292             .       DET8
                .           V
                .           V
299             .      RO19D
                .           .
                .           .
304             .           .     SUB21
                .           .          .
                .           .          .
311             .           .          .     SUBFY2
                .           .          .          .
                .           .          .          .
320             .     COFY2 ........................
                .           .
                .           .
324        CO21.............
                .
                .
331             .           .<--------     D20
328             .      RET20
                .           V
                .           V
332             .      ROD20
                .           .
                .           .
336             .           .     SUB32
                .           .          .
                .           .          .
344             .      CO32A.............
                .           .
                .           .
350             .           .     SUB31
                .           .          .
                .           .          .
357             .           .          .     SUB30
                .           .          .          V
                .           .          .          V
364             .           .          .     RO30
                .           .          .          .
368             :           :       CO31............:
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376          .          .          .------->     D31
372          .          .      DIV31
             .          .          V
             .          .          V
379          .          .      RO31
             .          .          .
             .          .          .
382          .       CO32............
             .          V
             .          V
386          .      RO32A
             .          .
             .          .
395          .          .------->     D7
390          .       DET7
             .          V
             .          V
398          .      RO32B
             .          .
             .          .
408          .          .------->     D6
403          .       DET6
             .          V
             .          V
411          .      RO32C
             .          .
             .          .
416          .          .      SUB33
             .          .          .
             .          .          .
426          .          .          .          .<-------     D31
423          .          .          .      RET31
             .          .          .          V
             .          .          .          V
427          .          .          .      ROD31
             .          .          .          .
             .          .          .          .
431          .          .       CO33............
             .          .          .
             .          .          .
435          .      CO33A............
             .          .
             .          .
444          .          .------->     D5
439          .       DET5
             .          V
             .          V
447          .      RO33A
             .          .
             .          .
457          .          .------->     D4
452          .       DET4
             .          V
             .          V
460          .      RO33B
             .          .
             .          .
466          .          .      SUB34
             .          .          V
             .          .          V
473          .          .       RO34
             .          .          .
             .          .          .
476          .          .          .      SUB35
483          :          :      CO35A...........:
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487          CO35............
496                .-------->      D3
491          DET3
                  V
                  V
499          RO35A
                  V
                  V
504          RO35B
                  .
                  .
513                .-------->      D2
508          DET2
                  V
                  V
516          RO35C
                  .
                  .
526                .-------->      D1
521          DET1
                  V
                  V
530          RO35D
                  .
                  .
534                .       SUB36
                  .            .
                  .            .
541          CO36............
                  V
                  V
544         ROPOW
                  V
                  V
555          RO36A
                  V
                  V
558          RO36B
                  .
                  .
561                .      SUBFY1
                  .            .
                  .            .
570          COFY1...........
                  V
                  V
574          RO36C
                  .
                  .
577                .      SUB26C
                  .            .
                  .            .
584          CO37............
                  .
                  .
597                .            .<-------      D1
588                .        RET1
                  .           V
                  .           V
598                .      1ROUTE
                  .           V
602               :      RORET1
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611                                  .<-------      D2
609                             RET2
                                   V
                                   V
612                          2ROUTE
                                   V
                                   V
616                          RORET2
                                   .
                                   .
625                                   .<-------      D3
623                                 RET3
                                      V
                                      V
626                                3ROUTE
                                      V
                                      V
630                                RORET3
                                      .
                                      .
637                       CORET1.......................
                                   .
                                   .
642                                  .<-------      D4
640                             RET4
                                   V
                                   V
643                          4ROUTE
                                   V
                                   V
647                          RORET4
                                   .
                                   .
659                                   .<-------      D5
657                                 RET5
                                      V
                                      V
660                                5ROUTE
                                      V
                                      V
664                                RORET5
                                      .
                                      .
676                                      .<-------      D6
674                                    RET6
                                         V
                                         V
677                                  6ROUTE
                                         V
                                         V
681                                  RORET6
                                         .
                                         .
691                       CORET2.................................
                                   .
                                   .
696                                  .<-------      D7
694                             RET7
                                   V
                                   V
697                          7ROUTE
                                   V
                                   V
701                          RORET7
713                                 RET8<-------      D8
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                 .         .         .         .         V
                 .         .         .         .         V
714              .         .         .         .   8ROUTE
                 .         .         .         .         V
                 .         .         .         .         V
718              .         .         .         .   RORET8
                 .         .         .         .         .
                 .         .         .         .         .
727              .         .         .         .         .          .<-------      D9
725              .         .         .         .         .      RET9
                 .         .         .         .         .         V
                 .         .         .         .         .         V
728              .         .         .         .         .    9ROUTE
                 .         .         .         .         .         V
                 .         .         .         .         .         V
732              .         .         .         .         .    RORET9
                 .         .         .         .         .         .
                 .         .         .         .         .         .
744              .         .         .         .         .         .                .<-------     D10
742              .         .         .         .         .         .        RET10
                 .         .         .         .         .         .            V
                 .         .         .         .         .         .            V
745              .         .         .         .         .         .       10ROUT
                 .         .         .         .         .         .            V
                 .         .         .         .         .         .            V
749              .         .         .         .         .         .       ORET10
                 .         .         .         .         .         .            .
                 .         .         .         .         .         .            .
759              .         .     CORET3.........................................
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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                    FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
          U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
                                                  ****


                         SUPERSTITION FREEWAY  -  OFFSITE DRAINAGE ANALYSIS
                         ELLSWORTH TO POWER ROAD- 100 YEAR, 24 HOUR PRECIPITATION
                         SIMULATION NUMBER 3:   DETENTION BASINS IN PLACE

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

  IT        HYDROGRAPH TIME DATA
                   NMIN         15  MINUTES IN COMPUTATION INTERVAL
                  IDATE      1    0  STARTING DATE
                  ITIME       0000  STARTING TIME
                     NQ        240  NUMBER OF HYDROGRAPH ORDINATES
                 NDDATE      3    0  ENDING DATE
                 NDTIME       1145  ENDING TIME

            COMPUTATION INTERVAL     .25 HOURS
                 TOTAL TIME BASE   59.75 HOURS

      ENGLISH UNITS
```

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

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
HYDROGRAPH AT	SUB11	324.	12.50	81.	26.	10.	.50		
ROUTED TO	RO11	301.	12.75	84.	26.	11.	.50		
HYDROGRAPH AT	SUB10	878.	12.75	314.	103.	42.	2.09		
ROUTED TO	RO10	856.	13.00	313.	103.	42.	2.09		
HYDROGRAPH AT	SUB16	510.	12.50	103.	32.	13.	.59		
3 COMBINED AT	CO16	1405.	12.75	497.	161.	65.	3.18		
DIVERSION TO	D16	283.	12.75	66.	21.	8.	3.18		
HYDROGRAPH AT	DIV16	1122.	12.75	430.	140.	57.	3.18		
ROUTED TO	RO16	1117.	12.75	430.	140.	57.	3.18		
HYDROGRAPH AT	SUB12	492.	12.50	111.	35.	14.	.69		
ROUTED TO	RO12	473.	12.75	113.	36.	15.	.69		
HYDROGRAPH AT	SUB15	361.	12.50	71.	22.	9.	.41		
3 COMBINED AT	CO15	1785.	12.50	612.	198.	80.	4.28		
DIVERSION TO	D15	234.	12.50	37.	9.	4.	4.28		
HYDROGRAPH AT	DIV15	1551.	12.50	576.	189.	77.	4.28		
ROUTED TO	RO15	1550.	12.75	576.	189.	77.	4.28		
HYDROGRAPH AT	SUB13	254.	12.50	55.	17.	7.	.35		
ROUTED TO	RO13	267.	12.50	61.	19.	8.	.35		
HYDROGRAPH AT	SUB14	543.	12.75	186.	61.	25.	1.10		
3 COMBINED AT	CO14	2327.	12.75	823.	269.	109.	5.73		
ROUTED TO	RO14	2308.	12.75	822.	270.	109.	5.73		
HYDROGRAPH AT	RET16	283.	12.75	66.	21.	8.	.00		
ROUTED TO	ROD16	243.	13.25	70.	22.	9.	.00		
HYDROGRAPH AT	RET15	234.	12.50	37.	9.	4.	.00		
ROUTED TO	ROD15	209.	13.00	36.	9.	4.	.00		
HYDROGRAPH AT	SUB17	444.	13.00	186.	63.	26.	1.19		
4 COMBINED AT	CO17	3074.	12.75	1113.	364.	148.	6.92		
DIVERSION TO	D17	1087.	12.75	408.	134.	54.	6.92		
HYDROGRAPH AT	DIV17	1887.	12.75	705.	230.	93.	6.92		
ROUTED TO	RO17	1952.	13.00	703.	230.	93.	6.92		

HYDROGRAPH AT	SUB20	405.	12.50	77.	24.	10.	.43		
2 COMBINED AT	CO20	2141.	12.75	779.	255.	103.	7.35		
DIVERSION TO	D20	933.	12.50	133.	33.	13.	7.35		
HYDROGRAPH AT	DIV20	1208.	12.50	646.	221.	90.	7.35		
ROUTED TO	RO20	1208.	12.75	642.	222.	90.	7.35		
HYDROGRAPH AT	RET17	1087.	12.75	408.	134.	54.	.00		
ROUTED TO	ROD17	1068.	13.00	406.	134.	54.	.00		
HYDROGRAPH AT	SUB224	62.	27.00	61.	61.	47.	.30		
ROUTED TO	RO224	62.	27.25	61.	61.	47.	.30		
HYDROGRAPH AT	SUB18	121.	13.25	63.	22.	9.	.41		
2 COMBINED AT	CO18	156.	13.50	108.	78.	56.	.71		
ROUTED TO	HDET12	128.	14.50	107.	78.	56.	.71	1445.52	14.50
ROUTED TO	RO18	128.	14.50	107.	78.	55.	.71		
HYDROGRAPH AT	SUB19	182.	12.25	33.	10.	4.	.19		
2 COMBINED AT	CO19A	211.	12.25	134.	87.	60.	.90		
ROUTED TO	HDET11	138.	15.00	129.	87.	59.	.90	1434.26	15.00
2 COMBINED AT	CO19	1198.	13.00	535.	221.	114.	.90		
ROUTED TO	RO19A	1196.	13.00	535.	221.	114.	.90		
DIVERSION TO	D10	193.	13.00	22.	6.	2.	.90		
HYDROGRAPH AT	DET10	1002.	13.00	513.	215.	112.	.90		
ROUTED TO	RO19B	1001.	13.00	512.	215.	112.	.90		
DIVERSION TO	D9	196.	13.00	36.	9.	4.	.90		
HYDROGRAPH AT	DET9	805.	13.00	477.	206.	108.	.90		
ROUTED TO	RO19C	805.	13.00	477.	206.	108.	.90		
DIVERSION TO	D8	187.	13.00	50.	12.	5.	.90		
HYDROGRAPH AT	DET8	618.	13.00	427.	194.	103.	.90		
ROUTED TO	RO19D	617.	13.00	426.	194.	103.	.90		
HYDROGRAPH AT	SUB21	394.	12.25	70.	22.	9.	.37		
HYDROGRAPH AT	SUBFY2	148.	12.25	22.	7.	3.	.09		
3 COMBINED AT	COFY2	866.	12.50	506.	221.	114.	1.36		
2 COMBINED AT	CO21	2011.	12.75	1148.	442.	204.	8.71		
HYDROGRAPH AT	RET20	933.	12.75	133.	33.	13.	.00		
ROUTED TO	ROD20	887.	13.00	140.	35.	14.	.00		
HYDROGRAPH AT	SUB32	147.	12.50	29.	9.	4.	.11		

2 COMBINED AT	CO32A	928.	13.00	170.	44.	18.	.17
HYDROGRAPH AT	SUB31	349.	13.00	153.	51.	21.	.95
HYDROGRAPH AT	SUB30	1098.	12.25	181.	56.	23.	.95
ROUTED TO	RO30	888.	12.50	181.	56.	23.	.95
2 COMBINED AT	CO31	1175.	12.50	332.	107.	44.	1.90
DIVERSION TO	D31	500.	12.50	257.	89.	36.	1.90
HYDROGRAPH AT	DIV31	675.	12.50	75.	19.	7.	1.90
ROUTED TO	RO31	612.	12.50	83.	21.	8.	1.90
2 COMBINED AT	CO32	1375.	12.75	253.	65.	26.	2.08
ROUTED TO	RO32A	1371.	12.75	253.	65.	26.	2.08
DIVERSION TO	D7	305.	12.75	30.	8.	3.	2.08
HYDROGRAPH AT	DET7	1065.	12.75	223.	58.	23.	2.08
ROUTED TO	RO32B	1062.	12.75	223.	58.	23.	2.08
DIVERSION TO	D6	175.	12.75	21.	5.	2.	2.08
HYDROGRAPH AT	DET6	887.	12.75	202.	52.	21.	2.08
ROUTED TO	RO32C	885.	12.75	202.	52.	21.	2.08
HYDROGRAPH AT	SUB33	181.	12.50	36.	11.	5.	.21
HYDROGRAPH AT	RET31	500.	12.25	257.	89.	36.	.00
ROUTED TO	ROD31	500.	12.50	256.	89.	36.	.00
2 COMBINED AT	CO33	681.	12.50	292.	100.	41.	.21
2 COMBINED AT	CO33A	1506.	12.50	494.	152.	62.	2.29
DIVERSION TO	D5	216.	12.50	30.	8.	3.	2.29
HYDROGRAPH AT	DET5	1290.	12.50	464.	145.	59.	2.29
ROUTED TO	RO33A	1286.	12.75	464.	145.	59.	2.29
DIVERSION TO	D4	177.	12.75	30.	7.	3.	2.29
HYDROGRAPH AT	DET4	1109.	12.75	434.	137.	56.	2.29
ROUTED TO	RO33B	1109.	12.75	434.	138.	56.	2.29
HYDROGRAPH AT	SUB34	353.	13.25	173.	60.	25.	1.16
ROUTED TO	RO34	349.	13.50	169.	60.	25.	1.16
HYDROGRAPH AT	SUB35	728.	12.50	145.	45.	18.	.85
2 COMBINED AT	CO35A	747.	12.50	307.	105.	43.	2.01
2 COMBINED AT	CO35	1847.	12.50	740.	243.	99.	4.30
DIVERSION TO	D3	204.	12.50	21.	5.	2.	4.30
HYDROGRAPH AT	DET3	1643.	12.50	719.	237.	96.	4.30

ROUTED TO	RO35A	1639.	12.50	719.	237.	96.	4.30		
ROUTED TO	RO35B	1634.	12.50	720.	238.	97.	4.30		
DIVERSION TO	D2	210.	12.50	36.	9.	4.	4.30		
HYDROGRAPH AT	DET2	1424.	12.50	684.	229.	93.	4.30		
ROUTED TO	RO35C	1420.	12.50	684.	229.	93.	4.30		
DIVERSION TO	D1	98.	12.50	16.	4.	2.	4.30		
HYDROGRAPH AT	DET1	1322.	12.50	668.	225.	91.	4.30		
ROUTED TO	RO35D	1320.	12.50	668.	225.	91.	4.30		
HYDROGRAPH AT	SUB36	362.	12.50	96.	31.	13.	.60		
2 COMBINED AT	CO36	1682.	12.50	764.	256.	104.	4.90		
ROUTED TO	ROPOW	1656.	12.50	764.	256.	104.	4.90	1367.21	12.50
ROUTED TO	RO36A	1656.	12.75	764.	256.	104.	4.90		
ROUTED TO	RO36B	1655.	12.75	764.	256.	104.	4.90		
HYDROGRAPH AT	SUBFY1	63.	12.25	9.	3.	1.	.04		
2 COMBINED AT	COFY1	1667.	12.75	772.	259.	105.	4.94		
ROUTED TO	RO36C	1658.	12.75	771.	259.	105.	4.94		
HYDROGRAPH AT	SUB26C	80.	13.75	48.	18.	7.	.44		
2 COMBINED AT	CO37	1717.	12.75	819.	277.	113.	5.38		
HYDROGRAPH AT	RET1	98.	12.50	16.	4.	2.	.00		
ROUTED TO	1ROUTE	98.	12.50	16.	4.	2.	.00		
ROUTED TO	RORET1	0.	.25	0.	0.	0.	.00	1366.42	14.25
HYDROGRAPH AT	RET2	210.	12.50	36.	9.	4.	.00		
ROUTED TO	2ROUTE	210.	12.50	36.	9.	4.	.00		
ROUTED TO	RORET2	0.	.25	0.	0.	0.	.00	1369.53	14.00
HYDROGRAPH AT	RET3	204.	12.50	21.	5.	2.	.00		
ROUTED TO	3ROUTE	203.	12.50	21.	5.	2.	.00		
ROUTED TO	RORET3	0.	.25	0.	0.	0.	.00	1378.76	14.00
3 COMBINED AT	CORET1	0.	.25	0.	0.	0.	.00		
HYDROGRAPH AT	RET4	177.	12.75	30.	7.	3.	.00		
ROUTED TO	4ROUTE	177.	12.75	30.	7.	3.	.00		
ROUTED TO	RORET4	0.	.25	0.	0.	0.	.00	1383.53	14.00
HYDROGRAPH AT	RET5	216.	12.50	30.	8.	3.	.00		
ROUTED TO	5ROUTE	216.	12.50	30.	8.	3.	.00		
ROUTED TO	RORET5	0.	.25	0.	0.	0.	.00	1385.05	14.00

HYDROGRAPH AT	RET6	175.	12.75	21.	5.	2.	.00		
ROUTED TO	6ROUTE	175.	12.75	21.	5.	2.	.00		
ROUTED TO	RORET6	0.	.25	0.	0.	0.	.00	1390.33	13.75
4 COMBINED AT	CORET2	0.	.25	0.	0.	0.	.00		
HYDROGRAPH AT	RET7	305.	12.75	30.	8.	3.	.00		
ROUTED TO	7ROUTE	305.	12.75	30.	8.	3.	.00		
ROUTED TO	RORET7	0.	.25	0.	0.	0.	.00	1395.11	13.75
HYDROGRAPH AT	RET8	187.	13.00	50.	12.	5.	.00		
ROUTED TO	8ROUTE	187.	13.00	50.	12.	5.	.00		
ROUTED TO	RORET8	0.	.25	0.	0.	0.	.00	1419.87	15.25
HYDROGRAPH AT	RET9	196.	13.00	36.	9.	4.	.00		
ROUTED TO	9ROUTE	196.	13.00	36.	9.	4.	.00		
ROUTED TO	RORET9	0.	.25	0.	0.	0.	.00	1423.96	14.50
HYDROGRAPH AT	RET10	193.	13.00	22.	6.	2.	.00		
ROUTED TO	1DROUT	193.	13.00	22.	6.	2.	.00		
ROUTED TO	ORET10	0.	.25	0.	0.	0.	.00	1425.58	14.25
5 COMBINED AT	CORET3	0.	.25	0.	0.	0.	.00		

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

User: DEN104 -at

<OPS183>PROJ>PJ6114>DATA>HEC2>CHNL250.OUT

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WWWW  WWWWW W   W   W    WWW  W
W   W W     WW  W  WW   W   W W  W
W   W W     W W W   W   W   W W  W
W   W WWWW  W W W   W   W W W WWWWW
W   W W     W W W   W   W   W    W
W   W W     W  WW   W   W   W    W
WWWW  WWWWW W   W  WWW   WWW     W



 WWW  W   W W   W W      WWW  WWWWW  WWW         WWW  W   W WWWWW
W   W W   W WW  W W     W   W W     W   W       W   W W   W   W
W     W   W W W W W         W WWWW  W   W       W   W W   W   W
W     WWWWW W W W W        W      W W W W       W   W W   W   W
W     W   W W W W W       W       W W   W       W   W W   W   W
W   W W   W W  WW W      W    W   W W   W   WW  W   W W   W   W
 WWW  W   W W   W WWWWW WWWWW  WWW   WWW    WW   WWW   WWW    W

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[Spooler rev 20.0.6HB (c) Prime Computer, Inc., 1986]

Label: PRT120 -form DENPRT

Pathname: <OPS183>PROJ>PJ6114>DATA>HEC2>CHNL250.OUT
File last modified: 88-08-17.19:11:40.Wed

Spooled: 88-09-13.12:15:36.Tue
Started: 88-09-13.12:18:16.Tue on: AMLC by: DENPRT

THIS RUN EXECUTED 08/17/88 19:53:11

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  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************


C
T1       BACKWATER CURVE FROM GRADE CONTROL STRUCTURE BELOW BASELINE
T2       UP SOSSAMAN CHANNEL TO THE R.O.W. AND ON TO POND 11.
T3       Q=50 YEAR

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        2.        0.        0. -1.000000       .00        .0        0.  1385.000      .000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    -1.000      .000    -1.000      .000      .000      .000      .000      .000      .000      .000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   150.000      .000      .000      .000      .000      .000      .000      .000      .000      .000


QT      1.000   1981.000      .000      .000      .000      .000      .000      .000      .000      .000
J5  LPRNT    NUMSEC                    ********REQUESTED SECTION NUMBERS********

   -10.000   -10.000      .000      .000      .000      .000      .000      .000      .000      .000
NC       .040      .040      .035      .300      .500      .000      .000      .000      .000      .000
          END OF GRADE CONTROL WEIR 3, Q=C021, D.L.E. STA 1000+00
X1     40.590     8.000   220.000   315.000      .000      .000      .000      .000      .000      .000
GR   1387.200   199.000  1380.200   200.000  1379.500   220.000  1368.400   248.000  1368.400   288.000
GR   1379.700   315.000  1383.100   324.000  1383.100   524.000      .000      .000      .000      .000

          SOSSAMAN CHANNEL-AT GRADE CONTROL WEIR 3
X1     39.790     8.000   230.000   322.000    80.000    80.100    80.000      .000      .000      .000
GR   1389.700   199.000  1382.700   200.000  1381.600   230.000  1368.800   255.000  1368.800   294.000
GR   1381.600   322.000  1382.700   327.000  1382.700   522.000      .000      .000      .000      .000

          SOSSAMAN CHANNEL-CHANNEL SECTION ABOVE GRADE CONTROL WEIR 3
X1     39.670    15.000   230.000   319.000    12.000    12.000    12.000      .000      .000      .000
GR   1388.100   199.000  1381.100   200.000  1382.700   230.000  1381.800   239.000  1381.800   242.000
GR   1374.300   256.000  1374.300   272.000  1372.400   272.100  1372.400   278.100  1374.300   278.200
GR   1374.300   294.000  1381.800   306.000  1381.800   309.000  1382.700   319.000  1382.700   519.000

          SOSSAMAN CHANNEL-DOWNSTREAM END OF GRADE CONTROL WEIR 2
X1     35.070     9.000   223.000   310.000   460.000   459.000   460.000      .000      .000      .000
GR   1392.100   199.000  1385.100   200.000  1384.700   216.000  1383.400   223.000  1373.300   248.000
GR   1373.400   285.000  1383.300   310.000  1386.800   319.000  1386.800   519.000      .000      .000
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SOSSAMAN CHANNEL-AT GRADE CONTROL WEIR 2

X1	34.260	8.000	222.000	298.000	93.000	92.000	91.000	.000	.000	.000
GR	1393.300	199.000	1386.300	200.000	1386.300	222.000	1374.300	247.000	1374.300	287.000
GR	1387.100	298.000	1387.100	310.000	1387.100	510.000	.000	.000	.000	.000

SOSSAMAN CHANNEL-CHANNEL SECTION ABOVE GRADE CONTROL WEIR 2

X1	34.150	15.000	222.000	310.000	11.000	11.000	11.000	.000	.000	.000
GR	1393.500	199.000	1386.500	200.000	1386.500	222.000	1383.300	231.000	1383.300	234.000
GR	1378.700	248.000	1378.700	263.000	1377.100	263.100	1377.100	269.100	1378.700	269.200
GR	1378.700	285.000	1383.300	289.000	1383.300	291.000	1387.200	310.000	1387.200	510.000

SOSSAMAN CHANNEL-DOWNSTREAM END OF TRANSITION TO CBC UNDER BASELINE RO

X1	32.120	6.000	200.000	268.000	220.000	191.000	203.000	.000	.000	.000
GR	1386.200	.000	1386.200	200.000	1378.600	213.000	1378.200	244.000	1391.000	286.000
GR	1391.000	486.000	.000	.000	.000	.000	.000	.000	.000	.000

SOSSAMAN CHANNEL-DOWNSTREAM END OF CBC UNDER BASELINE ROAD

X1	31.680	.000	.000	.000	47.000	44.000	44.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	1388.500	1388.500	.000
SB	1.250	1.640	2.600	.000	42.490	2.490	320.000	.000	1379.900	1379.700

SOSSAMAN CHANNEL-UPSTREAM END OF CBC UNDER BASELINE ROAD

X1	30.840	.000	.000	.000	84.000	84.000	84.000	.000	.000	.000
X2	.000	.000	1.000	1386.600	1388.500	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	1388.500	1388.500	.000
BT	4.000	.000	1389.200	.000	100.000	1388.700	.000	143.000	1388.500	.000
BT	243.000	1388.000	.000	.000	.000	.000	.000	.000	.000	.000

SOSSAMAN CHANNEL-UPSTREAM END OF TRANSITION TO CBC UNDER BASELINE ROAD

X1	30.350	7.000	210.000	285.000	46.000	56.000	49.000	.000	.000	.000
GR	1387.200	.000	1387.200	200.000	1386.100	210.000	1379.100	231.000	1379.100	260.000
GR	1387.700	285.000	1387.700	485.000	.000	.000	.000	.000	.000	.000

SOSSAMAN CHANNEL-CHANNEL SECTION 240 FEET UPSTREAM FROM CBC

X1	29.670	7.000	200.000	271.000	41.000	101.000	68.000	.000	.000	.000
GR	1387.800	.000	1387.800	200.000	1379.400	219.000	1379.500	245.000	1387.300	271.000
GR	1388.700	287.000	1388.700	487.000	.000	.000	.000	.000	.000	.000

SOSSAMAN CHANNEL-CHANNEL SECTION BELOW GRADE CONTROL WEIR 1

X1	20.460	9.000	214.000	270.000	921.000	923.000	921.000	.000	.000	.000
GR	1395.700	.000	1395.700	200.000	1393.900	214.000	1387.000	230.000	1385.600	246.000
GR	1386.600	254.000	1394.600	270.000	1395.500	281.000	1395.500	481.000	.000	.000

SOSSAMAN CHANNEL-AT GRADE CONTROL WEIR 1

X1	20.090	25.000	200.000	284.000	37.000	36.000	37.000	.000	.000	.000
GR	1395.500	.000	1395.500	200.000	1394.700	217.000	1394.100	217.100	1394.100	222.000
GR	1393.500	222.100	1393.500	227.000	1392.800	227.100	1392.800	232.000	1390.300	232.100
GR	1390.300	233.000	1388.200	233.100	1388.200	237.000	1387.600	237.100	1387.600	247.000
GR	1388.600	247.100	1388.600	250.000	1392.800	250.100	1392.800	254.000	1393.400	254.000
GR	1393.400	258.000	1394.700	258.100	1394.700	261.000	1396.000	284.000	1396.000	484.000

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          SOSSAMAN CHANNEL-CHANNEL SECTION AT DOWNSTREAM SIDE OF BEND
X1     18.640      8.000    225.000    285.000    160.000    101.000    105.000       .000       .000       .000
GR   1397.400       .000   1397.400    200.000   1396.200    225.000   1390.900    250.000   1389.700    262.000
GR   1391.300    272.000   1396.900    285.000   1396.900    485.000       .000       .000       .000       .000

          SOSSAMAN CHANNEL-SECTION WITH INCISED CHANNEL AT BEND
X1     17.650      9.000    200.000    282.000    134.000     71.000     99.000       .000       .000       .000
GR   1397.700       .000   1397.700    200.000   1392.500    235.000   1392.100    240.000   1390.300    241.000
GR   1390.300    251.000   1392.700    256.000   1397.800    282.000   1397.800    482.000       .000       .000

          SOSSAMAN CHANNEL-CHANNEL SECTION AT UPSTREAM END OF BEND
X1     17.550      8.000    200.000    274.000      8.000     12.000     10.000       .000       .000       .000
GR   1397.800       .000   1397.800    200.000   1392.200    235.000   1392.600    246.000   1392.400    252.000
GR   1396.700    274.000   1397.900    288.000   1397.900    488.000       .000       .000       .000       .000

          SOSSAMAN CHANNEL-CHANNEL SECTION APPROX. 800 FT. BELOW R.O.W.
X1      9.230      8.000    200.000    265.000    832.000    832.000    832.000       .000       .000       .000
GR   1402.300       .000   1402.300    200.000   1397.800    222.000   1397.000    233.000   1396.800    238.000
GR   1396.800    244.000   1402.000    265.000   1402.000    465.000       .000       .000       .000       .000

          SOSSAMAN CHANNEL-CHANNEL SECTION 210 FT. BELOW S. R.O.W. LINE
X1      3.100      8.000    200.000    274.000    613.000    613.000    613.000       .000       .000       .000
GR   1406.000       .000   1406.000    200.000   1400.600    233.000   1400.100    240.000   1400.800    247.000
GR   1406.800    274.000   1407.800    282.000   1407.800    482.000       .000       .000       .000       .000

NC       .016       .016       .016       .100       .300       .000       .000       .000       .000       .000
          DOWNSTREAM END OF TRANSITION TO BOX UNDER FREEWAY (D.E. 4958)
X1      1.000      4.000     70.500    129.500    210.000    210.000    210.000       .000       .000       .000
GR   1408.500     70.500   1401.000     85.500   1401.000    114.500   1408.500    129.500       .000       .000

          DOWNSTREAM END OF CBC FOR SOSSAMAN CHANNEL UNDER FREEWAY
X1    930.490      4.000    461.500    538.500     83.000     83.000     83.000       .000       .000       .000
GR   1408.500    461.500   1401.170    461.500   1401.170    538.500   1408.500    538.500       .000       .000

SB      1.250      1.560      2.600       .000     77.000      5.000    432.000       .000   1401.610   1401.170
          UPSTREAM END OF CBC FOR SOSSAMAN CHANNEL UNDER FREEWAY
X1     30.500      4.000    461.500    538.500    221.000    221.000    221.000       .000       .000       .000
X2       .000       .000      1.000   1407.610   1410.110       .000       .000       .000       .000       .000
BT      4.000    461.500   1410.110   1407.610    461.500   1410.110   1407.610    538.500   1410.110   1407.610
BT    538.500   1410.110   1407.610       .000       .000       .000       .000       .000       .000       .000
GR   1408.500    461.500   1401.610    461.500   1401.610    538.500   1408.500    538.500       .000       .000

          DOWNSTREAM END OF TRANSITION FROM CHANNEL NO. 2
X1    930.510      4.000    461.500    538.500     14.000     14.000     14.000       .000       .000       .000
GR   1408.500    461.500   1401.630    461.500   1401.630    538.500   1408.500    538.500       .000       .000

          UPSTREAM END OF TRANSITION FROM CHANNEL NO. 2 (Q=COFY2)
X1    930.520      4.000    475.000    525.000     52.000     52.000     52.000       .000       .000       .000
X2    816.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1409.200    475.000   1401.720    494.000   1401.720    506.000   1409.200    525.000       .000       .000
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          GRADE BREAK TO INSURE FLOWS TO CBC ARE SUB-CRITICAL
X1    935.000      4.000    475.000    525.000    438.000    438.000    438.000       .000       .000       .000
GR   1412.200    475.000   1402.690    494.000   1402.690    506.000   1412.200    525.000       .000       .000

          STORM SEWER NO. 3 CHANNEL OUTFALL (Q=DET8)
X1     43.360      4.000    475.000    525.000    836.000    836.000    836.000       .000       .000       .000
X2    606.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1417.700    475.000   1408.220    494.000   1408.220    506.000   1417.700    525.000       .000       .000

          GRADE BREAK
X1    947.000      4.000    475.000    525.000    375.000    375.000    375.000       .000       .000       .000
GR   1420.400    475.000   1410.900    494.000   1410.900    506.000   1420.400    525.000       .000       .000

          GRADE BREAK BELOW DIVERSION STRUCTURE FOR POND 8
X1    954.400      4.000    475.000    525.000    740.000    740.000    740.000       .000       .000       .000
GR   1425.500    475.000   1416.040    494.000   1416.040    506.000   1425.500    525.000       .000       .000

          DOWNSTREAM END OF TRANSITION SECTION BELOW POND 8
X1    954.610      4.000    479.200    521.600     21.000     21.000     21.000       .000       .000       .000
GR   1423.500    479.200   1416.080    494.000   1416.080    506.000   1423.900    521.600       .000       .000

          UPSTREAM END OF TRANSITION SECTION BELOW POND 8
X1    954.710      4.000    478.000    522.600     10.000     10.000     10.000       .000       .000       .000
GR   1423.600    478.000   1416.100    490.000   1416.100    510.000   1424.000    522.600       .000       .000

          FLOW CONSTRICTOR FOR POND 8
X1    954.810      4.000    477.900    522.800     10.000     10.000     10.000       .000       .000       .000
GR   1423.700    477.900   1416.120    490.000   1416.120    510.000   1424.100    522.800       .000       .000

SB      1.000      1.560      2.560       .000     20.000       .000     89.600      1.600       .000       .000
          UPSTREAM SIDE OF FLOW CONSTRICTOR FOR POND 8
X1    954.850      4.000    477.900    522.800      4.000      4.000      4.000       .000       .000       .000
X2       .000       .000      1.000   1419.630   1422.710       .000       .000       .000       .000       .000
BT      4.000    477.900   1422.710   1419.630    490.000   1422.710   1419.630    510.000   1422.710   1419.630
BT    522.800   1422.710   1419.630       .000       .000       .000       .000       .000       .000       .000
GR   1423.700    477.900   1416.130    490.000   1416.130    510.000   1424.100    522.800       .000       .000

          INSERT FLOW AT DOWNSTREAM END OF WEIR (Q=DET9)
X1    954.900      4.000    477.900    522.800      5.000      5.000      5.000       .000       .000       .000
X2    770.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1423.700    477.900   1416.140    490.000   1416.140    510.000   1424.100    522.800       .000       .000

          DOWNSTREAM END OF TRANSITION ABOVE DIVERSION FOR POND 8
X1    955.500      4.000    477.600    523.000     60.000     60.000     60.000       .000       .000       .000
GR   1424.000    477.600   1416.260    490.000   1416.260    510.000   1424.400    523.000       .000       .000

          UPSTREAM END OF TRANSITION ABOVE DIVERSION FOR POND 8
X1    955.600      4.000    478.200    522.600     10.000     10.000     10.000       .000       .000       .000
GR   1424.200    478.200   1416.280    494.000   1416.280    506.000   1424.600    522.600       .000       .000
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          SLOPE BREAK ABOVE TRANSITION SECTION FOR POND 8
X1    956.000      4.000    475.000    525.000     40.000     40.000     40.000       .000       .000       .000
GR   1425.900    475.000   1416.360    494.000   1416.360    506.000   1425.900    525.000       .000       .000

          SLOPE BREAK BELOW DIVERSION STRUCTURE FOR POND 9
X1    960.400      4.000    475.000    525.000    440.000    440.000    440.000       .000       .000       .000
GR   1428.600    475.000   1419.140    494.000   1419.140    506.000   1428.600    525.000       .000       .000

          DOWNSTREAM END OF TRANSITION SECTION BELOW POND 9
X1    960.610      4.000    478.600    529.800     21.000     21.000     21.000       .000       .000       .000
GR   1426.900    478.600   1419.180    494.000   1419.180    506.000   1431.100    529.800       .000       .000

          UPSTREAM END OF TRANSITION SECTION BELOW POND 9
X1    960.710      4.000    477.500    529.200     10.000     10.000     10.000       .000       .000       .000
GR   1427.000    477.500   1419.200    490.000   1419.200    510.000   1431.200    529.200       .000       .000

          FLOW CONSTRICTOR FOR POND 9
X1    960.810      4.000    477.400    529.300     10.000     10.000     10.000       .000       .000       .000
GR   1427.100    477.400   1419.220    490.000   1419.220    510.000   1431.300    529.300       .000       .000

SB       .000      1.560      2.560       .000     20.000       .000    105.600      1.600       .000       .000
          UPSTREAM SIDE OF FLOW CONSTRICTOR FOR POND 9
X1    960.850      4.000    477.400    529.300      4.000      4.000      4.000       .000       .000       .000
X2       .000       .000      1.000   1423.230   1426.310       .000       .000       .000       .000       .000
BT      4.000    477.400   1426.310   1423.230    490.000   1426.310   1423.230    510.000   1426.310   1423.230
BT    529.300   1426.310   1423.230       .000       .000       .000       .000       .000       .000       .000
GR   1427.100    477.400   1419.230    490.000   1419.230    510.000   1431.300    529.300       .000       .000

          INSERT FLOW AT DOWNSTREAM END OF WEIR (Q=DET10)
X1    960.900      4.000    477.400    529.300      5.000      5.000      5.000       .000       .000       .000
X2    913.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1427.100    477.400   1419.240    490.000   1419.240    510.000   1431.300    529.300       .000       .000

          DOWNSTREAM END OF TRANSITION SECTION ABOVE POND 9
X1    961.500      4.000    477.000    529.600     60.000     60.000     60.000       .000       .000       .000
GR   1427.500    477.000   1419.360    490.000   1419.360    510.000   1431.600    529.600       .000       .000

          UPSTREAM END OF TRANSITION SECTION ABOVE POND 9
X1    961.600      4.000    477.600    530.600     10.000     10.000     10.000       .000       .000       .000
GR   1427.600    477.600   1419.380    494.000   1419.380    506.000   1431.700    530.600       .000       .000

          SLOPE BREAK ABOVE TRANSITION SECTION FOR POND 9
X1    962.000      4.000    475.000    525.000     40.000     40.000     40.000       .000       .000       .000
GR   1429.000    475.000   1419.460    494.000   1419.460    506.000   1429.000    525.000       .000       .000

          SLOPE BREAK BELOW DIVERSION STRUCTURE FOR POND 10
X1    965.450      4.000    475.000    525.000    345.000    345.000    345.000       .000       .000       .000
GR   1431.200    475.000   1421.740    494.000   1421.740    506.000   1431.200    525.000       .000       .000
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          DOWNSTREAM END OF TRANSITION SECTION BELOW POND 10
X1    965.640      4.000    477.400    528.000     19.000     19.000     19.000       .000       .000       .000
GR   1430.100    477.400   1421.780    494.000   1421.780    506.000   1432.800    528.000       .000       .000

          UPSTREAM END OF TRANSITION SECTION BELOW POND 10
X1    965.740      4.000    476.600    527.600     10.000     10.000     10.000       .000       .000       .000
GR   1430.200    476.600   1421.800    490.000   1421.800    510.000   1432.800    527.600       .000       .000

          FLOW CONSTRICTOR FOR POND 10
X1    965.840      4.000    476.400    527.700     10.000     10.000     10.000       .000       .000       .000
GR   1430.300    476.400   1421.820    490.000   1421.820    510.000   1432.900    527.700       .000       .000

SB       .000      1.560      2.560       .000     20.000       .000    122.400      1.600       .000       .000
          UPSTREAM SIDE OF FLOW CONSTRICTOR FOR POND 10
X1    965.880      4.000    476.400    527.900      4.000      4.000      4.000       .000       .000       .000
X2       .000       .000      1.000   1426.320   1429.400       .000       .000       .000       .000       .000
BT      4.000    476.400   1429.400   1426.320    490.000   1429.400   1426.320    510.000   1429.400   1426.320
BT    527.900   1429.400   1426.320       .000       .000       .000       .000       .000       .000       .000
GR   1430.300    476.400   1421.830    490.000   1421.830    510.000   1433.000    527.900       .000       .000

          INSERT FLOW AT DOWNSTREAM END OF WEIR (Q=CO19)
X1    965.930      4.000    475.000    525.000      5.000      5.000      5.000       .000       .000       .000
X2    991.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1430.400    476.300   1421.840    490.000   1421.840    510.000   1433.000    527.900       .000       .000

          DOWNSTREAM END OF TRANSITION SECTION ABOVE POND 10
X1    966.530      4.000    476.300    528.900     60.000     60.000     60.000       .000       .000       .000
GR   1430.500    476.300   1421.960    490.000   1421.960    510.000   1433.800    528.900       .000       .000

          UPSTREAM END OF TRANSITION SECTION ABOVE POND 10
X1    966.630      4.000    477.000    529.800     10.000     10.000     10.000       .000       .000       .000
GR   1430.500    477.000   1421.980    494.000   1421.980    506.000   1433.900    529.800       .000       .000

          SLOPE BREAK ABOVE TRANSITION SECTION FOR POND 10
X1    967.050      4.000    475.000    525.000     42.000     42.000     42.000       .000       .000       .000
GR   1431.600    475.000   1422.060    494.000   1422.060    506.000   1431.600    525.000       .000       .000

          HAWES ROAD-INSERT FLOW IN CHAN. 2 ABOVE HAWES (Q=HDET11)
X1    970.110      4.000    475.000    525.000    142.000    142.000    142.000       .000       .000       .000
X2    124.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1435.000    475.000   1425.550    494.000   1425.550    506.000   1435.000    525.000       .000       .000

          OUTLET FROM POND 11 (ON LINE POND)
X1    971.530      4.000    475.000    525.000    143.000    143.000    143.000       .000       .000       .000
GR   1436.900    475.000   1427.410    494.000   1427.410    506.000   1436.900    525.000       .000       .000

X1    -30.500      4.000    461.500    538.500       .000       .000       .000       .000       .000       .000
X2   1981.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1408.500    461.500   1401.610    461.500   1401.610    538.500   1408.500    538.500       .000       .000
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X1     31.720      4.000    461.500    512.000     14.000     14.000     14.000       .000       .000       .000
X2   1208.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1411.200    461.500   1401.660    461.500   1401.660    512.000   1411.200    512.000       .000       .000

X1     32.180      4.000    461.500    519.500     46.000     46.000     46.000       .000       .000       .000
GR   1411.400    461.500   1401.870    480.500   1401.870    499.500   1411.400    519.500       .000       .000

X1     34.270      4.000    461.500    519.500    209.000    209.000    209.000       .000       .000       .000
GR   1412.300    461.500   1402.810    480.500   1402.810    499.500   1412.300    519.500       .000       .000

          STORM SEWER NUMBER 3 OUTFALL (Q=SUBFY2)
X1    -43.360      4.000    475.000    525.000       .000       .000       .000       .000       .000       .000
X2    131.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1417.700    475.000   1408.220    494.000   1408.220    506.000   1417.700    525.000       .000       .000

          STORM SEWER NUMBER 3 OUTFALL CHANNEL
X1     44.000      4.000     78.000    122.000     80.000     80.000     80.000       .000       .000       .000
GR   1418.000     78.000   1408.520     97.000   1408.520    103.000   1418.000    122.000       .000       .000

          10 FEET BELOW OUTFALL FROM STORM SEWER NO 3
X1     46.300      4.000     78.000    122.000    266.000    266.000    266.000       .000       .000       .000
GR   1419.100     78.000   1409.580     97.000   1409.580    103.000   1419.100    122.000       .000       .000

          UPSTREAM END OF STORM SEWER NUMBER 3 OUTFALL CHANNEL
X1     46.600      4.000     78.000    122.000     30.000     30.000     30.000       .000       .000       .000
GR   1419.200     78.000   1409.700     97.000   1409.700    103.000   1419.200    122.000       .000       .000
EJ      .000       .000       .000       .000       .000       .000       .000       .000       .000       .000
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THIS RUN EXECUTED 08/17/88 19:53:49

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  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Q=50 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	40.590	.00	.00	.00	1368.40	1981.00	1372.28	1372.28	1373.93	126.36	10.31	192.22	176.23
	39.790	80.00	.00	.00	1368.80	1981.00	1373.76	.00	1374.78	58.56	8.12	244.01	258.86
*	39.670	12.00	.00	.00	1372.40	1981.00	1378.17	1378.17	1379.96	133.87	10.74	184.49	171.21
	35.070	460.00	.00	.00	1373.30	1981.00	1381.29	.00	1381.59	10.55	4.38	452.05	609.90
	34.260	91.00	.00	.00	1374.30	1981.00	1381.32	.00	1381.81	18.40	5.60	353.51	461.88
*	34.150	11.00	.00	.00	1377.10	1981.00	1382.72	1382.72	1384.41	124.25	10.42	190.14	177.72
	32.120	203.00	.00	.00	1378.20	1981.00	1385.19	.00	1385.76	27.99	.00	327.66	374.46
*	31.680	44.00	.00	.00	1386.20	1981.00	1389.00	1389.00	1389.04	2.28	.00	1165.09	1311.71
	30.840	84.00	1388.50	1386.60	1378.20	1981.00	1389.47	.00	1389.51	1.71	.00	1297.94	1515.60
	30.350	49.00	.00	.00	1379.10	1981.00	1389.47	.00	1389.53	1.75	2.19	1438.64	1495.84
	29.670	68.00	.00	.00	1379.40	1981.00	1389.46	.00	1389.57	3.46	2.93	1037.09	1065.12
*	20.460	921.00	.00	.00	1385.60	1981.00	1391.51	1391.51	1393.52	122.91	11.36	174.35	178.69
*	20.090	37.00	.00	.00	1387.60	1981.00	1396.16	1396.16	1396.73	67.25	6.56	414.87	241.56
	18.640	105.00	.00	.00	1389.70	1981.00	1396.61	.00	1397.61	56.10	8.04	247.81	264.49
	17.650	99.00	.00	.00	1390.30	1981.00	1397.40	.00	1398.24	59.82	7.35	269.39	256.13
	17.550	10.00	.00	.00	1392.20	1981.00	1397.28	.00	1398.50	95.21	8.85	225.54	203.02
	9.230	832.00	.00	.00	1396.80	1981.00	1402.77	.00	1403.25	35.22	6.19	500.92	333.80

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	3.100	613.00	.00	.00	1400.10	1981.00	1405.80	.00	1407.12	104.24	9.21	215.01	194.03
	1.000	210.00	.00	.00	1401.00	1981.00	1406.51	.00	1407.76	14.18	8.98	220.67	526.10
	930.490	83.00	.00	.00	1401.17	1981.00	1407.65	.00	1407.90	1.85	3.97	499.55	1454.81
	30.500	221.00	1410.11	1407.61	1401.61	1981.00	1407.90	.00	1408.16	2.04	4.09	484.59	1386.91
	930.510	14.00	.00	.00	1401.63	1981.00	1407.90	.00	1408.17	2.06	4.10	483.21	1380.69
	930.520	52.00	.00	.00	1401.72	816.00	1407.85	.00	1408.21	4.70	4.83	168.87	376.26
	935.000	438.00	.00	.00	1402.69	816.00	1407.87	.00	1408.64	11.74	7.05	115.81	238.14
*	43.360	836.00	.00	.00	1408.22	606.00	1411.72	1411.72	1413.01	29.96	9.12	66.45	110.71
*	947.000	375.00	.00	.00	1410.90	606.00	1414.40	1414.40	1415.69	29.97	9.12	66.42	110.69
*	954.400	740.00	.00	.00	1416.04	606.00	1419.53	1419.53	1420.83	29.98	9.12	66.46	110.68
	954.610	21.00	.00	.00	1416.08	606.00	1419.83	.00	1420.90	23.07	8.31	72.96	126.16
	954.710	10.00	.00	.00	1416.10	606.00	1420.60	.00	1420.98	5.78	4.96	122.21	251.99
	954.810	10.00	.00	.00	1416.12	606.00	1420.61	.00	1420.99	5.79	4.96	122.21	251.92
	954.850	4.00	1422.71	1419.63	1416.13	606.00	1421.47	.00	1421.71	3.09	3.97	152.47	344.58
	954.900	5.00	.00	.00	1416.14	770.00	1421.35	.00	1421.77	5.47	5.22	147.63	329.20
	955.500	60.00	.00	.00	1416.26	770.00	1421.37	.00	1421.81	5.86	5.35	144.05	318.12
	955.600	10.00	.00	.00	1416.28	770.00	1421.09	.00	1421.94	14.00	7.40	104.07	205.80
	956.000	40.00	.00	.00	1416.36	770.00	1421.13	.00	1422.00	14.57	7.51	102.54	201.75
*	960.400	440.00	.00	.00	1419.14	770.00	1423.13	1423.13	1424.57	29.13	9.65	79.82	142.67
	960.610	21.00	.00	.00	1419.18	770.00	1423.45	.00	1424.65	22.64	8.81	87.37	161.83
	960.710	10.00	.00	.00	1419.20	770.00	1424.29	.00	1424.74	5.98	5.38	143.00	314.79
	960.810	10.00	.00	.00	1419.22	770.00	1424.29	.00	1424.74	5.99	5.39	142.90	314.59
	960.850	4.00	1426.31	1423.23	1419.23	770.00	1425.30	.00	1425.58	3.12	4.27	180.32	436.17
	960.900	5.00	.00	.00	1419.24	913.00	1425.21	.00	1425.62	4.66	5.18	176.36	422.75
	961.500	60.00	.00	.00	1419.36	913.00	1425.22	.00	1425.66	4.96	5.29	172.49	409.95
	961.600	10.00	.00	.00	1419.38	913.00	1425.00	.00	1425.76	10.57	6.99	130.66	280.84

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	962.000	40.00	.00	.00	1419.46	913.00	1425.03	.00	1425.81	10.99	7.09	128.76	275.41
*	965.450	345.00	.00	.00	1421.74	913.00	1426.12	1426.12	1427.68	28.52	10.03	91.01	170.95
	965.640	19.00	.00	.00	1421.78	913.00	1426.18	1426.17	1427.73	28.30	10.01	91.18	171.63
	965.740	10.00	.00	.00	1421.80	913.00	1427.35	.00	1427.85	6.12	5.71	160.02	369.03
	965.840	10.00	.00	.00	1421.82	913.00	1427.35	.00	1427.86	6.15	5.71	159.83	368.27
	965.880	4.00	1429.40	1426.32	1421.83	913.00	1428.37	.00	1428.70	3.30	4.57	199.65	502.57
	965.930	5.00	.00	.00	1421.84	991.00	1428.33	.00	1428.72	3.34	.00	197.21	542.31
	966.530	60.00	.00	.00	1421.96	991.00	1428.34	.00	1428.75	4.27	5.13	193.07	479.84
	966.630	10.00	.00	.00	1421.98	991.00	1428.16	.00	1428.83	8.49	6.59	150.44	340.19
	967.050	42.00	.00	.00	1422.06	991.00	1428.18	.00	1428.88	8.82	6.68	148.26	333.68
	970.110	142.00	.00	.00	1425.55	124.00	1428.97	.00	1429.03	1.36	1.92	64.64	106.46
*	971.530	143.00	.00	.00	1427.41	124.00	1428.78	1428.78	1429.37	37.90	6.14	20.19	20.14
*	-30.500	.00	.00	.00	1401.61	1981.00	1428.78	1428.78	1428.79	.03	.95	2092.13	12302.02
	31.720	14.00	.00	.00	1401.66	1208.00	1428.78	.00	1428.79	.03	.88	1369.59	7060.46
	32.180	46.00	.00	.00	1401.87	1208.00	1428.78	.00	1428.79	.03	.88	1375.10	7472.14
	34.270	209.00	.00	.00	1402.81	1208.00	1428.78	.00	1428.79	.03	.91	1321.39	7081.49
	-43.360	.00	.00	.00	1408.22	131.00	1411.72	.00	1411.78	1.40	1.97	66.45	110.71
	44.000	80.00	.00	.00	1408.52	131.00	1411.65	.00	1411.83	5.63	3.41	38.47	55.19
	46.300	266.00	.00	.00	1409.58	131.00	1411.64	.00	1412.25	29.78	6.26	20.92	24.01
	46.600	30.00	.00	.00	1409.70	131.00	1411.70	.00	1412.37	33.97	6.57	19.95	22.48

Q=50 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	40.590	1981.00	1372.28	.00	.00	-12.72	59.06	.00
	39.790	1981.00	1373.76	.00	1.48	.00	59.51	80.00
*	39.670	1981.00	1378.17	.00	4.41	.00	51.41	12.00
	35.070	1981.00	1381.29	.00	3.12	.00	76.74	460.00
	34.260	1981.00	1381.32	.00	.03	.00	60.67	91.00
*	34.150	1981.00	1382.72	.00	1.40	.00	52.73	11.00
	32.120	1981.00	1385.19	.00	2.47	.00	65.20	203.00
*	31.680	1981.00	1389.00	.00	3.81	.00	279.43	44.00
	30.840	1981.00	1389.47	.00	.47	.00	280.99	84.00
	30.350	1981.00	1389.47	.00	.00	.00	485.00	49.00
	29.670	1981.00	1389.46	.00	-.01	.00	487.00	68.00
*	20.460	1981.00	1391.51	.00	2.05	.00	44.28	921.00
*	20.090	1981.00	1396.16	.00	4.65	.00	484.00	37.00
	18.640	1981.00	1396.61	.00	.45	.00	67.87	105.00
	17.650	1981.00	1397.40	.00	.79	.00	77.95	99.00
	17.550	1981.00	1397.28	.00	-.11	.00	77.64	10.00
	9.230	1981.00	1402.77	.00	5.48	.00	465.00	832.00
	3.100	1981.00	1405.80	.00	3.04	.00	68.36	613.00
	1.000	1981.00	1406.51	.00	.71	.00	51.05	210.00
	930.490	1981.00	1407.65	.00	1.14	.00	77.00	83.00
	30.500	1981.00	1407.90	.00	.25	.00	77.00	221.00
	930.510	1981.00	1407.90	.00	.00	.00	77.00	14.00
	930.520	816.00	1407.85	.00	-.06	.00	43.13	52.00
	935.000	816.00	1407.87	.00	.02	.00	32.70	438.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	43.360	606.00	1411.72	.00	3.85	.00	26.01	836.00
*	947.000	606.00	1414.40	.00	2.68	.00	25.99	375.00
*	954.400	606.00	1419.53	.00	5.14	.00	26.04	740.00
	954.610	606.00	1419.83	.00	.30	.00	26.95	21.00
	954.710	606.00	1420.60	.00	.77	.00	34.36	10.00
	954.810	606.00	1420.61	.00	.01	.00	34.38	10.00
	954.850	606.00	1421.47	.00	.86	.00	37.11	4.00
	954.900	770.00	1421.35	.00	-.12	.00	36.71	5.00
	955.500	770.00	1421.37	.00	.02	.00	36.35	60.00
	955.600	770.00	1421.09	.00	-.28	.00	31.22	10.00
	956.000	770.00	1421.13	.00	.04	.00	31.00	40.00
*	960.400	770.00	1423.13	.00	2.00	.00	28.02	440.00
	960.610	770.00	1423.45	.00	.32	.00	29.01	21.00
	960.710	770.00	1424.29	.00	.84	.00	36.28	10.00
	960.810	770.00	1424.29	.00	.01	.00	36.24	10.00
	960.850	770.00	1425.30	.00	1.00	.00	39.42	4.00
	960.900	913.00	1425.21	.00	-.09	.00	39.11	5.00
	961.500	913.00	1425.22	.00	.02	.00	38.77	60.00
	961.600	913.00	1425.00	.00	-.22	.00	34.46	10.00
	962.000	913.00	1425.03	.00	.03	.00	34.20	40.00
*	965.450	913.00	1426.12	.00	1.09	.00	29.58	345.00
	965.640	913.00	1426.18	.00	.06	.00	29.53	19.00
	965.740	913.00	1427.35	.00	1.17	.00	37.72	10.00
	965.840	913.00	1427.35	.00	.01	.00	37.73	10.00
	965.880	913.00	1428.37	.00	1.02	.00	41.00	4.00
	965.930	991.00	1428.33	.00	-.05	.00	40.79	5.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	966.530	991.00	1428.34	.00	.01	.00	40.45	60.00
	966.630	991.00	1428.16	.00	-.18	.00	36.68	10.00
	967.050	991.00	1428.18	.00	.02	.00	36.40	42.00
	970.110	124.00	1428.97	.00	.79	.00	25.77	142.00
*	971.530	124.00	1428.78	.00	-.19	.00	17.48	143.00
*	-30.500	1981.00	1428.78	.00	.00	.00	77.00	.00
	31.720	1208.00	1428.78	.00	.00	.00	50.50	14.00
	32.180	1208.00	1428.78	.00	.00	.00	58.00	46.00
	34.270	1208.00	1428.78	.00	.00	.00	58.00	209.00
	-43.360	131.00	1411.72	.00	-17.07	.00	26.01	.00
	44.000	131.00	1411.65	.00	-.06	.00	18.56	80.00
	46.300	131.00	1411.64	.00	-.01	.00	14.25	266.00
	46.600	131.00	1411.70	.00	.05	.00	13.98	30.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=    40.590  PROFILE= 1  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=    39.670  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    39.670  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    39.670  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    34.150  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    34.150  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    34.150  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    31.680  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    31.680  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    31.680  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    20.460  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    20.460  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    20.460  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    20.090  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    20.090  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    20.090  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    43.360  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    43.360  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    43.360  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=   947.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   947.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   947.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=   954.400  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   954.400  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   954.400  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=   960.400  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   960.400  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   960.400  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=   965.450  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   965.450  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   965.450  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=   971.530  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   971.530  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   971.530  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=   -30.500  PROFILE= 1  CRITICAL DEPTH ASSUMED
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User: DEN104 -at

<OPS183>PROJ>PJ6114>DATA>HEC2>CHNL2100.OUT

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W   W W     W W W   W   W W W WWWWW
W   W W     W  WW   W   W   W    W
WWWW  WWWWW W   W  WWW   WWW     W



 WWW  W   W W   W W      WWW    W    WWW   WWW        WWW  W   W WWWWW
W   W W   W WW  W W     W   W  WW   W   W W   W      W   W W   W   W
W     W   W W W W W         W   W   W   W W   W      W   W W   W   W
W     WWWWW W W W W        W    W   W W W W W W      W   W W   W   W
W     W   W W W W W       W     W   W   W W   W      W   W W   W   W
W   W W   W W  WW W      W      W   W   W W   W   WW  W   W W   W   W
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[Spooler rev 20.0.6HB (c) Prime Computer, Inc., 1986]

Label: PRT119 -form DENPRT

Pathname: <OPS183>PROJ>PJ6114>DATA>HEC2>CHNL2100.OUT
File last modified: 88-08-26.14:52:48.Fri

Spooled: 88-09-13.12:14:20.Tue
Started: 88-09-13.12:20:40.Tue on: AMLC by: DENPRT

THIS RUN EXECUTED 08/26/88 15:00:13

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  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************

C
T1       BACKWATER CURVE FROM GRADE CONTROL STRUCTURE BELOW BASELINE
T2       UP SOSSAMAN CHANNEL TO THE R.O.W. AND ON TO POND 11.
T3       Q=100 YR

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        2.        0.        0. -1.000000       .00        .0        0.  1385.000      .000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     -1.000      .000    -1.000     1.000     2.000      .000    -1.000      .000      .000      .000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000      .000      .000      .000      .000      .000      .000      .000      .000      .000

J5  LPRNT    NUMSEC                    ********REQUESTED SECTION NUMBERS********

    -10.000   -10.000      .000      .000      .000      .000      .000      .000      .000      .000

QT      1.000   2011.000      .000      .000      .000      .000      .000      .000      .000      .000
NC       .040      .040      .035      .300      .500      .000      .000      .000      .000      .000
          END OF GRADE CONTROL WEIR 3, Q=CO21, D.L.E. STA 1000+00
X1     40.590      8.000   220.000   315.000      .000      .000      .000      .000      .000    10.000
GR   1387.200    199.000  1380.200   200.000  1379.500   220.000  1368.400   248.000  1368.400   288.000
GR   1379.700    315.000  1383.100   324.000  1383.100   524.000      .000      .000      .000      .000

          SOSSAMAN CHANNEL-AT GRADE CONTROL WEIR 3
X1     39.790      8.000   230.000   322.000    80.000    80.100    80.000      .000      .000    10.000
GR   1389.700    199.000  1382.700   200.000  1381.600   230.000  1368.800   255.000  1368.800   294.000
GR   1381.600    322.000  1382.700   327.000  1382.700   522.000      .000      .000      .000      .000

          SOSSAMAN CHANNEL-CHANNEL SECTION ABOVE GRADE CONTROL WEIR 3
X1     39.670     15.000   230.000   319.000    12.000    12.000    12.000      .000      .000    10.000
GR   1388.100    199.000  1381.100   200.000  1382.700   230.000  1381.800   239.000  1381.800   242.000
GR   1374.300    256.000  1374.300   272.000  1372.400   272.100  1372.400   278.100  1374.300   278.200
GR   1374.300    294.000  1381.800   306.000  1381.800   309.000  1382.700   319.000  1382.700   519.000

          SOSSAMAN CHANNEL-DOWNSTREAM END OF GRADE CONTROL WEIR 2
X1     35.070      9.000   223.000   310.000   460.000   459.000   460.000      .000      .000    10.000
GR   1392.100    199.000  1385.100   200.000  1384.700   216.000  1383.400   223.000  1373.300   248.000
GR   1373.400    285.000  1383.300   310.000  1386.800   319.000  1386.800   519.000      .000      .000
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SOSSAMAN CHANNEL-AT GRADE CONTROL WEIR 2

X1	34.260	8.000	222.000	298.000	93.000	92.000	91.000	.000	.000	10.000
GR	1393.300	199.000	1386.300	200.000	1386.300	222.000	1374.300	247.000	1374.300	287.000
GR	1387.100	298.000	1387.100	310.000	1387.100	510.000	.000	.000	.000	.000

SOSSAMAN CHANNEL-CHANNEL SECTION ABOVE GRADE CONTROL WEIR 2

X1	34.150	15.000	222.000	310.000	11.000	11.000	11.000	.000	.000	10.000
GR	1393.500	199.000	1386.500	200.000	1386.500	222.000	1383.300	231.000	1383.300	234.000
GR	1378.700	248.000	1378.700	263.000	1377.100	263.100	1377.100	269.100	1378.700	269.200
GR	1378.700	285.000	1383.300	289.000	1383.300	291.000	1387.200	310.000	1387.200	510.000

SOSSAMAN CHANNEL-DOWNSTREAM END OF TRANSITION TO CBC UNDER BASELINE RO

X1	32.120	6.000	200.000	268.000	220.000	191.000	203.000	.000	.000	10.000
GR	1386.200	.000	1386.200	200.000	1378.600	213.000	1378.200	244.000	1391.000	286.000
GR	1391.000	486.000	.000	.000	.000	.000	.000	.000	.000	.000

SOSSAMAN CHANNEL-DOWNSTREAM END OF CBC UNDER BASELINE ROAD

X1	31.680	7.000	200.000	286.000	47.000	44.000	44.000	.000	.000	10.000
X3	10.000	.000	.000	.000	.000	.000	.000	1388.500	1388.500	.000
GR	1391.000	.000	1386.200	1.000	1386.200	200.000	1378.600	213.000	1378.200	244.000
GR	1391.000	286.000	1391.000	486.000	.000	.000	.000	.000	.000	.000

SB	1.250	1.640	2.600	.000	42.490	2.490	320.000	.000	1379.900	1379.700

SOSSAMAN CHANNEL-UPSTREAM END OF CBC UNDER BASELINE ROAD

X1	30.840	.000	.000	.000	84.000	84.000	84.000	.000	.000	.000
X2	.000	.000	1.000	1386.600	1388.500	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	1388.500	1388.500	.000
BT	4.000	.000	1389.200	.000	100.000	1388.700	.000	143.000	1388.500	.000
BT	243.000	1388.000	.000	.000	.000	.000	.000	.000	.000	.000

SOSSAMAN CHANNEL-UPSTREAM END OF TRANSITION TO CBC UNDER BASELINE ROAD

X1	30.350	9.000	210.000	285.000	46.000	56.000	49.000	.000	.000	10.000
GR	1390.500	.000	1387.200	1.000	1387.200	200.000	1386.100	210.000	1379.100	231.000
GR	1379.100	260.000	1387.700	285.000	1387.700	485.000	1390.500	486.000	.000	.000

SOSSAMAN CHANNEL-CHANNEL SECTION 240 FEET UPSTREAM FROM CBC

X1	29.670	9.000	200.000	271.000	41.000	101.000	68.000	.000	.000	10.000
GR	1390.000	.000	1387.800	1.000	1387.800	200.000	1379.400	219.000	1379.500	245.000
GR	1387.300	271.000	1388.700	287.000	1388.700	487.000	1390.000	487.000	.000	.000

SOSSAMAN CHANNEL-CHANNEL SECTION BELOW GRADE CONTROL WEIR 1

X1	20.460	9.000	214.000	270.000	921.000	923.000	921.000	.000	.000	10.000
GR	1395.700	.000	1395.700	200.000	1393.900	214.000	1387.000	230.000	1385.600	246.000
GR	1386.600	254.000	1394.600	270.000	1395.500	281.000	1395.500	481.000	.000	.000

SOSSAMAN CHANNEL-AT GRADE CONTROL WEIR 1

X1	20.090	25.000	200.000	284.000	37.000	36.000	37.000	.000	.000	10.000
GR	1397.000	.000	1395.500	200.000	1394.700	217.000	1394.100	217.100	1394.100	222.000
GR	1393.500	222.100	1393.500	227.000	1392.800	227.100	1392.800	232.000	1390.300	232.100
GR	1390.300	233.000	1388.200	233.100	1388.200	237.000	1387.600	237.100	1387.600	247.000
GR	1388.600	247.100	1388.600	250.000	1392.800	250.100	1392.800	254.000	1393.400	254.000
GR	1393.400	258.000	1394.700	258.100	1394.700	261.000	1396.000	284.000	1397.000	484.000

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          SOSSAMAN CHANNEL-CHANNEL SECTION AT DOWNSTREAM SIDE OF BEND
X1     18.640      8.000    225.000    285.000    160.000    101.000    105.000       .000       .000     10.000
GR   1398.000       .000   1397.400    200.000   1396.200    225.000   1390.900    250.000   1389.700    262.000
GR   1391.300    272.000   1396.900    285.000   1398.000    485.000       .000       .000       .000       .000

          SOSSAMAN CHANNEL-SECTION WITH INCISED CHANNEL AT BEND
X1     17.650      9.000    200.000    282.000    134.000     71.000     99.000       .000       .000     10.000
GR   1397.700       .000   1397.700    200.000   1392.500    235.000   1392.100    240.000   1390.300    241.000
GR   1390.300    251.000   1392.700    256.000   1397.800    282.000   1397.800    482.000       .000       .000

          SOSSAMAN CHANNEL-CHANNEL SECTION AT UPSTREAM END OF BEND
X1     17.550      8.000    200.000    274.000      8.000     12.000     10.000       .000       .000     10.000
GR   1397.800       .000   1397.800    200.000   1392.200    235.000   1392.600    246.000   1392.400    252.000
GR   1396.700    274.000   1397.900    288.000   1397.900    488.000       .000       .000       .000       .000

          SOSSAMAN CHANNEL-CHANNEL SECTION APPROX. 800 FT. BELOW R.O.W.
X1      9.230     10.000    200.000    265.000    832.000    832.000    832.000       .000       .000     10.000
GR   1403.000       .000   1402.300      1.000   1402.300    200.000   1397.800    222.000   1397.000    233.000
GR   1396.800    238.000   1396.800    244.000   1402.000    265.000   1402.000    465.000   1402.700    465.000

          SOSSAMAN CHANNEL-CHANNEL SECTION 210 FT. BELOW S. R.O.W. LINE
X1      3.100      8.000    200.000    274.000    613.000    613.000    613.000       .000       .000     10.000
GR   1406.000       .000   1406.000    200.000   1400.600    233.000   1400.100    240.000   1400.800    247.000
GR   1406.800    274.000   1407.800    282.000   1407.800    482.000       .000       .000       .000       .000

NC       .016       .016       .016       .100       .300       .000       .000       .000       .000       .000
          DOWNSTREAM END OF TRANSITION TO BOX UNDER FREEWAY (D.E. 4958)
X1      1.000      4.000     70.500    129.500    210.000    210.000    210.000       .000       .000      1.000
GR   1408.500     70.500   1401.000     85.500   1401.000    114.500   1408.500    129.500       .000       .000

          DOWNSTREAM END OF CBC FOR SOSSAMAN CHANNEL UNDER FREEWAY
X1    930.490      4.000    461.500    538.500     83.000     83.000     83.000       .000       .000      1.000
GR   1408.500    461.500   1401.170    461.500   1401.170    538.500   1408.500    538.500       .000       .000

SB      1.250      1.560      2.600       .000     77.000      5.000    432.000       .000   1401.610   1401.170
          UPSTREAM END OF CBC FOR SOSSAMAN CHANNEL UNDER FREEWAY
X1     30.500      4.000    461.500    538.500    221.000    221.000    221.000       .000       .000      1.000
X2       .000       .000      1.000   1407.610   1410.110       .000       .000       .000       .000       .000
BT      4.000    461.500   1410.110   1407.610    461.500   1410.110   1407.610    538.500   1410.110   1407.610
BT    538.500   1410.110   1407.610       .000       .000       .000       .000       .000       .000       .000
GR   1408.500    461.500   1401.610    461.500   1401.610    538.500   1408.500    538.500       .000       .000

          DOWNSTREAM END OF TRANSITION FROM CHANNEL NO. 2
X1    930.510      4.000    461.500    538.500     14.000     14.000     14.000       .000       .000      1.000
GR   1408.500    461.500   1401.630    461.500   1401.630    538.500   1408.500    538.500       .000       .000

          UPSTREAM END OF TRANSITION FROM CHANNEL NO. 2 (Q=COFY2)
X1    930.520      4.000    475.000    525.000     52.000     52.000     52.000       .000       .000      1.000
X2    866.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1409.200    475.000   1401.720    494.000   1401.720    506.000   1409.200    525.000       .000       .000
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          GRADE BREAK TO INSURE FLOWS TO CBC ARE SUB-CRITICAL
X1    935.000      4.000    475.000    525.000    438.000    438.000    438.000       .000       .000      1.000
GR   1412.200    475.000   1402.690    494.000   1402.690    506.000   1412.200    525.000       .000       .000

          STORM SEWER NO. 3 CHANNEL OUTFALL (Q=DET8)
X1     43.360      4.000    475.000    525.000    836.000    836.000    836.000       .000       .000      1.000
X2    618.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1417.700    475.000   1408.220    494.000   1408.220    506.000   1417.700    525.000       .000       .000

          GRADE BREAK
X1    947.000      4.000    475.000    525.000    375.000    375.000    375.000       .000       .000      1.000
GR   1420.400    475.000   1410.900    494.000   1410.900    506.000   1420.400    525.000       .000       .000

          GRADE BREAK BELOW DIVERSION STRUCTURE FOR POND 8
X1    954.400      4.000    475.000    525.000    740.000    740.000    740.000       .000       .000      1.000
GR   1425.500    475.000   1416.040    494.000   1416.040    506.000   1425.500    525.000       .000       .000

          DOWNSTREAM END OF TRANSITION SECTION BELOW POND 8
X1    954.610      4.000    479.200    521.600     21.000     21.000     21.000       .000       .000      1.000
GR   1423.500    479.200   1416.080    494.000   1416.080    506.000   1423.900    521.600       .000       .000

          UPSTREAM END OF TRANSITION SECTION BELOW POND 8
X1    954.710      4.000    478.000    522.600     10.000     10.000     10.000       .000       .000      1.000
GR   1423.600    478.000   1416.100    490.000   1416.100    510.000   1424.000    522.600       .000       .000

          FLOW CONSTRICTOR FOR POND 8
X1    954.810      4.000    477.900    522.800     10.000     10.000     10.000       .000       .000      1.000
GR   1423.700    477.900   1416.120    490.000   1416.120    510.000   1424.100    522.800       .000       .000

SB      1.000      1.560      2.560       .000     20.000       .000     89.600      1.600       .000       .000
          UPSTREAM SIDE OF FLOW CONSTRICTOR FOR POND 8
X1    954.850      4.000    477.900    522.800      4.000      4.000      4.000       .000       .000      1.000
X2       .000       .000      1.000   1419.630   1422.710       .000       .000       .000       .000       .000
BT      4.000    477.900   1422.710   1419.630    490.000   1422.710   1419.630    510.000   1422.710   1419.630
BT    522.800   1422.710   1419.630       .000       .000       .000       .000       .000       .000       .000
GR   1423.700    477.900   1416.130    490.000   1416.130    510.000   1424.100    522.800       .000       .000

          INSERT FLOW AT DOWNSTREAM END OF WEIR (Q=DET9)
X1    954.900      4.000    477.900    522.800      5.000      5.000      5.000       .000       .000      1.000
X2    805.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1423.700    477.900   1416.140    490.000   1416.140    510.000   1424.100    522.800       .000       .000

          DOWNSTREAM END OF TRANSITION ABOVE DIVERSION FOR POND 8
X1    955.500      4.000    477.600    523.000     60.000     60.000     60.000       .000       .000      1.000
GR   1424.000    477.600   1416.260    490.000   1416.260    510.000   1424.400    523.000       .000       .000

          UPSTREAM END OF TRANSITION ABOVE DIVERSION FOR POND 8
X1    955.600      4.000    478.200    522.600     10.000     10.000     10.000       .000       .000      1.000
GR   1424.200    478.200   1416.280    494.000   1416.280    506.000   1424.600    522.600       .000       .000
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          SLOPE BREAK ABOVE TRANSITION SECTION FOR POND 8
X1    956.000      4.000    475.000    525.000     40.000     40.000     40.000       .000       .000      1.000
GR   1425.900    475.000   1416.360    494.000   1416.360    506.000   1425.900    525.000       .000       .000

          SLOPE BREAK BELOW DIVERSION STRUCTURE FOR POND 9
X1    960.400      4.000    475.000    525.000    440.000    440.000    440.000       .000       .000      1.000
GR   1428.600    475.000   1419.140    494.000   1419.140    506.000   1428.600    525.000       .000       .000

          DOWNSTREAM END OF TRANSITION SECTION BELOW POND 9
X1    960.610      4.000    478.600    529.800     21.000     21.000     21.000       .000       .000      1.000
GR   1426.900    478.600   1419.180    494.000   1419.180    506.000   1431.100    529.800       .000       .000

          UPSTREAM END OF TRANSITION SECTION BELOW POND 9
X1    960.710      4.000    477.500    529.200     10.000     10.000     10.000       .000       .000      1.000
GR   1427.000    477.500   1419.200    490.000   1419.200    510.000   1431.200    529.200       .000       .000

          FLOW CONSTRICTOR FOR POND 9
X1    960.810      4.000    477.400    529.300     10.000     10.000     10.000       .000       .000      1.000
GR   1427.100    477.400   1419.220    490.000   1419.220    510.000   1431.300    529.300       .000       .000

SB       .000      1.560      2.560       .000     20.000       .000    105.600      1.600       .000       .000
          UPSTREAM SIDE OF FLOW CONSTRICTOR FOR POND 9
X1    960.850      4.000    477.400    529.300      4.000      4.000      4.000       .000       .000      1.000
X2       .000       .000      1.000   1423.230   1426.310       .000       .000       .000       .000       .000
BT      4.000    477.400   1426.310   1423.230    490.000   1426.310   1423.230    510.000   1426.310   1423.230
BT    529.300   1426.310   1423.230       .000       .000       .000       .000       .000       .000       .000
GR   1427.100    477.400   1419.230    490.000   1419.230    510.000   1431.300    529.300       .000       .000

          INSERT FLOW AT DOWNSTREAM END OF WEIR (Q=DET10)
X1    960.900      4.000    477.400    529.300      5.000      5.000      5.000       .000       .000      1.000
X2   1002.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1427.100    477.400   1419.240    490.000   1419.240    510.000   1431.300    529.300       .000       .000

          DOWNSTREAM END OF TRANSITION SECTION ABOVE POND 9
X1    961.500      4.000    477.000    529.600     60.000     60.000     60.000       .000       .000      1.000
GR   1427.500    477.000   1419.360    490.000   1419.360    510.000   1431.600    529.600       .000       .000

          UPSTREAM END OF TRANSITION SECTION ABOVE POND 9
X1    961.600      4.000    477.600    530.600     10.000     10.000     10.000       .000       .000      1.000
GR   1427.600    477.600   1419.380    494.000   1419.380    506.000   1431.700    530.600       .000       .000

          SLOPE BREAK ABOVE TRANSITION SECTION FOR POND 9
X1    962.000      4.000    475.000    525.000     40.000     40.000     40.000       .000       .000      1.000
GR   1429.000    475.000   1419.460    494.000   1419.460    506.000   1429.000    525.000       .000       .000

          SLOPE BREAK BELOW DIVERSION STRUCTURE FOR POND 10
X1    965.450      4.000    475.000    525.000    345.000    345.000    345.000       .000       .000      1.000
GR   1431.200    475.000   1421.740    494.000   1421.740    506.000   1431.200    525.000       .000       .000
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          DOWNSTREAM END OF TRANSITION SECTION BELOW POND 10
X1    965.640      4.000    477.400    528.000     19.000     19.000     19.000       .000       .000      1.000
GR   1430.100    477.400   1421.780    494.000   1421.780    506.000   1432.800    528.000       .000       .000

          UPSTREAM END OF TRANSITION SECTION BELOW POND 10
X1    965.740      4.000    476.600    527.600     10.000     10.000     10.000       .000       .000      1.000
GR   1430.200    476.600   1421.800    490.000   1421.800    510.000   1432.800    527.600       .000       .000

          FLOW CONSTRICTOR FOR POND 10
X1    965.840      4.000    476.400    527.700     10.000     10.000     10.000       .000       .000      1.000
GR   1430.300    476.400   1421.820    490.000   1421.820    510.000   1432.900    527.700       .000       .000

SB       .000      1.560      2.560       .000     20.000       .000    122.400      1.600       .000       .000
          UPSTREAM SIDE OF FLOW CONSTRICTOR FOR POND 10
X1    965.880      4.000    476.400    527.900      4.000      4.000      4.000       .000       .000      1.000
X2       .000       .000      1.000   1426.320   1429.400       .000       .000       .000       .000       .000
BT      4.000    476.400   1429.400   1426.320    490.000   1429.400   1426.320    510.000   1429.400   1426.320
BT    527.900   1429.400   1426.320       .000       .000       .000       .000       .000       .000       .000
GR   1430.300    476.400   1421.830    490.000   1421.830    510.000   1433.000    527.900       .000       .000

          INSERT FLOW AT DOWNSTREAM END OF WEIR (Q=CO19)
X1    965.930      4.000    475.000    525.000      5.000      5.000      5.000       .000       .000      1.000
X2   1198.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1430.400    476.300   1421.840    490.000   1421.840    510.000   1433.000    527.900       .000       .000

          DOWNSTREAM END OF TRANSITION SECTION ABOVE POND 10
X1    966.530      4.000    476.300    528.900     60.000     60.000     60.000       .000       .000      1.000
GR   1430.500    476.300   1421.960    490.000   1421.960    510.000   1433.800    528.900       .000       .000

          UPSTREAM END OF TRANSITION SECTION ABOVE POND 10
X1    966.630      4.000    477.000    529.800     10.000     10.000     10.000       .000       .000      1.000
GR   1430.500    477.000   1421.980    494.000   1421.980    506.000   1433.900    529.800       .000       .000

          SLOPE BREAK ABOVE TRANSITION SECTION FOR POND 10
X1    967.050      4.000    475.000    525.000     42.000     42.000     42.000       .000       .000      1.000
GR   1431.600    475.000   1422.060    494.000   1422.060    506.000   1431.600    525.000       .000       .000

          HAWES ROAD-INSERT FLOW IN CHAN. 2 ABOVE HAWES (Q=HDET11)
X1    970.110      4.000    475.000    525.000    142.000    142.000    142.000       .000       .000      1.000
X2    138.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1435.000    475.000   1425.550    494.000   1425.550    506.000   1435.000    525.000       .000       .000

          OUTLET FROM POND 11 (ON LINE POND)
X1    971.530      4.000    475.000    525.000    143.000    143.000    143.000       .000       .000      1.000
GR   1436.900    475.000   1427.410    494.000   1427.410    506.000   1436.900    525.000       .000       .000

          UPSTREAM END OF CBC FOR SOSSAMAN CHANNEL UNDER FREEWAY (Q=CO21-COFY2)
X1    -30.500      4.000    461.500    538.500       .000       .000       .000       .000       .000       .000
X2   2011.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1408.500    461.500   1401.610    461.500   1401.610    538.500   1408.500    538.500       .000       .000
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          DOWNSTREAM END OF TRANSITION FROM SOSSAMAN CHANNEL TO CBC
X1     31.720      4.000    461.500    512.000     14.000     14.000     14.000       .000       .000       .000
X2   1154.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1411.200    461.500   1401.660    461.500   1401.660    512.000   1411.200    512.000       .000       .000

          UPSTREAM END OF TRANSITION FROM SOSSAMAN CHANNEL TO CBC
X1     32.180      4.000    461.500    519.500     46.000     46.000     46.000       .000       .000       .000
GR   1411.400    461.500   1401.870    480.500   1401.870    499.500   1411.400    519.500       .000       .000

          SOSSAMAN CHANNEL AT THE NORTH R.O.W. LINE
X1     34.270      4.000    461.500    519.500    209.000    209.000    209.000       .000       .000       .000
GR   1412.300    461.500   1402.810    480.500   1402.810    499.500   1412.300    519.500       .000       .000

          STORM SEWER NUMBER 3 OUTFALL (Q=SUBFY2)
X1    -43.360      4.000    475.000    525.000       .000       .000       .000       .000       .000       .000
X2    612.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1417.700    475.000   1408.220    494.000   1408.220    506.000   1417.700    525.000       .000       .000

          STORM SEWER NUMBER 3 OUTFALL CHANNEL
X1     44.000      4.000     78.000    122.000     80.000     80.000     80.000       .000       .000       .000
X2    148.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1418.000     78.000   1408.520     97.000   1408.520    103.000   1418.000    122.000       .000       .000

          10 FEET BELOW OUTFALL FROM STORM SEWER NO 3
X1     46.300      4.000     78.000    122.000    266.000    266.000    266.000       .000       .000       .000
GR   1419.100     78.000   1409.580     97.000   1409.580    103.000   1419.100    122.000       .000       .000

          UPSTREAM END OF STORM SEWER NUMBER 3 OUTFALL CHANNEL
X1     46.600      4.000     78.000    122.000     30.000     30.000     30.000       .000       .000       .000
GR   1419.200     78.000   1409.700     97.000   1409.700    103.000   1419.200    122.000       .000       .000
EJ       .000       .000       .000       .000       .000       .000       .000       .000       .000       .000
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CROSS SECTION     40.59
STREAM   Q=100 YR
DISCHARGE=     2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1368.     1369.     1370.     1371.     1372.     1373.     1374.     1375.     1376.     1377.     1378.


    STA-FEET

8560 XSEC POINT-X      EL,ST-   1379.50    220.00
 4 220. .          .         .         .         .         .                   .         .         .         .     BANKX
   222. .          .         .         .         .         .                   .         .         .         .       X .
   224. .          .         .         .         .         .                   .         .         .       X.          .
   226. .          .         .         .         .         .                   .         .       .X          .          .
   228. .          .         .         .         .         .                   .         .   X     .          .          .
   230. .          .         .         .         .         .                   .     X   .         .          .          .
   232. .          .         .         .         .         .                 X .         .         .          .          .
   234. .          .         .         .         .         .                XE         .         .         .          .
   236. .          .         .         .         .         . X                E         .         .         .          .
   238. .          .         .         .         .   X     .                 E         .         .         .          .
   240. .          .         .         .     X   . W       .                 E         .         .         .          .
   242. .          .         .       X .         . W       .                 E         .         .         .          .
   244. .          .       X         .         . W       .                 E         .         .         .          .
   246. .        . X         .         .         . W       .                 E         .         .         .          .
 5 248. .   X      .         .         .         . W       .                 E         .         .         .          .
   250. .   X      .         .         .         . W       .                 E         .         .         .          .
   252. .   X      .         .         .         . W       .                 E         .         .         .          .
   254. .   X      .         .         .         . W       .                 E         .         .         .          .
   256. .   X      .         .         .         . W       .                 E         .         .         .          .
   258. .   X      .         .         .         . W       .                 E         .         .         .          .
   260. .   X      .         .         .         . W       .                 E         .         .         .          .
   262. .   X      .         .         .         . W       .                 E         .         .         .          .
   264. .   X      .         .         .         . W       .                 E         .         .         .          .
   266. .   X      .         .         .         . W       .                 E         .         .         .          .
   268. .   X      .         .         .         . W       .                 E         .         .         .          .
   270. .   X      .         .         .         . W       .                 E         .         .         .          .
   272. .   X      .         .         .         . W       .                 E         .         .         .          .
   274. .   X      .         .         .         . W       .                 E         .         .         .          .
   276. .   X      .         .         .         . W       .                 E         .         .         .          .
   278. .   X      .         .         .         . W       .                 E         .         .         .          .
   280. .   X      .         .         .         . W       .                 E         .         .         .          .
   282. .   X      .         .         .         . W       .                 E         .         .         .          .
   284. .   X      .         .         .         . W       .                 E         .         .         .          .
   286. .   X      .         .         .         . W       .                 E         .         .         .          .
 6 288. .   X      .         .         .         . W       .                 E         .         .         .          .
   290. .        . X         .         .         . W       .                 E         .         .         .          .
   292. .          .       .X         .         . W       .                 E         .         .         .          .
   294. .          .         .       X.         . W       .                 E         .         .         .          .
   296. .          .         .         .     X   . W       .                 E         .         .         .          .
   298. .          .         .         .         .   X     .                 E         .         .         .          .
   300. .          .         .         .         .         .   X             E         .         .         .          .
   302. .          .         .         .         .         .                   X       .         .         .          .
   304. .          .         .         .         .         .                   .     .X          .         .          .
   306. .          .         .         .         .         .                   .         .   X.          .          .
   308. .          .         .         .         .         .                   .         .         .   X     .          .
   310. .          .         .         .         .         .                   .         .         .         .   X      .
   312. .          .         .         .         .         .                   .         .         .         .         X .
8560 XSEC POINT-X      EL,ST-   1379.70    315.00
 7 314. .          .         .         .         .         .                   .         .         .         .     BANKX

NRD=  1 ISTAQ(1)  Q,ELLC=  9999999.00,ELTRD=  9999999.00
EL(1)=  199.00    1380.20    200.00    1379.50    220.00    1368.40    248.00    1368.40    288.00
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1379.70	315.00	1383.10	324.00	1383.10	324.00

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CROSS SECTION      39.79
STREAM   Q=100 YR
DISCHARGE=      2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1368.     1369.     1370.     1371.     1372.     1373.     1374.     1375.     1376.     1377.     1378.

    STA-FEET

8560 XSEC POINT-X      EL,ST-   1381.60    230.00
 4 230. .          .         .         .         .         .         .         .         .         .         .    BANKX
   232. .          .         .         .         .         .         .         .         .         .         .        X
   234. .          .         .         .         .         .         .         .         .         .         .        X
   236. .          .         .         .         .         .         .         .         .         .         .  X     .
   238. .          .         .         .         .         .         .         .         .         .     X   .        .
   240. .          .         .         .         .         .         .         .         .     X   .         .        .
   242. .          .         .         .         .         .         .         .     X   .         .         .        .
   244. .          .         .         .         .         .         .     X   E .         .         .         .        .
   246. .          .         .         .         .         .   X   W .         E .         .         .         .        .
   248. .          .         .         .         .   X   C .         W .         E .         .         .         .        .
   250. .          .         .         .   X     .         C .         W .         E .         .         .         .        .
   252. .          .         .   X     .         .         C .         W .         E .         .         .         .        .
 5 254. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   256. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   258. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   260. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   262. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   264. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   266. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   268. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   270. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   272. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   274. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   276. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   278. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   280. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   282. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   284. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   286. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   288. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   290. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   292. .        X .         .         .         .         C .         W .         E .         .         .         .        .
 6 294. .        X .         .         .         .         C .         W .         E .         .         .         .        .
   296. .          .     X   .         .         .         C .         W .         E .         .         .         .        .
   298. .          .         .     X   .         .         C .         W .         E .         .         .         .        .
   300. .          .         .         .   X     .         C .         W .         E .         .         .         .        .
   302. .          .         .         .         .   X   C .         W .         E .         .         .         .        .
   304. .          .         .         .         .         .   X   W .         E .         .         .         .        .
   306. .          .         .         .         .         .         .   X     E .         .         .         .        .
   308. .          .         .         .         .         .         .         .     X   .         .         .         .
   310. .          .         .         .         .         .         .         .         .   X     .         .         .
   312. .          .         .         .         .         .         .         .         .         .   X     .         .
   314. .          .         .         .         .         .         .         .         .         .         .   X.        .
   316. .          .         .         .         .         .         .         .         .         .         .         X.
   318. .          .         .         .         .         .         .         .         .         .         .         X
   320. .          .         .         .         .         .         .         .         .         .         .         X
8560 XSEC POINT-X      EL,ST-   1381.60    322.00
 7 322. .          .         .         .         .         .         .         .         .         .         .    BANKX

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00
  EL(1389S88(I)  322.00    1382.70     200.00    1382.80     220.00    1368.[illegible]     255.00    1368.80     294.00
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CROSS SECTION 39.67
STREAM Q=100 YR
DISCHARGE= 2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

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ELEV 1372.     1373.     1374.     1375.     1376.     1377.     1378.     1379.     1380.     1381.     1382.

    STA-FEET

 6 242. .         .         .         .         .         .         .         .                   .         X .         .
   244. .         .         .         .         .         .         .         .                 X .           .         .
   246. .         .         .         .         .         .         .         .       X E         .           .         .
   248. .         .         .         .         .         .         .       X .         E         .           .         .
   250. .         .         .         .         .         .       X   . W     .         E         .           .         .
   252. .         .         .         .         .       X .         . W     .         E         .           .         .
   254. .         .         .         .       X .         .         . W     .         E         .           .         .
 7 256. .         .         . X       .         .         .         . W     .         E         .           .         .
   258. .         .         . X       .         .         .         . W     .         E         .           .         .
   260. .         .         . X       .         .         .         . W     .         E         .           .         .
   262. .         .         . X       .         .         .         . W     .         E         .           .         .
   264. .         .         . X       .         .         .         . W     .         E         .           .         .
   266. .         .         . X       .         .         .         . W     .         E         .           .         .
   268. .         .         . X       .         .         .         . W     .         E         .           .         .
   270. .         .         . X       .         .         .         . W     .         E         .           .         .
 9 272. .   XXXXXXXXXXXXXXXXXXXX     .         .         .         . W     .         E         .           .         .
   274. .   X     .         .         .         .         .         . W     .         E         .           .         .
   276. .   X     .         .         .         .         .         . W     .         E         .           .         .
11 278. .   XXXXXXXXXXXXXXXXXXXX     .         .         .         . W     .         E         .           .         .
   280. .         .         . X       .         .         .         . W     .         E         .           .         .
   282. .         .         . X       .         .         .         . W     .         E         .           .         .
   284. .         .         . X       .         .         .         . W     .         E         .           .         .
   286. .         .         . X       .         .         .         . W     .         E         .           .         .
   288. .         .         . X       .         .         .         . W     .         E         .           .         .
   290. .         .         . X       .         .         .         . W     .         E         .           .         .
   292. .         .         . X       .         .         .         . W     .         E         .           .         .
12 294. .         .         . X       .         .         .         . W     .         E         .           .         .
   296. .         .         .         .       X .         .         . W     .         E         .           .         .
   298. .         .         .         .         .       X .         . W     .         E         .           .         .
   300. .         .         .         .         .         .         .XW     .         E         .           .         .
   302. .         .         .         .         .         .         .         .   X     E         .           .         .
   304. .         .         .         .         .         .         .         .                 X .           .         .
13 306. .         .         .         .         .         .         .         .                   .         X .         .
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)									
1388.10	199.00	1381.10	200.00	1382.70	230.00	1381.80	239.00	1381.80	242.00
1374.30	256.00	1374.30	272.00	1372.40	272.10	1372.40	278.10	1374.30	278.20
1374.30	294.00	1381.80	306.00	1381.80	309.00	1382.70	319.00	1382.70	519.00

CROSS SECTION 35.07
STREAM Q=100 YR
DISCHARGE= 2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

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ELEV 1373.     1374.     1375.     1376.     1377.     1378.     1379.     1380.     1381.     1382.     1383.

   STA-FEET

 5 222. .         .         .         .         .         .         .         .         .         .         .  X BANK.
   224. .         .         .         .         .         .         .         .         .         .     X   .         .
   226. .         .         .         .         .         .         .         .         .       X .         .         .
   228. .         .         .         .         .         .         .         .       X   W E   .         .         .
   230. .         .         .         .         .         .         .       X .       W E   .         .         .
   232. .         .         .         .         .         .         .     X   .       W E   .         .         .
   234. .         .         .         .         .         .       X .         .       W E   .         .         .
   236. .         .         .         .         .       X .         .         .       W E   .         .         .
   238. .         .         .         .       X .   C     .         .         .       W E   .         .         .
   240. .         .         .       X .         .   C     .         .         .       W E   .         .         .
   242. .         .       X .         .         .   C     .         .         .       W E   .         .         .
   244. .         .     X   .         .         .   C     .         .         .       W E   .         .         .
   246. .       X .         .         .         .   C     .         .         .       W E   .         .         .
 6 248. .   X     .         .         .         .   C     .         .         .       W E   .         .         .
   250. .   X     .         .         .         .   C     .         .         .       W E   .         .         .
   252. .   X     .         .         .         .   C     .         .         .       W E   .         .         .
   254. .   X     .         .         .         .   C     .         .         .       W E   .         .         .
   256. .   X     .         .         .         .   C     .         .         .       W E   .         .         .
   258. .   X     .         .         .         .   C     .         .         .       W E   .         .         .
   260. .   X     .         .         .         .   C     .         .         .       W E   .         .         .
   262. .   X     .         .         .         .   C     .         .         .       W E   .         .         .
   264. .   X     .         .         .         .   C     .         .         .       W E   .         .         .
   266. .   X     .         .         .         .   C     .         .         .       W E   .         .         .
   268. .     X   .         .         .         .   C     .         .         .       W E   .         .         .
   270. .     X   .         .         .         .   C     .         .         .       W E   .         .         .
   272. .     X   .         .         .         .   C     .         .         .       W E   .         .         .
   274. .     X   .         .         .         .   C     .         .         .       W E   .         .         .
   276. .     X   .         .         .         .   C     .         .         .       W E   .         .         .
   278. .     X   .         .         .         .   C     .         .         .       W E   .         .         .
   280. .     X   .         .         .         .   C     .         .         .       W E   .         .         .
   282. .     X   .         .         .         .   C     .         .         .       W E   .         .         .
 7 284. .     X   .         .         .         .   C     .         .         .       W E   .         .         .
   286. .         . X       .         .         .   C     .         .         .       W E   .         .         .
   288. .         .         X         .         .   C     .         .         .       W E   .         .         .
   290. .         .         .       X .         .   C     .         .         .       W E   .         .         .
   292. .         .         .         .     X   .   C     .         .         .       W E   .         .         .
   294. .         .         .         .         .   X     .         .         .       W E   .         .         .
   296. .         .         .         .         .         . X       .         .       W E   .         .         .
   298. .         .         .         .         .         .         .   X     .       W E   .         .         .
   300. .         .         .         .         .         .         .         .   X   W E   .         .         .
   302. .         .         .         .         .         .         .         .     X W E   .         .         .
   304. .         .         .         .         .         .         .         .       XW E .         .         .
   306. .         .         .         .         .         .         .         .         .         .X        .         .
   308. .         .         .         .         .         .         .         .         .         .       X.         .
 8 310. .         .         .         .         .         .         .         .         .         .         .  X  BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

1392.10	199.00	1385.10	200.00	1384.70	216.00	1383.40	223.00	1373.30	248.00
1373.40	285.00	1383.30	310.00	1386.80	319.00	1386.80	519.00		

```
CROSS SECTION     34.26
STREAM   Q=100 YR
DISCHARGE=     2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1374.     1375.     1376.     1377.     1378.     1379.     1380.     1381.     1382.     1383.     1384.


    STA-FEET

8560 XSEC POINT-X      EL,ST-   1386.30    222.00
 4 222. .          .         .         .         .         .         .         .         .         .         .     BANKX
   224. .          .         .         .         .         .         .         .         .         .         .         X
   226. .          .         .         .         .         .         .         .         .         .         .   X     .
   228. .          .         .         .         .         .         .         .         .         .   X     .         .
   230. .          .         .         .         .         .         .         .         .   X     .         .         .
   232. .          .         .         .         .         .         .         .   X     E.        .         .         .
   234. .          .         .         .         .         .         .   X     .   W     E.        .         .         .
   236. .          .         .         .         .         .   X     .         .   W     E.        .         .         .
   238. .          .         .         .         .   X     .         .         .   W     E.        .         .         .
   240. .          .         .         .   X     .   C     .         .         .   W     E.        .         .         .
   242. .          .         .   X     .         .   C     .         .         .   W     E.        .         .         .
   244. .          .     X   .         .         .   C     .         .         .   W     E.        .         .         .
 5 246. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   248. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   250. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   252. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   254. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   256. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   258. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   260. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   262. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   264. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   266. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   268. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   270. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   272. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   274. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   276. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   278. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   280. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   282. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   284. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
 6 286. .   X      .         .         .         .   C     .         .         .   W     E.        .         .         .
   288. .          .         .   X     .         .   C     .         .         .   W     E.        .         .         .
   290. .          .         .         .         .         X         .         .   W     E.        .         .         .
   292. .          .         .         .         .         .         .         .  XW     E.        .         .         .
   294. .          .         .         .         .         .         .         .         .         .   X     .         .
   296. .          .         .         .         .         .         .         .         .         .         .         X
8560 XSEC POINT-X      EL,ST-   1387.10    298.00
 7 298. .          .         .         .         .         .         .         .         .         .         .     BANKX

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1393.30      199.00     1386.30      200.00     1386.30      222.00     1374.30      247.00     1374.30      287.00
    1387.10      298.00     1387.10      310.00     1387.10      510.00
```

CROSS SECTION 34.15
STREAM Q=100 YR
DISCHARGE= 2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1377.     1378.     1379.     1380.     1381.     1382.     1383.     1384.     1385.     1386.     1387.

   STA-FEET

 6 234. .         .         .         .         .         .         .  X      .  E      .         .         .
   236. .         .         .         .         .         .  X      .         .  E      .         .         .
   238. .         .         .         .         .      X  W      .         .  E      .         .         .
   240. .         .         .         .         .  X      W      .         .  E      .         .         .
   242. .         .         .         .      X  .         W      .         .  E      .         .         .
   244. .         .         .      X  .         .         W      .         .  E      .         .         .
   246. .         .         .   X     .         .         W      .         .  E      .         .         .
 7 248. .         .      X  .         .         .         W      .         .  E      .         .         .
   250. .         .      X  .         .         .         W      .         .  E      .         .         .
   252. .         .      X  .         .         .         W      .         .  E      .         .         .
   254. .         .      X  .         .         .         W      .         .  E      .         .         .
   256. .         .      X  .         .         .         W      .         .  E      .         .         .
   258. .         .      X  .         .         .         W      .         .  E      .         .         .
   260. .         .      X  .         .         .         W      .         .  E      .         .         .
 8 262. .         .      X  .         .         .         W      .         .  E      .         .         .
 9 264. .X        .         .         .         .         W      .         .  E      .         .         .
   266. .X        .         .         .         .         W      .         .  E      .         .         .
   268. .X        .         .         .         .         W      .         .  E      .         .         .
11 270. .XXXXXXXXXXXXXXXXX  .         .         .         W      .         .  E      .         .         .
   272. .         .      X  .         .         .         W      .         .  E      .         .         .
   274. .         .      X  .         .         .         W      .         .  E      .         .         .
   276. .         .      X  .         .         .         W      .         .  E      .         .         .
   278. .         .      X  .         .         .         W      .         .  E      .         .         .
   280. .         .      X  .         .         .         W      .         .  E      .         .         .
   282. .         .      X  .         .         .         W      .         .  E      .         .         .
12 284. .         .      X  .         .         .         W      .         .  E      .         .         .
   286. .         .         .         .         X         W      .         .  E      .         .         .
13 288. .         .         .         .         .         .         .  X      .  E      .         .         .
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

1393.50	199.00	1386.50	200.00	1386.50	222.00	1383.30	231.00	1383.30	234.00
1378.70	248.00	1378.70	263.00	1377.10	263.10	1377.10	269.10	1378.70	269.20
1378.70	285.00	1383.30	289.00	1383.30	291.00	1387.20	310.00	1387.20	510.00

CROSS SECTION 32.12
STREAM Q=100 YR
DISCHARGE= 2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1378.     1379.     1380.     1381.     1382.     1383.     1384.     1385.     1386.     1387.     1388.


   STA-FEET

 3 200. .         .         .         .         .         .         .         .         . X       .         .     BANK.
   202. .         .         .         .         .         .         .         X  W      E.        .         .         .
   204. .         .         .         .         .         .         X.        .  W      E.        .         .         .
   206. .         .         .         .         .        XC .       .         .  W      E.        .         .         .
   208. .         .         .         .    X    .        C .       .         .  W      E.        .         .         .
   210. .         .         .    X    .         .        C .       .         .  W      E.        .         .         .
 4 212. .     X   .         .         .         .        C .       .         .  W      E.        .         .         .
   214. .     X   .         .         .         .        C .       .         .  W      E.        .         .         .
   216. .    X    .         .         .         .        C .       .         .  W      E.        .         .         .
   218. .    X    .         .         .         .        C .       .         .  W      E.        .         .         .
   220. .    X    .         .         .         .        C .       .         .  W      E.        .         .         .
   222. .    X    .         .         .         .        C .       .         .  W      E.        .         .         .
   224. .   X     .         .         .         .        C .       .         .  W      E.        .         .         .
   226. .   X     .         .         .         .        C .       .         .  W      E.        .         .         .
   228. .   X     .         .         .         .        C .       .         .  W      E.        .         .         .
   230. .   X     .         .         .         .        C .       .         .  W      E.        .         .         .
   232. .  X      .         .         .         .        C .       .         .  W      E.        .         .         .
   234. .  X      .         .         .         .        C .       .         .  W      E.        .         .         .
   236. .  X      .         .         .         .        C .       .         .  W      E.        .         .         .
   238. .  X      .         .         .         .        C .       .         .  W      E.        .         .         .
   240. . X       .         .         .         .        C .       .         .  W      E.        .         .         .
   242. . X       .         .         .         .        C .       .         .  W      E.        .         .         .
 5 244. . X       .         .         .         .        C .       .         .  W      E.        .         .         .
   246. .       X .         .         .         .        C .       .         .  W      E.        .         .         .
   248. .         .    X    .         .         .        C .       .         .  W      E.        .         .         .
   250. .         .         X         .         .        C .       .         .  W      E.        .         .         .
   252. .         .         .    X    .         .        C .       .         .  W      E.        .         .         .
   254. .         .         .         . X       .        C .       .         .  W      E.        .         .         .
   256. .         .         .         .         X.       C .       .         .  W      E.        .         .         .
   258. .         .         .         .         .    X   C .       .         .  W      E.        .         .         .
   260. .         .         .         .         .        .  X      .         .  W      E.        .         .         .
   262. .         .         .         .         .        .     X   .         .  W      E.        .         .         .
   264. .         .         .         .         .        .         .   X     .  W      E.        .         .         .
   266. .         .         .         .         .        .         .       X.  W      E.        .         .         .
   268. .         .         .         .         .        .         .         .    X  E.        .         .         .
   270. .         .         .         .         .        .         .         .      .X         .         .         .
   272. .         .         .         .         .        .         .         .         .    X    .         .         .
   274. .         .         .         .         .        .         .         .         .         . X       .         .
   276. .         .         .         .         .        .         .         .         .         .         X         .
   278. .         .         .         .         .        .         .         .         .         .         .     X   .
   280. .         .         .         .         .        .         .         .         .         .         .         X
   282. .         .         .         .         .        .         .         .         .         .         .         X
   284. .         .         .         .         .        .         .         .         .         .         .         X
8560 XSEC POINT-X      EL,ST-   1391.00    286.00
 6 286. .         .         .         .         .        .         .         .         .         .         .         X

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1386.20        .00     1386.20      200.00     1378.60      213.00     1378.20      244.00     1391.00      286.00
    1391.00      486.00
```

CROSS SECTION 31.68
STREAM Q=100 YR
DISCHARGE= 2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1378.     1379.     1380.     1381.     1382.     1383.     1384.     1385.     1386.     1387.     1388.

   STA-FEET

 4 200. .         .         .         .         .         .         .         .         X         .         .     BANK.
   202. .         .         .         .         .         .         .         X   W     E         .         .         .
   204. .         .         .         .         .         .         X.        .   W     E         .         .         .
   206. .         .         .         .         .        XC         .         .   W     E         .         .         .
   208. .         .         .         .     X   .         C         .         .   W     E         .         .         .
   210. .         .         .     X   .         .         C         .         .   W     E         .         .         .
 5 212. .     X   .         .         .         .         C         .         .   W     E         .         .         .
   214. .     X   .         .         .         .         C         .         .   W     E         .         .         .
   216. .    X    .         .         .         .         C         .         .   W     E         .         .         .
   218. .    X    .         .         .         .         C         .         .   W     E         .         .         .
   220. .    X    .         .         .         .         C         .         .   W     E         .         .         .
   222. .    X    .         .         .         .         C         .         .   W     E         .         .         .
   224. .   X     .         .         .         .         C         .         .   W     E         .         .         .
   226. .   X     .         .         .         .         C         .         .   W     E         .         .         .
   228. .   X     .         .         .         .         C         .         .   W     E         .         .         .
   230. .   X     .         .         .         .         C         .         .   W     E         .         .         .
   232. .  X      .         .         .         .         C         .         .   W     E         .         .         .
   234. .  X      .         .         .         .         C         .         .   W     E         .         .         .
   236. .  X      .         .         .         .         C         .         .   W     E         .         .         .
   238. .  X      .         .         .         .         C         .         .   W     E         .         .         .
   240. . X       .         .         .         .         C         .         .   W     E         .         .         .
   242. . X       .         .         .         .         C         .         .   W     E         .         .         .
 6 244. . X       .         .         .         .         C         .         .   W     E         .         .         .
   246. .       X .         .         .         .         C         .         .   W     E         .         .         .
   248. .         .   X     .         .         .         C         .         .   W     E         .         .         .
   250. .         .         X         .         .         C         .         .   W     E         .         .         .
   252. .         .         .     X   .         .         C         .         .   W     E         .         .         .
   254. .         .         .         . X       .         C         .         .   W     E         .         .         .
   256. .         .         .         .         X.        C         .         .   W     E         .         .         .
   258. .         .         .         .         .       X C         .         .   W     E         .         .         .
   260. .         .         .         .         .         .X        .         .   W     E         .         .         .
   262. .         .         .         .         .         .         X         .   W     E         .         .         .
   264. ..        .         .         .         .         .         .         X   W     E         .         .         .
   266. .         .         .         .         .         .         .         .X  W     E         .         .         .
   268. .         .         .         .         .         .         .         .   X     E         .         .         .
   270. .         .         .         .         .         .         .         .         X         .         .         .
   272. .         .         .         .         .         .         .         .                   X         .         .
   274. .         .         .         .         .         .         .         .                   .         X         .
   276. .         .         .         .         .         .         .         .                   .         .         X
   278. .         .         .         .         .         .         .         .                   .         .     X   .
   280. .         .         .         .         .         .         .         .                   .         .         X
   282. .         .         .         .         .         .         .         .                   .         .         X
   284. .         .         .         .         .         .         .         .                   .         .         X
8560 XSEC POINT-X      EL,ST-   1391.00    286.00
 7 286. .         .         .         .         .         .         .         .         .         .         .     BANKX

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1391.00        .00     1386.20       1.00     1386.20      200.00     1378.60      213.00     1378.20      244.00
    1391.00     286.00     1391.00     486.00
```

CROSS SECTION 30.35
STREAM Q=100 YR
DISCHARGE= 2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,F=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1379.     1380.     1381.     1382.     1383.     1384.     1385.     1386.     1387.     1388.     1389.

   STA-FEET

 5 210. .         .         .         .         .         .         .         .X E      .         .         .     BANK.
   212. .         .         .         .         .         .         .       X W  .  E      .         .         .
   214. .         .         .         .         .         .       X .       W  .  E      .         .         .
   216. .         .         .         .         .       .X          .       W  .  E      .         .         .
   218. .         .         .         .         .     X C   .         .       W  .  E      .         .         .
   220. .         .         .         .       X .       C   .         .       W  .  E      .         .         .
   222. .         .         .       .X          .       C   .         .       W  .  E      .         .         .
   224. .         .         .   X     .         .       C   .         .       W  .  E      .         .         .
   226. .         .       X .         .         .       C   .         .       W  .  E      .         .         .
   228. .       .X          .         .         .       C   .         .       W  .  E      .         .         .
 6 230. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
   232. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
   234. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
   236. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
   238. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
   240. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
   242. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
   244. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
   246. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
   248. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
   250. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
   252. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
   254. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
   256. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
   258. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
 7 260. .X        .         .         .         .       C   .         .       W  .  E      .         .         .
   262. .       X .         .         .         .       C   .         .       W  .  E      .         .         .
   264. .         .     X   .         .         .       C   .         .       W  .  E      .         .         .
   266. .         .         . X       .         .       C   .         .       W  .  E      .         .         .
   268. .         .         .       X.          .       C   .         .       W  .  E      .         .         .
   270. .         .         .         .     X   .       C   .         .       W  .  E      .         .         .
   272. .         .         .         .         . X   C   .         .       W  .  E      .         .         .
   274. .         .         .         .         .         X.          .       W  .  E      .         .         .
   276. .         .         .         .         .         .       X   .       W  .  E      .         .         .
   278. .         .         .         .         .         .         . X   W  .  E      .         .         .
   280. .         .         .         .         .         .         .       X  E      .         .         .
   282. .         .         .         .         .         .         .         .       X .         .         .
 8 284. .         .         .         .         .         .         .         .         .       X .         .     BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

1390.50	.00	1387.20	1.00	1387.20	200.00	1386.10	210.00	1379.10	231.00
1379.10	260.00	1387.70	285.00	1387.70	485.00	1390.50	486.00		

CROSS SECTION 29.67
STREAM Q=100 YR
DISCHARGE= 2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1379.     1380.     1381.     1382.     1383.     1384.     1385.     1386.     1387.     1388.     1389.


   STA-FEET

 4 200. .         .         .         .         .         .         .         .         .         X .         .     BANK.
   202. .         .         .         .         .         .         .         .         .       X.          .         .
   204. .         .         .         .         .         .         .         .         X     E   .         .         .
   206. .         .         .         .         .         .         .        .X       W .     E   .         .         .
   208. .         .         .         .         .         .        X         .       W .     E   .         .         .
   210. .         .         .         .         .       X .       C         .       W .     E   .         .         .
   212. .         .         .         .       X         .       C         .       W .     E   .         .         .
   214. .         .         .       X         .         .       C         .       W .     E   .         .         .
   216. .         .       X         .         .         .       C         .       W .     E   .         .         .
 5 218. .   X     .         .         .         .         .       C         .       W .     E   .         .         .
   220. .   X     .         .         .         .         .       C         .       W .     E   .         .         .
   222. .   X     .         .         .         .         .       C         .       W .     E   .         .         .
   224. .   X     .         .         .         .         .       C         .       W .     E   .         .         .
   226. .   X     .         .         .         .         .       C         .       W .     E   .         .         .
   228. .   X     .         .         .         .         .       C         .       W .     E   .         .         .
   230. .   X     .         .         .         .         .       C         .       W .     E   .         .         .
   232. .    X    .         .         .         .         .       C         .       W .     E   .         .         .
   234. .    X    .         .         .         .         .       C         .       W .     E   .         .         .
   236. .    X    .         .         .         .         .       C         .       W .     E   .         .         .
   238. .    X    .         .         .         .         .       C         .       W .     E   .         .         .
   240. .    X    .         .         .         .         .       C         .       W .     E   .         .         .
   242. .    X    .         .         .         .         .       C         .       W .     E   .         .         .
 6 244. .    X    .         .         .         .         .       C         .       W .     E   .         .         .
   246. .         .X        .         .         .         .       C         .       W .     E   .         .         .
   248. .         .       X .         .         .         .       C         .       W .     E   .         .         .
   250. .         .         . X       .         .         .       C         .       W .     E   .         .         .
   252. .         .         .         X.        .         .       C         .       W .     E   .         .         .
   254. .         .         .         .       X         .       C         .       W .     E   .         .         .
   256. .         .         .         .         .X        .       C         .       W .     E   .         .         .
   258. .         .         .         .         .         X .     C         .       W .     E   .         .         .
   260. .         .         .         .         .         .       X         .       W .     E   .         .         .
   262. .         .         .         .         .         .         .       X.      W .     E   .         .         .
   264. .         .         .         .         .         .         .         .   X W .     E   .         .         .
   266. .         .         .         .         .         .         .         .     .X    E   .         .         .
   268. .         .         .         .         .         .         .         .       X   .         .         .
 7 270. .         .         .         .         .         .         .         .         .   X       .         .     BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

1390.00	.00	1387.80	1.00	1387.80	200.00	1379.40	219.00	1379.50	245.00
1387.30	271.00	1388.70	287.00	1388.70	487.00	1390.00	487.00		

CROSS SECTION 20.46
STREAM Q=100 YR
DISCHARGE= 2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1385.     1386.     1387.     1388.     1389.     1390.     1391.     1392.     1393.     1394.     1395.

   STA-FEET

 4 214. .         .         .         .         .         .         .         .         .         .X.         .     BANK.
   216. .         .         .         .         .         .         .         .         .X     E   .         .         .
   218. .         .         .         .         .         .         .         . X       .     E   .         .         .
   220. .         .         .         .         .         .         . X  W    .         .     E   .         .         .
   222. .         .         .         .         .         .   X     .    W    .         .     E   .         .         .
   224. .         .         .         .         .     X   .         .    W    .         .     E   .         .         .
   226. .         .         .         .     X   .         .         .    W    .         .     E   .         .         .
   228. .         .         .       X.         .         .         .    W    .         .     E   .         .         .
 5 230. .         .         X         .         .         .         .    W    .         .     E   .         .         .
   232. .         .       X .         .         .         .         .    W    .         .     E   .         .         .
   234. .         .     X   .         .         .         .         .    W    .         .     E   .         .         .
   236. .         .   X     .         .         .         .         .    W    .         .     E   .         .         .
   238. .         . X       .         .         .         .         .    W    .         .     E   .         .         .
   240. .        .X         .         .         .         .         .    W    .         .     E   .         .         .
   242. .       X.          .         .         .         .         .    W    .         .     E   .         .         .
   244. .      X .          .         .         .         .         .    W    .         .     E   .         .         .
 6 246. .    X   .          .         .         .         .         .    W    .         .     E   .         .         .
   248. .      X .          .         .         .         .         .    W    .         .     E   .         .         .
   250. .        .X         .         .         .         .         .    W    .         .     E   .         .         .
   252. .         . X       .         .         .         .         .    W    .         .     E   .         .         .
 7 254. .         .     X   .         .         .         .         .    W    .         .     E   .         .         .
   256. .         .         .     X   .         .         .         .    W    .         .     E   .         .         .
   258. .         .         .         .     X   .         .         .    W    .         .     E   .         .         .
   260. .         .         .         .         .     X   .         .    W    .         .     E   .         .         .
   262. .         .         .         .         .         .     X   .    W    .         .     E   .         .         .
   264. .         .         .         .         .         .         .    X    .         .     E   .         .         .
   266. .         .         .         .         .         .         .         .     X   .     E   .         .         .
   268. .         .         .         .         .         .         .         .         .     X   .         .         .
 8 270. .         .         .         .         .         .         .         .         .         .     X   .     BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

1395.70	.00	1395.70	200.00	1393.90	214.00	1387.00	230.00	1385.60	246.00
1386.60	254.00	1394.60	270.00	1395.50	281.00	1395.50	481.00		

CROSS SECTION 20.09
STREAM Q=100 YR
DISCHARGE= 2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1387.     1388.     1389.     1390.     1391.     1392.     1393.     1394.     1395.     1396.     1397.

    STA-FEET

 2   0. .         .         .         .         .         .         .         .         .         .        XE        .
     2. .         .         .         .         .         .         .         .         .         .        XE        .
     4. .         .         .         .         .         .         .         .         .         .        XE        .
     6. .         .         .         .         .         .         .         .         .         .        XE        .
     8. .         .         .         .         .         .         .         .         .         .       X.E        .
    10. .         .         .         .         .         .         .         .         .         .       X.E        .
    12. .         .         .         .         .         .         .         .         .         .       X.E        .
    14. .         .         .         .         .         .         .         .         .         .       X.E        .
    16. .         .         .         .         .         .         .         .         .         .       X.E        .
    18. .         .         .         .         .         .         .         .         .         .       X.E        .
    20. .         .         .         .         .         .         .         .         .         .      X .E        .
    22. .         .         .         .         .         .         .         .         .         .      X .E        .
    24. .         .         .         .         .         .         .         .         .         .      X .E        .
    26. .         .         .         .         .         .         .         .         .         .      X .E        .
    28. .         .         .         .         .         .         .         .         .         .      X .E        .
    30. .         .         .         .         .         .         .         .         .         .      X .E        .
    32. .         .         .         .         .         .         .         .         .         .      X .E        .
    34. .         .         .         .         .         .         .         .         .         .     X  .E        .
    36. .         .         .         .         .         .         .         .         .         .     X  .E        .
    38. .         .         .         .         .         .         .         .         .         .     X  .E        .
    40. .         .         .         .         .         .         .         .         .         .     X  .E        .
    42. .         .         .         .         .         .         .         .         .         .     X  .E        .
    44. .         .         .         .         .         .         .         .         .         .     X  .E        .
    46. .         .         .         .         .         .         .         .         .         .     X  .E        .
    48. .         .         .         .         .         .         .         .         .         .    X   .E        .
    50. .         .         .         .         .         .         .         .         .         .    X   .E        .
    52. .         .         .         .         .         .         .         .         .         .    X   .E        .
    54. .         .         .         .         .         .         .         .         .         .    X   .E        .
    56. .         .         .         .         .         .         .         .         .         .    X   .E        .
    58. .         .         .         .         .         .         .         .         .         .    X   .E        .
    60. .         .         .         .         .         .         .         .         .         .    X   .E        .
    62. .         .         .         .         .         .         .         .         .         .   X    .E        .
    64. .         .         .         .         .         .         .         .         .         .   X    .E        .
    66. .         .         .         .         .         .         .         .         .         .   X    .E        .
    68. .         .         .         .         .         .         .         .         .         .   X    .E        .
    70. .         .         .         .         .         .         .         .         .         .   X    .E        .
    72. .         .         .         .         .         .         .         .         .         .   X    .E        .
    74. .         .         .         .         .         .         .         .         .         .  X     .E        .
    76. .         .         .         .         .         .         .         .         .         .  X     .E        .
    78. .         .         .         .         .         .         .         .         .         .  X     .E        .
    80. .         .         .         .         .         .         .         .         .         .  X     .E        .
    82. .         .         .         .         .         .         .         .         .         .  X     .E        .
    84. .         .         .         .         .         .         .         .         .         .  X     .E        .
    86. .         .         .         .         .         .         .         .         .         .  X     .E        .
    88. .         .         .         .         .         .         .         .         .         . X      .E        .
    90. .         .         .         .         .         .         .         .         .         . X      .E        .
    92. .         .         .         .         .         .         .         .         .         . X      .E        .
    94. .         .         .         .         .         .         .         .         .         . X      .E        .
    96. .         .         .         .         .         .         .         .         .         . X      .E        .
    98. .         .         .         .         .         .         .         .         .         . X      .E        .
   100. .         .         .         .         .         .         .         .         .         . X      .E        .
   102. :         :         :         :         :         :         :         :         :         : X      :E        :
   104. :         :         :         :         :         :         :         :         :         : X      :E        :
```

```
    110. .         .         .         .         .         .         .         .         .         . X       .E        .
    112. .         .         .         .         .         .         .         .         .         . X       .E        .
    114. .         .         .         .         .         .         .         .         .         .X        .E        .
    116. .         .         .         .         .         .         .         .         .         .X        .E        .
    118. .         .         .         .         .         .         .         .         .         .X        .E        .
    120. .         .         .         .         .         .         .         .         .         .X        .E        .
    122. .         .         .         .         .         .         .         .         .         .X        .E        .
    124. .         .         .         .         .         .         .         .         .         .X        .E        .
    126. .         .         .         .         .         .         .         .         .         .X        .E        .
    128. .         .         .         .         .         .         .         .         .         X         .E        .
    130. .         .         .         .         .         .         .         .         .         X         .E        .
    132. .         .         .         .         .         .         .         .         .         X         .E        .
    134. .         .         .         .         .         .         .         .         .         X         .E        .
    136. .         .         .         .         .         .         .         .         .         X         .E        .
    138. .         .         .         .         .         .         .         .         .         X         .E        .
    140. .         .         .         .         .         .         .         .         .        X.         .E        .
    142. .         .         .         .         .         .         .         .         .        X.         .E        .
    144. .         .         .         .         .         .         .         .         .        X.         .E        .
    146. .         .         .         .         .         .         .         .         .        X.         .E        .
    148. .         .         .         .         .         .         .         .         .        X.         .E        .
    150. .         .         .         .         .         .         .         .         .        X.         .E        .
    152. .         .         .         .         .         .         .         .         .        X.         .E        .
    154. .         .         .         .         .         .         .         .         .       XW.         .E        .
    156. .         .         .         .         .         .         .         .         .       XW.         .E        .
    158. .         .         .         .         .         .         .         .         .       XW.         .E        .
    160. .         .         .         .         .         .         .         .         .       XW.         .E        .
    162. .         .         .         .         .         .         .         .         .       XW.         .E        .
    164. .         .         .         .         .         .         .         .         .       XW.         .E        .
    166. .         .         .         .         .         .         .         .         .       XW.         .E        .
    168. .         .         .         .         .         .         .         .         .      X W.         .E        .
    170. .         .         .         .         .         .         .         .         .      X W.         .E        .
    172. .         .         .         .         .         .         .         .         .      X W.         .E        .
    174. .         .         .         .         .         .         .         .         .      X W.         .E        .
    176. .         .         .         .         .         .         .         .         .      X W.         .E        .
    178. .         .         .         .         .         .         .         .         .      X W.         .E        .
    180. .         .         .         .         .         .         .         .         .      X W.         .E        .
    182. .         .         .         .         .         .         .         .         .     X  W.         .E        .
    184. .         .         .         .         .         .         .         .         .     X  W.         .E        .
    186. .         .         .         .         .         .         .         .         .     X  W.         .E        .
    188. .         .         .         .         .         .         .         .         .     X  W.         .E        .
    190. .         .         .         .         .         .         .         .         .     X  W.         .E        .
    192. .         .         .         .         .         .         .         .         .     X  W.         .E        .
    194. .         .         .         .         .         .         .         .         .    X   W.         .E        .
    196. .         .         .         .         .         .         .         .         .    X   W.         .E        .
    198. .         .         .         .         .         .         .         .         .    X   W.         .E        .
  3 200. .         .         .         .         .         .         .         .         .    X   W.         .E    BANK.
    202. .         .         .         .         .         .         .         .         .   X    W.         .E        .
    204. .         .         .         .         .         .         .         .         .  X     W.         .E        .
    206. .         .         .         .         .         .         .         .         . X      W.         .E        .
    208. .         .         .         .         .         .         .         .         .X       W.         .E        .
    210. .         .         .         .         .         .         .         .         X        W.         .E        .
    212. .         .         .         .         .         .         .         .        X.        W.         .E        .
    214. .         .         .         .         .         .         .         .       X .        W.         .E        .
  4 216. .         .         .         .         .         .         .         .      X  .        W.         .E        .
  5 218. .         .         .         .         .         .         .         .     .X         .        W.         .E        .
    220. .         .         .         .         .         .         .         .     .X         .        W.         .E        .
  7 222. .         .         .         .         .         .         .         .  XXXXXXX         .        W.         .E        .
    224. .         .         .         .         .         .         .         .  X    .         .        W.         .E        .
  8 226. .         .         .         .         .         .         .         .  X    .         .        W.         .E        .
  9 228. .         .         .         .         .         .         X         .         .         .        W.         .E        .
    230. .         .         .         .         .         .         X         .         .         .        W.         .E        .
 12 232. .         .         .         XXXXXXXXXXXXXXXXXXXXXXXXXX  .         .         .         .        W.         .E        .
 13 234. .         . X       .         .         .         .         .         .         .         .        W.         .E        .
 14 236. .         . X       .         .         .         .         .         .         .         .        W.         .E        .
 15 238. .     X   .         .         .         .         .         .         .         .         .        W.         .E        .
    240. .     X   .         .         .         .         .         .         .         .         .        W.         .E        .
```

```
16 246. .     X   .         .         .         .         .         .         .         W.        .E        .
17 248. .         .     X   .         .         .         .         .         .         .         W.        .E        .
19 250. .         .     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX .         .         .         W.        .E        .
   252. .         .         .         .         .         .       X .         .         .         W.        .E        .
21 254. .         .         .         .         .         .       XXXXXXX     .         .         W.        .E        .
   256. .         .         .         .         .         .         .   X     .         .         W.        .E        .
23 258. .         .         .         .         .         .         .   XXXXXXXXXXXXXX  .         W.        .E        .
24 260. .         .         .         .         .         .         .         .       X .         W.        .E        .
   262. .         .         .         .         .         .         .         .      X .         W.        .E        .
   264. .         .         .         .         .         .         .         .       X.         W.        .E        .
   266. .         .         .         .         .         .         .         .        X         W.        .E        .
   268. .         .         .         .         .         .         .         .         . X      W.        .E        .
   270. .         .         .         .         .         .         .         .         .  X     W.        .E        .
   272. .         .         .         .         .         .         .         .         .   X    W.        .E        .
   274. .         .         .         .         .         .         .         .         .    X   W.        .E        .
   276. .         .         .         .         .         .         .         .         .     X  W.        .E        .
   278. .         .         .         .         .         .         .         .         .      X W.        .E        .
   280. .         .         .         .         .         .         .         .         .       XW.        .E        .
   282. .         .         .         .         .         .         .         .         .        X.        .E        .
25 284. .         .         .         .         .         .         .         .         .         X        .E    BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

1397.00	.00	1395.50	200.00	1394.70	217.00	1394.10	217.10	1394.10	222.00
1393.50	222.10	1393.50	227.00	1392.80	227.10	1392.80	232.00	1390.30	232.10
1390.30	233.00	1388.20	233.10	1388.20	237.00	1387.60	237.10	1387.60	247.00
1388.60	247.10	1388.60	250.00	1392.80	250.10	1392.80	254.00	1393.40	254.00
1393.40	258.00	1394.70	258.10	1394.70	261.00	1396.00	284.00	1397.00	484.00

CROSS SECTION 18.64
STREAM Q=100 YR
DISCHARGE= 2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1389.     1390.     1391.     1392.     1393.     1394.     1395.     1396.     1397.     1398.     1399.

   STA-FEET

 3 200. .         .         .         .         .         .         .         .         .         X    E.         .         .
   202. .         .         .         .         .         .         .         .         .        X     E.         .         .
   204. .         .         .         .         .         .         .         .         .       X      E.         .         .
   206. .         .         .         .         .         .         .         .         .      X       E.         .         .
   208. .         .         .         .         .         .         .         .         .     X        E.         .         .
   210. .         .         .         .         .         .         .         .         .    XW        E.         .         .
   212. .         .         .         .         .         .         .         .         .   X W        E.         .         .
   214. .         .         .         .         .         .         .         .         .  X  W        E.         .         .
   216. .         .         .         .         .         .         .         .         . X   W        E.         .         .
   218. .         .         .         .         .         .         .         .         .X    W        E.         .         .
   220. .         .         .         .         .         .         .         .         . X   W        E.         .         .
   222. .         .         .         .         .         .         .         .         .  X  W        E.         .         .
 4 224. .         .         .         .         .         .         .         .         .   X W        E.         .     BANK.
   226. .         .         .         .         .         .         .         .         .    X W       E.         .         .
   228. .         .         .         .         .         .         .         .         .     X C      E.         .         .
   230. .         .         .         .         .         .         .         .         .      C       E.         .         .
   232. .         .         .         .         .         .         .         .         .      C       E.         .         .
   234. .         .         .         .         .         .         .         .         .      C       E.         .         .
   236. .         .         .         .         .         .         .         .         .      C       E.         .         .
   238. .         .         .         .         .         .         .         .         .      C       E.         .         .
   240. .         .         .         .         .         .         .         .         .      C       E.         .         .
   242. .         .         .         .         .         .         .         .         .      C       E.         .         .
   244. .         .         .         .         .         .         .         .         .      C       E.         .         .
   246. .         .         .         .         .         .         .         .         .      C       E.         .         .
   248. .         .         .         .         .         .         .         .         .      C       E.         .         .
 5 250. .         .         .         .         .         .         .         .         .      C       E.         .         .
   252. .         .         .         .         .         .         .         .         .      C       E.         .         .
   254. .         .         .         .         .         .         .         .         .      C       E.         .         .
   256. .         .         .         .         .         .         .         .         .      C       E.         .         .
   258. .         .         .         .         .         .         .         .         .      C       E.         .         .
   260. .         .         .         .         .         .         .         .         .      C       E.         .         .
 6 262. .         .         .         .         .         .         .         .         .      C       E.         .         .
   264. .         .         .         .         .         .         .         .         .      C       E.         .         .
   266. .         .         .         .         .         .         .         .         .      C       E.         .         .
   268. .         .         .         .         .         .         .         .         .      C       E.         .         .
   270. .         .         .         .         .         .         .         .         .      C       E.         .         .
 7 272. .         .         .         .         .         .         .         .         .      C       E.         .         .
   274. .         .         .         .         .         .         .         .         .      C       E.         .         .
   276. .         .         .         .         .         .         .         .         .      C       E.         .         .
   278. .         .         .         .         .         .         .         .         .      C       E.         .         .
   280. .         .         .         .         .         .         .         .         .      C       E.         .         .
   282. .         .         .         .         .         .         .         .         .      C       E.         .         .
 8 284. .         .         .         .         .         .         .         .         .      XW      E.         .     BANK.
   286. .         .         .         .         .         .         .         .         .      XW      E.         .         .
   288. .         .         .         .         .         .         .         .         .      XW      E.         .         .
   290. .         .         .         .         .         .         .         .         .      XW      E.         .         .
   292. .         .         .         .         .         .         .         .         .      XW      E.         .         .
   294. .         .         .         .         .         .         .         .         .       X      E.         .         .
   296. .         .         .         .         .         .         .         .         .       X      E.         .         .
   298. .         .         .         .         .         .         .         .         .       X      E.         .         .
   300. .         .         .         .         .         .         .         .         .       X      E.         .         .
   302. :         :         :         :         :         :         :         :         :       X      E:         :         :
   304. :         :         :         :         :         :         :         :         :       X      E:         :         :
```

```
310. .  .  .  .  .  .  .  .  X     E.  .  .
312. .  .  .  .  .  .  .  .   X    E.  .  .
314. .  .  .  .  .  .  .  .   X    E.  .  .
316. .  .  .  .  .  .  .  .   X    E.  .  .
318. .  .  .  .  .  .  .  .   X    E.  .  .
320. .  .  .  .  .  .  .  .   X    E.  .  .
322. .  .  .  .  .  .  .  .   X    E.  .  .
324. .  .  .  .  .  .  .  .   X    E.  .  .
326. .  .  .  .  .  .  .  .   X    E.  .  .
328. .  .  .  .  .  .  .  .   X    E.  .  .
330. .  .  .  .  .  .  .  .    X   E.  .  .
332. .  .  .  .  .  .  .  .    X   E.  .  .
334. .  .  .  .  .  .  .  .    X   E.  .  .
336. .  .  .  .  .  .  .  .    X   E.  .  .
338. .  .  .  .  .  .  .  .    X   E.  .  .
340. .  .  .  .  .  .  .  .    X   E.  .  .
342. .  .  .  .  .  .  .  .    X   E.  .  .
344. .  .  .  .  .  .  .  .    X   E.  .  .
346. .  .  .  .  .  .  .  .    X   E.  .  .
348. .  .  .  .  .  .  .  .     X  E.  .  .
350. .  .  .  .  .  .  .  .     X  E.  .  .
352. .  .  .  .  .  .  .  .     X  E.  .  .
354. .  .  .  .  .  .  .  .     X  E.  .  .
356. .  .  .  .  .  .  .  .     X  E.  .  .
358. .  .  .  .  .  .  .  .     X  E.  .  .
360. .  .  .  .  .  .  .  .     X  E.  .  .
362. .  .  .  .  .  .  .  .     X  E.  .  .
364. .  .  .  .  .  .  .  .     X  E.  .  .
366. .  .  .  .  .  .  .  .      X E.  .  .
368. .  .  .  .  .  .  .  .      X E.  .  .
370. .  .  .  .  .  .  .  .      X E.  .  .
372. .  .  .  .  .  .  .  .      X E.  .  .
374. .  .  .  .  .  .  .  .      X E.  .  .
376. .  .  .  .  .  .  .  .      X E.  .  .
378. .  .  .  .  .  .  .  .      X E.  .  .
380. .  .  .  .  .  .  .  .      X E.  .  .
382. .  .  .  .  .  .  .  .      X E.  .  .
384. .  .  .  .  .  .  .  .      X E.  .  .
386. .  .  .  .  .  .  .  .       X E.  .  .
388. .  .  .  .  .  .  .  .       X E.  .  .
390. .  .  .  .  .  .  .  .       X E.  .  .
392. .  .  .  .  .  .  .  .       X E.  .  .
394. .  .  .  .  .  .  .  .       X E.  .  .
396. .  .  .  .  .  .  .  .       X E.  .  .
398. .  .  .  .  .  .  .  .       X E.  .  .
400. .  .  .  .  .  .  .  .       X E.  .  .
402. .  .  .  .  .  .  .  .       X E.  .  .
404. .  .  .  .  .  .  .  .        X E.  .  .
406. .  .  .  .  .  .  .  .        X E.  .  .
408. .  .  .  .  .  .  .  .        X E.  .  .
410. .  .  .  .  .  .  .  .        X E.  .  .
412. .  .  .  .  .  .  .  .        X E.  .  .
414. .  .  .  .  .  .  .  .        X E.  .  .
416. .  .  .  .  .  .  .  .        X E.  .  .
418. .  .  .  .  .  .  .  .        X E.  .  .
420. .  .  .  .  .  .  .  .        X E.  .  .
422. .  .  .  .  .  .  .  .         X E.  .  .
424. .  .  .  .  .  .  .  .         X E.  .  .
426. .  .  .  .  .  .  .  .         X E.  .  .
428. .  .  .  .  .  .  .  .         X E.  .  .
430. .  .  .  .  .  .  .  .         X E.  .  .
432. .  .  .  .  .  .  .  .         X E.  .  .
434. .  .  .  .  .  .  .  .         X E.  .  .
436. .  .  .  .  .  .  .  .         X E.  .  .
438. .  .  .  .  .  .  .  .         XXE.  .  .
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  446. .         .         .         .         .         .         .         .                  XE.         .         .
  448. .         .         .         .         .         .         .         .                  XE.         .         .
  450. .         .         .         .         .         .         .         .                  XE.         .         .
  452. .         .         .         .         .         .         .         .                  XE.         .         .
  454. .         .         .         .         .         .         .         .                  XE.         .         .
  456. .         .         .         .         .         .         .         .                  XE.         .         .
  458. .         .         .         .         .         .         .         .                   X.         .         .
  460. .         .         .         .         .         .         .         .                   X.         .         .
  462. .         .         .         .         .         .         .         .                   X.         .         .
  464. .         .         .         .         .         .         .         .                   X.         .         .
  466. .         .         .         .         .         .         .         .                   X.         .         .
  468. .         .         .         .         .         .         .         .                   X.         .         .
  470. .         .         .         .         .         .         .         .                   X.         .         .
  472. .         .         .         .         .         .         .         .                   X.         .         .
  474. .         .         .         .         .         .         .         .                   X.         .         .
  476. .         .         .         .         .         .         .         .                    X         .         .
  478. .         .         .         .         .         .         .         .                    X         .         .
  480. .         .         .         .         .         .         .         .                    X         .         .
  482. .         .         .         .         .         .         .         .                    X         .         .
9 484. .         .         .         .         .         .         .         .                    X         .         .

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

 EL(I),STA(I)
   1398.00         .00    1397.40     200.00    1396.20     225.00    1390.90     250.00    1389.70     262.00
   1391.30      272.00    1396.90     285.00    1398.00     485.00
```

CROSS SECTION 17.65
STREAM Q=100 YR
DISCHARGE= 2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1390.     1391.     1392.     1393.     1394.     1395.     1396.     1397.     1398.     1399.     1400.

   STA-FEET

 3 200. .         .         .         .         .         .         .         .         .X        .E        .         .BANK.
   202. .         .         .         .         .         .         .         .        X W        .E        .         .
   204. .         .         .         .         .         .         .        .X         W        .E        .         .
   206. .         .         .         .         .         .         .      X .         W        .E        .         .
   208. .         .         .         .         .         .         .    X   .         W        .E        .         .
   210. .         .         .         .         .         .         . X  C   .         W        .E        .         .
   212. .         .         .         .         .         .       X.   C   .         W        .E        .         .
   214. .         .         .         .         .         .     X   .  C   .         W        .E        .         .
   216. .         .         .         .         .         .   X     .  C   .         W        .E        .         .
   218. .         .         .         .         .       X   .       .  C   .         W        .E        .         .
   220. .         .         .         .         .     X .           .  C   .         W        .E        .         .
   222. .         .         .         .         .   X   .           .  C   .         W        .E        .         .
   224. .         .         .         .        .X     .           .  C   .         W        .E        .         .
   226. .         .         .         .      X .      .           .  C   .         W        .E        .         .
   228. .         .         .         .    X   .      .           .  C   .         W        .E        .         .
   230. .         .         .         . X     .      .           .  C   .         W        .E        .         .
   232. .         .         .        X.      .      .           .  C   .         W        .E        .         .
 4 234. .         .         .    X    .      .      .           .  C   .         W        .E        .         .
   236. .         .         . X      .      .      .           .  C   .         W        .E        .         .
   238. .         .         .X       .      .      .           .  C   .         W        .E        .         .
 6 240. . XXXXXXXXXXXXXXXXXXX        .      .      .           .  C   .         W        .E        .         .
   242. . X       .         .        .      .      .           .  C   .         W        .E        .         .
   244. . X       .         .        .      .      .           .  C   .         W        .E        .         .
   246. . X       .         .        .      .      .           .  C   .         W        .E        .         .
   248. . X       .         .        .      .      .           .  C   .         W        .E        .         .
 7 250. . X       .         .        .      .      .           .  C   .         W        .E        .         .
   252. .         . X       .        .      .      .           .  C   .         W        .E        .         .
   254. .         .         . X      .      .      .           .  C   .         W        .E        .         .
 8 256. .         .         .    X   .      .      .           .  C   .         W        .E        .         .
   258. .         .         .     .X  .      .      .           .  C   .         W        .E        .         .
   260. .         .         .       . X      .      .           .  C   .         W        .E        .         .
   262. .         .         .         .X     .      .           .  C   .         W        .E        .         .
   264. .         .         .         .    X .      .           .  C   .         W        .E        .         .
   266. .         .         .         .      . X    .           .  C   .         W        .E        .         .
   268. .         .         .         .      .    X .           .  C   .         W        .E        .         .
   270. .         .         .         .      .      . X         .  C   .         W        .E        .         .
   272. .         .         .         .      .      .   X       .  C   .         W        .E        .         .
   274. .         .         .         .      .      .     X     . X C   .         W        .E        .         .
   276. .         .         .         .      .      .       X   .   X .         W        .E        .         .
   278. .         .         .         .      .      .         X .     X         W        .E        .         .
   280. .         .         .         .      .      .           .    X W        .E        .         .
 9 282. .         .         .         .      .      .           .        X .    E        .         .BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

1397.70	.00	1397.70	200.00	1392.50	235.00	1392.10	240.00	1390.30	241.00
1390.30	251.00	1392.70	256.00	1397.80	282.00	1397.80	482.00		

CROSS SECTION 17.55
STREAM Q=100 YR
DISCHARGE= 2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1392.     1393.     1394.     1395.     1396.     1397.     1398.     1399.     1400.     1401.     1402.

   STA-FEET

 3 200. .         .         .         .         .         .         X .       E .         .         .         .      BANK.
   202. .         .         .         .         .         .       X W .       E .         .         .         .         .
   204. .         .         .         .         .         . X       W .       E .         .         .         .         .
   206. .         .         .         .         .       X .         W .       E .         .         .         .         .
   208. .         .         .         .         .     X   .         W .       E .         .         .         .         .
   210. .         .         .         .         . X     .         W .       E .         .         .         .         .
   212. .         .         .         .       X.        .         W .       E .         .         .         .         .
   214. .         .         .         .     X   .       .         W .       E .         .         .         .         .
   216. .         .         .         . X     .         .         W .       E .         .         .         .         .
   218. .         .         .       X.        .         .         W .       E .         .         .         .         .
   220. .         .         .     X   .       .         .         W .       E .         .         .         .         .
   222. .         .         . X     .         .         .         W .       E .         .         .         .         .
   224. .         .       X         .         .         .         W .       E .         .         .         .         .
   226. .         .     X   .       .         .         .         W .       E .         .         .         .         .
   228. .         . X     .         .         .         .         W .       E .         .         .         .         .
   230. .       X         .         .         .         .         W .       E .         .         .         .         .
   232. .     X   .       .         .         .         .         W .       E .         .         .         .         .
 4 234. . X       .       .         .         .         .         W .       E .         .         .         .         .
   236. .   X     .       .         .         .         .         W .       E .         .         .         .         .
   238. .   X     .       .         .         .         .         W .       E .         .         .         .         .
   240. .     X   .       .         .         .         .         W .       E .         .         .         .         .
   242. .       X .       .         .         .         .         W .       E .         .         .         .         .
   244. .         X       .         .         .         .         W .       E .         .         .         .         .
 5 246. .         X       .         .         .         .         W .       E .         .         .         .         .
   248. .       X         .         .         .         .         W .       E .         .         .         .         .
   250. .       X         .         .         .         .         W .       E .         .         .         .         .
 6 252. .     X           .         .         .         .         W .       E .         .         .         .         .
   254. .         X       .         .         .         .         W .       E .         .         .         .         .
   256. .         . X     .         .         .         .         W .       E .         .         .         .         .
   258. .         .     X .         .         .         .         W .       E .         .         .         .         .
   260. .         .       X         .         .         .         W .       E .         .         .         .         .
   262. .         .         .     X .         .         .         W .       E .         .         .         .         .
   264. .         .         .         X         .         .         W .       E .         .         .         .         .
   266. .         .         .         .X        .         .         W .       E .         .         .         .         .
   268. .         .         .         .     X   .         .         W .       E .         .         .         .         .
   270. .         .         .         .       X.        .         W .       E .         .         .         .         .
   272. .         .         .         .         . X     .         W .       E .         .         .         .         .
 7 274. .         .         .         .         .     X .         W .       E .         .         .         .      BANK.
   276. .         .         .         .         .       X.        W .       E .         .         .         .         .
   278. .         .         .         .         .       X         W .       E .         .         .         .         .
   280. .         .         .         .         .         . X     W .       E .         .         .         .         .
   282. .         .         .         .         .         .   X   W .       E .         .         .         .         .
   284. .         .         .         .         .         .     XW  .       E .         .         .         .         .
   286. .         .         .         .         .         .       X .       E .         .         .         .         .
 8 288. .         .         .         .         .         .         X.      E .         .         .         .         .

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1397.80        .00     1397.80      200.00     1392.20      235.00     1392.60      246.00     1392.40      252.00
    1396.70     274.00     1397.90      288.00     1397.90      488.00
```

CROSS SECTION 9.23
STREAM Q=100 YR
DISCHARGE= 2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1396.     1397.     1398.     1399.     1400.     1401.     1402.     1403.     1404.     1405.     1406.

    STA-FEET

 3   0. .         .         .         .         .         .         .  XXXXXXXX  E         .         .         .         .
     2. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
     4. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
     6. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
     8. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    10. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    12. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    14. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    16. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    18. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    20. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    22. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    24. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    26. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    28. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    30. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    32. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    34. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    36. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    38. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    40. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    42. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    44. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    46. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    48. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    50. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    52. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    54. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    56. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    58. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    60. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    62. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    64. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    66. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    68. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    70. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    72. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    74. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    76. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    78. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    80. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    82. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    84. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    86. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    88. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    90. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    92. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    94. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    96. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
    98. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
   100. .         .         .         .         .         .         .  X  W   .  E         .         .         .         .
   102. :         :         :         :         :         :         :  X  W   :  E         :         :         :         :
   104.
```

```
  110. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  112. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  114. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  116. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  118. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  120. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  122. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  124. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  126. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  128. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  130. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  132. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  134. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  136. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  138. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  140. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  142. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  144. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  146. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  148. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  150. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  152. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  154. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  156. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  158. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  160. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  162. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  164. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  166. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  168. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  170. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  172. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  174. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  176. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  178. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  180. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  182. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  184. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  186. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  188. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  190. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  192. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  194. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  196. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
  198. .         .         .         .         .         .         .  X  W   .  E      .         .         .         .
4 200. .         .         .         .         .         .         .  X  W   .  E      .         .         .     BANK.
  202. .         .         .         .         .         .        X.     W   .  E      .         .         .         .
  204. .         .         .         .         .         .    X    .     W   .  E      .         .         .         .
  206. .         .         .         .         .         .X        .     W   .  E      .         .         .         .
  208. .         .         .         .         .      X  .         .     W   .  E      .         .         .         .
  210. .         .         .         .         .  X      .         .     W   .  E      .         .         .         .
  212. .         .         .         .       X .         .         .     W   .  E      .         .         .         .
  214. .         .         .         .   X     .         .         .     W   .  E      .         .         .         .
  216. .         .         .         X         .         .         .     W   .  E      .         .         .         .
  218. .         .         .     X   .         .         .         .     W   .  E      .         .         .         .
  220. .         .         . X       .         .         .         .     W   .  E      .         .         .         .
5 222. .         .       X .         .         .         .         .     W   .  E      .         .         .         .
  224. .         .      X  .         .         .         .         .     W   .  E      .         .         .         .
  226. .         .    X    .         .         .         .         .     W   .  E      .         .         .         .
  228. .         .   X     .         .         .         .         .     W   .  E      .         .         .         .
  230. .         . X       .         .         .         .         .     W   .  E      .         .         .         .
6 232. .         X         .         .         .         .         .     W   .  E      .         .         .         .
  234. .        X.         .         .         .         .         .     W   .  E      .         .         .         .
  236. .       X .         .         .         .         .         .     W   .  E      .         .         .         .
7 238. .       X .         .         .         .         .         .     W   .  E      .         .         .         .
8 240. .       X .         .         .         .         .         .     W   .  E      .         .         .         .
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	246.	.	.	X	.	.	.	.	.	.	.	.	W	.	E	.	.	.
	248.	.	.	.	X	.	.	.	.	.	.	.	W	.	E	.	.	.
	250.	.	.	.	.	X	.	.	.	.	.	.	W	.	E	.	.	.
	252.	.	.	.	.	.	X	.	.	.	.	.	W	.	E	.	.	.
	254.	.	.	.	.	.	.	X	.	.	.	.	W	.	E	.	.	.
	256.	.	.	.	.	.	.	.	X	.	.	.	W	.	E	.	.	.
	258.	.	.	.	.	.	.	.	.	X	.	.	W	.	E	.	.	.
	260.	.	.	.	.	.	.	.	.	.	X	.	W	.	E	.	.	.
	262.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
9	264.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	BANK.
	266.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	268.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	270.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	272.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	274.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	276.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	278.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	280.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	282.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	284.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	286.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	288.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	290.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	292.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	294.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	296.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	298.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	300.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	302.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	304.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	306.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	308.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	310.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	312.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	314.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	316.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	318.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	320.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	322.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	324.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	326.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	328.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	330.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	332.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	334.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	336.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	338.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	340.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	342.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	344.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	346.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	348.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	350.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	352.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	354.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	356.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	358.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	360.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	362.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	364.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	366.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	368.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	370.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	372.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	374.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.
	376.	.	.	.	.	.	.	.	.	.	.	.	X	W	.	E	.	.	.

```
   382. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   384. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   386. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   388. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   390. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   392. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   394. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   396. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   398. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   400. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   402. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   404. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   406. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   408. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   410. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   412. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   414. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   416. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   418. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   420. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   422. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   424. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   426. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   428. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   430. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   432. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   434. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   436. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   438. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   440. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   442. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   444. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   446. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   448. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   450. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   452. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   454. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   456. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   458. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   460. .         .         .         .         .         .         X     W   .  E     .         .         .         .
   462. .         .         .         .         .         .         X     W   .  E     .         .         .         .
11 464. .         .         .         .         .         .         XXXXXXXX  .  E     .         .         .         .

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1403.00          .00     1402.30        1.00     1402.30      200.00     1397.80      222.00     1397.00      233.00
    1396.80       238.00     1396.80      244.00     1402.00      265.00     1402.00      465.00     1402.70      465.00
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CROSS SECTION      3.10
STREAM   Q=100 YR
DISCHARGE=     2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1400.     1401.     1402.     1403.     1404.     1405.     1406.     1407.     1408.     1409.     1410.

    STA-FEET

8560 XSEC POINT-X      EL,ST-   1456.00       .00
 2    0. .         .         .         .         .         .         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
      2. .         .         .         .         .         .         XW        . E       .         .         .         .
      4. .         .         .         .         .         .         XW        . E       .         .         .         .
      6. .         .         .         .         .         .         XW        . E       .         .         .         .
      8. .         .         .         .         .         .         XW        . E       .         .         .         .
     10. .         .         .         .         .         .         XW        . E       .         .         .         .
     12. .         .         .         .         .         .         XW        . E       .         .         .         .
     14. .         .         .         .         .         .         XW        . E       .         .         .         .
     16. .         .         .         .         .         .         XW        . E       .         .         .         .
     18. .         .         .         .         .         .         XW        . E       .         .         .         .
     20. .         .         .         .         .         .         XW        . E       .         .         .         .
     22. .         .         .         .         .         .         XW        . E       .         .         .         .
     24. .         .         .         .         .         .         XW        . E       .         .         .         .
     26. .         .         .         .         .         .         XW        . E       .         .         .         .
     28. .         .         .         .         .         .         XW        . E       .         .         .         .
     30. .         .         .         .         .         .         XW        . E       .         .         .         .
     32. .         .         .         .         .         .         XW        . E       .         .         .         .
     34. .         .         .         .         .         .         XW        . E       .         .         .         .
     36. .         .         .         .         .         .         XW        . E       .         .         .         .
     38. .         .         .         .         .         .         XW        . E       .         .         .         .
     40. .         .         .         .         .         .         XW        . E       .         .         .         .
     42. .         .         .         .         .         .         XW        . E       .         .         .         .
     44. .         .         .         .         .         .         XW        . E       .         .         .         .
     46. .         .         .         .         .         .         XW        . E       .         .         .         .
     48. .         .         .         .         .         .         XW        . E       .         .         .         .
     50. .         .         .         .         .         .         XW        . E       .         .         .         .
     52. .         .         .         .         .         .         XW        . E       .         .         .         .
     54. .         .         .         .         .         .         XW        . E       .         .         .         .
     56. .         .         .         .         .         .         XW        . E       .         .         .         .
     58. .         .         .         .         .         .         XW        . E       .         .         .         .
     60. .         .         .         .         .         .         XW        . E       .         .         .         .
     62. .         .         .         .         .         .         XW        . E       .         .         .         .
     64. .         .         .         .         .         .         XW        . E       .         .         .         .
     66. .         .         .         .         .         .         XW        . E       .         .         .         .
     68. .         .         .         .         .         .         XW        . E       .         .         .         .
     70. .         .         .         .         .         .         XW        . E       .         .         .         .
     72. .         .         .         .         .         .         XW        . E       .         .         .         .
     74. .         .         .         .         .         .         XW        . E       .         .         .         .
     76. .         .         .         .         .         .         XW        . E       .         .         .         .
     78. .         .         .         .         .         .         XW        . E       .         .         .         .
     80. .         .         .         .         .         .         XW        . E       .         .         .         .
     82. .         .         .         .         .         .         XW        . E       .         .         .         .
     84. .         .         .         .         .         .         XW        . E       .         .         .         .
     86. .         .         .         .         .         .         XW        . E       .         .         .         .
     88. .         .         .         .         .         .         XW        . E       .         .         .         .
     90. .         .         .         .         .         .         XW        . E       .         .         .         .
     92. .         .         .         .         .         .         XW        . E       .         .         .         .
     94. .         .         .         .         .         .         XW        . E       .         .         .         .
     96. .         .         .         .         .         .         XW        . E       .         .         .         .
     98. .         .         .         .         .         .         XW        . E       .         .         .         .
    100. .         .         .         .         .         .         XW        . E       .         .         .         .
    102. .         .         .         .         .         .         XW        . E       .         .         .         .
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```
  108. .         .         .         .         .         .         XW        . E       .         .         .         .
  110. .         .         .         .         .         .         XW        . E       .         .         .         .
  112. .         .         .         .         .         .         XW        . E       .         .         .         .
  114. .         .         .         .         .         .         XW        . E       .         .         .         .
  116. .         .         .         .         .         .         XW        . E       .         .         .         .
  118. .         .         .         .         .         .         XW        . E       .         .         .         .
  120. .         .         .         .         .         .         XW        . E       .         .         .         .
  122. .         .         .         .         .         .         XW        . E       .         .         .         .
  124. .         .         .         .         .         .         XW        . E       .         .         .         .
  126. .         .         .         .         .         .         XW        . E       .         .         .         .
  128. .         .         .         .         .         .         XW        . E       .         .         .         .
  130. .         .         .         .         .         .         XW        . E       .         .         .         .
  132. .         .         .         .         .         .         XW        . E       .         .         .         .
  134. .         .         .         .         .         .         XW        . E       .         .         .         .
  136. .         .         .         .         .         .         XW        . E       .         .         .         .
  138. .         .         .         .         .         .         XW        . E       .         .         .         .
  140. .         .         .         .         .         .         XW        . E       .         .         .         .
  142. .         .         .         .         .         .         XW        . E       .         .         .         .
  144. .         .         .         .         .         .         XW        . E       .         .         .         .
  146. .         .         .         .         .         .         XW        . E       .         .         .         .
  148. .         .         .         .         .         .         XW        . E       .         .         .         .
  150. .         .         .         .         .         .         XW        . E       .         .         .         .
  152. .         .         .         .         .         .         XW        . E       .         .         .         .
  154. .         .         .         .         .         .         XW        . E       .         .         .         .
  156. .         .         .         .         .         .         XW        . E       .         .         .         .
  158. .         .         .         .         .         .         XW        . E       .         .         .         .
  160. .         .         .         .         .         .         XW        . E       .         .         .         .
  162. .         .         .         .         .         .         XW        . E       .         .         .         .
  164. .         .         .         .         .         .         XW        . E       .         .         .         .
  166. .         .         .         .         .         .         XW        . E       .         .         .         .
  168. .         .         .         .         .         .         XW        . E       .         .         .         .
  170. .         .         .         .         .         .         XW        . E       .         .         .         .
  172. .         .         .         .         .         .         XW        . E       .         .         .         .
  174. .         .         .         .         .         .         XW        . E       .         .         .         .
  176. .         .         .         .         .         .         XW        . E       .         .         .         .
  178. .         .         .         .         .         .         XW        . E       .         .         .         .
  180. .         .         .         .         .         .         XW        . E       .         .         .         .
  182. .         .         .         .         .         .         XW        . E       .         .         .         .
  184. .         .         .         .         .         .         XW        . E       .         .         .         .
  186. .         .         .         .         .         .         XW        . E       .         .         .         .
  188. .         .         .         .         .         .         XW        . E       .         .         .         .
  190. .         .         .         .         .         .         XW        . E       .         .         .         .
  192. .         .         .         .         .         .         XW        . E       .         .         .         .
  194. .         .         .         .         .         .         XW        . E       .         .         .         .
  196. .         .         .         .         .         .         XW        . E       .         .         .         .
  198. .         .         .         .         .         .         XW        . E       .         .         .         .
3 200. .         .         .         .         .         .         XW        . E       .         .         .         BANK.
  202. .         .         .         .         .         .       X .W        . E       .         .         .         .
  204. .         .         .         .         .         .     X C .W        . E       .         .         .         .
  206. .         .         .         .         .         X       C .W        . E       .         .         .         .
  208. .         .         .         .         .       X .       C .W        . E       .         .         .         .
  210. .         .         .         .         .     X   .       C .W        . E       .         .         .         .
  212. .         .         .         .         X       .       C .W        . E       .         .         .         .
  214. .         .         .         .       X         .       C .W        . E       .         .         .         .
  216. .         .         .         .     X           .       C .W        . E       .         .         .         .
  218. .         .         .         X     .           .       C .W        . E       .         .         .         .
  220. .         .         .       X       .           .       C .W        . E       .         .         .         .
  222. .         .         .     X         .           .       C .W        . E       .         .         .         .
  224. .         .         X     .         .           .       C .W        . E       .         .         .         .
  226. .         .       X       .         .           .       C .W        . E       .         .         .         .
  228. .         .     X         .         .           .       C .W        . E       .         .         .         .
  230. .         X     .         .         .           .       C .W        . E       .         .         .         .
4 232. .       X       .         .         .           .       C .W        . E       .         .         .         .
  234. .     X         .         .         .           .       C .W        . E       .         .         .         .
  236. .   X           .         .         .           .       C .W        . E       .         .         .         .
5 238: :xxx            :         :         :           :       C :W        : E       :         :         :         :
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  244. .    X   .         .         .         .         .    C   .W        . E      .         .         .         .
6 246. .       X .         .         .         .         .    C   .W        . E      .         .         .         .
  248. .         . X       .         .         .         .    C   .W        . E      .         .         .         .
  250. .         .     X   .         .         .         .    C   .W        . E      .         .         .         .
  252. .         .       .X          .         .         .    C   .W        . E      .         .         .         .
  254. .         .         .     X   .         .         .    C   .W        . E      .         .         .         .
  256. .         .         .         X         .         .    C   .W        . E      .         .         .         .
  258. .         .         .         .    X    .         .    C   .W        . E      .         .         .         .
  260. .         .         .         .         X.        .    C   .W        . E      .         .         .         .
  262. .         .         .         .         .    X    .    C   .W        . E      .         .         .         .
  264. .         .         .         .         .         X .  C   .W        . E      .         .         .         .
  266. .         .         .         .         .         . X  C   .W        . E      .         .         .         .
  268. .         .         .         .         .         .    X  .W        . E      .         .         .         .
  270. .         .         .         .         .         .       .X        . E      .         .         .         .
  272. .         .         .         .         .         .       .    X    . E      .         .         .         .
7 274. .         .         .         .         .         .       .      X . E      .         .         .     BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

1406.00	.00	1406.00	200.00	1400.60	233.00	1400.10	240.00	1400.80	247.00
1406.80	274.00	1407.80	282.00	1407.80	482.00				

```
CROSS SECTION      1.00
STREAM   Q=100 YR
DISCHARGE=     2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1401.     1402.     1403.     1404.     1405.     1406.     1407.     1408.     1409.     1410.     1411.

    STA-FEET

 2  70. .         .         .         .         .         .         .         .         .X        .         .         .     BANK.
    72. .         .         .         .         .         .         .         .X E .         .         .         .         .
    74. .         .         .         .         .         .         .XW       .   E .         .         .         .         .
    76. .         .         .         .         .       X C .         W       .   E .         .         .         .         .
    78. .         .         .         .       X .         C .         W       .   E .         .         .         .         .
    80. .         .         .       X .         .         C .         W       .   E .         .         .         .         .
    82. .         .       X .         .         .         C .         W       .   E .         .         .         .         .
    84. .       X .         .         .         .         C .         W       .   E .         .         .         .         .
 3  86. X         .         .         .         .         C .         W       .   E .         .         .         .         .
    88. X         .         .         .         .         C .         W       .   E .         .         .         .         .
    90. X         .         .         .         .         C .         W       .   E .         .         .         .         .
    92. X         .         .         .         .         C .         W       .   E .         .         .         .         .
    94. X         .         .         .         .         C .         W       .   E .         .         .         .         .
    96. X         .         .         .         .         C .         W       .   E .         .         .         .         .
    98. X         .         .         .         .         C .         W       .   E .         .         .         .         .
   100. X         .         .         .         .         C .         W       .   E .         .         .         .         .
   102. X         .         .         .         .         C .         W       .   E .         .         .         .         .
   104. X         .         .         .         .         C .         W       .   E .         .         .         .         .
   106. X         .         .         .         .         C .         W       .   E .         .         .         .         .
   108. X         .         .         .         .         C .         W       .   E .         .         .         .         .
   110. X         .         .         .         .         C .         W       .   E .         .         .         .         .
   112. X         .         .         .         .         C .         W       .   E .         .         .         .         .
 4 114. X         .         .         .         .         C .         W       .   E .         .         .         .         .
   116. .         X         .         .         .         C .         W       .   E .         .         .         .         .
   118. .         .         X         .         .         C .         W       .   E .         .         .         .         .
   120. .         .         .         X         .         C .         W       .   E .         .         .         .         .
   122. .         .         .         .         X         C .         W       .   E .         .         .         .         .
   124. .         .         .         .         .         .X        W .         E .         .         .         .         .
   126. .         .         .         .         .         .         .X        E .         .         .         .         .
   128. .         .         .         .         .         .         .         .X        .         .         .         .
 5 130. .         .         .         .         .         .         .         .         .X        .         .         .     BANK.

NRD=      0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1408.50       70.50     1401.00       85.50     1401.00      114.50     1408.50      129.50
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```
CROSS SECTION    930.49
STREAM   Q=100 YR
DISCHARGE=     2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1401.     1402.     1403.     1404.     1405.     1406.     1407.     1408.     1409.     1410.     1411.

    STA-FEET

   460. .                                                                                  X     .         .         .
 3 462. . XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     .         .         .     BANK.
   464. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   466. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   468. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   470. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   472. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   474. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   476. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   478. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   480. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   482. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   484. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   486. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   488. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   490. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   492. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   494. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   496. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   498. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   500. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   502. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   504. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   506. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   508. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   510. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   512. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   514. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   516. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   518. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   520. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   522. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   524. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   526. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   528. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   530. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   532. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   534. . X       .         .         C.        .         .         .         W  E        .         .         .         .
   536. . X       .         .         C.        .         .         .         W  E        .         .         .         .
 5 538. . XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     .         .         .     BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1408.50      461.50     1401.17      461.50     1401.17      538.50     1408.50      538.50
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```
CROSS SECTION     30.50
STREAM   Q=100 YR
DISCHARGE=     2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1401.     1402.     1403.     1404.     1405.     1406.     1407.     1408.     1409.     1410.     1411.

    STA-FEET

   460. .         .         .         .         .         .         .              X    .         .         .         .
 3 462. .     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXBXXXXXXXXX    .         .T        .     BANK.
 4 464. .C        .         .         .         .         .         .     B   W E       .         .T        .         .
   466. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   468. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   470. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   472. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   474. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   476. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   478. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   480. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   482. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   484. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   486. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   488. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   490. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   492. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   494. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   496. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   498. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   500. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   502. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   504. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   506. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   508. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   510. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   512. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   514. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   516. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   518. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   520. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   522. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   524. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   526. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   528. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   530. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   532. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   534. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
   536. .     X   .         .         .         .         .         .     B   W E       .         .T        .         .
 5 538. .         .         .         .         .         .         .              X    .         .T        .     BANK.

NRD=       6 ELLC=      1407.61 ELTRD=       1410.11

   461.50    1407.61    1410.11    461.50    1407.61    1410.11    538.50    1407.61    1410.11
   538.50    1407.61    1410.11
  EL(I),STA(I)
    1408.50       461.50       1401.61       461.50       1401.61       538.50       1408.50       538.50
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```
CROSS SECTION    930.51
STREAM   Q=100 YR
DISCHARGE=     2011.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1401.     1402.     1403.     1404.     1405.     1406.     1407.     1408.     1409.     1410.     1411.


    STA-FEET

   460. .         .         .         .         .         .         .              X    .         .         .         .
 3 462. .     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX    .         .         .    BANK.
   464. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   466. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   468. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   470. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   472. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   474. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   476. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   478. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   480. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   482. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   484. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   486. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   488. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   490. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   492. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   494. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   496. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   498. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   500. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   502. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   504. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   506. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   508. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   510. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   512. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   514. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   516. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   518. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   520. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   522. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   524. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   526. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   528. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   530. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   532. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   534. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
   536. .     X   .         .         .   C     .         .         .         W E       .         .         .         .
 5 538. .     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX    .         .         .    BANK.

NRD=        0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1408.50      461.50     1401.63      461.50     1401.63      538.50     1408.50      538.50
```

CROSS SECTION 930.52
STREAM Q=100 YR
DISCHARGE= 866.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1401.     1402.     1403.     1404.     1405.     1406.     1407.     1408.     1409.     1410.     1411.

   STA-FEET

 2 475. .         .         .         .         .         .         .         .         . X       .         .     BANK.
   477. .         .         .         .         .         .         .         .   X     .         .         .        .
   479. .         .         .         .         .         .         .       X W.  E     .         .         .        .
   481. .         .         .         .         .         .       X .       W.  E     .         .         .        .
   483. .         .         .         .         .       .X          .       W.  E     .         .         .        .
   485. .         .         .         .         .   X   C .         .       W.  E     .         .         .        .
   487. .         .         .         .     X   .       C .         .       W.  E     .         .         .        .
   489. .         .         .       X .         .       C .         .       W.  E     .         .         .        .
   491. .         .       X.          .         .       C .         .       W.  E     .         .         .        .
 3 493. .       X .         .         .         .       C .         .       W.  E     .         .         .        .
   495. .       X .         .         .         .       C .         .       W.  E     .         .         .        .
   497. .       X .         .         .         .       C .         .       W.  E     .         .         .        .
   499. .       X .         .         .         .       C .         .       W.  E     .         .         .        .
   501. .       X .         .         .         .       C .         .       W.  E     .         .         .        .
   503. .       X .         .         .         .       C .         .       W.  E     .         .         .        .
 4 505. .       X .         .         .         .       C .         .       W.  E     .         .         .        .
   507. .         .     X   .         .         .       C .         .       W.  E     .         .         .        .
   509. .         .         . X       .         .       C .         .       W.  E     .         .         .        .
   511. .         .         .         .X        .       C .         .       W.  E     .         .         .        .
   513. .         .         .         .       X.        C .         .       W.  E     .         .         .        .
   515. .         .         .         .         .      XC .         .       W.  E     .         .         .        .
   517. .         .         .         .         .         .   X     .       W.  E     .         .         .        .
   519. .         .         .         .         .         .         . X     W.  E     .         .         .        .
   521. .         .         .         .         .         .         .       X  E      .         .         .        .
   523. .         .         .         .         .         .         .         .       X .         .         .        .
 5 525. .         .         .         .         .         .         .         .         . X       .         .     BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

1409.20	475.00	1401.72	494.00	1401.72	506.00	1409.20	525.00

CROSS SECTION 935.00
STREAM Q=100 YR
DISCHARGE= 866.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1402.     1403.     1404.     1405.     1406.     1407.     1408.     1409.     1410.     1411.     1412.

   STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         . X   BANK.
   477. .         .         .         .         .         .         .         .         .         . X       .         .
   479. .         .         .         .         .         .         .         .         . X       .         .         .
   481. .         .         .         .         .         .         .         . X       .         .         .         .
   483. .         .         .         .         .         .         . X     E .         .         .         .         .
   485. .         .         .         .         .         . X     W.      E .         .         .         .         .
   487. .         .         .         .         . X     C.        W.      E .         .         .         .         .
   489. .         .         .         . X       .         C.        W.      E .         .         .         .         .
   491. .         .         . X       .         .         C.        W.      E .         .         .         .         .
 3 493. .       X .         .         .         .         C.        W.      E .         .         .         .         .
   495. .       X .         .         .         .         C.        W.      E .         .         .         .         .
   497. .       X .         .         .         .         C.        W.      E .         .         .         .         .
   499. .       X .         .         .         .         C.        W.      E .         .         .         .         .
   501. .       X .         .         .         .         C.        W.      E .         .         .         .         .
   503. .       X .         .         .         .         C.        W.      E .         .         .         .         .
 4 505. .       X .         .         .         .         C.        W.      E .         .         .         .         .
   507. .         .       X .         .         .         C.        W.      E .         .         .         .         .
   509. .         .         .       X .         .         C.        W.      E .         .         .         .         .
   511. .         .         .         .       X .         C.        W.      E .         .         .         .         .
   513. .         .         .         .         .       X C.        W.      E .         .         .         .         .
   515. .         .         .         .         .         .       X W.      E .         .         .         .         .
   517. .         .         .         .         .         .         .      XE .         .         .         .         .
   519. .         .         .         .         .         .         .         .         X .         .         .         .
   521. .         .         .         .         .         .         .         .         .         . X       .         .
   523. .         .         .         .         .         .         .         .         .         .         . X       .
 5 525. .         .         .         .         .         .         .         .         .         .         . X   BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

```
  EL(I),STA(I)
    1412.20      475.00     1402.69      494.00     1402.69      506.00     1412.20      525.00
```

```
CROSS SECTION     43.36
STREAM   Q=100 YR
DISCHARGE=      618.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1408.     1409.     1410.     1411.     1412.     1413.     1414.     1415.     1416.     1417.     1418.

    STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         X .     BANK.
   477. .         .         .         .         .         .         .         .         .         X .         .         .
   479. .         .         .         .         .         .         .         .         X .         .         .         .
   481. .         .         .         .         .         .         .         X .         .         .         .         .
   483. .         .         .         .         .         .         X .         .         .         .         .         .
   485. .         .         .         .         .         X .E        .         .         .         .         .         .
   487. .         .         .         .        XW .         .E        .         .         .         .         .         .
   489. .         .         .         X .       W .         .E        .         .         .         .         .         .
   491. .         .         X .         .       W .         .E        .         .         .         .         .         .
 3 493. . X       .         .         .       W .         .E        .         .         .         .         .         .
   495. . X       .         .         .       W .         .E        .         .         .         .         .         .
   497. . X       .         .         .       W .         .E        .         .         .         .         .         .
   499. . X       .         .         .       W .         .E        .         .         .         .         .         .
   501. . X       .         .         .       W .         .E        .         .         .         .         .         .
   503. . X       .         .         .       W .         .E        .         .         .         .         .         .
 4 505. . X       .         .         .       W .         .E        .         .         .         .         .         .
   507. .         . X       .         .       W .         .E        .         .         .         .         .         .
   509. .         .         . X       .       W .         .E        .         .         .         .         .         .
   511. .         .         .         . X     W .         .E        .         .         .         .         .         .
   513. .         .         .         .         . X       .E        .         .         .         .         .         .
   515. .         .         .         .         .         . X       .         .         .         .         .         .
   517. .         .         .         .         .         .         . X       .         .         .         .         .
   519. .         .         .         .         .         .         .         . X       .         .         .         .
   521. .         .         .         .         .         .         .         .         . X       .         .         .
   523. .         .         .         .         .         .         .         .         .         . X       .         .
 5 525. .         .         .         .         .         .         .         .         .         .         X .     BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1417.70      475.00     1408.22      494.00     1408.22      506.00     1417.70      525.00
```

CROSS SECTION 947.00
STREAM Q=100 YR
DISCHARGE= 618.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1410.     1411.     1412.     1413.     1414.     1415.     1416.     1417.     1418.     1419.     1420.


   STA-FEET

 2 475. .        .         .         .         .         .         .         .         .         .         .   X BANK.
   477. .        .         .         .         .         .         .         .         .         .   X     .         .
   479. .        .         .         .         .         .         .         .         .   X     .         .         .
   481. .        .         .         .         .         .         .         .   X     .         .         .         .
   483. .        .         .         .         .         .         .   X     .         .         .         .         .
   485. .        .         .         .         .         .   X   E .         .         .         .         .         .
   487. .        .         .         .         .   X     .     E .         .         .         .         .         .
   489. .        .         .         .   X     .   W     .     E .         .         .         .         .         .
   491. .        .         .   X     .         .   W     .     E .         .         .         .         .         .
 3 493. .      X.         .         .         .   W     .     E .         .         .         .         .         .
   495. .      X.         .         .         .   W     .     E .         .         .         .         .         .
   497. .      X.         .         .         .   W     .     E .         .         .         .         .         .
   499. .      X.         .         .         .   W     .     E .         .         .         .         .         .
   501. .      X.         .         .         .   W     .     E .         .         .         .         .         .
   503. .      X.         .         .         .   W     .     E .         .         .         .         .         .
 4 505. .      X.         .         .         .   W     .     E .         .         .         .         .         .
   507. .        .       X.         .         .   W     .     E .         .         .         .         .         .
   509. .        .         .       X.         .   W     .     E .         .         .         .         .         .
   511. .        .         .         .       X.   W     .     E .         .         .         .         .         .
   513. .        .         .         .         .         X.    E .         .         .         .         .         .
   515. .        .         .         .         .         .       X.        .         .         .         .         .
   517. .        .         .         .         .         .         .       X.        .         .         .         .
   519. .        .         .         .         .         .         .         .       X.        .         .         .
   521. .        .         .         .         .         .         .         .         .       X.        .         .
   523. .        .         .         .         .         .         .         .         .         .       X.        .
 5 525. .        .         .         .         .         .         .         .         .         .         .   X BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1420.40      475.00     1410.90      494.00     1410.90      506.00     1420.40      525.00
```

CROSS SECTION 954.40
STREAM Q=100 YR
DISCHARGE= 618.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1416.     1417.     1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.

   STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         X         .     BANK.
   477. .         .         .         .         .         .         .         .         .         X         .         .         .
   479. .         .         .         .         .         .         .         .         X         .         .         .         .
   481. .         .         .         .         .         .         .         X         .         .         .         .         .
   483. .         .         .         .         .         .         X         .         .         .         .         .         .
   485. .         .         .         .         .         X         E.        .         .         .         .         .         .
   487. .         .         .         .         XW        .         E.        .         .         .         .         .         .
   489. .         .         .         X         .         W         E.        .         .         .         .         .         .
   491. .         .         X         .         .         W         E.        .         .         .         .         .         .
 3 493. X         .         .         .         .         W         E.        .         .         .         .         .         .
   495. X         .         .         .         .         W         E.        .         .         .         .         .         .
   497. X         .         .         .         .         W         E.        .         .         .         .         .         .
   499. X         .         .         .         .         W         E.        .         .         .         .         .         .
   501. X         .         .         .         .         W         E.        .         .         .         .         .         .
   503. X         .         .         .         .         W         E.        .         .         .         .         .         .
 4 505. X         .         .         .         .         W         E.        .         .         .         .         .         .
   507. .         X         .         .         .         W         E.        .         .         .         .         .         .
   509. .         .         X         .         .         W         E.        .         .         .         .         .         .
   511. .         .         .         .         X         W         E.        .         .         .         .         .         .
   513. .         .         .         .         .         X         E.        .         .         .         .         .         .
   515. .         .         .         .         .         .         X         .         .         .         .         .         .
   517. .         .         .         .         .         .         .         X         .         .         .         .         .
   519. .         .         .         .         .         .         .         .         X         .         .         .         .
   521. .         .         .         .         .         .         .         .         .         X         .         .         .
   523. .         .         .         .         .         .         .         .         .         .         X         .         .
 5 525. .         .         .         .         .         .         .         .         .         .         .         X         .     BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1425.50      475.00     1416.04      494.00     1416.04      506.00     1425.50      525.00
```

```
CROSS SECTION    954.61
STREAM   Q=100 YR
DISCHARGE=      618.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1416.     1417.     1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.

   STA-FEET

 2 479. .         .         .         .         .                   .         .    X    .         .         .    BANK.
   481. .         .         .         .         .                   .    X    .         .         .         .       .
   483. .         .         .         .         .              X    .         .         .         .         .       .
   485. .         .         .         .         .    X    E         .         .         .         .         .       .
   487. .         .         .         .    XC   W.         E         .         .         .         .         .       .
   489. .         .         .    X    .     C   W.         E         .         .         .         .         .       .
   491. .         .    X    .         .     C   W.         E         .         .         .         .         .       .
 3 493. .X        .         .         .     C   W.         E         .         .         .         .         .       .
   495. .X        .         .         .     C   W.         E         .         .         .         .         .       .
   497. .X        .         .         .     C   W.         E         .         .         .         .         .       .
   499. .X        .         .         .     C   W.         E         .         .         .         .         .       .
   501. .X        .         .         .     C   W.         E         .         .         .         .         .       .
   503. .X        .         .         .     C   W.         E         .         .         .         .         .       .
 4 505. .X        .         .         .     C   W.         E         .         .         .         .         .       .
   507. .         .X        .         .     C   W.         E         .         .         .         .         .       .
   509. .         .         .X        .     C   W.         E         .         .         .         .         .       .
   511. .         .         .         .X    C   W.         E         .         .         .         .         .       .
   513. .         .         .         .         .X        E         .         .         .         .         .       .
   515. .         .         .         .         .          X        .         .         .         .         .       .
   517. .         .         .         .         .                   .X        .         .         .         .       .
   519. .         .         .         .         .                   .         .X        .         .         .       .
 5 521. .         .         .         .         .                   .         .         X.        .         .    BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1423.50      479.20     1416.08      494.00     1416.08      506.00     1423.90      521.60
```

CROSS SECTION 954.71
STREAM Q=100 YR
DISCHARGE= 618.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1416.     1417.     1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.


   STA-FEET

 2 478. .         .         .         .         .                   .         .         X         .         .         .     BANK.
   480. .         .         .         .         .                   .   X     .         .         .         .         .
   482. .         .         .         .         .         X         .         .         .         .         .         .
   484. .         .         .         .       X .     W   E         .         .         .         .         .         .
   486. .         .         .       X  C.       .     W   E         .         .         .         .         .         .
   488. .         .   X     .         C.       .     W   E         .         .         .         .         .         .
 3 490. .X        .         .         C.       .     W   E         .         .         .         .         .         .
   492. .X        .         .         C.       .     W   E         .         .         .         .         .         .
   494. .X        .         .         C.       .     W   E         .         .         .         .         .         .
   496. .X        .         .         C.       .     W   E         .         .         .         .         .         .
   498. .X        .         .         C.       .     W   E         .         .         .         .         .         .
   500. .X        .         .         C.       .     W   E         .         .         .         .         .         .
   502. .X        .         .         C.       .     W   E         .         .         .         .         .         .
   504. .X        .         .         C.       .     W   E         .         .         .         .         .         .
   506. .X        .         .         C.       .     W   E         .         .         .         .         .         .
   508. .X        .         .         C.       .     W   E         .         .         .         .         .         .
 4 510. .X        .         .         C.       .     W   E         .         .         .         .         .         .
   512. .         .   X     .         C.       .     W   E         .         .         .         .         .         .
   514. .         .         .       X  C.       .     W   E         .         .         .         .         .         .
   516. .         .         .         .       X.     W   E         .         .         .         .         .         .
   518. .         .         .         .         .         X         .         .         .         .         .         .
   520. .         .         .         .         .                   .   X     .         .         .         .         .
 5 522. .         .         .         .         .                   .         .         .         X         .         .     BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)
1423.60 478.00 1416.10 490.00 1416.10 510.00 1424.00 522.60

```
CROSS SECTION    954.81
STREAM   Q=100 YR
DISCHARGE=      618.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1416.     1417.     1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.


    STA-FEET

 2 477. .         .         .                   .                   .         .         X .         .         .     BANK.
   479. .         .         .                   .                   .   X     .         .         .         .         .
   481. .         .         .                   .             X     .         .         .         .         .         .
   483. .         .         .                 X.      W  E        .         .         .         .         .         .
   485. .         .         .      X  C         .      W  E        .         .         .         .         .         .
   487. .         .   X     .         C         .      W  E        .         .         .         .         .         .
 3 489. .X        .         .         C         .      W  E        .         .         .         .         .         .
   491. .X        .         .         C         .      W  E        .         .         .         .         .         .
   493. .X        .         .         C         .      W  E        .         .         .         .         .         .
   495. .X        .         .         C         .      W  E        .         .         .         .         .         .
   497. .X        .         .         C         .      W  E        .         .         .         .         .         .
   499. .X        .         .         C         .      W  E        .         .         .         .         .         .
   501. .X        .         .         C         .      W  E        .         .         .         .         .         .
   503. .X        .         .         C         .      W  E        .         .         .         .         .         .
   505. .X        .         .         C         .      W  E        .         .         .         .         .         .
   507. .X        .         .         C         .      W  E        .         .         .         .         .         .
 4 509. .X        .         .         C         .      W  E        .         .         .         .         .         .
   511. .         .   X     .         C         .      W  E        .         .         .         .         .         .
   513. .         .         .      X  C         .      W  E        .         .         .         .         .         .
   515. .         .         .                 X.      W  E        .         .         .         .         .         .
   517. .         .         .                   .         X       .         .         .         .         .         .
   519. .         .         .                   .                 .   X     .         .         .         .         .
   521. .         .         .                   .                 .         .     X   .         .         .         .
 5 523. .         .         .                   .                 .         .         .X        .         .     BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1423.70      477.90     1416.12      490.00     1416.12      510.00     1424.10      522.80
```

```
CROSS SECTION    954.85
STREAM   Q=100 YR
DISCHARGE=      618.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1416.     1417.     1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.


   STA-FEET

 2 477. .         .         .         .         .         .         .         .         .X        .         .         .     BANK.
   479. .         .         .         .         .         .         .         .   X T   .         .         .         .         .
   481. .         .         .         .         .         . X   W E .         T .         .         .         .         .
   483. .         .         .         .       X.         .     W E .         T .         .         .         .         .
   485. .         .         .       X .     B   .         .     W E .         T .         .         .         .         .
   487. .         .   X     .         .     B   .         .     W E .         T .         .         .         .         .
 3 489. .X        .         .         .     B   .         .     W E .         T .         .         .         .         .
   491. .X        .         .         .     B   .         .     W E .         T .         .         .         .         .
   493. .X        .         .         .     B   .         .     W E .         T .         .         .         .         .
   495. .X        .         .         .     B   .         .     W E .         T .         .         .         .         .
   497. .X        .         .         .     B   .         .     W E .         T .         .         .         .         .
   499. .X        .         .         .     B   .         .     W E .         T .         .         .         .         .
   501. .X        .         .         .     B   .         .     W E .         T .         .         .         .         .
   503. .X        .         .         .     B   .         .     W E .         T .         .         .         .         .
   505. .X        .         .         .     B   .         .     W E .         T .         .         .         .         .
   507. .X        .         .         .     B   .         .     W E .         T .         .         .         .         .
 4 509. .X        .         .         .     B   .         .     W E .         T .         .         .         .         .
   511. .         .   X     .         .     B   .         .     W E .         T .         .         .         .         .
   513. .         .         .       X .     B   .         .     W E .         T .         .         .         .         .
   515. .         .         .         .       X.         .     W E .         T .         .         .         .         .
   517. .         .         .         .         .         .X    W E .         T .         .         .         .         .
   519. .         .         .         .         .         .         .   X T   .         .         .         .         .
   521. .         .         .         .         .         .         .         .         X .         .         .         .
 5 523. .         .         .         .         .         .         .         .         .X        .         .     BANK.

NRD=       6 ELLC=     1419.63 ELTRD=     1422.71

   477.90   1419.63   1422.71    490.00   1419.63   1422.71    510.00   1419.63   1422.71
   522.80   1419.63   1422.71
  EL(I),STA(I)
    1423.70      477.90     1416.13      490.00     1416.13      510.00     1424.10      522.80
```

```
CROSS SECTION    954.90
STREAM   Q=100 YR
DISCHARGE=      805.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1416.     1417.     1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.

   STA-FEET

 2 477. .         .         .         .         .         .         .         .         X .         .         .     BANK.
   479. .         .         .         .         .         .         .         X         .         .         .         .
   481. .         .         .         .         .         . X W     E.        .         .         .         .         .
   483. .         .         .         .         X         .   W     E.        .         .         .         .         .
   485. .         .         .       X .       C .         .   W     E.        .         .         .         .         .
   487. .         .       X .         .       C .         .   W     E.        .         .         .         .         .
 3 489. .X        .         .         .       C .         .   W     E.        .         .         .         .         .
   491. .X        .         .         .       C .         .   W     E.        .         .         .         .         .
   493. .X        .         .         .       C .         .   W     E.        .         .         .         .         .
   495. .X        .         .         .       C .         .   W     E.        .         .         .         .         .
   497. .X        .         .         .       C .         .   W     E.        .         .         .         .         .
   499. .X        .         .         .       C .         .   W     E.        .         .         .         .         .
   501. .X        .         .         .       C .         .   W     E.        .         .         .         .         .
   503. .X        .         .         .       C .         .   W     E.        .         .         .         .         .
   505. .X        .         .         .       C .         .   W     E.        .         .         .         .         .
   507. .X        .         .         .       C .         .   W     E.        .         .         .         .         .
 4 509. .X        .         .         .       C .         .   W     E.        .         .         .         .         .
   511. .         .       X .         .       C .         .   W     E.        .         .         .         .         .
   513. .         .         .       X .       C .         .   W     E.        .         .         .         .         .
   515. .         .         .         .         X.        .   W     E.        .         .         .         .         .
   517. .         .         .         .         .         .X  W     E.        .         .         .         .         .
   519. .         .         .         .         .         .         .         X         .         .         .         .
   521. .         .         .         .         .         .         .         .         X .         .         .         .
 5 523. .         .         .         .         .         .         .         .         .         .X        .         .     BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1423.70      477.90     1416.14      490.00     1416.14      510.00     1424.10      522.80
```

```
CROSS SECTION    955.50
STREAM   Q=100 YR
DISCHARGE=      805.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1416.     1417.     1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.

   STA-FEET

 2 477. .         .         .         .         .         .         .         .         X         .         .     BANK.
   479. .         .         .         .         .         .         .       X .         .         .         .         .
   481. .         .         .         .         .         .       X   E.         .         .         .         .         .
   483. .         .         .         .         .       X .       W   E.         .         .         .         .         .
   485. .         .         .         X     C   .         .       W   E.         .         .         .         .         .
   487. .         .       X .         .     C   .         .       W   E.         .         .         .         .         .
 3 489. .   X     .         .         .     C   .         .       W   E.         .         .         .         .         .
   491. .   X     .         .         .     C   .         .       W   E.         .         .         .         .         .
   493. .   X     .         .         .     C   .         .       W   E.         .         .         .         .         .
   495. .   X     .         .         .     C   .         .       W   E.         .         .         .         .         .
   497. .   X     .         .         .     C   .         .       W   E.         .         .         .         .         .
   499. .   X     .         .         .     C   .         .       W   E.         .         .         .         .         .
   501. .   X     .         .         .     C   .         .       W   E.         .         .         .         .         .
   503. .   X     .         .         .     C   .         .       W   E.         .         .         .         .         .
   505. .   X     .         .         .     C   .         .       W   E.         .         .         .         .         .
   507. .   X     .         .         .     C   .         .       W   E.         .         .         .         .         .
 4 509. .   X     .         .         .     C   .         .       W   E.         .         .         .         .         .
   511. .         .       X .         .     C   .         .       W   E.         .         .         .         .         .
   513. .         .         .       X .     C   .         .       W   E.         .         .         .         .         .
   515. .         .         .         .         X         .       W   E.         .         .         .         .         .
   517. .         .         .         .         .         .      XW   E.         .         .         .         .         .
   519. .         .         .         .         .         .         .         .       X .         .         .         .
   521. .         .         .         .         .         .         .         .         .       X .         .         .
 5 523. .         .         .         .         .         .         .         .         .         .     X   .         .     BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1424.00      477.60     1416.26      490.00     1416.26      510.00     1424.40      523.00
```

CROSS SECTION 955.60
STREAM Q=100 YR
DISCHARGE= 805.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1416.     1417.     1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.

   STA-FEET

 2 478. .         .         .         .         .         .                   .         . X       .         .     BANK.
   480. .         .         .         .         .         .                   . X       .         .         .        .
   482. .         .         .         .         .         .           X       .         .         .         .        .
   484. .         .         .         .         .         . X       E         .         .         .         .        .
   486. .         .         .         .         . X C     . W       E         .         .         .         .        .
   488. .         .         .         . X       .   C     . W       E         .         .         .         .        .
   490. .         .         . X       .         .   C     . W       E         .         .         .         .        .
   492. .         . X       .         .         .   C     . W       E         .         .         .         .        .
 3 494. .   X     .         .         .         .   C     . W       E         .         .         .         .        .
   496. .   X     .         .         .         .   C     . W       E         .         .         .         .        .
   498. .   X     .         .         .         .   C     . W       E         .         .         .         .        .
   500. .   X     .         .         .         .   C     . W       E         .         .         .         .        .
   502. .   X     .         .         .         .   C     . W       E         .         .         .         .        .
   504. .   X     .         .         .         .   C     . W       E         .         .         .         .        .
 4 506. .   X     .         .         .         .   C     . W       E         .         .         .         .        .
   508. .         . X       .         .         .   C     . W       E         .         .         .         .        .
   510. .         .         . X       .         .   C     . W       E         .         .         .         .        .
   512. .         .         .         . X       .   C     . W       E         .         .         .         .        .
   514. .         .         .         .         . XC      . W       E         .         .         .         .        .
   516. .         .         .         .         .         .  X      E         .         .         .         .        .
   518. .         .         .         .         .         .           X       .         .         .         .        .
   520. .         .         .         .         .         .                   . X       .         .         .        .
 5 522. .         .         .         .         .         .                   .         .         X         .     BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

1424.20	478.20	1416.28	494.00	1416.28	506.00	1424.60	522.60

```
CROSS SECTION    956.00
STREAM   Q=100 YR
DISCHARGE=      805.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1416.     1417.     1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.


    STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         .         X.     BANK.
   477. .         .         .         .         .         .         .         .         .         .         X.         .         .
   479. .         .         .         .         .         .         .         .         .         X.         .         .         .
   481. .         .         .         .         .         .         .         .         X.         .         .         .         .
   483. .         .         .         .         .         .         .         X.E       .         .         .         .         .
   485. .         .         .         .         .         .         X. W      .E        .         .         .         .         .
   487. .         .         .         .         X.        C         . W       .E        .         .         .         .         .
   489. .         .         .         X.        .         C         . W       .E        .         .         .         .         .
   491. .         .         X.        .         .         C         . W       .E        .         .         .         .         .
 3 493. .   X     .         .         .         .         C         . W       .E        .         .         .         .         .
   495. .   X     .         .         .         .         C         . W       .E        .         .         .         .         .
   497. .   X     .         .         .         .         C         . W       .E        .         .         .         .         .
   499. .   X     .         .         .         .         C         . W       .E        .         .         .         .         .
   501. .   X     .         .         .         .         C         . W       .E        .         .         .         .         .
   503. .   X     .         .         .         .         C         . W       .E        .         .         .         .         .
 4 505. .   X     .         .         .         .         C         . W       .E        .         .         .         .         .
   507. .         .   X     .         .         .         C         . W       .E        .         .         .         .         .
   509. .         .         .   X     .         .         C         . W       .E        .         .         .         .         .
   511. .         .         .         .   X     .         C         . W       .E        .         .         .         .         .
   513. .         .         .         .         .         XC        . W       .E        .         .         .         .         .
   515. .         .         .         .         .         .         .   X     .E        .         .         .         .         .
   517. .         .         .         .         .         .         .         .   X     .         .         .         .         .
   519. .         .         .         .         .         .         .         .         .   X     .         .         .         .
   521. .         .         .         .         .         .         .         .         .         .   X     .         .         .
   523. .         .         .         .         .         .         .         .         .         .         .   X     .         .
 5 525. .         .         .         .         .         .         .         .         .         .         .         X.     BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1425.90      475.00     1416.36      494.00     1416.36      506.00     1425.90      525.00
```

CROSS SECTION 960.40
STREAM Q=100 YR
DISCHARGE= 805.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.     1429.

    STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         X   .     BANK.
   477. .         .         .         .         .         .         .         .         .         X         .         .
   479. .         .         .         .         .         .         .         .         X         .         .         .
   481. .         .         .         .         .         .         .         X         .         .         .         .
   483. .         .         .         .         .         .        XE         .         .         .         .         .
   485. .         .         .         .         .         X         E         .         .         .         .         .
   487. .         .         .         .         X         W         E         .         .         .         .         .
   489. .         .         .         X         .         W         E         .         .         .         .         .
   491. .         .         X         .         .         W         E         .         .         .         .         .
 3 493. .X        .         .         .         .         W         E         .         .         .         .         .
   495. .X        .         .         .         .         W         E         .         .         .         .         .
   497. .X        .         .         .         .         W         E         .         .         .         .         .
   499. .X        .         .         .         .         W         E         .         .         .         .         .
   501. .X        .         .         .         .         W         E         .         .         .         .         .
   503. .X        .         .         .         .         W         E         .         .         .         .         .
 4 505. .X        .         .         .         .         W         E         .         .         .         .         .
   507. .         .X        .         .         .         W         E         .         .         .         .         .
   509. .         .         .X        .         .         W         E         .         .         .         .         .
   511. .         .         .         .X        .         W         E         .         .         .         .         .
   513. .         .         .         .         .         XW        E         .         .         .         .         .
   515. .         .         .         .         .         .         E         .         .         .         .         .
   517. .         .         .         .         .         .         .         .         .         .         .         .
   519. .         .         .         .         .         .         .         .         .         .         .         .
   521. .         .         .         .         .         .         .         .         .         .         .         .
   523. .         .         .         .         .         .         .         .         .         .         .         .
 5 525. .         .         .         .         .         .         .         .         .         .         X   .     BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

1428.60	475.00	1419.14	494.00	1419.14	506.00	1428.60	525.00

```
CROSS SECTION    960.61
STREAM   Q=100 YR
DISCHARGE=      805.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.

    STA-FEET

 2 478. .         .         .         .         .         .         .         .         .         X.        .     BANK.
   480. .         .         .         .         .         .         .         .         X.        .         .         .
   482. .         .         .         .         .         .         .         X.        .         .         .         .
   484. .         .         .         .         .         .         X.        E .       .         .         .         .
   486. .         .         .         .         .         X.  C  W  .         E .       .         .         .         .
   488. .         .         .         .         X.        .  C  W  .         E .       .         .         .         .
   490. .         .         .         X.        .         .  C  W  .         E .       .         .         .         .
   492. .         .         X.        .         .         .  C  W  .         E .       .         .         .         .
 3 494. .         . X       .         .         .         .  C  W  .         E .       .         .         .         .
   496. .         . X       .         .         .         .  C  W  .         E .       .         .         .         .
   498. .         . X       .         .         .         .  C  W  .         E .       .         .         .         .
   500. .         . X       .         .         .         .  C  W  .         E .       .         .         .         .
   502. .         . X       .         .         .         .  C  W  .         E .       .         .         .         .
   504. .         . X       .         .         .         .  C  W  .         E .       .         .         .         .
 4 506. .         . X       .         .         .         .  C  W  .         E .       .         .         .         .
   508. .         .         . X       .         .         .  C  W  .         E .       .         .         .         .
   510. .         .         .         . X       .         .  C  W  .         E .       .         .         .         .
   512. .         .         .         .         . X       .  C  W  .         E .       .         .         .         .
   514. .         .         .         .         .         . XC  W  .         E .       .         .         .         .
   516. .         .         .         .         .         .         . X       E .       .         .         .         .
   518. .         .         .         .         .         .         .         . X       .         .         .         .
   520. .         .         .         .         .         .         .         .         . X       .         .         .
   522. .         .         .         .         .         .         .         .         .         . X       .         .
   524. .         .         .         .         .         .         .         .         .         .         . X       .
   526. .         .         .         .         .         .         .         .         .         .         .         X
   528. .         .         .         .         .         .         .         .         .         .         .         X
8560 XSEC POINT-X      EL,ST-   1431.10    529.80
 5 530. .         .         .         .         .         .         .         .         .         .         .     BANKX

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1426.90      478.60     1419.18      494.00     1419.18      506.00     1431.10      529.80
```

```
CROSS SECTION    960.71
STREAM   Q=100 YR
DISCHARGE=      805.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.

    STA-FEET

 2 477. .         .         .         .         .         .         .         .         .         X         .     BANK.
   479. .         .         .         .         .         .         .         .         X         .         .         .
   481. .         .         .         .         .         .         .       X E.        .         .         .         .
   483. .         .         .         .         .         . X       .     W E.        .         .         .         .
   485. .         .         .         .         X     C   .         .     W E.        .         .         .         .
   487. .         .         .       X .         .     C   .         .     W E.        .         .         .         .
 3 489. .         . X       .         .         .     C   .         .     W E.        .         .         .         .
   491. .         . X       .         .         .     C   .         .     W E.        .         .         .         .
   493. .         . X       .         .         .     C   .         .     W E.        .         .         .         .
   495. .         . X       .         .         .     C   .         .     W E.        .         .         .         .
   497. .         . X       .         .         .     C   .         .     W E.        .         .         .         .
   499. .         . X       .         .         .     C   .         .     W E.        .         .         .         .
   501. .         . X       .         .         .     C   .         .     W E.        .         .         .         .
   503. .         . X       .         .         .     C   .         .     W E.        .         .         .         .
   505. .         . X       .         .         .     C   .         .     W E.        .         .         .         .
   507. .         . X       .         .         .     C   .         .     W E.        .         .         .         .
 4 509. .         . X       .         .         .     C   .         .     W E.        .         .         .         .
   511. .         .         .     X   .         .     C   .         .     W E.        .         .         .         .
   513. .         .         .         .       X .     C   .         .     W E.        .         .         .         .
   515. .         .         .         .         .         X.        .     W E.        .         .         .         .
   517. .         .         .         .         .         .         . X W E.        .         .         .         .
   519. .         .         .         .         .         .         .         .   X   .         .         .         .
   521. .         .         .         .         .         .         .         .       .         X         .         .
   523. .         .         .         .         .         .         .         .       .         .         .       X.
   525. .         .         .         .         .         .         .         .       .         .         .         .       X
   527. .         .         .         .         .         .         .         .       .         .         .         .       X
8560 XSEC POINT-X      EL,ST-   1431.20    529.20
 5 529. .         .         .         .         .         .         .         .         .         .         .     BANKX

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1427.00      477.50     1419.20      490.00     1419.20      510.00     1431.20      529.20
```

```
CROSS SECTION    960.81
STREAM   Q=100 YR
DISCHARGE=      805.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.

    STA-FEET

 2 477. .         .         .         .         .         .         .         .         .         .X        .     BANK.
   479. .         .         .         .         .         .         .         .         X .       .         .        .
   481. .         .         .         .         .         .         .       X E.        .         .         .        .
   483. .         .         .         .         .         . X       .     W E.        .         .         .        .
   485. .         .         .         .         .X    C   .         .     W E.        .         .         .        .
   487. .         .         .       X .         .     C   .         .     W E.        .         .         .        .
 3 489. .         . X       .         .         .     C   .         .     W E.        .         .         .        .
   491. .         . X       .         .         .     C   .         .     W E.        .         .         .        .
   493. .         . X       .         .         .     C   .         .     W E.        .         .         .        .
   495. .         . X       .         .         .     C   .         .     W E.        .         .         .        .
   497. .         . X       .         .         .     C   .         .     W E.        .         .         .        .
   499. .         . X       .         .         .     C   .         .     W E.        .         .         .        .
   501. .         . X       .         .         .     C   .         .     W E.        .         .         .        .
   503. .         . X       .         .         .     C   .         .     W E.        .         .         .        .
   505. .         . X       .         .         .     C   .         .     W E.        .         .         .        .
   507. .         . X       .         .         .     C   .         .     W E.        .         .         .        .
 4 509. .         . X       .         .         .     C   .         .     W E.        .         .         .        .
   511. .         .         .     X   .         .     C   .         .     W E.        .         .         .        .
   513. .         .         .         .       X .     C   .         .     W E.        .         .         .        .
   515. .         .         .         .         .         X         .     W E.        .         .         .        .
   517. .         .         .         .         .         .         . X W E.        .         .         .        .
   519. .         .         .         .         .         .         .         .     X .         .         .        .
   521. .         .         .         .         .         .         .         .       .         X .       .        .
   523. .         .         .         .         .         .         .         .       .         .         X        .
   525. .         .         .         .         .         .         .         .       .         .         .        X
   527. .         .         .         .         .         .         .         .       .         .         .        X
8560 XSEC POINT-X      EL,ST-   1431.30    529.30
 5 529. .         .         .         .         .         .         .         .         .         .         .     BANKX

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1427.10      477.40     1419.22      490.00     1419.22      510.00     1431.30      529.30
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```
CROSS SECTION    960.85
STREAM   Q=100 YR
DISCHARGE=      805.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.

    STA-FEET

 2 477. .         .         .         .         .         .         .         .         .         .X        .     BANK.
   479. .         .         .         .         .         .         .         .         .         X.  T     .         .
   481. .         .         .         .         .         .         .         .     X   .     W  E .  T     .         .
   483. .         .         .         .         .         .   X     .         .         .     W  E .  T     .         .
   485. .         .         .         .         .X        . B       .         .         .     W  E .  T     .         .
   487. .         .         .         X.        .         . B       .         .         .     W  E .  T     .         .
 3 489. .         . X       .         .         .         . B       .         .         .     W  E .  T     .         .
   491. .         . X       .         .         .         . B       .         .         .     W  E .  T     .         .
   493. .         . X       .         .         .         . B       .         .         .     W  E .  T     .         .
   495. .         . X       .         .         .         . B       .         .         .     W  E .  T     .         .
   497. .         . X       .         .         .         . B       .         .         .     W  E .  T     .         .
   499. .         . X       .         .         .         . B       .         .         .     W  E .  T     .         .
   501. .         . X       .         .         .         . B       .         .         .     W  E .  T     .         .
   503. .         . X       .         .         .         . B       .         .         .     W  E .  T     .         .
   505. .         . X       .         .         .         . B       .         .         .     W  E .  T     .         .
   507. .         . X       .         .         .         . B       .         .         .     W  E .  T     .         .
 4 509. .         . X       .         .         .         . B       .         .         .     W  E .  T     .         .
   511. .         .         .    X    .         .         . B       .         .         .     W  E .  T     .         .
   513. .         .         .         .     X   .         . B       .         .         .     W  E .  T     .         .
   515. .         .         .         .         .         X B       .         .         .     W  E .  T     .         .
   517. .         .         .         .         .         .         . X       .         .     W  E .  T     .         .
   519. .         .         .         .         .         .         .         .         .     X  E .  T     .         .
   521. .         .         .         .         .         .         .         .         .         .         X .         .
   523. .         .         .         .         .         .         .         .         .         .         .         X.
   525. .         .         .         .         .         .         .         .         .         .         .         .X
   527. .         .         .         .         .         .         .         .         .         .         .         .X
8560 XSEC POINT-X      EL,ST-   1431.30    529.30
 5 529. .         .         .         .         .         .         .         .         .         .         .     BANKX

NRD=       6 ELLC=     1423.23 ELTRD=     1426.31

   477.40   1423.23   1426.31    490.00   1423.23   1426.31    510.00   1423.23   1426.31
   529.30   1423.23   1426.31
  EL(I),STA(I)
    1427.10      477.40     1419.23      490.00     1419.23      510.00     1431.30      529.30
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```
CROSS SECTION    960.90
STREAM   Q=100 YR
DISCHARGE=     1002.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.

   STA-FEET

 2 477. .         .         .         .         .         .         .         .         .         .X        .     BANK.
   479. .         .         .         .         .         .         .         .         X.        .         .        .
   481. .         .         .         .         .         .         .         X   .   W     E.        .         .        .
   483. .         .         .         .         .         .   X     .         .   W     E.        .         .        .
   485. .         .         .         .         .X        .C        .         .   W     E.        .         .        .
   487. .         .         .         X.        .         .C        .         .   W     E.        .         .        .
 3 489. .         . X       .         .         .         .C        .         .   W     E.        .         .        .
   491. .         . X       .         .         .         .C        .         .   W     E.        .         .        .
   493. .         . X       .         .         .         .C        .         .   W     E.        .         .        .
   495. .         . X       .         .         .         .C        .         .   W     E.        .         .        .
   497. .         . X       .         .         .         .C        .         .   W     E.        .         .        .
   499. .         . X       .         .         .         .C        .         .   W     E.        .         .        .
   501. .         . X       .         .         .         .C        .         .   W     E.        .         .        .
   503. .         . X       .         .         .         .C        .         .   W     E.        .         .        .
   505. .         . X       .         .         .         .C        .         .   W     E.        .         .        .
   507. .         . X       .         .         .         .C        .         .   W     E.        .         .        .
 4 509. .         . X       .         .         .         .C        .         .   W     E.        .         .        .
   511. .         .         .    X    .         .         .C        .         .   W     E.        .         .        .
   513. .         .         .         .      X  .         .C        .         .   W     E.        .         .        .
   515. .         .         .         .         .         XC        .         .   W     E.        .         .        .
   517. .         .         .         .         .         .         . X       .   W     E.        .         .        .
   519. .         .         .         .         .         .         .         .    X    E.        .         .        .
   521. .         .         .         .         .         .         .         .         .      X  .         .        .
   523. .         .         .         .         .         .         .         .         .         .         X        .
   525. .         .         .         .         .         .         .         .         .         .         .        X
   527. .         .         .         .         .         .         .         .         .         .         .        X
8560 XSEC POINT-X      EL,ST-   1431.30    529.30
 5 529. .         .         .         .         .         .         .         .         .         .         .     BANKX

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1427.10      477.40     1419.24      490.00     1419.24      510.00     1431.30      529.30
```

```
CROSS SECTION    961.50
STREAM   Q=100 YR
DISCHARGE=     1002.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.

   STA-FEET

 2 477. .         .         .         .         .         .         .         .         .         .         X         .     BANK.
   479. .         .         .         .         .         .         .         .         .         X         .         .         .
   481. .         .         .         .         .         .         .         .         X   W     E.        .         .         .
   483. .         .         .         .         .         .         X         .         .   W     E.        .         .         .
   485. .         .         .         .         .         X         .         C         .   W     E.        .         .         .
   487. .         .         .         .         X         .         .         C         .   W     E.        .         .         .
 3 489. .         .         X         .         .         .         .         C         .   W     E.        .         .         .
   491. .         .         X         .         .         .         .         C         .   W     E.        .         .         .
   493. .         .         X         .         .         .         .         C         .   W     E.        .         .         .
   495. .         .         X         .         .         .         .         C         .   W     E.        .         .         .
   497. .         .         X         .         .         .         .         C         .   W     E.        .         .         .
   499. .         .         X         .         .         .         .         C         .   W     E.        .         .         .
   501. .         .         X         .         .         .         .         C         .   W     E.        .         .         .
   503. .         .         X         .         .         .         .         C         .   W     E.        .         .         .
   505. .         .         X         .         .         .         .         C         .   W     E.        .         .         .
   507. .         .         X         .         .         .         .         C         .   W     E.        .         .         .
 4 509. .         .         X         .         .         .         .         C         .   W     E.        .         .         .
   511. .         .         .         X         .         .         .         C         .   W     E.        .         .         .
   513. .         .         .         .         X.        .         .         C         .   W     E.        .         .         .
   515. .         .         .         .         .         .         .         XC        .   W     E.        .         .         .
   517. .         .         .         .         .         .         .         .         X   W     E.        .         .         .
   519. .         .         .         .         .         .         .         .         .     X   E.        .         .         .
   521. .         .         .         .         .         .         .         .         .         .         X.        .         .
   523. .         .         .         .         .         .         .         .         .         .         .         .X        .
   525. .         .         .         .         .         .         .         .         .         .         .         .         X
   527. .         .         .         .         .         .         .         .         .         .         .         .         X
8560 XSEC POINT-X      EL,ST-   1431.60    529.60
 5 529. .         .         .         .         .         .         .         .         .         .         .         .     BANKX

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1427.50      477.00     1419.36      490.00     1419.36      510.00     1431.60      529.60
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```
CROSS SECTION    961.60
STREAM   Q=100 YR
DISCHARGE=     1002.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.

    STA-FEET

 2 477. .         .         .         .         .         .                   .                   .         X   .     BANK.
   479. .         .         .         .         .         .                   .                 X   .         .         .
   481. .         .         .         .         .         .                   .     X   E         .         .         .
   483. .         .         .         .         .         .               X   . W     E         .         .         .
   485. .         .         .         .         .         .     X   C         . W     E         .         .         .
   487. .         .         .         .         .     X   .         C         . W     E         .         .         .
   489. .         .         .         .     X   .         .         C         . W     E         .         .         .
   491. .         .         .     X   .         .         .         C         . W     E         .         .         .
 3 493. .         .   X     .         .         .         .         C         . W     E         .         .         .
   495. .         .   X     .         .         .         .         C         . W     E         .         .         .
   497. .         .   X     .         .         .         .         C         . W     E         .         .         .
   499. .         .   X     .         .         .         .         C         . W     E         .         .         .
   501. .         .   X     .         .         .         .         C         . W     E         .         .         .
   503. .         .   X     .         .         .         .         C         . W     E         .         .         .
 4 505. .         .   X     .         .         .         .         C         . W     E         .         .         .
   507. .         .         .     X   .         .         .         C         . W     E         .         .         .
   509. .         .         .         .   X     .         .         C         . W     E         .         .         .
   511. .         .         .         .         .     X   .         C         . W     E         .         .         .
   513. .         .         .         .         .         .   X     C         . W     E         .         .         .
   515. .         .         .         .         .         .         .     X   . W     E         .         .         .
   517. .         .         .         .         .         .                   .   X     E         .         .         .
   519. .         .         .         .         .         .                   .             X   .         .         .
   521. .         .         .         .         .         .                   .                 .   X     .         .
   523. .         .         .         .         .         .                   .                 .         .   X     .
   525. .         .         .         .         .         .                   .                 .         .         X
   527. .         .         .         .         .         .                   .                 .         .         X
   529. .         .         .         .         .         .                   .                 .         .         X
8560 XSEC POINT-X      EL,ST-   1431.70    530.60
 5 531. .         .         .         .         .         .                   .                 .         .     BANKX

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1427.60      477.60     1419.38      494.00     1419.38      506.00     1431.70      530.60
```

CROSS SECTION 962.00
STREAM Q=100 YR
DISCHARGE= 1002.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.     1429.

    STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         X     BANK.
   477. .         .         .         .         .         .         .         .         .         X         .         .
   479. .         .         .         .         .         .         .         .         X         .         .         .
   481. .         .         .         .         .         .         .        XE         .         .         .         .
   483. .         .         .         .         .         .         X W      .E         .         .         .         .
   485. .         .         .         .         .        XC         . W      .E         .         .         .         .
   487. .         .         .         .         X         .C        . W      .E         .         .         .         .
   489. .         .         .         X         .         .C        . W      .E         .         .         .         .
   491. .         .         X         .         .         .C        . W      .E         .         .         .         .
 3 493. .    X    .         .         .         .         .C        . W      .E         .         .         .         .
   495. .    X    .         .         .         .         .C        . W      .E         .         .         .         .
   497. .    X    .         .         .         .         .C        . W      .E         .         .         .         .
   499. .    X    .         .         .         .         .C        . W      .E         .         .         .         .
   501. .    X    .         .         .         .         .C        . W      .E         .         .         .         .
   503. .    X    .         .         .         .         .C        . W      .E         .         .         .         .
 4 505. .    X    .         .         .         .         .C        . W      .E         .         .         .         .
   507. .         .    X    .         .         .         .C        . W      .E         .         .         .         .
   509. .         .         .    X    .         .         .C        . W      .E         .         .         .         .
   511. .         .         .         .    X    .         .C        . W      .E         .         .         .         .
   513. .         .         .         .         .    X    .C        . W      .E         .         .         .         .
   515. .         .         .         .         .         .    X    . W      .E         .         .         .         .
   517. .         .         .         .         .         .         .    X   .E         .         .         .         .
   519. .         .         .         .         .         .         .        .    X    .         .         .         .
   521. .         .         .         .         .         .         .        .         .    X    .         .         .
   523. .         .         .         .         .         .         .        .         .         .    X    .         .
 5 525. .         .         .         .         .         .         .        .         .         .         X     BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

1429.00	475.00	1419.46	494.00	1419.46	506.00	1429.00	525.00

```
CROSS SECTION    965.45
STREAM   Q=100 YR
DISCHARGE=     1002.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.     1429.     1430.     1431.

   STA-FEET

 2 475. .         .         .         .         .         .         .                   .         .         . X   BANK.
   477. .         .         .         .         .         .         .                   .         . X       .         .
   479. .         .         .         .         .         .         .                   . X       .         .         .
   481. .         .         .         .         .         .         .           X       .         .         .         .
   483. .         .         .         .         .         .         . X       E       .         .         .         .
   485. .         .         .         .         .         . XW      .       E         .         .         .         .
   487. .         .         .         .         . X       .  W      .       E         .         .         .         .
   489. .         .         .         . X       .         .  W      .       E         .         .         .         .
   491. .         .         . X       .         .         .  W      .       E         .         .         .         .
 3 493. .       X .         .         .         .         .  W      .       E         .         .         .         .
   495. .       X .         .         .         .         .  W      .       E         .         .         .         .
   497. .       X .         .         .         .         .  W      .       E         .         .         .         .
   499. .       X .         .         .         .         .  W      .       E         .         .         .         .
   501. .       X .         .         .         .         .  W      .       E         .         .         .         .
   503. .       X .         .         .         .         .  W      .       E         .         .         .         .
 4 505. .       X .         .         .         .         .  W      .       E         .         .         .         .
   507. .         .       X .         .         .         .  W      .       E         .         .         .         .
   509. .         .         .       X .         .         .  W      .       E         .         .         .         .
   511. .         .         .         .       X .         .  W      .       E         .         .         .         .
   513. .         .         .         .         .       X .  W      .       E         .         .         .         .
   515. .         .         .         .         .         .       X .       E         .         .         .         .
   517. .         .         .         .         .         .         .     X E         .         .         .         .
   519. .         .         .         .         .         .         .                 X .         .         .         .
   521. .         .         .         .         .         .         .                   .       X .         .         .
   523. .         .         .         .         .         .         .                   .         .       X .         .
 5 525. .         .         .         .         .         .         .                   .         .         . X   BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1431.20      475.00     1421.74      494.00     1421.74      506.00     1431.20      525.00
```

```
CROSS SECTION    965.64
STREAM   Q=100 YR
DISCHARGE=     1002.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.     1429.     1430.

    STA-FEET

 2 477. .         .         .         .         .         .         .         .                   .         .X    BANK.
   479. .         .         .         .         .         .         .         .                  .X         .        .
   481. .         .         .         .         .         .         .         .                X         .        .
   483. .         .         .         .         .         .         .         .X             E         .        .
   485. .         .         .         .         .         .         .X  W     .             E         .        .
   487. .         .         .         .         .         .X        .   W     .             E         .        .
   489. .         .         .         .         .X        .         .   W     .             E         .        .
   491. .         .         .         .X        .         .         .   W     .             E         .        .
 3 493. .         .         X .       .         .         .         .   W     .             E         .        .
   495. .         .         X .       .         .         .         .   W     .             E         .        .
   497. .         .         X .       .         .         .         .   W     .             E         .        .
   499. .         .         X .       .         .         .         .   W     .             E         .        .
   501. .         .         X .       .         .         .         .   W     .             E         .        .
   503. .         .         X .       .         .         .         .   W     .             E         .        .
 4 505. .         .         X .       .         .         .         .   W     .             E         .        .
   507. .         .           .     X .         .         .         .   W     .             E         .        .
   509. .         .           .       .       X .         .         .   W     .             E         .        .
   511. .         .           .       .         .       X .         .   W     .             E         .        .
   513. .         .           .       .         .         .       X .   W     .             E         .        .
   515. .         .           .       .         .         .         .       X .             E         .        .
   517. .         .           .       .         .         .         .         .           X E         .        .
   519. .         .           .       .         .         .         .         .                     X .        .
   521. .         .           .       .         .         .         .         .                     .       X .
   523. .         .           .       .         .         .         .         .                     .        .   X .
   525. .         .           .       .         .         .         .         .                     .        .     X
8560 XSEC POINT-X      EL,ST-   1432.80    528.00
 5 527. .         .           .       .         .         .         .         .                     .        .    BANKX

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1430.10      477.40     1421.78      494.00     1421.78      506.00     1432.80      528.00
```

```
CROSS SECTION    965.74
STREAM   Q=100 YR
DISCHARGE=     1002.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.     1429.     1430.

    STA-FEET

 2 476. .         .         .         .         .         .         .         .         .         .         . X   BANK.
   478. .         .         .         .         .         .         .         .         .         X.        .         .
   480. .         .         .         .         .         .         .         .       X .E        .         .         .
   482. .         .         .         .         .         .         .       X .       W .E        .         .         .
   484. .         .         .         .         .         . X   C   .         .       W .E        .         .         .
   486. .         .         .         .         X.        .     C   .         .       W .E        .         .         .
   488. .         .         .       X .         .         .     C   .         .       W .E        .         .         .
 3 490. .         .       X .         .         .         .     C   .         .       W .E        .         .         .
   492. .         .       X .         .         .         .     C   .         .       W .E        .         .         .
   494. .         .       X .         .         .         .     C   .         .       W .E        .         .         .
   496. .         .       X .         .         .         .     C   .         .       W .E        .         .         .
   498. .         .       X .         .         .         .     C   .         .       W .E        .         .         .
   500. .         .       X .         .         .         .     C   .         .       W .E        .         .         .
   502. .         .       X .         .         .         .     C   .         .       W .E        .         .         .
   504. .         .       X .         .         .         .     C   .         .       W .E        .         .         .
   506. .         .       X .         .         .         .     C   .         .       W .E        .         .         .
   508. .         .       X .         .         .         .     C   .         .       W .E        .         .         .
 4 510. .         .       X .         .         .         .     C   .         .       W .E        .         .         .
   512. .         .         .         .X        .         .     C   .         .       W .E        .         .         .
   514. .         .         .         .         . X       .     C   .         .       W .E        .         .         .
   516. .         .         .         .         .         .     X   .         .       W .E        .         .         .
   518. .         .         .         .         .         .         .         X .     W .E        .         .         .
   520. .         .         .         .         .         .         .         .       .X        .         .         .
   522. .         .         .         .         .         .         .         .         .         . X       .         .
   524. .         .         .         .         .         .         .         .         .         .         .     X   .
   526. .         .         .         .         .         .         .         .         .         .         .         X
8560 XSEC POINT-X      EL,ST-   1432.80    527.60
 5 528. .         .         .         .         .         .         .         .         .         .         .     BANKX

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1430.20      476.60     1421.80      490.00     1421.80      510.00     1432.80      527.60
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```
CROSS SECTION    965.84
STREAM   Q=100 YR
DISCHARGE=     1002.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.     1429.     1430.

    STA-FEET

 2 476. .         .         .         .         .         .         .         .         .         .         .  X  BANK.
   478. .         .         .         .         .         .         .         .         .         .X        .        .
   480. .         .         .         .         .         .         .         .       X . E       .         .        .
   482. .         .         .         .         .         .         .       X .     W   . E       .         .        .
   484. .         .         .         .         .         .  X  C   .         .     W   . E       .         .        .
   486. .         .         .         .         .X        .     C   .         .     W   . E       .         .        .
   488. .         .         .       X .         .         .     C   .         .     W   . E       .         .        .
 3 490. .         .       X .         .         .         .     C   .         .     W   . E       .         .        .
   492. .         .       X .         .         .         .     C   .         .     W   . E       .         .        .
   494. .         .       X .         .         .         .     C   .         .     W   . E       .         .        .
   496. .         .       X .         .         .         .     C   .         .     W   . E       .         .        .
   498. .         .       X .         .         .         .     C   .         .     W   . E       .         .        .
   500. .         .       X .         .         .         .     C   .         .     W   . E       .         .        .
   502. .         .       X .         .         .         .     C   .         .     W   . E       .         .        .
   504. .         .       X .         .         .         .     C   .         .     W   . E       .         .        .
   506. .         .       X .         .         .         .     C   .         .     W   . E       .         .        .
   508. .         .       X .         .         .         .     C   .         .     W   . E       .         .        .
 4 510. .         .       X .         .         .         .     C   .         .     W   . E       .         .        .
   512. .         .         .         .X        .         .     C   .         .     W   . E       .         .        .
   514. .         .         .         .         . X       .     C   .         .     W   . E       .         .        .
   516. .         .         .         .         .         .     X   .         .     W   . E       .         .        .
   518. .         .         .         .         .         .         .       X .     W   . E       .         .        .
   520. .         .         .         .         .         .         .         .         .XE       .         .        .
   522. .         .         .         .         .         .         .         .         .         . X       .        .
   524. .         .         .         .         .         .         .         .         .         .         .    X   .
   526. .         .         .         .         .         .         .         .         .         .         .        X
8560 XSEC POINT-X      EL,ST-   1432.90    527.70
 5 528. .         .         .         .         .         .         .         .         .         .         .    BANKX

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1430.30      476.40     1421.82      490.00     1421.82      510.00     1432.90      527.70
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```
CROSS SECTION    965.88
STREAM   Q=100 YR
DISCHARGE=     1002.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.     1429.     1430.

    STA-FEET

 2 476. .         .         .         .         .         .         .         .         .         .         .  X  BANK.
   478. .         .         .         .         .         .         .         .         .         .XE T     .         .
   480. .         .         .         .         .         .         .         .       X .       W. E T     .         .
   482. .         .         .         .         .         .         .     X   .         .       W. E T     .         .
   484. .         .         .         .         .         .   X     .   B     .         .       W. E T     .         .
   486. .         .         .         .       .X          .         .   B     .         .       W. E T     .         .
   488. .         .         .       X .         .         .         .   B     .         .       W. E T     .         .
 3 490. .         .       X .         .         .         .         .   B     .         .       W. E T     .         .
   492. .         .       X .         .         .         .         .   B     .         .       W. E T     .         .
   494. .         .       X .         .         .         .         .   B     .         .       W. E T     .         .
   496. .         .       X .         .         .         .         .   B     .         .       W. E T     .         .
   498. .         .       X .         .         .         .         .   B     .         .       W. E T     .         .
   500. .         .       X .         .         .         .         .   B     .         .       W. E T     .         .
   502. .         .       X .         .         .         .         .   B     .         .       W. E T     .         .
   504. .         .       X .         .         .         .         .   B     .         .       W. E T     .         .
   506. .         .       X .         .         .         .         .   B     .         .       W. E T     .         .
   508. .         .       X .         .         .         .         .   B     .         .       W. E T     .         .
 4 510. .         .       X .         .         .         .         .   B     .         .       W. E T     .         .
   512. .         .         .       .X          .         .         .   B     .         .       W. E T     .         .
   514. .         .         .         .         .   X     .         .   B     .         .       W. E T     .         .
   516. .         .         .         .         .         .     X   .   B     .         .       W. E T     .         .
   518. .         .         .         .         .         .         .       X .         .       W. E T     .         .
   520. .         .         .         .         .         .         .         .         .X      W. E T     .         .
   522. .         .         .         .         .         .         .         .         .         . XT     .         .
   524. .         .         .         .         .         .         .         .         .         .         .    X   .
   526. .         .         .         .         .         .         .         .         .         .         .         X
8560 XSEC POINT-X      EL,ST-   1433.00    527.90
 5 528. .         .         .         .         .         .         .         .         .         .         .    BANKX

NRD=       6 ELLC=     1426.32 ELTRD=     1429.40

   476.40   1426.32   1429.40    490.00   1426.32   1429.40    510.00   1426.32   1429.40
   527.90   1426.32   1429.40
  EL(I),STA(I)
    1430.30      476.40     1421.83      490.00     1421.83      510.00     1433.00      527.90
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```
CROSS SECTION    965.93
STREAM   Q=100 YR
DISCHARGE=     1198.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.     1429.     1430.

   STA-FEET

 2 476. .         .         .         .         .         .         .         .         .         .         .   X BANK.
   478. .         .         .         .         .         .         .         .         .         . XE      .         .
   480. .         .         .         .         .         .         .         .       X.       W . E       .         .
   482. .         .         .         .         .         .         .       X .         .       W . E       .         .
   484. .         .         .         .         .         .     X   .C        .         .       W . E       .         .
   486. .         .         .         .       X .         .         .C        .         .       W . E       .         .
   488. .         .         .       X.         .         .         .C        .         .       W . E       .         .
 3 490. .         .       X .         .         .         .         .C        .         .       W . E       .         .
   492. .         .       X .         .         .         .         .C        .         .       W . E       .         .
   494. .         .       X .         .         .         .         .C        .         .       W . E       .         .
   496. .         .       X .         .         .         .         .C        .         .       W . E       .         .
   498. .         .       X .         .         .         .         .C        .         .       W . E       .         .
   500. .         .       X .         .         .         .         .C        .         .       W . E       .         .
   502. .         .       X .         .         .         .         .C        .         .       W . E       .         .
   504. .         .       X .         .         .         .         .C        .         .       W . E       .         .
   506. .         .       X .         .         .         .         .C        .         .       W . E       .         .
   508. .         .       X .         .         .         .         .C        .         .       W . E       .         .
 4 510. .         .       X .         .         .         .         .C        .         .       W . E       .         .
   512. .         .         .       .X         .         .         .C        .         .       W . E       .         .
   514. .         .         .         .         . X       .         .C        .         .       W . E       .         .
   516. .         .         .         .         .         .     X   .C        .         .       W . E       .         .
   518. .         .         .         .         .         .         .       X .         .       W . E       .         .
   520. .         .         .         .         .         .         .         .       .X      W . E       .         .
   522. .         .         .         .         .         .         .         .         .         . X       .         .
   524. .         .         .         .         .         .         .         .         .         .         .     X   .
   526. .         .         .         .         .         .         .         .         .         .         .         X
8560 XSEC POINT-X      EL,ST-   1433.00    527.90
 5 528. .         .         .         .         .         .         .         .         .         .         .         X

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1430.40      476.30     1421.84      490.00     1421.84      510.00     1433.00      527.90
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```
CROSS SECTION    966.53
STREAM   Q=100 YR
DISCHARGE=     1198.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.     1429.     1430.

    STA-FEET

 2 476. .         .         .         .         .         .         .         .         .         .         .    XBANK.
   478. .         .         .         .         .         .         .         .         .         .  X      .         .
   480. .         .         .         .         .         .         .         .         X       W .  E      .         .
   482. .         .         .         .         .         .         .       X .         .       W .  E      .         .
   484. .         .         .         .         .         .    X    . C       .         .       W .  E      .         .
   486. .         .         .         .         .   X     .         . C       .         .       W .  E      .         .
   488. .         .         .         X         .         .         . C       .         .       W .  E      .         .
 3 490. .         .         X         .         .         .         . C       .         .       W .  E      .         .
   492. .         .         X         .         .         .         . C       .         .       W .  E      .         .
   494. .         .         X         .         .         .         . C       .         .       W .  E      .         .
   496. .         .         X         .         .         .         . C       .         .       W .  E      .         .
   498. .         .         X         .         .         .         . C       .         .       W .  E      .         .
   500. .         .         X         .         .         .         . C       .         .       W .  E      .         .
   502. .         .         X         .         .         .         . C       .         .       W .  E      .         .
   504. .         .         X         .         .         .         . C       .         .       W .  E      .         .
   506. .         .         X         .         .         .         . C       .         .       W .  E      .         .
   508. .         .         X         .         .         .         . C       .         .       W .  E      .         .
 4 510. .         .         X         .         .         .         . C       .         .       W .  E      .         .
   512. .         .         .         . X       .         .         . C       .         .       W .  E      .         .
   514. .         .         .         .         .    X    .         . C       .         .       W .  E      .         .
   516. .         .         .         .         .         .      X  . C       .         .       W .  E      .         .
   518. .         .         .         .         .         .         .         X         .       W .  E      .         .
   520. .         .         .         .         .         .         .         .         . X     W .  E      .         .
   522. .         .         .         .         .         .         .         .         .         .    X    .         .
   524. .         .         .         .         .         .         .         .         .         .         .      X  .
   526. .         .         .         .         .         .         .         .         .         .         .         X
8560 XSEC POINT-X      EL,ST-   1433.80     528.90
 5 528. .         .         .         .         .         .         .         .         .         .         .     BANKX

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1430.50      476.30      1421.96      490.00      1421.96      510.00      1433.80      528.90
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```
CROSS SECTION    966.63
STREAM   Q=100 YR
DISCHARGE=     1198.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1420.     1421.     1422.     1423.     1424.     1425.     1426.     1427.     1428.     1429.     1430.

    STA-FEET

 2 477. .         .         .         .         .         .         .         .         .         .         .         .    XBANK.
   479. .         .         .         .         .         .         .         .         .         .         .         X         .
   481. .         .         .         .         .         .         .         .         .         .        XW         E         .
   483. .         .         .         .         .         .         .         .         X         .         W         E         .
   485. .         .         .         .         .         .         .         X         .C        .         W         E         .
   487. .         .         .         .         .         .         X         .         .C        .         W         E         .
   489. .         .         .         .         .         X         .         .         .C        .         W         E         .
   491. .         .         .         .         X         .         .         .         .C        .         W         E         .
 3 493. .         .         X         .         .         .         .         .         .C        .         W         E         .
   495. .         .         X         .         .         .         .         .         .C        .         W         E         .
   497. .         .         X         .         .         .         .         .         .C        .         W         E         .
   499. .         .         X         .         .         .         .         .         .C        .         W         E         .
   501. .         .         X         .         .         .         .         .         .C        .         W         E         .
   503. .         .         X         .         .         .         .         .         .C        .         W         E         .
 4 505. .         .         X         .         .         .         .         .         .C        .         W         E         .
   507. .         .         .         X         .         .         .         .         .C        .         W         E         .
   509. .         .         .         .         X         .         .         .         .C        .         W         E         .
   511. .         .         .         .         .         X         .         .         .C        .         W         E         .
   513. .         .         .         .         .         .         X         .         .C        .         W         E         .
   515. .         .         .         .         .         .         .         .         XC        .         W         E         .
   517. .         .         .         .         .         .         .         .         .         X         W         E         .
   519. .         .         .         .         .         .         .         .         .         .         .         E         .
   521. .         .         .         .         .         .         .         .         .         .         .         .         X
   523. .         .         .         .         .         .         .         .         .         .         .         .         .         X
   525. .         .         .         .         .         .         .         .         .         .         .         .         .         X
   527. .         .         .         .         .         .         .         .         .         .         .         .         .         X
8560 XSEC POINT-X      EL,ST-   1433.90    529.80
 5 529. .         .         .         .         .         .         .         .         .         .         .         .    BANKX

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1430.50      477.00     1421.98      494.00     1421.98      506.00     1433.90      529.80
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```
CROSS SECTION    967.05
STREAM   Q=100 YR
DISCHARGE=     1198.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1422.     1423.     1424.     1425.     1426.     1427.     1428.     1429.     1430.     1431.     1432.

   STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         X   .     BANK.
   477. .         .         .         .         .         .         .         .         .         X         .         .
   479. .         .         .         .         .         .         .         .         X         .         .         .
   481. .         .         .         .         .         .         .        XW         E         .         .         .
   483. .         .         .         .         .         .         X         W         E         .         .         .
   485. .         .         .         .         .         X         .C        W         E         .         .         .
   487. .         .         .         .         X         .         .C        W         E         .         .         .
   489. .         .         .         X         .         .         .C        W         E         .         .         .
   491. .         .         X         .         .         .         .C        W         E         .         .         .
 3 493. .X        .         .         .         .         .         .C        W         E         .         .         .
   495. .X        .         .         .         .         .         .C        W         E         .         .         .
   497. .X        .         .         .         .         .         .C        W         E         .         .         .
   499. .X        .         .         .         .         .         .C        W         E         .         .         .
   501. .X        .         .         .         .         .         .C        W         E         .         .         .
   503. .X        .         .         .         .         .         .C        W         E         .         .         .
 4 505. .X        .         .         .         .         .         .C        W         E         .         .         .
   507. .         .X        .         .         .         .         .C        W         E         .         .         .
   509. .         .         .X        .         .         .         .C        W         E         .         .         .
   511. .         .         .         .X        .         .         .C        W         E         .         .         .
   513. .         .         .         .         .X        .         .C        W         E         .         .         .
   515. .         .         .         .         .         .         .X        W         E         .         .         .
   517. .         .         .         .         .         .         .         W         E         .         .         .
   519. .         .         .         .         .         .         .         .         E         .         .         .
   521. .         .         .         .         .         .         .         .         .         .         .         .
   523. .         .         .         .         .         .         .         .         .         .         .         .
 5 525. .         .         .         .         .         .         .         .         .         .         X   .     BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1431.60      475.00     1422.06      494.00     1422.06      506.00     1431.60      525.00
```

CROSS SECTION 970.11
STREAM Q=100 YR
DISCHARGE= 138.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1425.     1426.     1427.     1428.     1429.     1430.     1431.     1432.     1433.     1434.     1435.

   STA-FEET

 2 475. .        .                   .         .         .         .         .         .         .         X     BANK.
   477. .        .                   .         .         .         .         .         .         X         .        .
   479. .        .                   .         .         .         .         .         X         .         .        .
   481. .        .                   .         .         .         .         X         .         .         .        .
   483. .        .                   .         .         .         X         .         .         .         .        .
   485. .        .                   .         .         X         .         .         .         .         .        .
   487. .        .                   .         X         W         .         .         .         .         .        .
   489. .        .                   X         .         W         .         .         .         .         .        .
   491. .        .         X         .         .         W         .         .         .         .         .        .
 3 493. .     X  .         C         .         .         W         .         .         .         .         .        .
   495. .     X  .         C         .         .         W         .         .         .         .         .        .
   497. .     X  .         C         .         .         W         .         .         .         .         .        .
   499. .     X  .         C         .         .         W         .         .         .         .         .        .
   501. .     X  .         C         .         .         W         .         .         .         .         .        .
   503. .     X  .         C         .         .         W         .         .         .         .         .        .
 4 505. .     X  .         C         .         .         W         .         .         .         .         .        .
   507. .        .    X    C         .         .         W         .         .         .         .         .        .
   509. .        .              X   .         .         W         .         .         .         .         .        .
   511. .        .                   .    X    .         W         .         .         .         .         .        .
   513. .        .                   .         .        XW         .         .         .         .         .        .
   515. .        .                   .         .         .         X         .         .         .         .        .
   517. .        .                   .         .         .         .         X         .         .         .        .
   519. .        .                   .         .         .         .         .         X         .         .        .
   521. .        .                   .         .         .         .         .         .         X         .        .
   523. .        .                   .         .         .         .         .         .         .         X        .
 5 525. .        .                   .         .         .         .         .         .         .         X     BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1435.00      475.00      1425.55      494.00      1425.55      506.00      1435.00      525.00
```

CROSS SECTION 971.53
STREAM Q=100 YR
DISCHARGE= 138.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

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ELEV 1427.     1428.     1429.     1430.     1431.     1432.     1433.     1434.     1435.     1436.     1437.

    STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         X.     BANK.
   477. .         .         .         .         .         .         .         .         .         X.        .        .
   479. .         .         .         .         .         .         .         .         X.        .         .        .
   481. .         .         .         .         .         .         .         X.        .         .         .        .
   483. .         .         .         .         .         .         X.        .         .         .         .        .
   485. .         .         .         .         .         X.        .         .         .         .         .        .
   487. .         .         .         .         X.        .         .         .         .         .         .        .
   489. .         .         .         X.        .         .         .         .         .         .         .        .
   491. .         .         X.    W E .         .         .         .         .         .         .         .        .
 3 493. .   X     .         C.    W E .         .         .         .         .         .         .         .        .
   495. .   X     .         C.    W E .         .         .         .         .         .         .         .        .
   497. .   X     .         C.    W E .         .         .         .         .         .         .         .        .
   499. .   X     .         C.    W E .         .         .         .         .         .         .         .        .
   501. .   X     .         C.    W E .         .         .         .         .         .         .         .        .
   503. .   X     .         C.    W E .         .         .         .         .         .         .         .        .
 4 505. .   X     .         C.    W E .         .         .         .         .         .         .         .        .
   507. .         .    X    C.    W E .         .         .         .         .         .         .         .        .
   509. .         .         .   XW E .         .         .         .         .         .         .         .        .
   511. .         .         .         .    X    .         .         .         .         .         .         .        .
   513. .         .         .         .         .    X    .         .         .         .         .         .        .
   515. .         .         .         .         .         .    X    .         .         .         .         .        .
   517. .         .         .         .         .         .         .    X    .         .         .         .        .
   519. .         .         .         .         .         .         .         .    X    .         .         .        .
   521. .         .         .         .         .         .         .         .         .    X    .         .        .
   523. .         .         .         .         .         .         .         .         .         .    X    .        .
 5 525. .         .         .         .         .         .         .         .         .         .         X.     BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1436.90      475.00     1427.41      494.00     1427.41      506.00     1436.90      525.00
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THIS RUN EXECUTED 08/26/88 15:03:26

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Q=100 YR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	40.590	.00	.00	.00	1368.40	2011.00	1372.32	1372.32	1373.98	125.91	10.34	194.43	179.22
	39.790	80.00	.00	.00	1368.80	2011.00	1373.80	1372.82	1374.83	58.79	8.17	246.21	262.28
*	39.670	12.00	.00	.00	1372.40	2011.00	1378.21	1378.21	1380.01	133.69	10.79	186.44	173.93
	35.070	460.00	.00	.00	1373.30	2011.00	1381.35	1377.43	1381.65	10.58	4.41	456.41	618.17
	34.260	91.00	.00	.00	1374.30	2011.00	1381.38	1378.36	1381.87	18.43	5.63	356.96	468.43
*	34.150	11.00	.00	.00	1377.10	2011.00	1382.64	1382.64	1384.46	136.50	10.81	186.07	172.13
	32.120	203.00	.00	.00	1378.20	2011.00	1385.30	1382.83	1385.86	27.16	.00	334.70	385.89
	31.680	44.00	.00	.00	1378.20	2011.00	1385.45	1382.83	1385.97	22.28	5.83	344.73	426.00
	30.840	84.00	1388.50	1386.60	1378.20	2011.00	1385.57	.00	1386.07	20.90	5.70	352.76	439.92
	30.350	49.00	.00	.00	1379.10	2011.00	1385.63	1383.60	1386.26	30.25	6.38	315.01	365.62
	29.670	68.00	.00	.00	1379.40	2011.00	1385.77	1384.22	1386.60	41.75	7.30	275.65	311.23
*	20.460	921.00	.00	.00	1385.60	2011.00	1391.56	1391.56	1393.57	122.64	11.40	176.38	181.59
*	20.090	37.00	.00	.00	1387.60	2011.00	1395.91	1395.91	1397.06	127.95	8.63	242.24	177.79
	18.640	105.00	.00	.00	1389.70	2011.00	1397.02	1395.62	1397.87	42.51	7.40	278.73	308.44
	17.650	99.00	.00	.00	1390.30	2011.00	1397.58	1396.45	1398.36	53.77	7.09	283.67	274.24
*	17.550	10.00	.00	.00	1392.20	2011.00	1397.73	1397.73	1398.67	65.63	7.83	261.60	248.24
	9.230	832.00	.00	.00	1396.80	2011.00	1402.64	1402.64	1403.26	45.21	6.86	442.42	299.10

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	3.100	613.00	.00	.00	1400.10	2011.00	1406.07	1405.60	1407.20	83.74	8.54	250.73	219.76
	1.000	210.00	.00	.00	1401.00	2011.00	1406.58	1405.71	1407.83	13.98	8.97	224.09	537.78
	930.490	83.00	.00	.00	1401.17	2011.00	1407.72	1403.92	1407.96	1.85	3.99	504.51	1477.57
	30.500	221.00	1410.11	1407.61	1401.61	2011.00	1407.98	.00	1408.24	2.02	4.10	490.52	1413.69
	930.510	14.00	.00	.00	1401.63	2011.00	1407.98	1404.39	1408.24	2.04	4.11	489.13	1407.39
	930.520	52.00	.00	.00	1401.72	866.00	1407.90	1405.79	1408.30	5.11	5.06	171.19	383.27
	935.000	438.00	.00	.00	1402.69	866.00	1407.92	1406.95	1408.77	12.69	7.37	117.57	243.11
*	43.360	836.00	.00	.00	1408.22	618.00	1411.76	1411.76	1413.06	29.84	9.16	67.49	113.13
*	947.000	375.00	.00	.00	1410.90	618.00	1414.44	1414.44	1415.74	29.89	9.16	67.43	113.03
*	954.400	740.00	.00	.00	1416.04	618.00	1419.57	1419.57	1420.88	29.87	9.16	67.49	113.08
	954.610	21.00	.00	.00	1416.08	618.00	1419.88	1419.62	1420.95	22.70	8.30	74.43	129.70
	954.710	10.00	.00	.00	1416.10	618.00	1420.64	1418.95	1421.03	5.80	4.99	123.77	256.57
	954.810	10.00	.00	.00	1416.12	618.00	1420.65	1418.97	1421.04	5.81	4.99	123.75	256.46
	954.850	4.00	1422.71	1419.63	1416.13	618.00	1421.56	.00	1421.80	3.02	3.97	155.84	355.36
	954.900	5.00	.00	.00	1416.14	805.00	1421.42	1419.48	1421.87	5.68	5.35	150.37	337.85
	955.500	60.00	.00	.00	1416.26	805.00	1421.44	1419.61	1421.91	6.07	5.49	146.76	326.61
	955.600	10.00	.00	.00	1416.28	805.00	1421.15	1420.37	1422.05	14.58	7.60	105.91	210.81
	956.000	40.00	.00	.00	1416.36	805.00	1421.19	1420.45	1422.11	15.15	7.71	104.41	206.79
*	960.400	440.00	.00	.00	1419.14	805.00	1423.23	1423.23	1424.70	29.00	9.75	82.56	149.47
	960.610	21.00	.00	.00	1419.18	805.00	1423.56	1423.28	1424.78	22.32	8.88	90.70	170.39
	960.710	10.00	.00	.00	1419.20	805.00	1424.40	1422.55	1424.87	6.02	5.47	147.21	327.98
	960.810	10.00	.00	.00	1419.22	805.00	1424.41	1422.57	1424.87	6.03	5.47	147.10	327.73
	960.850	4.00	1426.31	1423.23	1419.23	805.00	1425.54	.00	1425.82	2.95	4.24	189.82	468.63
	960.900	5.00	.00	.00	1419.24	1002.00	1425.41	1423.06	1425.87	4.95	5.43	184.53	450.41
	961.500	60.00	.00	.00	1419.36	1002.00	1425.43	1423.18	1425.91	5.25	5.55	180.61	437.20
	961.600	10.00	.00	.00	1419.38	1002.00	1425.19	1423.99	1426.02	11.12	7.30	137.33	300.52

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	962.000	40.00	.00	.00	1419.46	1002.00	1425.22	1424.07	1426.07	11.54	7.40	135.41	294.98
*	965.450	345.00	.00	.00	1421.74	1002.00	1426.34	1426.34	1427.97	28.18	10.24	97.81	188.74
	965.640	19.00	.00	.00	1421.78	1002.00	1426.40	1426.40	1428.03	28.00	10.23	97.95	189.37
	965.740	10.00	.00	.00	1421.80	1002.00	1427.61	1425.62	1428.15	6.22	5.89	170.02	401.81
	965.840	10.00	.00	.00	1421.82	1002.00	1427.61	1425.64	1428.15	6.24	5.90	169.83	401.05
	965.880	4.00	1429.40	1426.32	1421.83	1002.00	1428.92	.00	1429.24	2.94	4.50	222.59	584.55
	965.930	5.00	.00	.00	1421.84	1198.00	1428.81	1426.09	1429.29	3.71	.00	217.40	622.01
	966.530	60.00	.00	.00	1421.96	1198.00	1428.83	1426.21	1429.32	4.74	5.62	213.08	550.42
	966.630	10.00	.00	.00	1421.98	1198.00	1428.62	1427.07	1429.41	9.22	7.14	167.80	394.53
	967.050	42.00	.00	.00	1422.06	1198.00	1428.65	1427.14	1429.46	9.55	7.23	165.59	387.71
	970.110	142.00	.00	.00	1425.55	138.00	1429.58	1427.01	1429.62	.89	1.70	81.23	146.13
	971.530	143.00	.00	.00	1427.41	138.00	1429.45	1428.88	1429.72	11.32	4.19	32.90	41.02
*	-30.500	.00	.00	.00	1401.61	2011.00	1428.88	1428.88	1428.89	.03	.96	2099.63	12363.40
	31.720	14.00	.00	.00	1401.66	1154.00	1428.88	1404.18	1428.89	.03	.84	1374.51	7093.98
	32.180	46.00	.00	.00	1401.87	1154.00	1428.88	1406.01	1428.89	.02	.84	1380.84	7514.02
	34.270	209.00	.00	.00	1402.81	1154.00	1428.88	1406.94	1428.89	.03	.87	1327.13	7122.94
	-43.360	.00	.00	.00	1408.22	612.00	1411.76	1406.94	1413.03	29.27	9.07	67.49	113.13
	44.000	80.00	.00	.00	1408.52	148.00	1413.17	1410.61	1413.23	1.37	2.08	71.15	126.65
	46.300	266.00	.00	.00	1409.58	148.00	1413.17	1411.67	1413.32	4.11	3.13	47.24	72.97
	46.600	30.00	.00	.00	1409.70	148.00	1413.17	1411.80	1413.34	4.70	3.29	44.98	68.26

Q=100 YR

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	40.590	2011.00	1372.32	.00	.00	-12.68	59.25	.00
	39.790	2011.00	1373.80	.00	1.48	.00	59.67	80.00
*	39.670	2011.00	1378.21	.00	4.41	.00	51.54	12.00
	35.070	2011.00	1381.35	.00	3.14	.00	77.03	460.00
	34.260	2011.00	1381.38	.00	.03	.00	60.83	91.00
*	34.150	2011.00	1382.64	.00	1.27	.00	52.43	11.00
	32.120	2011.00	1385.30	.00	2.65	.00	65.73	203.00
	31.680	2011.00	1385.45	.00	.15	.00	66.49	44.00
	30.840	2011.00	1385.57	.00	.12	.00	67.09	84.00
	30.350	2011.00	1385.63	.00	.06	.00	67.55	49.00
	29.670	2011.00	1385.77	.00	.14	.00	61.30	68.00
*	20.460	2011.00	1391.56	.00	5.79	.00	44.48	921.00
*	20.090	2011.00	1395.91	.00	4.35	.00	137.19	37.00
	18.640	2011.00	1397.02	.00	1.11	.00	98.63	105.00
	17.650	2011.00	1397.58	.00	.56	.00	80.09	99.00
*	17.550	2011.00	1397.73	.00	.15	.00	85.55	10.00
	9.230	2011.00	1402.64	.00	4.91	.00	464.49	832.00
	3.100	2011.00	1406.07	.00	3.43	.00	270.77	613.00
	1.000	2011.00	1406.58	.00	.51	.00	51.32	210.00
	930.490	2011.00	1407.72	.00	1.14	.00	77.00	83.00
	30.500	2011.00	1407.98	.00	.26	.00	77.00	221.00
	930.510	2011.00	1407.98	.00	.00	.00	77.00	14.00
	930.520	866.00	1407.90	.00	-.08	.00	43.40	52.00
	935.000	866.00	1407.92	.00	.02	.00	32.92	438.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	43.360	618.00	1411.76	.00	3.83	.00	26.17	836.00
*	947.000	618.00	1414.44	.00	2.68	.00	26.14	375.00
*	954.400	618.00	1419.57	.00	5.14	.00	26.20	740.00
	954.610	618.00	1419.88	.00	.31	.00	27.16	21.00
	954.710	618.00	1420.64	.00	.76	.00	34.51	10.00
	954.810	618.00	1420.65	.00	.01	.00	34.53	10.00
	954.850	618.00	1421.56	.00	.91	.00	37.40	4.00
	954.900	805.00	1421.42	.00	-.14	.00	36.95	5.00
	955.500	805.00	1421.44	.00	.02	.00	36.59	60.00
	955.600	805.00	1421.15	.00	-.29	.00	31.45	10.00
	956.000	805.00	1421.19	.00	.04	.00	31.24	40.00
*	960.400	805.00	1423.23	.00	2.04	.00	28.41	440.00
	960.610	805.00	1423.56	.00	.33	.00	29.46	21.00
	960.710	805.00	1424.40	.00	.85	.00	36.65	10.00
	960.810	805.00	1424.41	.00	.01	.00	36.61	10.00
	960.850	805.00	1425.54	.00	1.13	.00	40.19	4.00
	960.900	1002.00	1425.41	.00	-.12	.00	39.78	5.00
	961.500	1002.00	1425.43	.00	.02	.00	39.44	60.00
	961.600	1002.00	1425.19	.00	-.24	.00	35.22	10.00
	962.000	1002.00	1425.22	.00	.03	.00	34.97	40.00
*	965.450	1002.00	1426.34	.00	1.12	.00	30.49	345.00
	965.640	1002.00	1426.40	.00	.06	.00	30.43	19.00
	965.740	1002.00	1427.61	.00	1.21	.00	38.56	10.00
	965.840	1002.00	1427.61	.00	.01	.00	38.57	10.00
	965.880	1002.00	1428.92	.00	1.31	.00	42.76	4.00
	965.930	1198.00	1428.81	.00	-.11	.00	42.35	5.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	966.530	1198.00	1428.83	.00	.01	.00	42.00	60.00
	966.630	1198.00	1428.62	.00	-.20	.00	38.52	10.00
	967.050	1198.00	1428.65	.00	.02	.00	38.25	42.00
	970.110	138.00	1429.58	.00	.93	.00	28.24	142.00
	971.530	138.00	1429.45	.00	-.13	.00	20.19	143.00
*	-30.500	2011.00	1428.88	.00	-.57	.00	77.00	.00
	31.720	1154.00	1428.88	.00	.00	.00	50.50	14.00
	32.180	1154.00	1428.88	.00	.00	.00	58.00	46.00
	34.270	1154.00	1428.88	.00	.00	.00	58.00	209.00
	-43.360	612.00	1411.76	.00	-17.12	.00	26.17	.00
	44.000	148.00	1413.17	.00	1.41	.00	24.63	80.00
	46.300	148.00	1413.17	.00	.00	.00	20.33	266.00
	46.600	148.00	1413.17	.00	.00	.00	19.90	30.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION	SECNO=	40.590	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	39.670	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	39.670	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	34.150	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	34.150	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	20.460	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	20.460	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	20.090	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	20.090	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	17.550	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	17.550	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	43.360	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	43.360	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	947.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	947.000	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	954.400	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	954.400	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	960.400	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	960.400	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	965.450	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	965.450	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	-30.500	PROFILE= 1	CRITICAL DEPTH ASSUMED

User: DEN104 -at

<OPS183>PROJ>PJ6114>DATA>HEC2>SCHN250.OUT

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


WWWW  WWWWW W   W   W    WWW  W
W   W W     WW  W  WW   W   W W  W
W   W W     W W W   W   W   W W  W
W   W WWWW  W W W   W   W W W WWWWW
W   W W     W W W   W   W   W    W
W   W W     W  WW   W   W   W    W
WWWW  WWWWW W   W  WWW   WWW     W



 WWW   WWW  W   W W   W  WWW  WWWWW  WWW         WWW  W   W WWWWW
W   W W   W W   W WW  W W   W W     W   W       W   W W   W   W
W     W     W   W W W W     W WWWW  W   W       W   W W   W   W
 WWW  W     WWWWW W W W    W      W W W W       W   W W   W   W
    W W     W   W W W W   W       W W   W       W   W W   W   W
W   W W   W W   W W  WW  W    W   W W   W   WW  W   W W   W   W
 WWW   WWW  W   W W   W WWWWW  WWW   WWW    WW   WWW   WWW    W


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[Spooler rev 20.0.6HB (c) Prime Computer, Inc., 1986]

Label: PRT116 -form DENPRT

Pathname: <OPS183>PROJ>PJ6114>DATA>HEC2>SCHN250.OUT
File last modified: 88-08-16.21:27:56.Tue

Spooled: 88-09-13.12:14:20.Tue
Started: 88-09-13.12:14:28.Tue on: AMLC by: DENPRT

THIS RUN EXECUTED 08/16/88 22:21:19

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************

C
T1       SUPER-CRITICAL RUN FROM THE GRADE BREAK BELOW POND 8 TO THE
T2       UPSTREAM END OF THE TRANSITION TO THE SOSSAMAN CHANNEL CBC.
T3       Q=50 YEAR

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        2.        0.        1. -1.000000       .00        .0        0.  1423.500      .000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     -1.000      .000    -1.000      .000      .000      .000      .000      .000      .000      .000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000      .000      .000      .000      .000      .000      .000      .000      .000      .000


QT      1.000    606.000      .000      .000      .000      .000      .000      .000      .000      .000
J5  LPRNT    NUMSEC                    ********REQUESTED SECTION NUMBERS********

    -10.000   -10.000      .000      .000      .000      .000      .000      .000      .000      .000
NC       .035      .035      .016      .300      .400      .000      .000      .000      .000      .000
          GRADE BREAK BELOW DIVERSION STRUCTURE FOR POND 8 (Q=DET8)
X1    954.400     4.000   475.000   525.000   740.000   740.000   740.000      .000      .000      .000
GR   1425.500   475.000  1416.040   494.000  1416.040   506.000  1425.500   525.000      .000      .000

          GRADE BREAK
X1    947.000     4.000   475.000   525.000   375.000   375.000   375.000      .000      .000      .000
GR   1420.400   475.000  1410.900   494.000  1410.900   506.000  1420.400   525.000      .000      .000

          STORM SEWER NO. 3 CHANNEL OUTFALL (Q=COFY2)
X1    843.360     4.000   475.000   525.000   836.000   836.000   836.000      .000      .000      .000
X2    816.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
GR   1417.700   475.000  1408.220   494.000  1408.220   506.000  1417.700   525.000      .000      .000

          GRADE BREAK TO INSURE FLOWS TO CBC ARE SUB-CRITICAL
X1    935.000     4.000   475.000   525.000   438.000   438.000   438.000      .000      .000      .000
GR   1412.200   475.000  1402.690   494.000  1402.690   506.000  1412.200   525.000      .000      .000

          UPSTREAM END OF TRANSITION FROM CHANNEL NO. 2
X1    930.520     4.000   475.000   525.000    52.000    52.000    52.000      .000      .000      .000
X2    862.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
GR   1409.200   475.000  1401.720   494.000  1401.720   506.000  1409.200   525.000      .000      .000
EJ       .000      .000      .000      .000      .000      .000      .000      .000      .000      .000
```

THIS RUN EXECUTED 08/16/88 22:21:25

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************
```

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Q=50 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	954.400	.00	.00	.00	1416.04	606.00	1419.53	1419.53	1420.83	30.11	9.13	66.36	110.44
	947.000	740.00	.00	.00	1410.90	606.00	1413.41	1414.40	1416.52	103.10	14.17	42.78	59.68
	843.360	375.00	.00	.00	1408.22	816.00	1412.00	1412.34	1413.89	40.39	11.04	73.94	128.40
	935.000	836.00	.00	.00	1402.69	816.00	1405.85	1406.81	1408.93	79.46	14.08	57.96	91.54
*	930.520	438.00	.00	.00	1401.72	862.00	1405.78	1405.78	1407.19	28.72	9.53	90.46	160.86

Q=50 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	954.400	606.00	1419.53	.00	.00	-3.97	26.02	.00
	947.000	606.00	1413.41	.00	-6.12	.00	22.05	740.00
	843.360	816.00	1412.00	.00	-1.41	.00	27.14	375.00
	935.000	816.00	1405.85	.00	-6.15	.00	24.64	836.00
*	930.520	862.00	1405.78	.00	-.08	.00	32.60	438.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION  SECNO=   954.400  PROFILE= 1  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=   930.520  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   930.520  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   930.520  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
```

User: DEN104 -at

<OPS183>PROJ>PJ6114>DATA>HEC2>SCHN2100.OUT

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


WWWW  WWWWW W   W   W    WWW  W
W   W W     WW  W  WW   W   W W  W
W   W W     W W W   W   W   W W  W
W   W WWWW  W W W   W   W W W WWWWW
W   W W     W W W   W   W   W    W
W   W W     W  WW   W   W   W    W
WWWW  WWWWW W   W  WWW   WWW     W



 WWW   WWW  W   W W   W  WWW    W    WWW   WWW         WWW  W   W WWWWW
W   W W   W W   W WW  W W   W  WW   W   W W   W       W   W W   W   W
W     W     W   W W W W     W   W   W   W W   W       W   W W   W   W
 WWW  W     WWWWW W W W    W    W   W W W W W W       W   W W   W   W
    W W     W   W W W W   W     W   W   W W   W       W   W W   W   W
W   W W   W W   W W  WW  W      W   W   W W   W   WW  W   W W   W   W
 WWW   WWW  W   W W   W WWWWW  WWW   WWW   WWW    WW   WWW   WWW    W

*****************************************************************************************************
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[Spooler rev 20.0.6HB (c) Prime Computer, Inc., 1986]

Label: PRT114 -form DENPRT

Pathname: <OPS183>PROJ>PJ6114>DATA>HEC2>SCHN2100.OUT
File last modified: 88-08-16.19:56:28.Tue

Spooled: 88-09-13.12:10:48.Tue
Started: 88-09-13.12:08:00.Tue on: AMLC by: DENPRT

THIS RUN EXECUTED 08/16/88 19:47:17

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************

C
T1       SUPER-CRITICAL RUN FROM THE GRADE BREAK BELOW POND 8 TO THE
T2       UPSTREAM END OF THE TRANSITION TO THE SOSSAMAN CHANNEL CBC.
T3       Q=100 YR

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        2.        0.        1. -1.000000      .00        .0        0.  1423.500      .000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    -1.000     1.000    -1.000     1.000     2.000      .000      .000      .000      .000      .000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   150.000      .000      .000      .000      .000      .000      .000      .000      .000      .000


QT     1.000   618.000      .000      .000      .000      .000      .000      .000      .000      .000
J5  LPRNT    NUMSEC                  ********REQUESTED SECTION NUMBERS********

   -10.000  -10.000      .000      .000      .000      .000      .000      .000      .000      .000
NC      .035      .035      .016      .300      .400      .000      .000      .000      .000      .000
          GRADE BREAK BELOW DIVERSION STRUCTURE FOR POND 8 (Q=DET8)
X1   954.400     4.000   475.000   525.000   740.000   740.000   740.000      .000      .000      .000
GR  1425.500   475.000  1416.040   494.000  1416.040   506.000  1425.500   525.000      .000      .000

          GRADE BREAK
X1   947.000     4.000   475.000   525.000   375.000   375.000   375.000      .000      .000      .000
GR  1420.400   475.000  1410.900   494.000  1410.900   506.000  1420.400   525.000      .000      .000

          STORM SEWER NO. 3 CHANNEL OUTFALL (Q=COFY2)
X1   843.360     4.000   475.000   525.000   836.000   836.000   836.000      .000      .000      .000
X2   866.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
GR  1417.700   475.000  1408.220   494.000  1408.220   506.000  1417.700   525.000      .000      .000

          GRADE BREAK TO INSURE FLOWS TO CBC ARE SUB-CRITICAL
X1   935.000     4.000   475.000   525.000   438.000   438.000   438.000      .000      .000      .000
GR  1412.200   475.000  1402.690   494.000  1402.690   506.000  1412.200   525.000      .000      .000

          UPSTREAM END OF TRANSITION FROM CHANNEL NO. 2
X1   930.520     4.000   475.000   525.000    52.000    52.000    52.000      .000      .000      .000
X2   862.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
GR  1409.200   475.000  1401.720   494.000  1401.720   506.000  1409.200   525.000      .000      .000
EJ      .000      .000      .000      .000      .000      .000      .000      .000      .000      .000
```

CROSS SECTION 954.40
STREAM Q=100 YR
DISCHARGE= 618.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1416.     1417.     1418.     1419.     1420.     1421.     1422.     1423.     1424.     1425.     1426.

   STA-FEET

 2 475. .        .        .        .        .        .        .        .        .        .        X    .    BANK.
   477. .        .        .        .        .        .        .        .        .        X        .         .
   479. .        .        .        .        .        .        .        .        X        .        .         .
   481. .        .        .        .        .        .        .        X        .        .        .         .
   483. .        .        .        .        .        .        X        .        .        .        .         .
   485. .        .        .        .        .        X        E.       .        .        .        .         .
   487. .        .        .        .       XW        .        E.       .        .        .        .         .
   489. .        .        .        X        W        .        E.       .        .        .        .         .
   491. .        .        X        .        W        .        E.       .        .        .        .         .
 3 493. X        .        .        .        W        .        E.       .        .        .        .         .
   495. X        .        .        .        W        .        E.       .        .        .        .         .
   497. X        .        .        .        W        .        E.       .        .        .        .         .
   499. X        .        .        .        W        .        E.       .        .        .        .         .
   501. X        .        .        .        W        .        E.       .        .        .        .         .
   503. X        .        .        .        W        .        E.       .        .        .        .         .
 4 505. X        .        .        .        W        .        E.       .        .        .        .         .
   507. .        X        .        .        W        .        E.       .        .        .        .         .
   509. .        .        X        .        W        .        E.       .        .        .        .         .
   511. .        .        .        X        W        .        E.       .        .        .        .         .
   513. .        .        .        .        .        X        E.       .        .        .        .         .
   515. .        .        .        .        .        .        X        .        .        .        .         .
   517. .        .        .        .        .        .        .        X        .        .        .         .
   519. .        .        .        .        .        .        .        .        X        .        .         .
   521. .        .        .        .        .        .        .        .        .        X        .         .
   523. .        .        .        .        .        .        .        .        .        .        X         .
 5 525. .        .        .        .        .        .        .        .        .        .        X    .    BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

```
  EL(I),STA(I)
    1425.50      475.00     1416.04      494.00     1416.04      506.00     1425.50      525.00
```

CROSS SECTION 947.00
STREAM Q=100 YR
DISCHARGE= 618.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1410.     1411.     1412.     1413.     1414.     1415.     1416.     1417.     1418.     1419.     1420.

   STA-FEET

 2 475. .        .         .         .         .         .         .         .         .         .         .   X BANK.
   477. .        .         .         .         .         .         .         .         .         .   X     .         .
   479. .        .         .         .         .         .         .         .         .   X     .         .         .
   481. .        .         .         .         .         .         .         .   X     .         .         .         .
   483. .        .         .         .         .         .         .       X E     .         .         .         .         .
   485. .        .         .         .         .         .   X     .         E     .         .         .         .         .
   487. .        .         .         .         .   X     .         .         E     .         .         .         .         .
   489. .        .         .         .   X     .   C     .         .         E     .         .         .         .         .
   491. .        .         .   X     .   W     .   C     .         .         E     .         .         .         .         .
 3 493. .      X.          .         .   W     .   C     .         .         E     .         .         .         .         .
   495. .      X.          .         .   W     .   C     .         .         E     .         .         .         .         .
   497. .      X.          .         .   W     .   C     .         .         E     .         .         .         .         .
   499. .      X.          .         .   W     .   C     .         .         E     .         .         .         .         .
   501. .      X.          .         .   W     .   C     .         .         E     .         .         .         .         .
   503. .      X.          .         .   W     .   C     .         .         E     .         .         .         .         .
 4 505. .      X.          .         .   W     .   C     .         .         E     .         .         .         .         .
   507. .        .       X.          .   W     .   C     .         .         E     .         .         .         .         .
   509. .        .         .       X.    W     .   C     .         .         E     .         .         .         .         .
   511. .        .         .         .       X.  C     .         .         E     .         .         .         .         .
   513. .        .         .         .         .       X.        .         E     .         .         .         .         .
   515. .        .         .         .         .         .       X.        E     .         .         .         .         .
   517. .        .         .         .         .         .         .         .   X.        .         .         .         .
   519. .        .         .         .         .         .         .         .         .   X.        .         .         .
   521. .        .         .         .         .         .         .         .         .         .   X.        .         .
   523. .        .         .         .         .         .         .         .         .         .         .   X.        .
 5 525. .        .         .         .         .         .         .         .         .         .         .         .   X BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

1420.40	475.00	1410.90	494.00	1410.90	506.00	1420.40	525.00

CROSS SECTION 843.36
STREAM Q=100 YR
DISCHARGE= 866.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1408.     1409.     1410.     1411.     1412.     1413.     1414.     1415.     1416.     1417.     1418.

    STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         X .     BANK.
   477. .         .         .         .         .         .         .         .         .         X         .         .
   479. .         .         .         .         .         .         .         .         X         .         .         .
   481. .         .         .         .         .         .         .         X         .         .         .         .
   483. .         .         .         .         .         .         X         .E        .         .         .         .
   485. .         .         .         .         .         X         .         .E        .         .         .         .
   487. .         .         .         .         X         . W       C         .E        .         .         .         .
   489. .         .         .         X         .         . W       C         .E        .         .         .         .
   491. .         .         X         .         .         . W       C         .E        .         .         .         .
 3 493. . X       .         .         .         .         . W       C         .E        .         .         .         .
   495. . X       .         .         .         .         . W       C         .E        .         .         .         .
   497. . X       .         .         .         .         . W       C         .E        .         .         .         .
   499. . X       .         .         .         .         . W       C         .E        .         .         .         .
   501. . X       .         .         .         .         . W       C         .E        .         .         .         .
   503. . X       .         .         .         .         . W       C         .E        .         .         .         .
 4 505. . X       .         .         .         .         . W       C         .E        .         .         .         .
   507. .         . X       .         .         .         . W       C         .E        .         .         .         .
   509. .         .         . X       .         .         . W       C         .E        .         .         .         .
   511. .         .         .         . X       .         . W       C         .E        .         .         .         .
   513. .         .         .         .         .         . X       C         .E        .         .         .         .
   515. .         .         .         .         .         .         . X       .E        .         .         .         .
   517. .         .         .         .         .         .         .         . X       .         .         .         .
   519. .         .         .         .         .         .         .         .         . X       .         .         .
   521. .         .         .         .         .         .         .         .         .         . X       .         .
   523. .         .         .         .         .         .         .         .         .         .         . X       .
 5 525. .         .         .         .         .         .         .         .         .         .         X .     BANK.
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

1417.70	475.00	1408.22	494.00	1408.22	506.00	1417.70	525.00

```
CROSS SECTION    935.00
STREAM   Q=100 YR
DISCHARGE=      866.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1402.     1403.     1404.     1405.     1406.     1407.     1408.     1409.     1410.     1411.     1412.

   STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         . X   BANK.
   477. .         .         .         .         .         .         .         .         .         . X       .         .
   479. .         .         .         .         .         .         .         .         . X       .         .         .
   481. .         .         .         .         .         .         .         . X       .         .         .         .
   483. .         .         .         .         .         .         . X       . E       .         .         .         .
   485. .         .         .         .         .         . X       .         . E       .         .         .         .
   487. .         .         .         .         . X       C.        .         . E       .         .         .         .
   489. .         .         .         . X       W.        C.        .         . E       .         .         .         .
   491. .         .         . X       .         W.        C.        .         . E       .         .         .         .
 3 493. .       X .         .         .         W.        C.        .         . E       .         .         .         .
   495. .       X .         .         .         W.        C.        .         . E       .         .         .         .
   497. .       X .         .         .         W.        C.        .         . E       .         .         .         .
   499. .       X .         .         .         W.        C.        .         . E       .         .         .         .
   501. .       X .         .         .         W.        C.        .         . E       .         .         .         .
   503. .       X .         .         .         W.        C.        .         . E       .         .         .         .
 4 505. .       X .         .         .         W.        C.        .         . E       .         .         .         .
   507. .         .       X .         .         W.        C.        .         . E       .         .         .         .
   509. .         .         .       X .         W.        C.        .         . E       .         .         .         .
   511. .         .         .         .       X W.        C.        .         . E       .         .         .         .
   513. .         .         .         .         .       X C.        .         . E       .         .         .         .
   515. .         .         .         .         .         .       X .         . E       .         .         .         .
   517. .         .         .         .         .         .         .       X . E       .         .         .         .
   519. .         .         .         .         .         .         .         .         X .         .         .         .
   521. .         .         .         .         .         .         .         .         .         X .         .         .
   523. .         .         .         .         .         .         .         .         .         .         X .         .
 5 525. .         .         .         .         .         .         .         .         .         .         . X   BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1412.20      475.00     1402.69      494.00     1402.69      506.00     1412.20      525.00
```

```
CROSS SECTION    930.52
STREAM   Q=100 YR
DISCHARGE=      862.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1401.     1402.     1403.     1404.     1405.     1406.     1407.     1408.     1409.     1410.     1411.

    STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         . X       .         .     BANK.
   477. .         .         .         .         .         .         .         .         . X       .         .         .         .
   479. .         .         .         .         .         .         .         . X       .         .         .         .         .
   481. .         .         .         .         .         .         . X . E   .         .         .         .         .         .
   483. .         .         .         .         .         .X        . E       .         .         .         .         .         .
   485. .         .         .         .         . X     W .         . E       .         .         .         .         .         .
   487. .         .         .         .   X     .       W .         . E       .         .         .         .         .         .
   489. .         .         .     X   .         .       W .         . E       .         .         .         .         .         .
   491. .         .       X.          .         .       W .         . E       .         .         .         .         .         .
 3 493. .       X .         .         .         .       W .         . E       .         .         .         .         .         .
   495. .       X .         .         .         .       W .         . E       .         .         .         .         .         .
   497. .       X .         .         .         .       W .         . E       .         .         .         .         .         .
   499. .       X .         .         .         .       W .         . E       .         .         .         .         .         .
   501. .       X .         .         .         .       W .         . E       .         .         .         .         .         .
   503. .       X .         .         .         .       W .         . E       .         .         .         .         .         .
 4 505. .       X .         .         .         .       W .         . E       .         .         .         .         .         .
   507. .         .     X   .         .         .       W .         . E       .         .         .         .         .         .
   509. .         .         . X       .         .       W .         . E       .         .         .         .         .         .
   511. .         .         .         .X        .       W .         . E       .         .         .         .         .         .
   513. .         .         .         .         .X      W .         . E       .         .         .         .         .         .
   515. .         .         .         .         .      XW .         . E       .         .         .         .         .         .
   517. .         .         .         .         .         .   X     . E       .         .         .         .         .         .
   519. .         .         .         .         .         .         . X       .         .         .         .         .         .
   521. .         .         .         .         .         .         .         .X        .         .         .         .         .
   523. .         .         .         .         .         .         .         .         .X        .         .         .         .
 5 525. .         .         .         .         .         .         .         .         .         . X       .         .     BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1409.20      475.00     1401.72      494.00     1401.72      506.00     1409.20      525.00
```

THIS RUN EXECUTED 08/16/88 19:48:29

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************
```

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Q=100 YR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	954.400	.00	.00	.00	1416.04	618.00	1419.59	1419.59	1420.88	29.48	9.11	67.81	113.82
	947.000	740.00	.00	.00	1410.90	618.00	1413.43	1414.43	1416.60	103.88	14.29	43.26	60.63
	843.360	375.00	.00	.00	1408.22	866.00	1412.21	1412.48	1414.05	37.33	10.90	79.42	141.74
	935.000	836.00	.00	.00	1402.69	866.00	1405.93	1406.95	1409.18	81.88	14.47	59.83	95.70
*	930.520	438.00	.00	.00	1401.72	862.00	1405.78	1405.78	1407.19	28.72	9.53	90.45	160.85

Q=100 YR

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	954.400	618.00	1419.59	.00	.00	-3.91	26.25	.00
	947.000	618.00	1413.43	.00	-6.16	.00	22.14	740.00
	843.360	866.00	1412.21	.00	-1.22	.00	27.94	375.00
	935.000	866.00	1405.93	.00	-6.28	.00	24.94	836.00
*	930.520	862.00	1405.78	.00	-.15	.00	32.60	438.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION  SECNO=   954.400  PROFILE= 1  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=   930.520  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   930.520  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   930.520  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
```

User: DEN104 -at

<OPS183>PROJ>PJ6114>DATA>HEC2>CH21150.OUT

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


WWWW  WWWWW W   W   W    WWW  W
W   W W     WW  W  WW   W   W W  W
W   W W     W W W   W   W   W W  W
W   W WWWW  W W W   W   W W W WWWWW
W   W W     W W W   W   W   W    W
W   W W     W  WW   W   W   W    W
WWWW  WWWWW W   W  WWW   WWW     W



 WWW  W   W  WWW    W     W   WWWWW  WWW         WWW  W   W WWWWW
W   W W   W W   W  WW    WW   W     W   W       W   W W   W   W
W     W   W     W   W     W   WWWW  W   W       W   W W   W   W
W     WWWWW    W    W     W       W W W W       W   W W   W   W
W     W   W   W     W     W       W W   W       W   W W   W   W
W   W W   W  W      W     W   W   W W   W   WW  W   W W   W   W
 WWW  W   W WWWWW  WWW   WWW   WWW   WWW    WW   WWW   WWW    W

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

[Spooler rev 20.0.6HB (c) Prime Computer, Inc., 1986]

Label: PRT181 -form DENPRT

Pathname: <OPS183>PROJ>PJ6114>DATA>HEC2>CH21150.OUT
File last modified: 88-08-16.20:36:32.Tue

Spooled: 88-09-14.10:51:44.Wed
Started: 88-09-14.10:51:52.Wed on: AMLC by: DENPRT

THIS RUN EXECUTED 08/16/88 21:22:21

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************


C
T1       BACKWATER CURVE FROM THE DOWNSTREAM END OF POND 11 TO THE
T2       OUTLET FROM POND 12.
T3       Q=50 YEAR

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        2.        0.        0.   .000000       .00        .0        0.  1433.280      .000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    -1.000      .000    -1.000      .000      .000      .000      .000      .000      .000      .000

J5  LPRNT    NUMSEC                    ********REQUESTED SECTION NUMBERS********

   -10.000   -10.000      .000      .000      .000      .000      .000      .000      .000      .000

NC       .035       .035       .016       .100       .300       .000       .000       .000       .000       .000
QT      1.000    124.000       .000       .000       .000       .000       .000       .000       .000       .000
          DOWNSTREAM END OF POND 11 (Q=HDET11)
X1    972.110      6.000    475.000    510.000       .000       .000       .000       .000       .000       .000
GR   1437.300    475.000   1427.800    494.000   1427.800    506.000   1429.800    510.000   1430.600    671.000
GR   1440.100    690.000       .000       .000       .000       .000       .000       .000       .000       .000

          DOWNSTREAM END OF BERM IN POND 11
X1    973.000      6.000    475.000    510.000     89.000     89.000     89.000       .000       .000       .000
GR   1437.800    475.000   1428.330    494.000   1428.330    506.000   1430.330    510.000   1431.140    671.000
GR   1440.600    690.000       .000       .000       .000       .000       .000       .000       .000       .000

          CROSS SECTION NEAR MIDPOINT OF POND 11
X1    975.000      8.000    475.000    510.000    200.000    200.000    200.000       .000       .000       .000
GR   1439.100    475.000   1429.530    494.000   1429.530    506.000   1431.530    510.000   1431.530    515.000
GR   1430.700    516.600   1431.480    666.400   1441.000    685.400       .000       .000       .000       .000

          UPSTREAM END OF POND 11
X1    976.840      8.000    475.000    510.000    184.000    184.000    184.000       .000       .000       .000
GR   1440.200    475.000   1430.640    494.000   1430.640    506.000   1432.640    510.000   1432.640    515.000
GR   1431.400    517.400   1432.160    662.100   1441.700    681.200       .000       .000       .000       .000

          INLET CHANNEL AT UPSTREAM END OF POND 11 (Q=HDET12)
X1    977.000      4.000    475.000    525.000     16.000     16.000     16.000       .000       .000       .000
X2    112.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1440.300    475.000   1430.780    494.000   1430.780    506.000   1440.300    525.000       .000       .000
```

DOWNSTREAM END OF THE OUTLET FROM POND 12

X1	991.640	4.000	475.000	525.000	1464.000	1464.000	1464.000	.000	.000	.000
GR	1449.000	475.000	1439.500	494.000	1439.500	506.000	1449.000	525.000	.000	.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

THIS RUN EXECUTED 08/16/88 21:22:28

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************
```

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Q=50 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	972.110	.00	.00	.00	1427.80	124.00	1433.28	.00	1433.28	.03	.40	616.78	713.43
	973.000	89.00	.00	.00	1428.33	124.00	1433.28	.00	1433.28	.05	.50	514.18	544.74
	975.000	200.00	.00	.00	1429.53	124.00	1433.28	.00	1433.28	.11	.62	413.61	373.65
	976.840	184.00	.00	.00	1430.64	124.00	1433.28	.00	1433.29	.42	.96	270.10	190.98
	977.000	16.00	.00	.00	1430.78	112.00	1433.21	.00	1433.32	4.01	2.74	40.86	55.95
*	991.640	1464.00	.00	.00	1439.50	112.00	1440.79	1440.79	1441.34	38.45	5.97	18.75	18.06

Q=50 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	972.110	124.00	1433.28	.00	.00	.00	193.32	.00
	973.000	124.00	1433.28	.00	.00	.00	191.23	89.00
	975.000	124.00	1433.28	.00	.00	.00	183.44	200.00
	976.840	124.00	1433.28	.00	.00	.00	175.60	184.00
	977.000	112.00	1433.21	.00	-.08	.00	21.68	16.00
*	991.640	112.00	1440.79	.00	7.58	.00	17.15	1464.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION  SECNO=   991.640  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   991.640  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   991.640  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
```

User: DEN104 -at

<OPS183>PROJ>PJ6114>DATA>HEC2>CH211100.OUT

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


WWWW  WWWWW W   W   W    WWW  W
W   W W     WW  W  WW   W   W W  W
W   W W     W W W   W   W   W W  W
W   W WWWW  W W W   W   W W W WWWWW
W   W W     W W W   W   W   W    W
W   W W     W  WW   W   W   W    W
WWWW  WWWWW W   W  WWW   WWW     W



 WWW  W   W  WWW    W     W     W    WWW   WWW         WWW  W   W WWWWW
W   W W   W W   W  WW    WW    WW   W   W W   W       W   W W   W   W
W     W   W     W   W     W     W   W   W W   W       W   W W   W   W
W     WWWWW    W    W     W     W   W W W W W W       W   W W   W   W
W     W   W   W     W     W     W   W   W W   W       W   W W   W   W
W   W W   W  W      W     W     W   W   W W   W   WW  W   W W   W   W
 WWW  W   W WWWWW  WWW   WWW   WWW   WWW   WWW    WW   WWW   WWW    W

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

[Spooler rev 20.0.6HB (c) Prime Computer, Inc., 1986]

Label: PRT118 -form DENPRT

Pathname: <OPS183>PROJ>PJ6114>DATA>HEC2>CH211100.OUT
File last modified: 88-08-17.18:42:24.Wed

Spooled: 88-09-13.12:15:56.Tue
Started: 88-09-13.12:16:28.Tue on: AMLC by: DENPRT

THIS RUN EXECUTED 08/17/88 19:28:16

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************

C
T1       BACKWATER CURVE FROM THE DOWNSTREAM END OF POND 11 TO THE
T2       OUTLET FROM POND 12.
T3       Q=100 YR

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        2.        0.        0.   .000000       .00        .0        0.  1434.260      .000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    -1.000     1.000    -1.000     1.000     5.000     .000      .000      .000      .000      .000

J5  LPRNT    NUMSEC                    ********REQUESTED SECTION NUMBERS********

   -10.000   -10.000      .000      .000      .000      .000      .000      .000      .000      .000

NC       .035       .035       .016       .100       .300       .000       .000       .000       .000       .000
QT      1.000    138.000       .000       .000       .000       .000       .000       .000       .000       .000
          DOWNSTREAM END OF POND 11 (Q=HDET11)
X1    972.110      6.000    475.000    510.000       .000       .000       .000       .000       .000       .000
GR   1437.300    475.000   1427.800    494.000   1427.800    506.000   1429.800    510.000   1430.600    671.000
GR   1440.100    690.000       .000       .000       .000       .000       .000       .000       .000       .000

          DOWNSTREAM END OF BERM IN POND 11
X1    973.000      6.000    475.000    510.000     89.000     89.000     89.000       .000       .000       .000
GR   1437.800    475.000   1428.330    494.000   1428.330    506.000   1430.330    510.000   1431.140    671.000
GR   1440.600    690.000       .000       .000       .000       .000       .000       .000       .000       .000

          CROSS SECTION NEAR MIDPOINT OF POND 11
X1    975.000      8.000    475.000    510.000    200.000    200.000    200.000       .000       .000       .000
GR   1439.100    475.000   1429.530    494.000   1429.530    506.000   1431.530    510.000   1431.530    515.000
GR   1430.700    516.600   1431.480    666.400   1441.000    685.400       .000       .000       .000       .000

          UPSTREAM END OF POND 11
X1    976.840      8.000    475.000    510.000    184.000    184.000    184.000       .000       .000       .000
GR   1440.200    475.000   1430.640    494.000   1430.640    506.000   1432.640    510.000   1432.640    515.000
GR   1431.400    517.400   1432.160    662.100   1441.700    681.200       .000       .000       .000       .000

          INLET CHANNEL AT UPSTREAM END OF POND 11 (Q=HDET12)
X1    977.000      4.000    475.000    525.000     16.000     16.000     16.000       .000       .000       .000
X2    128.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1440.300    475.000   1430.780    494.000   1430.780    506.000   1440.300    525.000       .000       .000
```

DOWNSTREAM END OF THE OUTLET FROM POND 12

X1	991.640	4.000	475.000	525.000	1464.000	1464.000	1464 000	.000	.000	.000
GR	1449.000	475.000	1439.500	494.000	1439.500	506.000	1449.000	525.000	.000	.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

```
CROSS SECTION    972.11
STREAM   Q=100 YR
DISCHARGE=      138.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1426.     1427.     1428.     1429.     1430.     1431.     1432.     1433.     1434.     1435.     1436.

    STA-FEET

8560 XSEC POINT-X      EL,ST-   1437.30    475.00
 2 475. .          .         .         .         .         .         .         .         .         .         .    BANKX
   480. .          .         .         .         .         .         .         .         .       X .         .        .
   485. .          .         .         .         .         .         .   X     .         .   W     .         .        .
   490. .          .         .         .       X .         .         .         .         .   W     .         .        .
 3 495. .          .       X .         .         .         .         .         .         .   W     .         .        .
   500. .          .       X .         .         .         .         .         .         .   W     .         .        .
 4 505. .          .       X .         .         .         .         .         .         .   W     .         .        .
 5 510. .          .         .         .       X .         .         .         .         .   W     .         .    BANK.
   515. .          .         .         .       X .         .         .         .         .   W     .         .        .
   520. .          .         .         .       X .         .         .         .         .   W     .         .        .
   525. .          .         .         .        X.         .         .         .         .   W     .         .        .
   530. .          .         .         .        X.         .         .         .         .   W     .         .        .
   535. .          .         .         .        X.         .         .         .         .   W     .         .        .
   540. .          .         .         .        X.         .         .         .         .   W     .         .        .
   545. .          .         .         .         X         .         .         .         .   W     .         .        .
   550. .          .         .         .         X         .         .         .         .   W     .         .        .
   555. .          .         .         .         X         .         .         .         .   W     .         .        .
   560. .          .         .         .         X         .         .         .         .   W     .         .        .
   565. .          .         .         .         .X        .         .         .         .   W     .         .        .
   570. .          .         .         .         .X        .         .         .         .   W     .         .        .
   575. .          .         .         .         .X        .         .         .         .   W     .         .        .
   580. .          .         .         .         .X        .         .         .         .   W     .         .        .
   585. .          .         .         .         . X       .         .         .         .   W     .         .        .
   590. .          .         .         .         . X       .         .         .         .   W     .         .        .
   595. .          .         .         .         . X       .         .         .         .   W     .         .        .
   600. .          .         .         .         . X       .         .         .         .   W     .         .        .
   605. .          .         .         .         .  X      .         .         .         .   W     .         .        .
   610. .          .         .         .         .  X      .         .         .         .   W     .         .        .
   615. .          .         .         .         .  X      .         .         .         .   W     .         .        .
   620. .          .         .         .         .  X      .         .         .         .   W     .         .        .
   625. .          .         .         .         .   X     .         .         .         .   W     .         .        .
   630. .          .         .         .         .   X     .         .         .         .   W     .         .        .
   635. .          .         .         .         .   X     .         .         .         .   W     .         .        .
   640. .          .         .         .         .   X     .         .         .         .   W     .         .        .
   645. .          .         .         .         .    X    .         .         .         .   W     .         .        .
   650. .          .         .         .         .    X    .         .         .         .   W     .         .        .
   655. .          .         .         .         .    X    .         .         .         .   W     .         .        .
   660. .          .         .         .         .    X    .         .         .         .   W     .         .        .
   665. .          .         .         .         .     X   .         .         .         .   W     .         .        .
 6 670. .          .         .         .         .     X   .         .         .         .   W     .         .        .
   675. .          .         .         .         .         .         .         .X        .   W     .         .        .
   680. .          .         .         .         .         .         .         .         .         .   X     .        .
   685. .          .         .         .         .         .         .         .         .         .         .        X
8560 XSEC POINT-X      EL,ST-   1440.10    690.00
 7 690. .          .         .         .         .         .         .         .         .         .         .        X

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1437.30      475.00      1427.80      494.00      1427.80      506.00      1429.80      510.00      1430.60      671.00
    1440.10      690.00
```

CROSS SECTION 973.00
STREAM Q=100 YR
DISCHARGE= 138.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1428.     1429.     1430.     1431.     1432.     1433.     1434.     1435.     1436.     1437.     1438.

   STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         X .     BANK.
   480. .         .         .         .         .         .         .         .  X      .         .         .         .
   485. .         .         .         .         .       X .         .  W      .         .         .         .         .
   490. .         .         .  X      .         .         .         .  W      .         .         .         .         .
 3 495. .  X      .         .         .         .         .         .  W      .         .         .         .         .
   500. .  X      .         .         .         .         .         .  W      .         .         .         .         .
 4 505. .  X      .         .         .         .         .         .  W      .         .         .         .         .
 5 510. .         .         .  X      .         .         .         .  W      .         .         .         .     BANK.
   515. .         .         .   X     .         .         .         .  W      .         .         .         .         .
   520. .         .         .   X     .         .         .         .  W      .         .         .         .         .
   525. .         .         .   X     .         .         .         .  W      .         .         .         .         .
   530. .         .         .   X     .         .         .         .  W      .         .         .         .         .
   535. .         .         .    X    .         .         .         .  W      .         .         .         .         .
   540. .         .         .    X    .         .         .         .  W      .         .         .         .         .
   545. .         .         .    X    .         .         .         .  W      .         .         .         .         .
   550. .         .         .    X    .         .         .         .  W      .         .         .         .         .
   555. .         .         .     X   .         .         .         .  W      .         .         .         .         .
   560. .         .         .     X   .         .         .         .  W      .         .         .         .         .
   565. .         .         .     X   .         .         .         .  W      .         .         .         .         .
   570. .         .         .     X   .         .         .         .  W      .         .         .         .         .
   575. .         .         .      X  .         .         .         .  W      .         .         .         .         .
   580. .         .         .      X  .         .         .         .  W      .         .         .         .         .
   585. .         .         .      X  .         .         .         .  W      .         .         .         .         .
   590. .         .         .      X  .         .         .         .  W      .         .         .         .         .
   595. .         .         .       X .         .         .         .  W      .         .         .         .         .
   600. .         .         .       X .         .         .         .  W      .         .         .         .         .
   605. .         .         .       X .         .         .         .  W      .         .         .         .         .
   610. .         .         .       X .         .         .         .  W      .         .         .         .         .
   615. .         .         .        X.         .         .         .  W      .         .         .         .         .
   620. .         .         .        X.         .         .         .  W      .         .         .         .         .
   625. .         .         .        X.         .         .         .  W      .         .         .         .         .
   630. .         .         .        X.         .         .         .  W      .         .         .         .         .
   635. .         .         .         X         .         .         .  W      .         .         .         .         .
   640. .         .         .         X         .         .         .  W      .         .         .         .         .
   645. .         .         .         X         .         .         .  W      .         .         .         .         .
   650. .         .         .         X         .         .         .  W      .         .         .         .         .
   655. .         .         .         .X        .         .         .  W      .         .         .         .         .
   660. .         .         .         .X        .         .         .  W      .         .         .         .         .
   665. .         .         .         .X        .         .         .  W      .         .         .         .         .
 6 670. .         .         .         .X        .         .         .  W      .         .         .         .         .
   675. .         .         .         .         .         .       X .  W      .         .         .         .         .
   680. .         .         .         .         .         .         .         .         .X        .         .         .
   685. .         .         .         .         .         .         .         .         .         .         .     X   .
8560 XSEC POINT-X      EL,ST-   1440.60    690.00
 7 690. .         .         .         .         .         .         .         .         .         .         .         X

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1437.80      475.00     1428.33      494.00     1428.33      506.00     1430.33      510.00     1431.14      671.00
    1440.60      690.00
```

```
CROSS SECTION    975.00
STREAM   Q=100 YR
DISCHARGE=      138.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,F=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1428.     1429.     1430.     1431.     1432.     1433.     1434.     1435.     1436.     1437.     1438.

    STA-FEET

8560 XSEC POINT-X      EL,ST-   1439.10    475.00
 2 475. .          .         .         .         .         .         .         .         .         .         .     BANKX
   480. .          .         .         .         .         .         .         .         .     X   .         .         .
   485. .          .         .         .         .         .         .X W      .         .         .         .         .
   490. .          .         .         .    X    .         .         .  W      .         .         .         .         .
 3 495. .          .    X    .         .         .         .         .  W      .         .         .         .         .
   500. .          .    X    .         .         .         .         .  W      .         .         .         .         .
 4 505. .          .    X    .         .         .         .         .  W      .         .         .         .         .
 5 510. .          .         .         .    X    .         .         .  W      .         .         .         .     BANK.
 7 515. .          .         .      XXXXXXXXX    .         .         .  W      .         .         .         .         .
   520. .          .         .      X  .         .         .         .  W      .         .         .         .         .
   525. .          .         .       X .         .         .         .  W      .         .         .         .         .
   530. .          .         .       X .         .         .         .  W      .         .         .         .         .
   535. .          .         .       X .         .         .         .  W      .         .         .         .         .
   540. .          .         .       X .         .         .         .  W      .         .         .         .         .
   545. .          .         .        X.         .         .         .  W      .         .         .         .         .
   550. .          .         .        X.         .         .         .  W      .         .         .         .         .
   555. .          .         .        X.         .         .         .  W      .         .         .         .         .
   560. .          .         .        X.         .         .         .  W      .         .         .         .         .
   565. .          .         .         X         .         .         .  W      .         .         .         .         .
   570. .          .         .         X         .         .         .  W      .         .         .         .         .
   575. .          .         .         X         .         .         .  W      .         .         .         .         .
   580. .          .         .         X         .         .         .  W      .         .         .         .         .
   585. .          .         .         .X        .         .         .  W      .         .         .         .         .
   590. .          .         .         .X        .         .         .  W      .         .         .         .         .
   595. .          .         .         .X        .         .         .  W      .         .         .         .         .
   600. .          .         .         .X        .         .         .  W      .         .         .         .         .
   605. .          .         .         . X       .         .         .  W      .         .         .         .         .
   610. .          .         .         . X       .         .         .  W      .         .         .         .         .
   615. .          .         .         . X       .         .         .  W      .         .         .         .         .
   620. .          .         .         . X       .         .         .  W      .         .         .         .         .
   625. .          .         .         .  X      .         .         .  W      .         .         .         .         .
   630. .          .         .         .  X      .         .         .  W      .         .         .         .         .
   635. .          .         .         .  X      .         .         .  W      .         .         .         .         .
   640. .          .         .         .   X     .         .         .  W      .         .         .         .         .
   645. .          .         .         .   X     .         .         .  W      .         .         .         .         .
   650. .          .         .         .   X     .         .         .  W      .         .         .         .         .
   655. .          .         .         .   X     .         .         .  W      .         .         .         .         .
   660. .          .         .         .    X    .         .         .  W      .         .         .         .         .
 8 665. .          .         .         .    X    .         .         .  W      .         .         .         .         .
   670. .          .         .         .         .         .         X  W      .         .         .         .         .
   675. .          .         .         .         .         .         .         .         .     X   .         .         .
   680. .          .         .         .         .         .         .         .         .         .         .         X
8560 XSEC POINT-X      EL,ST-   1441.00    685.40
 9 685. .          .         .         .         .         .         .         .         .         .         .         X

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1439.10      475.00      1429.53      494.00      1429.53      506.00      1431.53      510.00      1431.53      515.00
    1430.70      516.60      1431.48      666.40      1441.00      685.40
```

```
CROSS SECTION    976.84
STREAM   Q=100 YR
DISCHARGE=      138.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1430.     1431.     1432.     1433.     1434.     1435.     1436.     1437.     1438.     1439.     1440.

   STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         . X   BANK.
   480. .         .         .         .         .         .         .         .         X         .         .         .
   485. .         .         .         .         .         . X       .         .         .         .         .         .
   490. .         .         .       X .         .       W .         .         .         .         .         .         .
 3 495. .     X   .         .         .         .       W .         .         .         .         .         .         .
   500. .     X   .         .         .         .       W .         .         .         .         .         .         .
 4 505. .     X   .         .         .         .       W .         .         .         .         .         .         .
 5 510. .         .         .       X .         .       W .         .         .         .         .         .     BANK.
 7 515. .         .   XXXXXXXXXXXXX   .         .       W .         .         .         .         .         .         .
   520. .         .   X     .         .         .       W .         .         .         .         .         .         .
   525. .         .    X    .         .         .       W .         .         .         .         .         .         .
   530. .         .    X    .         .         .       W .         .         .         .         .         .         .
   535. .         .    X    .         .         .       W .         .         .         .         .         .         .
   540. .         .    X    .         .         .       W .         .         .         .         .         .         .
   545. .         .     X   .         .         .       W .         .         .         .         .         .         .
   550. .         .     X   .         .         .       W .         .         .         .         .         .         .
   555. .         .     X   .         .         .       W .         .         .         .         .         .         .
   560. .         .     X   .         .         .       W .         .         .         .         .         .         .
   565. .         .      X  .         .         .       W .         .         .         .         .         .         .
   570. .         .      X  .         .         .       W .         .         .         .         .         .         .
   575. .         .      X  .         .         .       W .         .         .         .         .         .         .
   580. .         .      X  .         .         .       W .         .         .         .         .         .         .
   585. .         .       X .         .         .       W .         .         .         .         .         .         .
   590. .         .       X .         .         .       W .         .         .         .         .         .         .
   595. .         .       X .         .         .       W .         .         .         .         .         .         .
   600. .         .       X .         .         .       W .         .         .         .         .         .         .
   605. .         .        X.         .         .       W .         .         .         .         .         .         .
   610. .         .        X.         .         .       W .         .         .         .         .         .         .
   615. .         .        X.         .         .       W .         .         .         .         .         .         .
   620. .         .         X         .         .       W .         .         .         .         .         .         .
   625. .         .         X         .         .       W .         .         .         .         .         .         .
   630. .         .         X         .         .       W .         .         .         .         .         .         .
   635. .         .         X         .         .       W .         .         .         .         .         .         .
   640. .         .         .X        .         .       W .         .         .         .         .         .         .
   645. .         .         .X        .         .       W .         .         .         .         .         .         .
   650. .         .         .X        .         .       W .         .         .         .         .         .         .
   655. .         .         .X        .         .       W .         .         .         .         .         .         .
 8 660. .         .         . X       .         .       W .         .         .         .         .         .         .
   665. .         .         .         .         .         .       X .         .         .         .         .         .
   670. .         .         .         .         .         .         .         .         . X       .         .         .
   675. .         .         .         .         .         .         .         .         .         .         . X       .
8560 XSEC POINT-X      EL,ST-   1441.70    681.20
 9 680. .         .         .         .         .         .         .         .         .         .         .         X

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1440.20      475.00      1430.64      494.00      1430.64      506.00      1432.64      510.00      1432.64      515.00
    1431.40      517.40      1432.16      662.10      1441.70      681.20
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```
CROSS SECTION    977.00
STREAM   Q=100 YR
DISCHARGE=      128.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1430.     1431.     1432.     1433.     1434.     1435.     1436.     1437.     1438.     1439.     1440.

    STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         . X  BANK.
   480. .         .         .         .         .         .         .         .       X .         .         .        .
   485. .         .         .         .         .         .       X .         .         .         .         .        .
   490. .         .         .       X .         . WE      .         .         .         .         .         .        .
 3 495. .       X .         .         .         . WE      .         .         .         .         .         .        .
   500. .       X .         .         .         . WE      .         .         .         .         .         .        .
 4 505. .       X .         .         .         . WE      .         .         .         .         .         .        .
   510. .         .         .         .       X . WE      .         .         .         .         .         .        .
   515. .         .         .         .         .         .       X .         .         .         .         .        .
   520. .         .         .         .         .         .         .         .         .       X .         .        .
 5 525. .         .         .         .         .         .         .         .         .         .         . X  BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1440.30      475.00     1430.78      494.00     1430.78      506.00     1440.30      525.00
```

```
CROSS SECTION    991.64
STREAM   Q=100 YR
DISCHARGE=      128.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1439.     1440.     1441.     1442.     1443.     1444.     1445.     1446.     1447.     1448.     1449.

    STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         X     BANK.
   480. .         .         .         .         .         .         .         .    X    .         .         .         .
   485. .         .         .         .         .         X         .         .         .         .         .         .
   490. .         .         .    X    .         .         .         .         .         .         .         .         .
 3 495. .    X    .         W.   E    .         .         .         .         .         .         .         .         .
   500. .    X    .         W.   E    .         .         .         .         .         .         .         .         .
 4 505. .    X    .         W.   E    .         .         .         .         .         .         .         .         .
   510. .         .         .         X         .         .         .         .         .         .         .         .
   515. .         .         .         .         .         .    X    .         .         .         .         .         .
   520. .         .         .         .         .         .         .         .         X         .         .         .
 5 525. .         .         .         .         .         .         .         .         .         .         X     BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1449.00      475.00     1439.50      494.00     1439.50      506.00     1449.00      525.00
```

THIS RUN EXECUTED 08/17/88 19:28:38

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Q=100 YR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	972.110	.00	.00	.00	1427.80	138.00	1434.26	.00	1434.26	.02	.33	808.15	1074.76
	973.000	89.00	.00	.00	1428.33	138.00	1434.26	.00	1434.26	.03	.39	703.49	870.23
	975.000	200.00	.00	.00	1429.53	138.00	1434.26	.00	1434.26	.04	.45	595.20	654.73
	976.840	184.00	.00	.00	1430.64	138.00	1434.26	.00	1434.26	.11	.61	443.86	410.99
	977.000	16.00	.00	.00	1430.78	128.00	1434.22	.00	1434.28	1.42	1.97	64.91	107.24
*	991.640	1464.00	.00	.00	1439.50	128.00	1440.90	1440.90	1441.49	37.75	6.20	20.65	20.83

Q=100 YR

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	972.110	138.00	1434.26	.00	.00	.00	197.24	.00
	973.000	138.00	1434.26	.00	.00	.00	195.16	89.00
	975.000	138.00	1434.26	.00	.00	.00	187.34	200.00
	976.840	138.00	1434.26	.00	.00	.00	179.50	184.00
	977.000	128.00	1434.22	.00	-.04	.00	25.73	16.00
*	991.640	128.00	1440.90	.00	6.68	.00	17.58	1464.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION  SECNO=   991.640  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   991.640  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   991.640  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
```

User: DEN104 -at

<OPS183>PROJ>PJ6114>DATA>HEC2>CH21250.OUT

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


WWWW  WWWWW W   W   W    WWW  W
W   W W     WW  W  WW   W   W W  W
W   W W     W W W   W   W   W W  W
W   W WWWW  W W W   W   W W W WWWWW
W   W W     W W W   W   W   W    W
W   W W     W  WW   W   W   W    W
WWWW  WWWWW W   W  WWW   WWW     W



 WWW  W   W  WWW    W    WWW  WWWWW  WWW         WWW  W   W WWWWW
W   W W   W W   W  WW   W   W W     W   W       W   W W   W   W
W     W   W     W   W       W WWWW  W   W       W   W W   W   W
W     WWWWW    W    W      W      W W W W       W   W W   W   W
W     W   W   W     W     W       W W   W       W   W W   W   W
W   W W   W  W      W    W    W   W W   W   WW  W   W W   W   W
 WWW  W   W WWWWW  WWW  WWWWW  WWW   WWW    WW   WWW   WWW    W

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

[Spooler rev 20.0.6HB (c) Prime Computer, Inc., 1986]

Label: PRT181 -form DENPRT

Pathname: <OPS183>PROJ>PJ6114>DATA>HEC2>CH21250.OUT
File last modified: 88-08-16.20:43:24.Tue

Spooled: 88-09-14.10:53:24.Wed
Started: 88-09-14.10:53:28.Wed on: AMLC by: DENPRT

THIS RUN EXECUTED 08/16/88 21:22:41

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************

C
T1       BACKWATER CURVE FROM THE DOWNSTREAM END OF POND 12 TO THE
T2       UPSTREAM END OF CHANNEL 2
T3       Q=100 YR

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     0.        2.        0.        0.   .000000      .00        .0        0.  1444.540     .000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

   -1.000      .000    -1.000      .000      .000      .000      .000      .000      .000      .000

J5  LPRNT    NUMSEC                    ********REQUESTED SECTION NUMBERS********

  -10.000   -10.000      .000      .000      .000      .000      .000      .000      .000      .000

NC      .035      .035      .016      .100      .300      .000      .000      .000      .000      .000
QT     1.000   112.000      .000      .000      .000      .000      .000      .000      .000      .000
         DOWNSTREAM END OF POND 12 (Q=HDET12)
X1   992.110     6.000   475.000   510.000      .000      .000      .000      .000      .000      .000
GR  1449.300   475.000  1439.800   494.000  1439.800   506.000  1441.800   510.000  1442.500   646.000
GR  1453.000   665.800      .000      .000      .000      .000      .000      .000      .000      .000

         DOWNSTREAM END OF BERM IN POND 12
X1   993.000     6.000   475.000   510.000    89.000    89.000    89.000      .000      .000      .000
GR  1449.800   475.000  1440.330   494.000  1440.330   506.000  1442.330   510.000  1443.050   653.800
GR  1452.600   672.800      .000      .000      .000      .000      .000      .000      .000      .000

         MIDDLE OF BERM
X1   995.000     8.000   475.000   510.000   200.000   200.000   200.000      .000      .000      .000
GR  1451.000   475.000  1441.530   494.000  1441.530   506.000  1443.530   510.000  1443.530   515.000
GR  1442.300   516.600  1443.480   666.000  1453.000   685.000      .000      .000      .000      .000

         UPSTREAM END OF POND 12
X1   996.890     8.000   475.000   510.000   174.000   174.000   174.000      .000      .000      .000
GR  1452.000   475.000  1442.670   494.000  1442.670   506.000  1444.670   510.000  1444.670   515.000
GR  1443.500   517.400  1444.260   676.600  1453.800   695.600      .000      .000      .000      .000

         INLET CHANNEL AT UPSTREAM END OF POND 12 (Q=SUB224)
X1   997.000     4.000   475.000   525.000    11.000    11.000    11.000      .000      .000      .000
X2    54.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
GR  1452.200   475.000  1442.650   494.000  1442.650   506.000  1452.200   525.000      .000      .000
```

48 INCH STORM SEWER OUTFALL

X1	15.750	4.000	475.000	525.000	1855.000	1855.000	1855.000	.000	.000	.000
GR	1462.300	475.000	1452.810	494.000	1452.810	506.000	1462.300	525.000	.000	.000

GRADE BREAK

X1	16.000	4.000	475.000	525.000	25.000	25.000	25.000	.000	.000	.000
GR	1462.400	475.000	1452.940	494.000	1452.940	506.000	1462.400	525.000	.000	.000

GRADE BREAK

X1	16.620	4.000	475.000	525.000	62.000	62.000	62.000	.000	.000	.000
GR	1468.700	475.000	1459.170	494.000	1459.170	506.000	1468.670	525.000	.000	.000

GRADE BREAK AT 24 INCH STORM SEWER OUTFALL

X1	21.140	4.000	475.000	525.000	452.000	452.000	452.000	.000	.000	.000
GR	1471.400	475.000	1461.890	494.000	1461.890	506.000	1471.400	525.000	.000	.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

THIS RUN EXECUTED 08/16/88 21:22:50

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Q=100 YR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	992.110	.00	.00	.00	1439.80	112.00	1444.54	.00	1444.54	.06	.53	423.27	449.54
	993.000	89.00	.00	.00	1440.33	112.00	1444.54	.00	1444.54	.11	.67	349.49	332.39
	995.000	200.00	.00	.00	1441.53	112.00	1444.54	.00	1444.55	.22	.77	308.80	236.21
	996.890	174.00	.00	.00	1442.67	112.00	1444.53	.00	1444.56	2.63	1.92	135.67	69.05
	997.000	11.00	.00	.00	1442.65	54.00	1444.52	.00	1444.57	2.36	1.83	29.55	35.19
*	15.750	1855.00	.00	.00	1452.81	54.00	1453.63	1453.63	1453.99	43.12	4.86	11.12	8.22
*	16.000	25.00	.00	.00	1452.94	54.00	1453.75	1453.75	1454.12	43.28	4.86	11.11	8.21
*	16.620	62.00	.00	.00	1459.17	54.00	1459.98	1459.98	1460.35	43.40	4.87	11.09	8.20
*	21.140	452.00	.00	.00	1461.89	54.00	1462.71	1462.71	1463.07	43.22	4.86	11.11	8.21

Q=100 YR

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	992.110	112.00	1444.54	.00	.00	.00	165.33	.00
	993.000	112.00	1444.54	.00	.00	.00	171.21	89.00
	995.000	112.00	1444.54	.00	.00	.00	180.16	200.00
	996.890	112.00	1444.53	.00	-.01	.00	181.44	174.00
	997.000	54.00	1444.52	.00	-.01	.00	19.47	11.00
*	15.750	54.00	1453.63	.00	9.10	.00	15.27	1855.00
*	16.000	54.00	1453.75	.00	.13	.00	15.27	25.00
*	16.620	54.00	1459.98	.00	6.23	.00	15.25	62.00
*	21.140	54.00	1462.71	.00	2.72	.00	15.26	452.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION  SECNO=    15.750  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    15.750  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    15.750  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    16.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    16.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=    16.620  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    16.620  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    16.620  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    21.140  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    21.140  PROFILE= 1  MINIMUM SPECIFIC ENERGY
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User: DEN104 -at

<OPS183>PROJ>PJ6114>DATA>HEC2>CH212100.OUT

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WWWW  WWWWW W   W   W    WWW  W
W   W W     WW  W  WW   W   W W  W
W   W W     W W W   W   W   W W  W
W   W WWWW  W W W   W   W W W WWWWW
W   W W     W W W   W   W   W    W
W   W W     W  WW   W   W   W    W
WWWW  WWWWW W   W  WWW   WWW     W



 WWW  W   W  WWW    W    WWW    W    WWW   WWW         WWW  W   W WWWWW
W   W W   W W   W  WW   W   W  WW   W   W W   W       W   W W   W   W
W     W   W     W   W       W   W   W   W W   W       W   W W   W   W
W     WWWWW    W    W      W    W   W W W W W W       W   W W   W   W
W     W   W   W     W     W     W   W   W W   W       W   W W   W   W
W   W W   W  W      W    W      W   W   W W   W   WW  W   W W   W   W
 WWW  W   W WWWWW  WWW  WWWWW  WWW   WWW   WWW    WW   WWW   WWW    W

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[Spooler rev 20.0.6HB (c) Prime Computer, Inc., 1986]

Label: PRT117 -form DENPRT

Pathname: <OPS183>PROJ>PJ6114>DATA>HEC2>CH212100.OUT
File last modified: 88-08-17.18:47:12.Wed

Spooled: 88-09-13.12:14:24.Tue
Started: 88-09-13.12:15:12.Tue on: AMLC by: DENPRT

THIS RUN EXECUTED 08/17/88 19:28:54

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************

C
T1       BACKWATER CURVE FROM THE DOWNSTREAM END OF POND 12 TO THE
T2       UPSTREAM END OF CHANNEL 2
T3       Q=100 YR

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        2.        0.        0.   .000000      .00        .0        0.  1445.520     .000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    -1.000     1.000    -1.000     1.000     5.000     .000      .000      .000      .000      .000

J5  LPRNT    NUMSEC                    ********REQUESTED SECTION NUMBERS********

   -10.000   -10.000      .000      .000      .000      .000      .000      .000      .000      .000

NC       .035       .035       .016       .100       .300       .000       .000       .000       .000       .000
QT      1.000    128.000       .000       .000       .000       .000       .000       .000       .000       .000
          DOWNSTREAM END OF POND 12 (Q=HDET12)
X1    992.110      6.000    475.000    510.000       .000       .000       .000       .000       .000       .000
GR   1449.300    475.000   1439.800    494.000   1439.800    506.000   1441.800    510.000   1442.500    646.000
GR   1453.000    665.800       .000       .000       .000       .000       .000       .000       .000       .000

          DOWNSTREAM END OF BERM IN POND 12
X1    993.000      6.000    475.000    510.000     89.000     89.000     89.000       .000       .000       .000
GR   1449.800    475.000   1440.330    494.000   1440.330    506.000   1442.330    510.000   1443.050    653.800
GR   1452.600    672.800       .000       .000       .000       .000       .000       .000       .000       .000

          MIDDLE OF BERM
X1    995.000      8.000    475.000    510.000    200.000    200.000    200.000       .000       .000       .000
GR   1451.000    475.000   1441.530    494.000   1441.530    506.000   1443.530    510.000   1443.530    515.000
GR   1442.300    516.600   1443.480    666.000   1453.000    685.000       .000       .000       .000       .000

          UPSTREAM END OF POND 12
X1    996.890      8.000    475.000    510.000    174.000    174.000    174.000       .000       .000       .000
GR   1452.000    475.000   1442.670    494.000   1442.670    506.000   1444.670    510.000   1444.670    515.000
GR   1443.500    517.400   1444.260    676.600   1453.800    695.600       .000       .000       .000       .000

          INLET CHANNEL AT UPSTREAM END OF POND 12 (Q=SUB224)
X1    997.000      4.000    475.000    525.000     11.000     11.000     11.000       .000       .000       .000
X2     62.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR   1452.200    475.000   1442.650    494.000   1442.650    506.000   1452.200    525.000       .000       .000
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```
          48 INCH STORM SEWER OUTFALL
X1     15.750      4.000    475.000    525.000   1855.000   1855.000   1855.000       .000       .000       .000
GR   1462.300    475.000   1452.810    494.000   1452.810    506.000   1462.300    525.000       .000       .000

          GRADE BREAK
X1     16.000      4.000    475.000    525.000     25.000     25.000     25.000       .000       .000       .000
GR   1462.400    475.000   1452.940    494.000   1452.940    506.000   1462.400    525.000       .000       .000

          GRADE BREAK
X1     16.620      4.000    475.000    525.000     62.000     62.000     62.000       .000       .000       .000
GR   1468.700    475.000   1459.170    494.000   1459.170    506.000   1468.670    525.000       .000       .000

          GRADE BREAK AT 24 INCH STORM SEWER OUTFALL
X1     21.140      4.000    475.000    525.000    452.000    452.000    452.000       .000       .000       .000
GR   1471.400    475.000   1461.890    494.000   1461.890    506.000   1471.400    525.000       .000       .000
EJ       .000       .000       .000       .000       .000       .000       .000       .000       .000       .000
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```
CROSS SECTION    992.11
STREAM   Q=100 YR
DISCHARGE=      128.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1438.     1439.     1440.     1441.     1442.     1443.     1444.     1445.     1446.     1447.     1448.

    STA-FEET

8560 XSEC POINT-X      EL,ST-   1449.30    475.00
 2 475. .          .         .         .         .         .         .         .         .         .         .         .         BANKX
   480. .          .         .         .         .         .         .         .         .         .         X .         .         .
   485. .          .         .         .         .         .         .         .  X      .         W         .         .         .
   490. .          .         .         .       X .         .         .         .         .         W         .         .         .
 3 495. .          .         X .       .         .         .         .         .         .         W         .         .         .
   500. .          .         X .       .         .         .         .         .         .         W         .         .         .
 4 505. .          .         X .       .         .         .         .         .         .         W         .         .         .
 5 510. .          .         .         .         X .       .         .         .         .         W         .         .         BANK.
   515. .          .         .         .         X .       .         .         .         .         W         .         .         .
   520. .          .         .         .         .X.       .         .         .         .         W         .         .         .
   525. .          .         .         .         .X.       .         .         .         .         W         .         .         .
   530. .          .         .         .         .X.       .         .         .         .         W         .         .         .
   535. .          .         .         .         .X.       .         .         .         .         W         .         .         .
   540. .          .         .         .         .X        .         .         .         .         W         .         .         .
   545. .          .         .         .         .X        .         .         .         .         W         .         .         .
   550. .          .         .         .         .X        .         .         .         .         W         .         .         .
   555. .          .         .         .         .X        .         .         .         .         W         .         .         .
   560. .          .         .         .         .X        .         .         .         .         W         .         .         .
   565. .          .         .         .         .X        .         .         .         .         W         .         .         .
   570. .          .         .         .         .X        .         .         .         .         W         .         .         .
   575. .          .         .         .         .X        .         .         .         .         W         .         .         .
   580. .          .         .         .         . X       .         .         .         .         W         .         .         .
   585. .          .         .         .         . X       .         .         .         .         W         .         .         .
   590. .          .         .         .         . X       .         .         .         .         W         .         .         .
   595. .          .         .         .         . X       .         .         .         .         W         .         .         .
   600. .          .         .         .         .  X      .         .         .         .         W         .         .         .
   605. .          .         .         .         .  X      .         .         .         .         W         .         .         .
   610. .          .         .         .         .  X      .         .         .         .         W         .         .         .
   615. .          .         .         .         .  X      .         .         .         .         W         .         .         .
   620. .          .         .         .         .   X     .         .         .         .         W         .         .         .
   625. .          .         .         .         .   X     .         .         .         .         W         .         .         .
   630. .          .         .         .         .   X     .         .         .         .         W         .         .         .
   635. .          .         .         .         .   X     .         .         .         .         W         .         .         .
   640. .          .         .         .         .    X    .         .         .         .         W         .         .         .
 6 645. .          .         .         .         .    X    .         .         .         .         W         .         .         .
   650. .          .         .         .         .         .         .         .         X         W         .         .         .
   655. .          .         .         .         .         .         .         .         .         .         .         X .         .
   660. .          .         .         .         .         .         .         .         .         .         .         .         X
8560 XSEC POINT-X      EL,ST-   1453.00    665.80
 7 665. .          .         .         .         .         .         .         .         .         .         .         .         X

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1449.30      475.00      1439.80      494.00      1439.80      506.00      1441.80      510.00      1442.50      646.00
    1453.00      665.80
```

CROSS SECTION 993.00
STREAM Q=100 YR
DISCHARGE= 128.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1440.     1441.     1442.     1443.     1444.     1445.     1446.     1447.     1448.     1449.     1450.


    STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         X .     BANK.
   480. .         .         .         .         .         .         .         .         X         .         .         .
   485. .         .         .         .         .         X .       W         .         .         .         .         .
   490. .         .         .  X      .         .         .         W         .         .         .         .         .
 3 495. .  X      .         .         .         .         .         W         .         .         .         .         .
   500. .  X      .         .         .         .         .         W         .         .         .         .         .
 4 505. .  X      .         .         .         .         .         W         .         .         .         .         .
 5 510. .         .         .  X      .         .         .         W         .         .         .         .         .     BANK.
   515. .         .         .   X     .         .         .         W         .         .         .         .         .
   520. .         .         .   X     .         .         .         W         .         .         .         .         .
   525. .         .         .   X     .         .         .         W         .         .         .         .         .
   530. .         .         .   X     .         .         .         W         .         .         .         .         .
   535. .         .         .    X    .         .         .         W         .         .         .         .         .
   540. .         .         .    X    .         .         .         W         .         .         .         .         .
   545. .         .         .    X    .         .         .         W         .         .         .         .         .
   550. .         .         .    X    .         .         .         W         .         .         .         .         .
   555. .         .         .     X   .         .         .         W         .         .         .         .         .
   560. .         .         .     X   .         .         .         W         .         .         .         .         .
   565. .         .         .     X   .         .         .         W         .         .         .         .         .
   570. .         .         .     X   .         .         .         W         .         .         .         .         .
   575. .         .         .      X  .         .         .         W         .         .         .         .         .
   580. .         .         .      X  .         .         .         W         .         .         .         .         .
   585. .         .         .      X  .         .         .         W         .         .         .         .         .
   590. .         .         .      X  .         .         .         W         .         .         .         .         .
   595. .         .         .       X .         .         .         W         .         .         .         .         .
   600. .         .         .       X .         .         .         W         .         .         .         .         .
   605. .         .         .       X .         .         .         W         .         .         .         .         .
   610. .         .         .       X .         .         .         W         .         .         .         .         .
   615. .         .         .        X.         .         .         W         .         .         .         .         .
   620. .         .         .        X.         .         .         W         .         .         .         .         .
   625. .         .         .        X.         .         .         W         .         .         .         .         .
   630. .         .         .        X.         .         .         W         .         .         .         .         .
   635. .         .         .         X         .         .         W         .         .         .         .         .
   640. .         .         .         X         .         .         W         .         .         .         .         .
   645. .         .         .         X         .         .         W         .         .         .         .         .
   650. .         .         .         X         .         .         W         .         .         .         .         .
 6 655. .         .         .         .X        .         .         W         .         .         .         .         .
   660. .         .         .         .         .         .          X        .         .         .         .         .
   665. .         .         .         .         .         .                   .         .         .X        .         .
   670. .         .         .         .         .         .         .         .         .         .         .     X   .
8560 XSEC POINT-X      EL,ST-   1452.60    672.80
 7 675. .         .         .         .         .         .         .         .         .         .         .         X

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1449.80      475.00     1440.33      494.00     1440.33      506.00     1442.33      510.00     1443.05      653.80
    1452.60      672.80
```

```
CROSS SECTION    995.00
STREAM   Q=100 YR
DISCHARGE=      128.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1440.     1441.     1442.     1443.     1444.     1445.     1446.     1447.     1448.     1449.     1450.


   STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         .     BANKX
   480. .         .         .         .         .         .         .         .         .    X    .         .         .
   485. .         .         .         .         .         .         X         .         .         .         .         .
   490. .         .         .         .    X    .         .    W    .         .         .         .         .         .
 3 495. .         .    X    .         .         .         .    W    .         .         .         .         .         .
   500. .         .    X    .         .         .         .    W    .         .         .         .         .         .
 4 505. .         .    X    .         .         .         .    W    .         .         .         .         .         .
 5 510. .         .         .         .    X    .         .    W    .         .         .         .         .     BANK.
 7 515. .         .         .  XXXXXXXXXXXXX    .         .    W    .         .         .         .         .         .
   520. .         .         .  X      .         .         .    W    .         .         .         .         .         .
   525. .         .         .   X     .         .         .    W    .         .         .         .         .         .
   530. .         .         .   X     .         .         .    W    .         .         .         .         .         .
   535. .         .         .    X    .         .         .    W    .         .         .         .         .         .
   540. .         .         .    X    .         .         .    W    .         .         .         .         .         .
   545. .         .         .    X    .         .         .    W    .         .         .         .         .         .
   550. .         .         .     X   .         .         .    W    .         .         .         .         .         .
   555. .         .         .     X   .         .         .    W    .         .         .         .         .         .
   560. .         .         .      X  .         .         .    W    .         .         .         .         .         .
   565. .         .         .      X  .         .         .    W    .         .         .         .         .         .
   570. .         .         .      X  .         .         .    W    .         .         .         .         .         .
   575. .         .         .       X .         .         .    W    .         .         .         .         .         .
   580. .         .         .       X .         .         .    W    .         .         .         .         .         .
   585. .         .         .        X.         .         .    W    .         .         .         .         .         .
   590. .         .         .        X.         .         .    W    .         .         .         .         .         .
   595. .         .         .        X.         .         .    W    .         .         .         .         .         .
   600. .         .         .         X         .         .    W    .         .         .         .         .         .
   605. .         .         .         X         .         .    W    .         .         .         .         .         .
   610. .         .         .         .X        .         .    W    .         .         .         .         .         .
   615. .         .         .         .X        .         .    W    .         .         .         .         .         .
   620. .         .         .         .X        .         .    W    .         .         .         .         .         .
   625. .         .         .         . X       .         .    W    .         .         .         .         .         .
   630. .         .         .         . X       .         .    W    .         .         .         .         .         .
   635. .         .         .         . X       .         .    W    .         .         .         .         .         .
   640. .         .         .         .  X      .         .    W    .         .         .         .         .         .
   645. .         .         .         .  X      .         .    W    .         .         .         .         .         .
   650. .         .         .         .   X     .         .    W    .         .         .         .         .         .
   655. .         .         .         .   X     .         .    W    .         .         .         .         .         .
   660. .         .         .         .   X     .         .    W    .         .         .         .         .         .
 8 665. .         .         .         .    X    .         .    W    .         .         .         .         .         .
   670. .         .         .         .         .         .         X         .         .         .         .         .
   675. .         .         .         .         .         .         .         .         .    X    .         .         .
   680. .         .         .         .         .         .         .         .         .         .         .         X
8560 XSEC POINT-X      EL,ST-   1453.00    685.00
 9 685. .         .         .         .         .         .         .         .         .         .         .         X

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1451.00      475.00      1441.53      494.00      1441.53      506.00      1443.53      510.00      1443.53      515.00
    1442.30      516.60      1443.48      666.00      1453.00      685.00
```

CROSS SECTION 996.89
STREAM Q=100 YR
DISCHARGE= 128.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV 1442.     1443.     1444.     1445.     1446.     1447.     1448.     1449.     1450.     1451.     1452.


    STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         X     BANK.
   480. .         .         .         .         .         .         .         .         .   X     .         .         .
   485. .         .         .         .         .         .X        .         .         .         .         .         .
   490. .         .         .     X   .     W   .         .         .         .         .         .         .         .
 3 495. .     X   .         .         .     W   .         .         .         .         .         .         .         .
   500. .     X   .         .         .     W   .         .         .         .         .         .         .         .
 4 505. .     X   .         .         .     W   .         .         .         .         .         .         .         .
 5 510. .         .         .         X   .     W   .         .         .         .         .         .         .     BANK.
 7 515. .         .     XXXXXXXXXXXXX   .     W   .         .         .         .         .         .         .         .
   520. .         .     X   .         .     W   .         .         .         .         .         .         .         .
   525. .         .     X   .         .     W   .         .         .         .         .         .         .         .
   530. .         .      X  .         .     W   .         .         .         .         .         .         .         .
   535. .         .      X  .         .     W   .         .         .         .         .         .         .         .
   540. .         .      X  .         .     W   .         .         .         .         .         .         .         .
   545. .         .      X  .         .     W   .         .         .         .         .         .         .         .
   550. .         .       X .         .     W   .         .         .         .         .         .         .         .
   555. .         .       X .         .     W   .         .         .         .         .         .         .         .
   560. .         .       X .         .     W   .         .         .         .         .         .         .         .
   565. .         .       X .         .     W   .         .         .         .         .         .         .         .
   570. .         .        X .        .     W   .         .         .         .         .         .         .         .
   575. .         .        X .        .     W   .         .         .         .         .         .         .         .
   580. .         .        X .        .     W   .         .         .         .         .         .         .         .
   585. .         .        X .        .     W   .         .         .         .         .         .         .         .
   590. .         .         X.        .     W   .         .         .         .         .         .         .         .
   595. .         .         X.        .     W   .         .         .         .         .         .         .         .
   600. .         .         X.        .     W   .         .         .         .         .         .         .         .
   605. .         .         X.        .     W   .         .         .         .         .         .         .         .
   610. .         .          X        .     W   .         .         .         .         .         .         .         .
   615. .         .          X        .     W   .         .         .         .         .         .         .         .
   620. .         .          X        .     W   .         .         .         .         .         .         .         .
   625. .         .          X        .     W   .         .         .         .         .         .         .         .
   630. .         .          X        .     W   .         .         .         .         .         .         .         .
   635. .         .          .X       .     W   .         .         .         .         .         .         .         .
   640. .         .          .X       .     W   .         .         .         .         .         .         .         .
   645. .         .          .X       .     W   .         .         .         .         .         .         .         .
   650. .         .          .X       .     W   .         .         .         .         .         .         .         .
   655. .         .          . X      .     W   .         .         .         .         .         .         .         .
   660. .         .          . X      .     W   .         .         .         .         .         .         .         .
   665. .         .          . X      .     W   .         .         .         .         .         .         .         .
   670. .         .          . X      .     W   .         .         .         .         .         .         .         .
 8 675. .         .          .  X     .     W   .         .         .         .         .         .         .         .
   680. .         .          .        .         .         X         .         .         .         .         .         .
   685. .         .          .        .         .         .         .         .   X     .         .         .         .
   690. .         .          .        .         .         .         .         .         .         .         X         .
8560 XSEC POINT-X      EL,ST-   1453.80    695.60
 9 695. .         .         .         .         .         .         .         .         .         .         .         X

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1452.00      475.00      1442.67      494.00      1442.67      506.00      1444.67      510.00      1444.67      515.00
    1443.50      517.40      1444.26      676.60      1453.80      695.60
```

```
CROSS SECTION    997.00
STREAM   Q=100 YR
DISCHARGE=       62.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,F=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1442.     1443.     1444.     1445.     1446.     1447.     1448.     1449.     1450.     1451.     1452.


    STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         . X   BANK.
   480. .         .         .         .         .         .         .         .      X  .         .         .         .
   485. .         .         .         .         .         . X       .         .         .         .         .         .
   490. .         .         .      X  .    W    .         .         .         .         .         .         .         .
 3 495. .      X  .         .         .    W    .         .         .         .         .         .         .         .
   500. .      X  .         .         .    W    .         .         .         .         .         .         .         .
 4 505. .      X  .         .         .    W    .         .         .         .         .         .         .         .
   510. .         .         .         . X  W    .         .         .         .         .         .         .         .
   515. .         .         .         .         .         .      X  .         .         .         .         .         .
   520. .         .         .         .         .         .         .         .         . X       .         .         .
 5 525. .         .         .         .         .         .         .         .         .         .         . X   BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1452.20      475.00     1442.65      494.00     1442.65      506.00     1452.20      525.00
```

```
CROSS SECTION     15.75
STREAM   Q=100 YR
DISCHARGE=       62.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1452.     1453.     1454.     1455.     1456.     1457.     1458.     1459.     1460.     1461.     1462.


    STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         . X  BANK.
   480. .         .         .         .         .         .         .         .       X .         .         .         .
   485. .         .         .         .         .         . X       .         .         .         .         .         .
   490. .         .         .       X .         .         .         .         .         .         .         .         .
 3 495. .       X .       W  .E       .         .         .         .         .         .         .         .         .
   500. .       X .       W  .E       .         .         .         .         .         .         .         .         .
 4 505. .       X .       W  .E       .         .         .         .         .         .         .         .         .
   510. .         .         .         . X       .         .         .         .         .         .         .         .
   515. .         .         .         .         .         .       X .         .         .         .         .         .
   520. .         .         .         .         .         .         .         .         . X       .         .         .
 5 525. .         .         .         .         .         .         .         .         .         .         . X  BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1462.30      475.00     1452.81      494.00     1452.81      506.00     1462.30      525.00
```

```
CROSS SECTION     16.00
STREAM   Q=100 YR
DISCHARGE=       62.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1452.     1453.     1454.     1455.     1456.     1457.     1458.     1459.     1460.     1461.     1462.

    STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         .   X BANK.
   480. .         .         .         .         .         .         .         .        X.         .         .         .
   485. .         .         .         .         .         .   X     .         .         .         .         .         .
   490. .         .         .        X.         .         .         .         .         .         .         .         .
 3 495. .        X.       W . E       .         .         .         .         .         .         .         .         .
   500. .        X.       W . E       .         .         .         .         .         .         .         .         .
 4 505. .        X.       W . E       .         .         .         .         .         .         .         .         .
   510. .         .         .         .   X     .         .         .         .         .         .         .         .
   515. .         .         .         .         .         .        X.         .         .         .         .         .
   520. .         .         .         .         .         .         .         .         .   X     .         .         .
 5 525. .         .         .         .         .         .         .         .         .         .         .   X BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1462.40      475.00     1452.94      494.00     1452.94      506.00     1462.40      525.00
```

```
CROSS SECTION     16.62
STREAM   Q=100 YR
DISCHARGE=       62.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,F=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1459.     1460.     1461.     1462.     1463.     1464.     1465.     1466.     1467.     1468.     1469.

   STA-FEET

 2 475. .         .         .         .         .         .         .         .         .         .         X .     BANK.
   480. .         .         .         .         .         .         .         . X       .         .         .         .
   485. .         .         .         .         .       X .         .         .         .         .         .         .
   490. .         .         . X       .         .         .         .         .         .         .         .         .
 3 495. . X       .W   E    .         .         .         .         .         .         .         .         .         .
   500. . X       .W   E    .         .         .         .         .         .         .         .         .         .
 4 505. . X       .W   E    .         .         .         .         .         .         .         .         .         .
   510. .         .         .       X .         .         .         .         .         .         .         .         .
   515. .         .         .         .         .         . X       .         .         .         .         .         .
   520. .         .         .         .         .         .         .         .         . X       .         .         .
 5 525. .         .         .         .         .         .         .         .         .         .         X .     BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1468.70      475.00     1459.17      494.00     1459.17      506.00     1468.67      525.00
```

```
CROSS SECTION     21.14
STREAM   Q=100 YR
DISCHARGE=       62.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,F=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 1461.     1462.     1463.     1464.     1465.     1466.     1467.     1468.     1469.     1470.     1471.

    STA-FEET

 2 475. .        .         .         .         .         .         .         .         .         .         .   X BANK.
   480. .        .         .         .         .         .         .         .        X.         .         .         .
   485. .        .         .         .         .         .   X     .         .         .         .         .         .
   490. .        .         .        X.         .         .         .         .         .         .         .         .
 3 495. .       X.       W . E       .         .         .         .         .         .         .         .         .
   500. .       X.       W . E       .         .         .         .         .         .         .         .         .
 4 505. .       X.       W . E       .         .         .         .         .         .         .         .         .
   510. .        .         .         .   X     .         .         .         .         .         .         .         .
   515. .        .         .         .         .         .        X.         .         .         .         .         .
   520. .        .         .         .         .         .         .         .         .   X     .         .         .
 5 525. .        .         .         .         .         .         .         .         .         .         .   X BANK.

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    1471.40      475.00     1461.89      494.00     1461.89      506.00     1471.40      525.00
```

THIS RUN EXECUTED 08/17/88 19:29:28

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  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Q=100 YR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	992.110	.00	.00	.00	1439.80	128.00	1445.52	.00	1445.52	.03	.42	587.16	728.32
	993.000	89.00	.00	.00	1440.33	128.00	1445.52	.00	1445.52	.05	.49	519.13	587.30
	995.000	200.00	.00	.00	1441.53	128.00	1445.52	.00	1445.52	.07	.52	487.14	475.17
	996.890	174.00	.00	.00	1442.67	128.00	1445.52	.00	1445.53	.29	.85	320.68	236.20
	997.000	11.00	.00	.00	1442.65	62.00	1445.51	.00	1445.53	.67	1.22	50.72	75.98
*	15.750	1855.00	.00	.00	1452.81	62.00	1453.70	1453.70	1454.10	42.24	5.06	12.26	9.54
*	16.000	25.00	.00	.00	1452.94	62.00	1453.83	1453.83	1454.23	42.21	5.06	12.26	9.54
*	16.620	62.00	.00	.00	1459.17	62.00	1460.06	1460.06	1460.46	42.33	5.06	12.25	9.53
*	21.140	452.00	.00	.00	1461.89	62.00	1462.78	1462.78	1463.18	42.17	5.06	12.26	9.55

Q=100 YR

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	992.110	128.00	1445.52	.00	.00	.00	169.13	.00
	993.000	128.00	1445.52	.00	.00	.00	175.13	89.00
	995.000	128.00	1445.52	.00	.00	.00	184.08	200.00
	996.890	128.00	1445.52	.00	.00	.00	190.92	174.00
	997.000	62.00	1445.51	.00	-.01	.00	23.40	11.00
*	15.750	62.00	1453.70	.00	8.19	.00	15.56	1855.00
*	16.000	62.00	1453.83	.00	.13	.00	15.57	25.00
*	16.620	62.00	1460.06	.00	6.23	.00	15.55	62.00
*	21.140	62.00	1462.78	.00	2.72	.00	15.56	452.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION	SECNO=	15.750	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	15.750	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	15.750	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	16.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	16.000	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	16.620	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	16.620	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	16.620	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	21.140	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	21.140	PROFILE= 1	MINIMUM SPECIFIC ENERGY

User: DEN104 -at

<OPS183>PROJ>PJ6114>DATA>HEC2>CH2ROUTA.OUT

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*****************************************************************************************************
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WWWW  WWWWW W   W   W    WWW  W
W   W W     WW  W  WW   W   W W  W
W   W W     W W W   W   W   W W  W
W   W WWWW  W W W   W   W W W WWWWW
W   W W     W W W   W   W   W    W
W   W W     W  WW   W   W   W    W
WWWW  WWWWW W   W  WWW   WWW     W



 WWW  W   W  WWW  WWWW   WWW  W   W WWWWW  WWW         WWW  W   W WWWWW
W   W W   W W   W W   W W   W W   W   W   W   W   W       W   W W   W   W
W     W   W     W W   W W   W W   W   W   W   W   W       W   W W   W   W
W     WWWWW    W  WWWW  W   W W   W   W   WWWWW       W   W W   W   W
W     W   W   W   W W   W   W W   W   W   W   W       W   W W   W   W
W   W W   W  W    W  W  W   W W   W   W   W   W   WW  W   W W   W   W
 WWW  W   W WWWWW W   W  WWW   WWW    W   W   W   WW   WWW   WWW    W


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[Spooler rev 20.0.6HB (c) Prime Computer, Inc., 1986]

Label: PRT116 -form DENPRT

Pathname: <OPS183>PROJ>PJ6114>DATA>HEC2>CH2ROUTA.OUT
File last modified: 88-07-08.12:39:28.Fri

Spooled: 88-09-13.12:12:48.Tue
Started: 88-09-13.12:13:00.Tue on: AMLC by: DENPRT

THIS RUN EXECUTED 07/08/88 10:28:15

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************

C
T1       BACKWATER CURVE FROM GRADE CONTROL STRUCTURE BELOW BASELINE
T2       UP SOSSAMAN CHANNEL TO THE R.O.W. AND ON TO POND 11.
T3       FLOWS RANGE FROM 300 TO 1600 cfs

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.       2.        0.        0. -1.000000       .00        .0        0.  1385.000      .000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000      .000    -1.000      .000      .000      .000      .000      .000      .000      .000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   100.000      .000      .000      .000      .000      .000      .000      .000      .000      .000

J5  LPRNT    NUMSEC                    ********REQUESTED SECTION NUMBERS********

   -10.000   -10.000      .000      .000      .000      .000      .000      .000      .000      .000

QT    14.000   400.000   450.000   500.000   550.000   600.000   650.000   700.000   750.000   800.000
QT   850.000   900.000   950.000  1000.000  1050.000      .000      .000      .000      .000      .000
NC      .040      .040      .035      .300      .500      .000      .000      .000      .000      .000
         SOSSAMAN CHANNEL-DOWNSTREAM END OF GRADE CONTROL WEIR 3 (D.E. 1000.)
X1    40.590     8.000   220.000   315.000      .000      .000      .000      .000      .000      .000
GR  1387.200   199.000  1380.200   200.000  1379.500   220.000  1368.400   248.000  1368.400   288.000
GR  1379.700   315.000  1383.100   324.000  1383.100   524.000      .000      .000      .000      .000

         SOSSAMAN CHANNEL-AT GRADE CONTROL WEIR 3
X1    39.790     8.000   230.000   322.000    80.000    80.100    80.000      .000      .000      .000
GR  1389.700   199.000  1382.700   200.000  1381.600   230.000  1368.800   255.000  1368.800   294.000
GR  1381.600   322.000  1382.700   327.000  1382.700   522.000      .000      .000      .000      .000

         SOSSAMAN CHANNEL-CHANNEL SECTION ABOVE GRADE CONTROL WEIR 3
X1    39.670    15.000   230.000   319.000    12.000    12.000    12.000      .000      .000      .000
GR  1388.100   199.000  1381.100   200.000  1382.700   230.000  1381.800   239.000  1381.800   242.000
GR  1374.300   256.000  1374.300   272.000  1372.400   272.100  1372.400   278.100  1374.300   278.200
GR  1374.300   294.000  1381.800   306.000  1381.800   309.000  1382.700   319.000  1382.700   519.000

         SOSSAMAN CHANNEL-DOWNSTREAM END OF GRADE CONTROL WEIR 2
X1    35.070     9.000   223.000   310.000   460.000   459.000   460.000      .000      .000      .000
GR  1392.100   199.000  1385.100   200.000  1384.700   216.000  1383.400   223.000  1373.300   248.000
GR  1373.400   285.000  1383.300   310.000  1386.800   319.000  1386.800   519.000      .000      .000
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SOSSAMAN CHANNEL-AT GRADE CONTROL WEIR 2

X1	34.260	8.000	222.000	298.000	93.000	92.000	91.000	.000	.000	.000
GR	1393.300	199.000	1386.300	200.000	1386.300	222.000	1374.300	247.000	1374.300	287.000
GR	1387.100	298.000	1387.100	310.000	1387.100	510.000	.000	.000	.000	.000

SOSSAMAN CHANNEL-CHANNEL SECTION ABOVE GRADE CONTROL WEIR 2

X1	34.150	15.000	222.000	310.000	11.000	11.000	11.000	.000	.000	.000
GR	1393.500	199.000	1386.500	200.000	1386.500	222.000	1383.300	231.000	1383.300	234.000
GR	1378.700	248.000	1378.700	263.000	1377.100	263.100	1377.100	269.100	1378.700	269.200
GR	1378.700	285.000	1383.300	289.000	1383.300	291.000	1387.200	310.000	1387.200	510.000

SOSSAMAN CHANNEL-DOWNSTREAM END OF TRANSITION TO CBC UNDER BASELINE RO

X1	32.120	6.000	200.000	268.000	220.000	191.000	203.000	.000	.000	.000
GR	1386.200	.000	1386.200	200.000	1378.600	213.000	1378.200	244.000	1391.000	286.000
GR	1391.000	486.000	.000	.000	.000	.000	.000	.000	.000	.000

SOSSAMAN CHANNEL-DOWNSTREAM END OF CBC UNDER BASELINE ROAD

X1	31.680	.000	.000	.000	47.000	44.000	44.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	1388.500	1388.500	.000
SB	1.250	1.640	2.600	.000	42.490	2.490	320.000	.000	1379.900	1379.700

SOSSAMAN CHANNEL-UPSTREAM END OF CBC UNDER BASELINE ROAD

X1	30.840	.000	.000	.000	84.000	84.000	84.000	.000	.000	.000
X2	.000	.000	1.000	1386.600	1388.500	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	1388.500	1388.500	.000
BT	4.000	.000	1389.200	.000	100.000	1388.700	.000	143.000	1388.500	.000
BT	243.000	1388.000	.000	.000	.000	.000	.000	.000	.000	.000

SOSSAMAN CHANNEL-UPSTREAM END OF TRANSITION TO CBC UNDER BASELINE ROAD

X1	30.350	7.000	210.000	285.000	46.000	56.000	49.000	.000	.000	.000
GR	1387.200	.000	1387.200	200.000	1386.100	210.000	1379.100	231.000	1379.100	260.000
GR	1387.700	285.000	1387.700	485.000	.000	.000	.000	.000	.000	.000

SOSSAMAN CHANNEL-CHANNEL SECTION 240 FEET UPSTREAM FROM CBC

X1	29.670	7.000	200.000	271.000	41.000	101.000	68.000	.000	.000	.000
GR	1387.800	.000	1387.800	200.000	1379.400	219.000	1379.500	245.000	1387.300	271.000
GR	1388.700	287.000	1388.700	487.000	.000	.000	.000	.000	.000	.000

SOSSAMAN CHANNEL-CHANNEL SECTION BELOW GRADE CONTROL WEIR 1

X1	20.460	9.000	214.000	270.000	921.000	923.000	921.000	.000	.000	.000
GR	1395.700	.000	1395.700	200.000	1393.900	214.000	1387.000	230.000	1385.600	246.000
GR	1386.600	254.000	1394.600	270.000	1395.500	281.000	1395.500	481.000	.000	.000

SOSSAMAN CHANNEL-AT GRADE CONTROL WEIR 1

X1	20.090	25.000	200.000	284.000	37.000	36.000	37.000	.000	.000	.000
GR	1395.500	.000	1395.500	200.000	1394.700	217.000	1394.100	217.100	1394.100	222.000
GR	1393.500	222.100	1393.500	227.000	1392.800	227.100	1392.800	232.000	1390.300	232.100
GR	1390.300	233.000	1388.200	233.100	1388.200	237.000	1387.600	237.100	1387.600	247.000
GR	1388.600	247.100	1388.600	250.000	1392.800	250.100	1392.800	254.000	1393.400	254.000
GR	1393.400	258.000	1394.700	258.100	1394.700	261.000	1396.000	284.000	1396.000	484.000

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          GRADE BREAK TO INSURE FLOWS TO CBC ARE SUB-CRITICAL
X1    935.000      4.000    475.000    525.000    438.000    438.000    438.000       .000       .000       .000
GR   1412.200    475.000   1402.690    494.000   1402.690    506.000   1412.200    525.000       .000       .000

          STORM SEWER NO. 3 CHANNEL OUTFALL
X1     43.360      4.000    475.000    525.000    836.000    836.000    836.000       .000       .000       .000
GR   1417.700    475.000   1408.220    494.000   1408.220    506.000   1417.700    525.000       .000       .000

          GRADE BREAK
X1    947.000      4.000    475.000    525.000    375.000    375.000    375.000       .000       .000       .000
GR   1420.400    475.000   1410.900    494.000   1410.900    506.000   1420.400    525.000       .000       .000

          GRADE BREAK BELOW DIVERSION STRUCTURE FOR POND 8
X1    954.400      4.000    475.000    525.000    740.000    740.000    740.000       .000       .000       .000
GR   1425.500    475.000   1416.040    494.000   1416.040    506.000   1425.500    525.000       .000       .000

          DOWNSTREAM END OF TRANSITION SECTION BELOW POND 8
X1    954.610      4.000    479.200    521.600     21.000     21.000     21.000       .000       .000       .000
GR   1423.500    479.200   1416.080    494.000   1416.080    506.000   1423.900    521.600       .000       .000

          UPSTREAM END OF TRANSITION SECTION BELOW POND 8
X1    954.710      4.000    478.000    522.600     10.000     10.000     10.000       .000       .000       .000
GR   1423.600    478.000   1416.100    490.000   1416.100    510.000   1424.000    522.600       .000       .000

          FLOW CONSTRICTOR FOR POND 8
X1    954.810      4.000    477.900    522.800     10.000     10.000     10.000       .000       .000       .000
GR   1423.700    477.900   1416.120    490.000   1416.120    510.000   1424.100    522.800       .000       .000

SB      1.000      1.560      2.560       .000     20.000       .000     89.600      1.600       .000       .000
          UPSTREAM SIDE OF FLOW CONSTRICTOR FOR POND 8
X1    954.850      4.000    477.900    522.800      4.000      4.000      4.000       .000       .000       .000
X2       .000       .000      1.000   1419.630   1423.700       .000       .000       .000       .000       .000
BT      4.000    477.900   1422.710   1419.630    490.000   1422.710   1419.630    510.000   1422.710   1419.630
BT    522.800   1422.710   1419.630       .000       .000       .000       .000       .000       .000       .000
GR   1423.700    477.900   1416.130    490.000   1416.130    510.000   1424.100    522.800       .000       .000

          DOWNSTREAM END OF WEIR
X1    954.900      4.000    477.900    522.800      5.000      5.000      5.000       .000       .000       .000
GR   1423.700    477.900   1416.140    490.000   1416.140    510.000   1424.100    522.800       .000       .000

          DOWNSTREAM END OF TRANSITION ABOVE DIVERSION FOR POND 8
X1    955.500      4.000    477.600    523.000     60.000     60.000     60.000       .000       .000       .000
GR   1424.000    477.600   1416.260    490.000   1416.260    510.000   1424.400    523.000       .000       .000

          UPSTREAM END OF TRANSITION ABOVE DIVERSION FOR POND 8
X1    955.600      4.000    478.200    522.600     10.000     10.000     10.000       .000       .000       .000
GR   1424.200    478.200   1416.280    494.000   1416.280    506.000   1424.600    522.600       .000       .000
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          SLOPE BREAK ABOVE TRANSITION SECTION FOR POND 8
X1     956.000      4.000    475.000    525.000     40.000     40.000     40.000       .000       .000       .000
GR    1425.900    475.000   1416.360    494.000   1416.360    506.000   1425.900    525.000       .000       .000

          SLOPE BREAK BELOW DIVERSION STRUCTURE FOR POND 9
X1     960.400      4.000    475.000    525.000    440.000    440.000    440.000       .000       .000       .000
GR    1428.600    475.000   1419.140    494.000   1419.140    506.000   1428.600    525.000       .000       .000

          DOWNSTREAM END OF TRANSITION SECTION BELOW POND 9
X1     960.610      4.000    478.600    529.800     21.000     21.000     21.000       .000       .000       .000
GR    1426.900    478.600   1419.180    494.000   1419.180    506.000   1431.100    529.800       .000       .000

          UPSTREAM END OF TRANSITION SECTION BELOW POND 9
X1     960.710      4.000    477.500    529.200     10.000     10.000     10.000       .000       .000       .000
GR    1427.000    477.500   1419.200    490.000   1419.200    510.000   1431.200    529.200       .000       .000

          FLOW CONSTRICTOR FOR POND 9
X1     960.810      4.000    477.400    529.300     10.000     10.000     10.000       .000       .000       .000
GR    1427.100    477.400   1419.220    490.000   1419.220    510.000   1431.300    529.300       .000       .000

SB        .000      1.560      2.560       .000     20.000       .000    105.600      1.600       .000       .000
          UPSTREAM SIDE OF FLOW CONSTRICTOR FOR POND 9
X1     960.850      4.000    477.400    529.300      4.000      4.000      4.000       .000       .000       .000
X2        .000       .000      1.000   1423.230   1427.100       .000       .000       .000       .000       .000
BT       4.000    477.400   1426.310   1423.230    490.000   1426.310   1423.230    510.000   1426.310   1423.230
BT     529.300   1426.310   1423.230       .000       .000       .000       .000       .000       .000       .000
GR    1427.100    477.400   1419.230    490.000   1419.230    510.000   1431.300    529.300       .000       .000

          DOWNSTREAM END OF WEIR
X1     960.900      4.000    477.400    529.300      5.000      5.000      5.000       .000       .000       .000
GR    1427.100    477.400   1419.240    490.000   1419.240    510.000   1431.300    529.300       .000       .000

          DOWNSTREAM END OF TRANSITION SECTION ABOVE POND 9
X1     961.500      4.000    477.000    529.600     60.000     60.000     60.000       .000       .000       .000
GR    1427.500    477.000   1419.360    490.000   1419.360    510.000   1431.600    529.600       .000       .000

          UPSTREAM END OF TRANSITION SECTION ABOVE POND 9
X1     961.600      4.000    477.600    530.600     10.000     10.000     10.000       .000       .000       .000
GR    1427.600    477.600   1419.380    494.000   1419.380    506.000   1431.700    530.600       .000       .000

          SLOPE BREAK ABOVE TRANSITION SECTION FOR POND 9
X1     962.000      4.000    475.000    525.000     40.000     40.000     40.000       .000       .000       .000
GR    1429.000    475.000   1419.460    494.000   1419.460    506.000   1429.000    525.000       .000       .000

          SLOPE BREAK BELOW DIVERSION STRUCTURE FOR POND 10
X1     965.450      4.000    475.000    525.000    345.000    345.000    345.000       .000       .000       .000
GR    1431.200    475.000   1421.740    494.000   1421.740    506.000   1431.200    525.000       .000       .000
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          DOWNSTREAM END OF TRANSITION SECTION BELOW POND 10
X1    965.640      4.000    477.400    528.000     19.000     19.000     19.000       .000       .000       .000
GR   1430.100    477.400   1421.780    494.000   1421.780    506.000   1432.800    528.000       .000       .000

          UPSTREAM END OF TRANSITION SECTION BELOW POND 10
X1    965.740      4.000    476.600    527.600     10.000     10.000     10.000       .000       .000       .000
GR   1430.200    476.600   1421.800    490.000   1421.800    510.000   1432.800    527.600       .000       .000

          FLOW CONSTRICTOR FOR POND 10
X1    965.840      4.000    476.400    527.700     10.000     10.000     10.000       .000       .000       .000
GR   1430.300    476.400   1421.820    490.000   1421.820    510.000   1432.900    527.700       .000       .000

SB       .000      1.560      2.560       .000     20.000       .000    122.400      1.600       .000       .000
          UPSTREAM SIDE OF FLOW CONSTRICTOR FOR POND 10
X1    965.880      4.000    476.400    527.900      4.000      4.000      4.000       .000       .000       .000
X2       .000       .000      1.000   1426.320   1431.300       .000       .000       .000       .000       .000
BT      4.000    476.400   1429.400   1426.320    490.000   1429.400   1426.320    510.000   1429.400   1426.320
BT    527.900   1429.400   1426.320       .000       .000       .000       .000       .000       .000       .000
GR   1430.300    476.400   1421.830    490.000   1421.830    510.000   1433.000    527.900       .000       .000

          DOWNSTREAM END OF WEIR
X1    965.930      4.000    475.000    525.000      5.000      5.000      5.000       .000       .000       .000
GR   1430.400    476.300   1421.840    490.000   1421.840    510.000   1433.000    527.900       .000       .000

          DOWNSTREAM END OF TRANSITION SECTION ABOVE POND 10
X1    966.530      4.000    476.300    528.900     60.000     60.000     60.000       .000       .000       .000
GR   1430.500    476.300   1421.960    490.000   1421.960    510.000   1433.800    528.900       .000       .000

          UPSTREAM END OF TRANSITION SECTION ABOVE POND 10
X1    966.630      4.000    477.000    529.800     10.000     10.000     10.000       .000       .000       .000
GR   1430.500    477.000   1421.980    494.000   1421.980    506.000   1433.900    529.800       .000       .000

          SLOPE BREAK ABOVE TRANSITION SECTION FOR POND 10
X1    967.050      4.000    475.000    525.000     42.000     42.000     42.000       .000       .000       .000
GR   1431.600    475.000   1422.060    494.000   1422.060    506.000   1431.600    525.000       .000       .000

          HAWES ROAD-INSERT FLOW IN CHAN. 2 ABOVE HAWES
X1    970.110      4.000    475.000    525.000    142.000    142.000    142.000       .000       .000       .000
GR   1435.000    475.000   1425.550    494.000   1425.550    506.000   1435.000    525.000       .000       .000

          OUTLET FROM POND 11 (ON LINE POND)
X1    971.530      4.000    475.000    525.000    143.000    143.000    143.000       .000       .000       .000
GR   1436.900    475.000   1427.410    494.000   1427.410    506.000   1436.900    525.000       .000       .000
EJ       .000       .000       .000       .000       .000       .000       .000       .000       .000       .000
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THIS RUN EXECUTED 07/08/88 10:28:53

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************
```

T1 BACKWATER CURVE FROM BASELINE ROAD TO THE OUTLET OF POND 11
T2 RANGE OF FLOWS TO DETERMINE Qi AND D AT DIVERSION BEAMS.
T3 FLOWS RANGE 300 TO 1600 cfs

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	-1.000000	.00	.0	0.	1415.000	.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

THIS RUN EXECUTED 07/08/88 10:29:16

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
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```

T1 BACKWATER CURVE FROM BASELINE ROAD TO THE OUTLET OF POND 11
T2 RANGE OF FLOWS TO DETERMINE Qi AND D AT DIVERSION BEAMS.
T3 FLOWS RANGE 300 TO 1600 cfs

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	0.	0.	-1.000000	.00	.0	0.	1415.000	.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

THIS RUN EXECUTED 07/08/88 10:29:39

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************
```

T1 BACKWATER CURVE FROM BASELINE ROAD TO THE OUTLET OF POND 11
T2 RANGE OF FLOWS TO DETERMINE Qi AND D AT DIVERSION BEAMS.
T3 FLOWS RANGE 300 TO 1600 cfs

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	5.	0.	0.	-1.000000	.00	.0	0.	1415.000	.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	4.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

THIS RUN EXECUTED 07/08/88 10:30:03

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************
```

T1 BACKWATER CURVE FROM BASELINE ROAD TO THE OUTLET OF POND 11
T2 RANGE OF FLOWS TO DETERMINE Qi AND D AT DIVERSION BEAMS.
T3 FLOWS RANGE 300 TO 1600 cfs

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	6.	0.	0.	-1.000000	.00	.0	0.	1415.000	.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	5.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

THIS RUN EXECUTED 07/08/88 10:30:27

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
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T1 BACKWATER CURVE FROM BASELINE ROAD TO THE OUTLET OF POND 11
T2 RANGE OF FLOWS TO DETERMINE Qi AND D AT DIVERSION BEAMS.
T3 FLOWS RANGE 300 TO 1600 cfs

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	7.	0.	0.	-1.000000	.00	.0	0.	1415.000	.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	6.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

THIS RUN EXECUTED 07/08/88 10:30:51

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************
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T1 BACKWATER CURVE FROM BASELINE ROAD TO THE OUTLET OF POND 11
T2 RANGE OF FLOWS TO DETERMINE Qi AND D AT DIVERSION BEAMS.
T3 FLOWS RANGE 300 TO 1600 cfs

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	8.	0.	0.	-1.000000	.00	.0	0.	1415.000	.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	7.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

THIS RUN EXECUTED 07/08/88 10:31:15

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************
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T1 BACKWATER CURVE FROM BASELINE ROAD TO THE OUTLET OF POND 11
T2 RANGE OF FLOWS TO DETERMINE Qi AND D AT DIVERSION BEAMS.
T3 FLOWS RANGE 300 TO 1600 cfs

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	9.	0.	0.	-1.000000	.00	.0	0.	1415.000	.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	8.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

THIS RUN EXECUTED 07/08/88 10:31:38

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************
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T1 BACKWATER CURVE FROM BASELINE ROAD TO THE OUTLET OF POND 11
T2 RANGE OF FLOWS TO DETERMINE Qi AND D AT DIVERSION BEAMS.
T3 FLOWS RANGE 300 TO 1600 cfs

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	10.	0.	0.	-1.000000	.00	.0	0.	1415.000	.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	9.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

THIS RUN EXECUTED 07/08/88 10:32:02

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************
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T1 BACKWATER CURVE FROM BASELINE ROAD TO THE OUTLET OF POND 11
T2 RANGE OF FLOWS TO DETERMINE Qi AND D AT DIVERSION BEAMS.
T3 FLOWS RANGE 300 TO 1600 cfs

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	11.	0.	0.	-1.000000	.00	.0	0.	1415.000	.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	10.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

THIS RUN EXECUTED 07/08/88 10:32:26

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************
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T1 BACKWATER CURVE FROM BASELINE ROAD TO THE OUTLET OF POND 11
T2 RANGE OF FLOWS TO DETERMINE Qi AND D AT DIVERSION BEAMS.
T3 FLOWS RANGE 300 TO 1600 cfs

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	-10.	12.	0.	0.	-1.000000	.00	.0	0.	1415.000	.000	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	11.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000	

THIS RUN EXECUTED 07/08/88 10:32:51

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************
```

T1 BACKWATER CURVE FROM BASELINE ROAD TO THE OUTLET OF POND 11
T2 RANGE OF FLOWS TO DETERMINE Qi AND D AT DIVERSION BEAMS.
T3 FLOWS RANGE 300 TO 1600 cfs

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	13.	0.	0.	-1.000000	.00	.0	0.	1415.000	.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	12.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

THIS RUN EXECUTED 07/08/88 10:33:14

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************
```

T1 BACKWATER CURVE FROM BASELINE ROAD TO THE OUTLET OF POND 11
T2 RANGE OF FLOWS TO DETERMINE Qi AND D AT DIVERSION BEAMS.
T3 FLOWS RANGE 300 TO 1600 cfs

	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
J1	-10.	14.	0.	0.	-1.000000	.00	.0	0.	1415.000	.000

	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
J2	13.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

THIS RUN EXECUTED 07/08/88 10:33:39

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************
```

T1 BACKWATER CURVE FROM BASELINE ROAD TO THE OUTLET OF POND 11
T2 RANGE OF FLOWS TO DETERMINE Qi AND D AT DIVERSION BEAMS.
T3 FLOWS RANGE 300 TO 1600 cfs

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	15.	0.	0.	-1.000000	.00	.0	0.	1415.000	.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

THIS RUN EXECUTED 07/08/88 10:34:03

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION
**************************************************
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

FLOWS RANGE FROM 300 TO

SUMMARY PRINTOUT TABLE 100

SECNO	EGLWC	ELLC	EGPRS	ELTRD	QPR	QWEIR	CLASS	H3	DEPTH	CWSEL	VCH	EG
30.840	1388.54	1386.60	1388.58	1388.50	371.39	31.28	30.00	.00	10.37	1388.57	.00	1388.58
30.840	1388.59	1386.60	1388.64	1388.50	410.32	40.97	30.00	.00	10.43	1388.63	.00	1388.63
30.840	1388.64	1386.60	1388.69	1388.50	448.61	51.63	30.00	.00	10.48	1388.68	.00	1388.68
30.840	1388.68	1386.60	1388.75	1388.50	489.42	64.29	30.00	.00	10.53	1388.73	.00	1388.73
30.840	1388.53	1386.60	1388.61	1388.50	552.99	47.88	30.00	.00	10.40	1388.60	.00	1388.60
30.840	1388.74	1386.60	1388.84	1388.50	565.72	89.35	30.00	.00	10.61	1388.81	.00	1388.81
30.840	1388.81	1386.60	1388.92	1388.50	591.59	111.62	30.00	.00	10.68	1388.88	.00	1388.89
30.840	1389.03	1386.60	1389.16	1388.50	575.61	175.18	30.00	.00	10.89	1389.09	.00	1389.10
30.840	1389.20	1386.60	1389.35	1388.50	565.72	232.12	30.00	.00	11.06	1389.26	.00	1389.27
30.840	1388.58	1386.60	1388.75	1388.50	770.03	81.52	30.00	.00	10.51	1388.71	.00	1388.72
30.840	1388.64	1386.60	1388.83	1388.50	796.05	104.84	30.00	.00	10.58	1388.78	.00	1388.79
30.840	1388.71	1386.60	1388.92	1388.50	820.04	130.48	30.00	.00	10.65	1388.85	.00	1388.86
30.840	1388.77	1386.60	1389.00	1388.50	842.19	158.40	30.00	.00	10.72	1388.92	.00	1388.93
30.840	1388.54	1386.60	1388.80	1388.50	954.73	95.73	30.00	.00	10.54	1388.74	.00	1388.75
30.500	1404.08	1407.61	.00	1410.11	400.00	.00	1.00	.01	2.39	1404.00	2.17	1404.08
30.500	1404.28	1407.61	.00	1410.11	450.00	.00	1.00	.01	2.59	1404.20	2.26	1404.28
30.500	1404.47	1407.61	.00	1410.11	500.00	.00	1.00	.01	2.77	1404.38	2.34	1404.47
30.500	1404.65	1407.61	.00	1410.11	550.00	.00	1.00	.01	2.95	1404.56	2.43	1404.65
30.500	1404.82	1407.61	.00	1410.11	600.00	.00	1.00	.01	3.11	1404.72	2.50	1404.82
30.500	1404.98	1407.61	.00	1410.11	650.00	.00	1.00	.01	3.27	1404.88	2.58	1404.98
30.500	1405.14	1407.61	.00	1410.11	700.00	.00	1.00	.01	3.42	1405.03	2.66	1405.14
30.500	1405.29	1407.61	.00	1410.11	750.00	.00	1.00	.01	3.57	1405.18	2.73	1405.29
30.500	1405.44	1407.61	.00	1410.11	800.00	.00	1.00	.01	3.70	1405.31	2.80	1405.44
30.500	1405.58	1407.61	.00	1410.11	850.00	.00	1.00	.02	3.84	1405.45	2.88	1405.58
30.500	1405.71	1407.61	.00	1410.11	900.00	.00	1.00	.02	3.97	1405.58	2.94	1405.71
30.500	1405.85	1407.61	.00	1410.11	950.00	.00	1.00	.02	4.10	1405.71	3.01	1405.85
30.500	1405.98	1407.61	.00	1410.11	1000.00	.00	1.00	.02	4.22	1405.83	3.08	1405.98
30.500	1406.10	1407.61	.00	1410.11	1050.00	.00	1.00	.02	4.34	1405.95	3.14	1406.10

SECNO	EGLWC	ELLC	EGPRS	ELTRD	QPR	QWEIR	CLASS	H3	DEPTH	CWSEL	VCH	EG
954.850	1420.01	1419.63	1420.21	1423.70	400.00	.00	10.00	.00	3.83	1419.96	3.99	1420.21
954.850	1420.27	1419.63	1420.57	1423.70	450.00	.00	10.00	.00	4.18	1420.31	4.03	1420.57
954.850	1420.51	1419.63	1420.93	1423.70	500.00	.00	10.00	.00	4.55	1420.68	4.03	1420.93
954.850	1420.74	1419.63	1421.30	1423.70	550.00	.00	10.00	.00	4.92	1421.05	4.01	1421.30
954.850	1420.96	1419.63	1421.67	1423.70	600.00	.00	10.00	.00	5.29	1421.42	3.98	1421.67
954.850	1421.18	1419.63	1422.05	1423.70	650.00	.00	10.00	.00	5.68	1421.81	3.93	1422.05
954.850	1421.38	1419.63	1422.43	1423.70	700.00	.00	10.00	.00	6.07	1422.20	3.88	1422.43
954.850	1421.57	1419.63	1422.82	1423.70	750.00	.00	10.00	.00	6.47	1422.60	3.82	1422.82
954.850	1421.76	1419.63	1423.22	1423.70	800.00	.00	10.00	.00	6.88	1423.01	3.75	1423.22
954.850	1421.94	1419.63	1423.63	1423.70	850.00	.00	10.00	.00	7.29	1423.42	3.68	1423.63
954.850	1422.12	1419.63	1424.05	1423.70	811.06	95.56	30.00	.00	7.22	1423.35	3.95	1423.59
954.850	1422.28	1419.63	1424.48	1423.70	823.98	131.99	30.00	.00	7.43	1423.56	4.01	1423.81
954.850	1422.46	1419.63	1424.93	1423.70	834.44	171.37	30.00	.00	7.63	1423.76	4.07	1424.02
954.850	1422.62	1419.63	1425.38	1423.70	844.99	211.11	30.00	.00	7.81	1423.94	4.13	1424.21
960.850	1423.11	1423.23	.00	1427.10	400.00	.00	59.00	.00	3.59	1422.82	4.33	1423.11
960.850	1423.37	1423.23	1423.50	1427.10	450.00	.00	10.00	.00	3.98	1423.21	4.28	1423.50
960.850	1423.61	1423.23	1423.82	1427.10	500.00	.00	10.00	.00	4.30	1423.53	4.33	1423.82
960.850	1423.84	1423.23	1424.14	1427.10	550.00	.00	10.00	.00	4.62	1423.85	4.35	1424.14
960.850	1424.07	1423.23	1424.46	1427.10	600.00	.00	10.00	.00	4.94	1424.17	4.35	1424.46
960.850	1424.28	1423.23	1424.79	1427.10	650.00	.00	10.00	.00	5.27	1424.50	4.34	1424.79
960.850	1424.48	1423.23	1425.12	1427.10	700.00	.00	10.00	.00	5.60	1424.83	4.32	1425.12
960.850	1424.67	1423.23	1425.45	1427.10	750.00	.00	10.00	.00	5.93	1425.16	4.28	1425.45
960.850	1424.86	1423.23	1425.78	1427.10	800.00	.00	10.00	.00	6.27	1425.50	4.24	1425.78
960.850	1425.04	1423.23	1426.12	1427.10	850.00	.00	10.00	.00	6.62	1425.85	4.20	1426.12
960.850	1425.22	1423.23	1426.47	1427.10	900.00	.00	10.00	.00	6.97	1426.20	4.14	1426.47
960.850	1425.39	1423.23	1426.82	1427.10	950.00	.00	10.00	.00	7.33	1426.56	4.08	1426.82
960.850	1425.55	1423.23	1427.18	1427.10	941.35	65.00	30.00	.00	7.42	1426.65	4.22	1426.93
960.850	1425.71	1423.23	1427.54	1427.10	955.84	99.11	30.00	.00	7.62	1426.85	4.28	1427.13
965.880	1425.71	1426.32	.00	1431.30	400.00	.00	59.00	.00	3.58	1425.41	4.33	1425.71
965.880	1425.97	1426.32	.00	1431.30	450.00	.00	59.00	.00	3.82	1425.65	4.51	1425.97
965.880	1426.21	1426.32	.00	1431.30	500.00	.00	59.00	.00	4.04	1425.87	4.67	1426.21
965.880	1426.44	1426.32	1426.57	1431.30	550.00	.00	10.00	.00	4.41	1426.24	4.60	1426.57
965.880	1426.66	1426.32	1426.86	1431.30	600.00	.00	10.00	.00	4.70	1426.53	4.64	1426.86
965.880	1426.87	1426.32	1427.15	1431.30	650.00	.00	10.00	.00	4.98	1426.81	4.66	1427.15
965.880	1427.07	1426.32	1427.44	1431.30	700.00	.00	10.00	.00	5.27	1427.10	4.66	1427.44
965.880	1427.27	1426.32	1427.74	1431.30	750.00	.00	10.00	.00	5.57	1427.40	4.65	1427.74
965.880	1427.46	1426.32	1428.03	1431.30	800.00	.00	10.00	.00	5.87	1427.70	4.63	1428.03
965.880	1427.64	1426.32	1428.32	1431.30	850.00	.00	10.00	.00	6.16	1427.99	4.61	1428.32
965.880	1427.82	1426.32	1428.62	1431.30	900.00	.00	10.00	.00	6.46	1428.29	4.58	1428.62
965.880	1427.99	1426.32	1428.92	1431.30	950.00	.00	10.00	.00	6.77	1428.60	4.55	1428.92
965.880	1428.15	1426.32	1429.22	1431.30	1000.00	.00	10.00	.00	7.08	1428.91	4.50	1429.22
965.880	1428.31	1426.32	1429.53	1431.30	1050.00	.00	10.00	.00	7.39	1429.22	4.46	1429.53

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION  SECNO=    40.590  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    40.590  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    40.590  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    40.590  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    40.590  PROFILE= 5  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    40.590  PROFILE= 6  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    40.590  PROFILE= 7  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    40.590  PROFILE= 8  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    40.590  PROFILE= 9  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    40.590  PROFILE=10  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    40.590  PROFILE=11  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    40.590  PROFILE=12  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    40.590  PROFILE=13  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    40.590  PROFILE=14  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=    39.670  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    39.670  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    39.670  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    39.670  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    39.670  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    39.670  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    39.670  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    39.670  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    39.670  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    39.670  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    39.670  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    39.670  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    39.670  PROFILE= 5  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    39.670  PROFILE= 5  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    39.670  PROFILE= 5  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    39.670  PROFILE= 6  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    39.670  PROFILE= 6  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    39.670  PROFILE= 6  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    39.670  PROFILE= 7  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    39.670  PROFILE= 7  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    39.670  PROFILE= 7  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    39.670  PROFILE= 8  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    39.670  PROFILE= 8  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    39.670  PROFILE= 8  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    39.670  PROFILE= 9  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    39.670  PROFILE= 9  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    39.670  PROFILE= 9  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    39.670  PROFILE=10  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    39.670  PROFILE=10  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    39.670  PROFILE=10  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    39.670  PROFILE=11  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    39.670  PROFILE=11  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=    39.670  PROFILE=11  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    39.670  PROFILE=12  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    39.670  PROFILE=12  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    39.670  PROFILE=12  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    39.670  PROFILE=13  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    39.670  PROFILE=13  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    39.670  PROFILE=13  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    39.670  PROFILE=14  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    39.670  PROFILE=14  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    39.670  PROFILE=14  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    34.150  PROFILE= 1  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=    34.150  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=    34.150  PROFILE= 5  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    34.150  PROFILE= 5  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=    34.150  PROFILE= 7  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    34.150  PROFILE= 7  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    34.150  PROFILE= 7  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    34.150  PROFILE= 8  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    34.150  PROFILE= 8  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=    34.150  PROFILE=11  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=    34.150  PROFILE=12  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=    34.150  PROFILE=13  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    34.150  PROFILE=14  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=    34.150  PROFILE=14  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=    31.680  PROFILE= 3  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=    20.090  PROFILE=14  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION  SECNO=    17.550  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=    17.550  PROFILE= 7  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=    17.550  PROFILE= 8  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=    43.360  PROFILE= 9  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    43.360  PROFILE= 9  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    43.360  PROFILE=10  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    43.360  PROFILE=10  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    43.360  PROFILE=10  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    43.360  PROFILE=11  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    43.360  PROFILE=11  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    43.360  PROFILE=11  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    43.360  PROFILE=12  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    43.360  PROFILE=12  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    43.360  PROFILE=12  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    43.360  PROFILE=13  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    43.360  PROFILE=13  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    43.360  PROFILE=13  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    43.360  PROFILE=14  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    43.360  PROFILE=14  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    43.360  PROFILE=14  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=   947.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=   947.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   947.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   947.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   947.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   947.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   947.000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   947.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   947.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   947.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   947.000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=   947.000  PROFILE= 5  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=   947.000  PROFILE=12  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=   947.000  PROFILE=13  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=   947.000  PROFILE=14  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   947.000  PROFILE=14  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION  SECNO=   954.400  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   954.400  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   954.400  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   954.400  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   954.400  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   954.400  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=   954.400  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   954.400  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=   954.400  PROFILE= 7  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=   954.400  PROFILE=13  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=   960.400  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=   960.400  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=   960.400  PROFILE= 5  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   960.400  PROFILE= 6  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   960.400  PROFILE= 6  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=   960.400  PROFILE= 7  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   960.400  PROFILE= 7  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   960.400  PROFILE= 8  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   960.400  PROFILE= 8  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=   960.400  PROFILE=14  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   960.400  PROFILE=14  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=   965.450  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   965.450  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   965.450  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   965.450  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   965.450  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   965.450  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   965.450  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   965.450  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   965.450  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   965.450  PROFILE= 5  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   965.450  PROFILE= 5  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=   965.450  PROFILE= 6  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=   965.450  PROFILE= 7  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=   965.450  PROFILE= 8  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   965.450  PROFILE= 9  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=   965.450  PROFILE=10  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=   965.450  PROFILE=12  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=   965.450  PROFILE=14  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   965.450  PROFILE=14  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   965.450  PROFILE=14  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION  SECNO=   970.110  PROFILE=12  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=   970.110  PROFILE=13  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   970.110  PROFILE=13  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=   970.110  PROFILE=14  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   970.110  PROFILE=14  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION  SECNO=   971.530  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   971.530  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=   971.530  PROFILE=13  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=   971.530  PROFILE=14  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   971.530  PROFILE=14  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION SECNO= 971.530 PROFILE=14 20 TRIALS ATTEMPTED TO BALANCE WSEL