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FLOOD STUDY
TECHNICAL DATA NOTEBOOK

for

WHITE TANKS/AGUA FRIA
AREA DRAINAGE MASTER STUDY

APPENDIX J
VOLUME 13 OF 15

HEC-2 OUTPUT RESULTS - WASH 10 THRU WASH 21
AND APPROXIMATE DELINEATION DOCUMENTATION

Prepared for:
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Prepared by:
THE WLB GROUP, INC.
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Phoenix, Arizona 85012
(602) 279-1016

May 28, 1992

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1*****************************************
*  HEC-2 WATER SURFACE PROFILES           *
*                                         *
*  Version   4.6.2;  May 1991             *
*                                         *
*  RUN DATE    15OCT92    TIME   09:14:52 *
*****************************************
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*************************************
*  U.S. ARMY CORPS OF ENGINEERS     *
*  HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D       *
*  DAVIS, CALIFORNIA 95616-4687     *
*        (916) 756-1104             *
*************************************
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X     X  XXXXXXX   XXXXX            XXXXX
X     X  X        X    X           X    X
X     X  X        X                     X
XXXXXXX  XXXX     X         XXXXX   XXXXX
X     X  X        X                X
X     X  X        X    X           X
X     X  XXXXXXX   XXXXX            XXXXXXX
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*************************************
HEC-2 WATER SURFACE PROFILES

Version   4.6.2;  May 1991
*************************************
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10.H2O – BULLARD WASH
LATEST VERSION W/ FLOODWAY

T1 WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2 100 - YEAR STORM EVENT FLOODPLAIN RUN FILE: 10.H2I
T3 BULLARD WASH (WASH 10) - FROM BUCKEYE CANAL TO DYSART DRAIN.

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	2	0	0	.0025	0	0	0	912	0

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1	0	0	0	0	0	0	0	0	0

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

38	43	1	53	21	22	54	51	4	8
42	5	26	0	110	0	200			

NC	.07	.07	.04	.1	.3
QT	3	850	850	3110	

*** DUE TO THE COMPLEXITY OF THE DOWNSTREAM REACH (CROSS-SECTIONS 0.000 TO 2.297),AN APPROXIMATE FLOODPLAIN DELINEATION HAS BEEN SHOWN IN THIS REACH.HOWEVER,A HEC-2 MODEL WAS SET UP INCLUDING THESE X-SECTIONS TO AID IN PRODUCING A REASONABLE APPROXIMATE DELINEATION.THIS APPROXIMATE DELINEATION IS AS SHOWN ON THE MAPS AND IS BASED ON ENGINEERING JUDGEMENT REFLCTING THE EXISTING TOPOGRAPHY,AND USING INFORMATION FROM THE HEC-2 MODEL TO

ESTIMATE WHERE BREAKOUT FLOWS WILL OCCUR.
ALSO, AN APPROXIMATE FLOODPLAIN DELINEATION HAS BEEN SHOWN FOR THE UPPERMOST REACH OF BULLARD WASH (CROSS-SECTIONS 10.269 TO 14.023). THE HEC-2 MODEL WAS ALSO UTILIZED TO ESTIMATE THE APPROXIMATE DELINEATION IN THIS REACH.
A DETAILED ANALYSIS WAS PERFORMED ON BULLARD WASH FROM CROSS-SECTION 2.371 TO 6.320 AND FROM 9.189 TO 10.197.

****
****

THE AREA BETWEEN X-SECTION 6.320 AND X-SECTION

1

9.189 IS CURRENTLY UNDER CONSTRUCTION. NO FLOODPLAIN HAS BEEN PREPARED FOR THIS AREA OF BULLARD WASH, HOWEVER, THE HEC-2 ANALYSIS WAS CONTINUED BASED ON EXISTING CONDITIONS AT THE TIME OF THE AERIAL MAPPING TO COMPUTE WATER SURFACE ELEVATIONS UPSTREAM AND DOWNSTREAM OF THIS REACH.

****
****

*** THE DISCHARGE IN FIELD 4 OF THE QT CARDS IS THE ACTUAL DISCHRAGE DERIVED FROM THE 100-YEAR 24-HOUR HEC1 MODEL. THIS DISCHRGE IS FOR COMPARISON PURPOSES ONLY AND NO PROFILE IS BEING COMPUTED FOR IT. DISCHARGES FOR PROFILES 1 & 2 ARE USED TO DELINEATE THE FLOODPLAIN AND FLOODWAY RESPECTIVELY. THESE DISCHARGES ARE BASED UPON THE CAPACITY OF THE CHANNEL PLUS A MAXIMUM OF 1 FOOT OVER THE TOP WHERE CAPACITY IS EXCEEDED. THESE SITUATIONS ARE DOCUMENTED THROUGHOUT THE HEC-2 MODEL.

** BEGIN APPROXIMATE FLOODPLAIN DELINEATION

CROSS-SECTION AT BUKEYE CANAL

Q = Q AT CP364 (= 3110 CFS).
THIS Q HAS BEEN REDUCED TO THE CAPACITY OF THE CHANNEL PLUS A MAXIMUM OF 1 FOOT OVER THE LIMITING ELEVATION AT THE RIGHT OVERBANK.
EXCEEDED FLOW WILL CONTINUE AS SHEET FLOW TO THE WEST.

X1	0.000	12	9980	10120	0	0	0			
GR	914	8620	912	9460	910.5	9950	912	9980	910.5	10000
GR	912	10030	912.3	10050	912	10080	910.5	10100	912	10120
GR	912	10510	914	10900						

ANY WSEL EXTENSION AT X1= 0.047 TO X1= 0.616 IS DUE TO THE LIMITING ELEVATION AT THE RIGHT OVERBANK.

	0.047	14	9960	10100	265	240	250			
GR	914	8440	913.8	8900	912	9235	911.8	9550	910.6	9875
GR	912	9950	912.3	9960	912	9975	910	10000	911.3	10035
GR	910	10070	910.3	10100	912	10370	912.5	10820		
X1	0.121	14	9980	10100	390	390	390			

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GR      914      8845      912      9800      911.6      9920      912      9970      912.7      9980
GR      912      9985      910      10000      912      10030      912.1      10040      912      10055
GR      910      10080      910.4      10100      912      10545      912.5      10820
1
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X1      0.201      12      9970      10100      420      420      420
GR      914      9245      912.6      9935      913      9970      912      9985      910      10000
GR      912      10025      912.1      10040      912      10055      910      10075      910.5      10100
GR      912      10240      912.5      10820

X1      0.292      12      9960      10070      480      480      480
GR      914      9525      913.5      9850      912.8      9915      913.3      9960      912      9980
GR      910.5      10000      911.9      10025      910.5      10050      912.1      10070      911.8      10150
GR      912      10220      912.5      10800


                DIVIDED FLOW OCCURS FOR THE NEXT FOUR UPSTREAM CROSS-SECTIONS,
                HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
                X1= 0.668
X1      0.384      17      9970      10095      490      490      490
GR      916      9060      914      9620      913.2      9795      914      9965      914.3      9970
GR      914      9975      912      9985      911      10000      912      10015      912.4      10025
GR      912      10040      911.5      10050      912      10065      912.7      10095      912.3      10210
GR      912.7      10700      913.2      11370

X1      0.488      13      9970      10090      545      545      545
GR      916      9235      914.8      9580      914      9880      913.8      9925      914      9960
GR      915.2      9970      914      9980      912      10000      913.3      10035      912.3      10070
GR      913.5      10090      912.7      10500      913.2      11365

X1      0.531      12      9965      10090      230      230      230
GR      916      9360      914.1      9920      915.4      9965      914      9990      913.5      10000
GR      914      10015      914.1      10030      912.8      10065      914.2      10090      914      10105
GR      912.8      10470      913.2      11350

QT      3      4895      4895      4895

                Q = Q AT CP364A      (= 4895 CFS).

X1      0.616      13      9960      10090      405      480      450
GR      917.3      9665      916.04      9670      917.1      9830      916.5      9960      916      9990
GR      915      10000      915.4      10030      913.8      10070      915.2      10090      914      10100
GR      913.8      10350      914      10790      916      10830

NC      .045      .045      .03      .1      .3

                ANY WSEL EXTENSION AT X1= 0.668 TO X1= 1.378 IS DUE TO THE
                LIMITING ELEVATION AT THE LEFT BANK.

X1      0.668      10      9950      10035      200      290      270
GR      917.3      9620      916.8      9750      917.3      9950      916.4      10000      916.8      10035
GR      916      10080      915.5      10115      916      10160      918      10250      918.3      10290
1
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X1      0.776      13      9975      10025      535      570      570
GR      920.6      9975      920      9985      918      9990      917.3      10000      917.9      10025
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GR    916.4     10185      918      10315      920      10325     920.8     10350     919.3     10400
GR      920     10435    919.8      10470      924      10525

X1    0.868        11     9970      10020      495        485       490
GR    921.7      9970      920       9980    918.3      10000     919.8     10020       918     10220
GR      920     10295      922      10315    922.1      10335     919.9     10380       922     10485
GR    924.5     10495

X1    0.964        15     9970      10045      505        505       505
GR    923.2      9970      922       9980      920       9985     919.2     10000       920     10015
GR      922     10020    922.5      10045      922      10060     921.5     10140       922     10235
GR    922.8     10265      922      10320    921.7      10345       922     10390       925     10420

QT        3      2596      2596       4895
                Q = Q AT CP364A      (= 4895 CFS).
                THIS Q  HAS BEEN REDUCED BY THE SAME AMOUNT THAT EXCEEDED THE
                CAPACITY OF THE CHANNEL AT THE UPSTREAM REACH  X1= 1.474 TO
                X1= 1.823,     THAT EXCEEDED FLOW WILL RETURN AT X1= 0.964

X1    1.081        13     9955      10090      595        610       620
GR    925.7      9955      924       9965      924      10000       924     10055       925     10090
GR      923     10140      923      10250      924      10260       926     10270       924     10295
GR    923.4     10355      924      10395      930      10425


                DIVIDED FLOW OCCURS FOR THE NEXT FOUR UPSTREAM CROSS-SECTIONS,
                HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
                X1= 1.435

X1    1.153        16     9945      10060      410        355       380
GR    928.4      9945      928       9955      924       9970       924     10000       924     10025
GR    925.8     10060      924      10100      923      10140       923     10240       924     10265
GR      926     10285      927      10300      924      10340     923.7     10380       924     10410
GR    930.5     10440

X1    1.236        15     9960      10060      435        435       435
GR    930.2      9960      930       9970      924       9980       924     10000       924     10025
GR      926     10040      928      10050    928.3      10060       928     10070     924.5     10130
GR      926     10160      928      10210    928.4      10250     925.9     10310     932.3     10375

X1    1.317        15     9960      10050      430        430       430
GR    930.4      9960      930       9970      924       9985       924     10000       924     10010
GR      928     10035    928.5      10050      928      10060       927     10140       928     10210
GR      930     10240    930.4      10260    928.9      10300       930     10320       933     10365

X1    1.378        15     9960      10035      345        295       320
GR    930.8      9960      930       9970      924       9985       924     10000       924     10010
GR      928     10020    928.8      10035      928      10050     927.5     10120       928     10180
GR      930     10250    930.9      10280    929.4      10320       930     10365     934.1     10385
1
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                CROSS-SECTION AT STATE ROUTE 85

X1    1.435        12     9965      10070      330        180       300
GR      934      9300      932       9780    931.4       9965     926.3      9995     926.3     10000
GR    926.3     10005      928      10030      931      10070     930.5     10120       932     10140
GR      934     10175    934.5      10185
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QT        3      2600      2600      4899

                 Q = Q AT CP336        (= 4899 CFS).
                 THIS Q HAS BEEN REDUCED TO THE CAPACITY OF THE CHANNEL PLUS A
                 MAXIMUM OF 1 FOOT OVER THE LIMITING ELEVATION AT THE RIGHT
                 OVERBANK.       EXCEEDED FLOW WILL RETURN AT X1= 0.964

                 ANY WSEL EXTENSION AT X1= 1.474 TO X1= 1.823 IS DUE TO THE
                 LIMITING ELEVATION AT THE RIGHT OVERBANK.

X1     1.474        7      9985     10015       210       210       210
GR       934     8825       932      9985       930      9990       928     10000       930     10010
GR       932    10015       933     10080

NC      .045     .045       .03        .3        .5
X1     1.517        8      9905     10080       500       160       225
GR       936     9200       934      9320     932.7      9600     932.8      9800     933.2      9905
GR     932.2    10000       934     10055     934.7     10080

X1     1.566        7      9955     10045       320       210       260
GR       938     9870       936      9920       934      9955     932.5     10000       934     10045
GR       936    10060     936.1     10065

NC      .045     .045       .03        .1        .3
X1     1.634        8      9970     10025       360       360       360
GR       940     9690       938      9855       936      9910       934      9970       933     10000
GR       934    10025       936     10050     937.3     10065

X1     1.680        9      9970     10025       200       285       240
GR       940     9700       938      9800       936      9930       934      9970     933.4     10000
         934    10025       936     10055       938     10080     938.2     10100

X1     1.745       12      9960     10040       280       400       345
GR     940.3     9660       940      9760       938      9825       936      9900     934.5      9960
GR       934     9975     933.8     10000       934     10025     934.5     10040       936     10090
GR       938    10195     938.2     10210

X1     1.823       12      9970     10050       370       425       410
GR     940.3     9385       940      9425       938      9450     937.5      9500       938      9600
GR     938.2     9740       938      9785       936      9970     934.9     10000       936     10050
GR       938    10230     938.6     10255
1
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QT        3      4899      4899      4899

                 Q = Q AT CP336        (=4899 CFS).

                 DIVIDED FLOW OCCURS FOR THE NEXT FIVE UPSTREAM CROSS-SECTIONS,
                 HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
                 X1= 2.371

X1     1.893       17      9960     10040       280       370       370
GR     940.3     9055       940      9090       938      9115     937.5      9170       938      9235
       938.3     9390       938      9545     936.3      9650       938      9715       940      9770
GR       938     9895       937      9960     936.1     10000       937     10040       938     10110
GR       940    10215       941     10370

X1     1.941       20      9975     10025        40       290       255
GR     940.3     8925       940      8960       938      8985     937.5      9040       938      9100
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GR    938.4     9255      938      9430     936.3     9510      938      9580      944      9685
GR    944.6     9820      944      9890       942     9960      940      9975      938      9990
GR    937.9    10000      938     10010       940    10025      942     10040      943     10055

NC     .045      .07      .03        .1        .3
      1.988       20     9950     10030        35      280      245
GR    940.3     8890      940      8930       938     8955    937.5      9000      938      9065
GR    938.4     9220      938      9420     936.3     9485      938      9540      940      9575
GR      942     9595      944      9630     944.8     9750    944.7      9810      944      9950
GR      940     9980    938.2     10000       940    10015      944     10030    944.9     10125


                ANY WSEL EXTENSION AT X1= 2.058 TO X1= 2.185 IS DUE TO THE
                LIMITING ELEVATIONS AT THE LEFT OVERBANK.

X1    2.058       18     9970     10035       350      370      370
GR      941     8850      940      8950       939     9020    939.5      9190      938      9500
GR    936.6     9520      938      9540       940     9565      942      9585      944      9650
GR      944     9755    945.6      9835       944     9970      940      9985    938.4     10000
GR      940    10020      944     10035       946    10085

X1    2.185       21     9965     10045       430      670      670
GR    942.5     9310      942      9360       940     9445      938      9545    937.2      9565
GR      938     9580      940      9595       942     9630      943      9765    944.1      9860
GR    944.5     9925      944      9965       942     9975      940      9985      939     10000
GR      940    10015      942     10030       944    10045      945     10185      946     10680
GR    946.2    10690


            **  END OF APPROXIMATE FLOODPLAIN DELINEATION .

X1    2.297       22     9975     10040       610      450      595
GR    946.3     9310      946      9335       944     9425      942      9480      940      9530
GR    937.9     9570    938.3      9605     937.8     9655    938.1      9700    937.9      9775
GR      938     9840      940      9930     941.3     9975      940      9990    939.4     10000
GR      940    10015    940.2     10040     940.8    10040      942     10480      944     10700
GR      946    11415      947     11430
1
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ET                         9.1                                                            9650     10070

            **  BEGIN DETAILED FLOODPLAIN\FLOODWAY ANALYSIS.

X1    2.371       25     9975     10030       400      500      390
GR    949.7     8815      948      8940       946     9060      944      9145    944.5      9185
GR      944     9270      942      9315       940     9435    939.8      9520      940      9585
GR    940.6     9655      940      9710     939.4     9775      940      9815      942      9890
GR    942.3     9930      942      9975       940     9995    939.7     10000      940     10005
GR    940.7    10030      942     10385       944    10860      946     11400    949.7     11450

ET                         9.1                                                            9835     10210
X1    2.435       20     9985     10085       335      335      335
GR      950     8650      948      8790       946     8890    945.2      9000      946      9090
      944       9250      942      9485     941.1     9720      942      9835    942.4      9950
GR      942     9985      940      9995     939.9    10000      940     10005    941.7     10085
GR      942    10360      944     10760       946    11320      948     11395    949.8     11420

QT        3     4906     4906      4906
ET                         9.1                                                            9850     10250
```

CROSS-SECTION 30 FEET SOUTH OF LOWER BUKEYE RD. "EXTENDED"

Q = Q AT CP335 (= 4906 CFS).

```
X1    2.536     15     9965    10060     535     535     535
GR      951   9185      950     9300     948    9555     946    9710   945.5    9865
GR      944   9920    943.5     9935   943.8    9965   943.5   10000   943.7   10060
GR      944  10155    944.8    10500     946   10800     948   11280   950.2   11340

ET                     9.1                                             9800   10205
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DIVIDED FLOW OCCURS FOR THE NEXT TWO UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 2.883

```
X1    2.680     17     9925    10050     735     725     760
GR      954   9265      952     9400     950    9505     948    9645   947.2    9735
GR      948   9790    949.9     9805   948.8    9900     948    9905   947.3    9925
GR      946   9940    945.2    10000   945.6   10050     946   10165     948   10565
GR      950  10935      952    11160

ET                     9.1                                             9880   10225
X1    2.771     16     9985    10020     480     480     480
GR      954   9440      952     9545     950    9660   948.1    9810     950    9880
GR    951.4   9890      950     9900   949.4    9985   947.4   10000   948.2   10020
GR    947.3  10075      948    10210     950   10505   950.9   10795     952   11105
GR    953.5  11255
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```
ET                     9.1                                             9830   10180
X1    2.883     15     9985    10015     580     580     590
GR      958   9190      956     9360     954    9535     952    9640     950    9840
GR    949.6   9920    950.2     9985   948.5   10000   950.1   10015   949.2   10035
GR      950  10165      952    10385     954   10600     956   11230   956.5   11270

QT        3   4915     4915     4915
ET                     9.1                                             9820   10055
```

Q = Q AT CP334 (= 4915 CFS).

```
X1    2.977     15     9980    10050     500     500     500
GR      960   9170      958     9345     956    9530     954    9660     952    9830
GR      951   9960    951.5     9980     950    9990   949.9   10000     950   10010
GR    952.1  10050      954    10480     956   10740     958   11200   958.5   11305

ET                     9.1                                             9790   10180
X1    3.070     13     9945    10025     485     495     490
GR    958.5   9510    953.8     9545   954.5    9600   954.5    9945     954    9960
GR    952.5   9975    954.2     9985   952.3   10000   953.2   10025   952.7   10060
GR      954  10290      956    10635     958   10875

QT        3   4432     4432     4432
                       9.1                                             9730   10190
```

Q = Q AT 1I334 (= 4432 CFS).

```
X1    3.167     18     9970    10020     475     515     510
GR    960.7   9530      956     9585     955    9625   955.4    9730   954.9    9865
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```
GR     955.8      9935      955.1      9970       954      9990     953.9     10000       954     10005
GR     954.9     10020      954.5     10080     955.1     10120     954.8     10220       956     10425
GR       958     10770        960     10990       962     11230

                             9.1                                                   9987     10330

                DIVIDED FLOW OCCURS FOR THE NEXT TWO UPSTREAM CROSS-SECTIONS,
                HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
                X1= 3.602

X1     3.291        23      9970     10020       660       650       655
GR       964      9530       962      9670     961.3      9690     961.8      9725     960.4      9770
GR     961.8      9785     960.1      9940     960.5      9970       960      9985       958      9995
GR     957.2     10000       958     10005       960     10015     960.1     10020       960     10025
GR       958     10040     957.2     10110     957.8     10360     957.6     10460       958     10700
GR       960     10910       962     10970       964     11600

ET                           9.1                                                   9840     10365
X1     3.376        17      9985     10015       460       440       450
GR     967.9      9300       966      9370       964      9520       962      9630     960.5      9900
GR     961.9      9985       960      9995     958.3     10000       960     10005       961     10015
GR       960     10030     958.4     10055     958.6     10170     958.8     10365       960     10590
GR       962     10930       964     11490
1
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ET                           9.1                                                   9870     10260
X1     3.491        17      9980     10020       605       605       605
GR       968      9255       966      9435       964      9555       962      9660     960.5      9930
GR     961.9      9980       960      9995     959.5     10000       960     10005     961.9     10020
GR       960     10040     959.6     10130       960     10240       962     10540       964     10735
GR       966     11000       968     11780

QT         3      4438      4438      4438
NC       .07       .07       .04        .1        .3
ET                           9.1                                                   9840     10170

                CROSS-SECTION AT YUMA RD.

                Q = Q AT CP316        (= 4438 CFS).

X1     3.602        13      9880     10100       590       590       590
GR       970      9225       968      9450       966      9600       964      9750       962      9880
GR     961.9     10000       962     10100     963.2     10330       964     10445       966     10625
GR       968     10770     968.9     10945       970     11005

ET                           9.1                                                   9550     10140

                DIVIDED FLOW OCCURS FOR THE NEXT TWO UPSTREAM CROSS-SECTIONS,
                HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
                X1= 4.101

X1     3.702        20      9955     10055       535       490       525
GR       972      8720       970      8925       968      9115       966      9315       964      9550
GR     963.5      9620       964      9665     970.5      9750     970.5      9900       970      9920
GR       968      9935       964      9945     963.5      9950     963.9      9955     963.4     10000
GR       964     10055       966     10370       968     10660       970     10980       972     11360

ET                           9.1                                                   9550     10070
X1     3.841        23      9955     10070       735       735       735
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GR      976      8355      974      8700      972      8995      970      9130      968      9280
GR      966      9550      965.5    9650      966      9685      970.5    9700      970.2    9900
GR      970      9915      968      9925      966      9930      965.1    9935      966      9940
GR      967.1    9955      966.3    10000     967.3    10070     968      10260     970      10495
GR      972      10710     974      11090     976      11350

ET                         9.1                                                      9500     10095
X1      3.978    23        9930     10095     725      725       725
GR      978      8360      976      8690      974      8990      972      9180      970      9335
GR      968.8    9570      970      9705      970.5    9740      970.5    9885      970      9900
GR      968      9910      966.9    9915      968      9920      969      9930      968      9990
GR      967.9    10000     968      10015     968.4    10095     970      10300     972      10515
GR      974      10655     976      10850     978      11110
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ET                         9.1                                                      9780     10125
X1      4.101    23        9960     10080     650      650       650
GR      980      8400      976      8715      974      8955      974      9255      972      9540
GR      971      9715      971.4    9780      970.2    9890      971.3    9920      970      9935
GR      968.7    9945      970      9950      971      9960      970      9985      969.8    10000
GR      970      10015     970.9    10080     970.7    10160     972      10400     974      10560
GR      976      10620     978      10915     980      11180

ET                         9.1                                                      9780     10075
X1      4.237    19        9935     10075     715      715       715
GR      980      8695      978      9160      976.5    9270      977.4    9305      976      9390
GR      974      9535      972      9850      971.8    9870      972      9885      972.4    9910
GR      972.2    9920      972.6    9935      972      9940      971.3    10000     972      10075
GR      974      10290     976      10430     978      10600     980      10870

ET                         9.1                                                      9840     10110
X1      4.356    16        9950     10070     630      630       630
GR      980.5    9300      980      9320      978      9430      976      9525      974      9725
GR      973.1    9895      973.5    9915      973.3    9935      973.5    9950      972.6    10000
GR      973.4    10070     974      10155     976      10360     978      10485     980      10615
GR      982      10870

ET                         9.1                                                      9850     10160
X1      4.496    14        9975     10130     740      740       740
GR      984      9180      982      9365      980      9540      978      9645      976      9845
GR      974.8    9945      975.2    9975      974.4    10000     975      10130     976      10275
GR      978      10420     980      10540     982      10620     984      10840

QT      3        4446      4446     4446
ET                         9.1                                                      9850     10150

                CROSS-SECTION AT VAN BUREN ST.

                Q = Q AT CP298        (= 4446 CFS).

X1      4.625    12        9835     10160     680      680       680
GR      986      9220      984      9310      982      9450      980      9650      978.3    9835
GR      978.1    10000     978.3    10160     980      10345     982      10480     984      10650
GR      985.1    10810     986      10950

ET                         9.1                                                      9800     10200
X1      4.701    11        9685     10405     400      400       400
GR      986      9130      984      9355      982      9555      980      9685      978      9795
GR      978      10000     978      10270     980      10405     982      10510     984      10610
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GR      986      10840

ET                        9.1                                                   9850      10150
X1    4.858        12     9705     10290      860      820      830
GR      988      9200      986      9420      984     9620      982     9705      980     10000
GR    980.3     10060      980     10090    980.5    10260      982    10290      984     10555
GR      986     10820      988     11220
1
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ET                        9.1                                                   9820      10105
X1    5.009        14     9935     10100      800      840      795
GR      990      9190      988      9410      986     9575      984     9715      982      9820
GR    981.9      9860      982      9900    983.7     9935      982    10000    982.5     10100
GR      984     10270      986     10445      988    10700      990    10880

ET                        9.1                                                   9800      10090
X1    5.153        12     9945     10090      775      730      765
GR      992      9110      990      9280      988     9480      986     9645    984.5      9800
GR    985.6      9945    984.3     10000    985.4    10090      986    10145      988     10410
GR      990     10480      992     10885

ET                        9.1                                                   9700      10100
X1    5.282        13     9945     10055      690      665      680
GR      992      8865      990      9105      988     9440      986     9710    985.6      9850
GR      986      9915      987      9945      986     9960    985.5    10000      986     10055
GR      988     10230      990     10590      992    10870

      .07       .07     .035        .3       .5
ET                        9.1                                                   9913      10087

                A 7-SPAN BRIDGE AT I-10

X1    5.430        11   9899.9   10100.1      680      820      780
X3       10                                                     996       996
GR     1000      9050      997     9899.9    994.2     9900    994.2     9906      988      9919
GR      988     10000      988     10081     994.2    10094    994.2    10100      997   10100.1
GR     1000     10450

QT        3      5319     5319      5319
SB     1.05       1.6      2.6         0      162        6     1203        2      988       988
ET                        9.1                                                   9913      10087

                Q = Q AT CP287       (= 5319 CFS).

X1    5.460        11   9899.9   10100.1      160      160      160
X2        0         0        1       995      997
X3       10                                                     997       997
BT        4      9050     1000            9899.9      997           10100.1      997
BT    10450      1000
GR     1000      9050      997     9899.9    994.2     9900    994.2     9906      988      9919
GR      988     10000      988     10081     994.2    10094    994.2    10100      997   10100.1
GR     1000     10450

      .07       .07      .04        .3       .5
ET                        9.1                                                   9850      10200
X1    5.563        13     9850     10100      540      535      540
GR      996      8140    994.2      8850      994     9085      992     9470      990      9790
GR    990.9      9815    989.5      9850    988.5    10000    988.9    10100      990     10370
GR      992     10655      994     10920      996    11105
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     3      4662      4662      4662
NC  .07       .07      .045       .1        .3
ET                     9.1                                                  9870      10250

            CROSS-SECTION AT 280 FEET(ALONG FLOW PATH) NORTH OF MCDOWELL RD.

            Q = Q AT CP286       (= 4662 CFS).

            DIVIDED FLOW OCCURS FOR THE NEXT TWO UPSTREAM CROSS-SECTIONS,
            HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
            X1= 5.960

X1   5.727       21      9935     10135       870       835       870
GR     999     8415       998      8710       996      9045       994      9250     992.4      9690
GR     994     9730     996.1      9780     993.5      9800     993.5      9830    1000.4      9870
GR    1000     9890       994      9900       992      9935       991     10000     991.8     10135
GR     992    10190       994     10550     994.6     10565       994     10600       996     10890
GR     998    11170

ET                      9.1                                                  9920      10300
X1   5.840       22      9970     10170       590       580       595
GR  1001.6     8460      1000      8815       998      9090       996      9400     994.5      9760
GR     996     9805     998.1      9840     993.5      9865     993.5      9895     998.6      9920
GR     998     9925       996      9940       994      9970     993.4     10000     993.7     10170
GR     994    10300       996     10605     996.3     10620     995.8     10650       996     10675
GR     998    10945      1000     11190

ET                      9.1                                                  9960      10400
X1   5.960       16      9960     10150       640       610       635
GR    1002     8825      1000      9240       998      9760       997      9910     997.3      9960
GR     996     9990     995.9     10000       996     10010     996.2     10150       996     10230
GR   996.2    10520     997.3     10680       997     10715       998     10935      1000     11210
GR    1002    11560

ET                      9.1                                                  9800      10300
X1   6.086       12      9900     10100       655       685       665
GR    1004     8350      1002      9210      1000      9650     999.6      9810     999.2      9900
GR   998.3    10000     999.2     10100       999     10420     999.7     10495      1000     10720
GR    1002    10990      1004     11285

ET                      9.1                                                  9670      10300
X1   6.217       15      9900     10100       620       745       690
GR    1006     8300      1004      9175      1002      9565    1001.2      9630    1001.7      9665
GR  1000.6     9695    1000.3      9900    1000.1     10000    1000.3     10100    1000.7     10445
GR  1001.5    10535    1001.4     10600      1002     10730      1004     11080      1006     11110

ET                      9.1                                                  9650      10300
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            ***************************************************************
            ***************************************************************

            AREA UPSTREAM OF X-SECTION 6.320 AND DOWNSTREAM OF X-SECTION
            9.189 IS CURRENTLY UNDER CONSTRUCTION.  NO FLOODPLAIN HAS BEEN
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PREPARED FOR THIS AREA OF BULLARD WASH, HOWEVER, THE HEC-2
ANALYSIS WAS CONTINUED BASED ON EXISTING CONDITIONS AT THE TIME
OF THE AERIAL MAPPING TO COMPUTE WATER SURFACE ELEVATIONS
UPSTREAM AND DOWNSTREAM OF THIS REACH.

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****

X1	6.320	13	9900	10100	580	525	545			
GR	1008	8860	1006	9230	1004	9555	1002.5	9660	1002	9670
GR	1001.3	9900	1000.9	10000	1001.4	10100	1002	10480	1003.1	10800
GR	1004	11030	1006	11060	1007	11220				
ET			9.1						9400	10300
X1	6.414	16	9900	10100	595	425	495			
GR	1010	8440	1008	8890	1006.7	9020	1006	9045	1004	9295
GR	1002.9	9900	1002.6	10000	1003.6	10100	1004	10430	1004.7	10455
GR	1005	10770	1004.5	10900	1006	11000	1008	11310	1010	11665
GR	1013.1	11685								
ET			9.1						9025	10200
X1	6.509	15	9900	10100	530	500	505			
GR	1010	8470	1008	8750	1006	8885	1004.2	9370	1004.1	9650
GR	1004.3	9740	1004.8	9900	1004.4	10000	1004.7	10100	1006	10345
GR	1006.3	10360	1006.1	10400	1006.5	11380	1008	11465	1013.1	11510
ET			9.1						8720	10100
X1	6.627	13	9900	10100	650	580	620			
GR	1010	8330	1008	8630	1007	8850	1007	9615	1007.3	9850
GR	1007.5	9900	1006.8	10000	1008	10100	1008.6	10120	1009	10500
	1008.5	11050	1010	11160	1011.6	11200				
NC	.07	.07	.04	.3	.5					
ET			9.1						8550	10200

DIVIDED FLOW OCCURS AT THIS CROSS-SECTION,HOWEVER, THIS FLOW
IS EFFECTIVE DUE TO UPSTREM INFLOW AT X1= 6.877

X1	6.674	23	9955	10120	200	350	250			
GR	1012.9	7135	1012.7	7565	1012	7950	1010.5	8300	1010.5	8580
GR	1012	8600	1014	8750	1014.5	9160	1014	9410	1012	9910
GR	1010	9955	1008.5	10000	1009.3	10010	1009.1	10060	1010	10120
GR	1012	10185	1013.7	10200	1012.9	10360	1012	10370	1011.5	10900
GR	1012	11135	1014	11390	1014.7	11410				

1

ET		6.1	9.1			7600	11300		8300	10690

ROOSEVELTT IRRIGATION DISTRICT CANAL.
FLOW WILL WEIR OVER THE CANAL AND GO THROUGH AN OVRCHUTE HERE.
EFFECTIVE FLOW LIMITS ARE IMPOSED,

X1	6.864	20	9930	10080	500	500	1000			
	1015.2	7110	1014	7140	1012.2	7660	1012.9	8060	1012.7	8485
GR	1013.2	9620	1012	9805	1011.5	9930	1010	9980	1009	10000
GR	1010	10020	1011.6	10080	1011	10265	1012.1	10695	1012.3	10970
GR	1012	11000	1011.5	11250	1012	11970	1014	12315	1014.5	12340
QT	3	4703	4703	4703						

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NC      .07       .07       .04       .1        .3
ET                6.1       9.1                           7600      11300                   8250      10550

                  CROSS-SECTION AT THOMAS RD. EXTENDED
                  EFFECTIVE FLOW LIMITS ARE IMPOSED.
                  Q = Q AT CP268       (= 4703 CFS).

X1     6.877       18      9915     10050        70        70        70
GR    1015.2     7110      1014      7160    1012.4      7230    1012.8      7755    1012.2      8220
GR    1012.8     8680    1013.3      9440    1012.1      9715    1012.5      9870      1012      9915
GR      1010     9980    1009.5     10000      1010     10020      1012     10050      1012     10650
GR      1014    11320    1014.6     11560    1014.8     11845

NC      .07       .07      .035        .1        .3
ET                6.1       9.1                           9000      11800                   9630      11090

                  ANY WSEL EXTENSION IS DUE TO THE LIMITING ELEVATION  AT THE LEFT
                  OVERBANK

                  EFFECTIVE FLOW LIMITS ARE IMPOSED.

                  DIVIDED FLOW OCCURS FOR THE NEXT FOUR UPSTREAM CROSS-SECTIONS,
                  HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
                  X1= 7.552

X1     7.045       21      9920     10055       350       350       885
GR    1013.5     7680      1012      8360    1011.4      8750    1011.7      9040    1011.4      9745
GR    1011.9     9920    1011.1     10000      1012     10005      1014     10055      1016     10140
GR      1014    10160      1012     10170      1012     10270      1014     10325      1012     10350
GR      1012    10480    1012.5     10490      1012     10495      1012     11725      1014     12285
GR      1016    12770

QT         3     4088      4088      4088
ET                6.1       9.1                           9200      11600                   9575      11025

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                  Q = Q AT 1I268       (= 4088 CFS).

                  EFFECTIVE FLOW LIMITS ARE IMPOSED.

X1     7.124       25      9980     10018       420       420       420
GR    1016.1     7680      1016      7715      1014      8155    1012.7      9770    1013.3      9980
GR      1012     9992    1011.6     10000      1012     10004      1014     10009    1014.5     10018
GR      1014    10070      1012     10095      1015     10115      1014     10125    1012.3     10175
GR    1012.3    10245    1013.8     10260    1013.8     10340      1012     10350      1012     10480
GR    1012.5    10490      1012     10495      1012     11405      1014     11785      1016     12280

ET                          9.1                                                           9650      10680
X1     7.267       22      9980     10019       755       755       755
GR    1018.2     7760      1018      7800      1016      8915    1014.7      9770    1015.7      9980
GR      1014     9993    1013.6     10000      1014     10005      1016     10019    1016.1     10030
GR      1016    10040      1015     10050      1016     10060    1016.5     10075    1015.4     10115
GR    1013.8    10185    1014.8     10280      1014     10345    1012.9     10675      1014     11215
GR      1016    11575      1018     12020

ET                          9.1                                                           9741      10710
X1     7.407       19      9980     10025       740       740       740
GR    1020.7     7825      1020      9290      1018      9520    1017.2      9925    1017.9      9980
GR    1016.1    10000      1018     10015    1018.5     10025      1018     10035    1015.5     10047
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GR   1015.5    10097     1018     10104    1019.9    10115     1018    10135     1016     10245
GR   1014.7    10690     1016     11185     1018     11510     1020    11900

ET                        9.1                                                     9750     10450
     7.552        10     9980     10020     765       765      765
     1023      8285     1022      8515     1020      9290    1018.6     9945    1018.5     9980
GR   1018.1    10000   1018.9     10020   1018.5     10730     1020    11475     1022     12030

ET                        9.1                                                     9850     10390
X1   7.670        11     9980     10015     625       625      625
GR    1025      8280     1024      8470     1022      9190     1020     9695    1019.2     9980
GR   1018.2    10000   1019.9     10015     1020     10140     1022    11420     1024     11425
GR    1026     12055

ET                        9.1                                                     9850     10400
X1   7.799        13     9970     10015     680       680      680
GR    1026      8270   1026.8      8530     1024      9250     1022     9635     1020      9970
GR   1019.9     9980   1019.2     10000     1020     10015    1020.8    10190     1022     10715
GR    1024     11240     1026     11610     1028     12250

ET                        9.1                                                     9900     10500
X1   7.924        14     9970     10010     660       660      660
GR   1029.2     8255     1028      8655     1026      9310     1024     9640    1022.2     9970
GR    1022      9990   1021.1     10000     1022     10010    1022.8    10285    1023.2    10630
GR    1024     11040     1026     11500     1028     11770     1029    12100
1
   150CT92     09:14:53                                                                    PAGE   16


     .03       .03      .013       .3        .5
Q1     3      4121      4121     4121
ET                        9.1                                                     9920     10670

                AT INDIAN SCHOOL RD.  2 - 8FT x 4FT  BC

                Q = Q AT CP253       (= 4121 CFS).

X1   7.977        17     9990     10010     280       280      280
X3    10                                                        1025.3    1025.3
GR    1028      8845   1027.2      9095   1026.8      9420    1026.1     9765    1026.1     9985
GR   1021.4     9990   1021.4     10000   1021.4     10010    1026.1    10015    1026.1    10045
GR    1026     10285   1025.4     10410   1025.7     10670    1025.3    10945     1026     11180
GR   1026.7    11470     1028     11735

SC   2.013       .5      2.7         0        4         8       30       8.1    1021.6    1021.4
ET                        9.1                                                     9920     10670
X1   7.983        17     9990     10010      30        30       30
X2                         2               1025.3
X3    10                                                        1025.3    1025.3
BT    -12      8845     1028               9095    1027.2                9420    1026.8
BT             9765   1026.1              10045    1026.1               10285     1026
BT            10410   1025.4              10670    1025.7               10945    1025.3
BT            11180     1026              11470    1026.7               11735     1028
GR    1028      8845   1027.2      9095   1026.8      9420    1026.1     9765    1026.1     9985
GR   1021.6     9990   1021.6     10000   1021.6     10010    1026.1    10015    1026.1    10045
     1026     10285   1025.4     10410   1025.7     10670    1025.3    10945     1026     11180
GR   1026.7    11470     1028     11735

NC    .07       .07      .035       .3        .5
ET                        9.1                                                     9870     10325
X1   8.069        13     9960     10070      455       455      455
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GR     1030      8935      1028      9150      1026      9700    1024.2      9960      1024      9980
GR     1024     10000      1024     10045    1024.2     10070      1026     10460      1028     11120
GR   1028.7     11300    1028.4     11480      1030     11665

NV      .07       .07      .035        .1        .3
                            9.1                                                   9880     10175
X1    8.169        12      9980     10020       525       525       525
GR     1030      8895    1029.1      8980    1029.4      9045      1028      9575      1026      9940
GR   1025.6      9980    1024.6     10000    1025.3     10020      1026     10130      1028     10520
GR     1030     10945      1031     11335

ET                          9.1                                                   9925     10230
X1    8.292        11      9980     10020       650       650       650
GR   1032.5      8800      1032      9140      1030      9650      1028      9960    1027.3      9980
GR   1026.2     10000    1027.9     10020      1028     10050      1030     10540      1032     11170
GR     1033     11360
1
   150CT92     09:14:53                                                                                PAGE   17


ET                          9.1                                                   9870     10230
X1    8.364        17      9975     10025       370       410       380
GR     1033      8680      1032      9360      1030      9900    1028.6      9940    1029.2      9975
GR     1028      9990    1027.4     10000      1028     10010    1029.9     10025    1029.3     10070
GR     1030     10140      1032     10500    1033.7     10920    1033.5     11350      1034     11525
GR     1036     11635      1037     12070

ET                          9.1                                                   9860     10770
X1    8.468        17      9980     10025       460       460       550
GR   1034.5      9080      1034      9440    1033.2      9660      1032      9945    1030.8      9965
GR   1031.6      9980      1030      9990    1029.6     10000      1030     10010      1032     10015
GR   1033.5     10025    1032.6     10055      1034     10195    1033.6     10580      1034     10830
GR     1036     11985      1038     12655

QT        3      4183      4183      4183
ET                          9.1                                                   9750     10995

                Q = (Q AT CP241 "AFTER STORAGE ROUTING" +Q AT CP253)/2
                  = (4245 + 4121)/2 = 4183 CFS.

X1    8.544        20      9975     10100       530       130       400
GR     1040      8715      1038      9200      1037      9470      1036      9770    1035.7      9880
GR     1035      9975    1034.5     10000    1034.8     10100      1036     10215    1036.1     10445
GR     1036     10640    1034.5     10990    1034.4     11300    1034.9     11625    1035.1     11955
GR     1036     12300    1036.3     12525      1037     12875      1038     13095    1038.6     13335

ET                          9.1                                                   9960     11200

                DIVIDED FLOW OCCURS FOR THE NEXT THREE UPSTREAM CROSS-SECTIONS,
                HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
                X1= 8.965

X1    8.636        22      9960     10010       340       340       490
GR     1040      9170      1038      9760    1037.1      9960    1036.1     10000      1038     10010
GR   1039.5     10040    1039.6     10040      1040     10060      1042     10100    1042.1     10105
GR     1042     10110      1041     10120      1041     10175      1040     10195      1038     10215
GR   1037.4     10300    1037.9     10475    1036.5     10970      1037     11410    1036.8     11950
GR     1038     12600      1040     13425

ET                          9.1                                                   9950     11000
X1    8.726        23      9950     10010       475       475       475
```

```
GR     1042      9230      1040      9470      1039.4    9680      1038.5    9835      1038.8    9950
GR     1038      9990      1037.4    10000     1038      10003     1040      10010     1041      10045
GR     1042      10075     1043.8    10120     1041.5    10125     1041.5    10180     1043      10190
GR     1040      10215     1039.2    10295     1039.5    10445     1038.8    11060     1039.7    11530
GR     1039.3    12425     1040      12565     1042      13160

ET                         9.1                                                           9770      10600
X1     8.848     18        9970      10020     540       540       645
GR     1044      8970      1042      9520      1041.8    9560      1042.1    9675      1042      9760
GR     1040.7    9860      1042      9915      1042.3    9970      1042      9995      1040.6    10000
GR     1042      10006     1044      10009     1045      10020     1044      10030     1043.1    10315
GR     1042.9    10810     1043.6    11490     1043.9    12010
1
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ET                         9.1                                                           9740      10190
X1     8.965     12        9970      10033     615       615       615
GR     1048      8770      1046      9180      1044      9665      1042.9    9935      1043.5    9970
GR     1042.7    10000     1044      10010     1044.7    10033     1044.1    10070     1044.4    10275
GR     1046      10810     1046.3    11050

ET                         9.1                                                           9775      10038
X1     9.034     12        9970      10038     365       365       365
GR     1050      8700      1048      9175      1046      9535      1044      9865      1043.9    9970
GR     1043.4    10000     1044      10008     1045.7    10038     1045.4    10075     1046      10250
GR     1048      10820     1048.2    10960

NC     .03       .03       .013      .3        .5
       3         4243      4243      4243
ET                         9.1                                                           9470      10070

                CITY OF GOODYEAR CORPORATE LIMITS-SOUTH.
                MARICOPA COUNTY,UNINCORPORATED AREAS-NORTH.

                AT CAMELBACK RD.  4 - 52 INCH  CP

                Q = Q AT CP241       (= 4243 CFS).

X1     9.095     13        9978      10022     320       320       320
X3     10                                                                  1046.3    1046.3
GR     1050      8960      1048.4    9210      1048      9480      1046.3    9715      1048      9910
GR     1048.5    9975      1042.3    9978      1042.3    10000     1042.3    10022     1048.5    10025
GR     1049.2    10300     1049.5    10665     1050      11165

SC     4.013     .5        2.7       0         4.5       0         30        1.1       1042.5    1042.3
ET                         9.1                                                           9470      10070
X1     9.100     13        9978      10022     30        30        30
X2                         2                   1046.3
X3     10                                                                  1046.3    1046.3
BT     -10       8960      1050                9210      1048.4              9480      1048
BT               9715      1046.3              9910      1046                9978      1048.5
BT               10022     1048.5              10300     1049.2              10665     1049.5
BT               11165     1050
GR     1050      8960      1048.4    9210      1048      9480      1046.3    9715      1048      9910
       1048.5    9975      1042.5    9978      1042.5    10000     1042.5    10022     1048.5    10025
GR     1049.2    10300     1049.5    10665     1050      11165

NC     .045      .045      .03       .3        .5
ET                         9.1                                                           9645      10160
```

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

                    AREA UPSTREAM OF X-SECTION 6.320 AND DOWNSTREAM OF X-SECTION
                    9.189 IS CURRENTLY UNDER CONSTRUCTION.  NO FLOODPLAIN HAS BEEN
                    PREPARED FOR THIS AREA OF BULLARD WASH, HOWEVER, THE HEC-2
                    ANALYSIS WAS CONTINUED BASED ON EXISTING CONDITIONS AT THE TIME
                    OF THE AERIAL MAPPING TO COMPUTE WATER SURFACE ELEVATIONS
                    UPSTREAM AND DOWNSTREAM OF THIS REACH.

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

X1    9.189      20      9940    10160      470      460      470
GR     1054    8770    1052.2     8930   1052.5     9010     1052     9080     1050     9270
GR   1048.6    9445    1048.3     9535   1048.1     9600   1048.6     9645   1048.3     9770
GR   1048.6    9815    1048.8     9940     1048     9990   1047.9    10000     1048    10007
GR   1048.4   10035    1047.9    10105   1048.9    10160     1050    10250   1052.1    10565

NC     .045    .045       .03       .1       .3
QT        3    3693      3693     3693
ET                        9.1                                                 9690    10120

                    Q = Q AT 2I241       (= 3693 CFS).

X1    9.292      13      9900    10120      540      530      540
GR     1056    8880      1054     9090     1052     9325   1051.5     9600   1051.7     9690
GR   1051.1    9750    1051.8     9900   1051.4    10000     1052    10120     1054    10230
GR   1054.5   10270    1054.2    10340     1056    10415

ET                        9.1                                                 9500    10070
X1    9.396      20      9880    10070      570      515      550
GR     1060    8650      1058     8860     1056     9045     1055     9210   1054.1     9410
GR   1054.3    9500      1054     9565   1053.8     9590     1054     9620   1054.4     9720
GR   1054.2    9800    1054.7     9880   1054.2    10000   1054.7    10070   1054.5    10130
GR   1055.5   10290    1055.3    10365     1056    10510     1058    10745   1058.4    10755

ET                        9.1                                                 9425    10140
X1    9.493      15      9930    10140      490      515      515
GR     1064    8320      1062     8485     1060     8645     1058     9000   1056.2     9285
GR   1056.5    9425    1056.1     9545     1057     9750   1056.7     9805   1057.1     9930
GR   1056.1   10000    1056.7    10140     1058    10280     1060    10670   1060.3    10690

ET                        9.1                                                 9250    10065
X1    9.544      16      9920    10065      200      280      270
GR     1064    8240      1062     8440     1060     8600     1058     9005     1057     9200
GR   1057.5    9325      1057     9420     1058     9685   1058.3     9850     1058     9920
GR   1057.5   10000      1058    10065   1058.2    10115   1057.8    10315     1058    10390
GR     1060   10470

QT        3    3113      3113     3693
NC     .045    .045       .03       .3       .5
                          9.1                                                 9500    10056
```

```
                Q = Q AT 2I241        (= 3693 CFS).
                THIS Q  HAS BEEN REDUCED BY THE SAME AMOUNT THAT EXCEEDED THE
                CAPACITY OF THE CHANNEL AT THE UPSTREAM REACH  X1= 10.269 TO
                X1= 10.639,     THAT EXCEEDED FLOW WILL RETURN AT X1= 9.544

X1    9.641      15     9985    10015     180     750     510
GR    1064     8580     1062     8770    1060    8950    1058     9390   1057.5    9420
GR    1058     9610   1058.3     9655  1057.7    9740    1058     9815     1059    9940
GR    1058     9985     1057    10000    1058   10015    1060    10065     1061   10375

ET                       9.1                                               9600   10200
X1    9.741      13     9900    10115     480     300     530
GR    1064     9045     1062     9075    1060    9115  1058.3     9345   1058.8    9530
GR  1058.5     9600     1058     9620  1057.5    9900  1057.2    10000     1058   10115
GR    1060    10265     1060    10430  1060.5   10490

NC    .045     .045      .03       .1      .3
ET                       9.1                                               9590   10190
X1    9.807      13     9900    10140     335     345     345
GR    1064     8875     1062     9060    1060    9125    1059     9325   1059.6    9500
GR  1059.6     9555   1058.6     9590    1058    9645  1057.6     9900   1057.3   10000
GR    1058    10140     1060    10350  1061.1   10560

NC    .045     .045     .028       .1      .3
QT       3      762      762     1342
ET                       9.1                                               9860   10170

                Q = ROUTED FLOW FROM SUB. 222 TO SUB. 241     (= 1342 CFS).
                THIS Q  HAS BEEN REDUCED BY THE SAME AMOUNT THAT EXCEEDED THE
                CAPACITY OF THE CHANNEL AT THE UPSTREAM REACH  X1= 10.269 TO
                X1= 10.639,     THAT EXCEEDED FLOW WILL RETURN AT X1= 9.544

X1    9.898      11     9960    10055     650     320     480
GR  1060.7     9600     1060     9635  1058.5    9790  1059.8     9960     1058    9975
GR  1057.5    10000     1058    10035  1059.8   10055  1058.5    10145     1060   10325
GR  1061.4    10660

ET                       9.1                                               9950   10050
X1    9.994       7     9950    10050     600     490     510
GR  1062.1     9950     1060     9960    1058    9980  1057.7    10000     1058   10025
GR    1060    10035   1062.1    10050

ET                       9.1                                               9960   10045
X1   10.108       7     9960    10045     600     600     600
GR  1062.9     9960     1062     9970    1060    9975  1058.1    10000     1060   10025
GR    1062    10035   1062.9    10045

ET                       9.1                                               9950   10045
1
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            **  END DETAILED FLOODPLAIN\FLOODWAY ANALYSIS.

X1   10.197       7     9950    10045     470     470     470
     1063.6     9950     1062     9960    1060    9975  1058.4    10000     1060   10020
GR    1062    10030   1063.6    10045

QT       3      800      800     1380

            **  BEGIN APPROXIMATE FLOODPLAIN DELINEATION, UPSTREAM TO NORTHERN
```

AVENUE.

Q = Q AT CP222 (= 1380 CFS).
THIS Q HAS BEEN REDUCED TO THE CAPACITY OF THE CHANNEL PLUS A
MAXIMUM OF 1 FOOT OVER THE LIMITING ELEVATION AT THE RIGHT
OVERBANK (AT X1= 10.493 TO X1= 10.639).
EXCEEDED FLOW WILL RETURN AT X1= 9.544

```
X1   10.269     8    9960   10025     410     350     380
GR    1065    9940    1064    9950    1062    9960    1060    9970  1058.6   10000
GR    1060   10020    1062   10025  1064.6   10040

X1   10.328    10    9970   10020     335     290     310
GR  1067.8    9940    1066    9955    1062    9970    1060    9975  1058.8   10000
GR    1060   10015    1062   10020    1066   10025    1068   10030  1068.5   10040

X1   10.419    10    9975   10020     475     485     480
GR  1068.5    9940    1068    9955    1066    9970    1062    9975    1060    9980
GR  1059.1   10000    1060   10015    1062   10020    1066   10025  1067.2   10035
```

ANY WSEL EXTENSION AT X1= 10.493 TO X1= 10.639 IS DUE TO THE
LIMITING ELEVATION AT THE RIGHT OVERBANK.

```
X1   10.493     8    9895   10030     400     400     400
GR  1063.6    9885    1062    9895    1060    9910  1059.5    9940  1059.3   10000
GR    1060   10020    1062   10030  1063.6   10045

X1   10.587     8    9935   10040     490     490     490
GR  1064.5    9830    1064    9910    1062    9935    1060    9960  1059.6   10000
      1060   10025    1062   10040  1064.2   10060

NC    .045    .045     .03      .1      .3
X1   10.639     9    9925   10035     350     260     275
GR    1066    9780    1064    9880    1062    9925    1060    9960  1059.8   10000
GR    1060   10025    1062   10035    1064   10045  1065.4   10080

QT       3    1380    1380    1380
```

1

Q = Q AT CP222 (= 1380 CFS).

```
X1   10.709     8    9910   10040     420     340     370
GR    1067    9810    1066    9830    1064    9875    1062    9910    1060   10000
GR    1062   10040    1066   10065  1066.5   10090

X1   10.804     9    9900   10040     480     500     500
GR    1069    9790    1068    9815    1066    9860    1064    9900    1062   10000
GR    1064   10040    1066   10055    1068   10075  1068.2   10085

X1   10.889    10    9900   10040     450     450     450
GR  1070.2    9770    1070    9795    1068    9845    1066    9900  1064.5    9930
GR    1065    9955    1064   10000    1066   10040    1068   10055  1069.5   10075

X1   10.946     9    9930   10080     270     330     300
GR  1071.7    9815    1070    9875    1068    9930    1066    9970  1065.7   10000
GR    1066   10035    1068   10080    1070   10095  1071.3   10130

X1   10.995     9    9895   10045     220     290     260
```

```
GR     1073      9830      1072      9860      1070      9895      1068      9960    1067.2     10000
GR     1068     10035      1070     10045      1072     10070      1073     10090

X1   11.067        11      9920     10045       380       380       380
GR   1073.2      9570      1072      9680      1070      9810      1069      9870    1069.5      9920
GR     1068      9970    1067.6     10000      1068     10020      1070     10045      1072     10060
GR   1074.1     10095

X1   11.147        12      9920     10045       420       420       420
GR   1074.5      9235      1074      9265      1072      9430      1070      9855    1069.2      9920
GR     1068      9975    1067.8     10000      1068     10020      1070     10045      1072     10060
GR     1074     10095    1074.4     10100

X1   11.228         8      9920     10050       430       430       430
GR   1075.8      8990      1074      9170      1072      9320      1070      9920    1067.9     10000
GR     1070     10050      1074     10085    1075.3     10125

X1   11.306         9      9965     10090       400       400       410
GR     1076      9140      1074      9290      1072      9840      1070      9965    1068.8     10000
GR     1070     10090      1072     10155      1074     10175    1075.4     10215

X1   11.416         9      9930     10070       400       680       580
GR     1076      9415      1074      9655      1072      9855      1071      9930    1070.2     10000
GR     1071     10070      1072     10170      1074     10230    1074.7     10240

X1   11.510        14      9900     10100       340       640       500
GR     1076      9420      1074      9490      1072      9715    1071.5      9735      1072      9755
GR   1072.5      9835      1072      9900    1071.5     10000    1071.8     10100      1072     10165
GR     1074     10230    1074.6     10250      1076     10380      1080     10470
```



```
X1   11.580         8      9965     10100       315       460       365
GR   1076.2      9885      1076      9950      1074      9965      1072     10000      1074     10100
GR     1076     10165      1078     10170      1079     10230

QT         3      1377      1377      1377

                Q = Q AT CP221A     (= 1377 CFS).

X1   11.676         7      9955     10100       480       550       510
GR   1077.8      9835      1076      9930      1074      9955    1072.1     10000      1074     10100
GR     1076     10105    1080.2     10130

NC     .045       .07       .03        .1        .3
X1   11.775         8      9955     10075       520       560       520
GR   1077.5      9880      1076      9935      1074      9955    1072.2     10000      1074     10075
GR     1076     10125      1078     10150    1078.9     10185

X1   11.867         8      9960     10055       490       490       490
GR   1077.7      9825      1076      9935      1074      9960    1072.3     10000      1074     10055
GR     1076     10090      1078     10120    1079.4     10190

X1   11.970         9      9930     10060       540       540       540
GR   1078.6      9885      1078      9925      1076      9930      1074      9950    1072.4     10000
GR     1074     10060      1076     10090      1078     10115    1079.9     10180

X1   12.064         9      9935     10070       500       500       500
GR   1077.7      9800      1076      9920      1074      9935    1072.5     10000      1074     10070
GR     1076     10090      1078     10105      1080     10125    1080.8     10165
```

ANY WSEL EXTENSION AT X1= 12.150 TO X1= 12.534 IS DUE TO THE
LIMITING ELEVATION AT THE LEFT OVERBANK.

```
X1    12.150       7      9940     10080       450       450       450
GR    1077.2    9825      1076      9915      1074      9940    1072.5     10000      1074     10080
GR      1080   10120      1081     10170

X1    12.244       7      9910     10075       500       500       500
GR    1077.3    9850      1076      9910      1074      9940    1072.6     10000      1074     10075
GR      1080   10135    1080.4     10175

X1    12.345       7      9920     10095       530       530       530
GR    1077.3    9890      1076      9920      1074      9940    1072.6     10000      1074     10095
GR      1078   10145    1079.5     10190

X1    12.439       8      9955     10120       500       500       500
GR    1077.4    9900      1076      9935      1074      9955    1072.7     10000      1074     10120
GR      1076   10150      1078     10185    1079.3     10205
1
```



```
X1    12.534       8      9910     10075       500       500       500
GR    1077.5    9865      1076      9890      1074      9910    1072.7     10000      1074     10075
GR      1076   10125      1078     10150    1079.3     10160

QT        3    1000      1000      1350
        .035    .035      .035        .1        .3
```

Q = Q AT CP212 (= 1350 CFS).
THIS Q HAS BEEN REDUCED TO THE CAPACITY OF THE CHANNEL PLUS A
MAXIMUM OF 1 FOOT OVER THE LIMITING ELEVATION AT THE LEFT
OVERBANK. EXCEEDED FLOW WILL RETURN AT X1= 12.534

ANY WSEL EXTENSION AT X1= 12.633 TO X1= 13.161 IS DUE TO THE
LIMITING ELEVATION AT THE LEFT OVERBANK.

```
X1    12.633       6      9900     10100       790       180       520
GR      1080    9600    1079.6      9900    1079.4     10000    1079.6     10100      1080     10390
GR    1080.5   10490

NC      .045     .07       .04        .1        .3
X1    12.700       6      9920     10110       100       600       350
GR      1080    9920    1078.7     10000    1079.1     10110    1078.9     10680      1080     11010
GR    1082.4   11035

X1    12.758       6      9955     10070       250       470       310
GR    1080.3    9940      1080      9955    1078.9     10000    1079.3     10070      1080     10410
GR      1082   10830
```

CROSS-SEC. 60 FT.(ALONG FLOW PATH)SOUTH OF GLENDALE AV. EXTENDED

```
      12.867       7      9960     10055       580       580       580
GR    1080.9    9940      1080      9960    1079.4     10000      1080     10055      1080     10150
GR    1080.8   10390      1082     10640

X1    13.044       6      9910     10075       950       800       930
GR    1082.2    9900      1082      9910    1080.7     10000    1080.9     10075      1082     10490
```

```
GR     1084      11160

X1   13.161         5      9960     10085       650       580       620
GR     1084      9960    1082.3     10000    1082.5     10085      1084     10790    1084.5     11100

QT        3      1440      1440      1440

                Q = (Q AT 1I212 + DIVERTED FLOW FROM SUB.193 TO SUB. 212)/2
                  = (1344 + 1536)/2 = 1440 CFS.

                DIVIDED FLOW OCCURS FOR THE NEXT THREE UPSTREAM CROSS-SECTIONS,
1
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                HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
                X1= 13.556

X1   13.248        13      9950     10050       450       450       460
GR     1086      9900      1085      9935    1085.4      9950    1084.3      9975    1084.3     10000
GR   1084.3     10020      1086     10040    1086.6     10050      1086     10065    1084.6     10095
GR   1084.6     10510      1086     10985      1088     11600

X1   13.349        13      9955     10070       535       535       535
GR   1088.3      9910    1086.8      9930    1087.3      9955    1084.5      9975    1084.5     10000
GR   1084.5     10030      1086     10040      1087     10070      1086     10090    1084.7     10130
GR     1086     10610      1088     11235      1090     11980

X1   13.427        11      9960     10040       410       410       410
GR   1090.3      9910    1087.9      9945    1088.5      9960    1085.8     10000    1088.5     10040
GR     1088     10060      1086     10080    1085.8     10185      1086     10425      1088     10920
GR     1090     11615

NC      .07       .07       .07        .1        .3

                DIVIDED FLOW OCCURS FOR THE NEXT FOUR CROSS-SECTIONS DUE TO
                SHEET FLOW TYPE IN THIS REGION.

X1   13.556        10      9900     10100       750       460       680
GR   1092.2      9660      1092      9680      1090      9740    1089.6      9900    1089.4     10000
GR   1089.6     10100      1090     10365    1091.8     10970    1090.4     11100      1092     11170

X1   13.667        17      9870     10100       670       480       585
GR   1094.7      9320      1094      9370    1093.8      9385    1094.2      9410      1093      9440
GR   1093.5      9460    1093.1      9570      1094      9730    1094.2      9765    1091.2      9820
GR   1092.2      9870    1091.5     10000    1091.7     10100      1092     10270    1093.7     11610
GR   1093.3     11830    1094.1     11910

X1   13.782        17      9870     10085       700       580       610
GR   1098.3      8990      1098      9000      1097      9020    1097.5      9040      1096      9080
GR   1095.3      9200    1095.8      9870    1095.5     10000      1096     10085    1096.5     10270
GR   1096.1     10520    1096.9     10570    1094.8     10610      1095     10650    1095.4     11890
GR     1096     12475    1096.5     12530

X1   13.902        16      9900     10100       650       580       630
GR     1100      9070      1098      9170    1097.4      9700    1097.5      9900    1097.3     10000
GR   1097.3     10100    1097.8     10290      1098     10550    1098.7     10970    1098.5     11150
GR     1099     11300      1097     11350    1097.5     11390      1097     11420      1098     11605
GR   1099.1     11660

X1   14.023        13      9900     10100       640       600       640
GR   1102.3      9570      1102      9605      1100      9655    1099.5      9900    1099.3     10000
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GR   1099.5     10100     1100     10410     1100.4     10545     1100     10660     1099.5     10780
GR    1100      10910     1102     10960     1102.2     11000
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*PROF 1

CCHV=     .100 CEHV=     .300
*SECNO  .000
          ***  DUE TO THE COMPLEXITY OF THE DOWNSTREAM REACH (CROSS-SECTIONS
               0.000 TO 2.297),AN APPROXIMATE FLOODPLAIN DELINEATION HAS BEEN
               SHOWN IN THIS REACH.HOWEVER,A HEC-2 MODEL WAS SET UP INCLUDING
               THESE X-SECTIONS TO AID IN PRODUCING A REASONABLE APPROXIMATE
               DELINEATION.THIS APPROXIMATE DELINEATION IS AS SHOWN ON THE MAPS
               AND IS BASED ON ENGINEERING JUDGEMENT REFLCTING THE EXISTING
               TOPOGRAPHY,AND USING INFORMATION FROM THE HEC-2 MODEL TO
               ESTIMATE WHERE BREAKOUT FLOWS WILL OCCUR.
               ALSO, AN APPROXIMATE FLOODPLAIN DELINEATION HAS BEEN SHOWN FOR
               THE UPPERMOST REACH OF BULLARD WASH (CROSS-SECTIONS 10.269 TO
               14.023). THE HEC-2 MODEL WAS ALSO UTILIZED TO ESTIMATE THE
               APPROXIMATE DELINEATION IN THIS REACH.
               A DETAILED ANALYSIS WAS PERFORMED ON BULLARD WASH FROM CROSS-
               SECTION 2.371 TO 6.320 AND FROM 9.189 TO 10.197.

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

               THE AREA BETWEEN X-SECTION 6.320 AND X-SECTION
               9.189 IS CURRENTLY UNDER CONSTRUCTION.  NO FLOODPLAIN HAS BEEN
               PREPARED FOR THIS AREA OF BULLARD WASH, HOWEVER, THE HEC-2
               ANALYSIS WAS CONTINUED BASED ON EXISTING CONDITIONS AT THE TIME
               OF THE AERIAL MAPPING TO COMPUTE WATER SURFACE ELEVATIONS
               UPSTREAM AND DOWNSTREAM OF THIS REACH.

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


          ***  THE DISCHARGE IN FIELD 4 OF THE QT CARDS IS THE ACTUAL DISCHRAGE
               DERIVED FROM THE 100-YEAR 24-HOUR HEC1 MODEL. THIS DISCHRGE IS
               FOR COMPARISON PURPOSES ONLY AND NO PROFILE IS BEING COMPUTED
               FOR IT. DISCHARGES FOR PROFILES 1 & 2 ARE USED TO DELINEATE THE
               FLOODPLAIN AND FLOODWAY RESPECTIVELY. THESE DISCHARGES ARE BASED
               UPON THE CAPACITY OF THE CHANNEL PLUS A MAXIMUM OF 1 FOOT OVER
               THE TOP WHERE CAPACITY IS EXCEEDED. THESE SITUATIONS ARE
               DOCUMENTED THROUGHOUT THE HEC-2 MODEL.
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          **   BEGIN APPROXIMATE FLOODPLAIN DELINEATION
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CROSS-SECTION AT BUKEYE CANAL

Q = Q AT CP364 (= 3110 CFS).
THIS Q HAS BEEN REDUCED TO THE CAPACITY OF THE CHANNEL PLUS A MAXIMUM OF 1 FOOT OVER THE LIMITING ELEVATION AT THE RIGHT OVERBANK.
EXCEEDED FLOW WILL CONTINUE AS SHEET FLOW TO THE WEST.

.000	1.82	912.32	.00	912.00	912.34	.02	.00	.00	912.00
850.0	625.2	160.3	64.6	576.3	104.5	133.7	.0	.0	912.00
.00	1.08	1.53	.48	.070	.040	.070	.000	910.50	9326.62
.002525	0.	0.	0.	0	0	6	.00	1245.30	10571.93

*SECNO .047
3280 CROSS SECTION .05 EXTENDED .05 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.48

ANY WSEL EXTENSION AT X1= 0.047 TO X1= 0.616 IS DUE TO THE LIMITING ELEVATION AT THE RIGHT OVERBANK.

.047	2.55	912.55	.00	.00	912.55	.01	.21	.00	912.30
850.0	347.1	275.1	227.8	766.2	249.2	510.2	6.9	8.5	910.30
.11	.45	1.10	.45	.070	.040	.070	.000	910.00	9133.37
.000410	265.	250.	240.	3	0	0	.00	1686.63	10820.00

*SECNO .121
3280 CROSS SECTION .12 EXTENDED .23 FEET

.121	2.73	912.73	.00	.00	912.74	.01	.19	.00	912.70
850.0	111.4	232.9	505.7	287.5	190.2	810.6	19.5	22.2	910.40
.25	.39	1.22	.62	.070	.040	.070	.000	910.00	9452.89
.000590	390.	390.	390.	2	0	0	.00	1367.11	10820.00

*SECNO .201
3280 CROSS SECTION .20 EXTENDED .53 FEET

.201	3.03	913.03	.00	.00	913.05	.02	.30	.00	913.00
850.0	12.0	366.8	471.2	52.8	228.2	699.3	30.4	34.1	910.50
.36	.23	1.61	.67	.070	.040	.070	.000	910.00	9724.61
.000887	420.	420.	420.	2	0	0	.00	1095.39	10820.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .292
3280 CROSS SECTION .29 EXTENDED .89 FEET

.292	2.89	913.39	.00	.00	913.41	.02	.36	.00	913.30

850.0	7.9	301.6	540.6	31.4	208.8	880.3	42.0	45.3	912.10
.51	.25	1.44	.61	.070	.040	.070	.000	910.50	9860.27
.000645	480.	480.	480.	1	0	0	.00	939.73	10800.00

*SECNO .384

3265 DIVIDED FLOW

3280 CROSS SECTION .38 EXTENDED .49 FEET

DIVIDED FLOW OCCURS FOR THE NEXT FOUR UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 0.668

.384	2.69	913.69	.00	.00	913.70	.01	.29	.00	914.30
850.0	9.9	241.9	598.1	51.5	198.6	1214.2	56.5	59.6	912.70
.70	.19	1.22	.49	.070	.040	.070	.000	911.00	9688.08
.000541	490.	490.	490.	2	0	0	.00	1604.23	11370.00

*SECNO .488

3265 DIVIDED FLOW

3280 CROSS SECTION .49 EXTENDED .81 FEET

.488	2.01	914.01	.00	.00	914.02	.01	.32	.00	915.20
850.0	1.1	141.8	707.0	9.0	132.6	1293.2	74.7	78.8	913.50
.94	.13	1.07	.55	.070	.040	.070	.000	912.00	9875.31
.000648	545.	545.	545.	0	0	0	.00	1469.90	11365.00

*SECNO .531

3265 DIVIDED FLOW

3280 CROSS SECTION .53 EXTENDED .98 FEET

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

.531	1.38	914.18	.00	.00	914.18	.01	.16	.00	915.40
850.0	.1	37.2	812.8	.9	55.1	1319.2	82.1	86.4	914.20
1.05	.06	.67	.62	.070	.040	.070	.000	912.80	9897.62
.000757	230.	230.	230.	2	0	0	.00	1385.91	11350.00

*SECNO .616

3265 DIVIDED FLOW

3280 CROSS SECTION .62 EXTENDED .05 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.90

Q = Q AT CP364A (= 4895 CFS).

.616	2.25	916.05	.00	.00	916.19	.14	1.97	.04	916.50
4895.0	.0	411.6	4483.4	.0	120.0	1539.8	98.7	98.6	915.20
1.09	.02	3.43	2.91	.070	.040	.070	.000	913.80	9669.96
.006955	405.	450.	480.	6	0	0	.00	844.48	10830.00

CCHV= .100 CEHV= .300
*SECNO .668
3280 CROSS SECTION .67 EXTENDED .97 FEET

ANY WSEL EXTENSION AT X1= 0.668 TO X1= 1.378 IS DUE TO THE
LIMITING ELEVATION AT THE LEFT BANK.

.668	2.76	918.26	918.09	.00	918.74	.48	2.45	.10	917.30
4895.0	1659.0	930.4	2305.7	401.3	129.1	403.9	106.9	103.2	916.80
1.10	4.13	7.21	5.71	.045	.030	.045	.000	915.50	9620.00
.012123	200.	270.	290.	11	11	0	.00	665.47	10285.47

*SECNO .776
3280 CROSS SECTION .78 EXTENDED .35 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.39

.776	4.55	920.95	.00	.00	921.14	.19	2.37	.03	920.60
4895.0	.0	577.2	4317.8	.0	133.2	1266.6	122.0	110.8	917.90
1.15	.00	4.33	3.41	.000	.030	.045	.000	916.40	9975.00
.002116	535.	570.	570.	4	0	0	.00	510.12	10485.12

*SECNO .868
3280 CROSS SECTION .87 EXTENDED .47 FEET

.868	4.17	922.17	.00	.00	922.43	.26	1.27	.02	921.70
4895.0	.0	747.2	4147.8	.0	136.1	1099.3	136.7	116.5	919.80
1.18	.00	5.49	3.77	.000	.030	.045	.000	918.00	9970.00
.003296	495.	490.	485.	4	0	0	.00	515.69	10485.69

*SECNO .964
3280 CROSS SECTION .96 EXTENDED .92 FEET

.964	4.92	924.12	.00	.00	924.61	.49	2.11	.07	923.20
4895.0	.0	1739.3	3155.7	.0	229.1	771.9	149.7	122.0	922.50
1.21	.00	7.59	4.09	.000	.030	.045	.000	919.20	9970.00

.005474	505.	505.	505.	2	0	0	.00	441.24	10411.24

*SECNO 1.081

CROSS SECTION 1.08 EXTENDED .58 FEET

Q = Q AT CP364A (= 4895 CFS).
THIS Q HAS BEEN REDUCED BY THE SAME AMOUNT THAT EXCEEDED THE
CAPACITY OF THE CHANNEL AT THE UPSTREAM REACH X1= 1.474 TO
X1= 1.823, THAT EXCEEDED FLOW WILL RETURN AT X1= 0.964

1.081	3.28	926.28	.00	.00	926.37	.09	1.72	.04	925.70
2596.0	.0	779.9	1816.1	.0	281.2	817.0	164.4	128.3	925.00
1.28	.00	2.77	2.22	.000	.030	.045	.000	923.00	9955.00
.001187	595.	620.	610.	2	0	0	.00	451.38	10406.38

*SECNO 1.153

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

DIVIDED FLOW OCCURS FOR THE NEXT FOUR UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 1.435

1.153	3.68	926.68	.00	.00	926.76	.08	.39	.00	928.40
2596.0	.0	586.6	2009.4	.0	223.0	945.0	173.8	132.1	925.80
1.32	.00	2.63	2.13	.000	.030	.045	.000	923.00	9959.96
.000973	410.	380.	355.	3	0	0	.00	453.30	10422.36

*SECNO 1.236

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.236	3.45	927.45	927.45	.00	928.35	.90	.93	.25	930.20
2596.0	.0	1818.0	778.0	.0	207.0	207.6	181.7	135.5	928.30
1.34	.00	8.78	3.75	.000	.030	.045	.000	924.00	9974.25
.008002	435.	435.	435.	20	12	0	.00	242.61	10325.72

*SECNO 1.317

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

2 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.90

1.317	5.70	929.70	.00	.00	930.04	.34	1.63	.06	930.40
2596.0	.0	1655.1	940.9	.0	297.7	381.5	187.1	138.2	928.50
1.37	.00	5.56	2.47	.000	.030	.045	.000	924.00	9970.74
.002209	430.	430.	430.	3	0	0	.00	300.91	10314.63

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.378

3265 DIVIDED FLOW

1.378	6.38	930.38	.00	.00	930.64	.26	.59	.01	930.80
2596.0	.0	1444.6	1151.4	.0	285.0	516.1	192.3	140.5	928.80
1.39	.00	5.07	2.23	.000	.030	.045	.000	924.00	9965.18
.001666	345.	320.	295.	3	0	0	.00	370.84	10366.88

*SECNO 1.435

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CROSS-SECTION AT STATE ROUTE 85

1.435	4.87	931.17	931.17	.00	932.39	1.22	.87	.29	931.40
2596.0	.0	2555.5	40.5	.0	285.9	24.1	195.4	141.9	931.00
1.40	.00	8.94	1.68	.000	.030	.045	.000	926.30	9966.34
.008479	330.	300.	180.	20	15	0	.00	162.61	10128.96

*SECNO 1.474
3280 CROSS SECTION 1.47 EXTENDED .62 FEET

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

Q = Q AT CP336 (= 4899 CFS).
THIS Q HAS BEEN REDUCED TO THE CAPACITY OF THE CHANNEL PLUS A
MAXIMUM OF 1 FOOT OVER THE LIMITING ELEVATION AT THE RIGHT
OVERBANK. EXCEEDED FLOW WILL RETURN AT X1= 0.964

ANY WSEL EXTENSION AT X1= 1.474 TO X1= 1.823 IS DUE TO THE
LIMITING ELEVATION AT THE RIGHT OVERBANK.

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1.474	5.62	933.62	933.62	.00	934.04	.42	1.27	.08	932.00
2600.0	1465.5	961.6	172.9	760.5	118.6	72.8	198.4	144.8	932.00
1.41	1.93	8.11	2.38	.045	.030	.045	.000	928.00	9045.76
.004512	210.	210.	210.	4	12	0	.00	1034.24	10080.00

CCHV= .300 CEHV= .500
*SECNO 1.517
3280 CROSS SECTION 1.52 EXTENDED .19 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.98

1.517	2.68	934.88	.00	.00	934.94	.06	.80	.11	933.20
2600.0	1796.4	803.6	.0	1083.0	320.4	.0	210.2	154.5	934.70
1.47	1.66	2.51	.00	.045	.030	.000	.000	932.20	9266.45
.001146	500.	225.	160.	1	0	0	.00	813.55	10080.00

*SECNO 1.566
3280 CROSS SECTION 1.57 EXTENDED .11 FEET

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.566	3.71	936.21	936.21	.00	937.38	1.17	.67	.56	934.00
2600.0	140.4	2399.1	60.4	42.9	266.5	19.0	216.2	157.8	934.00
1.48	3.27	9.00	3.19	.045	.030	.045	.000	932.50	9914.72
.007773	320.	260.	210.	20	11	0	.00	150.28	10065.00

CCHV= .100 CEHV= .300
*SECNO 1.634
3280 CROSS SECTION 1.63 EXTENDED .97 FEET

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.06

1.634	5.27	938.27	.00	.00	938.66	.38	1.19	.08	934.00
2600.0	727.3	1573.5	299.2	269.4	262.5	106.2	220.2	159.4	934.00
1.50	2.70	5.99	2.82	.045	.030	.045	.000	933.00	9832.50
.001824	360.	360.	360.	3	0	0	.00	232.50	10065.00

*SECNO 1.680
3280 CROSS SECTION 1.68 EXTENDED .57 FEET

1.680	5.37	938.77	.00	.00	939.01	.24	.34	.01	934.00
2600.0	805.5	1399.3	395.2	396.5	279.1	171.0	224.1	160.8	934.00
1.52	2.03	5.01	2.31	.045	.030	.045	.000	933.40	9761.32
.001176	200.	240.	285.	2	0	0	.00	338.68	10100.00

*SECNO 1.745
3280 CROSS SECTION 1.75 EXTENDED .97 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.56

1.745	5.37	939.17	.00	.00	939.27	.10	.24	.01	934.50
2600.0	631.1	1329.0	639.9	419.4	410.7	439.1	232.3	163.7	934.50
1.56	1.50	3.24	1.46	.045	.030	.045	.000	933.80	9787.12
.000482	280.	345.	400.	2	0	0	.00	422.88	10210.00

*SECNO 1.823
3280 CROSS SECTION 1.82 EXTENDED .81 FEET

1.823	4.51	939.41	.00	.00	939.47	.06	.20	.00	936.00
2600.0	1094.0	896.1	609.9	950.7	317.0	461.9	245.9	169.3	936.00
1.62	1.15	2.83	1.32	.045	.030	.045	.000	934.90	9432.35
.000520	370.	410.	425.	2	0	0	.00	822.65	10255.00

*SECNO 1.893

3265 DIVIDED FLOW

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Q = Q AT CP336 (=4899 CFS).

DIVIDED FLOW OCCURS FOR THE NEXT FIVE UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 2.371

1.893	3.61	939.71	.00	.00	939.85	.14	.36	.02	937.00
4899.0	3225.2	1190.3	483.5	1448.1	252.9	231.6	259.0	176.0	937.00
1.65	2.23	4.71	2.09	.045	.030	.045	.000	936.10	9093.62
.001947	280.	370.	370.	2	0	0	.00	1080.16	10199.81

*SECNO 1.941

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .66

1.941	3.60	939.90	.00	.00	940.11	.21	.24	.02	940.00
4899.0	4627.7	271.3	.0	1277.9	66.3	.0	261.9	177.6	940.00
1.66	3.62	4.09	.00	.045	.030	.000	.000	936.30	8961.19
.004537	40.	255.	290.	2	0	0	.00	700.71	10024.29

CCHV= .100 CEHV= .300

*SECNO 1.988

3265 DIVIDED FLOW

1.988	3.80	940.10	.00	.00	940.30	.19	.18	.00	944.00
4899.0	4790.9	108.1	.0	1359.5	35.4	.0	263.3	178.3	944.00
1.66	3.52	3.06	.00	.045	.030	.000	.000	936.30	8915.50
.003961	35.	245.	280.	2	0	0	.00	696.81	10015.41

*SECNO 2.058

3265 DIVIDED FLOW

3280 CROSS SECTION 2.06 EXTENDED .27 FEET

ANY WSEL EXTENSION AT X1= 2.058 TO X1= 2.185 IS DUE TO THE
LIMITING ELEVATIONS AT THE LEFT OVERBANK.

2.058	4.67	941.27	.00	.00	941.42	.14	1.12	.00	944.00
4899.0	4612.2	286.8	.0	1546.4	78.3	.0	275.4	184.3	944.00
1.69	2.98	3.66	.00	.045	.030	.000	.000	936.60	8850.00
.002608	350.	370.	370.	2	0	0	.00	772.16	10024.75

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.185

3265 DIVIDED FLOW

3280 CROSS SECTION 2.18 EXTENDED .16 FEET

2.185	5.46	942.66	.00	.00	943.05	.39	1.56	.07	944.00
4899.0	4109.4	789.6	.0	846.6	139.0	.0	288.9	190.7	944.00
1.72	4.85	5.68	.00	.045	.030	.000	.000	937.20	9310.00
.004656	430.	670.	670.	2	0	0	.00	472.18	10034.94

*SECNO 2.297

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.93

** END OF APPROXIMATE FLOODPLAIN DELINEATION .

2.297	5.70	943.50	.00	.00	943.54	.04	.46	.03	941.30
4899.0	3868.5	433.0	597.5	2357.1	222.9	1049.4	319.2	201.3	940.80
1.83	1.64	1.94	.57	.045	.030	.070	.000	937.80	9438.68
.000301	610.	595.	450.	3	0	0	.00	1206.62	10645.29

*SECNO 2.371

** BEGIN DETAILED FLOODPLAIN\FLOODWAY ANALYSIS.

2.371	4.26	943.66	.00	.00	943.71	.04	.17	.00	942.00
4899.0	3581.6	443.4	874.0	2078.7	174.1	1148.2	354.0	215.3	940.70
1.90	1.72	2.55	.76	.045	.030	.070	.000	939.40	9277.62
.000570	400.	390.	500.	2	0	0	.00	1501.93	10779.55

*SECNO 2.435

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .62

2.435	4.01	943.91	.00	.00	944.02	.10	.29	.02	942.00
4899.0	2586.9	1274.9	1037.2	1299.5	313.9	933.7	376.9	226.8	941.70
1.94	1.99	4.06	1.11	.045	.030	.070	.000	939.90	9260.15
.001467	335.	335.	335.	2	0	0	.00	1482.58	10742.73

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.536
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CROSS-SECTION 30 FEET SOUTH OF LOWER BUKEYE RD. "EXTENDED"

Q = Q AT CP335 (= 4906 CFS).

2.536	2.30	945.80	945.80	.00	946.40	.60	1.71	.15	943.80
4906.0	791.1	1873.1	2241.8	167.5	207.5	795.1	399.7	241.9	943.70
1.97	4.72	9.03	2.82	.045	.030	.070	.000	943.50	9771.15
.011717	535.	535.	535.	20	11	0	.00	979.53	10750.68

*SECNO 2.680

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.47

DIVIDED FLOW OCCURS FOR THE NEXT TWO UPSTREAM CROSS-SECTIONS,
HOWEVER, THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 2.883

2.680	3.93	949.13	.00	.00	949.33	.20	2.89	.04	947.30
4906.0	539.6	2177.7	2188.7	310.1	435.8	1354.6	427.2	259.7	945.60
2.03	1.74	5.00	1.62	.045	.030	.070	.000	945.20	9565.75
.001927	735.	760.	725.	5	0	0	.00	1136.32	10774.45

*SECNO 2.771

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .58

2.771	3.31	950.61	.00	.00	950.81	.20	1.48	.00	949.40
4906.0	1353.9	624.2	2927.8	435.3	89.5	1094.5	447.7	271.8	948.20
2.07	3.11	6.98	2.68	.045	.030	.070	.000	947.30	9624.70
.005705	480.	480.	480.	3	0	0	.00	1066.90	10702.82

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.883

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.47

2.883	4.33	952.83	.00	.00	952.99	.16	2.18	.00	950.20
4906.0	2464.6	614.4	1827.0	815.6	105.0	921.6	470.8	284.7	950.10
2.12	3.02	5.85	1.98	.045	.030	.070	.000	948.50	9596.60
.002643	580.	590.	580.	1	0	0	.00	877.27	10473.87

*SECNO 2.977

Q = Q AT CP334 (= 4915 CFS).

2.977	4.37	954.27	.00	.00	954.68	.41	1.62	.08	951.50
4915.0	2276.9	1835.6	802.5	636.5	249.9	526.2	489.5	294.8	952.10
2.15	3.58	7.34	1.53	.045	.030	.070	.000	949.90	9642.89
.004041	500.	500.	500.	2	0	0	.00	871.33	10514.22

*SECNO 3.070

3.070	3.83	956.13	.00	.00	956.28	.15	1.57	.03	954.50
4915.0	1655.7	1153.4	2105.9	694.8	227.5	1146.6	509.1	306.0	953.20
2.20	2.38	5.07	1.84	.045	.030	.070	.000	952.30	9527.59
.002614	485.	490.	495.	2	0	0	.00	1123.98	10651.57

*SECNO 3.167

Q = Q AT 1I334 (= 4432 CFS).

3.167	3.46	957.36	.00	.00	957.48	.12	1.19	.00	955.10
4432.0	2044.8	727.1	1660.1	814.1	150.5	1058.3	532.5	318.7	954.90
2.26	2.51	4.83	1.57	.045	.030	.070	.000	953.90	9569.20
.002191	475.	510.	515.	2	0	0	.00	1088.78	10657.98

*SECNO 3.291

3265 DIVIDED FLOW

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .55

DIVIDED FLOW OCCURS FOR THE NEXT TWO UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 3.602

3.291	2.52	959.72	.00	.00	959.85	.13	2.37	.00	960.50
4432.0	.0	179.2	4252.8	.0	36.0	1531.6	559.4	333.5	960.10
2.32	.00	4.98	2.78	.000	.030	.070	.000	957.20	9986.41
.007133	660.	655.	650.	3	0	0	.00	880.55	10880.48

*SECNO 3.376

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.52

3.376	3.46	961.76	.00	.00	961.83	.08	1.98	.01	961.90
4432.0	255.6	172.7	4003.7	190.2	46.8	1846.2	577.9	344.1	961.00
2.38	1.34	3.69	2.17	.045	.030	.070	.000	958.30	9673.73
.003077	460.	450.	440.	2	0	0	.00	1205.55	10888.70

*SECNO 3.491

3.491	3.70	963.20	.00	.00	963.27	.08	1.44	.00	961.90
4432.0	1449.7	409.1	2573.2	664.1	102.0	1454.9	607.8	359.8	961.90
2.46	2.18	4.01	1.77	.045	.030	.070	.000	959.50	9597.03
.001901	605.	605.	605.	4	0	0	.00	1059.92	10656.95

CCHV= .100 CEHV= .300
*SECNO 3.602

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .68

CROSS-SECTION AT YUMA RD.

Q = Q AT CP316 (= 4438 CFS).

1

3.602	2.78	964.68	.00	.00	964.90	.23	1.58	.05	962.00
4438.0	426.8	2771.4	1239.8	234.6	599.2	620.9	632.7	372.4	962.00
2.50	1.82	4.63	2.00	.070	.040	.070	.000	961.90	9699.47
.004075	590.	590.	590.	1	0	0	.00	806.16	10505.63

*SECNO 3.702

3265 DIVIDED FLOW

DIVIDED FLOW OCCURS FOR THE NEXT TWO UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 4.101

3.702	3.36	966.76	.00	.00	966.92	.16	2.01	.01	963.90
4438.0	1899.4	1470.9	1067.7	877.3	308.0	595.4	651.8	383.1	964.00
2.55	2.16	4.77	1.79	.070	.040	.070	.000	963.40	9239.20
.003686	535.	525.	490.	3	0	0	.00	1003.67	10479.91

*SECNO 3.841

3265 DIVIDED FLOW

3.841	4.16	969.26	.00	.00	969.36	.11	2.44	.01	967.10
4438.0	2792.6	1077.2	568.3	1254.0	287.3	399.0	683.2	400.0	967.30
2.63	2.23	3.75	1.42	.070	.040	.070	.000	965.10	9185.54
.003004	735.	735.	735.	3	0	0	.00	999.61	10407.99

*SECNO 3.978

3.978	4.39	971.29	.00	.00	971.42	.13	2.05	.01	969.00
4438.0	1597.8	1998.1	842.1	1020.0	498.2	518.1	716.3	418.3	968.40
2.71	1.57	4.01	1.63	.070	.040	.070	.000	966.90	9234.97
.002670	725.	725.	725.	3	0	0	.00	1203.78	10438.75

*SECNO 4.101

4.101	4.46	973.16	.00	.00	973.28	.12	1.86	.00	971.00
4438.0	1810.9	1415.6	1211.6	975.4	342.2	682.9	746.5	435.7	970.90
2.78	1.86	4.14	1.77	.070	.040	.070	.000	968.70	9372.68
.003068	650.	650.	650.	1	0	0	.00	1121.26	10493.94

*SECNO 4.237

4.237	3.78	975.08	.00	.00	975.22	.14	1.93	.01	972.60
4438.0	1682.5	1967.7	787.8	950.0	477.3	488.7	778.6	452.3	972.00
2.85	1.77	4.12	1.61	.070	.040	.070	.000	971.30	9456.52
.002401	715.	715.	715.	2	0	0	.00	909.25	10365.77

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 4.356

4.356	3.94	976.54	.00	.00	976.67	.13	1.44	.00	973.50
4438.0	1835.2	1699.1	903.7	998.6	422.5	566.7	806.8	465.4	973.40
2.92	1.84	4.02	1.59	.070	.040	.070	.000	972.60	9499.28
.002188	630.	630.	630.	2	0	0	.00	894.56	10393.84

*SECNO 4.496

4.496	3.82	978.22	.00	.00	978.39	.17	1.71	.01	975.20
4438.0	1108.8	2306.4	1022.8	625.6	543.9	574.3	838.5	479.8	975.00
2.98	1.77	4.24	1.78	.070	.040	.070	.000	974.40	9633.19
.002444	740.	740.	740.	1	0	0	.00	800.31	10433.50

*SECNO 4.625

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .68

CROSS-SECTION AT VAN BUREN ST.

Q = Q AT CP298 (= 4446 CFS).

4.625	2.40	980.50	.00	.00	980.78	.28	2.35	.03	978.30
4446.0	474.9	3498.7	472.4	261.4	746.3	257.4	862.0	492.1	978.30
3.03	1.82	4.69	1.84	.070	.040	.070	.000	978.10	9600.36
.005255	680.	680.	680.	3	0	0	.00	778.15	10378.51

*SECNO 4.701

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.74

4.701	3.33	981.33	.00	.00	981.40	.06	.60	.02	980.00
4446.0	24.8	4401.1	20.1	58.0	2156.4	46.8	878.2	499.7	980.00
3.09	.43	2.04	.43	.070	.040	.070	.000	978.00	9598.20
.000699	400.	400.	400.	3	0	0	.00	876.90	10475.10

*SECNO 4.858

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .35

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.858	2.47	982.47	.00	.00	982.74	.27	1.28	.06	982.00
4446.0	2.9	4434.2	8.9	4.7	1055.3	14.5	910.0	514.4	982.00
3.14	.62	4.20	.62	.070	.040	.070	.000	980.00	9685.11
.005827	860.	830.	820.	3	0	0	.00	666.89	10352.00

*SECNO 5.009

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.51

5.009	3.68	985.58	.00	.00	985.72	.15	2.97	.01	983.70
4446.0	1563.4	2035.9	846.7	743.1	509.9	504.3	936.1	528.1	982.50
3.22	2.10	3.99	1.68	.070	.040	.070	.000	981.90	9604.63
.002567	800.	795.	840.	4	0	0	.00	803.32	10407.96

*SECNO 5.153

5.153	3.51	987.81	.00	.00	987.98	.17	2.25	.01	985.60
4446.0	2065.3	1888.3	492.4	934.6	424.5	334.7	966.3	542.8	985.40
3.29	2.21	4.45	1.47	.070	.040	.070	.000	984.30	9495.23
.003424	775.	765.	730.	2	0	0	.00	890.30	10385.54

*SECNO 5.282

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.55

5.282	3.86	989.36	.00	.00	989.43	.07	1.44	.01	987.00
4446.0	2505.5	1250.5	690.0	1606.1	385.6	578.5	999.7	559.6	986.00
3.38	1.56	3.24	1.19	.070	.040	.070	.000	985.50	9212.57
.001432	690.	680.	665.	2	0	0	.00	1261.83	10474.40

CCHV= .300 CEHV= .500
*SECNO 5.430

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .39

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

2495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 996.00 ELREA= 996.00

A 7-SPAN BRIDGE AT I-10

5.430	3.08	991.08	.00	.00	992.22	1.14	2.25	.53	997.00
4446.0	.0	4446.0	.0	.0	519.3	.0	1025.8	571.8	997.00

3.41	.00	8.56	.00	.000	.035	.000	.000	988.00	9912.54
.009631	680.	780.	820.	2	0	0	.00	174.93	10087.46

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 990.75 , NOT 991.08 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.05	1.60	2.60	.00	162.00	6.00	1203.00	2.00	988.00	988.00

*SECNO 5.460

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.49

CLASS B LOW FLOW

3420 BRIDGE W.S.= 991.26 BRIDGE VELOCITY= 10.04 CALCULATED CHANNEL AREA= 530.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	992.90	.00	0.	5319.	1203.	1190.	995.00	997.00	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 997.00 ELREA= 997.00

Q = Q AT CP287 (= 5319 CFS).

5.460	3.91	991.91	.00	.00	992.90	.99	.68	.00	997.00
5319.0	.0	5319.0	.0	.0	666.1	.0	1028.0	572.5	997.00
3.41	.00	7.99	.00	.000	.035	.000	.000	988.00	9910.79
.006187	160.	160.	160.	0	0	0	.00	178.41	10089.21

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .300 CEHV= .500
*SECNO 5.563

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.06

5.563	5.18	993.68	.00	.00	993.71	.04	.52	.29	989.50
5319.0	964.8	2454.7	1899.5	1328.6	1198.9	2089.4	1060.6	584.2	988.90
3.52	.73	2.05	.91	.070	.040	.070	.000	988.50	9147.47
.000376	540.	540.	535.	4	0	0	.00	1729.53	10877.00

CCHV= .100 CEHV= .300

*SECNO 5.727

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .25

CROSS-SECTION AT 280 FEET(ALONG FLOW PATH) NORTH OF MCDOWELL RD.

Q = Q AT CP286 (= 4662 CFS).

DIVIDED FLOW OCCURS FOR THE NEXT TWO UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 5.960

5.727	3.29	994.29	.00	.00	994.49	.20	.73	.05	992.00
4662.0	920.7	2595.2	1146.1	605.1	572.7	608.3	1123.5	613.7	991.80
3.59	1.52	4.53	1.88	.070	.045	.070	.000	991.00	9219.67
.004632	870.	870.	835.	2	0	0	.00	1276.17	10642.91

*SECNO 5.840

3265 DIVIDED FLOW

5.840	3.11	996.51	.00	.00	996.63	.12	2.13	.01	994.00
4662.0	1041.3	2138.9	1481.7	715.4	587.3	857.7	1150.1	631.5	993.70
3.66	1.46	3.64	1.73	.070	.045	.070	.000	993.40	9321.12
.002893	590.	595.	580.	4	0	0	.00	1360.99	10743.70

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 5.960

5.960	2.60	998.50	.00	.00	998.60	.10	1.97	.00	997.30
4662.0	305.9	1508.5	2847.6	249.9	442.4	1452.2	1180.9	651.1	996.20
3.73	1.22	3.41	1.96	.070	.045	.070	.000	995.90	9630.08
.003454	640.	635.	610.	3	0	0	.00	1373.63	11003.71

*SECNO 6.086

6.086	2.77	1001.07	.00	.00	1001.19	.12	2.59	.01	999.20
4662.0	745.6	1764.7	2151.7	481.7	464.9	1114.7	1213.5	672.9	999.20
3.80	1.55	3.80	1.93	.070	.045	.070	.000	998.30	9413.59
.004290	655.	665.	685.	4	0	0	.00	1451.48	10865.07

*SECNO 6.217

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.55

6.217	2.88	1002.98	.00	.00	1003.04	.06	1.84	.01	1000.30
4662.0	1152.4	1532.4	1977.2	811.1	556.3	1375.7	1252.0	696.7	1000.30

3.91	1.42	2.75	1.44	.070	.045	.070	.000	1000.10	9373.64
.001779	620.	690.	745.	3	0	0	.00	1528.09	10901.73

CNO 6.320

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AREA UPSTREAM OF X-SECTION 6.320 AND DOWNSTREAM OF X-SECTION 9.189 IS CURRENTLY UNDER CONSTRUCTION. NO FLOODPLAIN HAS BEEN PREPARED FOR THIS AREA OF BULLARD WASH, HOWEVER, THE HEC-2 ANALYSIS WAS CONTINUED BASED ON EXISTING CONDITIONS AT THE TIME OF THE AERIAL MAPPING TO COMPUTE WATER SURFACE ELEVATIONS UPSTREAM AND DOWNSTREAM OF THIS REACH.

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6.320	3.09	1003.99	.00	.00	1004.06	.07	1.01	.00	1001.30
4662.0	968.6	1679.5	2014.0	632.2	572.3	1429.2	1285.6	715.4	1001.40
3.98	1.53	2.93	1.41	.070	.045	.070	.000	1000.90	9555.93
.001943	580.	545.	525.	3	0	0	.00	1470.67	11026.60

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 6.414

6.414	2.66	1005.26	.00	.00	1005.35	.09	1.28	.01	1002.90
4662.0	2116.7	1593.6	951.7	1192.5	466.5	717.3	1314.5	733.9	1003.60
4.04	1.77	3.42	1.33	.070	.045	.070	.000	1002.60	9137.79
.003458	595.	495.	425.	2	0	0	.00	1812.72	10950.51

*SECNO 6.509

6.509	2.55	1006.65	.00	.00	1006.69	.05	1.34	.00	1004.80
4662.0	3112.6	1004.2	545.1	2028.4	416.1	694.8	1347.3	759.6	1004.70
4.13	1.53	2.41	.78	.070	.045	.070	.000	1004.10	8840.75
.002011	530.	505.	500.	1	0	0	.00	2548.06	11388.81

*SECNO 6.627

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .61

6.627	1.81	1008.61	.00	.00	1008.69	.08	1.99	.01	1007.50
4662.0	3869.1	786.8	6.1	1909.1	267.3	13.5	1386.2	790.1	1008.00
4.21	2.03	2.94	.45	.070	.045	.070	.000	1006.80	8538.31
.005400	650.	620.	580.	3	0	0	.00	1722.97	11058.16

CCHV= .300 CEHV= .500
*SECNO 6.674

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

DIVIDED FLOW OCCURS AT THIS CROSS-SECTION,HOWEVER, THIS FLOW
IS EFFECTIVE DUE TO UPSTREM INFLOW AT X1= 6.877

6.674	3.31	1011.81	1011.81	.00	1012.39	.58	1.72	.25	1010.00
4662.0	1458.6	3040.5	163.0	614.2	410.1	125.8	1394.5	798.6	1010.00
4.23	2.37	7.41	1.29	.070	.040	.070	.000	1008.50	7994.73
.011833	200.	250.	350.	20	17	0	.00	1338.85	11044.90

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 6.864

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.26

3470 ENCROACHMENT STATIONS= 7600.0 11300.0 TYPE= 1 TARGET= 3700.000

ROOSEVELTT IRRIGATION DISTRICT CANAL.
FLOW WILL WEIR OVER THE CANAL AND GO THROUGH AN OVRCHUTE HERE.
EFFECTIVE FLOW LIMITS ARE IMPOSED,

6.864	4.77	1013.77	.00	.00	1013.79	.02	1.23	.17	1011.50
4662.0	1375.1	1059.1	2227.9	2389.6	500.1	2510.5	1437.3	829.3	1011.60
4.41	.58	2.12	.89	.070	.040	.070	.000	1009.00	7600.00
.000653	500.	1000.	500.	8	0	0	.00	3700.00	11300.00

CCHV= .100 CEHV= .300
*SECNO 6.877

3470 ENCROACHMENT STATIONS= 7600.0 11300.0 TYPE= 1 TARGET= 3700.000

CROSS-SECTION AT THOMAS RD. EXTENDED
EFFECTIVE FLOW LIMITS ARE IMPOSED.
Q = Q AT CP268 (= 4703 CFS).

6.877	4.32	1013.82	.00	.00	1013.86	.04	.06	.00	1012.00
4703.0	2031.5	1153.3	1518.2	2588.3	430.7	1647.1	1445.4	835.2	1012.00

4.43	.78	2.68	.92	.070	.040	.070	.000	1009.50	7600.00
.001107	70.	70.	70.	2	0	0	.00	3659.78	11259.78

V= .100 CEHV= .300
*SECNO 7.045

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.63

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 9000.0 11800.0 TYPE= 1 TARGET= 2800.000

ANY WSEL EXTENSION IS DUE TO THE LIMITING ELEVATION AT THE LEFT OVERBANK

EFFECTIVE FLOW LIMITS ARE IMPOSED.

DIVIDED FLOW OCCURS FOR THE NEXT FOUR UPSTREAM CROSS-SECTIONS, HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT X1= 7.552

7.045	3.03	1014.13	.00	.00	1014.14	.01	.28	.00	1011.90
4703.0	1905.4	394.7	2402.9	2349.8	279.6	3387.8	1492.7	862.4	1014.00
4.58	.81	1.41	.71	.070	.035	.070	.000	1011.10	9000.00
.000419	350.	885.	350.	2	0	0	.00	2701.76	11800.00

*SECNO 7.124

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .64

3470 ENCROACHMENT STATIONS= 9200.0 11600.0 TYPE= 1 TARGET= 2400.000

Q = Q AT 1I268 (= 4088 CFS).

EFFECTIVE FLOW LIMITS ARE IMPOSED.

7.124	2.76	1014.36	.00	.00	1014.37	.01	.23	.00	1013.30
4088.0	815.5	97.4	3175.1	1098.0	59.1	3183.9	1542.6	886.9	1014.50
4.70	.74	1.65	1.00	.070	.035	.070	.000	1011.60	9200.00
.000777	420.	420.	420.	2	0	0	.00	2371.72	11600.00

*SECNO 7.267

3265 DIVIDED FLOW

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .47

7.267	2.52	1015.42	.00	.00	1015.47	.05	1.09	.01	1015.70
4088.0	142.3	87.9	3857.8	223.7	34.1	2124.7	1600.9	925.0	1016.00
4.82	.64	2.58	1.82	.070	.035	.070	.000	1012.90	9297.68
.003515	755.	755.	755.	2	0	0	.00	2020.19	11470.27

*SECNO 7.407

3265 DIVIDED FLOW

7.407	2.85	1017.55	.00	.00	1017.59	.04	2.12	.00	1017.90
4088.0	11.6	33.3	4043.1	35.7	20.0	2447.2	1642.4	955.5	1018.50
4.94	.32	1.67	1.65	.070	.035	.070	.000	1014.70	9748.01
.002386	740.	740.	740.	4	0	0	.00	1574.63	11436.81

*SECNO 7.552

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .68

7.552	2.03	1020.13	.00	.00	1020.20	.06	2.60	.01	1018.50
4088.0	860.2	307.3	2920.5	605.8	69.4	1680.3	1685.1	989.3	1018.90
5.05	1.42	4.43	1.74	.070	.035	.070	.000	1018.10	9237.78
.005222	765.	765.	765.	4	0	0	.00	2274.62	11512.40

*SECNO 7.670

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.60

7.670	3.88	1022.08	.00	.00	1022.13	.05	1.93	.00	1019.20
4088.0	1794.3	473.0	1820.7	1254.2	113.1	1650.1	1723.6	1021.8	1019.90
5.16	1.43	4.18	1.10	.070	.035	.070	.000	1018.20	9160.84
.002041	625.	625.	625.	3	0	0	.00	2259.36	11420.20

*SECNO 7.799

7.799	4.07	1023.27	.00	.00	1023.33	.06	1.20	.00	1020.00
4088.0	1203.3	642.6	2242.0	921.8	163.1	1706.6	1769.0	1052.4	1020.00
5.27	1.31	3.94	1.31	.070	.035	.070	.000	1019.20	9388.49
.001548	680.	680.	680.	3	0	0	.00	1662.66	11051.15

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 7.924

7.924	3.55	1024.65	.00	.00	1024.73	.08	1.39	.01	1022.20
4088.0	825.2	529.3	2733.5	548.1	113.2	1671.9	1807.8	1077.6	1022.00
5.36	1.51	4.68	1.63	.070	.035	.070	.000	1021.10	9532.08
.003042	660.	660.	660.	2	0	0	.00	1658.35	11190.43

CCHV= .300 CEHV= .500
*SECNO 7.977
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

AT INDIAN SCHOOL RD. 2 - 8FT x 4FT BC

Q = Q AT CP253 (= 4121 CFS).

7.977	5.60	1027.00	1027.00	.00	1027.38	.38	.35	.15	1021.40
4121.0	445.1	1056.9	2619.0	419.2	112.0	1736.0	1822.6	1090.2	1021.40
5.38	1.06	9.44	1.51	.030	.013	.030	.000	1021.40	9258.69
.000686	280.	280.	280.	20	12	0	.00	2272.17	11530.86

CIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	2	.013	.50	2.70	.00	4.00	8.00	30.00	8	1	1021.60	1021.40

CHART 8 - BOX CULVERT WITH FLARED WINGWALLS; NO INLET TOP EDGE BEVEL
SCALE 1 - WINGWALLS FLARED 30 TO 75 DEGREES

5130, EGIC= 1184.45..MAY BE TOO LARGE IF INLET CONTROLS.
5135, EGOC= 1130.06 ..MAY BE TOO LARGE IF OUTLET CONTROLS.
*SECNO 7.983

SPECIAL CULVERT INLET CONTROL + WEIR FLOW, EG = 1027.02
5150, EG OF 1027.02 LESS THAN XEG OF 1027.38
SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1184.45	1130.06	.00	3610.	489.	8.070	64.0	1025.30	2296.

7.983	5.54	1027.14	.00	.00	1027.38	.24	.00	.00	1021.60
4121.0	520.8	894.4	2705.7	531.5	110.8	1954.9	1824.2	1091.8	1021.60
5.39	.98	8.07	1.38	.030	.013	.030	.000	1021.60	9142.52
.000508	30.	30.	30.	3	0	0	.00	2417.48	11560.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .300 CEHV= .500
*SECNO 8.069

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .68

8.069	3.69	1027.69	.00	.00	1027.76	.07	.33	.05	1024.20
4121.0	1142.1	1340.0	1638.9	1067.0	401.5	1482.5	1853.2	1113.8	1024.20
5.46	1.07	3.34	1.11	.070	.035	.070	.000	1024.00	9234.93
.001099	455.	455.	455.	2	0	0	.00	1783.15	11018.08

CCHV= .100 CEHV= .300
*SECNO 8.169

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .55

8.169	3.99	1028.59	.00	.00	1028.74	.16	.96	.03	1025.60
4121.0	1326.7	849.6	1944.7	755.4	142.4	978.1	1882.3	1132.3	1025.30
5.51	1.76	5.96	1.99	.070	.035	.070	.000	1024.60	9353.09
.003633	525.	525.	525.	3	0	0	.00	1291.47	10644.56

*SECNO 8.292

8.292	4.63	1030.83	.00	.00	1030.99	.17	2.25	.00	1027.30
4121.0	1256.4	950.6	1914.0	716.8	157.1	1088.8	1910.9	1152.1	1027.90
5.58	1.75	6.05	1.76	.070	.035	.070	.000	1026.20	9439.26
.003292	650.	650.	650.	4	0	0	.00	1361.06	10800.32

*SECNO 8.364

8.364	4.77	1032.17	.00	.00	1032.40	.23	1.38	.02	1029.20
4121.0	1560.3	1230.3	1330.4	867.2	191.0	714.2	1927.7	1164.0	1029.90
5.61	1.80	6.44	1.86	.070	.035	.070	.000	1027.40	9247.86
.003875	370.	380.	410.	0	0	0	.00	1292.89	10540.75

*SECNO 8.468

8.468	4.83	1034.43	.00	.00	1034.76	.33	2.33	.03	1031.60
4121.0	1979.0	1255.9	886.1	880.2	162.9	653.6	1946.4	1181.2	1033.50
5.65	2.25	7.71	1.36	.070	.035	.070	.000	1029.60	9130.01
.006048	460.	550.	460.	3	0	0	.00	1948.63	11078.64

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 8.544

Q = (Q AT CP241 "AFTER STORAGE ROUTING" +Q AT CP253)/2
= (4245 + 4121)/2 = 4183 CFS.

8.544	1.78	1036.18	.00	.00	1036.25	.06	1.47	.03	1035.00
4183.0	123.6	687.3	3372.1	122.5	189.9	2145.0	1958.3	1193.8	1034.80
5.69	1.01	3.62	1.57	.070	.035	.070	.000	1034.40	9713.16
.004159	530.	400.	130.	1	0	0	.00	2728.90	12442.07

*SECNO 8.636

3265 DIVIDED FLOW

DIVIDED FLOW OCCURS FOR THE NEXT THREE UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 8.965

8.636	1.96	1038.06	.00	.00	1038.12	.06	1.88	.00	1037.10
4183.0	114.7	296.0	3772.3	102.8	68.6	2163.4	1977.4	1215.2	1038.00
5.74	1.12	4.32	1.74	.070	.035	.070	.000	1036.10	9741.96
.006824	340.	490.	340.	3	0	0	.00	2680.10	12625.23

*SECNO 8.726

3265 DIVIDED FLOW

8.726	2.94	1040.34	.00	.00	1040.39	.05	2.27	.00	1038.80
4183.0	808.9	484.9	2889.1	548.6	121.0	2308.1	2006.4	1246.4	1040.00
5.82	1.47	4.01	1.25	.070	.035	.070	.000	1037.40	9429.78
.003524	475.	475.	475.	4	0	0	.00	3044.47	12664.72

*SECNO 8.848

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .55

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
8.848	2.90	1043.50	.00	.00	1043.66	.16	3.24	.03	1042.30
4183.0	3229.4	368.4	585.3	1093.0	60.1	462.6	2035.1	1278.6	1045.00
5.87	2.95	6.13	1.27	.070	.035	.070	.000	1040.60	9104.11
.011736	540.	645.	540.	2	0	0	.00	2124.59	11404.85

*SECNO 8.965

2 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.33

8.965	3.51	1046.21	.00	.00	1046.27	.06	2.60	.01	1043.50
4183.0	2314.4	614.2	1254.4	1440.2	164.5	1024.8	2065.0	1306.5	1044.70
5.97	1.61	3.73	1.22	.070	.035	.070	.000	1042.70	9137.38
.002154	615.	615.	615.	4	0	0	.00	1838.90	10976.28

```
*SECNO 9.034
    9.034      3.74   1047.14       .00       .00   1047.28       .15       .99       .03   1043.90
   4183.0    2482.6    1037.5     662.9    1157.4     200.8     495.4    2083.8    1319.5   1045.70
     6.01      2.14      5.17      1.34      .070      .035      .070      .000   1043.40   9330.00
  .003498      365.      365.      365.         3         0         0       .00   1244.60  10574.59


CCHV=     .300 CEHV=     .500
*SECNO 9.095

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

                CITY OF GOODYEAR CORPORATE LIMITS-SOUTH.
                MARICOPA COUNTY,UNINCORPORATED AREAS-NORTH.

                AT CAMELBACK RD.  4 - 52 INCH  CP

                Q = Q AT CP241       (= 4243 CFS).

    9.095      6.63   1048.93   1048.93       .00   1049.78       .85       .35       .35   1042.30
   4243.0    1520.7    2691.5      30.8    1040.0     291.8      47.1    2095.7    1328.0   1042.30
     6.02      1.46      9.23       .66      .030      .013      .030      .000   1042.30   9127.05
  .000523      320.      320.      320.        20        11         0       .00   1067.25  10194.30
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    4         .013      .50       2.70      .00       4.50      .00       30.00     1         1         1042.50   1042.30

CHART  1 - CONCRETE PIPE CULVERT; NO BEVELED RING ENTRANCE
SCALE  1 - SQUARE EDGE ENTRANCE WITH HEADWALL

5130, EGIC= 1222.54..MAY BE TOO LARGE IF INLET CONTROLS.
5135, EGOC= 1161.27 ..MAY BE TOO LARGE IF OUTLET CONTROLS.
*SECNO 9.100

SPECIAL CULVERT INLET CONTROL + WEIR FLOW, EG =   1049.01
5150, EG OF  1049.01 LESS THAN XEG OF  1049.78
SPECIAL CULVERT

    EGIC      EGOC       H4     QWEIR     QCULV       VCH     ACULV     ELTRD    WEIRLN
  1222.54   1161.27      .00     3678.      597.     8.321      63.6   1046.30     1108.
```

9.100	6.65	1049.15	.00	.00	1049.78	.63	.00	.00	1042.50
4243.0	1749.4	2437.0	56.6	1235.6	292.9	95.6	2096.7	1328.7	1042.50
6.02	1.42	8.32	.59	.030	.013	.030	.000	1042.50	9091.80
.000423	30.	30.	30.	4	0	0	.00	1191.13	10282.93

CCHV= .300 CEHV= .500
*SECNO 9.189

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .38

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AREA UPSTREAM OF X-SECTION 6.320 AND DOWNSTREAM OF X-SECTION 9.189 IS CURRENTLY UNDER CONSTRUCTION. NO FLOODPLAIN HAS BEEN PREPARED FOR THIS AREA OF BULLARD WASH, HOWEVER, THE HEC-2 ANALYSIS WAS CONTINUED BASED ON EXISTING CONDITIONS AT THE TIME OF THE AERIAL MAPPING TO COMPUTE WATER SURFACE ELEVATIONS UPSTREAM AND DOWNSTREAM OF THIS REACH.

****
****

9.189	2.28	1050.18	1049.51	.00	1050.34	.16	.42	.14	1048.80
4243.0	2408.6	1739.6	94.7	997.6	421.1	67.5	2113.5	1340.6	1048.90
6.06	2.41	4.13	1.40	.045	.030	.045	.000	1047.90	9253.43
.002927	470.	470.	460.	15	14	0	.00	1022.74	10276.17

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO 9.292

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .45

Q = Q AT 2I241 (= 3693 CFS).

9.292	1.61	1052.71	.00	.00	1053.00	.29	2.62	.04	1051.80
3693.0	2412.3	1256.2	24.5	665.3	233.6	14.1	2128.3	1352.7	1052.00
6.10	3.63	5.38	1.74	.045	.030	.045	.000	1051.10	9240.83
.010883	540.	540.	530.	3	0	0	.00	918.56	10159.40

*SECNO 9.396

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.91

9.396	2.01	1055.81	.00	.00	1055.91	.10	2.89	.02	1054.70
3693.0	2433.3	858.0	401.7	1054.1	258.3	259.7	2144.3	1367.4	1054.70
6.16	2.31	3.32	1.55	.045	.030	.045	.000	1053.80	9076.44

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   .002986      570.      550.      515.        5        0        0      .00  1394.08  10470.53


*SECNO 9.493
     9.493     1.63  1057.73      .00      .00  1057.89      .16     1.96      .02  1057.10
    3693.0   2474.1    1129.9     89.0    943.0    265.0     57.0   2160.5    1382.3  1056.70
      6.21     2.62      4.26     1.56     .045     .030     .045     .000  1056.10  9042.96
   .005432      490.      515.      515.        3        0        0      .00  1207.81  10250.78


*SECNO 9.544
     9.544     1.81  1058.81      .00      .00  1058.90      .09     1.00      .01  1058.00
    3693.0   2718.5     487.0    487.5   1164.0    153.2    277.8   2167.7    1389.4  1058.00
      6.23     2.34      3.18     1.76     .045     .030     .045     .000  1057.00  8841.61
   .003824      200.      270.      280.        2        0        0      .00  1580.67  10422.28


CCHV=     .300 CEHV=     .500
*SECNO 9.641

                Q = Q AT 2I241       (= 3693 CFS).
                THIS Q  HAS BEEN REDUCED BY THE SAME AMOUNT THAT EXCEEDED THE
1
   15OCT92      09:14:53                                                                                    PAGE   56


                CAPACITY OF THE CHANNEL AT THE UPSTREAM REACH  X1= 10.269 TO
                X1= 10.639,     THAT EXCEEDED FLOW WILL RETURN AT X1= 9.544

     9.641     2.65  1059.65      .00      .00  1059.75      .09      .85      .00  1058.00
    3113.0   2781.9     279.1    51.9   1256.7     64.5     34.1   2176.7    1398.1  1058.00
      6.26     2.21      4.33     1.52     .045     .030     .045     .000  1057.00  9026.78
   .002755      180.      510.      750.        4        0        0      .00  1029.50  10056.28


*SECNO 9.741

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.29

     9.741     3.01  1060.21      .00      .00  1060.26      .04      .50      .02  1057.50
    3113.0   1638.3    1306.7    168.0   1393.8    587.6    221.1   2196.1    1410.5  1058.00
      6.35     1.18      2.22      .76     .045     .030     .045     .000  1057.20  9110.67
   .000527      480.      530.      300.        3        0        0      .00  1345.33  10456.00


CCHV=     .100 CEHV=     .300
*SECNO 9.807
     9.807     3.08  1060.39      .00      .00  1060.43      .04      .17      .00  1057.60
    3113.0   1371.5    1475.0    266.5   1230.3    676.1    304.7   2213.3    1420.9  1058.00
      6.41     1.11      2.18      .87     .045     .030     .045     .000  1057.30  9112.53
   .000488      335.      345.      345.        2        0        0      .00  1310.74  10423.27


CCHV=     .100 CEHV=     .300
*SECNO 9.898

2 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .41


                Q = ROUTED FLOW FROM SUB. 222 TO SUB. 241     (= 1342 CFS).
                THIS Q  HAS BEEN REDUCED BY THE SAME AMOUNT THAT EXCEEDED THE
                CAPACITY OF THE CHANNEL AT THE UPSTREAM REACH  X1= 10.269 TO
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X1= 10.639, THAT EXCEEDED FLOW WILL RETURN AT X1= 9.544

9.898	3.12	1060.62	.00	.00	1060.63	.01	.20	.00	1059.80
762.0	254.9	292.4	214.7	472.9	232.7	426.1	2233.7	1433.8	1059.80
6.59	.54	1.26	.50	.045	.028	.045	.000	1057.50	9603.86
.000170	650.	480.	320.	1	0	0	.00	870.17	10474.03

*SECNO 9.994

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .27

9.994	2.95	1060.65	.00	.00	1060.93	.29	.22	.08	1062.10
762.0	.0	762.0	.0	.0	177.8	.0	2241.8	1439.7	1062.10
6.62	.00	4.29	.00	.000	.028	.000	.000	1057.70	9956.92
.002367	600.	510.	490.	2	0	0	.00	82.71	10039.62

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 10.108

10.108	3.91	1062.01	.00	.00	1062.35	.34	1.41	.02	1062.90
762.0	.0	762.0	.0	.0	162.9	.0	2244.1	1440.7	1062.90
6.65	.00	4.68	.00	.000	.028	.000	.000	1058.10	9969.93
.002322	600.	600.	600.	2	0	0	.00	65.14	10035.07

*SECNO 10.197

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.42

** END DETAILED FLOODPLAIN\FLOODWAY ANALYSIS.

10.197	4.53	1062.93	.00	.00	1063.11	.18	.74	.02	1063.60
762.0	.0	762.0	.0	.0	223.0	.0	2246.2	1441.5	1063.60
6.69	.00	3.42	.00	.000	.028	.000	.000	1058.40	9954.18
.001148	470.	470.	470.	2	0	0	.00	84.56	10038.74

*SECNO 10.269

** BEGIN APPROXIMATE FLOODPLAIN DELINEATION, UPSTREAM TO NORTHERN AVENUE.

Q = Q AT CP222 (= 1380 CFS).
THIS Q HAS BEEN REDUCED TO THE CAPACITY OF THE CHANNEL PLUS A MAXIMUM OF 1 FOOT OVER THE LIMITING ELEVATION AT THE RIGHT OVERBANK (AT X1= 10.493 TO X1= 10.639).
EXCEEDED FLOW WILL RETURN AT X1= 9.544

10.269	4.68	1063.28	.00	.00	1063.46	.18	.35	.00	1062.00
800.0	2.7	794.1	3.2	4.1	233.4	4.8	2248.2	1442.2	1062.00
6.72	.67	3.40	.67	.045	.028	.045	.000	1058.60	9953.58

.000757	410.	380.	350.	2	0	0	.00	78.83	10032.41

*SECNO 10.328

10.328	4.70	1063.50	.00	.00	1063.77	.27	.28	.03	1062.00
800.0	3.7	795.2	1.1	4.2	188.9	1.4	2249.8	1442.7	1062.00
6.74	.88	4.21	.76	.045	.028	.045	.000	1058.80	9964.38
.001094	335.	310.	290.	2	0	0	.00	57.49	10021.87

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 10.419

10.419	4.89	1063.99	.00	.00	1064.28	.28	.50	.00	1062.00
800.0	2.2	795.6	2.2	2.5	185.5	2.5	2251.9	1443.3	1062.00
6.78	.89	4.29	.89	.045	.028	.045	.000	1059.10	9972.51
.001012	475.	480.	485.	2	0	0	.00	49.99	10022.49

*SECNO 10.493
3280 CROSS SECTION 10.49 EXTENDED .76 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.61

ANY WSEL EXTENSION AT X1= 10.493 TO X1= 10.639 IS DUE TO THE
LIMITING ELEVATION AT THE RIGHT OVERBANK.

10.493	5.06	1064.36	.00	.00	1064.38	.03	.08	.03	1062.00
800.0	5.7	785.5	8.8	15.6	613.5	23.3	2255.8	1444.2	1062.00
6.86	.37	1.28	.38	.045	.028	.045	.000	1059.30	9885.00
.000078	400.	400.	400.	2	0	0	.00	160.00	10045.00

*SECNO 10.587
3280 CROSS SECTION 10.59 EXTENDED .19 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .68

10.587	4.79	1064.39	.00	.00	1064.44	.05	.05	.01	1062.00
800.0	20.3	766.7	13.0	47.3	434.4	25.9	2262.3	1446.3	1062.00
6.94	.43	1.76	.50	.045	.028	.045	.000	1059.60	9846.88
.000167	490.	490.	490.	2	0	0	.00	213.13	10060.00

CCHV= .100 CEHV= .300
*SECNO 10.639

10.639	4.65	1064.45	.00	.00	1064.49	.04	.05	.00	1062.00
800.0	36.9	754.8	8.3	69.6	449.8	16.8	2265.7	1447.8	1062.00
6.99	.53	1.68	.50	.045	.030	.045	.000	1059.80	9858.05
.000176	350.	275.	260.	1	0	0	.00	197.92	10055.97

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 10.709

Q = Q AT CP222 (= 1380 CFS).

10.709	4.52	1064.52	.00	.00	1064.64	.12	.13	.02	1062.00
1380.0	58.6	1302.6	18.8	56.2	457.4	19.8	2270.3	1449.5	1062.00
7.03	1.04	2.85	.95	.045	.030	.045	.000	1060.00	9863.33
.000618	420.	370.	340.	1	0	0	.00	192.41	10055.74

*SECNO 10.804

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .40

10.804	2.98	1064.98	.00	.00	1065.35	.37	.63	.07	1064.00
1380.0	12.7	1362.6	4.7	9.8	278.9	3.7	2275.0	1451.5	1064.00
7.06	1.29	4.89	1.28	.045	.030	.045	.000	1062.00	9880.16
.003885	480.	500.	500.	2	0	0	.00	167.28	10047.44

*SECNO 10.889

10.889	2.80	1066.80	.00	.00	1067.19	.39	1.83	.01	1066.00
1380.0	9.9	1367.4	2.7	8.6	271.8	2.3	2278.0	1453.3	1066.00
7.08	1.16	5.03	1.15	.045	.030	.045	.000	1064.00	9878.29
.004264	450.	450.	450.	3	0	0	.00	167.63	10045.92

*SECNO 10.946

10.946	2.52	1068.22	.00	.00	1068.66	.44	1.46	.02	1068.00
1380.0	.4	1379.5	.1	.7	258.6	.2	2279.8	1454.4	1068.00
7.10	.58	5.34	.57	.045	.030	.045	.000	1065.70	9923.80
.005619	270.	300.	330.	1	0	0	.00	157.89	10081.69

*SECNO 10.995

10.995	2.64	1069.84	.00	.00	1070.39	.55	1.70	.03	1070.00
1380.0	.0	1380.0	.0	.0	231.9	.0	2281.3	1455.3	1070.00
7.11	.00	5.95	.00	.000	.030	.000	.000	1067.20	9900.11
.007673	220.	260.	290.	2	0	0	.00	144.10	10044.21

*SECNO 11.067

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.75

11.067	3.55	1071.15	.00	.00	1071.26	.12	.83	.04	1069.50
1380.0	328.4	1048.1	3.6	236.3	340.8	4.9	2284.9	1457.3	1070.00
7.15	1.39	3.08	.72	.045	.030	.045	.000	1067.60	9735.50
.001013	380.	380.	380.	4	0	0	.00	318.09	10053.60

*SECNO 11.147

11.147	3.72	1071.52	.00	.00	1071.61	.09	.34	.00	1069.20
1380.0	335.2	1038.8	6.0	369.8	386.4	8.7	2291.3	1461.3	1070.00
7.20	.91	2.69	.70	.045	.030	.045	.000	1067.80	9532.25
.000655	420.	420.	420.	3	0	0	.00	524.14	10056.39

*SECNO 11.228

11.228	3.92	1071.82	.00	.00	1071.89	.08	.29	.00	1070.00
1380.0	399.0	969.4	11.6	494.9	372.6	14.4	2299.5	1467.3	1070.00
7.26	.81	2.60	.80	.045	.030	.045	.000	1067.90	9375.08
.000678	430.	430.	430.	2	0	0	.00	690.82	10065.89

*SECNO 11.306

11.306	3.33	1072.13	.00	.00	1072.27	.14	.35	.02	1070.00
1380.0	171.5	1119.6	88.9	143.0	340.8	73.3	2306.2	1472.2	1070.00
7.30	1.20	3.29	1.21	.045	.030	.045	.000	1068.80	9805.26
.001155	400.	410.	400.	2	0	0	.00	351.01	10156.26

*SECNO 11.416

11.416	2.66	1072.86	.00	.00	1072.98	.12	.71	.00	1071.00
1380.0	177.3	992.6	210.1	138.5	316.0	146.8	2313.5	1476.9	1071.00
7.36	1.28	3.14	1.43	.045	.030	.045	.000	1070.20	9769.27
.001358	400.	580.	680.	2	0	0	.00	426.45	10195.72

*SECNO 11.510

11.510	1.98	1073.48	.00	.00	1073.53	.05	.55	.01	1072.00
1380.0	411.9	796.9	171.2	371.1	356.2	138.4	2321.5	1482.6	1071.80
7.43	1.11	2.24	1.24	.045	.030	.045	.000	1071.50	9548.38
.000945	340.	500.	640.	0	0	0	.00	664.76	10213.13

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 11.580

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

11.580	2.48	1074.48	1074.48	.00	1075.21	.73	.83	.20	1074.00
1380.0	1.2	1373.7	5.2	.9	200.2	3.8	2325.9	1486.0	1074.00
7.45	1.36	6.86	1.36	.045	.030	.045	.000	1072.00	9961.38
.011362	315.	365.	460.	20	11	0	.00	154.31	10115.69

*SECNO 11.676

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.76

Q = Q AT CP221A (= 1377 CFS).

11.676	4.06	1076.16	.00	.00	1076.29	.13	1.02	.06	1074.00
1377.0	29.7	1341.7	5.6	29.5	450.1	5.8	2330.0	1487.9	1074.00
7.50	1.01	2.98	.97	.045	.030	.045	.000	1072.10	9921.86
.000800	480.	510.	550.	5	0	0	.00	184.05	10105.92

CCHV= .100 CEHV= .300

*SECNO 11.775

11.775	4.35	1076.55	.00	.00	1076.69	.14	.40	.00	1074.00
1377.0	39.6	1276.6	60.8	36.8	414.9	79.8	2336.1	1490.4	1074.00
7.55	1.08	3.08	.76	.045	.030	.070	.000	1072.20	9914.56
.000738	520.	520.	560.	3	0	0	.00	217.41	10131.97

*SECNO 11.867

11.867	4.61	1076.92	.00	.00	1077.08	.16	.38	.01	1074.00
1377.0	85.3	1226.4	65.2	75.6	358.4	73.7	2341.9	1492.9	1074.00
7.59	1.13	3.42	.89	.045	.030	.070	.000	1072.30	9875.30
.000813	490.	490.	490.	1	0	0	.00	228.54	10103.84

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 11.970

11.970	4.91	1077.31	.00	.00	1077.41	.10	.33	.01	1076.00
1377.0	1.1	1316.2	59.7	2.1	498.4	80.0	2348.7	1495.4	1074.00
7.65	.52	2.64	.75	.045	.030	.070	.000	1072.40	9926.72
.000475	540.	540.	540.	2	0	0	.00	179.66	10106.38

*SECNO 12.064

12.064	5.03	1077.53	.00	.00	1077.60	.07	.18	.00	1074.00
1377.0	76.9	1264.2	35.9	120.4	577.6	59.3	2356.3	1498.1	1074.00
7.72	.64	2.19	.60	.045	.030	.070	.000	1072.50	9812.10
.000281	500.	500.	500.	2	0	0	.00	289.37	10101.46

*SECNO 12.150

3280 CROSS SECTION 12.15 EXTENDED .45 FEET

ANY WSEL EXTENSION AT X1= 12.150 TO X1= 12.534 IS DUE TO THE
LIMITING ELEVATION AT THE LEFT OVERBANK.

12.150	5.15	1077.65	.00	.00	1077.71	.06	.11	.00	1074.00
1377.0	112.6	1243.2	21.2	161.3	616.7	44.5	2364.5	1501.0	1074.00
7.78	.70	2.02	.48	.045	.030	.070	.000	1072.50	9825.00
.000229	450.	450.	450.	2	0	0	.00	279.37	10104.37

*SECNO 12.244
3280 CROSS SECTION 12.24 EXTENDED .48 FEET

12.244	5.17	1077.77	.00	.00	1077.83	.05	.11	.00	1076.00
1377.0	35.7	1307.2	34.2	67.6	687.7	71.3	2374.0	1504.1	1074.00
7.86	.53	1.90	.48	.045	.030	.070	.000	1072.60	9850.00
.000220	500.	500.	500.	1	0	0	.00	262.77	10112.77

*SECNO 12.345
3280 CROSS SECTION 12.35 EXTENDED .59 FEET

12.345	5.28	1077.88	.00	.00	1077.93	.04	.10	.00	1076.00
1377.0	18.1	1318.7	40.3	37.2	769.4	94.6	2384.5	1507.3	1074.00
7.95	.49	1.71	.43	.045	.030	.070	.000	1072.60	9890.00
.000166	530.	530.	530.	0	0	0	.00	253.63	10143.63

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 12.439
3280 CROSS SECTION 12.44 EXTENDED .57 FEET

12.439	5.27	1077.97	.00	.00	1078.00	.04	.08	.00	1074.00
1377.0	68.8	1253.0	55.3	104.0	762.8	123.2	2395.3	1510.4	1074.00
8.04	.66	1.64	.45	.045	.030	.070	.000	1072.70	9900.00
.000143	500.	500.	500.	1	0	0	.00	284.52	10184.52

*SECNO 12.534
3280 CROSS SECTION 12.53 EXTENDED .54 FEET

12.534	5.34	1078.04	.00	.00	1078.07	.04	.07	.00	1074.00
1377.0	62.4	1230.5	84.1	93.2	774.4	178.2	2407.0	1513.6	1074.00
8.13	.67	1.59	.47	.045	.030	.070	.000	1072.70	9865.00
.000131	500.	500.	500.	0	0	0	.00	285.33	10150.33

CCHV= .100 CEHV= .300
*SECNO 12.633
3280 CROSS SECTION 12.63 EXTENDED .12 FEET

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

Q = Q AT CP212 (= 1350 CFS).
THIS Q HAS BEEN REDUCED TO THE CAPACITY OF THE CHANNEL PLUS A
MAXIMUM OF 1 FOOT OVER THE LIMITING ELEVATION AT THE LEFT
OVERBANK. EXCEEDED FLOW WILL RETURN AT X1= 12.534

ANY WSEL EXTENSION AT X1= 12.633 TO X1= 13.161 IS DUE TO THE
LIMITING ELEVATION AT THE LEFT OVERBANK.

12.633	.72	1080.12	1080.12	.00	1080.30	.18	.18	.04	1079.60
1000.0	251.4	504.2	244.4	96.1	124.1	94.4	2414.6	1519.8	1079.60
8.17	2.61	4.06	2.59	.035	.035	.035	.000	1079.40	9600.00
.017306	790.	520.	180.	20	17	0	.00	814.10	10414.10

CCHV= .100 CEHV= .300
*SECNO 12.700
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

0 CROSS SECTION 12.70 EXTENDED .73 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 7.51

12.700	2.03	1080.73	.00	.00	1080.74	.01	.42	.02	1080.00
1000.0	.0	282.6	717.4	.0	312.4	1414.8	2426.9	1530.1	1079.10
8.37	.00	.90	.51	.000	.040	.070	.000	1078.70	9920.00
.000307	100.	350.	600.	5	0	0	.00	1097.64	11017.64

*SECNO 12.758
3280 CROSS SECTION 12.76 EXTENDED .66 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .41

12.758	2.06	1080.96	.00	.00	1081.00	.04	.25	.01	1080.00
1000.0	14.4	450.3	535.3	12.1	198.1	541.9	2439.3	1539.0	1079.30
8.44	1.19	2.27	.99	.045	.040	.070	.000	1078.90	9940.00
.001813	250.	310.	470.	3	0	0	.00	671.51	10611.51

*SECNO 12.867
3280 CROSS SECTION 12.87 EXTENDED .91 FEET

CROSS-SEC. 60 FT.(ALONG FLOW PATH)SOUTH OF GLENDALE AV. EXTENDED

12.867	2.40	1081.80	.00	.00	1081.84	.04	.83	.00	1080.00
1000.0	36.6	419.3	544.1	27.2	200.6	617.6	2450.0	1547.9	1080.00
8.56	1.35	2.09	.88	.045	.040	.070	.000	1079.40	9940.00

.001168	580.	580.	580.	1	0	0	.00	660.78	10600.78

*SECNO 13.044

0 CROSS SECTION 13.04 EXTENDED .58 FEET

13.044	2.09	1082.79	.00	.00	1082.81	.03	.98	.00	1082.00
1000.0	5.6	483.9	510.5	6.8	277.9	656.6	2467.1	1562.2	1080.90
8.75	.82	1.74	.78	.045	.040	.070	.000	1080.70	9900.00
.001097	950.	930.	800.	2	0	0	.00	852.66	10752.66

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 13.161

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .50

13.161	1.62	1083.92	.00	.00	1083.99	.07	1.16	.01	1084.00
1000.0	.0	468.6	531.4	.0	160.6	476.9	2477.8	1573.3	1082.50
8.83	.00	2.92	1.11	.000	.040	.070	.000	1082.30	9961.78
.004331	650.	620.	580.	1	0	0	.00	792.77	10754.54

*SECNO 13.248

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.47

Q = (Q AT 1I212 + DIVERTED FLOW FROM SUB.193 TO SUB. 212)/2
= (1344 + 1536)/2 = 1440 CFS.

DIVIDED FLOW OCCURS FOR THE NEXT THREE UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 13.556

13.248	1.56	1085.86	.00	.00	1085.91	.05	1.91	.00	1085.40
1440.0	31.0	300.4	1108.7	22.5	109.1	802.9	2486.0	1582.6	1086.60
8.91	1.38	2.75	1.38	.045	.040	.070	.000	1084.30	9905.16
.004144	450.	460.	450.	4	0	0	.00	999.96	10935.01

*SECNO 13.349

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.77

13.349	2.54	1087.04	.00	.00	1087.06	.03	1.15	.00	1087.30
1440.0	.5	384.7	1054.8	1.9	197.1	1060.7	2499.5	1594.9	1087.00

9.03	.29	1.95	.99	.045	.040	.070	.000	1084.50	9926.77
.001321	535.	535.	535.	3	0	0	.00	994.24	10935.74

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 13.427

3265 DIVIDED FLOW

13.427	1.94	1087.74	.00	.00	1087.77	.03	.71	.00	1088.50
1440.0	.0	97.8	1342.2	.0	55.5	1021.7	2510.5	1603.5	1088.50
9.11	.00	1.76	1.31	.000	.040	.070	.000	1085.80	9971.31
.002354	410.	410.	410.	2	0	0	.00	849.48	10854.74

CCHV= .100 CEHV= .300
*SECNO 13.556

3265 DIVIDED FLOW

2 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .34

DIVIDED FLOW OCCURS FOR THE NEXT FOUR CROSS-SECTIONS DUE TO
SHEET FLOW TYPE IN THIS REGION.

13.556	1.12	1090.52	.00	.00	1090.63	.11	2.83	.02	1089.60
1440.0	287.4	626.6	526.0	120.9	205.9	241.5	2520.2	1613.7	1089.60
9.17	2.38	3.04	2.18	.070	.070	.070	.000	1089.40	9724.12
.019780	750.	680.	460.	2	0	0	.00	836.44	11105.66

*SECNO 13.667

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.02

13.667	2.11	1093.31	.00	.00	1093.33	.02	2.69	.01	1092.20
1440.0	152.7	477.7	809.6	132.9	359.1	915.4	2532.3	1628.6	1091.70
9.32	1.15	1.33	.88	.070	.070	.070	.000	1091.20	9432.44
.002169	670.	585.	480.	5	0	0	.00	1627.94	11830.23

*SECNO 13.782

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .44

13.782	.99	1095.79	.00	.00	1095.82	.03	2.49	.00	1095.80
1440.0	154.4	15.0	1270.6	178.3	24.6	843.6	2549.2	1658.0	1096.00
9.43	.87	.61	1.51	.070	.070	.070	.000	1094.80	9116.73
.010983	700.	610.	580.	5	0	0	.00	2581.42	12266.11

*SECNO 13.902

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.15

13.902	1.48	1098.48	.00	.00	1098.49	.01	2.67	.00	1097.50
1440.0	574.4	251.2	614.4	619.6	224.5	689.4	2567.2	1690.0	1097.30
9.61	.93	1.12	.89	.070	.070	.070	.000	1097.00	9146.37
.002381	650.	630.	580.	4	0	0	.00	2002.70	11628.63

*SECNO 14.023

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .67

14.023	1.29	1100.59	.00	.00	1100.62	.03	2.13	.01	1099.50
1440.0	288.2	415.7	736.1	210.5	238.3	573.3	2585.4	1713.3	1099.50
9.73	1.37	1.74	1.28	.070	.070	.070	.000	1099.30	9640.22
.005349	640.	640.	600.	5	0	0	.00	1284.57	10924.78

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PROFILE FOR STREAM BULLARD WASH (WASH 10)

PLOTTED POINTS (BY PRIORITY) E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA

ELEVATION	910.	930.	950.	970.	990.	1010.	1030.	1050.	1070.	1090.
SECNO	CUMDIS									
.00	0. IEM	.	.	.	.	.	.	.	.	.
	50. IEM	.	.	.	.	.	.	.	.	.
	100. IEM	.	.	.	.	.	.	.	.	.
	150. IEM	.	.	.	.	.	.	.	.	.
	200. IE	.	.	.	.	.	.	.	.	.
.05	250. IE	.	.	.	.	.	.	.	.	.
	300. IE	.	.	.	.	.	.	.	.	.
	350. IE	.	.	.	.	.	.	.	.	.
	400. IE	.	.	.	.	.	.	.	.	.
	450. IE	.	.	.	.	.	.	.	.	.
	500. IE	.	.	.	.	.	.	.	.	.

	550.	IE	.	.	.	.	.	.	.	.	.	.
	600.	IE	.	.	.	.	.	.	.	.	.	.
.12	650.	IE	.	.	.	.	.	.	.	.	.	.
	700.	IE	.	.	.	.	.	.	.	.	.	.
	750.	IE	.	.	.	.	.	.	.	.	.	.
	800.	IE	.	.	.	.	.	.	.	.	.	.
	850.	IE	.	.	.	.	.	.	.	.	.	.
	900.	IE	.	.	.	.	.	.	.	.	.	.
	950.	IE	.	.	.	.	.	.	.	.	.	.
	1000.	IE	.	.	.	.	.	.	.	.	.	.
	1050.	ILE	.	.	.	.	.	.	.	.	.	.
.20	1100.	IME	.	.	.	.	.	.	.	.	.	.
	1150.	IME	.	.	.	.	.	.	.	.	.	.
	1200.	IME	.	.	.	.	.	.	.	.	.	.
	1250.	IME	.	.	.	.	.	.	.	.	.	.
	1300.	IRE	.	.	.	.	.	.	.	.	.	.
	1350.	IRE	.	.	.	.	.	.	.	.	.	.
	1400.	IRE	.	.	.	.	.	.	.	.	.	.
	1450.	IRE	.	.	.	.	.	.	.	.	.	.
	1500.	IRE	.	.	.	.	.	.	.	.	.	.
.29	1550.	IRE	.	.	.	.	.	.	.	.	.	.
	1600.	IRE	.	.	.	.	.	.	.	.	.	.
	1650.	IRE	.	.	.	.	.	.	.	.	.	.
	1700.	IRE	.	.	.	.	.	.	.	.	.	.
	1750.	IRE	.	.	.	.	.	.	.	.	.	.
	1800.	IRE	.	.	.	.	.	.	.	.	.	.
	1850.	IRE	.	.	.	.	.	.	.	.	.	.
	1900.	IRE	.	.	.	.	.	.	.	.	.	.
	1950.	IRE	.	.	.	.	.	.	.	.	.	.
	2000.	IRE	.	.	.	.	.	.	.	.	.	.
.38	2050.	CIE	.	.	.	.	.	.	.	.	.	.
	2100.	CIE	.	.	.	.	.	.	.	.	.	.
	2150.	CIE	.	.	.	.	.	.	.	.	.	.
	2200.	CIE	.	.	.	.	.	.	.	.	.	.
	2250.	CIE	.	.	.	.	.	.	.	.	.	.
	2300.	CIE	.	.	.	.	.	.	.	.	.	.
	2350.	CIE	.	.	.	.	.	.	.	.	.	.
	2400.	CIE	.	.	.	.	.	.	.	.	.	.
	2450.	CIE	.	.	.	.	.	.	.	.	.	.
	2500.	CIEL	.	.	.	.	.	.	.	.	.	.
	2550.	CIEL	.	.	.	.	.	.	.	.	.	.
.49	2600.	CIEL	.	.	.	.	.	.	.	.	.	.
	2650.	CIEL	.	.	.	.	.	.	.	.	.	.
	2700.	CIEL	.	.	.	.	.	.	.	.	.	.
	2750.	CIEL	.	.	.	.	.	.	.	.	.	.
	2800.	CIEL	.	.	.	.	.	.	.	.	.	.
.53	2850.	CIEL	.	.	.	.	.	.	.	.	.	.
	2900.	CIEL	.	.	.	.	.	.	.	.	.	.
	2950.	C EL	.	.	.	.	.	.	.	.	.	.
	3000.	C EL	.	.	.	.	.	.	.	.	.	.
	3050.	C IE	.	.	.	.	.	.	.	.	.	.
	3100.	C IE	.	.	.	.	.	.	.	.	.	.
	3150.	C IE	.	.	.	.	.	.	.	.	.	.
	3200.	C IE	.	.	.	.	.	.	.	.	.	.
	3250.	C IE	.	.	.	.	.	.	.	.	.	.
.62	3300.	C IE	.	.	.	.	.	.	.	.	.	.
	3350.	C IE	.	.	.	.	.	.	.	.	.	.
	3400.	C IWE	.	.	.	.	.	.	.	.	.	.
	3450.	C ILE	.	.	.	.	.	.	.	.	.	.
	3500.	C IE	.	.	.	.	.	.	.	.	.	.
.67	3550.	. IE	.	.	.	.	.	.	.	.	.	.
	3600.	C IE	.	.	.	.	.	.	.	.	.	.

	9850.	C	.	I E	.	.	.	.	.	.	.	.	.
	9900.	C	.	I E	.	.	.	.	.	.	.	.	.
	9950.	C	.	I E	.	.	.	.	.	.	.	.	.
1.89	10000.	C	.	ILE	.	.	.	.	.	.	.	.	.
	10050.	C	.	ILE	.	.	.	.	.	.	.	.	.
	10100.	C	.	ILE	.	.	.	.	.	.	.	.	.
	10150.	C	.	ILE	.	.	.	.	.	.	.	.	.
	10200.	C	.	I E	.	.	.	.	.	.	.	.	.
1.94	10250.	C	.	I E	.	.	.	.	.	.	.	.	.
	10300.	C	.	I E	.	.	.	.	.	.	.	.	.
	10350.	C	.	I EL	.	.	.	.	.	.	.	.	.
	10400.	C	.	I EL	.	.	.	.	.	.	.	.	.
	10450.	C	.	I E L	.	.	.	.	.	.	.	.	.
1.99	10500.	C	.	I E L	.	.	.	.	.	.	.	.	.
	10550.	C	.	I E L	.	.	.	.	.	.	.	.	.
	10600.	C	.	I E L	.	.	.	.	.	.	.	.	.
	10650.	C	.	I E L	.	.	.	.	.	.	.	.	.
	10700.	C	.	I E L	.	.	.	.	.	.	.	.	.
	10750.	C	.	I WEL	.	.	.	.	.	.	.	.	.
	10800.	C	.	I MEL	.	.	.	.	.	.	.	.	.
	10850.	C	.	I MEL	.	.	.	.	.	.	.	.	.
2.06	10900.	C	.	I EL	.	.	.	.	.	.	.	.	.
	10950.	C	.	I EL	.	.	.	.	.	.	.	.	.
	11000.	C	.	I EL	.	.	.	.	.	.	.	.	.
	11050.	C	.	I EL	.	.	.	.	.	.	.	.	.
	11100.	C	.	I EL	.	.	.	.	.	.	.	.	.
	11150.	C	.	I EL	.	.	.	.	.	.	.	.	.
	11200.	C	.	I EL	.	.	.	.	.	.	.	.	.
	11250.	C	.	I EL	.	.	.	.	.	.	.	.	.
	11300.	C	.	I EL	.	.	.	.	.	.	.	.	.
	11350.	C	.	I EL	.	.	.	.	.	.	.	.	.
	11400.	C	.	I EL	.	.	.	.	.	.	.	.	.
	11450.	C	.	I EL	.	.	.	.	.	.	.	.	.
	11500.	C	.	I EL	.	.	.	.	.	.	.	.	.
2.18	11550.	C	.	I WE	.	.	.	.	.	.	.	.	.
	11600.	C	.	I WE	.	.	.	.	.	.	.	.	.
	11650.	C	.	I WE	.	.	.	.	.	.	.	.	.
	11700.	C	.	I WE	.	.	.	.	.	.	.	.	.
	11750.	C	.	I WE	.	.	.	.	.	.	.	.	.
	11800.	C	.	I LE	.	.	.	.	.	.	.	.	.
	11850.	C	.	I LE	.	.	.	.	.	.	.	.	.
	11900.	C	.	I LE	.	.	.	.	.	.	.	.	.
	11950.	C	.	I LEM	.	.	.	.	.	.	.	.	.
	12000.	C	.	I LEM	.	.	.	.	.	.	.	.	.
	12050.	C	.	I LEM	.	.	.	.	.	.	.	.	.
	12100.	C	.	I LEM	.	.	.	.	.	.	.	.	.
2.30	12150.	C	.	IRLEM	.	.	.	.	.	.	.	.	.
	12200.	C	.	IRLEM	.	.	.	.	.	.	.	.	.
	12250.	C	.	IRLE M.	.	.	.	.	.	.	.	.	.
	12300.	C	.	IRLE M.	.	.	.	.	.	.	.	.	.
	12350.	C	.	IRLE M.	.	.	.	.	.	.	.	.	.
	12400.	C	.	IRLE M.	.	.	.	.	.	.	.	.	.
	12450.	C	.	ILE M.	.	.	.	.	.	.	.	.	.
	12500.	C	.	ILE M	.	.	.	.	.	.	.	.	.
2.37	12550.	C	.	ILE M	.	.	.	.	.	.	.	.	.
	12600.	C	.	ILE M	.	.	.	.	.	.	.	.	.
	12650.	C	.	ILE M	.	.	.	.	.	.	.	.	.
	12700.	C	.	ILE M	.	.	.	.	.	.	.	.	.
	12750.	C	.	ILE M	.	.	.	.	.	.	.	.	.
	12800.	C	.	ILE M	.	.	.	.	.	.	.	.	.
	12850.	C	.	ILE M	.	.	.	.	.	.	.	.	.
2.43	12900.	C	.	ILE M	.	.	.	.	.	.	.	.	.

	3650.	C	IWE	.	.	.	.	.	.	.	.	.	.
	3700.	C	IWE	.	.	.	.	.	.	.	.	.	.
	3750.	C	ILE	.	.	.	.	.	.	.	.	.	.
	3800.	C	ILE	.	.	.	.	.	.	.	.	.	.
	3850.	C	IRE	.	.	.	.	.	.	.	.	.	.
	3900.	C	IRE	.	.	.	.	.	.	.	.	.	.
	3950.	C	IRE	.	.	.	.	.	.	.	.	.	.
	4000.	C	IRE	.	.	.	.	.	.	.	.	.	.
	4050.	C	IRE	.	.	.	.	.	.	.	.	.	.
.78	4100.	C	IRWE	.	.	.	.	.	.	.	.	.	.
	4150.	C	IRLE	.	.	.	.	.	.	.	.	.	.
	4200.	C	IRLE	.	.	.	.	.	.	.	.	.	.
	4250.	C	IRLE	.	.	.	.	.	.	.	.	.	.
	4300.	C	I E	.	.	.	.	.	.	.	.	.	.
	4350.	C	I E	.	.	.	.	.	.	.	.	.	.
	4400.	C	IRE	.	.	.	.	.	.	.	.	.	.
	4450.	C	IRE	.	.	.	.	.	.	.	.	.	.
	4500.	C	IRE	.	.	.	.	.	.	.	.	.	.
	4550.	C	IRE	.	.	.	.	.	.	.	.	.	.
.87	4600.	C	IRE	.	.	.	.	.	.	.	.	.	.
	4650.	C	IRE	.	.	.	.	.	.	.	.	.	.
	4700.	C	IRE	.	.	.	.	.	.	.	.	.	.
	4750.	C	IRWE	.	.	.	.	.	.	.	.	.	.
	4800.	C	IRWE	.	.	.	.	.	.	.	.	.	.
	4850.	C	I LE	.	.	.	.	.	.	.	.	.	.
	4900.	C	I LE	.	.	.	.	.	.	.	.	.	.
	4950.	C	I LE	.	.	.	.	.	.	.	.	.	.
	5000.	C	I LE	.	.	.	.	.	.	.	.	.	.
	5050.	C	IRE	.	.	.	.	.	.	.	.	.	.
.96	5100.	C	IRE	.	.	.	.	.	.	.	.	.	.
	5150.	C	IRE	.	.	.	.	.	.	.	.	.	.
	5200.	C	IRE	.	.	.	.	.	.	.	.	.	.
	5250.	C	I WE	.	.	.	.	.	.	.	.	.	.
	5300.	C	I WE	.	.	.	.	.	.	.	.	.	.
	5350.	C	I WE	.	.	.	.	.	.	.	.	.	.
	5400.	C	ILE	.	.	.	.	.	.	.	.	.	.
	5450.	C	ILE	.	.	.	.	.	.	.	.	.	.
	5500.	C	ILE	.	.	.	.	.	.	.	.	.	.
	5550.	C	IRE	.	.	.	.	.	.	.	.	.	.
	5600.	C	IRE	.	.	.	.	.	.	.	.	.	.
	5650.	C	IRE	.	.	.	.	.	.	.	.	.	.
	5700.	C	IRE	.	.	.	.	.	.	.	.	.	.
1.08	5750.	C	IE	.	.	.	.	.	.	.	.	.	.
	5800.	C	IE	.	.	.	.	.	.	.	.	.	.
	5850.	C	IE	.	.	.	.	.	.	.	.	.	.
	5900.	C	IE	.	.	.	.	.	.	.	.	.	.
	5950.	C	IEL.	.	.	.	.	.	.	.	.	.	.
	6000.	C	IEL.	.	.	.	.	.	.	.	.	.	.
	6050.	C	IEL.	.	.	.	.	.	.	.	.	.	.
1.15	6100.	C	IEL.	.	.	.	.	.	.	.	.	.	.
	6150.	C	IEL.	.	.	.	.	.	.	.	.	.	.
	6200.	C	IWE.	.	.	.	.	.	.	.	.	.	.
	6250.	C	IWEL	.	.	.	.	.	.	.	.	.	.
	6300.	C	IREL	.	.	.	.	.	.	.	.	.	.
	6350.	C	I EL	.	.	.	.	.	.	.	.	.	.
	6400.	C	I EL	.	.	.	.	.	.	.	.	.	.
	6450.	C	I EL	.	.	.	.	.	.	.	.	.	.
	6500.	C	I EL	.	.	.	.	.	.	.	.	.	.
1.24	6550.	.	I EL	.	.	.	.	.	.	.	.	.	.
	6600.	C	I EL	.	.	.	.	.	.	.	.	.	.
	6650.	C	I EL	.	.	.	.	.	.	.	.	.	.
	6700.	C	I EL	.	.	.	.	.	.	.	.	.	.

	6750.	C	I WE	.	.	.	.	.	.	.	.	.
	6800.	C	I WE	.	.	.	.	.	.	.	.	.
	6850.	C	I RE	.	.	.	.	.	.	.	.	.
	6900.	C	I RE	.	.	.	.	.	.	.	.	.
	6950.	C	I RE	.	.	.	.	.	.	.	.	.
1.32	7000.	C	I RE	.	.	.	.	.	.	.	.	.
	7050.	C	I RE	.	.	.	.	.	.	.	.	.
	7100.	C	I RE	.	.	.	.	.	.	.	.	.
	7150.	C	I RE	.	.	.	.	.	.	.	.	.
	7200.	C	I RE	.	.	.	.	.	.	.	.	.
	7250.	C	I RE	.	.	.	.	.	.	.	.	.
1.38	7300.	C	I RE	.	.	.	.	.	.	.	.	.
	7350.	C	I EM	.	.	.	.	.	.	.	.	.
	7400.	C	I WE	.	.	.	.	.	.	.	.	.
	7450.	C	I WE	.	.	.	.	.	.	.	.	.
	7500.	C	I WE	.	.	.	.	.	.	.	.	.
	7550.	C	I REM	.	.	.	.	.	.	.	.	.
1.43	7600.	.	I .EM	.	.	.	.	.	.	.	.	.
	7650.	.	I .EM	.	.	.	.	.	.	.	.	.
	7700.	.	I.WE	.	.	.	.	.	.	.	.	.
	7750.	.	I.WE	.	.	.	.	.	.	.	.	.
1.47	7800.	.	I.LE	.	.	.	.	.	.	.	.	.
	7850.	C	I.LE	.	.	.	.	.	.	.	.	.
	7900.	C	ILE	.	.	.	.	.	.	.	.	.
	7950.	C	ILE	.	.	.	.	.	.	.	.	.
	8000.	C	.IE	.	.	.	.	.	.	.	.	.
1.52	8050.	C	.IE	.	.	.	.	.	.	.	.	.
	8100.	C	.ILE	.	.	.	.	.	.	.	.	.
	8150.	C	.ILE	.	.	.	.	.	.	.	.	.
	8200.	C	.ILE	.	.	.	.	.	.	.	.	.
	8250.	C	.ILE	.	.	.	.	.	.	.	.	.
1.57	8300.	.	.ILWE	.	.	.	.	.	.	.	.	.
	8350.	C	.ILWE	.	.	.	.	.	.	.	.	.
	8400.	C	.ILWE	.	.	.	.	.	.	.	.	.
	8450.	C	.ILME	.	.	.	.	.	.	.	.	.
	8500.	C	.ILME	.	.	.	.	.	.	.	.	.
	8550.	C	.ILME	.	.	.	.	.	.	.	.	.
	8600.	C	.IL E	.	.	.	.	.	.	.	.	.
1.63	8650.	C	. I E	.	.	.	.	.	.	.	.	.
	8700.	C	. I E	.	.	.	.	.	.	.	.	.
	8750.	C	. I E	.	.	.	.	.	.	.	.	.
	8800.	C	. I E	.	.	.	.	.	.	.	.	.
	8850.	C	. I E	.	.	.	.	.	.	.	.	.
1.68	8900.	C	. I WE	.	.	.	.	.	.	.	.	.
	8950.	C	. I WE	.	.	.	.	.	.	.	.	.
	9000.	C	. I WE	.	.	.	.	.	.	.	.	.
	9050.	C	. I WE	.	.	.	.	.	.	.	.	.
	9100.	C	. I ME	.	.	.	.	.	.	.	.	.
	9150.	C	. I ME	.	.	.	.	.	.	.	.	.
	9200.	C	. I ME	.	.	.	.	.	.	.	.	.
1.75	9250.	C	. I ME	.	.	.	.	.	.	.	.	.
	9300.	C	. I ME	.	.	.	.	.	.	.	.	.
	9350.	C	. I ME	.	.	.	.	.	.	.	.	.
	9400.	C	. ILME	.	.	.	.	.	.	.	.	.
	9450.	C	. ILME	.	.	.	.	.	.	.	.	.
	9500.	C	. ILME	.	.	.	.	.	.	.	.	.
	9550.	C	. ILME	.	.	.	.	.	.	.	.	.
	9600.	C	. ILME	.	.	.	.	.	.	.	.	.
1.82	9650.	C	. ILME	.	.	.	.	.	.	.	.	.
	9700.	C	. IME	.	.	.	.	.	.	.	.	.
	9750.	C	. I E	.	.	.	.	.	.	.	.	.
	9800.	C	. I E	.	.	.	.	.	.	.	.	.

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      16050.  C        .        .ILEM    .        .        .        .        .        .        .        .
      16100.  C        .        .ILEM    .        .        .        .        .        .        .        .
      16150.  C        .        .ILEM    .        .        .        .        .        .        .        .
      16200.  C        .        .ILEM    .        .        .        .        .        .        .        .
3.07  16250.  C        .        .ILEM    .        .        .        .        .        .        .        .
      16300.  C        .        .ILEM    .        .        .        .        .        .        .        .
      16350.  C        .        .ILEM    .        .        .        .        .        .        .        .
      16400.  C        .        .ILEM    .        .        .        .        .        .        .        .
      16450.  C        .        .ILE M   .        .        .        .        .        .        .        .
      16500.  C        .        . IE M   .        .        .        .        .        .        .        .
      16550.  C        .        . IE M   .        .        .        .        .        .        .        .
      16600.  C        .        . IWEM   .        .        .        .        .        .        .        .
      16650.  C        .        . I EM   .        .        .        .        .        .        .        .
      16700.  C        .        . ILEM   .        .        .        .        .        .        .        .
3.17  16750.  C        .        . ILEM   .        .        .        .        .        .        .        .
      16800.  C        .        . ILEM   .        .        .        .        .        .        .        .
      16850.  C        .        . ILE M  .        .        .        .        .        .        .        .
      16900.  C        .        . ILE M  .        .        .        .        .        .        .        .
      16950.  C        .        . ILE M  .        .        .        .        .        .        .        .
      17000.  C        .        .  IE M  .        .        .        .        .        .        .        .
      17050.  C        .        .  IE M  .        .        .        .        .        .        .        .
      17100.  C        .        .  IE M  .        .        .        .        .        .        .        .
      17150.  C        .        .  IE M  .        .        .        .        .        .        .        .
      17200.  C        .        .  IWEM  .        .        .        .        .        .        .        .
      17250.  C        .        .  IRE M .        .        .        .        .        .        .        .
      17300.  C        .        .  I E M .        .        .        .        .        .        .        .
      17350.  C        .        .  I E M .        .        .        .        .        .        .        .
3.29  17400.  C        .        .   IE M .        .        .        .        .        .        .        .
      17450.  C        .        .   IE M .        .        .        .        .        .        .        .
      17500.  C        .        .   IE M .        .        .        .        .        .        .        .
      17550.  C        .        .   IE M .        .        .        .        .        .        .        .
      17600.  C        .        .   IELM .        .        .        .        .        .        .        .
      17650.  C        .        .   IELM .        .        .        .        .        .        .        .
      17700.  C        .        .   IREM .        .        .        .        .        .        .        .
      17750.  C        .        .   IREM .        .        .        .        .        .        .        .
      17800.  C        .        .   IREM .        .        .        .        .        .        .        .
3.38  17850.  C        .        .   I EM .        .        .        .        .        .        .        .
      17900.  C        .        .   I EM .        .        .        .        .        .        .        .
      17950.  C        .        .   I EM .        .        .        .        .        .        .        .
      18000.  C        .        .   I EM .        .        .        .        .        .        .        .
      18050.  C        .        .   I E M.        .        .        .        .        .        .        .
      18100.  C        .        .   I E M.        .        .        .        .        .        .        .
      18150.  C        .        .   I E M.        .        .        .        .        .        .        .
      18200.  C        .        .   I E M.        .        .        .        .        .        .        .
      18250.  C        .        .    IE M.        .        .        .        .        .        .        .
      18300.  C        .        .    IE M.        .        .        .        .        .        .        .
      18350.  C        .        .    IWE M.       .        .        .        .        .        .        .
      18400.  C        .        .    ILE M.       .        .        .        .        .        .        .
3.49  18450.  C        .        .    ILE M.       .        .        .        .        .        .        .
      18500.  C        .        .    ILE M.       .        .        .        .        .        .        .
      18550.  C        .        .    ILE M.       .        .        .        .        .        .        .
      18600.  C        .        .    ILE M.       .        .        .        .        .        .        .
      18650.  C        .        .    ILE M.       .        .        .        .        .        .        .
      18700.  C        .        .    ILE M.       .        .        .        .        .        .        .
      18750.  C        .        .    ILE  M       .        .        .        .        .        .        .
      18800.  C        .        .    ILE  M       .        .        .        .        .        .        .
      18850.  C        .        .     IE  M       .        .        .        .        .        .        .
      18900.  C        .        .     IE  M       .        .        .        .        .        .        .
      18950.  C        .        .     IE  M       .        .        .        .        .        .        .
      19000.  C        .        .     IE  M       .        .        .        .        .        .        .
3.60  19050.  C        .        .     IE  M       .        .        .        .        .        .        .
      19100.  C        .        .     IWE M       .        .        .        .        .        .        .
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	12950.	C	.	ILE M	.	.	.	.	.	.	.	.
	13000.	C	.	ILE M	.	.	.	.	.	.	.	.
	13050.	C	.	ILE M	.	.	.	.	.	.	.	.
	13100.	C	.	IE M	.	.	.	.	.	.	.	.
	13150.	C	.	IWE M	.	.	.	.	.	.	.	.
	13200.	C	.	IWE M	.	.	.	.	.	.	.	.
	13250.	C	.	ILE M	.	.	.	.	.	.	.	.
	13300.	C	.	ILE M	.	.	.	.	.	.	.	.
	13350.	C	.	ILE M	.	.	.	.	.	.	.	.
2.54	13400.	.	.	IE M	.	.	.	.	.	.	.	.
	13450.	C	.	IE M	.	.	.	.	.	.	.	.
	13500.	C	.	IE M	.	.	.	.	.	.	.	.
	13550.	C	.	IE M	.	.	.	.	.	.	.	.
	13600.	C	.	IWEM	.	.	.	.	.	.	.	.
	13650.	C	.	IWEM	.	.	.	.	.	.	.	.
	13700.	C	.	ILEM	.	.	.	.	.	.	.	.
	13750.	C	.	ILE.M	.	.	.	.	.	.	.	.
	13800.	C	.	ILE.M	.	.	.	.	.	.	.	.
	13850.	C	.	ILE.M	.	.	.	.	.	.	.	.
	13900.	C	.	ILE.M	.	.	.	.	.	.	.	.
	13950.	C	.	ILE.M	.	.	.	.	.	.	.	.
	14000.	C	.	ILE.M	.	.	.	.	.	.	.	.
	14050.	C	.	ILE.M	.	.	.	.	.	.	.	.
	14100.	C	.	IWEM	.	.	.	.	.	.	.	.
2.68	14150.	C	.	ILEM	.	.	.	.	.	.	.	.
	14200.	C	.	ILEM	.	.	.	.	.	.	.	.
	14250.	C	.	ILEM	.	.	.	.	.	.	.	.
	14300.	C	.	ILEM	.	.	.	.	.	.	.	.
	14350.	C	.	ILEM	.	.	.	.	.	.	.	.
	14400.	C	.	ILEM	.	.	.	.	.	.	.	.
	14450.	C	.	ILEM	.	.	.	.	.	.	.	.
	14500.	C	.	ILE M	.	.	.	.	.	.	.	.
	14550.	C	.	IRE M	.	.	.	.	.	.	.	.
	14600.	C	.	IE M	.	.	.	.	.	.	.	.
2.77	14650.	C	.	IE M	.	.	.	.	.	.	.	.
	14700.	C	.	IE M	.	.	.	.	.	.	.	.
	14750.	C	.	IWEM	.	.	.	.	.	.	.	.
	14800.	C	.	ILEM	.	.	.	.	.	.	.	.
	14850.	C	.	ILEM	.	.	.	.	.	.	.	.
	14900.	C	.	ILEM	.	.	.	.	.	.	.	.
	14950.	C	.	ILE M	.	.	.	.	.	.	.	.
	15000.	C	.	ILE M	.	.	.	.	.	.	.	.
	15050.	C	.	ILE M	.	.	.	.	.	.	.	.
	15100.	C	.	ILE M	.	.	.	.	.	.	.	.
	15150.	C	.	ILE M	.	.	.	.	.	.	.	.
	15200.	C	.	ILE M	.	.	.	.	.	.	.	.
2.88	15250.	C	.	ILE M	.	.	.	.	.	.	.	.
	15300.	C	.	ILWEM	.	.	.	.	.	.	.	.
	15350.	C	.	IL EM	.	.	.	.	.	.	.	.
	15400.	C	.	IL E M	.	.	.	.	.	.	.	.
	15450.	C	.	I E M	.	.	.	.	.	.	.	.
	15500.	C	.	IRE M	.	.	.	.	.	.	.	.
	15550.	C	.	IRE M	.	.	.	.	.	.	.	.
	15600.	C	.	ILE M	.	.	.	.	.	.	.	.
	15650.	C	.	ILE M	.	.	.	.	.	.	.	.
	15700.	C	.	ILE M	.	.	.	.	.	.	.	.
2.98	15750.	C	.	ILE M	.	.	.	.	.	.	.	.
	15800.	C	.	ILE M	.	.	.	.	.	.	.	.
	15850.	C	.	ILWEM	.	.	.	.	.	.	.	.
	15900.	C	.	ILWEM	.	.	.	.	.	.	.	.
	15950.	C	.	IL EM	.	.	.	.	.	.	.	.
	16000.	C	.	.ILEM	.	.	.	.	.	.	.	.

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      19150.  C          .         .    I E M        .         .         .         .         .         .
      19200.  C          .         .    I E M        .         .         .         .         .         .
      19250.  C          .         .    I E M        .         .         .         .         .         .
      19300.  C          .         .    I E M        .         .         .         .         .         .
      19350.  C          .         .    ILE .M       .         .         .         .         .         .
      19400.  C          .         .    ILE .M       .         .         .         .         .         .
      19450.  C          .         .     IE .M       .         .         .         .         .         .
      19500.  C          .         .     IE .M       .         .         .         .         .         .
3.70  19550.  C          .         .     IE .M       .         .         .         .         .         .
      19600.  C          .         .     IWE.M       .         .         .         .         .         .
      19650.  C          .         .     I E.M       .         .         .         .         .         .
      19700.  C          .         .     I E.M       .         .         .         .         .         .
      19750.  C          .         .     I E. M      .         .         .         .         .         .
      19800.  C          .         .     IRE. M      .         .         .         .         .         .
      19850.  C          .         .     ILE. M      .         .         .         .         .         .
      19900.  C          .         .     ILE. M      .         .         .         .         .         .
      19950.  C          .         .     ILE. M      .         .         .         .         .         .
      20000.  C          .         .     ILE. M      .         .         .         .         .         .
      20050.  C          .         .     ILE. M      .         .         .         .         .         .
      20100.  C          .         .     ILE. M      .         .         .         .         .         .
      20150.  C          .         .     ILE.  M     .         .         .         .         .         .
      20200.  C          .         .     ILWE  M     .         .         .         .         .         .
      20250.  C          .         .      IRE  M     .         .         .         .         .         .
3.84  20300.  C          .         .      ILE  M     .         .         .         .         .         .
      20350.  C          .         .      ILE  M     .         .         .         .         .         .
      20400.  C          .         .      ILE  M     .         .         .         .         .         .
      20450.  C          .         .      ILE  M     .         .         .         .         .         .
      20500.  C          .         .      ILE  M     .         .         .         .         .         .
      20550.  C          .         .      ILE  M     .         .         .         .         .         .
      20600.  C          .         .      ILE  M     .         .         .         .         .         .
      20650.  C          .         .      ILE  M     .         .         .         .         .         .
      20700.  C          .         .      ILE   M    .         .         .         .         .         .
      20750.  C          .         .      ILE   M    .         .         .         .         .         .
      20800.  C          .         .      ILE   M    .         .         .         .         .         .
      20850.  C          .         .      ILE   M    .         .         .         .         .         .
      20900.  C          .         .      ILWE  M    .         .         .         .         .         .
      20950.  C          .         .      IL.E  M    .         .         .         .         .         .
      21000.  C          .         .      IL.E  M    .         .         .         .         .         .
3.98  21050.  C          .         .      IRLE  M    .         .         .         .         .         .
      21100.  C          .         .       ILE  M    .         .         .         .         .         .
      21150.  C          .         .       ILE  M    .         .         .         .         .         .
      21200.  C          .         .       ILE  M    .         .         .         .         .         .
      21250.  C          .         .       ILE  M    .         .         .         .         .         .
      21300.  C          .         .       ILE  M    .         .         .         .         .         .
      21350.  C          .         .       ILE  M    .         .         .         .         .         .
      21400.  C          .         .       ILE   M   .         .         .         .         .         .
      21450.  C          .         .       ILE   M   .         .         .         .         .         .
      21500.  C          .         .       ILE   M   .         .         .         .         .         .
      21550.  C          .         .       ILE   M   .         .         .         .         .         .
      21600.  C          .         .       ILE   M   .         .         .         .         .         .
      21650.  C          .         .       IL E  M   .         .         .         .         .         .
4.10  21700.  C          .         .       IRLE  M   .         .         .         .         .         .
      21750.  C          .         .       IRLE  M   .         .         .         .         .         .
      21800.  C          .         .        ILE  M   .         .         .         .         .         .
      21850.  C          .         .        ILE  M   .         .         .         .         .         .
      21900.  C          .         .        ILE  M   .         .         .         .         .         .
      21950.  C          .         .        ILE  M   .         .         .         .         .         .
      22000.  C          .         .        ILE  M   .         .         .         .         .         .
      22050.  C          .         .        ILE  M   .         .         .         .         .         .
      22100.  C          .         .        ILE  M   .         .         .         .         .         .
      22150.  C          .         .        ILE  M   .         .         .         .         .         .
      22200.  C          .         .        ILE  M   .         .         .         .         .         .
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     25350.  C     .     .     .    IE  M.     .     .     .     .     .     .
     25400.  C     .     .     .    IE  M.     .     .     .     .     .     .
     25450.  C     .     .     .    IE  M.     .     .     .     .     .     .
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     25600.  C     .     .     .    IE  M.     .     .     .     .     .     .
4.86 25650.  C     .     .     .    IE  M.     .     .     .     .     .     .
     25700.  C     .     .     .    IE  M.     .     .     .     .     .     .
     25750.  C     .     .     .    IWE M.     .     .     .     .     .     .
     25800.  C     .     .     .    ILE M.     .     .     .     .     .     .
     25850.  C     .     .     .    ILE M.     .     .     .     .     .     .
     25900.  C     .     .     .    ILE M.     .     .     .     .     .     .
     25950.  C     .     .     .    ILE M.     .     .     .     .     .     .
     26000.  C     .     .     .    ILE M.     .     .     .     .     .     .
     26050.  C     .     .     .    ILE  M     .     .     .     .     .     .
     26100.  C     .     .     .     IE  M     .     .     .     .     .     .
     26150.  C     .     .     .     IE  M     .     .     .     .     .     .
     26200.  C     .     .     .     IE  M     .     .     .     .     .     .
     26250.  C     .     .     .     IE  M     .     .     .     .     .     .
     26300.  C     .     .     .     ILE M     .     .     .     .     .     .
     26350.  C     .     .     .     ILE M     .     .     .     .     .     .
     26400.  C     .     .     .     ILE M     .     .     .     .     .     .
5.01 26450.  C     .     .     .     ILE M     .     .     .     .     .     .
     26500.  C     .     .     .     ILE M     .     .     .     .     .     .
     26550.  C     .     .     .     ILE M     .     .     .     .     .     .
     26600.  C     .     .     .     ILE M     .     .     .     .     .     .
     26650.  C     .     .     .     ILE M     .     .     .     .     .     .
     26700.  C     .     .     .     ILE M     .     .     .     .     .     .
     26750.  C     .     .     .     ILE M     .     .     .     .     .     .
     26800.  C     .     .     .     ILE M     .     .     .     .     .     .
     26850.  C     .     .     .      IE .M    .     .     .     .     .     .
     26900.  C     .     .     .      IWE.M    .     .     .     .     .     .
     26950.  C     .     .     .      I E.M    .     .     .     .     .     .
     27000.  C     .     .     .      ILE.M    .     .     .     .     .     .
     27050.  C     .     .     .      ILE.M    .     .     .     .     .     .
     27100.  C     .     .     .      ILE.M    .     .     .     .     .     .
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5.15 27250.  C     .     .     .      ILE.M    .     .     .     .     .     .
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     27450.  C     .     .     .      ILE.M    .     .     .     .     .     .
     27500.  C     .     .     .      ILE.M    .     .     .     .     .     .
     27550.  C     .     .     .      ILE.M    .     .     .     .     .     .
     27600.  C     .     .     .      ILE.M    .     .     .     .     .     .
     27650.  C     .     .     .       IE.M    .     .     .     .     .     .
     27700.  C     .     .     .       IE.M    .     .     .     .     .     .
     27750.  C     .     .     .       IWEM    .     .     .     .     .     .
     27800.  C     .     .     .       I EM    .     .     .     .     .     .
     27850.  C     .     .     .       I EM    .     .     .     .     .     .
5.28 27900.  C     .     .     .       ILEM    .     .     .     .     .     .
     27950.  C     .     .     .       ILEM    .     .     .     .     .     .
     28000.  C     .     .     .       ILE M   .     .     .     .     .     .
     28050.  C     .     .     .       ILE M   .     .     .     .     .     .
     28100.  C     .     .     .       IRE M   .     .     .     .     .     .
     28150.  C     .     .     .       I E M   .     .     .     .     .     .
     28200.  C     .     .     .       I E  M  .     .     .     .     .     .
     28250.  C     .     .     .       I EL M  .     .     .     .     .     .
     28300.  C     .     .     .       I EL M  .     .     .     .     .     .
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     28400.  C     .     .     .        IWEL M .     .     .     .     .     .
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     22250.  C     .     .     ILE  M    .     .     .     .     .     .     .
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     22350.  C     .     .     .IWE M    .     .     .     .     .     .     .
4.24 22400.  C     .     .     .I E M    .     .     .     .     .     .     .
     22450.  C     .     .     .I E M    .     .     .     .     .     .     .
     22500.  C     .     .     .I E M    .     .     .     .     .     .     .
     22550.  C     .     .     .I E M    .     .     .     .     .     .     .
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     22650.  C     .     .     .I E M    .     .     .     .     .     .     .
     22700.  C     .     .     .ILE M    .     .     .     .     .     .     .
     22750.  C     .     .     .ILE M    .     .     .     .     .     .     .
     22800.  C     .     .     .ILE M    .     .     .     .     .     .     .
     22850.  C     .     .     .ILE M    .     .     .     .     .     .     .
     22900.  C     .     .     .ILE M    .     .     .     .     .     .     .
     22950.  C     .     .     .ILE M    .     .     .     .     .     .     .
4.36 23000.  C     .     .     .ILE M    .     .     .     .     .     .     .
     23050.  C     .     .     .ILE M    .     .     .     .     .     .     .
     23100.  C     .     .     .ILE M    .     .     .     .     .     .     .
     23150.  C     .     .     .ILWE M   .     .     .     .     .     .     .
     23200.  C     .     .     . IWE M   .     .     .     .     .     .     .
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     23600.  C     .     .     . I E  M  .     .     .     .     .     .     .
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     23700.  C     .     .     . ILE  M  .     .     .     .     .     .     .
4.50 23750.  C     .     .     . ILE  M  .     .     .     .     .     .     .
     23800.  C     .     .     . ILE  M  .     .     .     .     .     .     .
     23850.  C     .     .     . ILE  M  .     .     .     .     .     .     .
     23900.  C     .     .     .  IE  M  .     .     .     .     .     .     .
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     24000.  C     .     .     .  I E M  .     .     .     .     .     .     .
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     24150.  C     .     .     .  ILE  M .     .     .     .     .     .     .
     24200.  C     .     .     .  ILE  M .     .     .     .     .     .     .
     24250.  C     .     .     .   IE  M .     .     .     .     .     .     .
     24300.  C     .     .     .   IE  M .     .     .     .     .     .     .
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     24500.  C     .     .     .   IE  M .     .     .     .     .     .     .
     24550.  C     .     .     .   IE  M .     .     .     .     .     .     .
     24600.  C     .     .     .   IWE M .     .     .     .     .     .     .
     24650.  C     .     .     .   IWE M .     .     .     .     .     .     .
     24700.  C     .     .     .   ILE M .     .     .     .     .     .     .
     24750.  C     .     .     .   ILE M .     .     .     .     .     .     .
     24800.  C     .     .     .   ILE M .     .     .     .     .     .     .
4.70 24850.  C     .     .     .   ILE M .     .     .     .     .     .     .
     24900.  C     .     .     .   ILE M .     .     .     .     .     .     .
     24950.  C     .     .     .   ILE M .     .     .     .     .     .     .
     25000.  C     .     .     .   ILE M .     .     .     .     .     .     .
     25050.  C     .     .     .   ILE M .     .     .     .     .     .     .
     25100.  C     .     .     .   ILE M .     .     .     .     .     .     .
     25150.  C     .     .     .   ILE M .     .     .     .     .     .     .
     25200.  C     .     .     .   ILE M .     .     .     .     .     .     .
     25250.  C     .     .     .   ILE M .     .     .     .     .     .     .
     25300.  C     .     .     .    IE  M.     .     .     .     .     .     .
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	34650.	C	.	.	.	.	IEM	.	.	.	.	.
	34700.	C	.	.	.	.	IEM	.	.	.	.	.
	34750.	C	.	.	.	.	IEM	.	.	.	.	.
	34800.	C	.	.	.	.	IEM	.	.	.	.	.
	34850.	C	.	.	.	.	IEM	.	.	.	.	.
	34900.	C	.	.	.	.	IEM	.	.	.	.	.
	34950.	C	.	.	.	.	IEM	.	.	.	.	.
6.63	35000.	C	.	.	.	.	IEM	.	.	.	.	.
	35050.	C	.	.	.	.	IE	.	.	.	.	.
	35100.	C	.	.	.	.	IEM	.	.	.	.	.
	35150.	C	.	.	.	.	IEM	.	.	.	.	.
	35200.	C	.	.	.	.	ILE	.	.	.	.	.
6.67	35250.	.	.	.	.	.	ILE	.	.	.	.	.
	35300.	.	.	.	C	.	ILE	.	.	.	.	.
	35350.	C	.	.	.	.	ILEM	.	.	.	.	.
	35400.	C	.	.	.	.	ILEM	.	.	.	.	.
	35450.	C	.	.	.	.	ILEM	.	.	.	.	.
	35500.	C	.	.	.	.	ILEM	.	.	.	.	.
	35550.	C	.	.	.	.	ILEM	.	.	.	.	.
	35600.	C	.	.	.	.	ILEM	.	.	.	.	.
	35650.	C	.	.	.	.	ILEM	.	.	.	.	.
	35700.	C	.	.	.	.	ILWE	.	.	.	.	.
	35750.	C	.	.	.	.	ILWE	.	.	.	.	.
	35800.	C	.	.	.	.	ILWE	.	.	.	.	.
	35850.	C	.	.	.	.	ILWE	.	.	.	.	.
	35900.	C	.	.	.	.	ILRE	.	.	.	.	.
	35950.	C	.	.	.	.	I.LE	.	.	.	.	.
	36000.	C	.	.	.	.	I.LE	.	.	.	.	.
	36050.	C	.	.	.	.	I.LE	.	.	.	.	.
	36100.	C	.	.	.	.	I.LE	.	.	.	.	.
	36150.	C	.	.	.	.	I.LE	.	.	.	.	.
	36200.	C	.	.	.	.	I.LE	.	.	.	.	.
6.86	36250.	C	.	.	.	.	ILE	.	.	.	.	.
	36300.	C	.	.	.	.	ILE	.	.	.	.	.
6.88	36350.	C	.	.	.	.	ILE	.	.	.	.	.
	36400.	C	.	.	.	.	ILE	.	.	.	.	.
	36450.	C	.	.	.	.	ILE	.	.	.	.	.
	36500.	C	.	.	.	.	ILEM	.	.	.	.	.
	36550.	C	.	.	.	.	ILEM	.	.	.	.	.
	36600.	C	.	.	.	.	ILEM	.	.	.	.	.
	36650.	C	.	.	.	.	ILEM	.	.	.	.	.
	36700.	C	.	.	.	.	ILEM	.	.	.	.	.
	36750.	C	.	.	.	.	ILEM	.	.	.	.	.
	36800.	C	.	.	.	.	ILEM	.	.	.	.	.
	36850.	C	.	.	.	.	ILEM	.	.	.	.	.
	36900.	C	.	.	.	.	ILEM	.	.	.	.	.
	36950.	C	.	.	.	.	ILEM	.	.	.	.	.
	37000.	C	.	.	.	.	ILEM	.	.	.	.	.
	37050.	C	.	.	.	.	ILEM	.	.	.	.	.
	37100.	C	.	.	.	.	ILEM	.	.	.	.	.
	37150.	C	.	.	.	.	ILEM	.	.	.	.	.
7.05	37200.	C	.	.	.	.	.IEM	.	.	.	.	.
	37250.	C	.	.	.	.	.IEM	.	.	.	.	.
	37300.	C	.	.	.	.	.IEM	.	.	.	.	.
	37350.	C	.	.	.	.	.IEM	.	.	.	.	.
	37400.	C	.	.	.	.	.IEM	.	.	.	.	.
	37450.	C	.	.	.	.	.IEM	.	.	.	.	.
	37500.	C	.	.	.	.	.IEM	.	.	.	.	.
	37550.	C	.	.	.	.	.IEM	.	.	.	.	.
	37600.	C	.	.	.	.	.IEM	.	.	.	.	.
7.12	37650.	C	.	.	.	.	.IEM	.	.	.	.	.
	37700.	C	.	.	.	.	.IEM	.	.	.	.	.

	28450.	C	IWEL M
	28500.	C	IWEL M
	28550.	C	IWE LM
	28600.	C	IWE L M
	28650.	C	I.E L M
5.43	28700.	C	I.E LM
	28750.	C	I.E LM
	28800.	C	I.E LM
5.46	28850.	C	I.E LM
	28900.	C	I.E L M
	28950.	C	I.WEL M
	29000.	C	I.WE M
	29050.	C	I.WE M
	29100.	C	I.WE M
	29150.	C	I.WE M
	29200.	C	I.LE M
	29250.	C	I.LE M
	29300.	C	IL EM
	29350.	C	IL EM
5.56	29400.	C	IL EM
	29450.	C	IL EM
	29500.	C	IL EM
	29550.	C	IL EM
	29600.	C	I EM
	29650.	C	I EM
	29700.	C	I EM
	29750.	C	I EM
	29800.	C	I EM
	29850.	C	I E M
	29900.	C	I E M
	29950.	C	ILE M
	30000.	C	ILE M
	30050.	C	ILE M
	30100.	C	ILE M
	30150.	C	ILE M
	30200.	C	ILE M
5.73	30250.	C	.IE M
	30300.	C	.IE M
	30350.	C	.IE M
	30400.	C	.IWEM
	30450.	C	.I EM
	30500.	C	.I EM
	30550.	C	.ILE M
	30600.	C	.ILE M
	30650.	C	.ILE M
	30700.	C	.ILE M
	30750.	C	. IE M
	30800.	C	. IE M
5.84	30850.	C	. IE M
	30900.	C	. IE M
	30950.	C	. IE M
	31000.	C	. IWEM
	31050.	C	. ILEM
	31100.	C	. ILEM
	31150.	C	. ILEM
	31200.	C	. ILE M
	31250.	C	. ILE M
	31300.	C	. IE M
	31350.	C	. IE M
	31400.	C	. IE M
	31450.	C	. IE M
5.96	31500.	C	. IE M

	31550.	C	IE M
	31600.	C	IE M
	31650.	C	ILEM
	31700.	C	ILEM
	31750.	C	ILEM
	31800.	C	ILEM
	31850.	C	IE M
	31900.	C	IE M
	31950.	C	IE M
	32000.	C	IE M
	32050.	C	IE M
	32100.	C	IE M
6.09	32150.	C	ILEM
	32200.	C	ILEM
	32250.	C	ILEM
	32300.	C	ILEM
	32350.	C	ILEM
	32400.	C	ILEM
	32450.	C	IEM
	32500.	C	IE M
	32550.	C	IE M
	32600.	C	IE M
	32650.	C	IE M
	32700.	C	IE M
	32750.	C	IE M
	32800.	C	IE M
6.22	32850.	C	IWEM
	32900.	C	I EM
	32950.	C	I EM
	33000.	C	I EM
	33050.	C	I EM
	33100.	C	I EM
	33150.	C	I EM
	33200.	C	IREM
	33250.	C	ILEM
	33300.	C	ILEM
	33350.	C	ILEM
6.32	33400.	C	ILE M.
	33450.	C	IE M.
	33500.	C	IE M.
	33550.	C	IE M.
	33600.	C	IE M.
	33650.	C	IE M.
	33700.	C	IE M.
	33750.	C	IE M
	33800.	C	IRE M
	33850.	C	IRE M
6.41	33900.	C	IRE M
	33950.	C	ILE M
	34000.	C	ILE M
	34050.	C	IE M
	34100.	C	IE M
	34150.	C	IE M
	34200.	C	IE M
	34250.	C	IE M
	34300.	C	IE M
	34350.	C	IE M
6.51	34400.	C	IE M
	34450.	C	IE M
	34500.	C	IWEM
	34550.	C	ILEM
	34600.	C	ILEM

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      37750.  C     .     .     .     .     .IEM  .     .     .     .     .
      37800.  C     .     .     .     .     .IEM  .     .     .     .     .
      37850.  C     .     .     .     .     .IEM  .     .     .     .     .
      37900.  C     .     .     .     .     .IEM  .     .     .     .     .
      37950.  C     .     .     .     .     .IER  .     .     .     .     .
      38000.  C     .     .     .     .     .IER  .     .     .     .     .
      38050.  C     .     .     .     .     .IERM .     .     .     .     .
      38100.  C     .     .     .     .     .IWEM .     .     .     .     .
      38150.  C     .     .     .     .     .ILEM .     .     .     .     .
      38200.  C     .     .     .     .     .I EM .     .     .     .     .
      38250.  C     .     .     .     .     .I EM .     .     .     .     .
      38300.  C     .     .     .     .     .I EM .     .     .     .     .
      38350.  C     .     .     .     .     .I EM .     .     .     .     .
 7.27 38400.  C     .     .     .     .     .I EM .     .     .     .     .
      38450.  C     .     .     .     .     . IEM .     .     .     .     .
      38500.  C     .     .     .     .     . IEM .     .     .     .     .
      38550.  C     .     .     .     .     . IEM .     .     .     .     .
      38600.  C     .     .     .     .     . IEM .     .     .     .     .
      38650.  C     .     .     .     .     . IEM .     .     .     .     .
      38700.  C     .     .     .     .     . IER .     .     .     .     .
      38750.  C     .     .     .     .     . IER .     .     .     .     .
      38800.  C     .     .     .     .     . IERM .     .     .     .     .
      38850.  C     .     .     .     .     . IELM .     .     .     .     .
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      38950.  C     .     .     .     .     . I EM .     .     .     .     .
      39000.  C     .     .     .     .     . I EM .     .     .     .     .
      39050.  C     .     .     .     .     . I EM .     .     .     .     .
      39100.  C     .     .     .     .     . I EM .     .     .     .     .
 7.41 39150.  C     .     .     .     .     . I EM .     .     .     .     .
      39200.  C     .     .     .     .     . I EM .     .     .     .     .
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      39300.  C     .     .     .     .     . IEM .     .     .     .     .
      39350.  C     .     .     .     .     . IEM .     .     .     .     .
      39400.  C     .     .     .     .     . IEM .     .     .     .     .
      39450.  C     .     .     .     .     . IEM .     .     .     .     .
      39500.  C     .     .     .     .     . IEM .     .     .     .     .
      39550.  C     .     .     .     .     . IE M .     .     .     .     .
      39600.  C     .     .     .     .     . ILEM .     .     .     .     .
      39650.  C     .     .     .     .     . ILEM .     .     .     .     .
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 7.55 39900.  C     .     .     .     .     . IEM .     .     .     .     .
      39950.  C     .     .     .     .     . IEM .     .     .     .     .
      40000.  C     .     .     .     .     . IEM .     .     .     .     .
      40050.  C     .     .     .     .     . IEM .     .     .     .     .
      40100.  C     .     .     .     .     . IEM .     .     .     .     .
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      40250.  C     .     .     .     .     . IREM .     .     .     .     .
      40300.  C     .     .     .     .     . IREM .     .     .     .     .
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      40700.  C     .     .     .     .     . ILE M .     .     .     .     .
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      40800.  C     .     .     .     .     . ILE M .     .     .     .     .
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	40850.	C	.	.	.	.	.	ILE M	.	.	.	.	.
	40900.	C	.	.	.	.	.	ILE M	.	.	.	.	.
	40950.	C	.	.	.	.	.	ILE M	.	.	.	.	.
	41000.	C	.	.	.	.	.	ILWEM	.	.	.	.	.
	41050.	C	.	.	.	.	.	I EM	.	.	.	.	.
	41100.	C	.	.	.	.	.	I EM	.	.	.	.	.
	41150.	C	.	.	.	.	.	I EM	.	.	.	.	.
7.80	41200.	C	.	.	.	.	.	I EM	.	.	.	.	.
	41250.	C	.	.	.	.	.	I EM	.	.	.	.	.
	41300.	C	.	.	.	.	.	I EM	.	.	.	.	.
	41350.	C	.	.	.	.	.	I EM	.	.	.	.	.
	41400.	C	.	.	.	.	.	I EM	.	.	.	.	.
	41450.	C	.	.	.	.	.	I E M.	.	.	.	.	.
	41500.	C	.	.	.	.	.	ILE M.	.	.	.	.	.
	41550.	C	.	.	.	.	.	ILE M.	.	.	.	.	.
	41600.	C	.	.	.	.	.	ILE M.	.	.	.	.	.
	41650.	C	.	.	.	.	.	ILE M.	.	.	.	.	.
	41700.	C	.	.	.	.	.	ILE M.	.	.	.	.	.
	41750.	C	.	.	.	.	.	ILE M.	.	.	.	.	.
	41800.	C	.	.	.	.	.	ILE M.	.	.	.	.	.
7.92	41850.	C	.	.	.	.	.	IE M	.	.	.	.	.
	41900.	C	.	.	.	.	.	I EM.	.	.	.	.	.
	41950.	C	.	.	.	.	.	I EM.	.	.	.	.	.
	42000.	C	.	.	.	.	.	I EM.	.	.	.	.	.
	42050.	C	.	.	.	.	.	I EM.	.	.	.	.	.
	42100.	.	C	.	.	.	.	I WE.	.	.	.	.	.
7.98	42150.	.	.	.	.	.	.	I E.	.	.	.	.	.
7.98	42200.	C	.	.	.	.	.	I E.	.	.	.	.	.
	42250.	C	.	.	.	.	.	I E.	.	.	.	.	.
	42300.	C	.	.	.	.	.	I E.	.	.	.	.	.
	42350.	C	.	.	.	.	.	I E.	.	.	.	.	.
	42400.	C	.	.	.	.	.	I E.	.	.	.	.	.
	42450.	C	.	.	.	.	.	IL EM	.	.	.	.	.
	42500.	C	.	.	.	.	.	I EM	.	.	.	.	.
	42550.	C	.	.	.	.	.	I EM	.	.	.	.	.
	42600.	C	.	.	.	.	.	I EM	.	.	.	.	.
8.07	42650.	C	.	.	.	.	.	I EM	.	.	.	.	.
	42700.	C	.	.	.	.	.	I EM	.	.	.	.	.
	42750.	C	.	.	.	.	.	I EM	.	.	.	.	.
	42800.	C	.	.	.	.	.	I EM	.	.	.	.	.
	42850.	C	.	.	.	.	.	I EM	.	.	.	.	.
	42900.	C	.	.	.	.	.	I EM	.	.	.	.	.
	42950.	C	.	.	.	.	.	I EM	.	.	.	.	.
	43000.	C	.	.	.	.	.	ILEM	.	.	.	.	.
	43050.	C	.	.	.	.	.	ILEM	.	.	.	.	.
	43100.	C	.	.	.	.	.	ILEM	.	.	.	.	.
8.17	43150.	C	.	.	.	.	.	ILEM	.	.	.	.	.
	43200.	C	.	.	.	.	.	ILEM	.	.	.	.	.
	43250.	C	.	.	.	.	.	ILWE	.	.	.	.	.
	43300.	C	.	.	.	.	.	IL E	.	.	.	.	.
	43350.	C	.	.	.	.	.	I E	.	.	.	.	.
	43400.	C	.	.	.	.	.	I E	.	.	.	.	.
	43450.	C	.	.	.	.	.	I EM	.	.	.	.	.
	43500.	C	.	.	.	.	.	I EM	.	.	.	.	.
	43550.	C	.	.	.	.	.	I EM	.	.	.	.	.
	43600.	C	.	.	.	.	.	IREM	.	.	.	.	.
	43650.	C	.	.	.	.	.	IREM	.	.	.	.	.
	43700.	C	.	.	.	.	.	ILEM	.	.	.	.	.
	43750.	C	.	.	.	.	.	ILEM	.	.	.	.	.
8.29	43800.	C	.	.	.	.	.	ILEM	.	.	.	.	.
	43850.	C	.	.	.	.	.	IL.E	.	.	.	.	.
	43900.	C	.	.	.	.	.	IL.E	.	.	.	.	.

	43950.	C	.	.	.	.	.	IL.E	.	.	.	.
	44000.	C	.	.	.	.	.	IL.E	.	.	.	.
	44050.	C	.	.	.	.	.	ILRE	.	.	.	.
	44100.	C	.	.	.	.	.	IRE	.	.	.	.
	44150.	C	.	.	.	.	.	ILE	.	.	.	.
8.36	44200.	C	.	.	.	.	.	ILEM	.	.	.	.
	44250.	C	.	.	.	.	.	ILEM	.	.	.	.
	44300.	C	.	.	.	.	.	ILEM	.	.	.	.
	44350.	C	.	.	.	.	.	ILWE	.	.	.	.
	44400.	C	.	.	.	.	.	ILWE	.	.	.	.
	44450.	C	.	.	.	.	.	ILRE	.	.	.	.
	44500.	C	.	.	.	.	.	ILRE	.	.	.	.
	44550.	C	.	.	.	.	.	ILRE	.	.	.	.
	44600.	C	.	.	.	.	.	ILRE	.	.	.	.
	44650.	C	.	.	.	.	.	ILE	.	.	.	.
	44700.	C	.	.	.	.	.	ILE	.	.	.	.
8.47	44750.	C	.	.	.	.	.	ILE	.	.	.	.
	44800.	C	.	.	.	.	.	ILEM	.	.	.	.
	44850.	C	.	.	.	.	.	ILWE	.	.	.	.
	44900.	C	.	.	.	.	.	.IRE	.	.	.	.
	44950.	C	.	.	.	.	.	.ILE	.	.	.	.
	45000.	C	.	.	.	.	.	.ILEM	.	.	.	.
	45050.	C	.	.	.	.	.	. IEM	.	.	.	.
	45100.	C	.	.	.	.	.	. IEM	.	.	.	.
8.54	45150.	C	.	.	.	.	.	. IEM	.	.	.	.
	45200.	C	.	.	.	.	.	. IEM	.	.	.	.
	45250.	C	.	.	.	.	.	. IEM	.	.	.	.
	45300.	C	.	.	.	.	.	. IE M	.	.	.	.
	45350.	C	.	.	.	.	.	. WEM	.	.	.	.
	45400.	C	.	.	.	.	.	. IEM	.	.	.	.
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	45500.	C	.	.	.	.	.	. IEM	.	.	.	.
	45550.	C	.	.	.	.	.	. IEM	.	.	.	.
8.64	45600.	C	.	.	.	.	.	. IEM	.	.	.	.
	45650.	C	.	.	.	.	.	. IEM	.	.	.	.
	45700.	C	.	.	.	.	.	. IEM	.	.	.	.
	45750.	C	.	.	.	.	.	. IEM	.	.	.	.
	45800.	C	.	.	.	.	.	. ILE	.	.	.	.
	45850.	C	.	.	.	.	.	. ILEM	.	.	.	.
	45900.	C	.	.	.	.	.	. ILEM	.	.	.	.
	45950.	C	.	.	.	.	.	. IEM	.	.	.	.
	46000.	C	.	.	.	.	.	. IEM	.	.	.	.
	46050.	C	.	.	.	.	.	. IEM	.	.	.	.
8.73	46100.	C	.	.	.	.	.	. IEM	.	.	.	.
	46150.	C	.	.	.	.	.	. IEM	.	.	.	.
	46200.	C	.	.	.	.	.	. IEM	.	.	.	.
	46250.	C	.	.	.	.	.	. ILE	.	.	.	.
	46300.	C	.	.	.	.	.	. ILE	.	.	.	.
	46350.	C	.	.	.	.	.	. ILE	.	.	.	.
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	46450.	C	.	.	.	.	.	. IEM	.	.	.	.
	46500.	C	.	.	.	.	.	. IER	.	.	.	.
	46550.	C	.	.	.	.	.	. IER	.	.	.	.
	46600.	C	.	.	.	.	.	. IER	.	.	.	.
	46650.	C	.	.	.	.	.	. ILE	.	.	.	.
	46700.	C	.	.	.	.	.	. ILE	.	.	.	.
8.85	46750.	C	.	.	.	.	.	. ILER	.	.	.	.
	46800.	C	.	.	.	.	.	. ILE	.	.	.	.
	46850.	C	.	.	.	.	.	. ILE	.	.	.	.
	46900.	C	.	.	.	.	.	. IE	.	.	.	.
	46950.	C	.	.	.	.	.	. IE	.	.	.	.
	47000.	C	.	.	.	.	.	. IE	.	.	.	.

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      47050.  C     .     .     .     .     .     .  IEM .     .     .     .
      47100.  C     .     .     .     .     .     .  IRE .     .     .     .
      47150.  C     .     .     .     .     .     .  ILE .     .     .     .
      47200.  C     .     .     .     .     .     .  ILE .     .     .     .
      47250.  C     .     .     .     .     .     .  ILE .     .     .     .
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 8.97 47350.  C     .     .     .     .     .     .  ILE .     .     .     .
      47400.  C     .     .     .     .     .     .  ILE .     .     .     .
      47450.  C     .     .     .     .     .     .  ILE .     .     .     .
      47500.  C     .     .     .     .     .     .  ILEM.     .     .     .
      47550.  C     .     .     .     .     .     .   IEM.     .     .     .
      47600.  C     .     .     .     .     .     .   IEM.     .     .     .
      47650.  C     .     .     .     .     .     .   IWE.     .     .     .
 9.03 47700.  C     .     .     .     .     .     .   IRE.     .     .     .
      47750.  C     .     .     .     .     .     .   IRE.     .     .     .
      47800.  C     .     .     .     .     .     .   I E.     .     .     .
      47850.  C     .     .     .     .     .     .  IL EM     .     .     .
      47900.  C     .     .     .     .     .     .  IR EM     .     .     .
      47950.  C     .     .     .     .     .     .  IR WE     .     .     .
      48000.  .     .     .     .     C     .     .  I  WE     .     .     .
 9.10 48050.  .     .     .     .     .     .     .  I  WE     .     .     .
 9.10 48100.  C     .     .     .     .     .     .  I   E     .     .     .
      48150.  C     .     .     .     .     .     .   I  E     .     .     .
      48200.  C     .     .     .     .     .     .   I  E     .     .     .
      48250.  C     .     .     .     .     .     .   I  E     .     .     .
      48300.  C     .     .     .     .     .     .   IL E     .     .     .
      48350.  C     .     .     .     .     .     .    I EM     .     .     .
      48400.  C     .     .     .     .     .     .    I EM     .     .     .
      48450.  C     .     .     .     .     .     .    ILEM     .     .     .
      48500.  C     .     .     .     .     .     .     IEM     .     .     .
 9.19 48550.  .     .     .     .     .     .     .     IEM     .     .     .
      48600.  .     .     .C    .     .     .     .     IEM     .     .     .
      48650.  C     .     .     .     .     .     .     IEM     .     .     .
      48700.  C     .     .     .     .     .     .     IWEM     .     .     .
      48750.  C     .     .     .     .     .     .      IEM     .     .     .
      48800.  C     .     .     .     .     .     .      IEM     .     .     .
      48850.  C     .     .     .     .     .     .      IEM     .     .     .
      48900.  C     .     .     .     .     .     .      IEM     .     .     .
      48950.  C     .     .     .     .     .     .      IEM     .     .     .
      49000.  C     .     .     .     .     .     .      IE M     .     .     .
      49050.  C     .     .     .     .     .     .      IE M     .     .     .
 9.29 49100.  C     .     .     .     .     .     .      .WEM     .     .     .
      49150.  C     .     .     .     .     .     .      .IEM     .     .     .
      49200.  C     .     .     .     .     .     .      .IEM     .     .     .
      49250.  C     .     .     .     .     .     .      .IEM     .     .     .
      49300.  C     .     .     .     .     .     .      .IEM     .     .     .
      49350.  C     .     .     .     .     .     .      .IE M     .     .     .
      49400.  C     .     .     .     .     .     .      .IE M     .     .     .
      49450.  C     .     .     .     .     .     .      .IE M     .     .     .
      49500.  C     .     .     .     .     .     .      . WEM     .     .     .
      49550.  C     .     .     .     .     .     .      . IEM     .     .     .
      49600.  C     .     .     .     .     .     .      . IEM     .     .     .
 9.40 49650.  C     .     .     .     .     .     .      . IEM     .     .     .
      49700.  C     .     .     .     .     .     .      . IEM     .     .     .
      49750.  C     .     .     .     .     .     .      . IEM     .     .     .
      49800.  C     .     .     .     .     .     .      . IEM     .     .     .
      49850.  C     .     .     .     .     .     .      . IE M     .     .     .
      49900.  C     .     .     .     .     .     .      . IE M     .     .     .
      49950.  C     .     .     .     .     .     .      .  WEM     .     .     .
      50000.  C     .     .     .     .     .     .      .  IEM     .     .     .
      50050.  C     .     .     .     .     .     .      .  IEM     .     .     .
      50100.  C     .     .     .     .     .     .      .  IEM     .     .     .
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9.49	50150.	C	
	50200.	C	IEM
	50250.	C	IEM
	50300.	C	IEM
	50350.	C	IEM
9.54	50400.	C	IEM
	50450.	C	EM
	50500.	C	EM
	50550.	C	WE
	50600.	C	IE
	50650.	C	IE
	50700.	C	IE
	50750.	C	IE
	50800.	C	IE
	50850.	C	IE
	50900.	C	IE
9.64	50950.	C	IE
	51000.	C	IEM
	51050.	C	IE
	51100.	C	IE
	51150.	C	IE
	51200.	C	IE
	51250.	C	IE
	51300.	C	IE
	51350.	C	IE
	51400.	C	IE
9.74	51450.	C	IE
	51500.	C	IE
	51550.	C	IE
	51600.	C	IE
	51650.	C	IE
	51700.	C	IE
	51750.	C	IE
9.81	51800.	C	IEM
	51850.	C	IEM
	51900.	C	IEM
	51950.	C	IEM
	52000.	C	IE
	52050.	C	IE
	52100.	C	IE
	52150.	C	IE
	52200.	C	IE
	52250.	C	IE
9.90	52300.	C	IE
	52350.	C	IE
	52400.	C	IE
	52450.	C	IE
	52500.	C	IEM
	52550.	C	IEM
	52600.	C	IEM
	52650.	C	IEL
	52700.	C	IEL
	52750.	C	IEL
9.99	52800.	C	IEL
	52850.	C	IEL
	52900.	C	IWE
	52950.	C	IWE
	53000.	C	IWE
	53050.	C	I E
	53100.	C	I E
	53150.	C	I E
	53200.	C	I E
			I E

	53250.	C	.	.	.	.	.	.	.	I E	.	.	.
	53300.	C	.	.	.	.	.	.	.	I E	.	.	.
	53350.	C	.	.	.	.	.	.	.	I E	.	.	.
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	53800.	C	.	.	.	.	.	.	.	I EL	.	.	.
10.20	53850.	C	.	.	.	.	.	.	.	I WE	.	.	.
	53900.	C	.	.	.	.	.	.	.	I WE	.	.	.
	53950.	C	.	.	.	.	.	.	.	I E	.	.	.
	54000.	C	.	.	.	.	.	.	.	I LE	.	.	.
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	54100.	C	.	.	.	.	.	.	.	I LE	.	.	.
	54150.	C	.	.	.	.	.	.	.	I LE	.	.	.
	54200.	C	.	.	.	.	.	.	.	I LE	.	.	.
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	54300.	C	.	.	.	.	.	.	.	I LEM	.	.	.
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	54400.	C	.	.	.	.	.	.	.	I LEM	.	.	.
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	54500.	C	.	.	.	.	.	.	.	I LE M.	.	.	.
10.33	54550.	C	.	.	.	.	.	.	.	I LE M.	.	.	.
	54600.	C	.	.	.	.	.	.	.	I LE M.	.	.	.
	54650.	C	.	.	.	.	.	.	.	I LE M.	.	.	.
	54700.	C	.	.	.	.	.	.	.	I LE M.	.	.	.
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	54800.	C	.	.	.	.	.	.	.	I LE M.	.	.	.
	54850.	C	.	.	.	.	.	.	.	I LE M.	.	.	.
	54900.	C	.	.	.	.	.	.	.	ILE M.	.	.	.
	54950.	C	.	.	.	.	.	.	.	ILE M.	.	.	.
	55000.	C	.	.	.	.	.	.	.	ILE M.	.	.	.
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	55100.	C	.	.	.	.	.	.	.	ILEM	.	.	.
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	55200.	C	.	.	.	.	.	.	.	ILEM	.	.	.
	55250.	C	.	.	.	.	.	.	.	ILEM	.	.	.
	55300.	C	.	.	.	.	.	.	.	ILE	.	.	.
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	55400.	C	.	.	.	.	.	.	.	ILE	.	.	.
10.49	55450.	C	.	.	.	.	.	.	.	ILE	.	.	.
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	55650.	C	.	.	.	.	.	.	.	ILE	.	.	.
	55700.	C	.	.	.	.	.	.	.	ILE	.	.	.
	55750.	C	.	.	.	.	.	.	.	ILE	.	.	.
	55800.	C	.	.	.	.	.	.	.	ILE	.	.	.
	55850.	C	.	.	.	.	.	.	.	ILE	.	.	.
10.59	55900.	C	.	.	.	.	.	.	.	ILE	.	.	.
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	56000.	C	.	.	.	.	.	.	.	ILE	.	.	.
	56050.	C	.	.	.	.	.	.	.	ILE	.	.	.
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	56300.	C	.	.	.	.	.	.	.	ILEM	.	.	.

	56350.	C	.	.	.	.	.	.	.	ILEM	.	.
	56400.	C	.	.	.	.	.	.	.	ILEM	.	.
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	56500.	C	.	.	.	.	.	.	.	ILEM	.	.
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	56600.	C	.	.	.	.	.	.	.	ILEM	.	.
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	56700.	C	.	.	.	.	.	.	.	ILE M.	.	.
	56750.	C	.	.	.	.	.	.	.	ILE M.	.	.
	56800.	C	.	.	.	.	.	.	.	IE M.	.	.
	56850.	C	.	.	.	.	.	.	.	IWEM.	.	.
	56900.	C	.	.	.	.	.	.	.	IWEM.	.	.
	56950.	C	.	.	.	.	.	.	.	IWEM.	.	.
	57000.	C	.	.	.	.	.	.	.	IWEM.	.	.
10.80	57050.	C	.	.	.	.	.	.	.	IWEM.	.	.
	57100.	C	.	.	.	.	.	.	.	ILEM.	.	.
	57150.	C	.	.	.	.	.	.	.	ILEM.	.	.
	57200.	C	.	.	.	.	.	.	.	ILEM.	.	.
	57250.	C	.	.	.	.	.	.	.	ILEM.	.	.
	57300.	C	.	.	.	.	.	.	.	IEM.	.	.
	57350.	C	.	.	.	.	.	.	.	IE M	.	.
	57400.	C	.	.	.	.	.	.	.	IE M	.	.
	57450.	C	.	.	.	.	.	.	.	IE M	.	.
10.89	57500.	C	.	.	.	.	.	.	.	IWEM	.	.
	57550.	C	.	.	.	.	.	.	.	ILEM	.	.
	57600.	C	.	.	.	.	.	.	.	ILEM	.	.
	57650.	C	.	.	.	.	.	.	.	I EM	.	.
	57700.	C	.	.	.	.	.	.	.	IEM	.	.
	57750.	C	.	.	.	.	.	.	.	IE.M	.	.
10.95	57800.	C	.	.	.	.	.	.	.	IE.M	.	.
	57850.	C	.	.	.	.	.	.	.	IE.M	.	.
	57900.	C	.	.	.	.	.	.	.	IWEM	.	.
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	58200.	C	.	.	.	.	.	.	.	IE M	.	.
	58250.	C	.	.	.	.	.	.	.	IE M	.	.
	58300.	C	.	.	.	.	.	.	.	IE M	.	.
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	58400.	C	.	.	.	.	.	.	.	IWEM	.	.
11.07	58450.	C	.	.	.	.	.	.	.	ILEM	.	.
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	58600.	C	.	.	.	.	.	.	.	ILEM	.	.
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	59150.	C	.	.	.	.	.	.	.	ILEM	.	.
	59200.	C	.	.	.	.	.	.	.	ILE M	.	.
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	59400.	C	.	.	.	.	.	.	.	ILE M	.	.

	59450.	C	.	.	.	.	.	.	.	ILE M	.	.
	59500.	C	.	.	.	.	.	.	.	ILE M	.	.
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	60000.	C	.	.	.	.	.	.	.	IE M	.	.
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	61500.	C	.	.	.	.	.	.	.	.ILEM	.	.
	61550.	C	.	.	.	.	.	.	.	.ILEM	.	.
	61600.	C	.	.	.	.	.	.	.	.ILEM	.	.
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	61700.	C	.	.	.	.	.	.	.	.ILEM	.	.
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	61800.	C	.	.	.	.	.	.	.	.ILEM	.	.
	61850.	C	.	.	.	.	.	.	.	.ILEM	.	.
	61900.	C	.	.	.	.	.	.	.	.ILEM	.	.
	61950.	C	.	.	.	.	.	.	.	.ILEM	.	.
	62000.	C	.	.	.	.	.	.	.	.ILEM	.	.
	62050.	C	.	.	.	.	.	.	.	.ILEM	.	.
	62100.	C	.	.	.	.	.	.	.	.ILEM	.	.
	62150.	C	.	.	.	.	.	.	.	.ILEM	.	.
11.77	62200.	C	.	.	.	.	.	.	.	.ILEM	.	.
	62250.	C	.	.	.	.	.	.	.	.ILEM	.	.
	62300.	C	.	.	.	.	.	.	.	.ILEM	.	.
	62350.	C	.	.	.	.	.	.	.	.ILEM	.	.
	62400.	C	.	.	.	.	.	.	.	.ILEM	.	.
	62450.	C	.	.	.	.	.	.	.	.ILEM	.	.
	62500.	C	.	.	.	.	.	.	.	.ILEM	.	.

	62550.	C	.	.	.	.	.	.	.	.ILEM	.	.
	62600.	C	.	.	.	.	.	.	.	.ILWE	.	.
	62650.	C	.	.	.	.	.	.	.	.ILWE	.	.
11.87	62700.	C	.	.	.	.	.	.	.	.ILWE	.	.
	62750.	C	.	.	.	.	.	.	.	.ILWE	.	.
	62800.	C	.	.	.	.	.	.	.	.ILWE	.	.
	62850.	C	.	.	.	.	.	.	.	.IL E	.	.
	62900.	C	.	.	.	.	.	.	.	.IL E	.	.
	62950.	C	.	.	.	.	.	.	.	.IL E	.	.
	63000.	C	.	.	.	.	.	.	.	.IRLE	.	.
	63050.	C	.	.	.	.	.	.	.	.IRLE	.	.
	63100.	C	.	.	.	.	.	.	.	.IRLE	.	.
	63150.	C	.	.	.	.	.	.	.	.IRLE	.	.
11.97	63200.	C	.	.	.	.	.	.	.	.IRLE	.	.
	63250.	C	.	.	.	.	.	.	.	.IRLE	.	.
	63300.	C	.	.	.	.	.	.	.	.IRLE	.	.
	63350.	C	.	.	.	.	.	.	.	.IRLE	.	.
	63400.	C	.	.	.	.	.	.	.	.IRLE	.	.
	63450.	C	.	.	.	.	.	.	.	.IRLE	.	.
	63500.	C	.	.	.	.	.	.	.	.IL E	.	.
	63550.	C	.	.	.	.	.	.	.	.IL E	.	.
	63600.	C	.	.	.	.	.	.	.	.IL E	.	.
	63650.	C	.	.	.	.	.	.	.	.IL E	.	.
12.06	63700.	C	.	.	.	.	.	.	.	.IL E	.	.
	63750.	C	.	.	.	.	.	.	.	.IL E	.	.
	63800.	C	.	.	.	.	.	.	.	.IL E	.	.
	63850.	C	.	.	.	.	.	.	.	.IL E	.	.
	63900.	C	.	.	.	.	.	.	.	.IL E	.	.
	63950.	C	.	.	.	.	.	.	.	.IL E	.	.
	64000.	C	.	.	.	.	.	.	.	.IL E	.	.
	64050.	C	.	.	.	.	.	.	.	.IL E	.	.
	64100.	C	.	.	.	.	.	.	.	.IL E	.	.
12.15	64150.	C	.	.	.	.	.	.	.	.IL E	.	.
	64200.	C	.	.	.	.	.	.	.	.IL E	.	.
	64250.	C	.	.	.	.	.	.	.	.IL E	.	.
	64300.	C	.	.	.	.	.	.	.	.IL E	.	.
	64350.	C	.	.	.	.	.	.	.	.IL E	.	.
	64400.	C	.	.	.	.	.	.	.	.IRLE	.	.
	64450.	C	.	.	.	.	.	.	.	.IRLE	.	.
	64500.	C	.	.	.	.	.	.	.	.IRLE	.	.
	64550.	C	.	.	.	.	.	.	.	.IRLE	.	.
	64600.	C	.	.	.	.	.	.	.	.IRLE	.	.
12.24	64650.	C	.	.	.	.	.	.	.	.IRLE	.	.
	64700.	C	.	.	.	.	.	.	.	.IRLE	.	.
	64750.	C	.	.	.	.	.	.	.	.IRLE	.	.
	64800.	C	.	.	.	.	.	.	.	.IRLE	.	.
	64850.	C	.	.	.	.	.	.	.	.IRLE	.	.
	64900.	C	.	.	.	.	.	.	.	.IRLE	.	.
	64950.	C	.	.	.	.	.	.	.	.IRLE	.	.
	65000.	C	.	.	.	.	.	.	.	.IRLE	.	.
	65050.	C	.	.	.	.	.	.	.	.IRLE	.	.
	65100.	C	.	.	.	.	.	.	.	.IRLE	.	.
	65150.	C	.	.	.	.	.	.	.	.IRLE	.	.
12.35	65200.	C	.	.	.	.	.	.	.	.IRLE	.	.
	65250.	C	.	.	.	.	.	.	.	.IRLE	.	.
	65300.	C	.	.	.	.	.	.	.	.IRLE	.	.
	65350.	C	.	.	.	.	.	.	.	.IRLE	.	.
	65400.	C	.	.	.	.	.	.	.	.IRLE	.	.
	65450.	C	.	.	.	.	.	.	.	.IRLE	.	.
	65500.	C	.	.	.	.	.	.	.	.IL E	.	.
	65550.	C	.	.	.	.	.	.	.	.IL E	.	.
	65600.	C	.	.	.	.	.	.	.	.IL E	.	.

	65650.	C	.	.	.	.	.	.	.	.IL	E	.	.
12.44	65700.	C	.	.	.	.	.	.	.	.IL	E	.	.
	65750.	C	.	.	.	.	.	.	.	.IL	E	.	.
	65800.	C	.	.	.	.	.	.	.	.IL	E	.	.
	65850.	C	.	.	.	.	.	.	.	.IL	E	.	.
	65900.	C	.	.	.	.	.	.	.	.IL	E	.	.
	65950.	C	.	.	.	.	.	.	.	.IL	E	.	.
	66000.	C	.	.	.	.	.	.	.	.IL	E	.	.
	66050.	C	.	.	.	.	.	.	.	.IL	E	.	.
	66100.	C	.	.	.	.	.	.	.	.IL	E	.	.
	66150.	C	.	.	.	.	.	.	.	.IL	E	.	.
12.53	66200.	C	.	.	.	.	.	.	.	.IL	E	.	.
	66250.	C	.	.	.	.	.	.	.	. I	E	.	.
	66300.	C	.	.	.	.	.	.	.	. ILE		.	.
	66350.	C	.	.	.	.	.	.	.	. ILE		.	.
	66400.	C	.	.	.	.	.	.	.	. IE		.	.
	66450.	C	.	.	.	.	.	.	.	. IME		.	.
	66500.	C	.	.	.	.	.	.	.	. ILE		.	.
	66550.	C	.	.	.	.	.	.	.	. IE		.	.
	66600.	C	.	.	.	.	.	.	.	. IE		.	.
	66650.	.	.	C	.	.	.	.	.	. IE		.	.
12.63	66700.	.	.	.	.	.	.	.	.	. E		.	.
	66750.	.	C	.	.	.	.	.	.	. E		.	.
	66800.	C	.	.	.	.	.	.	.	. E		.	.
	66850.	C	.	.	.	.	.	.	.	. E		.	.
	66900.	C	.	.	.	.	.	.	.	. IE		.	.
	66950.	C	.	.	.	.	.	.	.	. IE		.	.
	67000.	C	.	.	.	.	.	.	.	. IE		.	.
12.70	67050.	C	.	.	.	.	.	.	.	. IE		.	.
	67100.	C	.	.	.	.	.	.	.	. IE		.	.
	67150.	C	.	.	.	.	.	.	.	. IE		.	.
	67200.	C	.	.	.	.	.	.	.	. IE		.	.
	67250.	C	.	.	.	.	.	.	.	. IE		.	.
	67300.	C	.	.	.	.	.	.	.	. IE		.	.
	67350.	C	.	.	.	.	.	.	.	. IE		.	.
12.76	67400.	C	.	.	.	.	.	.	.	. IWE		.	.
	67450.	C	.	.	.	.	.	.	.	. ILE		.	.
	67500.	C	.	.	.	.	.	.	.	. ILE		.	.
	67550.	C	.	.	.	.	.	.	.	. IE		.	.
	67600.	C	.	.	.	.	.	.	.	. IE		.	.
	67650.	C	.	.	.	.	.	.	.	. IE		.	.
	67700.	C	.	.	.	.	.	.	.	. IE		.	.
	67750.	C	.	.	.	.	.	.	.	. IE		.	.
	67800.	C	.	.	.	.	.	.	.	. IE		.	.
	67850.	C	.	.	.	.	.	.	.	. IE		.	.
	67900.	C	.	.	.	.	.	.	.	. IE		.	.
12.87	67950.	C	.	.	.	.	.	.	.	. IE		.	.
	68000.	C	.	.	.	.	.	.	.	. IE		.	.
	68050.	C	.	.	.	.	.	.	.	. IE		.	.
	68100.	C	.	.	.	.	.	.	.	. IE		.	.
	68150.	C	.	.	.	.	.	.	.	. IE		.	.
	68200.	C	.	.	.	.	.	.	.	. IE		.	.
	68250.	C	.	.	.	.	.	.	.	. IE		.	.
	68300.	C	.	.	.	.	.	.	.	. IE		.	.
	68350.	C	.	.	.	.	.	.	.	. IE		.	.
	68400.	C	.	.	.	.	.	.	.	. IE		.	.
	68450.	C	.	.	.	.	.	.	.	. IE		.	.
	68500.	C	.	.	.	.	.	.	.	. IE		.	.
	68550.	C	.	.	.	.	.	.	.	. IE		.	.
	68600.	C	.	.	.	.	.	.	.	. IE		.	.
	68650.	C	.	.	.	.	.	.	.	. IE		.	.
	68700.	C	.	.	.	.	.	.	.	. IE		.	.

	68750.	C	.	.	.	.	.	.	.	.	IE	.
	68800.	C	.	.	.	.	.	.	.	.	IE	.
	68850.	C	.	.	.	.	.	.	.	.	IE	.
13.04	68900.	C	.	.	.	.	.	.	.	.	IE	.
	68950.	C	.	.	.	.	.	.	.	.	IE	.
	69000.	C	.	.	.	.	.	.	.	.	IWE	.
	69050.	C	.	.	.	.	.	.	.	.	IE	.
	69100.	C	.	.	.	.	.	.	.	.	IE	.
	69150.	C	.	.	.	.	.	.	.	.	IE	.
	69200.	C	.	.	.	.	.	.	.	.	IE	.
	69250.	C	.	.	.	.	.	.	.	.	IE	.
	69300.	C	.	.	.	.	.	.	.	.	IE	.
	69350.	C	.	.	.	.	.	.	.	.	IE	.
	69400.	C	.	.	.	.	.	.	.	.	IE	.
	69450.	C	.	.	.	.	.	.	.	.	IE	.
13.16	69500.	C	.	.	.	.	.	.	.	.	IE	.
	69550.	C	.	.	.	.	.	.	.	.	IE	.
	69600.	C	.	.	.	.	.	.	.	.	IE	.
	69650.	C	.	.	.	.	.	.	.	.	IE	.
	69700.	C	.	.	.	.	.	.	.	.	E	.
	69750.	C	.	.	.	.	.	.	.	.	WE	.
	69800.	C	.	.	.	.	.	.	.	.	IE	.
	69850.	C	.	.	.	.	.	.	.	.	IE	.
	69900.	C	.	.	.	.	.	.	.	.	IE	.
13.25	69950.	C	.	.	.	.	.	.	.	.	IE	.
	70000.	C	.	.	.	.	.	.	.	.	IE	.
	70050.	C	.	.	.	.	.	.	.	.	IE	.
	70100.	C	.	.	.	.	.	.	.	.	IE	.
	70150.	C	.	.	.	.	.	.	.	.	IE	.
	70200.	C	.	.	.	.	.	.	.	.	IEM.	.
	70250.	C	.	.	.	.	.	.	.	.	IEM.	.
	70300.	C	.	.	.	.	.	.	.	.	IEM.	.
	70350.	C	.	.	.	.	.	.	.	.	IEM.	.
	70400.	C	.	.	.	.	.	.	.	.	IEM.	.
	70450.	C	.	.	.	.	.	.	.	.	IEL.	.
13.35	70500.	C	.	.	.	.	.	.	.	.	I E.	.
	70550.	C	.	.	.	.	.	.	.	.	I E.	.
	70600.	C	.	.	.	.	.	.	.	.	I E.	.
	70650.	C	.	.	.	.	.	.	.	.	I E.	.
	70700.	C	.	.	.	.	.	.	.	.	IEM	.
	70750.	C	.	.	.	.	.	.	.	.	IEM	.
	70800.	C	.	.	.	.	.	.	.	.	IEM	.
	70850.	C	.	.	.	.	.	.	.	.	IEM	.
13.43	70900.	C	.	.	.	.	.	.	.	.	IEM	.
	70950.	C	.	.	.	.	.	.	.	.	IEM	.
	71000.	C	.	.	.	.	.	.	.	.	IEM	.
	71050.	C	.	.	.	.	.	.	.	.	IEM	.
	71100.	C	.	.	.	.	.	.	.	.	IEM	.
	71150.	C	.	.	.	.	.	.	.	.	EM	.
	71200.	C	.	.	.	.	.	.	.	.	WE	.
	71250.	C	.	.	.	.	.	.	.	.	IEM	.
	71300.	C	.	.	.	.	.	.	.	.	IEM	.
	71350.	C	.	.	.	.	.	.	.	.	IEM	.
	71400.	C	.	.	.	.	.	.	.	.	IEM	.
	71450.	C	.	.	.	.	.	.	.	.	IEM	.
	71500.	C	.	.	.	.	.	.	.	.	IEM	.
	71550.	C	.	.	.	.	.	.	.	.	EM	.
13.56	71600.	C	.	.	.	.	.	.	.	.	EM	.
	71650.	C	.	.	.	.	.	.	.	.	EM	.
	71700.	C	.	.	.	.	.	.	.	.	IE	.
	71750.	C	.	.	.	.	.	.	.	.	IE	.
	71800.	C	.	.	.	.	.	.	.	.	IE	.

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        71850.  C  .  .  .  .  .  .  .  .  IE   .
        71900.  C  .  .  .  .  .  .  .  .  IEM  .
        71950.  C  .  .  .  .  .  .  .  .  IEM  .
        72000.  C  .  .  .  .  .  .  .  .  IEM  .
        72050.  C  .  .  .  .  .  .  .  .  IEM  .
        72100.  C  .  .  .  .  .  .  .  .  IEM  .
        72150.  C  .  .  .  .  .  .  .  .  .IE  .
  13.67 72200.  C  .  .  .  .  .  .  .  .  .IE  .
        72250.  C  .  .  .  .  .  .  .  .  .IE  .
        72300.  C  .  .  .  .  .  .  .  .  .IE  .
        72350.  C  .  .  .  .  .  .  .  .  .IE  .
        72400.  C  .  .  .  .  .  .  .  .  .IE  .
        72450.  C  .  .  .  .  .  .  .  .  .IEM  .
        72500.  C  .  .  .  .  .  .  .  .  .IEM  .
        72550.  C  .  .  .  .  .  .  .  .  . EM  .
        72600.  C  .  .  .  .  .  .  .  .  . EM  .
        72650.  C  .  .  .  .  .  .  .  .  . IE  .
        72700.  C  .  .  .  .  .  .  .  .  . IE  .
        72750.  C  .  .  .  .  .  .  .  .  . IE  .
  13.78 72800.  C  .  .  .  .  .  .  .  .  . IE  .
        72850.  C  .  .  .  .  .  .  .  .  . IE  .
        72900.  C  .  .  .  .  .  .  .  .  .  E  .
        72950.  C  .  .  .  .  .  .  .  .  .  EM  .
        73000.  C  .  .  .  .  .  .  .  .  .  EM  .
        73050.  C  .  .  .  .  .  .  .  .  .  EM  .
        73100.  C  .  .  .  .  .  .  .  .  .  IE  .
        73150.  C  .  .  .  .  .  .  .  .  .  IE  .
        73200.  C  .  .  .  .  .  .  .  .  .  IE  .
        73250.  C  .  .  .  .  .  .  .  .  .  IE  .
        73300.  C  .  .  .  .  .  .  .  .  .  IE  .
        73350.  C  .  .  .  .  .  .  .  .  .  IE  .
  13.90 73400.  C  .  .  .  .  .  .  .  .  .   EM  .
        73450.  C  .  .  .  .  .  .  .  .  .   EM  .
        73500.  C  .  .  .  .  .  .  .  .  .   EM  .
        73550.  C  .  .  .  .  .  .  .  .  .   EM  .
        73600.  C  .  .  .  .  .  .  .  .  .   IE  .
        73650.  C  .  .  .  .  .  .  .  .  .   IE  .
        73700.  C  .  .  .  .  .  .  .  .  .   IE  .
        73750.  C  .  .  .  .  .  .  .  .  .   IE  .
        73800.  C  .  .  .  .  .  .  .  .  .   IEM  .
        73850.  C  .  .  .  .  .  .  .  .  .   IEM  .
        73900.  C  .  .  .  .  .  .  .  .  .   IEM  .
        73950.  C  .  .  .  .  .  .  .  .  .   IEM  .
        74000.  C  .  .  .  .  .  .  .  .  .   EM  .
  14.02 74050.  C  .  .  .  .  .  .  .  .  .   EM  .
1
  15OCT92      09:14:53                                                    PAGE   68


T1      WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2      100 - YEAR STORM EVENT   FLOODWAY RUN  FILE: 10.H2I
T3      BULLARD WASH  (WASH 10) - FROM BUCKEYE CANAL TO DYSART DRAIN.

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

              3                                                          912.32

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    14                 -1

1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2
0

CCHV= .100 CEHV= .300
*SECNO .000

*** DUE TO THE COMPLEXITY OF THE DOWNSTREAM REACH (CROSS-SECTIONS 0.000 TO 2.297),AN APPROXIMATE FLOODPLAIN DELINEATION HAS BEEN SHOWN IN THIS REACH.HOWEVER,A HEC-2 MODEL WAS SET UP INCLUDING THESE X-SECTIONS TO AID IN PRODUCING A REASONABLE APPROXIMATE DELINEATION.THIS APPROXIMATE DELINEATION IS AS SHOWN ON THE MAPS AND IS BASED ON ENGINEERING JUDGEMENT REFLCTING THE EXISTING TOPOGRAPHY,AND USING INFORMATION FROM THE HEC-2 MODEL TO ESTIMATE WHERE BREAKOUT FLOWS WILL OCCUR.
ALSO, AN APPROXIMATE FLOODPLAIN DELINEATION HAS BEEN SHOWN FOR THE UPPERMOST REACH OF BULLARD WASH (CROSS-SECTIONS 10.269 TO 14.023). THE HEC-2 MODEL WAS ALSO UTILIZED TO ESTIMATE THE APPROXIMATE DELINEATION IN THIS REACH.
A DETAILED ANALYSIS WAS PERFORMED ON BULLARD WASH FROM CROSS-SECTION 2.371 TO 6.320 AND FROM 9.189 TO 10.197.

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THE AREA BETWEEN X-SECTION 6.320 AND X-SECTION 9.189 IS CURRENTLY UNDER CONSTRUCTION. NO FLOODPLAIN HAS BEEN PREPARED FOR THIS AREA OF BULLARD WASH, HOWEVER, THE HEC-2 ANALYSIS WAS CONTINUED BASED ON EXISTING CONDITIONS AT THE TIME OF THE AERIAL MAPPING TO COMPUTE WATER SURFACE ELEVATIONS UPSTREAM AND DOWNSTREAM OF THIS REACH.

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*** THE DISCHARGE IN FIELD 4 OF THE QT CARDS IS THE ACTUAL DISCHRAGE DERIVED FROM THE 100-YEAR 24-HOUR HEC1 MODEL. THIS DISCHRGE IS FOR COMPARISON PURPOSES ONLY AND NO PROFILE IS BEING COMPUTED FOR IT. DISCHARGES FOR PROFILES 1 & 2 ARE USED TO DELINEATE THE FLOODPLAIN AND FLOODWAY RESPECTIVELY. THESE DISCHARGES ARE BASED UPON THE CAPACITY OF THE CHANNEL PLUS A MAXIMUM OF 1 FOOT OVER THE TOP WHERE CAPACITY IS EXCEEDED. THESE SITUATIONS ARE

1

DOCUMENTED THROUGHOUT THE HEC-2 MODEL.

** BEGIN APPROXIMATE FLOODPLAIN DELINEATION

CROSS-SECTION AT BUKEYE CANAL

Q = Q AT CP364 (= 3110 CFS).
THIS Q HAS BEEN REDUCED TO THE CAPACITY OF THE CHANNEL PLUS A MAXIMUM OF 1 FOOT OVER THE LIMITING ELEVATION AT THE RIGHT OVERBANK.
EXCEEDED FLOW WILL CONTINUE AS SHEET FLOW TO THE WEST.

.000	1.82	912.32	.00	912.32	912.34	.02	.00	.00	912.00
850.0	624.6	160.3	65.1	577.9	104.8	134.8	.0	.0	912.00
.00	1.08	1.53	.48	.070	.040	.070	.000	910.50	9325.60
.002500	0.	0.	0.	0	0	0	.00	1246.80	10572.40

*SECNO .047
3280 CROSS SECTION .05 EXTENDED .05 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.47

ANY WSEL EXTENSION AT X1= 0.047 TO X1= 0.616 IS DUE TO THE LIMITING ELEVATION AT THE RIGHT OVERBANK.

.047	2.55	912.55	.00	.00	912.55	.01	.21	.00	912.30
850.0	347.1	275.0	227.9	767.1	249.4	511.0	6.9	8.5	910.30
.11	.45	1.10	.45	.070	.040	.070	.000	910.00	9133.16
.000409	265.	250.	240.	3	0	0	.00	1686.84	10820.00

*SECNO .121
3280 CROSS SECTION .12 EXTENDED .23 FEET

.121	2.73	912.73	.00	.00	912.74	.01	.19	.00	912.70
850.0	111.5	232.8	505.7	288.0	190.3	811.2	19.5	22.2	910.40
.25	.39	1.22	.62	.070	.040	.070	.000	910.00	9452.48
.000588	390.	390.	390.	2	0	0	.00	1367.52	10820.00

*SECNO .201
3280 CROSS SECTION .20 EXTENDED .53 FEET

.201	3.03	913.03	.00	.00	913.05	.02	.30	.00	913.00
850.0	12.0	366.8	471.2	52.9	228.3	699.4	30.4	34.1	910.50
.36	.23	1.61	.67	.070	.040	.070	.000	910.00	9724.55
.000886	420.	420.	420.	2	0	0	.00	1095.45	10820.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .292
3280 CROSS SECTION .29 EXTENDED .89 FEET

.292	2.89	913.39	.00	.00	913.41	.02	.36	.00	913.30
850.0	7.9	301.6	540.6	31.4	208.8	880.3	42.0	45.3	912.10
.51	.25	1.44	.61	.070	.040	.070	.000	910.50	9860.27

.000645	480.	480.	480.	1	0	0	.00	939.73	10800.00

*SECNO .384

3265 DIVIDED FLOW

3280 CROSS SECTION .38 EXTENDED .49 FEET

DIVIDED FLOW OCCURS FOR THE NEXT FOUR UPSTREAM CROSS-SECTIONS,
HOWEVER, THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 0.668

.384	2.69	913.69	.00	.00	913.70	.01	.29	.00	914.30
850.0	9.9	241.9	598.1	51.5	198.7	1214.3	56.6	59.6	912.70
.70	.19	1.22	.49	.070	.040	.070	.000	911.00	9688.05
.000541	490.	490.	490.	2	0	0	.00	1604.28	11370.00

*SECNO .488

3265 DIVIDED FLOW

3280 CROSS SECTION .49 EXTENDED .81 FEET

.488	2.01	914.01	.00	.00	914.02	.01	.32	.00	915.20
850.0	1.1	141.8	707.0	9.0	132.6	1293.2	74.7	78.8	913.50
.94	.13	1.07	.55	.070	.040	.070	.000	912.00	9875.31
.000648	545.	545.	545.	0	0	0	.00	1469.90	11365.00

*SECNO .531

3265 DIVIDED FLOW

3280 CROSS SECTION .53 EXTENDED .98 FEET

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
.531	1.38	914.18	.00	.00	914.18	.01	.16	.00	915.40
850.0	.1	37.2	812.8	.9	55.1	1319.2	82.1	86.4	914.20
1.05	.06	.67	.62	.070	.040	.070	.000	912.80	9897.62
.000757	230.	230.	230.	2	0	0	.00	1385.91	11350.00

*SECNO .616

3265 DIVIDED FLOW

3280 CROSS SECTION .62 EXTENDED .05 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.90

Q = Q AT CP364A (= 4895 CFS).

.616	2.25	916.05	.00	.00	916.19	.14	1.97	.04	916.50
4895.0	.0	411.6	4483.4	.0	120.0	1539.8	98.8	98.6	915.20
1.09	.02	3.43	2.91	.070	.040	.070	.000	913.80	9669.96
.006955	405.	450.	480.	6	0	0	.00	844.48	10830.00

CCHV= .100 CEHV= .300
*SECNO .668
3280 CROSS SECTION .67 EXTENDED .97 FEET

ANY WSEL EXTENSION AT X1= 0.668 TO X1= 1.378 IS DUE TO THE
LIMITING ELEVATION AT THE LEFT BANK.

.668	2.76	918.26	918.09	.00	918.74	.48	2.45	.10	917.30
4895.0	1659.0	930.4	2305.7	401.3	129.1	403.9	106.9	103.2	916.80
1.10	4.13	7.21	5.71	.045	.030	.045	.000	915.50	9620.00
.012123	200.	270.	290.	11	11	0	.00	665.47	10285.47

*SECNO .776
3280 CROSS SECTION .78 EXTENDED .35 FEET

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.39

.776	4.55	920.95	.00	.00	921.14	.19	2.37	.03	920.60
4895.0	.0	577.2	4317.8	.0	133.2	1266.6	122.0	110.8	917.90
1.15	.00	4.33	3.41	.000	.030	.045	.000	916.40	9975.00
.002116	535.	570.	570.	4	0	0	.00	510.12	10485.12

*SECNO .868
3280 CROSS SECTION .87 EXTENDED .47 FEET

.868	4.17	922.17	.00	.00	922.43	.26	1.27	.02	921.70
4895.0	.0	747.2	4147.8	.0	136.1	1099.3	136.7	116.5	919.80
1.18	.00	5.49	3.77	.000	.030	.045	.000	918.00	9970.00
.003296	495.	490.	485.	4	0	0	.00	515.69	10485.69

*SECNO .964
3280 CROSS SECTION .96 EXTENDED .92 FEET

.964	4.92	924.12	.00	.00	924.61	.49	2.11	.07	923.20
4895.0	.0	1739.3	3155.7	.0	229.1	771.9	149.7	122.0	922.50
1.21	.00	7.59	4.09	.000	.030	.045	.000	919.20	9970.00
.005474	505.	505.	505.	2	0	0	.00	441.24	10411.24

*SECNO 1.081
3280 CROSS SECTION 1.08 EXTENDED .58 FEET

Q = Q AT CP364A (= 4895 CFS).
THIS Q HAS BEEN REDUCED BY THE SAME AMOUNT THAT EXCEEDED THE
CAPACITY OF THE CHANNEL AT THE UPSTREAM REACH X1= 1.474 TO
X1= 1.823, THAT EXCEEDED FLOW WILL RETURN AT X1= 0.964

1.081	3.28	926.28	.00	.00	926.37	.09	1.72	.04	925.70
2596.0	.0	779.9	1816.1	.0	281.2	817.0	164.5	128.3	925.00
1.28	.00	2.77	2.22	.000	.030	.045	.000	923.00	9955.00
.001187	595.	620.	610.	2	0	0	.00	451.38	10406.38

*SECNO 1.153
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

DIVIDED FLOW OCCURS FOR THE NEXT FOUR UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 1.435

1.153	3.68	926.68	.00	.00	926.76	.08	.39	.00	928.40
2596.0	.0	586.6	2009.4	.0	223.0	945.0	173.8	132.1	925.80
1.32	.00	2.63	2.13	.000	.030	.045	.000	923.00	9959.96
.000973	410.	380.	355.	3	0	0	.00	453.30	10422.36

*SECNO 1.236

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.236	3.45	927.45	927.45	.00	928.35	.90	.93	.25	930.20
2596.0	.0	1818.0	778.0	.0	207.0	207.6	181.7	135.5	928.30
1.34	.00	8.78	3.75	.000	.030	.045	.000	924.00	9974.25
.008002	435.	435.	435.	20	12	0	.00	242.61	10325.72

*SECNO 1.317

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.90

1.317	5.70	929.70	.00	.00	930.04	.34	1.63	.06	930.40
2596.0	.0	1655.1	940.9	.0	297.7	381.5	187.1	138.2	928.50
1.37	.00	5.56	2.47	.000	.030	.045	.000	924.00	9970.74
.002209	430.	430.	430.	3	0	0	.00	300.91	10314.63

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.378

3265 DIVIDED FLOW

1.378	6.38	930.38	.00	.00	930.64	.26	.59	.01	930.80
2596.0	.0	1444.6	1151.4	.0	285.0	516.1	192.3	140.5	928.80
1.39	.00	5.07	2.23	.000	.030	.045	.000	924.00	9965.18
.001666	345.	320.	295.	3	0	0	.00	370.84	10366.88

*SECNO 1.435

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CROSS-SECTION AT STATE ROUTE 85

1.435	4.87	931.17	931.17	.00	932.39	1.22	.87	.29	931.40
2596.0	.0	2555.5	40.5	.0	285.9	24.1	195.4	141.9	931.00
1.40	.00	8.94	1.68	.000	.030	.045	.000	926.30	9966.34
.008479	330.	300.	180.	20	15	0	.00	162.61	10128.96

*SECNO 1.474
3280 CROSS SECTION 1.47 EXTENDED .62 FEET

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

Q = Q AT CP336 (= 4899 CFS).
THIS Q HAS BEEN REDUCED TO THE CAPACITY OF THE CHANNEL PLUS A MAXIMUM OF 1 FOOT OVER THE LIMITING ELEVATION AT THE RIGHT OVERBANK. EXCEEDED FLOW WILL RETURN AT X1= 0.964

ANY WSEL EXTENSION AT X1= 1.474 TO X1= 1.823 IS DUE TO THE LIMITING ELEVATION AT THE RIGHT OVERBANK.

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1.474	5.62	933.62	933.62	.00	934.04	.42	1.27	.08	932.00
2600.0	1465.5	961.6	172.9	760.5	118.6	72.8	198.4	144.8	932.00
1.41	1.93	8.11	2.38	.045	.030	.045	.000	928.00	9045.76
.004512	210.	210.	210.	4	12	0	.00	1034.24	10080.00

CCHV= .300 CEHV= .500
*SECNO 1.517
3280 CROSS SECTION 1.52 EXTENDED .19 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.98

1.517	2.68	934.88	.00	.00	934.94	.06	.80	.11	933.20
2600.0	1796.4	803.6	.0	1083.0	320.4	.0	210.3	154.5	934.70
1.47	1.66	2.51	.00	.045	.030	.000	.000	932.20	9266.45
.001146	500.	225.	160.	1	0	0	.00	813.55	10080.00

CNO 1.566
3280 CROSS SECTION 1.57 EXTENDED .11 FEET

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.566	3.71	936.21	936.21	.00	937.38	1.17	.67	.56	934.00
2600.0	140.4	2399.1	60.4	42.9	266.5	19.0	216.2	157.8	934.00
1.48	3.27	9.00	3.19	.045	.030	.045	.000	932.50	9914.72
.007773	320.	260.	210.	20	11	0	.00	150.28	10065.00

CCHV= .100 CEHV= .300
*SECNO 1.634
3280 CROSS SECTION 1.63 EXTENDED .97 FEET

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.06

1.634	5.27	938.27	.00	.00	938.66	.38	1.19	.08	934.00
2600.0	727.3	1573.5	299.2	269.4	262.5	106.2	220.2	159.4	934.00
1.50	2.70	5.99	2.82	.045	.030	.045	.000	933.00	9832.50
.001824	360.	360.	360.	3	0	0	.00	232.50	10065.00

*SECNO 1.680
3280 CROSS SECTION 1.68 EXTENDED .57 FEET

1.680	5.37	938.77	.00	.00	939.01	.24	.34	.01	934.00
2600.0	805.5	1399.3	395.2	396.5	279.1	171.0	224.1	160.9	934.00
1.52	2.03	5.01	2.31	.045	.030	.045	.000	933.40	9761.32
.001176	200.	240.	285.	2	0	0	.00	338.68	10100.00

*SECNO 1.745
3280 CROSS SECTION 1.75 EXTENDED .97 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.56

1.745	5.37	939.17	.00	.00	939.27	.10	.24	.01	934.50
2600.0	631.1	1329.0	639.9	419.4	410.7	439.1	232.3	163.7	934.50
1.56	1.50	3.24	1.46	.045	.030	.045	.000	933.80	9787.12
.000482	280.	345.	400.	2	0	0	.00	422.88	10210.00

*SECNO 1.823
3280 CROSS SECTION 1.82 EXTENDED .81 FEET

1.823	4.51	939.41	.00	.00	939.47	.06	.20	.00	936.00
2600.0	1094.0	896.1	609.9	950.7	317.0	461.9	245.9	169.3	936.00
1.62	1.15	2.83	1.32	.045	.030	.045	.000	934.90	9432.35
.000520	370.	410.	425.	2	0	0	.00	822.65	10255.00

*SECNO 1.893

3265 DIVIDED FLOW

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Q = Q AT CP336 (=4899 CFS).

DIVIDED FLOW OCCURS FOR THE NEXT FIVE UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 2.371

1.893	3.61	939.71	.00	.00	939.85	.14	.36	.02	937.00
4899.0	3225.2	1190.3	483.5	1448.1	252.9	231.6	259.0	176.0	937.00
1.65	2.23	4.71	2.09	.045	.030	.045	.000	936.10	9093.62
.001947	280.	370.	370.	2	0	0	.00	1080.16	10199.81

*SECNO 1.941

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .66

1.941	3.60	939.90	.00	.00	940.11	.21	.24	.02	940.00
4899.0	4627.7	271.3	.0	1277.9	66.3	.0	262.0	177.6	940.00
1.66	3.62	4.09	.00	.045	.030	.000	.000	936.30	8961.19
.004537	40.	255.	290.	2	0	0	.00	700.71	10024.29

CCHV= .100 CEHV= .300
*SECNO 1.988

3265 DIVIDED FLOW

1.988	3.80	940.10	.00	.00	940.30	.19	.18	.00	944.00
4899.0	4790.9	108.1	.0	1359.5	35.4	.0	263.3	178.4	944.00
1.66	3.52	3.06	.00	.045	.030	.000	.000	936.30	8915.50
.003961	35.	245.	280.	2	0	0	.00	696.81	10015.41

*SECNO 2.058

3265 DIVIDED FLOW

3280 CROSS SECTION 2.06 EXTENDED .27 FEET

ANY WSEL EXTENSION AT X1= 2.058 TO X1= 2.185 IS DUE TO THE
LIMITING ELEVATIONS AT THE LEFT OVERBANK.

2.058	4.67	941.27	.00	.00	941.42	.14	1.12	.00	944.00
4899.0	4612.2	286.8	.0	1546.4	78.3	.0	275.5	184.3	944.00
1.69	2.98	3.66	.00	.045	.030	.000	.000	936.60	8850.00
.002608	350.	370.	370.	2	0	0	.00	772.16	10024.75

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.185

3265 DIVIDED FLOW

3280 CROSS SECTION 2.18 EXTENDED .16 FEET

2.185	5.46	942.66	.00	.00	943.05	.39	1.56	.07	944.00
4899.0	4109.4	789.6	.0	846.6	139.0	.0	289.0	190.7	944.00
1.72	4.85	5.68	.00	.045	.030	.000	.000	937.20	9310.00
.004656	430.	670.	670.	2	0	0	.00	472.18	10034.94

*SECNO 2.297

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.93

** END OF APPROXIMATE FLOODPLAIN DELINEATION .

2.297	5.70	943.50	.00	.00	943.54	.04	.46	.03	941.30
4899.0	3868.5	433.0	597.5	2357.1	222.9	1049.4	319.3	201.3	940.80
1.83	1.64	1.94	.57	.045	.030	.070	.000	937.80	9438.68
.000301	610.	595.	450.	3	0	0	.00	1206.62	10645.29

*SECNO 2.371

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .31

3470 ENCROACHMENT STATIONS= 9650.0 10070.0 TYPE= 1 TARGET= 420.000

** BEGIN DETAILED FLOODPLAIN\FLOODWAY ANALYSIS.

2.371	4.21	943.61	.00	943.66	943.90	.29	.29	.08	942.00
4899.0	3635.7	1006.2	257.1	927.7	171.3	113.5	342.8	209.5	940.70
1.85	3.92	5.87	2.27	.045	.030	.070	.000	939.40	9650.00
.003100	400.	390.	500.	3	0	0	.00	420.00	10070.00

*SECNO 2.435

3470 ENCROACHMENT STATIONS= 9835.0 10210.0 TYPE= 1 TARGET= 375.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.435	4.67	944.57	.00	943.91	945.10	.53	1.13	.07	942.00
4899.0	1250.1	2766.5	882.4	355.6	379.6	350.3	351.6	212.6	941.70
1.87	3.52	7.29	2.52	.045	.030	.070	.000	939.90	9835.00
.003667	335.	335.	335.	2	0	0	.00	375.00	10210.00

*SECNO 2.536

3470 ENCROACHMENT STATIONS= 9850.0 10250.0 TYPE= 1 TARGET= 400.000

CROSS-SECTION 30 FEET SOUTH OF LOWER BUKEYE RD. "EXTENDED"

Q = Q AT CP335 (= 4906 CFS).

2.536	3.32	946.82	.00	945.80	947.30	.48	2.19	.01	943.80
4906.0	1140.2	2219.2	1546.6	274.4	304.1	539.5	365.2	217.4	943.70
1.90	4.16	7.30	2.87	.045	.030	.070	.000	943.50	9850.00
.004601	535.	535.	535.	2	0	0	.00	400.00	10250.00

*SECNO 2.680

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9800.0 10205.0 TYPE= 1 TARGET= 405.000

DIVIDED FLOW OCCURS FOR THE NEXT TWO UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 2.883

2.680	4.33	949.53	.00	949.13	950.02	.49	2.72	.00	947.30
4906.0	135.2	3235.7	1535.1	66.5	485.5	566.2	384.1	223.9	945.60
1.94	2.03	6.66	2.71	.045	.030	.070	.000	945.20	9800.00
.002967	735.	760.	725.	1	0	0	.00	370.13	10205.00

*SECNO 2.771

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .70

3470 ENCROACHMENT STATIONS= 9880.0 10225.0 TYPE= 1 TARGET= 345.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.771	4.24	951.54	.00	950.61	952.01	.46	1.98	.00	949.40
4906.0	644.7	1083.9	3177.4	173.3	121.9	786.2	396.2	227.8	948.20
1.97	3.72	8.89	4.04	.045	.030	.070	.000	947.30	9880.00
.006131	480.	480.	480.	2	0	0	.00	345.00	10225.00

*SECNO 2.883

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.67

3470 ENCROACHMENT STATIONS= 9830.0 10180.0 TYPE= 1 TARGET= 350.000

2.883	5.29	953.79	.00	952.83	954.04	.25	2.01	.02	950.20
4906.0	2326.6	841.0	1738.4	608.8	133.8	682.6	413.0	232.4	950.10
2.01	3.82	6.28	2.55	.045	.030	.070	.000	948.50	9830.00
.002210	580.	590.	580.	2	0	0	.00	350.00	10180.00

*SECNO 2.977

3470 ENCROACHMENT STATIONS= 9820.0 10055.0 TYPE= 1 TARGET= 235.000

Q = Q AT CP334 (= 4915 CFS).

2.977	5.04	954.94	.00	954.27	955.58	.65	1.42	.12	951.50
4915.0	2520.5	2367.1	27.3	547.9	296.5	14.1	426.1	235.8	952.10
2.03	4.60	7.98	1.94	.045	.030	.070	.000	949.90	9820.00
.003803	500.	500.	500.	2	0	0	.00	235.00	10055.00

*SECNO 3.070

```
3470 ENCROACHMENT STATIONS=     9790.0   10180.0  TYPE=      1  TARGET=      390.000
    3.070      4.64    956.94       .00    956.13    957.29       .35      1.68       .03    954.50
   4915.0    1248.9    1903.3    1762.8     378.0     291.6     607.5     438.1     239.3    953.20
     2.06      3.30      6.53      2.90      .045      .030      .070      .000    952.30   9790.00
  .003115      485.      490.      495.         2         0         0       .00    390.00  10180.00

*SECNO 3.167

3470 ENCROACHMENT STATIONS=     9730.0   10190.0  TYPE=      1  TARGET=      460.000

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                Q = Q AT 1I334        (= 4432 CFS).

    3.167      4.41    958.31       .00    957.36    958.50       .19      1.19       .02    955.10
   4432.0    2166.6    1054.3    1211.2     732.0     198.1     587.7     454.0     244.1    954.90
     2.10      2.96      5.32      2.06      .045      .030      .070      .000    953.90   9730.00
  .001844      475.      510.      515.         2         0         0       .00    460.00  10190.00

*SECNO 3.291

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .43

3470 ENCROACHMENT STATIONS=     9987.0   10330.0  TYPE=      1  TARGET=      343.000

                DIVIDED FLOW OCCURS FOR THE NEXT TWO UPSTREAM CROSS-SECTIONS,
                HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
                X1= 3.602

    3.291      3.35    960.55       .00    959.72    960.89       .35      2.35       .05 100000.00
   4432.0        .0     447.1    3984.9        .0      61.6     912.0     472.7     250.2    960.10
     2.14       .00      7.26      4.37      .000      .030      .070      .000    957.20   9987.00
  .009894      660.      655.      650.         2         0         0       .00    343.00  10330.00

*SECNO 3.376

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.05

3470 ENCROACHMENT STATIONS=     9840.0   10365.0  TYPE=      1  TARGET=      525.000
    3.376      4.39    962.69       .00    961.76    962.80       .11      1.88       .02    961.90
   4432.0     568.4     323.7    3539.9     247.7      74.6    1379.2     486.3     254.6    961.00
     2.19      2.29      4.34      2.57      .045      .030      .070      .000    958.30   9840.00
  .002354      460.      450.      440.         1         0         0       .00    525.00  10365.00

*SECNO 3.491

3470 ENCROACHMENT STATIONS=     9870.0   10260.0  TYPE=      1  TARGET=      390.000
    3.491      4.54    964.04       .00    963.20    964.22       .18      1.40       .02    961.90
   4432.0    1144.0     721.3    2566.6     344.8     135.7     990.1     508.3     260.9    961.90
     2.24      3.32      5.31      2.59      .045      .030      .070      .000    959.50   9870.00
  .002279      605.      605.      605.         4         0         0       .00    390.00  10260.00

CCHV=     .100 CEHV=     .300
```

*SECNO 3.602

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 9840.0 10170.0 TYPE= 1 TARGET= 330.000

CROSS-SECTION AT YUMA RD.

Q = Q AT CP316 (= 4438 CFS).

3.602	3.57	965.47	.00	964.68	965.76	.28	1.51	.03	962.00
4438.0	296.9	3577.2	563.8	126.6	775.1	230.4	526.0	265.8	962.00
2.28	2.34	4.61	2.45	.070	.040	.070	.000	961.90	9840.00
.002878	590.	590.	590.	2	0	0	.00	330.00	10170.00

*SECNO 3.702

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9550.0 10140.0 TYPE= 1 TARGET= 590.000

DIVIDED FLOW OCCURS FOR THE NEXT TWO UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 4.101

3.702	3.89	967.29	.00	966.76	967.61	.32	1.84	.01	963.90
4438.0	1593.1	2103.1	741.8	526.6	361.0	256.5	539.6	270.0	964.00
2.31	3.03	5.83	2.89	.070	.040	.070	.000	963.40	9550.00
.004441	535.	525.	490.	2	0	0	.00	361.21	10140.00

*SECNO 3.841

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9550.0 10070.0 TYPE= 1 TARGET= 520.000

3.841	5.14	970.24	.00	969.26	970.49	.26	2.87	.01	967.10
4438.0	2465.2	1972.8	.0	769.0	399.8	.0	559.1	275.9	100000.00
2.37	3.21	4.93	.00	.070	.040	.000	.000	965.10	9550.00
.003465	735.	735.	735.	2	0	0	.00	344.07	10070.00

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 3.978

3470 ENCROACHMENT STATIONS= 9500.0 10095.0 TYPE= 1 TARGET= 595.000

3.978	5.28	972.18	.00	971.29	972.34	.16	1.84	.01	969.00
4438.0	1862.2	2575.8	.0	1054.3	644.5	.0	582.9	283.7	100000.00
2.43	1.77	4.00	.00	.070	.040	.000	.000	966.90	9500.00
.001939	725.	725.	725.	3	0	0	.00	595.00	10095.00

*SECNO 4.101

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .68

3470 ENCROACHMENT STATIONS= 9780.0 10125.0 TYPE= 1 TARGET= 345.000

4.101	5.15	973.85	.00	973.16	974.17	.32	1.78	.05	971.00
4438.0	1717.6	2350.9	369.5	577.6	423.3	135.3	604.1	290.7	970.90
2.47	2.97	5.55	2.73	.070	.040	.070	.000	968.70	9780.00
.004162	650.	650.	650.	2	0	0	.00	345.00	10125.00

*SECNO 4.237

3470 ENCROACHMENT STATIONS= 9780.0 10075.0 TYPE= 1 TARGET= 295.000

4.237	4.79	976.09	.00	975.08	976.35	.26	2.18	.01	972.60
4438.0	1521.3	2916.7	.0	606.6	617.2	.0	623.5	296.0	100000.00
2.52	2.51	4.73	.00	.070	.040	.000	.000	971.30	9780.00
.002326	715.	715.	715.	1	0	0	.00	295.00	10075.00

*SECNO 4.356

3470 ENCROACHMENT STATIONS= 9840.0 10110.0 TYPE= 1 TARGET= 270.000

4.356	4.98	977.58	.00	976.54	977.86	.29	1.51	.01	973.50
4438.0	1269.3	2764.4	404.3	469.9	546.6	161.4	640.8	300.1	973.40
2.57	2.70	5.06	2.51	.070	.040	.070	.000	972.60	9840.00
.002454	630.	630.	630.	3	0	0	.00	270.00	10110.00

*SECNO 4.496

3470 ENCROACHMENT STATIONS= 9850.0 10160.0 TYPE= 1 TARGET= 310.000

4.496	4.82	979.22	.00	978.22	979.45	.23	1.58	.01	975.20
4438.0	1110.2	3059.8	267.9	492.3	698.0	123.5	662.0	305.0	975.00
2.62	2.26	4.38	2.17	.070	.040	.070	.000	974.40	9850.00
.001873	740.	740.	740.	2	0	0	.00	310.00	10160.00

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 4.625

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .61

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3470 ENCROACHMENT STATIONS=     9850.0   10150.0  TYPE=      1  TARGET=      300.000

             CROSS-SECTION AT VAN BUREN ST.

             Q = Q AT CP298       (= 4446 CFS).

    4.625      2.94    981.04       .00    980.50    981.46       .42      1.96       .06 100000.00
   4446.0        .0    4446.0        .0        .0     854.9        .0     678.9     309.8 100000.00
     2.66       .00      5.20       .00      .000      .040      .000      .000    978.10   9850.00
  .004970      680.      680.      680.         2         0         0       .00    300.00  10150.00


*SECNO 4.701

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.40


3470 ENCROACHMENT STATIONS=     9800.0   10200.0  TYPE=      1  TARGET=      400.000
    4.701      4.06    982.06       .00    981.33    982.18       .12       .69       .03 100000.00
   4446.0        .0    4446.0        .0        .0    1623.8        .0     690.3     313.0 100000.00
     2.70       .00      2.74       .00      .000      .040      .000      .000    978.00   9800.00
  .000861      400.      400.      400.         2         0         0       .00    400.00  10200.00


*SECNO 4.858

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .44


3470 ENCROACHMENT STATIONS=     9850.0   10150.0  TYPE=      1  TARGET=      300.000
    4.858      3.25    983.25       .00    982.47    983.65       .40      1.39       .08 100000.00
   4446.0        .0    4446.0        .0        .0     878.4        .0     714.1     319.6 100000.00
     2.74       .00      5.06       .00      .000      .040      .000      .000    980.00   9850.00
  .004535      860.      830.      820.         2         0         0       .00    300.00  10150.00


*SECNO 5.009
1
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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS      L-BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA        R-BANK ELEV
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST


3470 ENCROACHMENT STATIONS=     9820.0   10105.0  TYPE=      1  TARGET=      285.000
    5.009      4.36    986.26       .00    985.58    986.56       .30      2.90       .01    983.70
   4446.0    1340.6    3069.3      36.1     464.3     622.9      18.7     732.3     325.0    982.50
     2.79      2.89      4.93      1.93      .070      .040      .070      .000    981.90   9820.00
  .002993      800.      795.      840.         3         0         0       .00    285.00  10105.00


*SECNO 5.153

3470 ENCROACHMENT STATIONS=     9800.0   10090.0  TYPE=      1  TARGET=      290.000
    5.153      4.41    988.71       .00    987.81    989.04       .33      2.47       .01    985.60
   4446.0    1539.1    2906.9        .0     530.1     553.6        .0     751.6     330.1 100000.00
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    2.84      2.90      5.25       .00      .070      .040      .000      .000    984.30   9800.00
  .003450     775.      765.      730.         2         0         0       .00    290.00  10090.00


*SECNO 5.282

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.60


3470 ENCROACHMENT STATIONS=     9700.0   10100.0  TYPE=      1  TARGET=      400.000
    5.282      4.83    990.33       .00    989.36    990.45       .13      1.40       .02    987.00
   4446.0    2273.5    1827.1     345.5    1086.0     492.3     183.2     774.0     335.5    986.00
     2.91      2.09      3.71      1.89      .070      .040      .070      .000    985.50   9700.00
  .001353      690.      680.      665.         3         0         0       .00    400.00  10100.00


CCHV=     .300 CEHV=     .500
*SECNO 5.430

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .53


3470 ENCROACHMENT STATIONS=     9913.0   10087.0  TYPE=      1  TARGET=      174.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       996.00 ELREA=       996.00


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             A 7-SPAN BRIDGE AT I-10

    5.430      3.77    991.77       .00    991.08    992.52       .75      1.75       .31 100000.00
   4446.0        .0    4446.0        .0        .0     638.6        .0     794.3     340.4 100000.00
     2.94       .00      6.96       .00      .000      .035      .000      .000    988.00   9913.00
  .004864      680.      780.      820.         2         0         0       .00    174.00  10087.00


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    1.05      1.60      2.60       .00    162.00      6.00   1203.00      2.00    988.00    988.00

*SECNO 5.460
CLASS A LOW FLOW

3420 BRIDGE W.S.=     991.45 BRIDGE VELOCITY=       9.46     CALCULATED CHANNEL AREA=       562.

 EGPRS      EGLWC       H3      QWEIR      QLOW      BAREA   TRAPEZOID      ELLC      ELTRD     WEIRLN
                                                             AREA
      .00    992.91      .14        0.     5319.     1203.     1190.     995.00    997.00        0.


3470 ENCROACHMENT STATIONS=     9913.0   10087.0  TYPE=      1  TARGET=      174.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       997.00 ELREA=       997.00
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Q = Q AT CP287 (= 5319 CFS).

5.460	3.91	991.91	.00	991.91	992.91	1.00	.39	.00	100000.00
5319.0	.0	5319.0	.0	.0	662.5	.0	796.7	341.0	100000.00
2.95	.00	8.03	.00	.000	.035	.000	.000	988.00	9913.00
.006171	160.	160.	160.	0	0	0	.00	174.00	10087.00

CCHV= .300 CEHV= .500
*SECNO 5.563

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.54

3470 ENCROACHMENT STATIONS= 9850.0 10200.0 TYPE= 1 TARGET= 350.000

5.563	5.56	994.06	.00	993.68	994.22	.16	1.06	.25	989.50
5319.0	.0	4401.7	917.3	.0	1296.0	496.0	811.9	344.2	988.90
3.00	.00	3.40	1.85	.000	.040	.070	.000	988.50	9850.00
.000954	540.	540.	535.	3	0	0	.00	350.00	10200.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO 5.727

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .48

3470 ENCROACHMENT STATIONS= 9870.0 10250.0 TYPE= 1 TARGET= 380.000

CROSS-SECTION AT 280 FEET(ALONG FLOW PATH) NORTH OF MCDOWELL RD.

Q = Q AT CP286 (= 4662 CFS).

DIVIDED FLOW OCCURS FOR THE NEXT TWO UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 5.960

5.727	4.30	995.30	.00	994.29	995.57	.27	1.32	.03	992.00
4662.0	168.0	3526.9	967.1	82.1	774.3	375.5	841.7	351.2	991.80
3.05	2.05	4.55	2.58	.070	.045	.070	.000	991.00	9897.83
.003129	870.	870.	835.	3	0	0	.00	352.17	10250.00

*SECNO 5.840

3470 ENCROACHMENT STATIONS= 9920.0 10300.0 TYPE= 1 TARGET= 380.000

5.840	3.83	997.23	.00	996.51	997.49	.26	1.92	.00	994.00

4662.0	145.0	3320.4	1196.6	72.4	730.6	438.8	858.5	356.1	993.70
3.10	2.00	4.54	2.73	.070	.045	.070	.000	993.40	9930.81
.003367	590.	595.	580.	2	0	0	.00	369.19	10300.00

*SECNO 5.960

3470 ENCROACHMENT STATIONS= 9960.0 10400.0 TYPE= 1 TARGET= 440.000

5.960	3.48	999.38	.00	998.50	999.57	.19	2.07	.01	997.30
4662.0	.0	2468.2	2193.8	.0	608.7	825.7	877.6	361.8	996.20
3.15	.00	4.05	2.66	.000	.045	.070	.000	995.90	9960.00
.003239	640.	635.	610.	1	0	0	.00	440.00	10400.00

*SECNO 6.086

3470 ENCROACHMENT STATIONS= 9800.0 10300.0 TYPE= 1 TARGET= 500.000

1

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
6.086	3.50	1001.80	.00	1001.07	1002.02	.22	2.44	.01	999.20
4662.0	570.4	2713.4	1378.3	237.8	609.9	532.4	899.4	369.1	999.20
3.20	2.40	4.45	2.59	.070	.045	.070	.000	998.30	9800.00
.004105	655.	665.	685.	2	0	0	.00	500.00	10300.00

*SECNO 6.217

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.57

3470 ENCROACHMENT STATIONS= 9670.0 10300.0 TYPE= 1 TARGET= 630.000

6.217	3.55	1003.65	.00	1002.98	1003.74	.10	1.71	.01	1000.30
4662.0	1332.0	2119.3	1210.7	720.6	689.8	646.6	926.6	378.0	1000.30
3.28	1.85	3.07	1.87	.070	.045	.070	.000	1000.10	9670.00
.001661	620.	690.	745.	3	0	0	.00	630.00	10300.00

*SECNO 6.320

3470 ENCROACHMENT STATIONS= 9650.0 10300.0 TYPE= 1 TARGET= 650.000

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****

AREA UPSTREAM OF X-SECTION 6.320 AND DOWNSTREAM OF X-SECTION 9.189 IS CURRENTLY UNDER CONSTRUCTION. NO FLOODPLAIN HAS BEEN PREPARED FOR THIS AREA OF BULLARD WASH, HOWEVER, THE HEC-2 ANALYSIS WAS CONTINUED BASED ON EXISTING CONDITIONS AT THE TIME OF THE AERIAL MAPPING TO COMPUTE WATER SURFACE ELEVATIONS UPSTREAM AND DOWNSTREAM OF THIS REACH.

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    6.320      3.69   1004.59       .00   1003.99   1004.70       .10       .95       .00   1001.30
   4662.0    1310.9    2219.5    1131.6     720.3     693.4     606.8     952.4     386.2   1001.40
     3.34      1.82      3.20      1.86      .070      .045      .070      .000   1000.90   9650.00
  .001790      580.      545.      525.         3         0         0       .00    650.00  10300.00
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*SECNO 6.414

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=     9400.0   10300.0  TYPE=      1  TARGET=     900.000
    6.414      3.10   1005.70       .00   1005.26   1005.79       .10      1.10       .00   1002.90
   4662.0    2192.7    1811.7     657.7    1169.1     553.6     394.3     977.3     395.5   1003.60
     3.40      1.88      3.27      1.67      .070      .045      .070      .000   1002.60   9400.00
  .002528      595.      495.      425.         2         0         0       .00    900.00  10300.00


*SECNO 6.509

3470 ENCROACHMENT STATIONS=     9025.0   10200.0  TYPE=      1  TARGET=    1175.000
    6.509      2.75   1006.85       .00   1006.65   1006.90       .05      1.11       .00   1004.80
   4662.0    3302.9    1103.0     256.1    2049.9     453.6     187.8    1006.0     407.9   1004.70
     3.48      1.61      2.43      1.36      .070      .045      .070      .000   1004.10   9025.00
  .001819      530.      505.      500.         1         0         0       .00   1175.00  10200.00


*SECNO 6.627

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .60


3470 ENCROACHMENT STATIONS=     8720.0   10100.0  TYPE=      1  TARGET=    1380.000
    6.627      1.86   1008.66       .00   1008.61   1008.74       .08      1.83       .01   1007.50
   4662.0    3851.2     810.8        .0    1867.0     277.3        .0    1041.7     426.8 100000.00
     3.56      2.06      2.92       .00      .070      .045      .000      .000   1006.80   8720.00
  .005093      650.      620.      580.         3         0         0       .00   1380.00  10100.00


CCHV=     .300 CEHV=     .500
*SECNO 6.674

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
    0 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     8550.0   10200.0  TYPE=      1  TARGET=    1650.000
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DIVIDED FLOW OCCURS AT THIS CROSS-SECTION,HOWEVER, THIS FLOW
IS EFFECTIVE DUE TO UPSTREM INFLOW AT X1= 6.877

6.674	3.68	1012.18	1012.18	1011.81	1013.22	1.04	1.80	.48	1010.00
4662.0	360.5	4091.1	210.4	126.9	470.9	76.6	1048.7	431.1	1010.00
3.57	2.84	8.69	2.75	.070	.040	.070	.000	1008.50	8550.00
.013512	200.	250.	350.	20	17	0	.00	384.05	10186.56

*SECNO 6.864

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 5.58

3470 ENCROACHMENT STATIONS= 8300.0 10690.0 TYPE= 1 TARGET= 2390.000

ROOSEVELTT IRRIGATION DISTRICT CANAL.
FLOW WILL WEIR OVER THE CANAL AND GO THROUGH AN OVRCHUTE HERE.
EFFECTIVE FLOW LIMITS ARE IMPOSED,

6.864	5.48	1014.48	.00	1013.77	1014.50	.02	.98	.31	1011.50
4662.0	1768.1	1195.3	1698.6	2761.5	607.9	1841.8	1088.7	448.9	1011.60
3.77	.64	1.97	.92	.070	.040	.070	.000	1009.00	8300.00
.000434	500.	1000.	500.	6	0	0	.00	2390.00	10690.00

CCHV= .100 CEHV= .300
*SECNO 6.877

3470 ENCROACHMENT STATIONS= 8250.0 10550.0 TYPE= 1 TARGET= 2300.000

CROSS-SECTION AT THOMAS RD. EXTENDED
EFFECTIVE FLOW LIMITS ARE IMPOSED.
Q = Q AT CP268 (= 4703 CFS).

6.877	5.01	1014.51	.00	1013.82	1014.54	.03	.04	.00	1012.00
4703.0	2272.9	1202.1	1228.0	2911.3	524.2	1256.1	1096.7	452.6	1012.00
3.79	.78	2.29	.98	.070	.040	.070	.000	1009.50	8250.00
.000625	70.	70.	70.	2	0	0	.00	2300.00	10550.00

CCHV= .100 CEHV= .300
*SECNO 7.045

3265 DIVIDED FLOW

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 9630.0 11090.0 TYPE= 1 TARGET= 1460.000

ANY WSEL EXTENSION IS DUE TO THE LIMITING ELEVATION AT THE LEFT OVERBANK

EFFECTIVE FLOW LIMITS ARE IMPOSED.

DIVIDED FLOW OCCURS FOR THE NEXT FOUR UPSTREAM CROSS-SECTIONS, HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT X1= 7.552

7.045	3.72	1014.82	.00	1014.13	1014.85	.03	.30	.00	1011.90
4703.0	1142.9	813.1	2747.1	944.5	372.6	2543.9	1136.5	469.1	1014.00
3.88	1.21	2.18	1.08	.070	.035	.070	.000	1011.10	9630.00
.000683	350.	885.	350.	2	0	0	.00	1397.91	11090.00

*SECNO 7.124

3470 ENCROACHMENT STATIONS= 9575.0 11025.0 TYPE= 1 TARGET= 1450.000

Q = Q AT 1I268 (= 4088 CFS).

EFFECTIVE FLOW LIMITS ARE IMPOSED.

7.124	3.52	1015.12	.00	1014.36	1015.14	.02	.29	.00	1013.30
4088.0	864.7	171.9	3051.4	901.1	87.8	2692.1	1172.9	482.9	1014.50
3.99	.96	1.96	1.13	.070	.035	.070	.000	1011.60	9575.00
.000707	420.	420.	420.	2	0	0	.00	1450.00	11025.00

*SECNO 7.267

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .40

3470 ENCROACHMENT STATIONS= 9650.0 10680.0 TYPE= 1 TARGET= 1030.000

7.267	3.25	1016.15	.00	1015.42	1016.25	.09	1.09	.02	1015.70
4088.0	554.1	232.2	3301.6	364.7	61.5	1335.1	1220.1	504.2	1016.00
4.07	1.52	3.78	2.47	.070	.035	.070	.000	1012.90	9650.00
.004361	755.	755.	755.	2	0	0	.00	1007.21	10680.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CNO 7.407

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9741.0 10710.0 TYPE= 1 TARGET= 969.000

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    7.407      3.76   1018.46       .00   1017.55   1018.52       .06      2.27       .00   1017.90
   4088.0     257.3     118.5    3712.2     247.8      52.3    1801.7    1252.9      520.7   1018.50
     4.18      1.04      2.26      2.06      .070      .035      .070      .000    1014.70   9741.00
  .002280      740.      740.      740.         3         0         0       .00     943.74  10710.00

*SECNO 7.552

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .67


3470 ENCROACHMENT STATIONS=     9750.0   10450.0  TYPE=      1  TARGET=      700.000
    7.552      2.81   1020.91       .00   1020.13   1021.06       .15      2.51       .03   1018.50
   4088.0    1234.3     562.0    2291.7     491.9     100.3     915.4    1284.6     535.2   1018.90
     4.25      2.51      5.60      2.50      .070      .035      .070      .000    1018.10   9750.00
  .005114      765.      765.      765.         2         0         0       .00     700.00  10450.00


*SECNO 7.670

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.49


3470 ENCROACHMENT STATIONS=     9850.0   10390.0  TYPE=      1  TARGET=      540.000
    7.670      4.79   1022.99       .00   1022.08   1023.13       .14      2.07       .00   1019.20
   4088.0    1107.0     761.2    2219.7     468.9     144.9    1078.4    1307.5     544.1   1019.90
     4.31      2.36      5.25      2.06      .070      .035      .070      .000    1018.20   9850.00
  .002315      625.      625.      625.         2         0         0       .00     540.00  10390.00


CNO 7.799

3470 ENCROACHMENT STATIONS=     9850.0   10400.0  TYPE=      1  TARGET=      550.000
    7.799      5.00   1024.20       .00   1023.27   1024.30       .10      1.17       .00   1020.00
   4088.0     861.2     870.3    2356.6     461.7     204.7    1330.7    1336.3     552.6   1020.00
     4.39      1.87      4.25      1.77      .070      .035      .070      .000    1019.20   9850.00
  .001331      680.      680.      680.         3         0         0       .00     550.00  10400.00


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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 7.924

3470 ENCROACHMENT STATIONS=     9900.0   10500.0  TYPE=      1  TARGET=      600.000
    7.924      4.28   1025.38       .00   1024.65   1025.51       .13      1.20       .01   1022.20
   4088.0     462.8     723.3    2901.9     209.9     142.6    1352.0    1364.4     561.3   1022.00
     4.46      2.20      5.07      2.15      .070      .035      .070      .000    1021.10   9900.00
  .002629      660.      660.      660.         1         0         0       .00     600.00  10500.00


CCHV=     .300 CEHV=     .500
*SECNO 7.977

3301 HV CHANGED MORE THAN HVINS
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3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9920.0   10670.0  TYPE=      1  TARGET=      750.000

                AT INDIAN SCHOOL RD.  2 - 8FT x 4FT  BC

                Q = Q AT CP253       (= 4121 CFS).

     7.977      6.18   1027.58   1027.58   1027.00   1028.25      .67      .38      .27   1021.40
    4121.0     228.7    1360.6    2531.7     115.6     123.7   1195.9   1374.4    565.6   1021.40
      4.48      1.98     11.00      2.12      .030      .013     .030     .000   1021.40   9920.00
   .000816      280.      280.      280.        20        13        0      .00    750.00  10670.00


SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
     2         .013      .50      2.70       .00      4.00      8.00      30.00     8         1       1021.60   1021.40

CHART  8 - BOX CULVERT WITH FLARED WINGWALLS; NO INLET TOP EDGE BEVEL
SCALE  1 - WINGWALLS FLARED 30 TO 75 DEGREES

5130, EGIC= 1184.45..MAY BE TOO LARGE IF INLET CONTROLS.
5135, EGOC= 1130.64 ..MAY BE TOO LARGE IF OUTLET CONTROLS.
*SECNO 7.983

SPECIAL CULVERT INLET CONTROL + WEIR FLOW, EG =  1027.59
5150, EG OF  1027.59 LESS THAN XEG OF  1028.25
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


SPECIAL CULVERT

     EGIC      EGOC        H4     QWEIR     QCULV       VCH     ACULV     ELTRD    WEIRLN
   1184.45   1130.64       .00     3585.      542.     9.964      64.0   1025.30     2679.


3470 ENCROACHMENT STATIONS=     9920.0   10670.0  TYPE=      1  TARGET=      750.000
     7.983      6.15   1027.75       .00   1027.14   1028.25       .50       .00       .00   1021.60
    4121.0     240.2    1225.4    2655.4     126.7     123.0    1304.6    1375.5     566.1   1021.60
      4.48      1.90      9.96      2.04      .030      .013      .030      .000   1021.60   9920.00
   .000674       30.       30.       30.         4         0         0       .00    750.00  10670.00


HV=     .300 CEHV=     .500
*SECNO 8.069

3470 ENCROACHMENT STATIONS=     9870.0   10325.0  TYPE=      1  TARGET=      455.000
     8.069      4.62   1028.62       .00   1027.69   1028.74       .12       .37       .11   1024.20
    4121.0     626.2    1885.2    1609.6     369.5     503.4     976.4    1393.2     572.4   1024.20
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     4.53      1.69      3.74      1.65      .070      .035      .070      .000   1024.00   9870.00
  .001024      455.      455.      455.         2         0         0       .00    455.00  10325.00


V=     .100 CEHV=     .300
*SECNO 8.169

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .50


3470 ENCROACHMENT STATIONS=     9880.0   10175.0  TYPE=      1  TARGET=     295.000
     8.169      4.81   1029.41       .00   1028.59   1029.77       .37       .96       .07   1025.60
    4121.0    1031.9    1287.9    1801.2     339.0     175.3     561.6    1410.9     576.9   1025.30
      4.56      3.04      7.35      3.21      .070      .035      .070      .000   1024.60   9880.00
  .004177      525.      525.      525.         2         0         0       .00    295.00  10175.00


*SECNO 8.292

3470 ENCROACHMENT STATIONS=     9925.0   10230.0  TYPE=      1  TARGET=     305.000
     8.292      5.64   1031.84       .00   1030.83   1032.19       .35      2.41       .00   1027.30
    4121.0     626.9    1402.4    2091.7     214.5     197.8     742.8    1427.5     581.4   1027.90
      4.60      2.92      7.09      2.82      .070      .035      .070      .000   1026.20   9925.00
  .003322      650.      650.      650.         2         0         0       .00    305.00  10230.00


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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 8.364

3470 ENCROACHMENT STATIONS=     9870.0   10230.0  TYPE=      1  TARGET=     360.000
     8.364      5.69   1033.09       .00   1032.17   1033.38       .29      1.19       .01   1029.20
    4121.0    1040.5    1496.8    1583.7     389.6     237.4     654.1    1438.6     584.5   1029.90
      4.63      2.67      6.30      2.42      .070      .035      .070      .000   1027.40   9870.00
  .002778      370.      380.      410.         2         0         0       .00    360.00  10230.00


*SECNO 8.468

3470 ENCROACHMENT STATIONS=     9860.0   10770.0  TYPE=      1  TARGET=     910.000
     8.468      5.26   1034.86       .00   1034.43   1035.25       .38      1.84       .03   1031.60
    4121.0    1113.7    1418.1    1589.2     352.5     182.4     894.7    1453.3     591.3   1033.50
      4.66      3.16      7.77      1.78      .070      .035      .070      .000   1029.60   9860.00
  .005286      460.      550.      460.         2         0         0       .00    910.00  10770.00


*SECNO 8.544

0 ENCROACHMENT STATIONS=     9750.0   10995.0  TYPE=      1  TARGET=    1245.000

                Q = (Q AT CP241 "AFTER STORAGE ROUTING" +Q AT CP253)/2
                  = (4245 + 4121)/2 = 4183 CFS.

     8.544      2.42   1036.82       .00   1036.18   1037.05       .23      1.79       .02   1035.00
```

4183.0	512.8	1539.1	2131.1	262.2	268.8	1052.3	1462.0	596.6	1034.80
4.69	1.96	5.73	2.03	.070	.035	.070	.000	1034.40	9750.00
.006550	530.	400.	130.	3	0	0	.00	1245.00	10995.00

*SECNO 8.636

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9960.0 11200.0 TYPE= 1 TARGET= 1240.000

DIVIDED FLOW OCCURS FOR THE NEXT THREE UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 8.965

8.636	2.86	1038.96	.00	1038.06	1039.06	.10	1.99	.01	1037.10
4183.0	.0	533.5	3649.5	.0	113.3	1753.2	1476.1	605.9	1038.00
4.73	.00	4.71	2.08	.000	.035	.070	.000	1036.10	9960.00
.004358	340.	490.	340.	3	0	0	.00	1063.68	11200.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 8.726

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9950.0 11000.0 TYPE= 1 TARGET= 1050.000

8.726	3.69	1041.09	.00	1040.34	1041.27	.17	2.19	.02	1038.80
4183.0	.0	947.8	3235.2	.0	166.6	1468.0	1495.2	616.6	1040.00
4.78	.00	5.69	2.20	.000	.035	.070	.000	1037.40	9950.00
.004873	475.	475.	475.	3	0	0	.00	891.98	11000.00

*SECNO 8.848

3265 DIVIDED FLOW

3280 CROSS SECTION 8.85 EXTENDED .54 FEET

3470 ENCROACHMENT STATIONS= 9770.0 10600.0 TYPE= 1 TARGET= 830.000

8.848	3.84	1044.44	.00	1043.50	1044.67	.23	3.39	.02	1042.30
4183.0	2203.4	608.6	1370.9	580.5	97.3	654.9	1513.9	627.3	1045.00
4.82	3.80	6.25	2.09	.070	.035	.070	.000	1040.60	9770.00
.007723	540.	645.	540.	4	0	0	.00	818.31	10600.00

*SECNO 8.965
3280 CROSS SECTION 8.97 EXTENDED .74 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.75

3470 ENCROACHMENT STATIONS= 9740.0 10190.0 TYPE= 1 TARGET= 450.000

8.965	4.34	1047.04	.00	1046.21	1047.20	.16	2.52	.01	1043.50
4183.0	2207.0	1054.3	921.7	863.4	216.7	439.4	1534.1	636.2	1044.70
4.88	2.56	4.86	2.10	.070	.035	.070	.000	1042.70	9740.00
.002533	615.	615.	615.	3	0	0	.00	450.00	10190.00

*SECNO 9.034

3470 ENCROACHMENT STATIONS= 9775.0 10038.0 TYPE= 1 TARGET= 263.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
9.034	4.64	1048.04	.00	1047.14	1048.39	.35	1.13	.06	1043.90
4183.0	2515.0	1668.0	.0	768.0	261.9	.0	1544.8	639.2	100000.00
4.90	3.27	6.37	.00	.070	.035	.000	.000	1043.40	9775.00
.003902	365.	365.	365.	3	0	0	.00	263.00	10038.00

CCHV= .300 CEHV= .500

CNO 9.095

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9470.0 10070.0 TYPE= 1 TARGET= 600.000

CITY OF GOODYEAR CORPORATE LIMITS-SOUTH.
MARICOPA COUNTY,UNINCORPORATED AREAS-NORTH.

AT CAMELBACK RD. 4 - 52 INCH CP

Q = Q AT CP241 (= 4243 CFS).

9.095	6.68	1048.98	1048.98	1048.93	1049.91	.92	.37	.29	1042.30
4243.0	1434.3	2779.6	29.1	856.2	294.0	29.9	1552.9	642.4	1042.30
4.91	1.68	9.45	.97	.030	.013	.030	.000	1042.30	9470.00
.000543	320.	320.	320.	20	13	0	.00	600.00	10070.00

SPECIAL CULVERT

CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
4	.013	.50	2.70	.00	4.50	.00	30.00	1	1	1042.50	1042.30

CHART 1 - CONCRETE PIPE CULVERT; NO BEVELED RING ENTRANCE
SCALE 1 - SQUARE EDGE ENTRANCE WITH HEADWALL

5130, EGIC= 1222.54..MAY BE TOO LARGE IF INLET CONTROLS.
5135, EGOC= 1161.32 ..MAY BE TOO LARGE IF OUTLET CONTROLS.
*SECNO 9.100

CIAL CULVERT INLET CONTROL + WEIR FLOW, EG = 1049.05
5150, EG OF 1049.05 LESS THAN XEG OF 1049.91
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1222.54	1161.32	.00	3652.	601.	9.656	63.6	1046.30	1131.

3470 ENCROACHMENT STATIONS= 9470.0 10070.0 TYPE= 1 TARGET= 600.000

9.100	6.45	1048.95	.00	1049.15	1049.91	.95	.00	.00	1042.50
4243.0	1468.6	2745.6	28.7	845.4	284.3	28.6	1553.7	642.8	1042.50
4.91	1.74	9.66	1.00	.030	.013	.030	.000	1042.50	9470.00
.000593	30.	30.	30.	5	0	0	.00	600.00	10070.00

V= .300 CEHV= .500
*SECNO 9.189

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .36

3470 ENCROACHMENT STATIONS= 9645.0 10160.0 TYPE= 1 TARGET= 515.000

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AREA UPSTREAM OF X-SECTION 6.320 AND DOWNSTREAM OF X-SECTION 9.189 IS CURRENTLY UNDER CONSTRUCTION. NO FLOODPLAIN HAS BEEN PREPARED FOR THIS AREA OF BULLARD WASH, HOWEVER, THE HEC-2 ANALYSIS WAS CONTINUED BASED ON EXISTING CONDITIONS AT THE TIME OF THE AERIAL MAPPING TO COMPUTE WATER SURFACE ELEVATIONS UPSTREAM AND DOWNSTREAM OF THIS REACH.

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9.189	2.45	1050.35	1049.80	1050.18	1050.69	.34	.60	.18	1048.80
4243.0	1740.4	2502.6	.0	530.2	460.5	.0	1565.3	648.8	100000.00
4.94	3.28	5.43	.00	.045	.030	.000	.000	1047.90	9645.00
.004536	470.	470.	460.	8	17	0	.00	515.00	10160.00

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO 9.292

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .69


3470 ENCROACHMENT STATIONS=     9690.0   10120.0  TYPE=      1  TARGET=      430.000

               Q = Q AT 2I241       (= 3693 CFS).

    9.292      2.19   1053.29   1052.88   1052.71   1053.70       .41      2.99       .02   1051.80
   3693.0    1623.2    2069.8       .0     388.2     358.5        .0    1576.0     654.7 100000.00
     4.97      4.18      5.77       .00      .045      .030      .000      .000   1051.10   9690.00
  .007138      540.      540.      530.        14        19         0       .00    430.00  10120.00


*SECNO 9.396

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.45


3470 ENCROACHMENT STATIONS=     9500.0   10070.0  TYPE=      1  TARGET=      570.000
    9.396      2.40   1056.20       .00   1055.81   1056.39       .19      2.67       .02   1054.70
   3693.0    2296.3    1396.7       .0     754.0     333.6        .0    1587.9     661.1 100000.00
     5.02      3.05      4.19       .00      .045      .030      .000      .000   1053.80   9500.00
  .003408      570.      550.      515.         3         0         0       .00    570.00  10070.00


*SECNO 9.493

3470 ENCROACHMENT STATIONS=     9425.0   10140.0  TYPE=      1  TARGET=      715.000
    9.493      2.00   1058.10       .00   1057.73   1058.31       .20      1.91       .00   1057.10
   3693.0    2151.6    1541.4       .0     753.4     343.4        .0    1600.4     668.5 100000.00
     5.05      2.86      4.49       .00      .045      .030      .000      .000   1056.10   9425.00
  .004302      490.      515.      515.         3         0         0       .00    715.00  10140.00


*SECNO 9.544

3470 ENCROACHMENT STATIONS=     9250.0   10065.0  TYPE=      1  TARGET=      815.000
    9.544      2.13   1059.13       .00   1058.81   1059.30       .16       .99       .00   1058.00
   3693.0    2870.2     822.8       .0     971.0     199.4        .0    1606.0     672.3 100000.00
     5.07      2.96      4.13       .00      .045      .030      .000      .000   1057.00   9250.00
  .004588      200.      270.      280.         1         0         0       .00    815.00  10065.00


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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST
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CCHV=     .300 CEHV=     .500
*SECNO 9.641

3470 ENCROACHMENT STATIONS=     9500.0   10056.0  TYPE=      1  TARGET=      556.000

              Q = Q AT 2I241       (= 3693 CFS).
              THIS Q  HAS BEEN REDUCED BY THE SAME AMOUNT THAT EXCEEDED THE
              CAPACITY OF THE CHANNEL AT THE UPSTREAM REACH  X1= 10.269 TO
              X1= 10.639,     THAT EXCEEDED FLOW WILL RETURN AT X1= 9.544

    9.641      3.06   1060.06       .00   1059.65   1060.21       .15       .91       .00   1058.00
   3113.0    2621.6     386.5     104.9     936.5      76.9      51.0    1612.0     676.0   1058.00
     5.10      2.80      5.03      2.06      .045      .030      .045      .000   1057.00   9500.00
  .002941      180.      510.      750.         3         0         0       .00    556.00  10056.00


*SECNO 9.741
3280 CROSS SECTION      9.74 EXTENDED       .16 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.45


3470 ENCROACHMENT STATIONS=     9600.0   10200.0  TYPE=      1  TARGET=      600.000
    9.741      3.46   1060.66       .00   1060.21   1060.72       .06       .48       .03   1057.50
   3113.0    1278.0    1623.7     211.3     864.3     683.8     178.3    1627.3     682.3   1058.00
     5.17      1.48      2.37      1.19      .045      .030      .045      .000   1057.20   9600.00
  .000491      480.      530.      300.         3         0         0       .00    600.00  10200.00


CCHV=     .100 CEHV=     .300
*SECNO 9.807

3470 ENCROACHMENT STATIONS=     9590.0   10190.0  TYPE=      1  TARGET=      600.000
    9.807      3.52   1060.82       .00   1060.39   1060.88       .05       .15       .00   1057.60
   3113.0    1240.3    1715.5     157.2     909.1     781.1     129.2    1641.2     687.0   1058.00
     5.22      1.36      2.20      1.22      .045      .030      .045      .000   1057.30   9590.00
  .000408      335.      345.      345.         2         0         0       .00    600.00  10190.00


CCHV=     .100 CEHV=     .300
*SECNO 9.898
1
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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS      L-BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA        R-BANK ELEV
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .31


3470 ENCROACHMENT STATIONS=     9860.0   10170.0  TYPE=      1  TARGET=      310.000

              Q = ROUTED FLOW FROM SUB. 222 TO SUB. 241     (= 1342 CFS).
              THIS Q  HAS BEEN REDUCED BY THE SAME AMOUNT THAT EXCEEDED THE
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CAPACITY OF THE CHANNEL AT THE UPSTREAM REACH X1= 10.269 TO
X1= 10.639, THAT EXCEEDED FLOW WILL RETURN AT X1= 9.544

9.898	3.53	1061.03	.00	1060.62	1061.06	.03	.18	.00	1059.80
762.0	114.8	458.2	189.0	162.2	272.2	230.9	1656.3	692.5	1059.80
5.32	.71	1.68	.82	.045	.028	.045	.000	1057.50	9860.00
.000248	650.	480.	320.	0	0	0	.00	310.00	10170.00

*SECNO 9.994

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .45

3470 ENCROACHMENT STATIONS= 9950.0 10050.0 TYPE= 1 TARGET= 100.000

9.994	3.47	1061.17	.00	1060.65	1061.35	.18	.24	.05	1112.10
762.0	.0	762.0	.0	.0	222.6	.0	1661.6	694.9	100000.00
5.37	.00	3.42	.00	.000	.028	.000	.000	1057.70	9954.43
.001234	600.	510.	490.	2	0	0	.00	88.92	10043.35

*SECNO 10.108

3470 ENCROACHMENT STATIONS= 9960.0 10045.0 TYPE= 1 TARGET= 85.000

10.108	3.94	1062.04	.00	1062.01	1062.37	.33	.98	.04	1112.90
762.0	.0	762.0	.0	.0	165.1	.0	1664.3	695.9	100000.00
5.40	.00	4.62	.00	.000	.028	.000	.000	1058.10	9969.56
.002256	600.	600.	600.	2	0	0	.00	65.87	10035.44

*SECNO 10.197

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.41

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 9950.0 10045.0 TYPE= 1 TARGET= 95.000

** END DETAILED FLOODPLAIN\FLOODWAY ANALYSIS.

10.197	4.54	1062.94	.00	1062.93	1063.12	.18	.73	.02	1113.60
762.0	.0	762.0	.0	.0	223.7	.0	1666.4	696.8	100000.00
5.44	.00	3.41	.00	.000	.028	.000	.000	1058.40	9954.12
.001138	470.	470.	470.	2	0	0	.00	84.69	10038.82

*SECNO 10.269

** BEGIN APPROXIMATE FLOODPLAIN DELINEATION, UPSTREAM TO NORTHERN AVENUE.

Q = Q AT CP222 (= 1380 CFS).
THIS Q HAS BEEN REDUCED TO THE CAPACITY OF THE CHANNEL PLUS A

MAXIMUM OF 1 FOOT OVER THE LIMITING ELEVATION AT THE RIGHT
OVERBANK (AT X1= 10.493 TO X1= 10.639).
EXCEEDED FLOW WILL RETURN AT X1= 9.544

10.269	4.69	1063.29	.00	1063.28	1063.47	.18	.35	.00	1062.00
800.0	2.8	794.0	3.2	4.2	233.8	4.8	1668.4	697.5	1062.00
5.47	.67	3.40	.67	.045	.028	.045	.000	1058.60	9953.56
.000753	410.	380.	350.	2	0	0	.00	78.88	10032.44

*SECNO 10.328

10.328	4.70	1063.50	.00	1063.50	1063.77	.27	.28	.03	1062.00
800.0	3.7	795.2	1.1	4.2	189.1	1.4	1670.0	698.0	1062.00
5.49	.88	4.21	.76	.045	.028	.045	.000	1058.80	9964.37
.001090	335.	310.	290.	2	0	0	.00	57.51	10021.88

*SECNO 10.419

10.419	4.90	1064.00	.00	1063.99	1064.28	.28	.50	.00	1062.00
800.0	2.2	795.6	2.2	2.5	185.6	2.5	1672.1	698.5	1062.00
5.52	.89	4.29	.89	.045	.028	.045	.000	1059.10	9972.50
.001009	475.	480.	485.	2	0	0	.00	49.99	10022.50

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 10.493
3280 CROSS SECTION 10.49 EXTENDED .76 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.61

ANY WSEL EXTENSION AT X1= 10.493 TO X1= 10.639 IS DUE TO THE
LIMITING ELEVATION AT THE RIGHT OVERBANK.

10.493	5.06	1064.36	.00	1064.36	1064.38	.03	.08	.03	1062.00
800.0	5.7	785.5	8.8	15.6	613.8	23.4	1676.0	699.5	1062.00
5.61	.37	1.28	.38	.045	.028	.045	.000	1059.30	9885.00
.000077	400.	400.	400.	2	0	0	.00	160.00	10045.00

*SECNO 10.587
3280 CROSS SECTION 10.59 EXTENDED .20 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .68

10.587	4.80	1064.40	.00	1064.39	1064.44	.05	.05	.01	1062.00
800.0	20.4	766.6	13.0	47.5	434.6	25.9	1682.5	701.6	1062.00
5.69	.43	1.76	.50	.045	.028	.045	.000	1059.60	9846.54
.000167	490.	490.	490.	2	0	0	.00	213.46	10060.00

CCHV= .100 CEHV= .300

*SECNO 10.639

10.639	4.65	1064.45	.00	1064.45	1064.49	.04	.05	.00	1062.00
800.0	37.0	754.7	8.3	69.7	450.0	16.8	1685.9	703.0	1062.00
5.74	.53	1.68	.49	.045	.030	.045	.000	1059.80	9857.95
.000176	350.	275.	260.	1	0	0	.00	198.07	10056.02

*SECNO 10.709

Q = Q AT CP222 (= 1380 CFS).

10.709	4.53	1064.53	.00	1064.52	1064.65	.12	.13	.02	1062.00
1380.0	58.6	1302.5	18.8	56.2	457.6	19.8	1690.5	704.8	1062.00
5.78	1.04	2.85	.95	.045	.030	.045	.000	1060.00	9863.30
.000617	420.	370.	340.	1	0	0	.00	192.45	10055.75

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 10.804

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .40

10.804	2.98	1064.98	.00	1064.98	1065.35	.37	.63	.07	1064.00
1380.0	12.7	1362.6	4.7	9.9	279.0	3.7	1695.2	706.8	1064.00
5.81	1.29	4.88	1.28	.045	.030	.045	.000	1062.00	9880.15
.003880	480.	500.	500.	2	0	0	.00	167.30	10047.45

*SECNO 10.889

10.889	2.80	1066.80	.00	1066.80	1067.19	.39	1.83	.01	1066.00
1380.0	9.9	1367.4	2.7	8.6	271.8	2.3	1698.2	708.5	1066.00
5.83	1.16	5.03	1.15	.045	.030	.045	.000	1064.00	9878.29
.004266	450.	450.	450.	3	0	0	.00	167.63	10045.92

*SECNO 10.946

10.946	2.52	1068.22	.00	1068.22	1068.66	.44	1.46	.02	1068.00
1380.0	.4	1379.5	.1	.7	258.6	.2	1700.1	709.6	1068.00
5.85	.58	5.34	.57	.045	.030	.045	.000	1065.70	9923.80
.005617	270.	300.	330.	1	0	0	.00	157.89	10081.69

*SECNO 10.995

10.995	2.64	1069.84	.00	1069.84	1070.39	.55	1.70	.03	1070.00
1380.0	.0	1380.0	.0	.0	231.8	.0	1701.5	710.5	1070.00
5.86	.00	5.95	.00	.000	.030	.000	.000	1067.20	9900.12
.007675	220.	260.	290.	2	0	0	.00	144.09	10044.21

*SECNO 11.067

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.75

11.067	3.55	1071.15	.00	1071.15	1071.26	.12	.83	.04	1069.50
1380.0	328.4	1048.1	3.6	236.3	340.8	4.9	1705.1	712.6	1070.00
5.90	1.39	3.08	.72	.045	.030	.045	.000	1067.60	9735.50
.001013	380.	380.	380.	4	0	0	.00	318.09	10053.60

*SECNO 11.147

11.147	3.72	1071.52	.00	1071.52	1071.61	.09	.34	.00	1069.20
1380.0	335.2	1038.8	6.0	369.8	386.3	8.6	1711.6	716.6	1070.00
5.95	.91	2.69	.70	.045	.030	.045	.000	1067.80	9532.28
.000655	420.	420.	420.	3	0	0	.00	524.11	10056.39

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 11.228

11.228	3.92	1071.82	.00	1071.82	1071.89	.08	.29	.00	1070.00
1380.0	399.1	969.3	11.6	495.0	372.6	14.4	1719.7	722.6	1070.00
6.01	.81	2.60	.80	.045	.030	.045	.000	1067.90	9375.04
.000678	430.	430.	430.	2	0	0	.00	690.85	10065.89

*SECNO 11.306

11.306	3.33	1072.13	.00	1072.13	1072.27	.14	.35	.02	1070.00
1380.0	171.4	1119.6	88.9	143.0	340.8	73.3	1726.4	727.4	1070.00
6.05	1.20	3.29	1.21	.045	.030	.045	.000	1068.80	9805.29
.001156	400.	410.	400.	2	0	0	.00	350.97	10156.26

*SECNO 11.416

11.416	2.66	1072.86	.00	1072.86	1072.98	.12	.71	.00	1071.00
1380.0	177.3	992.6	210.1	138.5	316.0	146.8	1733.8	732.2	1071.00
6.11	1.28	3.14	1.43	.045	.030	.045	.000	1070.20	9769.27
.001358	400.	580.	680.	2	0	0	.00	426.45	10195.72

*SECNO 11.510

11.510	1.98	1073.48	.00	1073.48	1073.53	.05	.55	.01	1072.00
1380.0	411.9	796.9	171.2	371.1	356.2	138.4	1741.7	737.9	1071.80
6.18	1.11	2.24	1.24	.045	.030	.045	.000	1071.50	9548.38
.000945	340.	500.	640.	0	0	0	.00	664.76	10213.13

*SECNO 11.580

3301 HV CHANGED MORE THAN HVINS

5 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

11.580	2.48	1074.48	1074.48	1074.48	1075.21	.73	.83	.20	1074.00
1380.0	1.2	1373.7	5.1	.9	200.1	3.8	1746.1	741.2	1074.00
6.20	1.36	6.87	1.36	.045	.030	.045	.000	1072.00	9961.39

.011381	315.	365.	460.	20	11	0	.00	154.28	10115.66

*SECNO 11.676

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.76

Q = Q AT CP221A (= 1377 CFS).

11.676	4.06	1076.16	.00	1076.16	1076.29	.13	1.02	.06	1074.00
1377.0	29.7	1341.6	5.6	29.5	450.1	5.8	1750.2	743.2	1074.00
6.25	1.01	2.98	.97	.045	.030	.045	.000	1072.10	9921.85
.000800	480.	510.	550.	5	0	0	.00	184.07	10105.92

CCHV= .100 CEHV= .300

*SECNO 11.775

11.775	4.35	1076.55	.00	1076.55	1076.69	.14	.40	.00	1074.00
1377.0	39.6	1276.6	60.8	36.9	414.9	79.8	1756.3	745.6	1074.00
6.30	1.08	3.08	.76	.045	.030	.070	.000	1072.20	9914.55
.000738	520.	520.	560.	3	0	0	.00	217.42	10131.97

*SECNO 11.867

11.867	4.62	1076.92	.00	1076.92	1077.08	.16	.38	.01	1074.00
1377.0	85.3	1226.4	65.2	75.6	358.4	73.7	1762.1	748.1	1074.00
6.34	1.13	3.42	.89	.045	.030	.070	.000	1072.30	9875.29
.000813	490.	490.	490.	1	0	0	.00	228.55	10103.84

*SECNO 11.970

11.970	4.91	1077.31	.00	1077.31	1077.41	.10	.33	.01	1076.00
1377.0	1.1	1316.2	59.7	2.1	498.4	80.1	1768.9	750.7	1074.00
6.40	.52	2.64	.75	.045	.030	.070	.000	1072.40	9926.72
.000474	540.	540.	540.	2	0	0	.00	179.66	10106.38

*SECNO 12.064

12.064	5.03	1077.53	.00	1077.53	1077.60	.07	.18	.00	1074.00
1377.0	76.9	1264.2	35.9	120.4	577.6	59.3	1776.5	753.4	1074.00
6.46	.64	2.19	.60	.045	.030	.070	.000	1072.50	9812.09
.000281	500.	500.	500.	2	0	0	.00	289.38	10101.46

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 12.150
3280 CROSS SECTION 12.15 EXTENDED .45 FEET

ANY WSEL EXTENSION AT X1= 12.150 TO X1= 12.534 IS DUE TO THE
LIMITING ELEVATION AT THE LEFT OVERBANK.

12.150	5.15	1077.65	.00	1077.65	1077.71	.06	.11	.00	1074.00
1377.0	112.6	1243.2	21.2	161.3	616.7	44.5	1784.7	756.3	1074.00
6.53	.70	2.02	.48	.045	.030	.070	.000	1072.50	9825.00
.000229	450.	450.	450.	2	0	0	.00	279.37	10104.37

*SECNO 12.244
3280 CROSS SECTION 12.24 EXTENDED .48 FEET

12.244	5.17	1077.77	.00	1077.77	1077.83	.05	.11	.00	1076.00
1377.0	35.7	1307.2	34.2	67.6	687.7	71.3	1794.2	759.4	1074.00
6.61	.53	1.90	.48	.045	.030	.070	.000	1072.60	9850.00
.000220	500.	500.	500.	1	0	0	.00	262.77	10112.77

*SECNO 12.345
3280 CROSS SECTION 12.35 EXTENDED .59 FEET

12.345	5.28	1077.88	.00	1077.88	1077.93	.04	.10	.00	1076.00
1377.0	18.1	1318.7	40.3	37.2	769.4	94.6	1804.7	762.6	1074.00
6.70	.49	1.71	.43	.045	.030	.070	.000	1072.60	9890.00
.000166	530.	530.	530.	0	0	0	.00	253.63	10143.63

*SECNO 12.439
3280 CROSS SECTION 12.44 EXTENDED .57 FEET

12.439	5.27	1077.97	.00	1077.97	1078.00	.04	.08	.00	1074.00
1377.0	68.8	1253.0	55.3	104.0	762.8	123.2	1815.5	765.6	1074.00
6.78	.66	1.64	.45	.045	.030	.070	.000	1072.70	9900.00
.000143	500.	500.	500.	1	0	0	.00	284.52	10184.52

*SECNO 12.534
3280 CROSS SECTION 12.53 EXTENDED .54 FEET

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

12.534	5.34	1078.04	.00	1078.04	1078.07	.04	.07	.00	1074.00
1377.0	62.4	1230.5	84.1	93.2	774.4	178.2	1827.2	768.9	1074.00
6.88	.67	1.59	.47	.045	.030	.070	.000	1072.70	9865.00

.000131	500.	500.	500.	0	0	0	.00	285.33	10150.33

CCHV= .100 CEHV= .300
*SECNO 12.633
3280 CROSS SECTION 12.63 EXTENDED .12 FEET

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

Q = Q AT CP212 (= 1350 CFS).
THIS Q HAS BEEN REDUCED TO THE CAPACITY OF THE CHANNEL PLUS A
MAXIMUM OF 1 FOOT OVER THE LIMITING ELEVATION AT THE LEFT
OVERBANK. EXCEEDED FLOW WILL RETURN AT X1= 12.534

ANY WSEL EXTENSION AT X1= 12.633 TO X1= 13.161 IS DUE TO THE
LIMITING ELEVATION AT THE LEFT OVERBANK.

12.633	.72	1080.12	1080.12	1080.12	1080.30	.18	.18	.04	1079.60
1000.0	251.4	504.2	244.4	96.1	124.1	94.4	1834.9	775.0	1079.60
6.92	2.61	4.06	2.59	.035	.035	.035	.000	1079.40	9600.00
.017306	790.	520.	180.	20	17	0	.00	814.10	10414.10

CCHV= .100 CEHV= .300
*SECNO 12.700
3280 CROSS SECTION 12.70 EXTENDED .73 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 7.51

12.700	2.03	1080.73	.00	1080.73	1080.74	.01	.42	.02	1080.00
1000.0	.0	282.6	717.4	.0	312.4	1414.8	1847.1	785.4	1079.10
7.12	.00	.90	.51	.000	.040	.070	.000	1078.70	9920.00
.000307	100.	350.	600.	5	0	0	.00	1097.64	11017.64

*SECNO 12.758
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3280 CROSS SECTION 12.76 EXTENDED .66 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .41

12.758	2.06	1080.96	.00	1080.96	1081.00	.04	.25	.01	1080.00
1000.0	14.4	450.3	535.3	12.1	198.1	541.9	1859.5	794.3	1079.30
7.19	1.19	2.27	.99	.045	.040	.070	.000	1078.90	9940.00
.001813	250.	310.	470.	3	0	0	.00	671.51	10611.51

*SECNO 12.867
3280 CROSS SECTION 12.87 EXTENDED .91 FEET

CROSS-SEC. 60 FT.(ALONG FLOW PATH)SOUTH OF GLENDALE AV. EXTENDED

12.867	2.40	1081.80	.00	1081.80	1081.84	.04	.83	.00	1080.00
1000.0	36.6	419.3	544.1	27.2	200.6	617.6	1870.2	803.2	1080.00
7.31	1.35	2.09	.88	.045	.040	.070	.000	1079.40	9940.00
.001168	580.	580.	580.	1	0	0	.00	660.78	10600.78

*SECNO 13.044

3280 CROSS SECTION 13.04 EXTENDED .58 FEET

13.044	2.09	1082.79	.00	1082.79	1082.81	.03	.98	.00	1082.00
1000.0	5.6	483.9	510.5	6.8	277.9	656.6	1887.3	817.5	1080.90
7.50	.82	1.74	.78	.045	.040	.070	.000	1080.70	9900.00
.001097	950.	930.	800.	2	0	0	.00	852.66	10752.66

*SECNO 13.161

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .50

13.161	1.62	1083.92	.00	1083.92	1083.99	.07	1.16	.01	1084.00
1000.0	.0	468.6	531.4	.0	160.6	476.9	1898.1	828.6	1082.50
7.58	.00	2.92	1.11	.000	.040	.070	.000	1082.30	9961.78
.004331	650.	620.	580.	1	0	0	.00	792.77	10754.54

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 13.248

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.47

Q = (Q AT 1I212 + DIVERTED FLOW FROM SUB.193 TO SUB. 212)/2
= (1344 + 1536)/2 = 1440 CFS.

DIVIDED FLOW OCCURS FOR THE NEXT THREE UPSTREAM CROSS-SECTIONS,
HOWEVER,THESE FLOWS ARE EFFECTIVE DUE TO UPSTREM INFLOW AT
X1= 13.556

13.248	1.56	1085.86	.00	1085.86	1085.91	.05	1.91	.00	1085.40
1440.0	31.0	300.4	1108.7	22.5	109.1	802.9	1906.2	837.9	1086.60
7.66	1.38	2.75	1.38	.045	.040	.070	.000	1084.30	9905.16
.004144	450.	460.	450.	4	0	0	.00	999.96	10935.01

*SECNO 13.349

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.77

13.349	2.54	1087.04	.00	1087.04	1087.06	.03	1.15	.00	1087.30
1440.0	.5	384.7	1054.8	1.9	197.1	1060.7	1919.7	850.1	1087.00
7.78	.29	1.95	.99	.045	.040	.070	.000	1084.50	9926.77
.001321	535.	535.	535.	3	0	0	.00	994.24	10935.74

*SECNO 13.427

3265 DIVIDED FLOW

13.427	1.94	1087.74	.00	1087.74	1087.77	.03	.71	.00	1088.50
1440.0	.0	97.8	1342.2	.0	55.5	1021.7	1930.7	858.8	1088.50
7.86	.00	1.76	1.31	.000	.040	.070	.000	1085.80	9971.31
.002354	410.	410.	410.	2	0	0	.00	849.48	10854.74

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO 13.556

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .34

DIVIDED FLOW OCCURS FOR THE NEXT FOUR CROSS-SECTIONS DUE TO
SHEET FLOW TYPE IN THIS REGION.

13.556	1.12	1090.52	.00	1090.52	1090.63	.11	2.83	.02	1089.60
1440.0	287.4	626.6	526.0	120.9	205.9	241.5	1940.4	868.9	1089.60
7.92	2.38	3.04	2.18	.070	.070	.070	.000	1089.40	9724.12
.019780	750.	680.	460.	2	0	0	.00	836.44	11105.66

*SECNO 13.667

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.02

13.667	2.11	1093.31	.00	1093.31	1093.33	.02	2.69	.01	1092.20
1440.0	152.7	477.7	809.6	132.9	359.1	915.4	1952.6	883.9	1091.70
8.06	1.15	1.33	.88	.070	.070	.070	.000	1091.20	9432.44
.002169	670.	585.	480.	5	0	0	.00	1627.94	11830.23

*SECNO 13.782

3265 DIVIDED FLOW

2 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .44

13.782	.99	1095.79	.00	1095.79	1095.82	.03	2.49	.00	1095.80
1440.0	154.4	15.0	1270.6	178.3	24.6	843.6	1969.5	913.3	1096.00
8.18	.87	.61	1.51	.070	.070	.070	.000	1094.80	9116.73
.010983	700.	610.	580.	5	0	0	.00	2581.42	12266.11

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 13.902

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.15

13.902	1.48	1098.48	.00	1098.48	1098.49	.01	2.67	.00	1097.50
1440.0	574.4	251.2	614.4	619.6	224.5	689.4	1987.4	945.2	1097.30
8.36	.93	1.12	.89	.070	.070	.070	.000	1097.00	9146.37
.002381	650.	630.	580.	4	0	0	.00	2002.70	11628.63

*SECNO 14.023

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .67

14.023	1.29	1100.59	.00	1100.59	1100.62	.03	2.13	.01	1099.50
1440.0	288.2	415.7	736.1	210.5	238.3	573.3	2005.6	968.5	1099.50
8.48	1.37	1.74	1.28	.070	.070	.070	.000	1099.30	9640.22
.005349	640.	640.	600.	5	0	0	.00	1284.57	10924.78

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THIS RUN EXECUTED 150CT92 09:17:02

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HEC-2 WATER SURFACE PROFILES

rsion 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

BULLARD WASH (WASH 10)

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	.000	850.00	912.32	9326.62	9980.00	10120.00	10571.93	.00	1245.30	1.82	910.50	25.25	1.53
	.000	850.00	912.32	9325.60	9980.00	10120.00	10572.40	.00	1246.80	1.82	910.50	25.00	1.53
*	.047	850.00	912.55	9133.37	9960.00	10100.00	10820.00	.23	1686.63	2.55	910.00	4.10	1.10
*	.047	850.00	912.55	9133.16	9960.00	10100.00	10820.00	.23	1686.84	2.55	910.00	4.09	1.10
	.121	850.00	912.73	9452.89	9980.00	10100.00	10820.00	.19	1367.11	2.73	910.00	5.90	1.22
	.121	850.00	912.73	9452.48	9980.00	10100.00	10820.00	.19	1367.52	2.73	910.00	5.88	1.22
	.201	850.00	913.03	9724.61	9970.00	10100.00	10820.00	.29	1095.39	3.03	910.00	8.87	1.61
	.201	850.00	913.03	9724.55	9970.00	10100.00	10820.00	.29	1095.45	3.03	910.00	8.86	1.61
	.292	850.00	913.39	9860.27	9960.00	10070.00	10800.00	.37	939.73	2.89	910.50	6.45	1.44
	.292	850.00	913.39	9860.27	9960.00	10070.00	10800.00	.37	939.73	2.89	910.50	6.45	1.44
	.384	850.00	913.69	9688.08	9970.00	10095.00	11370.00	.30	1604.23	2.69	911.00	5.41	1.22
	.384	850.00	913.69	9688.05	9970.00	10095.00	11370.00	.30	1604.28	2.69	911.00	5.41	1.22
	.488	850.00	914.01	9875.31	9970.00	10090.00	11365.00	.32	1469.90	2.01	912.00	6.48	1.07
	.488	850.00	914.01	9875.31	9970.00	10090.00	11365.00	.32	1469.90	2.01	912.00	6.48	1.07
	.531	850.00	914.18	9897.62	9965.00	10090.00	11350.00	.16	1385.91	1.38	912.80	7.57	.67
	.531	850.00	914.18	9897.62	9965.00	10090.00	11350.00	.16	1385.91	1.38	912.80	7.57	.67
*	.616	4895.00	916.05	9669.96	9960.00	10090.00	10830.00	1.88	844.48	2.25	913.80	69.55	3.43
*	.616	4895.00	916.05	9669.96	9960.00	10090.00	10830.00	1.88	844.48	2.25	913.80	69.55	3.43
	.668	4895.00	918.26	9620.00	9950.00	10035.00	10285.47	2.21	665.47	2.76	915.50	121.23	7.21
	.668	4895.00	918.26	9620.00	9950.00	10035.00	10285.47	2.21	665.47	2.76	915.50	121.23	7.21
*	.776	4895.00	920.95	9975.00	9975.00	10025.00	10485.12	2.69	510.12	4.55	916.40	21.16	4.33
*	.776	4895.00	920.95	9975.00	9975.00	10025.00	10485.12	2.69	510.12	4.55	916.40	21.16	4.33

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	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	.868	4895.00	922.17	9970.00	9970.00	10020.00	10485.69	1.22	515.69	4.17	918.00	32.96	5.49
	.868	4895.00	922.17	9970.00	9970.00	10020.00	10485.69	1.22	515.69	4.17	918.00	32.96	5.49
	.964	4895.00	924.12	9970.00	9970.00	10045.00	10411.24	1.95	441.24	4.92	919.20	54.74	7.59
	.964	4895.00	924.12	9970.00	9970.00	10045.00	10411.24	1.95	441.24	4.92	919.20	54.74	7.59
	1.081	2596.00	926.28	9955.00	9955.00	10090.00	10406.38	2.15	451.38	3.28	923.00	11.87	2.77
	1.081	2596.00	926.28	9955.00	9955.00	10090.00	10406.38	2.15	451.38	3.28	923.00	11.87	2.77
	1.153	2596.00	926.68	9959.96	9945.00	10060.00	10422.36	.40	453.30	3.68	923.00	9.73	2.63
	1.153	2596.00	926.68	9959.96	9945.00	10060.00	10422.36	.40	453.30	3.68	923.00	9.73	2.63
*	1.236	2596.00	927.45	9974.25	9960.00	10060.00	10325.72	.77	242.61	3.45	924.00	80.02	8.78
*	1.236	2596.00	927.45	9974.25	9960.00	10060.00	10325.72	.77	242.61	3.45	924.00	80.02	8.78

*	1.317	2596.00	929.70	9970.74	9960.00	10050.00	10314.63	2.25	300.91	5.70	924.00	22.09	5.56
*	1.317	2596.00	929.70	9970.74	9960.00	10050.00	10314.63	2.25	300.91	5.70	924.00	22.09	5.56
	1.378	2596.00	930.38	9965.18	9960.00	10035.00	10366.88	.68	370.84	6.38	924.00	16.66	5.07
	1.378	2596.00	930.38	9965.18	9960.00	10035.00	10366.88	.68	370.84	6.38	924.00	16.66	5.07
*	1.435	2596.00	931.17	9966.34	9965.00	10070.00	10128.96	.79	162.61	4.87	926.30	84.79	8.94
*	1.435	2596.00	931.17	9966.34	9965.00	10070.00	10128.96	.79	162.61	4.87	926.30	84.79	8.94
*	1.474	2600.00	933.62	9045.76	9985.00	10015.00	10080.00	2.45	1034.24	5.62	928.00	45.12	8.11
*	1.474	2600.00	933.62	9045.76	9985.00	10015.00	10080.00	2.45	1034.24	5.62	928.00	45.12	8.11
*	1.517	2600.00	934.88	9266.45	9905.00	10080.00	10080.00	1.26	813.55	2.68	932.20	11.46	2.51
*	1.517	2600.00	934.88	9266.45	9905.00	10080.00	10080.00	1.26	813.55	2.68	932.20	11.46	2.51
*	1.566	2600.00	936.21	9914.72	9955.00	10045.00	10065.00	1.33	150.28	3.71	932.50	77.73	9.00
*	1.566	2600.00	936.21	9914.72	9955.00	10045.00	10065.00	1.33	150.28	3.71	932.50	77.73	9.00
*	1.634	2600.00	938.27	9832.50	9970.00	10025.00	10065.00	2.06	232.50	5.27	933.00	18.24	5.99
*	1.634	2600.00	938.27	9832.50	9970.00	10025.00	10065.00	2.06	232.50	5.27	933.00	18.24	5.99
	1.680	2600.00	938.77	9761.32	9970.00	10025.00	10100.00	.49	338.68	5.37	933.40	11.76	5.01
	1.680	2600.00	938.77	9761.32	9970.00	10025.00	10100.00	.49	338.68	5.37	933.40	11.76	5.01
*	1.745	2600.00	939.17	9787.12	9960.00	10040.00	10210.00	.40	422.88	5.37	933.80	4.82	3.24
*	1.745	2600.00	939.17	9787.12	9960.00	10040.00	10210.00	.40	422.88	5.37	933.80	4.82	3.24
	1.823	2600.00	939.41	9432.35	9970.00	10050.00	10255.00	.25	822.65	4.51	934.90	5.20	2.83
	1.823	2600.00	939.41	9432.35	9970.00	10050.00	10255.00	.25	822.65	4.51	934.90	5.20	2.83
	1.893	4899.00	939.71	9093.62	9960.00	10040.00	10199.81	.30	1080.16	3.61	936.10	19.47	4.71
	1.893	4899.00	939.71	9093.62	9960.00	10040.00	10199.81	.30	1080.16	3.61	936.10	19.47	4.71
*	1.941	4899.00	939.90	8961.19	9975.00	10025.00	10024.29	.19	700.71	3.60	936.30	45.37	4.09
*	1.941	4899.00	939.90	8961.19	9975.00	10025.00	10024.29	.19	700.71	3.60	936.30	45.37	4.09

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SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
1.988	4899.00	940.10	8915.50	9950.00	10030.00	10015.41	.20	696.81	3.80	936.30	39.61	3.06
1.988	4899.00	940.10	8915.50	9950.00	10030.00	10015.41	.20	696.81	3.80	936.30	39.61	3.06
2.058	4899.00	941.27	8850.00	9970.00	10035.00	10024.75	1.17	772.16	4.67	936.60	26.08	3.66
2.058	4899.00	941.27	8850.00	9970.00	10035.00	10024.75	1.17	772.16	4.67	936.60	26.08	3.66
2.185	4899.00	942.66	9310.00	9965.00	10045.00	10034.94	1.39	472.18	5.46	937.20	46.56	5.68
2.185	4899.00	942.66	9310.00	9965.00	10045.00	10034.94	1.39	472.18	5.46	937.20	46.56	5.68
* 2.297	4899.00	943.50	9438.68	9975.00	10040.00	10645.29	.84	1206.62	5.70	937.80	3.01	1.94
* 2.297	4899.00	943.50	9438.68	9975.00	10040.00	10645.29	.84	1206.62	5.70	937.80	3.01	1.94
2.371	4899.00	943.66	9277.62	9975.00	10030.00	10779.55	.16	1501.93	4.26	939.40	5.70	2.55
* 2.371	4899.00	943.61	9650.00	9975.00	10030.00	10070.00	.11	420.00	4.21	939.40	31.00	5.87
* 2.435	4899.00	943.91	9260.15	9985.00	10085.00	10742.73	.25	1482.58	4.01	939.90	14.67	4.06
2.435	4899.00	944.57	9835.00	9985.00	10085.00	10210.00	.96	375.00	4.67	939.90	36.67	7.29
* 2.536	4906.00	945.80	9771.15	9965.00	10060.00	10750.68	1.89	979.53	2.30	943.50	117.17	9.03
2.536	4906.00	946.82	9850.00	9965.00	10060.00	10250.00	2.25	400.00	3.32	943.50	46.01	7.30

*	2.680	4906.00	949.13	9565.75	9925.00	10050.00	10774.45	3.33	1136.32	3.93	945.20	19.27	5.00
	2.680	4906.00	949.53	9800.00	9925.00	10050.00	10205.00	2.71	370.13	4.33	945.20	29.67	6.66
	2.771	4906.00	950.61	9624.70	9985.00	10020.00	10702.82	1.47	1066.90	3.31	947.30	57.05	6.98
*	2.771	4906.00	951.54	9880.00	9985.00	10020.00	10225.00	2.01	345.00	4.24	947.30	61.31	8.89
*	2.883	4906.00	952.83	9596.60	9985.00	10015.00	10473.87	2.22	877.27	4.33	948.50	26.43	5.85
*	2.883	4906.00	953.79	9830.00	9985.00	10015.00	10180.00	2.25	350.00	5.29	948.50	22.10	6.28
	2.977	4915.00	954.27	9642.89	9980.00	10050.00	10514.22	1.44	871.33	4.37	949.90	40.41	7.34
	2.977	4915.00	954.94	9820.00	9980.00	10050.00	10055.00	1.15	235.00	5.04	949.90	38.03	7.98
	3.070	4915.00	956.13	9527.59	9945.00	10025.00	10651.57	1.86	1123.98	3.83	952.30	26.14	5.07
	3.070	4915.00	956.94	9790.00	9945.00	10025.00	10180.00	2.01	390.00	4.64	952.30	31.15	6.53
	3.167	4432.00	957.36	9569.20	9970.00	10020.00	10657.98	1.22	1088.78	3.46	953.90	21.91	4.83
	3.167	4432.00	958.31	9730.00	9970.00	10020.00	10190.00	1.36	460.00	4.41	953.90	18.44	5.32
*	3.291	4432.00	959.72	9986.41	9970.00	10020.00	10880.48	2.36	880.55	2.52	957.20	71.33	4.98
*	3.291	4432.00	960.55	9987.00	9970.00	10020.00	10330.00	2.24	343.00	3.35	957.20	98.94	7.26
*	3.376	4432.00	961.76	9673.73	9985.00	10015.00	10888.70	2.04	1205.55	3.46	958.30	30.77	3.69
*	3.376	4432.00	962.69	9840.00	9985.00	10015.00	10365.00	2.14	525.00	4.39	958.30	23.54	4.34
	3.491	4432.00	963.20	9597.03	9980.00	10020.00	10656.95	1.44	1059.92	3.70	959.50	19.01	4.01
	3.491	4432.00	964.04	9870.00	9980.00	10020.00	10260.00	1.36	390.00	4.54	959.50	22.79	5.31
*	3.602	4438.00	964.68	9699.47	9880.00	10100.00	10505.63	1.48	806.16	2.78	961.90	40.75	4.63
	3.602	4438.00	965.47	9840.00	9880.00	10100.00	10170.00	1.43	330.00	3.57	961.90	28.78	4.61

SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
3.702	4438.00	966.76	9239.20	9955.00	10055.00	10479.91	2.08	1003.67	3.36	963.40	36.86	4.77
3.702	4438.00	967.29	9550.00	9955.00	10055.00	10140.00	1.82	361.21	3.89	963.40	44.41	5.83
3.841	4438.00	969.26	9185.54	9955.00	10070.00	10407.99	2.50	999.61	4.16	965.10	30.04	3.75
3.841	4438.00	970.24	9550.00	9955.00	10070.00	10070.00	2.94	344.07	5.14	965.10	34.65	4.93
3.978	4438.00	971.29	9234.97	9930.00	10095.00	10438.75	2.03	1203.78	4.39	966.90	26.70	4.01
3.978	4438.00	972.18	9500.00	9930.00	10095.00	10095.00	1.94	595.00	5.28	966.90	19.39	4.00
4.101	4438.00	973.16	9372.68	9960.00	10080.00	10493.94	1.87	1121.26	4.46	968.70	30.68	4.14
* 4.101	4438.00	973.85	9780.00	9960.00	10080.00	10125.00	1.67	345.00	5.15	968.70	41.62	5.55
4.237	4438.00	975.08	9456.52	9935.00	10075.00	10365.77	1.92	909.25	3.78	971.30	24.01	4.12
4.237	4438.00	976.09	9780.00	9935.00	10075.00	10075.00	2.24	295.00	4.79	971.30	23.26	4.73
4.356	4438.00	976.54	9499.28	9950.00	10070.00	10393.84	1.46	894.56	3.94	972.60	21.88	4.02
4.356	4438.00	977.58	9840.00	9950.00	10070.00	10110.00	1.49	270.00	4.98	972.60	24.54	5.06
4.496	4438.00	978.22	9633.19	9975.00	10130.00	10433.50	1.68	800.31	3.82	974.40	24.44	4.24
4.496	4438.00	979.22	9850.00	9975.00	10130.00	10160.00	1.64	310.00	4.82	974.40	18.73	4.38
* 4.625	4446.00	980.50	9600.36	9835.00	10160.00	10378.51	2.27	778.15	2.40	978.10	52.55	4.69
* 4.625	4446.00	981.04	9850.00	9835.00	10160.00	10150.00	1.82	300.00	2.94	978.10	49.70	5.20
* 4.701	4446.00	981.33	9598.20	9685.00	10405.00	10475.10	.84	876.90	3.33	978.00	6.99	2.04

*	4.701	4446.00	982.06	9800.00	9685.00	10405.00	10200.00	1.02	400.00	4.06	978.00	8.61	2.74
*	4.858	4446.00	982.47	9685.11	9705.00	10290.00	10352.00	1.13	666.89	2.47	980.00	58.27	4.20
*	4.858	4446.00	983.25	9850.00	9705.00	10290.00	10150.00	1.19	300.00	3.25	980.00	45.35	5.06
*	5.009	4446.00	985.58	9604.63	9935.00	10100.00	10407.96	3.11	803.32	3.68	981.90	25.67	3.99
	5.009	4446.00	986.26	9820.00	9935.00	10100.00	10105.00	3.01	285.00	4.36	981.90	29.93	4.93
	5.153	4446.00	987.81	9495.23	9945.00	10090.00	10385.54	2.24	890.30	3.51	984.30	34.24	4.45
	5.153	4446.00	988.71	9800.00	9945.00	10090.00	10090.00	2.45	290.00	4.41	984.30	34.50	5.25
*	5.282	4446.00	989.36	9212.57	9945.00	10055.00	10474.40	1.55	1261.83	3.86	985.50	14.32	3.24
*	5.282	4446.00	990.33	9700.00	9945.00	10055.00	10100.00	1.62	400.00	4.83	985.50	13.53	3.71
*	5.430	4446.00	991.08	9912.54	9899.90	10100.10	10087.46	1.72	174.93	3.08	988.00	96.31	8.56
*	5.430	4446.00	991.77	9913.00	9899.90	10100.10	10087.00	1.44	174.00	3.77	988.00	48.64	6.96
*	5.460	5319.00	991.91	9910.79	9899.90	10100.10	10089.21	.83	178.41	3.91	988.00	61.87	7.99
	5.460	5319.00	991.91	9913.00	9899.90	10100.10	10087.00	.14	174.00	3.91	988.00	61.71	8.03
*	5.563	5319.00	993.68	9147.47	9850.00	10100.00	10877.00	1.76	1729.53	5.18	988.50	3.76	2.05
*	5.563	5319.00	994.06	9850.00	9850.00	10100.00	10200.00	2.16	350.00	5.56	988.50	9.54	3.40
*	5.727	4662.00	994.29	9219.67	9935.00	10135.00	10642.91	.61	1276.17	3.29	991.00	46.32	4.53
*	5.727	4662.00	995.30	9897.83	9935.00	10135.00	10250.00	1.24	352.17	4.30	991.00	31.29	4.55

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SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
5.840	4662.00	996.51	9321.12	9970.00	10170.00	10743.70	2.22	1360.99	3.11	993.40	28.93	3.64
5.840	4662.00	997.23	9930.81	9970.00	10170.00	10300.00	1.93	369.19	3.83	993.40	33.67	4.54
5.960	4662.00	998.50	9630.08	9960.00	10150.00	11003.71	1.99	1373.63	2.60	995.90	34.54	3.41
5.960	4662.00	999.38	9960.00	9960.00	10150.00	10400.00	2.15	440.00	3.48	995.90	32.39	4.05
6.086	4662.00	1001.07	9413.59	9900.00	10100.00	10865.07	2.57	1451.48	2.77	998.30	42.90	3.80
6.086	4662.00	1001.80	9800.00	9900.00	10100.00	10300.00	2.42	500.00	3.50	998.30	41.05	4.45
* 6.217	4662.00	1002.98	9373.64	9900.00	10100.00	10901.73	1.91	1528.09	2.88	1000.10	17.79	2.75
* 6.217	4662.00	1003.65	9670.00	9900.00	10100.00	10300.00	1.85	630.00	3.55	1000.10	16.61	3.07
6.320	4662.00	1003.99	9555.93	9900.00	10100.00	11026.60	1.01	1470.67	3.09	1000.90	19.43	2.93
6.320	4662.00	1004.59	9650.00	9900.00	10100.00	10300.00	.94	650.00	3.69	1000.90	17.90	3.20
6.414	4662.00	1005.26	9137.79	9900.00	10100.00	10950.51	1.27	1812.72	2.66	1002.60	34.58	3.42
6.414	4662.00	1005.70	9400.00	9900.00	10100.00	10300.00	1.10	900.00	3.10	1002.60	25.28	3.27
6.509	4662.00	1006.65	8840.75	9900.00	10100.00	11388.81	1.39	2548.06	2.55	1004.10	20.11	2.41
6.509	4662.00	1006.85	9025.00	9900.00	10100.00	10200.00	1.16	1175.00	2.75	1004.10	18.19	2.43
* 6.627	4662.00	1008.61	8538.31	9900.00	10100.00	11058.16	1.96	1722.97	1.81	1006.80	54.00	2.94
* 6.627	4662.00	1008.66	8720.00	9900.00	10100.00	10100.00	1.81	1380.00	1.86	1006.80	50.93	2.92
6.674	4662.00	1011.81	7994.73	9955.00	10120.00	11044.90	3.20	1338.85	3.31	1008.50	118.33	7.41
* 6.674	4662.00	1012.18	8550.00	9955.00	10120.00	10186.56	3.51	384.05	3.68	1008.50	135.12	8.69
* 6.864	4662.00	1013.77	7600.00	9930.00	10080.00	11300.00	1.96	3700.00	4.77	1009.00	6.53	2.12
* 6.864	4662.00	1014.48	8300.00	9930.00	10080.00	10690.00	2.30	2390.00	5.48	1009.00	4.34	1.97

	6.877	4703.00	1013.82	7600.00	9915.00	10050.00	11259.78	.05	3659.78	4.32	1009.50	11.07	2.68
	6.877	4703.00	1014.51	8250.00	9915.00	10050.00	10550.00	.03	2300.00	5.01	1009.50	6.25	2.29
*	7.045	4703.00	1014.13	9000.00	9920.00	10055.00	11800.00	.31	2701.76	3.03	1011.10	4.19	1.41
	7.045	4703.00	1014.82	9630.00	9920.00	10055.00	11090.00	.30	1397.91	3.72	1011.10	6.83	2.18
*	7.124	4088.00	1014.36	9200.00	9980.00	10018.00	11600.00	.23	2371.72	2.76	1011.60	7.77	1.65
	7.124	4088.00	1015.12	9575.00	9980.00	10018.00	11025.00	.30	1450.00	3.52	1011.60	7.07	1.96
*	7.267	4088.00	1015.42	9297.68	9980.00	10019.00	11470.27	1.06	2020.19	2.52	1012.90	35.15	2.58
*	7.267	4088.00	1016.15	9650.00	9980.00	10019.00	10680.00	1.03	1007.21	3.25	1012.90	43.61	3.78
	7.407	4088.00	1017.55	9748.01	9980.00	10025.00	11436.81	2.13	1574.63	2.85	1014.70	23.86	1.67
	7.407	4088.00	1018.46	9741.00	9980.00	10025.00	10710.00	2.31	943.74	3.76	1014.70	22.80	2.26
*	7.552	4088.00	1020.13	9237.78	9980.00	10020.00	11512.40	2.59	2274.62	2.03	1018.10	52.22	4.43
*	7.552	4088.00	1020.91	9750.00	9980.00	10020.00	10450.00	2.45	700.00	2.81	1018.10	51.14	5.60
*	7.670	4088.00	1022.08	9160.84	9980.00	10015.00	11420.20	1.94	2259.36	3.88	1018.20	20.41	4.18
*	7.670	4088.00	1022.99	9850.00	9980.00	10015.00	10390.00	2.08	540.00	4.79	1018.20	23.15	5.25

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SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
7.799	4088.00	1023.27	9388.49	9970.00	10015.00	11051.15	1.20	1662.66	4.07	1019.20	15.48	3.94
7.799	4088.00	1024.20	9850.00	9970.00	10015.00	10400.00	1.21	550.00	5.00	1019.20	13.31	4.25
7.924	4088.00	1024.65	9532.08	9970.00	10010.00	11190.43	1.38	1658.35	3.55	1021.10	30.42	4.68
7.924	4088.00	1025.38	9900.00	9970.00	10010.00	10500.00	1.18	600.00	4.28	1021.10	26.29	5.07
* 7.977	4121.00	1027.00	9258.69	9990.00	10010.00	11530.86	2.35	2272.17	5.60	1021.40	6.86	9.44
* 7.977	4121.00	1027.58	9920.00	9990.00	10010.00	10670.00	2.20	750.00	6.18	1021.40	8.16	11.00
7.983	4121.00	1027.14	9142.52	9990.00	10010.00	11560.00	.14	2417.48	5.54	1021.60	5.08	8.07
7.983	4121.00	1027.75	9920.00	9990.00	10010.00	10670.00	.16	750.00	6.15	1021.60	6.74	9.96
* 8.069	4121.00	1027.69	9234.93	9960.00	10070.00	11018.08	.55	1783.15	3.69	1024.00	10.99	3.34
8.069	4121.00	1028.62	9870.00	9960.00	10070.00	10325.00	.87	455.00	4.62	1024.00	10.24	3.74
* 8.169	4121.00	1028.59	9353.09	9980.00	10020.00	10644.56	.90	1291.47	3.99	1024.60	36.33	5.96
* 8.169	4121.00	1029.41	9880.00	9980.00	10020.00	10175.00	.79	295.00	4.81	1024.60	41.77	7.35
8.292	4121.00	1030.83	9439.26	9980.00	10020.00	10800.32	2.24	1361.06	4.63	1026.20	32.92	6.05
8.292	4121.00	1031.84	9925.00	9980.00	10020.00	10230.00	2.43	305.00	5.64	1026.20	33.22	7.09
8.364	4121.00	1032.17	9247.86	9975.00	10025.00	10540.75	1.34	1292.89	4.77	1027.40	38.75	6.44
8.364	4121.00	1033.09	9870.00	9975.00	10025.00	10230.00	1.25	360.00	5.69	1027.40	27.78	6.30
8.468	4121.00	1034.43	9130.01	9980.00	10025.00	11078.64	2.26	1948.63	4.83	1029.60	60.48	7.71
8.468	4121.00	1034.86	9860.00	9980.00	10025.00	10770.00	1.77	910.00	5.26	1029.60	52.86	7.77
8.544	4183.00	1036.18	9713.16	9975.00	10100.00	12442.07	1.75	2728.90	1.78	1034.40	41.59	3.62
8.544	4183.00	1036.82	9750.00	9975.00	10100.00	10995.00	1.96	1245.00	2.42	1034.40	65.50	5.73
8.636	4183.00	1038.06	9741.96	9960.00	10010.00	12625.23	1.88	2680.10	1.96	1036.10	68.24	4.32
8.636	4183.00	1038.96	9960.00	9960.00	10010.00	11200.00	2.13	1063.68	2.86	1036.10	43.58	4.71
8.726	4183.00	1040.34	9429.78	9950.00	10010.00	12664.72	2.28	3044.47	2.94	1037.40	35.24	4.01
8.726	4183.00	1041.09	9950.00	9950.00	10010.00	11000.00	2.14	891.98	3.69	1037.40	48.73	5.69

*	8.848	4183.00	1043.50	9104.11	9970.00	10020.00	11404.85	3.16	2124.59	2.90	1040.60	117.36	6.13
	8.848	4183.00	1044.44	9770.00	9970.00	10020.00	10600.00	3.35	818.31	3.84	1040.60	77.23	6.25
	8.965	4183.00	1046.21	9137.38	9970.00	10033.00	10976.28	2.71	1838.90	3.51	1042.70	21.54	3.73
*	8.965	4183.00	1047.04	9740.00	9970.00	10033.00	10190.00	2.59	450.00	4.34	1042.70	25.33	4.86
	9.034	4183.00	1047.14	9330.00	9970.00	10038.00	10574.59	.93	1244.60	3.74	1043.40	34.98	5.17
	9.034	4183.00	1048.04	9775.00	9970.00	10038.00	10038.00	1.00	263.00	4.64	1043.40	39.02	6.37
*	9.095	4243.00	1048.93	9127.05	9978.00	10022.00	10194.30	1.80	1067.25	6.63	1042.30	5.23	9.23
*	9.095	4243.00	1048.98	9470.00	9978.00	10022.00	10070.00	.95	600.00	6.68	1042.30	5.43	9.45
	9.100	4243.00	1049.15	9091.80	9978.00	10022.00	10282.93	.22	1191.13	6.65	1042.50	4.23	8.32
	9.100	4243.00	1048.95	9470.00	9978.00	10022.00	10070.00	-.03	600.00	6.45	1042.50	5.93	9.66

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
*	9.189	4243.00	1050.18	9253.43	9940.00	10160.00	10276.17	1.03	1022.74	2.28	1047.90	29.27	4.13
*	9.189	4243.00	1050.35	9645.00	9940.00	10160.00	10160.00	1.40	515.00	2.45	1047.90	45.36	5.43
*	9.292	3693.00	1052.71	9240.83	9900.00	10120.00	10159.40	2.54	918.56	1.61	1051.10	108.83	5.38
*	9.292	3693.00	1053.29	9690.00	9900.00	10120.00	10120.00	2.94	430.00	2.19	1051.10	71.38	5.77
*	9.396	3693.00	1055.81	9076.44	9880.00	10070.00	10470.53	3.09	1394.08	2.01	1053.80	29.86	3.32
*	9.396	3693.00	1056.20	9500.00	9880.00	10070.00	10070.00	2.91	570.00	2.40	1053.80	34.08	4.19
	9.493	3693.00	1057.73	9042.96	9930.00	10140.00	10250.78	1.92	1207.81	1.63	1056.10	54.32	4.26
	9.493	3693.00	1058.10	9425.00	9930.00	10140.00	10140.00	1.90	715.00	2.00	1056.10	43.02	4.49
	9.544	3693.00	1058.81	8841.61	9920.00	10065.00	10422.28	1.08	1580.67	1.81	1057.00	38.24	3.18
	9.544	3693.00	1059.13	9250.00	9920.00	10065.00	10065.00	1.03	815.00	2.13	1057.00	45.88	4.13
	9.641	3113.00	1059.65	9026.78	9985.00	10015.00	10056.28	.84	1029.50	2.65	1057.00	27.55	4.33
	9.641	3113.00	1060.06	9500.00	9985.00	10015.00	10056.00	.93	556.00	3.06	1057.00	29.41	5.03
*	9.741	3113.00	1060.21	9110.67	9900.00	10115.00	10456.00	.56	1345.33	3.01	1057.20	5.27	2.22
*	9.741	3113.00	1060.66	9600.00	9900.00	10115.00	10200.00	.60	600.00	3.46	1057.20	4.91	2.37
	9.807	3113.00	1060.39	9112.53	9900.00	10140.00	10423.27	.17	1310.74	3.08	1057.30	4.88	2.18
	9.807	3113.00	1060.82	9590.00	9900.00	10140.00	10190.00	.16	600.00	3.52	1057.30	4.08	2.20
*	9.898	762.00	1060.62	9603.86	9960.00	10055.00	10474.03	.23	870.17	3.12	1057.50	1.70	1.26
*	9.898	762.00	1061.03	9860.00	9960.00	10055.00	10170.00	.21	310.00	3.53	1057.50	2.48	1.68
*	9.994	762.00	1060.65	9956.92	9950.00	10050.00	10039.62	.03	82.71	2.95	1057.70	23.67	4.29
*	9.994	762.00	1061.17	9954.43	9950.00	10050.00	10043.35	.14	88.92	3.47	1057.70	12.34	3.42
	10.108	762.00	1062.01	9969.93	9960.00	10045.00	10035.07	1.37	65.14	3.91	1058.10	23.22	4.68
	10.108	762.00	1062.04	9969.56	9960.00	10045.00	10035.44	.87	65.87	3.94	1058.10	22.56	4.62
*	10.197	762.00	1062.93	9954.18	9950.00	10045.00	10038.74	.92	84.56	4.53	1058.40	11.48	3.42
	10.197	762.00	1062.94	9954.12	9950.00	10045.00	10038.82	.90	84.69	4.54	1058.40	11.38	3.41
	10.269	800.00	1063.28	9953.58	9960.00	10025.00	10032.41	.35	78.83	4.68	1058.60	7.57	3.40
	10.269	800.00	1063.29	9953.56	9960.00	10025.00	10032.44	.35	78.88	4.69	1058.60	7.53	3.40
	10.328	800.00	1063.50	9964.38	9970.00	10020.00	10021.87	.21	57.49	4.70	1058.80	10.94	4.21

	10.328	800.00	1063.50	9964.37	9970.00	10020.00	10021.88	.21	57.51	4.70	1058.80	10.90	4.21
	10.419	800.00	1063.99	9972.51	9975.00	10020.00	10022.49	.50	49.99	4.89	1059.10	10.12	4.29
	10.419	800.00	1064.00	9972.50	9975.00	10020.00	10022.50	.50	49.99	4.90	1059.10	10.09	4.29
	10.493	800.00	1064.36	9885.00	9895.00	10030.00	10045.00	.36	160.00	5.06	1059.30	.78	1.28
*	10.493	800.00	1064.36	9885.00	9895.00	10030.00	10045.00	.36	160.00	5.06	1059.30	.77	1.28
*	10.587	800.00	1064.39	9846.88	9935.00	10040.00	10060.00	.04	213.13	4.79	1059.60	1.67	1.76
*	10.587	800.00	1064.40	9846.54	9935.00	10040.00	10060.00	.04	213.46	4.80	1059.60	1.67	1.76

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	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	10.639	800.00	1064.45	9858.05	9925.00	10035.00	10055.97	.05	197.92	4.65	1059.80	1.76	1.68
	10.639	800.00	1064.45	9857.95	9925.00	10035.00	10056.02	.05	198.07	4.65	1059.80	1.76	1.68
	10.709	1380.00	1064.52	9863.33	9910.00	10040.00	10055.74	.08	192.41	4.52	1060.00	6.18	2.85
	10.709	1380.00	1064.53	9863.30	9910.00	10040.00	10055.75	.08	192.45	4.53	1060.00	6.17	2.85
*	10.804	1380.00	1064.98	9880.16	9900.00	10040.00	10047.44	.46	167.28	2.98	1062.00	38.85	4.89
*	10.804	1380.00	1064.98	9880.15	9900.00	10040.00	10047.45	.46	167.30	2.98	1062.00	38.80	4.88
	10.889	1380.00	1066.80	9878.29	9900.00	10040.00	10045.92	1.81	167.63	2.80	1064.00	42.64	5.03
	10.889	1380.00	1066.80	9878.29	9900.00	10040.00	10045.92	1.81	167.63	2.80	1064.00	42.66	5.03
	10.946	1380.00	1068.22	9923.80	9930.00	10080.00	10081.69	1.42	157.89	2.52	1065.70	56.19	5.34
	10.946	1380.00	1068.22	9923.80	9930.00	10080.00	10081.69	1.42	157.89	2.52	1065.70	56.17	5.34
	10.995	1380.00	1069.84	9900.11	9895.00	10045.00	10044.21	1.62	144.10	2.64	1067.20	76.73	5.95
	10.995	1380.00	1069.84	9900.12	9895.00	10045.00	10044.21	1.62	144.09	2.64	1067.20	76.75	5.95
*	11.067	1380.00	1071.15	9735.50	9920.00	10045.00	10053.60	1.30	318.09	3.55	1067.60	10.13	3.08
*	11.067	1380.00	1071.15	9735.50	9920.00	10045.00	10053.60	1.30	318.09	3.55	1067.60	10.13	3.08
	11.147	1380.00	1071.52	9532.25	9920.00	10045.00	10056.39	.37	524.14	3.72	1067.80	6.55	2.69
	11.147	1380.00	1071.52	9532.28	9920.00	10045.00	10056.39	.37	524.11	3.72	1067.80	6.55	2.69
	11.228	1380.00	1071.82	9375.08	9920.00	10050.00	10065.89	.30	690.82	3.92	1067.90	6.78	2.60
	11.228	1380.00	1071.82	9375.04	9920.00	10050.00	10065.89	.30	690.85	3.92	1067.90	6.78	2.60
	11.306	1380.00	1072.13	9805.26	9965.00	10090.00	10156.26	.31	351.01	3.33	1068.80	11.55	3.29
	11.306	1380.00	1072.13	9805.29	9965.00	10090.00	10156.26	.31	350.97	3.33	1068.80	11.56	3.29
	11.416	1380.00	1072.86	9769.27	9930.00	10070.00	10195.72	.73	426.45	2.66	1070.20	13.58	3.14
	11.416	1380.00	1072.86	9769.27	9930.00	10070.00	10195.72	.73	426.45	2.66	1070.20	13.58	3.14
	11.510	1380.00	1073.48	9548.38	9900.00	10100.00	10213.13	.62	664.76	1.98	1071.50	9.45	2.24
	11.510	1380.00	1073.48	9548.38	9900.00	10100.00	10213.13	.62	664.76	1.98	1071.50	9.45	2.24
*	11.580	1380.00	1074.48	9961.38	9965.00	10100.00	10115.69	1.01	154.31	2.48	1072.00	113.62	6.86
*	11.580	1380.00	1074.48	9961.39	9965.00	10100.00	10115.66	1.00	154.28	2.48	1072.00	113.81	6.87
	11.676	1377.00	1076.16	9921.86	9955.00	10100.00	10105.92	1.67	184.05	4.06	1072.10	8.00	2.98
*	11.676	1377.00	1076.16	9921.85	9955.00	10100.00	10105.92	1.67	184.07	4.06	1072.10	8.00	2.98
	11.775	1377.00	1076.55	9914.56	9955.00	10075.00	10131.97	.40	217.41	4.35	1072.20	7.38	3.08
	11.775	1377.00	1076.55	9914.55	9955.00	10075.00	10131.97	.40	217.42	4.35	1072.20	7.38	3.08

11.867	1377.00	1076.92	9875.30	9960.00	10055.00	10103.84	.36	228.54	4.61	1072.30	8.13	3.42
11.867	1377.00	1076.92	9875.29	9960.00	10055.00	10103.84	.36	228.55	4.62	1072.30	8.13	3.42
11.970	1377.00	1077.31	9926.72	9930.00	10060.00	10106.38	.40	179.66	4.91	1072.40	4.75	2.64
11.970	1377.00	1077.31	9926.72	9930.00	10060.00	10106.38	.40	179.66	4.91	1072.40	4.74	2.64

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	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	12.064	1377.00	1077.53	9812.10	9935.00	10070.00	10101.46	.22	289.37	5.03	1072.50	2.81	2.19
	12.064	1377.00	1077.53	9812.09	9935.00	10070.00	10101.46	.22	289.38	5.03	1072.50	2.81	2.19
	12.150	1377.00	1077.65	9825.00	9940.00	10080.00	10104.37	.13	279.37	5.15	1072.50	2.29	2.02
	12.150	1377.00	1077.65	9825.00	9940.00	10080.00	10104.37	.13	279.37	5.15	1072.50	2.29	2.02
	12.244	1377.00	1077.77	9850.00	9910.00	10075.00	10112.77	.12	262.77	5.17	1072.60	2.20	1.90
	12.244	1377.00	1077.77	9850.00	9910.00	10075.00	10112.77	.12	262.77	5.17	1072.60	2.20	1.90
	12.345	1377.00	1077.88	9890.00	9920.00	10095.00	10143.63	.11	253.63	5.28	1072.60	1.66	1.71
	12.345	1377.00	1077.88	9890.00	9920.00	10095.00	10143.63	.11	253.63	5.28	1072.60	1.66	1.71
	12.439	1377.00	1077.97	9900.00	9955.00	10120.00	10184.52	.08	284.52	5.27	1072.70	1.43	1.64
	12.439	1377.00	1077.97	9900.00	9955.00	10120.00	10184.52	.08	284.52	5.27	1072.70	1.43	1.64
	12.534	1377.00	1078.04	9865.00	9910.00	10075.00	10150.33	.07	285.33	5.34	1072.70	1.31	1.59
	12.534	1377.00	1078.04	9865.00	9910.00	10075.00	10150.33	.07	285.33	5.34	1072.70	1.31	1.59
	12.633	1000.00	1080.12	9600.00	9900.00	10100.00	10414.10	2.08	814.10	.72	1079.40	173.06	4.06
*	12.633	1000.00	1080.12	9600.00	9900.00	10100.00	10414.10	2.08	814.10	.72	1079.40	173.06	4.06
*	12.700	1000.00	1080.73	9920.00	9920.00	10110.00	11017.64	.61	1097.64	2.03	1078.70	3.07	.90
*	12.700	1000.00	1080.73	9920.00	9920.00	10110.00	11017.64	.61	1097.64	2.03	1078.70	3.07	.90
*	12.758	1000.00	1080.96	9940.00	9955.00	10070.00	10611.51	.23	671.51	2.06	1078.90	18.13	2.27
*	12.758	1000.00	1080.96	9940.00	9955.00	10070.00	10611.51	.23	671.51	2.06	1078.90	18.13	2.27
	12.867	1000.00	1081.80	9940.00	9960.00	10055.00	10600.78	.84	660.78	2.40	1079.40	11.68	2.09
	12.867	1000.00	1081.80	9940.00	9960.00	10055.00	10600.78	.84	660.78	2.40	1079.40	11.68	2.09
	13.044	1000.00	1082.79	9900.00	9910.00	10075.00	10752.66	.98	852.66	2.09	1080.70	10.97	1.74
	13.044	1000.00	1082.79	9900.00	9910.00	10075.00	10752.66	.98	852.66	2.09	1080.70	10.97	1.74
*	13.161	1000.00	1083.92	9961.78	9960.00	10085.00	10754.54	1.13	792.77	1.62	1082.30	43.31	2.92
*	13.161	1000.00	1083.92	9961.78	9960.00	10085.00	10754.54	1.13	792.77	1.62	1082.30	43.31	2.92
*	13.248	1440.00	1085.86	9905.16	9950.00	10050.00	10935.01	1.94	999.96	1.56	1084.30	41.44	2.75
*	13.248	1440.00	1085.86	9905.16	9950.00	10050.00	10935.01	1.94	999.96	1.56	1084.30	41.44	2.75
*	13.349	1440.00	1087.04	9926.77	9955.00	10070.00	10935.74	1.18	994.24	2.54	1084.50	13.21	1.95
*	13.349	1440.00	1087.04	9926.77	9955.00	10070.00	10935.74	1.18	994.24	2.54	1084.50	13.21	1.95
	13.427	1440.00	1087.74	9971.31	9960.00	10040.00	10854.74	.71	849.48	1.94	1085.80	23.54	1.76
	13.427	1440.00	1087.74	9971.31	9960.00	10040.00	10854.74	.71	849.48	1.94	1085.80	23.54	1.76
*	13.556	1440.00	1090.52	9724.12	9900.00	10100.00	11105.66	2.78	836.44	1.12	1089.40	197.80	3.04
*	13.556	1440.00	1090.52	9724.12	9900.00	10100.00	11105.66	2.78	836.44	1.12	1089.40	197.80	3.04
*	13.667	1440.00	1093.31	9432.44	9870.00	10100.00	11830.23	2.79	1627.94	2.11	1091.20	21.69	1.33
*	13.667	1440.00	1093.31	9432.44	9870.00	10100.00	11830.23	2.79	1627.94	2.11	1091.20	21.69	1.33

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
*	13.782	1440.00	1095.79	9116.73	9870.00	10085.00	12266.11	2.48	2581.42	.99	1094.80	109.83	.61
*	13.782	1440.00	1095.79	9116.73	9870.00	10085.00	12266.11	2.48	2581.42	.99	1094.80	109.83	.61
*	13.902	1440.00	1098.48	9146.37	9900.00	10100.00	11628.63	2.69	2002.70	1.48	1097.00	23.81	1.12
*	13.902	1440.00	1098.48	9146.37	9900.00	10100.00	11628.63	2.69	2002.70	1.48	1097.00	23.81	1.12
*	14.023	1440.00	1100.59	9640.22	9900.00	10100.00	10924.78	2.12	1284.57	1.29	1099.30	53.49	1.74
*	14.023	1440.00	1100.59	9640.22	9900.00	10100.00	10924.78	2.12	1284.57	1.29	1099.30	53.49	1.74

BULLARD WASH (WASH 10)

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	.000	912.32	.32	912.34	1245.30	625.17	160.26	64.57	.00	.00	9980.00	10120.00	.00
	.000	912.32	.00	912.34	1246.80	624.56	160.34	65.10	.00	.00	9980.00	10120.00	.00
	.047	912.55	.00	912.55	1686.63	347.06	275.13	227.81	.00	.00	9960.00	10100.00	.00
*	.047	912.55	.00	912.55	1686.84	347.12	275.00	227.88	.00	.00	9960.00	10100.00	.00
	.121	912.73	.00	912.74	1367.11	111.36	232.90	505.73	.00	.00	9980.00	10100.00	.00
	.121	912.73	.00	912.74	1367.52	111.46	232.84	505.70	.00	.00	9980.00	10100.00	.00
	.201	913.03	.00	913.05	1095.39	12.00	366.79	471.21	.00	.00	9970.00	10100.00	.00
	.201	913.03	.00	913.05	1095.45	12.01	366.77	471.22	.00	.00	9970.00	10100.00	.00
	.292	913.39	.00	913.41	939.73	7.85	301.57	540.57	.00	.00	9960.00	10070.00	.00
	.292	913.39	.00	913.41	939.73	7.85	301.57	540.57	.00	.00	9960.00	10070.00	.00
	.384	913.69	.00	913.70	1604.23	9.94	241.92	598.14	.00	.00	9970.00	10095.00	.00
	.384	913.69	.00	913.70	1604.28	9.95	241.90	598.15	.00	.00	9970.00	10095.00	.00
	.488	914.01	.00	914.02	1469.90	1.13	141.84	707.02	.00	.00	9970.00	10090.00	.00
	.488	914.01	.00	914.02	1469.90	1.13	141.84	707.02	.00	.00	9970.00	10090.00	.00
	.531	914.18	.00	914.18	1385.91	.06	37.19	812.75	.00	.00	9965.00	10090.00	.00
	.531	914.18	.00	914.18	1385.91	.06	37.19	812.75	.00	.00	9965.00	10090.00	.00
*	.616	916.05	.00	916.19	844.48	.00	411.57	4483.43	.00	.00	9960.00	10090.00	.00
*	.616	916.05	.00	916.19	844.48	.00	411.57	4483.43	.00	.00	9960.00	10090.00	.00
	.668	918.26	.00	918.74	665.47	1658.98	930.36	2305.66	.00	.00	9950.00	10035.00	.00
	.668	918.26	.00	918.74	665.47	1658.98	930.36	2305.66	.00	.00	9950.00	10035.00	.00
*	.776	920.95	.00	921.14	510.12	.00	577.24	4317.76	.00	.00	9975.00	10025.00	.00
*	.776	920.95	.00	921.14	510.12	.00	577.24	4317.76	.00	.00	9975.00	10025.00	.00
	.868	922.17	.00	922.43	515.69	.00	747.24	4147.75	.00	.00	9970.00	10020.00	.00
	.868	922.17	.00	922.43	515.69	.00	747.24	4147.75	.00	.00	9970.00	10020.00	.00

	.964	924.12	.00	924.61	441.24	.00	1739.32	3155.68	.00	.00	9970.00	10045.00	.00
	.964	924.12	.00	924.61	441.24	.00	1739.32	3155.68	.00	.00	9970.00	10045.00	.00
	1.081	926.28	.00	926.37	451.38	.00	779.91	1816.08	.00	.00	9955.00	10090.00	.00
	1.081	926.28	.00	926.37	451.38	.00	779.91	1816.08	.00	.00	9955.00	10090.00	.00
	1.153	926.68	.00	926.76	453.30	.00	586.65	2009.35	.00	.00	9945.00	10060.00	.00
	1.153	926.68	.00	926.76	453.30	.00	586.65	2009.35	.00	.00	9945.00	10060.00	.00
*	1.236	927.45	.00	928.35	242.61	.00	1818.01	777.99	.00	.00	9960.00	10060.00	.00
*	1.236	927.45	.00	928.35	242.61	.00	1818.01	777.99	.00	.00	9960.00	10060.00	.00

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	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	1.317	929.70	.00	930.04	300.91	.00	1655.12	940.88	.00	.00	9960.00	10050.00	.00
*	1.317	929.70	.00	930.04	300.91	.00	1655.12	940.88	.00	.00	9960.00	10050.00	.00
	1.378	930.38	.00	930.64	370.84	.00	1444.64	1151.36	.00	.00	9960.00	10035.00	.00
	1.378	930.38	.00	930.64	370.84	.00	1444.64	1151.36	.00	.00	9960.00	10035.00	.00
*	1.435	931.17	.00	932.39	162.61	.00	2555.55	40.45	.00	.00	9965.00	10070.00	.00
*	1.435	931.17	.00	932.39	162.61	.00	2555.55	40.45	.00	.00	9965.00	10070.00	.00
*	1.474	933.62	.00	934.04	1034.24	1465.46	961.65	172.89	.00	.00	9985.00	10015.00	.00
*	1.474	933.62	.00	934.04	1034.24	1465.46	961.65	172.89	.00	.00	9985.00	10015.00	.00
	1.517	934.88	.00	934.94	813.55	1796.39	803.61	.00	.00	.00	9905.00	10080.00	.00
*	1.517	934.88	.00	934.94	813.55	1796.39	803.61	.00	.00	.00	9905.00	10080.00	.00
*	1.566	936.21	.00	937.38	150.28	140.43	2399.14	60.43	.00	.00	9955.00	10045.00	.00
*	1.566	936.21	.00	937.38	150.28	140.43	2399.14	60.43	.00	.00	9955.00	10045.00	.00
*	1.634	938.27	.00	938.66	232.50	727.29	1573.53	299.18	.00	.00	9970.00	10025.00	.00
*	1.634	938.27	.00	938.66	232.50	727.29	1573.53	299.18	.00	.00	9970.00	10025.00	.00
	1.680	938.77	.00	939.01	338.68	805.50	1399.31	395.19	.00	.00	9970.00	10025.00	.00
	1.680	938.77	.00	939.01	338.68	805.50	1399.31	395.19	.00	.00	9970.00	10025.00	.00
*	1.745	939.17	.00	939.27	422.88	631.15	1328.97	639.89	.00	.00	9960.00	10040.00	.00
*	1.745	939.17	.00	939.27	422.88	631.15	1328.97	639.89	.00	.00	9960.00	10040.00	.00
	1.823	939.41	.00	939.47	822.65	1094.01	896.10	609.89	.00	.00	9970.00	10050.00	.00
	1.823	939.41	.00	939.47	822.65	1094.01	896.10	609.89	.00	.00	9970.00	10050.00	.00
	1.893	939.71	.00	939.85	1080.16	3225.21	1190.25	483.54	.00	.00	9960.00	10040.00	.00
	1.893	939.71	.00	939.85	1080.16	3225.21	1190.25	483.54	.00	.00	9960.00	10040.00	.00
*	1.941	939.90	.00	940.11	700.71	4627.73	271.27	.00	.00	.00	9975.00	10025.00	.00
*	1.941	939.90	.00	940.11	700.71	4627.73	271.27	.00	.00	.00	9975.00	10025.00	.00
	1.988	940.10	.00	940.30	696.81	4790.88	108.12	.00	.00	.00	9950.00	10030.00	.00
	1.988	940.10	.00	940.30	696.81	4790.88	108.12	.00	.00	.00	9950.00	10030.00	.00
	2.058	941.27	.00	941.42	772.16	4612.20	286.80	.00	.00	.00	9970.00	10035.00	.00
	2.058	941.27	.00	941.42	772.16	4612.20	286.80	.00	.00	.00	9970.00	10035.00	.00
	2.185	942.66	.00	943.05	472.18	4109.41	789.59	.00	.00	.00	9965.00	10045.00	.00

	2.185	942.66	.00	943.05	472.18	4109.41	789.59	.00	.00	.00	9965.00	10045.00	.00
*	2.297	943.50	.00	943.54	1206.62	3868.54	432.96	597.50	.00	.00	9975.00	10040.00	.00
*	2.297	943.50	.00	943.54	1206.62	3868.54	432.96	597.50	.00	.00	9975.00	10040.00	.00
	2.371	943.66	.00	943.71	1501.93	3581.64	443.40	873.96	.00	.00	9975.00	10030.00	.00
*	2.371	943.61	-.05	943.90	420.00	3635.70	1006.20	257.10	420.00	9650.00	9975.00	10030.00	10070.00

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	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	2.435	943.91	.00	944.02	1482.58	2586.88	1274.89	1037.23	.00	.00	9985.00	10085.00	.00
	2.435	944.57	.66	945.10	375.00	1250.14	2766.49	882.37	375.00	9835.00	9985.00	10085.00	10210.00
*	2.536	945.80	.00	946.40	979.53	791.13	1873.09	2241.78	.00	.00	9965.00	10060.00	.00
	2.536	946.82	1.02	947.30	400.00	1140.16	2219.21	1546.63	400.00	9850.00	9965.00	10060.00	10250.00
*	2.680	949.13	.00	949.33	1136.32	539.63	2177.67	2188.70	.00	.00	9925.00	10050.00	.00
	2.680	949.53	.40	950.02	370.13	135.17	3235.72	1535.10	405.00	9800.00	9925.00	10050.00	10205.00
*	2.771	950.61	.00	950.81	1066.90	1353.94	624.25	2927.81	.00	.00	9985.00	10020.00	.00
*	2.771	951.54	.94	952.01	345.00	644.68	1083.90	3177.42	345.00	9880.00	9985.00	10020.00	10225.00
*	2.883	952.83	.00	952.99	877.27	2464.59	614.42	1826.99	.00	.00	9985.00	10015.00	.00
*	2.883	953.79	.96	954.04	350.00	2326.61	841.02	1738.37	350.00	9830.00	9985.00	10015.00	10180.00
	2.977	954.27	.00	954.68	871.33	2276.91	1835.62	802.47	.00	.00	9980.00	10050.00	.00
	2.977	954.94	.66	955.58	235.00	2520.55	2367.13	27.33	235.00	9820.00	9980.00	10050.00	10055.00
	3.070	956.13	.00	956.28	1123.98	1655.72	1153.43	2105.86	.00	.00	9945.00	10025.00	.00
	3.070	956.94	.81	957.29	390.00	1248.90	1903.29	1762.81	390.00	9790.00	9945.00	10025.00	10180.00
	3.167	957.36	.00	957.48	1088.78	2044.80	727.08	1660.11	.00	.00	9970.00	10020.00	.00
	3.167	958.31	.95	958.50	460.00	2166.55	1054.25	1211.20	460.00	9730.00	9970.00	10020.00	10190.00
*	3.291	959.72	.00	959.85	880.55	.00	179.21	4252.79	.00	.00	9970.00	10020.00	.00
*	3.291	960.55	.83	960.89	343.00	.00	447.15	3984.85	343.00	9987.00	9970.00	10020.00	10330.00
*	3.376	961.76	.00	961.83	1205.55	255.61	172.66	4003.73	.00	.00	9985.00	10015.00	.00
*	3.376	962.69	.93	962.80	525.00	568.39	323.67	3539.94	525.00	9840.00	9985.00	10015.00	10365.00
	3.491	963.20	.00	963.27	1059.92	1449.73	409.07	2573.20	.00	.00	9980.00	10020.00	.00
	3.491	964.04	.84	964.22	390.00	1144.03	721.32	2566.65	390.00	9870.00	9980.00	10020.00	10260.00
*	3.602	964.68	.00	964.90	806.16	426.76	2771.40	1239.84	.00	.00	9880.00	10100.00	.00
	3.602	965.47	.80	965.76	330.00	296.93	3577.23	563.84	330.00	9840.00	9880.00	10100.00	10170.00
	3.702	966.76	.00	966.92	1003.67	1899.36	1470.92	1067.71	.00	.00	9955.00	10055.00	.00
	3.702	967.29	.53	967.61	361.21	1593.12	2103.06	741.82	590.00	9550.00	9955.00	10055.00	10140.00
	3.841	969.26	.00	969.36	999.61	2792.58	1077.16	568.27	.00	.00	9955.00	10070.00	.00
	3.841	970.24	.98	970.49	344.07	2465.22	1972.78	.00	520.00	9550.00	9955.00	10070.00	10070.00
	3.978	971.29	.00	971.42	1203.78	1597.78	1998.11	842.10	.00	.00	9930.00	10095.00	.00
	3.978	972.18	.89	972.34	595.00	1862.24	2575.76	.00	595.00	9500.00	9930.00	10095.00	10095.00
	4.101	973.16	.00	973.28	1121.26	1810.88	1415.57	1211.55	.00	.00	9960.00	10080.00	.00
*	4.101	973.85	.69	974.17	345.00	1717.57	2350.95	369.48	345.00	9780.00	9960.00	10080.00	10125.00

4.237	975.08	.00	975.22	909.25	1682.54	1967.69	787.77	.00	.00	9935.00	10075.00	.00
4.237	976.09	1.01	976.35	295.00	1521.32	2916.68	.00	295.00	9780.00	9935.00	10075.00	10075.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	4.356	976.54	.00	976.67	894.56	1835.16	1699.12	903.73	.00	.00	9950.00	10070.00	.00
	4.356	977.58	1.03	977.86	270.00	1269.27	2764.38	404.34	270.00	9840.00	9950.00	10070.00	10110.00
	4.496	978.22	.00	978.39	800.31	1108.78	2306.44	1022.79	.00	.00	9975.00	10130.00	.00
	4.496	979.22	1.00	979.45	310.00	1110.24	3059.84	267.92	310.00	9850.00	9975.00	10130.00	10160.00
*	4.625	980.50	.00	980.78	778.15	474.87	3498.68	472.44	.00	.00	9835.00	10160.00	.00
*	4.625	981.04	.55	981.46	300.00	.00	4446.00	.00	300.00	9850.00	9835.00	10160.00	10150.00
*	4.701	981.33	.00	981.40	876.90	24.84	4401.09	20.07	.00	.00	9685.00	10405.00	.00
*	4.701	982.06	.73	982.18	400.00	.00	4446.00	.00	400.00	9800.00	9685.00	10405.00	10200.00
*	4.858	982.47	.00	982.74	666.89	2.86	4434.21	8.93	.00	.00	9705.00	10290.00	.00
*	4.858	983.25	.79	983.65	300.00	.00	4446.00	.00	300.00	9850.00	9705.00	10290.00	10150.00
*	5.009	985.58	.00	985.72	803.32	1563.38	2035.90	846.71	.00	.00	9935.00	10100.00	.00
	5.009	986.26	.69	986.56	285.00	1340.61	3069.28	36.11	285.00	9820.00	9935.00	10100.00	10105.00
	5.153	987.81	.00	987.98	890.30	2065.34	1888.25	492.41	.00	.00	9945.00	10090.00	.00
	5.153	988.71	.90	989.04	290.00	1539.14	2906.86	.00	290.00	9800.00	9945.00	10090.00	10090.00
	5.282	989.36	.00	989.43	1261.83	2505.49	1250.50	690.01	.00	.00	9945.00	10055.00	.00
*	5.282	990.33	.96	990.45	400.00	2273.45	1827.06	345.48	400.00	9700.00	9945.00	10055.00	10100.00
*	5.430	991.08	.00	992.22	174.93	.00	4446.00	.00	.00	.00	9899.90	10100.10	.00
*	5.430	991.77	.69	992.52	174.00	.00	4446.00	.00	174.00	9913.00	9899.90	10100.10	10087.00
*	5.460	991.91	.00	992.90	178.41	.00	5319.00	.00	.00	.00	9899.90	10100.10	.00
	5.460	991.91	-.01	992.91	174.00	.00	5319.00	.00	174.00	9913.00	9899.90	10100.10	10087.00
*	5.563	993.68	.00	993.71	1729.53	964.81	2454.72	1899.46	.00	.00	9850.00	10100.00	.00
*	5.563	994.06	.39	994.22	350.00	.00	4401.73	917.27	350.00	9850.00	9850.00	10100.00	10200.00
*	5.727	994.29	.00	994.49	1276.17	920.74	2595.20	1146.06	.00	.00	9935.00	10135.00	.00
*	5.727	995.30	1.01	995.57	352.17	168.04	3526.88	967.08	380.00	9870.00	9935.00	10135.00	10250.00
	5.840	996.51	.00	996.63	1360.99	1041.34	2138.93	1481.73	.00	.00	9970.00	10170.00	.00
	5.840	997.23	.72	997.49	369.19	144.95	3320.45	1196.60	380.00	9920.00	9970.00	10170.00	10300.00
	5.960	998.50	.00	998.60	1373.63	305.94	1508.46	2847.60	.00	.00	9960.00	10150.00	.00
	5.960	999.38	.88	999.57	440.00	.00	2468.21	2193.79	440.00	9960.00	9960.00	10150.00	10400.00
	6.086	1001.07	.00	1001.19	1451.48	745.62	1764.68	2151.70	.00	.00	9900.00	10100.00	.00
	6.086	1001.80	.72	1002.02	500.00	570.36	2713.37	1378.28	500.00	9800.00	9900.00	10100.00	10300.00
*	6.217	1002.98	.00	1003.04	1528.09	1152.40	1532.37	1977.23	.00	.00	9900.00	10100.00	.00
*	6.217	1003.65	.67	1003.74	630.00	1331.95	2119.34	1210.70	630.00	9670.00	9900.00	10100.00	10300.00
	6.320	1003.99	.00	1004.06	1470.67	968.56	1679.46	2013.98	.00	.00	9900.00	10100.00	.00
	6.320	1004.59	.61	1004.70	650.00	1310.87	2219.52	1131.61	650.00	9650.00	9900.00	10100.00	10300.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	6.414	1005.26	.00	1005.35	1812.72	2116.68	1593.60	951.72	.00	.00	9900.00	10100.00	.00
	6.414	1005.70	.44	1005.79	900.00	2192.67	1811.68	657.65	900.00	9400.00	9900.00	10100.00	10300.00
	6.509	1006.65	.00	1006.69	2548.06	3112.62	1004.24	545.14	.00	.00	9900.00	10100.00	.00
	6.509	1006.85	.20	1006.90	1175.00	3302.91	1103.03	256.06	1175.00	9025.00	9900.00	10100.00	10200.00
*	6.627	1008.61	.00	1008.69	1722.97	3869.10	786.79	6.11	.00	.00	9900.00	10100.00	.00
*	6.627	1008.66	.05	1008.74	1380.00	3851.20	810.79	.00	1380.00	8720.00	9900.00	10100.00	10100.00
*	6.674	1011.81	.00	1012.39	1338.85	1458.58	3040.45	162.96	.00	.00	9955.00	10120.00	.00
*	6.674	1012.18	.37	1013.22	384.05	360.46	4091.12	210.42	1650.00	8550.00	9955.00	10120.00	10200.00
*	6.864	1013.77	.00	1013.79	3700.00	1375.06	1059.08	2227.86	3700.00	7600.00	9930.00	10080.00	11300.00
*	6.864	1014.48	.71	1014.50	2390.00	1768.10	1195.29	1698.61	2390.00	8300.00	9930.00	10080.00	10690.00
	6.877	1013.82	.00	1013.86	3659.78	2031.48	1153.32	1518.19	3700.00	7600.00	9915.00	10050.00	11300.00
	6.877	1014.51	.69	1014.54	2300.00	2272.91	1202.07	1228.02	2300.00	8250.00	9915.00	10050.00	10550.00
*	7.045	1014.13	.00	1014.14	2701.76	1905.38	394.70	2402.92	2800.00	9000.00	9920.00	10055.00	11800.00
	7.045	1014.82	.69	1014.85	1397.91	1142.86	813.08	2747.06	1460.00	9630.00	9920.00	10055.00	11090.00
*	7.124	1014.36	.00	1014.37	2371.72	815.49	97.42	3175.08	2400.00	9200.00	9980.00	10018.00	11600.00
	7.124	1015.12	.76	1015.14	1450.00	864.68	171.90	3051.42	1450.00	9575.00	9980.00	10018.00	11025.00
*	7.267	1015.42	.00	1015.47	2020.19	142.26	87.95	3857.80	.00	.00	9980.00	10019.00	.00
*	7.267	1016.15	.74	1016.25	1007.21	554.12	232.23	3301.65	1030.00	9650.00	9980.00	10019.00	10680.00
	7.407	1017.55	.00	1017.59	1574.63	11.59	33.29	4043.12	.00	.00	9980.00	10025.00	.00
	7.407	1018.46	.91	1018.52	943.74	257.28	118.50	3712.22	969.00	9741.00	9980.00	10025.00	10710.00
*	7.552	1020.13	.00	1020.20	2274.62	860.21	307.28	2920.51	.00	.00	9980.00	10020.00	.00
*	7.552	1020.91	.77	1021.06	700.00	1234.31	561.98	2291.71	700.00	9750.00	9980.00	10020.00	10450.00
*	7.670	1022.08	.00	1022.13	2259.36	1794.32	472.97	1820.71	.00	.00	9980.00	10015.00	.00
*	7.670	1022.99	.91	1023.13	540.00	1107.03	761.23	2219.75	540.00	9850.00	9980.00	10015.00	10390.00
	7.799	1023.27	.00	1023.33	1662.66	1203.35	642.63	2242.02	.00	.00	9970.00	10015.00	.00
	7.799	1024.20	.93	1024.30	550.00	861.16	870.26	2356.58	550.00	9850.00	9970.00	10015.00	10400.00
	7.924	1024.65	.00	1024.73	1658.35	825.18	529.33	2733.49	.00	.00	9970.00	10010.00	.00
	7.924	1025.38	.73	1025.51	600.00	462.78	723.29	2901.93	600.00	9900.00	9970.00	10010.00	10500.00
*	7.977	1027.00	.00	1027.38	2272.17	445.14	1056.85	2619.01	.00	.00	9990.00	10010.00	.00
*	7.977	1027.58	.59	1028.25	750.00	228.66	1360.60	2531.73	750.00	9920.00	9990.00	10010.00	10670.00
	7.983	1027.14	.00	1027.38	2417.48	520.85	894.42	2705.73	.00	.00	9990.00	10010.00	.00
	7.983	1027.75	.61	1028.25	750.00	240.24	1225.36	2655.39	750.00	9920.00	9990.00	10010.00	10670.00
*	8.069	1027.69	.00	1027.76	1783.15	1142.08	1340.04	1638.88	.00	.00	9960.00	10070.00	.00
	8.069	1028.62	.93	1028.74	455.00	626.15	1885.21	1609.64	455.00	9870.00	9960.00	10070.00	10325.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	8.169	1028.59	.00	1028.74	1291.47	1326.69	849.64	1944.67	.00	.00	9980.00	10020.00	.00

*	8.169	1029.41	.82	1029.77	295.00	1031.91	1287.90	1801.19	295.00	9880.00	9980.00	10020.00	10175.00
	8.292	1030.83	.00	1030.99	1361.06	1256.38	950.63	1913.99	.00	.00	9980.00	10020.00	.00
	8.292	1031.84	1.01	1032.19	305.00	626.94	1402.39	2091.67	305.00	9925.00	9980.00	10020.00	10230.00
	8.364	1032.17	.00	1032.40	1292.89	1560.34	1230.25	1330.40	.00	.00	9975.00	10025.00	.00
	8.364	1033.09	.93	1033.38	360.00	1040.51	1496.83	1583.66	360.00	9870.00	9975.00	10025.00	10230.00
	8.468	1034.43	.00	1034.76	1948.63	1978.97	1255.92	886.12	.00	.00	9980.00	10025.00	.00
	8.468	1034.86	.43	1035.25	910.00	1113.74	1418.09	1589.16	910.00	9860.00	9980.00	10025.00	10770.00
	8.544	1036.18	.00	1036.25	2728.90	123.57	687.33	3372.10	.00	.00	9975.00	10100.00	.00
	8.544	1036.82	.64	1037.05	1245.00	512.80	1539.11	2131.09	1245.00	9750.00	9975.00	10100.00	10995.00
	8.636	1038.06	.00	1038.12	2680.10	114.70	296.02	3772.28	.00	.00	9960.00	10010.00	.00
	8.636	1038.96	.90	1039.06	1063.68	.00	533.49	3649.51	1240.00	9960.00	9960.00	10010.00	11200.00
	8.726	1040.34	.00	1040.39	3044.47	808.91	484.94	2889.15	.00	.00	9950.00	10010.00	.00
	8.726	1041.09	.75	1041.27	891.98	.00	947.82	3235.18	1050.00	9950.00	9950.00	10010.00	11000.00
*	8.848	1043.50	.00	1043.66	2124.59	3229.36	368.38	585.26	.00	.00	9970.00	10020.00	.00
	8.848	1044.44	.94	1044.67	818.31	2203.43	608.62	1370.94	830.00	9770.00	9970.00	10020.00	10600.00
*	8.965	1046.21	.00	1046.27	1838.90	2314.35	614.23	1254.41	.00	.00	9970.00	10033.00	.00
*	8.965	1047.04	.83	1047.20	450.00	2207.04	1054.28	921.68	450.00	9740.00	9970.00	10033.00	10190.00
	9.034	1047.14	.00	1047.28	1244.60	2482.65	1037.47	662.88	.00	.00	9970.00	10038.00	.00
	9.034	1048.04	.90	1048.39	263.00	2515.04	1667.96	.00	263.00	9775.00	9970.00	10038.00	10038.00
*	9.095	1048.93	.00	1049.78	1067.25	1520.66	2691.51	30.83	.00	.00	9978.00	10022.00	.00
	9.095	1048.98	.05	1049.91	600.00	1434.30	2779.57	29.13	600.00	9470.00	9978.00	10022.00	10070.00
	9.100	1049.15	.00	1049.78	1191.13	1749.44	2437.00	56.56	.00	.00	9978.00	10022.00	.00
	9.100	1048.95	-.20	1049.91	600.00	1468.62	2745.65	28.73	600.00	9470.00	9978.00	10022.00	10070.00
*	9.189	1050.18	.00	1050.34	1022.74	2408.62	1739.63	94.74	.00	.00	9940.00	10160.00	.00
*	9.189	1050.35	.17	1050.69	515.00	1740.44	2502.56	.00	515.00	9645.00	9940.00	10160.00	10160.00
*	9.292	1052.71	.00	1053.00	918.56	2412.29	1256.20	24.51	.00	.00	9900.00	10120.00	.00
*	9.292	1053.29	.58	1053.70	430.00	1623.15	2069.85	.00	430.00	9690.00	9900.00	10120.00	10120.00
*	9.396	1055.81	.00	1055.91	1394.08	2433.33	858.01	401.66	.00	.00	9880.00	10070.00	.00
*	9.396	1056.20	.39	1056.39	570.00	2296.26	1396.74	.00	570.00	9500.00	9880.00	10070.00	10070.00
	9.493	1057.73	.00	1057.89	1207.81	2474.10	1129.88	89.02	.00	.00	9930.00	10140.00	.00
	9.493	1058.10	.37	1058.31	715.00	2151.64	1541.36	.00	715.00	9425.00	9930.00	10140.00	10140.00
	9.544	1058.81	.00	1058.90	1580.67	2718.49	487.01	487.50	.00	.00	9920.00	10065.00	.00
	9.544	1059.13	.33	1059.30	815.00	2870.16	822.84	.00	815.00	9250.00	9920.00	10065.00	10065.00

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	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	9.641	1059.65	.00	1059.75	1029.50	2781.91	279.15	51.94	.00	.00	9985.00	10015.00	.00
	9.641	1060.06	.41	1060.21	556.00	2621.58	386.54	104.88	556.00	9500.00	9985.00	10015.00	10056.00
*	9.741	1060.21	.00	1060.26	1345.33	1638.32	1306.68	168.00	.00	.00	9900.00	10115.00	.00
*	9.741	1060.66	.45	1060.72	600.00	1277.96	1623.74	211.30	600.00	9600.00	9900.00	10115.00	10200.00

	9.807	1060.39	.00	1060.43	1310.74	1371.51	1474.98	266.51	.00	.00	9900.00	10140.00	.00
	9.807	1060.82	.44	1060.88	600.00	1240.27	1715.50	157.23	600.00	9590.00	9900.00	10140.00	10190.00
*	9.898	1060.62	.00	1060.63	870.17	254.89	292.43	214.69	.00	.00	9960.00	10055.00	.00
	9.898	1061.03	.42	1061.06	310.00	114.81	458.16	189.03	310.00	9860.00	9960.00	10055.00	10170.00
*	9.994	1060.65	.00	1060.93	82.71	.00	762.00	.00	.00	.00	9950.00	10050.00	.00
*	9.994	1061.17	.52	1061.35	88.92	.00	762.00	.00	100.00	9950.00	9950.00	10050.00	10050.00
	10.108	1062.01	.00	1062.35	65.14	.00	762.00	.00	.00	.00	9960.00	10045.00	.00
	10.108	1062.04	.03	1062.37	65.87	.00	762.00	.00	85.00	9960.00	9960.00	10045.00	10045.00
*	10.197	1062.93	.00	1063.11	84.56	.00	762.00	.00	.00	.00	9950.00	10045.00	.00
*	10.197	1062.94	.01	1063.12	84.69	.00	762.00	.00	95.00	9950.00	9950.00	10045.00	10045.00
	10.269	1063.28	.00	1063.46	78.83	2.75	794.07	3.18	.00	.00	9960.00	10025.00	.00
	10.269	1063.29	.01	1063.47	78.88	2.77	794.02	3.21	.00	.00	9960.00	10025.00	.00
	10.328	1063.50	.00	1063.77	57.49	3.70	795.23	1.07	.00	.00	9970.00	10020.00	.00
	10.328	1063.50	.00	1063.77	57.51	3.72	795.20	1.08	.00	.00	9970.00	10020.00	.00
	10.419	1063.99	.00	1064.28	49.99	2.21	795.58	2.21	.00	.00	9975.00	10020.00	.00
	10.419	1064.00	.00	1064.28	49.99	2.22	795.57	2.22	.00	.00	9975.00	10020.00	.00
*	10.493	1064.36	.00	1064.38	160.00	5.74	785.47	8.79	.00	.00	9895.00	10030.00	.00
*	10.493	1064.36	.00	1064.38	160.00	5.75	785.45	8.80	.00	.00	9895.00	10030.00	.00
*	10.587	1064.39	.00	1064.44	213.13	20.33	766.69	12.99	.00	.00	9935.00	10040.00	.00
*	10.587	1064.40	.00	1064.44	213.46	20.38	766.61	13.01	.00	.00	9935.00	10040.00	.00
	10.639	1064.45	.00	1064.49	197.92	36.91	754.78	8.32	.00	.00	9925.00	10035.00	.00
	10.639	1064.45	.00	1064.49	198.07	36.97	754.70	8.33	.00	.00	9925.00	10035.00	.00
	10.709	1064.52	.00	1064.64	192.41	58.59	1302.59	18.82	.00	.00	9910.00	10040.00	.00
	10.709	1064.53	.00	1064.65	192.45	58.65	1302.52	18.83	.00	.00	9910.00	10040.00	.00
*	10.804	1064.98	.00	1065.35	167.28	12.68	1362.59	4.73	.00	.00	9900.00	10040.00	.00
*	10.804	1064.98	.00	1065.35	167.30	12.70	1362.57	4.74	.00	.00	9900.00	10040.00	.00
	10.889	1066.80	.00	1067.19	167.63	9.94	1367.36	2.70	.00	.00	9900.00	10040.00	.00
	10.889	1066.80	.00	1067.19	167.63	9.94	1367.37	2.70	.00	.00	9900.00	10040.00	.00
	10.946	1068.22	.00	1068.66	157.89	.40	1379.49	.11	.00	.00	9930.00	10080.00	.00
	10.946	1068.22	.00	1068.66	157.89	.40	1379.49	.11	.00	.00	9930.00	10080.00	.00

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	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	10.995	1069.84	.00	1070.39	144.10	.00	1380.00	.00	.00	.00	9895.00	10045.00	.00
	10.995	1069.84	.00	1070.39	144.09	.00	1380.00	.00	.00	.00	9895.00	10045.00	.00
*	11.067	1071.15	.00	1071.26	318.09	328.39	1048.06	3.55	.00	.00	9920.00	10045.00	.00
*	11.067	1071.15	.00	1071.26	318.09	328.39	1048.06	3.55	.00	.00	9920.00	10045.00	.00
	11.147	1071.52	.00	1071.61	524.14	335.18	1038.77	6.05	.00	.00	9920.00	10045.00	.00
	11.147	1071.52	.00	1071.61	524.11	335.16	1038.80	6.05	.00	.00	9920.00	10045.00	.00
	11.228	1071.82	.00	1071.89	690.82	399.04	969.38	11.59	.00	.00	9920.00	10050.00	.00
	11.228	1071.82	.00	1071.89	690.85	399.07	969.34	11.59	.00	.00	9920.00	10050.00	.00

	11.306	1072.13	.00	1072.27	351.01	171.45	1119.62	88.93	.00	.00	9965.00	10090.00	.00
	11.306	1072.13	.00	1072.27	350.97	171.44	1119.64	88.92	.00	.00	9965.00	10090.00	.00
	11.416	1072.86	.00	1072.98	426.45	177.27	992.63	210.10	.00	.00	9930.00	10070.00	.00
	11.416	1072.86	.00	1072.98	426.45	177.27	992.63	210.10	.00	.00	9930.00	10070.00	.00
	11.510	1073.48	.00	1073.53	664.76	411.94	796.89	171.17	.00	.00	9900.00	10100.00	.00
	11.510	1073.48	.00	1073.53	664.76	411.94	796.89	171.17	.00	.00	9900.00	10100.00	.00
*	11.580	1074.48	.00	1075.21	154.31	1.18	1373.65	5.16	.00	.00	9965.00	10100.00	.00
*	11.580	1074.48	.00	1075.21	154.28	1.18	1373.67	5.15	.00	.00	9965.00	10100.00	.00
*	11.676	1076.16	.00	1076.29	184.05	29.70	1341.66	5.65	.00	.00	9955.00	10100.00	.00
*	11.676	1076.16	.00	1076.29	184.07	29.70	1341.65	5.65	.00	.00	9955.00	10100.00	.00
	11.775	1076.55	.00	1076.69	217.41	39.61	1276.58	60.81	.00	.00	9955.00	10075.00	.00
	11.775	1076.55	.00	1076.69	217.42	39.62	1276.57	60.81	.00	.00	9955.00	10075.00	.00
	11.867	1076.92	.00	1077.08	228.54	85.32	1226.45	65.23	.00	.00	9960.00	10055.00	.00
	11.867	1076.92	.00	1077.08	228.55	85.33	1226.44	65.23	.00	.00	9960.00	10055.00	.00
	11.970	1077.31	.00	1077.41	179.66	1.11	1316.22	59.67	.00	.00	9930.00	10060.00	.00
	11.970	1077.31	.00	1077.41	179.66	1.11	1316.21	59.68	.00	.00	9930.00	10060.00	.00
	12.064	1077.53	.00	1077.60	289.37	76.92	1264.19	35.89	.00	.00	9935.00	10070.00	.00
	12.064	1077.53	.00	1077.60	289.38	76.93	1264.18	35.89	.00	.00	9935.00	10070.00	.00
	12.150	1077.65	.00	1077.71	279.37	112.56	1243.20	21.24	.00	.00	9940.00	10080.00	.00
	12.150	1077.65	.00	1077.71	279.37	112.56	1243.20	21.24	.00	.00	9940.00	10080.00	.00
	12.244	1077.77	.00	1077.83	262.77	35.65	1307.17	34.18	.00	.00	9910.00	10075.00	.00
	12.244	1077.77	.00	1077.83	262.77	35.65	1307.17	34.18	.00	.00	9910.00	10075.00	.00
	12.345	1077.88	.00	1077.93	253.63	18.06	1318.65	40.29	.00	.00	9920.00	10095.00	.00
	12.345	1077.88	.00	1077.93	253.63	18.06	1318.65	40.29	.00	.00	9920.00	10095.00	.00
	12.439	1077.97	.00	1078.00	284.52	68.77	1252.97	55.26	.00	.00	9955.00	10120.00	.00
	12.439	1077.97	.00	1078.00	284.52	68.77	1252.97	55.26	.00	.00	9955.00	10120.00	.00

1

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	12.534	1078.04	.00	1078.07	285.33	62.42	1230.48	84.10	.00	.00	9910.00	10075.00	.00
	12.534	1078.04	.00	1078.07	285.33	62.42	1230.48	84.10	.00	.00	9910.00	10075.00	.00
*	12.633	1080.12	.00	1080.30	814.10	251.42	504.22	244.35	.00	.00	9900.00	10100.00	.00
*	12.633	1080.12	.00	1080.30	814.10	251.42	504.22	244.35	.00	.00	9900.00	10100.00	.00
*	12.700	1080.73	.00	1080.74	1097.64	.00	282.65	717.35	.00	.00	9920.00	10110.00	.00
*	12.700	1080.73	.00	1080.74	1097.64	.00	282.65	717.35	.00	.00	9920.00	10110.00	.00
*	12.758	1080.96	.00	1081.00	671.51	14.41	450.28	535.31	.00	.00	9955.00	10070.00	.00
	12.758	1080.96	.00	1081.00	671.51	14.41	450.28	535.31	.00	.00	9955.00	10070.00	.00
	12.867	1081.80	.00	1081.84	660.78	36.64	419.27	544.09	.00	.00	9960.00	10055.00	.00
	12.867	1081.80	.00	1081.84	660.78	36.64	419.27	544.09	.00	.00	9960.00	10055.00	.00
	13.044	1082.79	.00	1082.81	852.66	5.59	483.93	510.48	.00	.00	9910.00	10075.00	.00

	13.044	1082.79	.00	1082.81	852.66	5.59	483.93	510.48	.00	.00	9910.00	10075.00	.00
*	13.161	1083.92	.00	1083.99	792.77	.00	468.59	531.41	.00	.00	9960.00	10085.00	.00
*	13.161	1083.92	.00	1083.99	792.77	.00	468.59	531.41	.00	.00	9960.00	10085.00	.00
	13.248	1085.86	.00	1085.91	999.96	30.97	300.36	1108.67	.00	.00	9950.00	10050.00	.00
*	13.248	1085.86	.00	1085.91	999.96	30.97	300.36	1108.67	.00	.00	9950.00	10050.00	.00
*	13.349	1087.04	.00	1087.06	994.24	.55	384.65	1054.80	.00	.00	9955.00	10070.00	.00
*	13.349	1087.04	.00	1087.06	994.24	.55	384.65	1054.80	.00	.00	9955.00	10070.00	.00
	13.427	1087.74	.00	1087.77	849.48	.00	97.82	1342.18	.00	.00	9960.00	10040.00	.00
	13.427	1087.74	.00	1087.77	849.48	.00	97.82	1342.18	.00	.00	9960.00	10040.00	.00
*	13.556	1090.52	.00	1090.63	836.44	287.44	626.56	526.00	.00	.00	9900.00	10100.00	.00
*	13.556	1090.52	.00	1090.63	836.44	287.44	626.56	526.00	.00	.00	9900.00	10100.00	.00
*	13.667	1093.31	.00	1093.33	1627.94	152.66	477.72	809.63	.00	.00	9870.00	10100.00	.00
*	13.667	1093.31	.00	1093.33	1627.94	152.66	477.72	809.63	.00	.00	9870.00	10100.00	.00
*	13.782	1095.79	.00	1095.82	2581.42	154.39	14.98	1270.63	.00	.00	9870.00	10085.00	.00
*	13.782	1095.79	.00	1095.82	2581.42	154.39	14.98	1270.63	.00	.00	9870.00	10085.00	.00
*	13.902	1098.48	.00	1098.49	2002.70	574.41	251.21	614.38	.00	.00	9900.00	10100.00	.00
*	13.902	1098.48	.00	1098.49	2002.70	574.41	251.21	614.38	.00	.00	9900.00	10100.00	.00
*	14.023	1100.59	.00	1100.62	1284.57	288.20	415.69	736.11	.00	.00	9900.00	10100.00	.00
*	14.023	1100.59	.00	1100.62	1284.57	288.20	415.69	736.11	.00	.00	9900.00	10100.00	.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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WARNING SECNO=      .776  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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CAUTION SECNO=     1.236  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.236  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     1.236  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.236  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.236  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION SECNO=     1.435  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.435  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     1.435  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.435  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION SECNO=      1.474  PROFILE=  1  MINIMUM SPECIFIC ENERGY
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CAUTION SECNO=      1.566  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      1.566  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=      1.566  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      1.566  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      1.566  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION SECNO=      6.674  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      6.674  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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WARNING SECNO=     14.023  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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FLOODWAY DATA, BULLARD WASH (WASH 10)
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
.000	1247.	817.	1.0	912.3	912.3	.0
.047	1687.	1527.	.6	912.5	912.5	.0
.121	1368.	1290.	.7	912.7	912.7	.0
.201	1095.	981.	.9	913.0	913.0	.0

.292	940.	1121.	.8	913.4	913.4	.0
.384	1682.	1465.	.6	913.7	913.7	.0
.488	1490.	1435.	.6	914.0	914.0	.0
.531	1452.	1375.	.6	914.2	914.2	.0
.616	1160.	1660.	2.9	916.1	916.1	.0
.668	665.	934.	5.2	918.3	918.3	.0
.776	510.	1400.	3.5	921.0	921.0	.0
.868	516.	1235.	4.0	922.2	922.2	.0
.964	441.	1001.	4.9	924.1	924.1	.0
1.081	451.	1098.	2.4	926.3	926.3	.0
1.153	462.	1168.	2.2	926.7	926.7	.0
1.236	351.	415.	6.3	927.4	927.4	.0
1.317	344.	679.	3.8	929.7	929.7	.0
1.378	402.	801.	3.2	930.4	930.4	.0
1.435	163.	310.	8.4	931.2	931.2	.0
1.474	1034.	952.	2.7	933.6	933.6	.0
1.517	814.	1403.	1.9	934.9	934.9	.0
1.566	150.	328.	7.9	936.2	936.2	.0
1.634	233.	638.	4.1	938.3	938.3	.0
1.680	339.	847.	3.1	938.8	938.8	.0
1.745	423.	1269.	2.0	939.2	939.2	.0
1.823	823.	1730.	1.5	939.4	939.4	.0
1.893	1106.	1933.	2.5	939.7	939.7	.0
1.941	1063.	1344.	3.6	939.9	939.9	.0
1.988	1100.	1395.	3.5	940.1	940.1	.0
2.058	1175.	1625.	3.0	941.3	941.3	.0
2.185	725.	986.	5.0	942.7	942.7	.0
2.297	1207.	3629.	1.3	943.5	943.5	.0
2.371	420.	1212.	4.0	943.6	943.7	-.1
2.435	375.	1085.	4.5	944.6	943.9	.7
2.536	400.	1118.	4.4	946.8	945.8	1.0
2.680	405.	1118.	4.4	949.5	949.1	.4
2.771	345.	1081.	4.5	951.5	950.6	.9
2.883	350.	1425.	3.4	953.8	952.8	1.0
2.977	235.	859.	5.7	955.0	954.3	.7
3.070	390.	1277.	3.8	956.9	956.1	.8
3.167	460.	1518.	2.9	958.3	957.4	.9
3.291	343.	974.	4.6	960.5	959.7	.8

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FLOODWAY DATA, BULLARD WASH (WASH 10)
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
3.376	525.	1702.	2.6	962.7	961.8	.9
3.491	390.	1471.	3.0	964.0	963.2	.8
3.602	330.	1132.	3.9	965.5	964.7	.8
3.702	590.	1144.	3.9	967.3	966.8	.5
3.841	520.	1169.	3.8	970.3	969.3	1.0
3.978	595.	1699.	2.6	972.2	971.3	.9
4.101	345.	1136.	3.9	973.9	973.2	.7
4.237	295.	1224.	3.6	976.1	975.1	1.0
4.356	270.	1178.	3.8	977.5	976.5	1.0
4.496	310.	1314.	3.4	979.2	978.2	1.0

4.625	300.	855.	5.2	981.0	980.5	.5
4.701	400.	1624.	2.7	982.0	981.3	.7
4.858	300.	878.	5.1	983.3	982.5	.8
5.009	285.	1106.	4.0	986.3	985.6	.7
5.153	290.	1084.	4.1	988.7	987.8	.9
5.282	400.	1762.	2.5	990.4	989.4	1.0
5.430	174.	639.	7.0	991.8	991.1	.7
5.460	174.	662.	8.0	991.9	991.9	.0
5.563	350.	1792.	3.0	994.1	993.7	.4
5.727	352.	1232.	3.8	995.3	994.3	1.0
5.840	369.	1242.	3.8	997.2	996.5	.7
5.960	440.	1434.	3.3	999.4	998.5	.9
6.086	500.	1380.	3.4	1001.8	1001.1	.7
6.217	630.	2057.	2.3	1003.7	1003.0	.7
6.320	650.	2021.	2.3	1004.6	1004.0	.6
6.414	900.	2117.	2.2	1005.7	1005.3	.4
6.509	1175.	2691.	1.7	1006.8	1006.6	.2
6.627	1380.	2144.	2.2	1008.7	1008.6	.1
6.674	1637.	674.	6.9	1012.2	1011.8	.4
6.864	2390.	5211.	.9	1014.5	1013.8	.7
6.877	2300.	4692.	1.0	1014.5	1013.8	.7
7.045	1460.	3861.	1.2	1014.8	1014.1	.7
7.124	1450.	3681.	1.1	1015.2	1014.4	.8
7.267	1030.	1761.	2.3	1016.1	1015.4	.7
7.407	969.	2102.	1.9	1018.4	1017.5	.9
7.552	700.	1508.	2.7	1020.9	1020.1	.8
7.670	540.	1692.	2.4	1023.0	1022.1	.9
7.799	550.	1997.	2.0	1024.2	1023.3	.9
7.924	600.	1704.	2.4	1025.4	1024.7	.7
7.977	750.	1435.	2.9	1027.6	1027.0	.6
7.983	750.	1554.	2.7	1027.7	1027.1	.6
8.069	455.	1849.	2.2	1028.6	1027.7	.9

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FLOODWAY DATA, BULLARD WASH (WASH 10)
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
8.169	295.	1076.	3.8	1029.4	1028.6	.8
8.292	305.	1155.	3.6	1031.8	1030.8	1.0
8.364	360.	1281.	3.2	1033.1	1032.2	.9
8.468	910.	1430.	2.9	1034.8	1034.4	.4
8.544	1245.	1583.	2.6	1036.8	1036.2	.6
8.636	1240.	1867.	2.2	1039.0	1038.1	.9
8.726	1050.	1635.	2.6	1041.1	1040.3	.8
8.848	830.	1333.	3.1	1044.4	1043.5	.9
8.965	450.	1519.	2.8	1047.0	1046.2	.8
9.034	263.	1030.	4.1	1048.0	1047.1	.9
9.095	600.	1180.	3.6	1049.0	1048.9	.1
9.100	600.	1158.	3.7	1049.0	1049.2	-.2
9.189	515.	991.	4.3	1050.4	1050.2	.2
9.292	430.	747.	4.9	1053.3	1052.7	.6
9.396	570.	1088.	3.4	1056.2	1055.8	.4
9.493	715.	1097.	3.4	1058.1	1057.7	.4

9.544	815.	1170.	3.2	1059.1	1058.8	.3
9.641	556.	1064.	2.9	1060.1	1059.7	.4
9.741	600.	1726.	1.8	1060.6	1060.2	.4
9.807	600.	1819.	1.7	1060.8	1060.4	.4
9.898	310.	665.	1.1	1061.0	1060.6	.4
9.994	89.	223.	3.4	1061.1	1060.6	.5
10.108	66.	165.	4.6	1062.0	1062.0	.0
10.197	85.	224.	3.4	1062.9	1062.9	.0
10.269	79.	243.	3.3	1063.3	1063.3	.0
10.328	58.	195.	4.1	1063.5	1063.5	.0
10.419	50.	191.	4.2	1064.0	1064.0	.0
10.493	160.	653.	1.2	1064.4	1064.4	.0
10.587	213.	508.	1.6	1064.4	1064.4	.0
10.639	198.	537.	1.5	1064.4	1064.4	.0
10.709	192.	534.	2.6	1064.5	1064.5	.0
10.804	167.	293.	4.7	1065.0	1065.0	.0
10.889	168.	283.	4.9	1066.8	1066.8	.0
10.946	158.	259.	5.3	1068.2	1068.2	.0
10.995	144.	232.	6.0	1069.8	1069.8	.0
11.067	318.	582.	2.4	1071.1	1071.1	.0
11.147	524.	765.	1.8	1071.5	1071.5	.0
11.228	691.	882.	1.6	1071.8	1071.8	.0
11.306	351.	557.	2.5	1072.1	1072.1	.0
11.416	426.	601.	2.3	1072.9	1072.9	.0
11.510	665.	866.	1.6	1073.5	1073.5	.0
11.580	154.	205.	6.7	1074.5	1074.5	.0

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FLOODWAY DATA, BULLARD WASH (WASH 10)
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
11.676	184.	485.	2.8	1076.2	1076.2	.0
11.775	217.	532.	2.6	1076.6	1076.6	.0
11.867	229.	508.	2.7	1076.9	1076.9	.0
11.970	180.	581.	2.4	1077.3	1077.3	.0
12.064	289.	757.	1.8	1077.5	1077.5	.0
12.150	279.	822.	1.7	1077.7	1077.7	.0
12.244	263.	827.	1.7	1077.8	1077.8	.0
12.345	254.	901.	1.5	1077.9	1077.9	.0
12.439	285.	990.	1.4	1078.0	1078.0	.0
12.534	285.	1046.	1.3	1078.0	1078.0	.0
12.633	814.	315.	3.2	1080.1	1080.1	.0
12.700	1098.	1727.	.6	1080.7	1080.7	.0
12.758	672.	752.	1.3	1081.0	1081.0	.0
12.867	661.	845.	1.2	1081.8	1081.8	.0
13.044	853.	941.	1.1	1082.8	1082.8	.0
13.161	793.	638.	1.6	1083.9	1083.9	.0
13.248	1030.	935.	1.5	1085.9	1085.9	.0
13.349	1009.	1260.	1.1	1087.0	1087.0	.0
13.427	883.	1077.	1.3	1087.7	1087.7	.0
13.556	1382.	568.	2.5	1090.5	1090.5	.0
13.667	2398.	1407.	1.0	1093.3	1093.3	.0
13.782	3149.	1046.	1.4	1095.8	1095.8	.0

13.902	2482.	1534.	.9	1098.5	1098.5	.0
14.023	1285.	1022.	1.4	1100.6	1100.6	.0

```
1*********************************************
*  HEC-2 WATER SURFACE PROFILES             *
*                                           *
*  Version   4.6.2;  May 1991               *
*                                           *
*  RUN DATE    27APR92    TIME    10:19:51  *
*********************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS         *
*  HYDROLOGIC ENGINEERING CENTER        *
*  609 SECOND STREET, SUITE D           *
*  DAVIS, CALIFORNIA 95616-4687         *
*          (916) 756-1104               *
*****************************************
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X     X  XXXXXXX   XXXXX            XXXXX
X     X  X       X     X          X     X
X     X  X       X                      X
XXXXXXX  XXXX     X         XXXXX   XXXXX
X     X  X       X                X
X     X  X       X     X          X
X     X  XXXXXXX   XXXXX           XXXXXXX
```

1

27APR92 10:19:51 PAGE 1

THIS RUN EXECUTED 27APR92 10:19:52

12_H2O
Latest Version
W/ Floodway.

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*****************************************
HEC-2 WATER SURFACE PROFILES

 Version   4.6.2;  May 1991
*****************************************
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T1 WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2 100 - YEAR STORM EVENT FLOODPLAIN RUN FILE: 12.H2I
T3 ATCHISON,TOPEKA AND SANTA FE RAILROAD CHANNEL - AGUA FRIA RIVER
T4 NORTHWEST TO GREENWAY ROAD. (WASH 12)

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	2	0	0	.0008	0	0	0	1118.45	0

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1	0	0	0	0	0	0	0	0	0

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

38	43	1	53	21	22	54	51	4	8
42	5	26	0	110	0	200			

NC	.045	.03	.035	.3	.5		
	2	577	577				
			9.1			9931.63	10078.38

BOTH FLOODPLAIN AND FLOODWAY MATCH INTO EXISTING 100-YEAR DELINEA-
TIONS ON THE AGUA FRIA RIVER COMPUTED BY JERRY R. JONES AND ASSOC.
2-6-89 AT APPROXIMATELY CROSS SECTIONS 1.085 AND 0.231 RESPECTIVELY.

Q @ X1=0.000 TO X1=0.335 EQUALS Q @ CP158A
Q = 577 CFS

ATCHINSON, TOPEKA AND SANTA FE RAILROAD BRIDGE

```
X1     0.00       11     9935    10075        0        0        0
GR     1128     9850     1126     9900     1120     9920     1118     9935     1116     9950
GR     1115    10000     1116    10010     1118    10075     1120    10090     1122    10110
GR     1128    10430

NC      .05      .03     .035       .1       .3
ET                       9.1                                                 9914.58  10092.48
X1     .063       13     9940    10030      320      300      330
GR   1121.7     9680     1120     9855     1118     9940     1116     9950     1112    10000
GR     1116    10020     1118    10030     1117    10060     1118    10085     1120    10110
GR     1122    10120     1128    10135   1129.1    10155
```



```
ET                       9.1                                                 9751.81  10066.59
X1     .136       18     9755    10065      400      330      390
GR     1124     9635     1122     9680     1120     9745     1118     9755     1116     9780
GR     1110     9940     1106    10000     1116    10060     1118    10065     1120    10070
GR     1124    10080     1122    10115     1120    10125     1119    10140     1120    10150
GR     1122    10175     1128    10185   1129.4    10210

ET                       9.1                                                    9800  10101.60
X1     .231       22     9650    10100      500      520      500
GR     1126     9550     1124     9590     1120     9610     1118     9650     1116     9730
GR     1114     9820     1114     9900     1116     9940   1116.6     9950     1116     9960
GR     1110     9990     1105    10000     1116    10095     1118    10100     1120    10105
GR     1122    10115     1125    10130     1124    10150     1122    10165   1121.6    10180
GR     1122    10190   1129.6    10220

ET                       9.1                                                    9800  10069.81
X1     .335       16     9950    10065      520      580      550
GR     1130     9410     1128     9525     1126     9645     1120     9665     1118     9695
GR   1116.5     9920     1117     9950     1116     9980   1115.4    10000     1116    10055
GR     1118    10065     1120    10080   1122.5    10120     1124    10145     1130    10150
GR   1131.4    10160

QT        2      483      483
ET                       9.1                                                 9841.54  10052.08
```

Q @ X1=0.438 TO X1=1.598 EQUALS Q AT CP158B
Q = 483 CFS

```
X1     .438       17     9930    10055      530      530      540
GR   1129.5     9450     1128     9815     1128     9885     1126     9900     1124     9915
GR     1122     9930     1120     9980   1118.8    10000   1120.2    10020     1120    10050
GR     1122    10055     1126    10085   1124.1    10110     1126    10130     1130    10140
GR     1132    10155   1132.9    10165

      .07      .03     .045       .1       .3
ET                       9.1                                                    9850  10025.68
X1     .545        9     9975    10020      550      550      570
GR   1131.4     9385     1130     9740     1128     9975     1127    10000     1128    10020
GR     1130    10030     1132    10040     1134    10050   1134.9    10055

ET                       9.1                                                    9850     10030
```

X1	.661	11	9960	10030	610	610	610			
GR	1134	9320	1132	9720	1130.7	9875	1131.7	9960	1130	9980
GR	1128.8	10000	1130	10010	1132	10030	1134	10040	1136	10050
GR	1136.6	10055								
ET			9.1						9850	10030
X1	.771	10	9960	10030	580	580	580			
GR	1135.4	9430	1134	9730	1132.6	9910	1133.8	9960	1132	9980
GR	1131.5	10000	1132	10010	1134	10030	1136	10045	1137.9	10055

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ET			9.1						9800	10052.91
X1	.892	9	9980	10050	640	640	640			
GR	1137.2	9550	1136.1	9825	1136.7	9840	1136	9860	1135.2	9930
GR	1135.4	9980	1134.4	10000	1136	10050	1140.1	10070		
ET			9.1						9700	10019.66
X1	.992	13	9955	10020	530	530	530			
GR	1138.3	9290	1138	9310	1137	9420	1137.3	9780	1136.4	9870
GR	1137.8	9955	1136	9985	1135.4	10000	1136	10015	1138	10020
GR	1140	10025	1142	10035	1142.6	10045				
ET			9.1						9600	10023.14
X1	1.085	13	9975	10030	490	490	490			
GR	1139.8	8980	1139.4	9190	1139.8	9400	1139.2	9640	1138.6	9830
GR	1140.5	9880	1140	9910	1140.4	9940	1140	9975	1138.4	10000
GR	1140	10030	1144	10055	1145.4	10070				
ET			9.1						9325	10005.59
X1	1.189	11	9925	10030	550	550	550			
GR	1145	8650	1144	8760	1143.8	8950	1144	9250	1145.9	9600
GR	1145.1	9830	1145.8	9925	1144.3	10000	1146	10030	1148	10040
GR	1149.4	10050								
ET			9.1						9600	10009.59
X1	1.294	10	9940	10020	550	550	550			
GR	1149.6	8780	1148.3	9070	1149	9280	1148.6	9500	1149.7	9770
GR	1149.6	9940	1148.4	10000	1150	10020	1152	10030	1153.7	10040
ET			9.1						9700	10014.42
X1	1.394	11	9940	10020	530	530	530			
GR	1154.5	9125	1154	9140	1152.3	9640	1153.1	9730	1153.6	9850
GR	1153.3	9890	1154.4	9940	1152.6	10000	1154	10020	1156	10030
GR	1158.1	10045								
ET			9.1						9800	10026.80

FACTORY STREET

X1	1.489	8	9930	10050	450	500	500			
GR	1158.2	9370	1158	9415	1156.5	9725	1158	9930	1157.3	10000
GR	1158	10050	1160	10135	1161	10210				
	.08	.03	.045	.1	.3					
ET			9.1						9900	10023.90

CITY OF EL MIRAGE CORPORATE LIMITS,SOUTH OF GREENWAY ROAD.
TOWN OF SURPRISE CORPORATE LIMITS,NORTH OF GREENWAY ROAD.
LIMIT OF DETAILED STUDY

```
X1    1.598      12      9975     10020       510       580       580
GR   1160.8    9460      1160      9590    1159.8      9630      1160      9715    1159.9      9810
GR     1160    9875    1160.2      9940      1160      9975    1158.3     10000      1160     10020
GR     1162   10030      1164     10045
```



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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    L-BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA      R-BANK ELEV
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN    SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID   ENDST


*PROF 1

CCHV=     .300 CEHV=     .500
*SECNO  .000

          BOTH FLOODPLAIN AND FLOODWAY MATCH INTO EXISTING 100-YEAR DELINEA-
          TIONS ON THE AGUA FRIA RIVER COMPUTED BY JERRY R. JONES AND ASSOC.
          2-6-89 AT APPROXIMATELY CROSS SECTIONS 1.085 AND 0.231 RESPECTIVELY.

          Q @ X1=0.000 TO X1=0.335 EQUALS Q @ CP158A
          Q = 577 CFS

          ATCHINSON, TOPEKA AND SANTA FE RAILROAD BRIDGE

     .000      3.45   1118.45      .00   1118.45   1118.51      .06      .00      .00   1118.00
    577.0       .3     576.3       .4       .8     293.0       .8       .0       .0   1118.00
      .00       .34     1.97      .52      .045      .035     .030     .000  1115.00   9931.63
  .000804       0.        0.       0.        0         0        0      .00   146.75  10078.38


CCHV=     .100 CEHV=     .300
*SECNO  .063

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.99

     .063      6.60   1118.60      .00       .00   1118.63      .03      .12      .00   1118.00
    577.0       1.4     529.5     46.1       7.6     353.8     62.6      2.7       1.2   1118.00
      .06       .19      1.50      .74      .050      .035     .030     .000  1112.00   9914.58
  .000203      320.      330.     300.         2         0        0      .00   177.90  10092.48


*SECNO  .136

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  7.53

     .136     12.64   1118.64      .00       .00   1118.64      .00      .00      .00   1118.00
    577.0        .0     577.0       .0       1.0    2047.5       .5     13.7       3.4   1118.00
      .45       .03       .28      .04      .050      .035     .030     .000  1106.00   9751.81
  .000004      400.      390.     330.         2         0        0      .00   314.78  10066.59


*SECNO  .231
     .231     13.64   1118.64      .00       .00   1118.64      .00      .00      .00   1118.00
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   577.0      .1     576.8      .0      4.1    2084.2      .5     37.5      7.8   1118.00
     .95     .03       .28     .05     .050      .035    .030     .000   1105.00   9637.21
 .000006    500.      500.    520.       2         0       0      .00    464.39  10101.60
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    L-BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA      R-BANK ELEV
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN    SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID   ENDST

*SECNO  .335

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .16

     .335     3.24   1118.64      .00      .00   1118.65      .02      .01      .00   1117.00
    577.0    213.0     363.5       .5    373.0     301.3      1.5     54.8     13.1   1118.00
     1.10      .57      1.21      .35     .050      .035     .030     .000   1115.40   9685.37
  .000224     520.      550.     580.        0         0        0      .00    384.44  10069.81


*SECNO  .438
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

        Q @ X1=0.438 TO X1=1.598 EQUALS Q AT CP1588
        Q = 483 CFS

     .438     2.03   1120.83   1120.83      .00   1121.31      .48      .34      .14   1122.00
    483.0       .0     483.0       .0       .0      86.7       .0     59.5     16.0   1122.00
     1.13      .00      5.57      .00     .000      .035     .000     .000   1118.80   9959.21
  .018928     530.      540.     530.       20        14        0      .00     92.87  10052.08


CCHV=     .100 CEHV=     .300
*SECNO  .545
     .545     2.13   1129.13      .00      .00   1129.41      .28     8.08      .02   1128.00
    483.0    116.3     355.3     11.4     75.8      73.6      3.2     61.0     17.8   1128.00
     1.17     1.53      4.83     3.53     .070      .045     .030     .000   1127.00   9841.54
  .011100     550.      570.     550.        4         0        0      .00    184.14  10025.68


*SECNO  .661

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.15

     .661     3.30   1132.10      .00      .00   1132.16      .06     2.72      .02   1131.70
    483.0    174.3     308.7       .0    194.1     128.1       .0     64.4     21.4   1132.00
     1.26      .90      2.41      .02     .070      .045     .030     .000   1128.80   9699.76
  .002393     610.      610.     610.        7         0        0      .00    330.75  10030.51
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1


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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    L-BANK ELEV
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    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*SECNO  .771
     .771      2.44   1133.94       .00       .00   1134.03       .09      1.86       .01   1133.80
    483.0     172.0     311.0        .0     153.9     105.8        .0      68.2      25.6   1134.00
     1.33      1.12      2.94       .00      .070      .045      .000      .000   1131.50   9736.89
  .004543      580.      580.      580.         3         0         0       .00    292.57  10029.46

*SECNO  .892

3265 DIVIDED FLOW

     .892      2.19   1136.59       .00       .00   1136.66       .07      2.63       .00   1135.40
    483.0     210.2     271.6       1.2     173.4     103.7        .9      72.2      30.3   1136.00
     1.42      1.21      2.62      1.33      .070      .045      .030      .000   1134.40   9700.97
  .003727      640.      640.      640.         4         0         0       .00    346.37  10052.91

*SECNO  .992

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.55

     .992      2.46   1137.86       .00       .00   1137.88       .02      1.22       .00   1137.80
    483.0     314.7     168.3        .0     454.8      98.2        .0      77.2      36.6   1138.00
     1.56       .69      1.71       .00      .070      .045      .000      .000   1135.40   9324.88
  .001556      530.      530.      530.         3         0         0       .00    694.78  10019.66

*SECNO 1.085

3265 DIVIDED FLOW

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .30

    1.085      1.24   1139.64       .00       .00   1139.70       .07      1.81       .01   1140.00
    483.0     400.5      82.5        .0     220.0      26.2        .0      81.7      44.3   1140.00
     1.63      1.82      3.15       .00      .070      .045      .000      .000   1138.40   9067.15
  .017395      490.      490.      490.         4         0         0       .00    678.93  10023.14

*SECNO 1.189
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

3265 DIVIDED FLOW

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.79
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1.189	.82	1144.62	.00	.00	1144.64	.02	4.93	.00	1145.80
483.0	480.6	2.4	.0	407.0	3.4	.0	85.9	53.0	1146.00
1.76	1.18	.71	.00	.070	.045	.000	.000	1143.80	8692.18
.005449	550.	550.	550.	5	0	0	.00	692.81	10005.59

*SECNO 1.294

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .62

1.294	.87	1149.17	.00	.00	1149.20	.03	4.56	.00	1149.60
483.0	444.9	38.1	.0	312.7	18.4	.0	90.6	62.5	1150.00
1.86	1.42	2.07	.00	.070	.045	.000	.000	1148.30	8876.57
.014112	550.	550.	550.	6	0	0	.00	810.59	10009.59

*SECNO 1.394

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.60

1.394	1.31	1153.61	.00	.00	1153.63	.02	4.43	.00	1154.40
483.0	445.3	37.7	.0	373.9	24.3	.0	95.0	71.6	1154.00
1.98	1.19	1.55	.00	.070	.045	.000	.000	1152.30	9254.79
.005521	530.	530.	530.	6	0	0	.00	697.38	10014.42

*SECNO 1.489

3265 DIVIDED FLOW

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .56

FACTORY STREET

1.489	1.18	1157.68	.00	.00	1157.74	.06	4.09	.01	1158.00
483.0	465.8	17.2	.0	237.1	12.1	.0	98.4	77.7	1158.00
2.05	1.96	1.43	.00	.070	.045	.000	.000	1156.50	9482.13
.017405	450.	500.	500.	4	0	0	.00	467.79	10026.80

CCHV= .100 CEHV= .300
*SECNO 1.598

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.44

CITY OF EL MIRAGE CORPORATE LIMITS,SOUTH OF GREENWAY ROAD.
TOWN OF SURPRISE CORPORATE LIMITS,NORTH OF GREENWAY ROAD.
LIMIT OF DETAILED STUDY

1.598	2.49	1160.79	.00	.00	1160.83	.04	3.09	.00	1160.00
483.0	299.4	181.4	2.2	360.7	73.4	1.5	102.4	83.8	1160.00
2.15	.83	2.47	1.41	.080	.045	.030	.000	1158.30	9463.11
.002930	510.	580.	580.	7	0	0	.00	560.79	10023.90

1
PROFILE FOR STREAM ATCHISON,TOPEKA AND SANT

PLOTTED POINTS (BY PRIORITY) E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA

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ELEVATION  1105.     1115.     1125.     1135.     1145.     1155.     1165.     1175.     1185.     1195.
   SECNO   CUMDIS

     .00      0. C        I WE    . M     .         .         .         .         .         .         .
             50. C        I WE    . M     .         .         .         .         .         .         .
            100. C       I. WE    .M      .         .         .         .         .         .         .
            150. C       I. LE     M      .         .         .         .         .         .         .
            200. C      I . LE    M.      .         .         .         .         .         .         .
            250. C      I . LE   M .      .         .         .         .         .         .         .
            300. C     I  . LE  M  .      .         .         .         .         .         .         .
     .06    350. C     I  . LE  M  .      .         .         .         .         .         .         .
            400. C    I   . LE  M  .      .         .         .         .         .         .         .
            450. C   I    . LE  M  .      .         .         .         .         .         .         .
            500. C   I    . LE   M .      .         .         .         .         .         .         .
            550. C  I     . LE   M .      .         .         .         .         .         .         .
            600. C I      . LE   M .      .         .         .         .         .         .         .
            650. C I      . LE   M .      .         .         .         .         .         .         .
            700. C I      . LE    M.      .         .         .         .         .         .         .
     .14    750. CI       . LE    M.      .         .         .         .         .         .         .
            800. CI       . LE    M.      .         .         .         .         .         .         .
            850. CI       . LE    M.      .         .         .         .         .         .         .
            900. CI       . LE     M      .         .         .         .         .         .         .
            950. CI       . LE     M      .         .         .         .         .         .         .
           1000. CI       . LE     M      .         .         .         .         .         .         .
           1050. I        . LE     M      .         .         .         .         .         .         .
           1100. I        . LE     M      .         .         .         .         .         .         .
           1150. I        . LE     .M     .         .         .         .         .         .         .
           1200. I        . LE     .M     .         .         .         .         .         .         .
     .23   1250. I        . LE     .M     .         .         .         .         .         .         .
           1300. CI       . LE     .M     .         .         .         .         .         .         .
           1350. C I      . LE     . M    .         .         .         .         .         .         .
           1400. C  I     . LE     . M    .         .         .         .         .         .         .
           1450. C   I    . LE     . M    .         .         .         .         .         .         .
           1500. C    I   . LE     .  M   .         .         .         .         .         .         .
           1550. C     I  . LRE    .  M   .         .         .         .         .         .         .
           1600. C      I . LRE    .   M  .         .         .         .         .         .         .
           1650. C       I. LRE    .   M  .         .         .         .         .         .         .
           1700. C        I. LRE   .   M  .         .         .         .         .         .         .
           1750. C        I. LRE   .    M .         .         .         .         .         .         .
     .34   1800. C         I LRE   .    M .         .         .         .         .         .         .
           1850. C         .ILRE   .    M .         .         .         .         .         .         .
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     1900.  C        .I LE    .   M   .        .        .        .        .        .        .
     1950.  C        .I LE    .   M   .        .        .        .        .        .        .
     2000.  C        . I WE   .   M   .        .        .        .        .        .        .
     2050.  C        . I LE   .   M   .        .        .        .        .        .        .
     2100.  C        . I  E   .   M   .        .        .        .        .        .        .
     2150.  C        .  I ER  .   M   .        .        .        .        .        .        .
     2200.  C        .  I WE  .   M   .        .        .        .        .        .        .
     2250.  C        .  I WE  .   M   .        .        .        .        .        .        .
     2300.  C        .   I EL .   M   .        .        .        .        .        .        .
.44  2350.  .        .   I EL .   M   .        .        .        .        .        .        .
     2400.  C        .    I EL.   M   .        .        .        .        .        .        .
     2450.  C        .    I WE.   M   .        .        .        .        .        .        .
     2500.  C        .     I EL.  M   .        .        .        .        .        .        .
     2550.  C        .      I E.  M   .        .        .        .        .        .        .
     2600.  C        .      I WE  M   .        .        .        .        .        .        .
     2650.  C        .       I WE  M  .        .        .        .        .        .        .
     2700.  C        .        I.E  M  .        .        .        .        .        .        .
     2750.  C        .         ILE M  .        .        .        .        .        .        .
     2800.  C        .         I WE M  .        .        .        .        .        .        .
     2850.  C        .         .ILE M  .        .        .        .        .        .        .
.55  2900.  C        .         . ILE M  .        .        .        .        .        .        .
     2950.  C        .         . ILWE M .        .        .        .        .        .        .
     3000.  C        .         . I LE M .        .        .        .        .        .        .
     3050.  C        .         . I LE M .        .        .        .        .        .        .
     3100.  C        .         .  ILE M .        .        .        .        .        .        .
     3150.  C        .         .  I WEM .        .        .        .        .        .        .
     3200.  C        .         .  I LE M.        .        .        .        .        .        .
     3250.  C        .         .  I LE M.        .        .        .        .        .        .
     3300.  C        .         .  I LE M.        .        .        .        .        .        .
     3350.  C        .         .  I  E M.        .        .        .        .        .        .
     3400.  C        .         .  I  LE M.       .        .        .        .        .        .
     3450.  C        .         .   I LE M.       .        .        .        .        .        .
.66  3500.  C        .         .   I  E M.       .        .        .        .        .        .
     3550.  C        .         .   I  E M.       .        .        .        .        .        .
     3600.  C        .         .   I  E M.       .        .        .        .        .        .
     3650.  C        .         .   I  LEM.       .        .        .        .        .        .
     3700.  C        .         .    I LEM.       .        .        .        .        .        .
     3750.  C        .         .    I  E M       .        .        .        .        .        .
     3800.  C        .         .    I  E M       .        .        .        .        .        .
     3850.  C        .         .    I  E M       .        .        .        .        .        .
     3900.  C        .         .     I E M       .        .        .        .        .        .
     3950.  C        .         .     I LEM       .        .        .        .        .        .
     4000.  C        .         .     I  EM       .        .        .        .        .        .
     4050.  C        .         .     I  EM       .        .        .        .        .        .
.77  4100.  C        .         .      I EM       .        .        .        .        .        .
     4150.  C        .         .      I E.M      .        .        .        .        .        .
     4200.  C        .         .      I E.M      .        .        .        .        .        .
     4250.  C        .         .      I LEM      .        .        .        .        .        .
     4300.  C        .         .      I LEM      .        .        .        .        .        .
     4350.  C        .         .       ILEM      .        .        .        .        .        .
     4400.  C        .         .       I EM      .        .        .        .        .        .
     4450.  C        .         .       I EM      .        .        .        .        .        .
     4500.  C        .         .       I LEM     .        .        .        .        .        .
     4550.  C        .         .        ILEM     .        .        .        .        .        .
     4600.  C        .         .        ILEM     .        .        .        .        .        .
     4650.  C        .         .        ILEM     .        .        .        .        .        .
     4700.  C        .         .        ILEM     .        .        .        .        .        .
.89  4750.  C        .         .        ILRE     .        .        .        .        .        .
     4800.  C        .         .        I.LE     .        .        .        .        .        .
     4850.  C        .         .         ILE     .        .        .        .        .        .
     4900.  C        .         .         ILEM    .        .        .        .        .        .
     4950.  C        .         .         ILEM    .        .        .        .        .        .
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      5000.  C   .    .    I EM   .    .    .    .    .    .    .
      5050.  C   .    .    I EM   .    .    .    .    .    .    .
      5100.  C   .    .    I EM   .    .    .    .    .    .    .
      5150.  C   .    .    I LE   .    .    .    .    .    .    .
      5200.  C   .    .    I LE   .    .    .    .    .    .    .
 .99  5250.  C   .    .    I  E   .    .    .    .    .    .    .
      5300.  C   .    .    .I E   .    .    .    .    .    .    .
      5350.  C   .    .    .I EM  .    .    .    .    .    .    .
      5400.  C   .    .    .I ER  .    .    .    .    .    .    .
      5450.  C   .    .    . I E  .    .    .    .    .    .    .
      5500.  C   .    .    . I E  .    .    .    .    .    .    .
      5550.  C   .    .    . I E  .    .    .    .    .    .    .
      5600.  C   .    .    .  IE  .    .    .    .    .    .    .
      5650.  C   .    .    .  IEL .    .    .    .    .    .    .
      5700.  C   .    .    .  IWE .    .    .    .    .    .    .
 1.09 5750.  C   .    .    .  I E  .    .    .    .    .    .    .
      5800.  C   .    .    .   IEL .    .    .    .    .    .    .
      5850.  C   .    .    .   I E .    .    .    .    .    .    .
      5900.  C   .    .    .    IEL .    .    .    .    .    .    .
      5950.  C   .    .    .    IEL .    .    .    .    .    .    .
      6000.  C   .    .    .     IEL .    .    .    .    .    .    .
      6050.  C   .    .    .     IEL .    .    .    .    .    .    .
      6100.  C   .    .    .      IEL.    .    .    .    .    .    .
      6150.  C   .    .    .      IEL.    .    .    .    .    .    .
      6200.  C   .    .    .       IEL    .    .    .    .    .    .
      6250.  C   .    .    .       IEL    .    .    .    .    .    .
 1.19 6300.  C   .    .    .        IEL   .    .    .    .    .    .
      6350.  C   .    .    .        IEL   .    .    .    .    .    .
      6400.  C   .    .    .         ELR  .    .    .    .    .    .
      6450.  C   .    .    .         IEL  .    .    .    .    .    .
      6500.  C   .    .    .         IEL  .    .    .    .    .    .
      6550.  C   .    .    .         .IEL .    .    .    .    .    .
      6600.  C   .    .    .         .IEL .    .    .    .    .    .
      6650.  C   .    .    .         . IER .    .    .    .    .    .
      6700.  C   .    .    .         . IEL .    .    .    .    .    .
      6750.  C   .    .    .         . IEL .    .    .    .    .    .
      6800.  C   .    .    .         .  IER .    .    .    .    .    .
 1.29 6850.  C   .    .    .         .  IEL .    .    .    .    .    .
      6900.  C   .    .    .         .   IE .    .    .    .    .    .
      6950.  C   .    .    .         .   IEL .    .    .    .    .    .
      7000.  C   .    .    .         .   IEL .    .    .    .    .    .
      7050.  C   .    .    .         .    IER .    .    .    .    .    .
      7100.  C   .    .    .         .    IEL .    .    .    .    .    .
      7150.  C   .    .    .         .     IE .    .    .    .    .    .
      7200.  C   .    .    .         .     IEL .    .    .    .    .    .
      7250.  C   .    .    .         .     I E .    .    .    .    .    .
      7300.  C   .    .    .         .      IEL.    .    .    .    .    .
      7350.  C   .    .    .         .      IEL.    .    .    .    .    .
 1.39 7400.  C   .    .    .         .      I EM    .    .    .    .    .
      7450.  C   .    .    .         .       IEL    .    .    .    .    .
      7500.  C   .    .    .         .       IEL    .    .    .    .    .
      7550.  C   .    .    .         .        IEM   .    .    .    .    .
      7600.  C   .    .    .         .        IEL   .    .    .    .    .
      7650.  C   .    .    .         .        I.E   .    .    .    .    .
      7700.  C   .    .    .         .         IEL  .    .    .    .    .
      7750.  C   .    .    .         .         IWE  .    .    .    .    .
      7800.  C   .    .    .         .         .IE  .    .    .    .    .
      7850.  C   .    .    .         .         .IEL .    .    .    .    .
 1.49 7900.  C   .    .    .         .         . IE .    .    .    .    .
      7950.  C   .    .    .         .         . IE .    .    .    .    .
      8000.  C   .    .    .         .         . IEM .    .    .    .    .
      8050.  C   .    .    .         .         . IWE .    .    .    .    .
```

```
        8100.  C        .        .        .        .        . I E    .        .        .        .        .
        8150.  C        .        .        .        .        . I E    .        .        .        .        .
        8200.  C        .        .        .        .        . I EM   .        .        .        .        .
        8250.  C        .        .        .        .        .  ILE   .        .        .        .        .
        8300.  C        .        .        .        .        .  ILE   .        .        .        .        .
        8350.  C        .        .        .        .        . I E    .        .        .        .        .
        8400.  C        .        .        .        .        . I E    .        .        .        .        .
    1.60 8450.  C        .        .        .        .        . I LE   .        .        .        .        .
1
   27APR92      10:19:51                                                                                PAGE   10


 T1      WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
 T2      100 - YEAR STORM EVENT     FLOODWAY RUN       FILE: 12.H2I
 T3      ATCHISON,TOPEKA AND SANTA FE RAILROAD CHANNEL - AGUA FRIA RIVER
 T4      NORTHWEST TO GREENWAY ROAD. (WASH  12)

 J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0         3         0         0         0         0         0         0   1118.45         0

 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      15         0        -1         0         0         0         0         0         0         0


1
   27APR92      10:19:51                                                                                PAGE   11

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


 *PROF 2
0

 CCHV=     .300 CEHV=     .500
 *SECNO  .000

 3470 ENCROACHMENT STATIONS=     9931.6   10078.4  TYPE=      1  TARGET=      146.750

          BOTH FLOODPLAIN AND FLOODWAY MATCH INTO EXISTING 100-YEAR DELINEA-
          TIONS ON THE AGUA FRIA RIVER COMPUTED BY JERRY R. JONES AND ASSOC.
          2-6-89 AT APPROXIMATELY CROSS SECTIONS 1.085 AND 0.231 RESPECTIVELY.

          Q @ X1=0.000 TO X1=0.335 EQUALS Q @ CP158A
          Q = 577 CFS

          ATCHINSON, TOPEKA AND SANTA FE RAILROAD BRIDGE

      .000      3.45   1118.45       .00   1118.45   1118.51       .06       .00       .00   1118.00
    577.0        .3     576.3        .4        .8     293.0        .8        .0        .0   1118.00
      .00       .34      1.97       .52      .045      .035      .030      .000   1115.00   9931.63
  .000804        0.        0.        0.         0         0         0       .00    146.74  10078.37


 CCHV=     .100 CEHV=     .300
```

```
*SECNO  .063

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.99

3470 ENCROACHMENT STATIONS=     9914.6   10092.5  TYPE=      1  TARGET=      177.900
      .063      6.60   1118.60      .00   1118.60   1118.63      .03      .12      .00   1118.00
     577.0       1.4     529.5     46.1       7.6     353.8     62.6      2.7      1.2   1118.00
       .06       .19      1.50      .74      .050      .035     .030     .000  1112.00   9914.58
   .000203      320.      330.     300.         2         0        0      .00   177.90  10092.48

*SECNO  .136

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  7.53

3470 ENCROACHMENT STATIONS=     9751.8   10066.6  TYPE=      1  TARGET=      314.780
      .136     12.64   1118.64      .00   1118.64   1118.64      .00      .00      .00   1118.00
     577.0        .0     577.0       .0       1.0    2047.5       .5     13.7      3.4   1118.00
       .45       .03       .28      .04      .050      .035     .030     .000  1106.00   9751.81
   .000004      400.      390.     330.         2         0        0      .00   314.78  10066.59

1
   27APR92      10:19:51                                                                          PAGE   12

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*SECNO  .231

3470 ENCROACHMENT STATIONS=     9800.0   10101.6  TYPE=      1  TARGET=      301.600
      .231     13.64   1118.64      .00   1118.64   1118.64      .00      .00      .00 100000.00
     577.0        .0     577.0       .0        .0    1713.8       .5     35.3      6.9   1118.00
       .86       .00       .34      .06      .000      .035     .030     .000  1105.00   9800.00
   .000006      500.      500.     520.         2         0        0      .00   301.60  10101.60

*SECNO  .335

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .16

3470 ENCROACHMENT STATIONS=     9800.0   10069.8  TYPE=      1  TARGET=      269.810
      .335      3.24   1118.64      .00   1118.64   1118.66      .02      .01      .01   1117.00
     577.0     185.3     391.1       .6     265.8     301.3      1.5     49.6     10.5   1118.00
      1.00       .70      1.30      .37      .050      .035     .030     .000  1115.40   9800.00
   .000259      520.      550.     580.         0         0        0      .00   269.81  10069.81

*SECNO  .438
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9841.5   10052.1  TYPE=      1  TARGET=      210.540
```

```
        Q '@ X1=0.438 TO X1=1.598 EQUALS Q AT CP158B
        Q = 483 CFS

     .438      2.03   1120.83   1120.83   1120.83   1121.31       .48       .39       .14   1122.00
    483.0        .0     483.0        .0        .0      86.6        .0      53.7      12.7 100000.00
     1.02       .00      5.57       .00      .000      .035      .000      .000   1118.80   9959.23
  .018973      530.      540.      530.        20        14         0       .00     92.85  10052.08


CCHV=     .100 CEHV=     .300
*SECNO  .545

3470 ENCROACHMENT STATIONS=     9850.0   10025.7  TYPE=      1  TARGET=      175.680
     .545      2.13   1129.13       .00   1129.13   1129.40       .28      8.07       .02   1128.00
    483.0     118.8     353.0      11.2      74.9      73.4       3.2      55.2      14.4   1128.00
     1.06      1.59      4.81      3.52      .070      .045      .030      .000   1127.00   9850.00
  .011059      550.      570.      550.         4         0         0       .00    175.65  10025.65


1
   27APR92      10:19:51                                                                          PAGE   13


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO  .661

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.08


3470 ENCROACHMENT STATIONS=     9850.0   10030.0  TYPE=      1  TARGET=      180.000
     .661      3.40   1132.20       .00   1132.10   1132.28       .08      2.85       .02   1131.70
    483.0     135.9     347.1        .0     119.4     134.7        .0      58.1      16.9 100000.00
     1.14      1.14      2.58       .00      .070      .045      .000      .000   1128.80   9850.00
  .002566      610.      610.      610.         7         0         0       .00    180.00  10030.00


*SECNO  .771

3470 ENCROACHMENT STATIONS=     9850.0   10030.0  TYPE=      1  TARGET=      180.000
     .771      2.54   1134.04       .00   1133.94   1134.13       .10      1.85       .00   1133.80
    483.0     160.1     322.9        .0     114.1     112.1        .0      61.3      19.3 100000.00
     1.21      1.40      2.88       .00      .070      .045      .000      .000   1131.50   9850.00
  .004081      580.      580.      580.         4         0         0       .00    180.00  10030.00


*SECNO  .892

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9800.0   10052.9  TYPE=      1  TARGET=      252.910
     .892      2.19   1136.59       .00   1136.59   1136.67       .07      2.53       .00   1135.40
    483.0     206.0     275.8       1.2     153.9     103.8        .9      64.8      22.4   1136.00
     1.29      1.34      2.66      1.35      .070      .045      .030      .000   1134.40   9800.00
  .003838      640.      640.      640.         4         0         0       .00    247.37  10052.91
```

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*SECNO  .992

3470 ENCROACHMENT STATIONS=     9700.0   10019.7  TYPE=      1  TARGET=      319.660
     .992      2.66   1138.06       .00   1137.86   1138.10       .04      1.43       .00   1137.80
   483.0     247.7     235.3        .0     255.9     111.3        .0      68.6      25.9 100000.00
    1.39       .97      2.11       .00      .070      .045      .000      .000   1135.40   9700.00
 .002010      530.      530.      530.         3         0         0       .00    319.66  10019.66


1
   27APR92      10:19:51                                                                          PAGE   14


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 1.085

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .48


3470 ENCROACHMENT STATIONS=     9600.0   10023.1  TYPE=      1  TARGET=      423.140
    1.085      1.44   1139.84       .00   1139.64   1139.90       .06      1.79       .01   1140.00
   483.0     393.7      89.3        .0     221.0      35.0        .0      72.1      29.4 100000.00
    1.46      1.78      2.55       .00      .070      .045      .000      .000   1138.40   9600.00
 .008564      490.      490.      490.         3         0         0       .00    308.03  10023.14


*SECNO 1.189

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9325.0   10005.6  TYPE=      1  TARGET=      680.590
    1.189      1.85   1145.65       .00   1144.62   1145.72       .07      5.82       .00   1145.80
   483.0     323.7     159.3        .0     208.0      52.5        .0      75.4      34.8 100000.00
    1.53      1.56      3.03       .00      .070      .045      .000      .000   1143.80   9325.00
 .013427      550.      550.      550.         6         0         0       .00    537.22  10005.59


*SECNO 1.294

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.57


3470 ENCROACHMENT STATIONS=     9600.0   10009.6  TYPE=      1  TARGET=      409.590
    1.294      1.84   1150.14       .00   1149.17   1150.21       .06      4.48       .00   1149.60
   483.0     262.8     220.2        .0     218.8      81.8        .0      78.9      40.7 100000.00
    1.62      1.20      2.69       .00      .070      .045      .000      .000   1148.30   9600.00
 .005467      550.      550.      550.         6         0         0       .00    409.59  10009.59


*SECNO 1.394

3265 DIVIDED FLOW
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=     9700.0   10014.4  TYPE=      1  TARGET=      314.420
   1.394      1.82   1154.12       .00   1153.61   1154.21       .08      3.99       .01   1154.40
   483.0     322.1     160.9        .0     169.8      53.3        .0      82.1      45.0 100000.00
    1.68      1.90      3.02       .00      .070      .045      .000      .000   1152.30   9700.00
 .011027      530.      530.      530.         5         0         0       .00    292.60  10014.42


*SECNO 1.489

3470 ENCROACHMENT STATIONS=     9800.0   10026.8  TYPE=      1  TARGET=      226.800

          FACTORY STREET

   1.489      2.01   1158.51       .00   1157.68   1158.60       .09      4.39       .00   1158.00
   483.0     240.7     242.3        .0     128.7      88.0        .0      84.5      47.8 100000.00
    1.74      1.87      2.75       .00      .070      .045      .000      .000   1156.50   9800.00
 .007986      450.      500.      500.         5         0         0       .00    226.80  10026.80


V=     .100 CEHV=     .300
*SECNO 1.598

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.46


3470 ENCROACHMENT STATIONS=     9900.0   10023.9  TYPE=      1  TARGET=      123.900

          CITY OF EL MIRAGE CORPORATE LIMITS,SOUTH OF GREENWAY ROAD.
          TOWN OF SURPRISE CORPORATE LIMITS,NORTH OF GREENWAY ROAD.
          LIMIT OF DETAILED STUDY

   1.598      3.09   1161.39       .00   1160.79   1161.53       .14      2.92       .02   1160.00
   483.0     125.1     347.3      10.6      95.1     100.7       3.9      87.1      50.0   1160.00
    1.79      1.32      3.45      2.72      .080      .045      .030      .000   1158.30   9900.00
 .003737      510.      580.      580.         3         0         0       .00    123.90  10023.90
```


THIS RUN EXECUTED 27APR92 10:20:05

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**************************************
HEC-2 WATER SURFACE PROFILES

 Version   4.6.2;  May 1991
**************************************
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

ATCHISON, TOPEKA AND SANT

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	.000	577.00	1118.45	9931.63	9935.00	10075.00	10078.38	.00	146.75	3.45	1115.00	8.04	1.97
	.000	577.00	1118.45	9931.63	9935.00	10075.00	10078.37	.00	146.74	3.45	1115.00	8.04	1.97
*	.063	577.00	1118.60	9914.58	9940.00	10030.00	10092.48	.15	177.90	6.60	1112.00	2.03	1.50
*	.063	577.00	1118.60	9914.58	9940.00	10030.00	10092.48	.15	177.90	6.60	1112.00	2.03	1.50
*	.136	577.00	1118.64	9751.81	9755.00	10065.00	10066.59	.04	314.78	12.64	1106.00	.04	.28
*	.136	577.00	1118.64	9751.81	9755.00	10065.00	10066.59	.04	314.78	12.64	1106.00	.04	.28
	.231	577.00	1118.64	9637.21	9650.00	10100.00	10101.60	.00	464.39	13.64	1105.00	.06	.28
	.231	577.00	1118.64	9800.00	9650.00	10100.00	10101.60	.00	301.60	13.64	1105.00	.06	.34
*	.335	577.00	1118.64	9685.37	9950.00	10065.00	10069.81	.00	384.44	3.24	1115.40	2.24	1.21
*	.335	577.00	1118.64	9800.00	9950.00	10065.00	10069.81	.00	269.81	3.24	1115.40	2.59	1.30
*	.438	483.00	1120.83	9959.21	9930.00	10055.00	10052.08	2.19	92.87	2.03	1118.80	189.28	5.57
*	.438	483.00	1120.83	9959.23	9930.00	10055.00	10052.08	2.19	92.85	2.03	1118.80	189.73	5.57
	.545	483.00	1129.13	9841.54	9975.00	10020.00	10025.68	8.30	184.14	2.13	1127.00	111.00	4.83
	.545	483.00	1129.13	9850.00	9975.00	10020.00	10025.65	8.30	175.65	2.13	1127.00	110.59	4.81
*	.661	483.00	1132.10	9699.76	9960.00	10030.00	10030.51	2.96	330.75	3.30	1128.80	23.93	2.41
*	.661	483.00	1132.20	9850.00	9960.00	10030.00	10030.00	3.07	180.00	3.40	1128.80	25.66	2.58
	.771	483.00	1133.94	9736.89	9960.00	10030.00	10029.46	1.84	292.57	2.44	1131.50	45.43	2.94
	.771	483.00	1134.04	9850.00	9960.00	10030.00	10030.00	1.84	180.00	2.54	1131.50	40.81	2.88
	.892	483.00	1136.59	9700.97	9980.00	10050.00	10052.91	2.65	346.37	2.19	1134.40	37.27	2.62
	.892	483.00	1136.59	9800.00	9980.00	10050.00	10052.91	2.56	247.37	2.19	1134.40	38.38	2.66
*	.992	483.00	1137.86	9324.88	9955.00	10020.00	10019.66	1.27	694.78	2.46	1135.40	15.56	1.71
	.992	483.00	1138.06	9700.00	9955.00	10020.00	10019.66	1.47	319.66	2.66	1135.40	20.10	2.11

1

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
*	1.085	483.00	1139.64	9067.15	9975.00	10030.00	10023.14	1.77	678.93	1.24	1138.40	173.95	3.15
*	1.085	483.00	1139.84	9600.00	9975.00	10030.00	10023.14	1.78	308.03	1.44	1138.40	85.64	2.55
*	1.189	483.00	1144.62	8692.18	9925.00	10030.00	10005.59	4.98	692.81	.82	1143.80	54.49	.71
	1.189	483.00	1145.65	9325.00	9925.00	10030.00	10005.59	5.81	537.22	1.85	1143.80	134.27	3.03
	1.294	483.00	1149.17	8876.57	9940.00	10020.00	10009.59	4.55	810.59	.87	1148.30	141.12	2.07
	1.294	483.00	1150.14	9600.00	9940.00	10020.00	10009.59	4.49	409.59	1.84	1148.30	54.67	2.69
*	1.394	483.00	1153.61	9254.79	9940.00	10020.00	10014.42	4.44	697.38	1.31	1152.30	55.21	1.55
	1.394	483.00	1154.12	9700.00	9940.00	10020.00	10014.42	3.98	292.60	1.82	1152.30	110.27	3.02
*	1.489	483.00	1157.68	9482.13	9930.00	10050.00	10026.80	4.07	467.79	1.18	1156.50	174.05	1.43

	1.489	483.00	1158.51	9800.00	9930.00	10050.00	10026.80	4.39	226.80	2.01	1156.50	79.86	2.75
*	1.598	483.00	1160.79	9463.11	9975.00	10020.00	10023.90	3.11	560.79	2.49	1158.30	29.30	2.47
*	1.598	483.00	1161.39	9900.00	9975.00	10020.00	10023.90	2.88	123.90	3.09	1158.30	37.37	3.45

ATCHISON,TOPEKA AND SANT

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	.000	1118.45	.00	1118.51	146.75	.26	576.35	.39	.00	.00	9935.00	10075.00	.00
	.000	1118.45	.00	1118.51	146.74	.26	576.35	.39	146.75	9931.63	9935.00	10075.00	10078.38
*	.063	1118.60	.00	1118.63	177.90	1.44	529.50	46.06	.00	.00	9940.00	10030.00	.00
*	.063	1118.60	.00	1118.63	177.90	1.44	529.50	46.06	177.90	9914.58	9940.00	10030.00	10092.48
*	.136	1118.64	.00	1118.64	314.78	.03	576.95	.02	.00	.00	9755.00	10065.00	.00
*	.136	1118.64	.00	1118.64	314.78	.03	576.95	.02	314.78	9751.81	9755.00	10065.00	10066.59
	.231	1118.64	.00	1118.64	464.39	.13	576.84	.03	.00	.00	9650.00	10100.00	.00
	.231	1118.64	.00	1118.64	301.60	.00	576.97	.03	301.60	9800.00	9650.00	10100.00	10101.60
*	.335	1118.64	.00	1118.65	384.44	212.96	363.50	.53	.00	.00	9950.00	10065.00	.00
*	.335	1118.64	.00	1118.66	269.81	185.33	391.10	.57	269.81	9800.00	9950.00	10065.00	10069.81
*	.438	1120.83	.00	1121.31	92.87	.00	483.00	.00	.00	.00	9930.00	10055.00	.00
*	.438	1120.83	.00	1121.31	92.85	.00	483.00	.00	210.54	9841.54	9930.00	10055.00	10052.08
	.545	1129.13	.00	1129.41	184.14	116.26	355.35	11.39	.00	.00	9975.00	10020.00	.00
	.545	1129.13	-.01	1129.40	175.65	118.79	352.97	11.24	175.68	9850.00	9975.00	10020.00	10025.68
*	.661	1132.10	.00	1132.16	330.75	174.29	308.71	.00	.00	.00	9960.00	10030.00	.00
*	.661	1132.20	.10	1132.28	180.00	135.88	347.12	.00	180.00	9850.00	9960.00	10030.00	10030.00
	.771	1133.94	.00	1134.03	292.57	172.02	310.98	.00	.00	.00	9960.00	10030.00	.00
	.771	1134.04	.10	1134.13	180.00	160.06	322.94	.00	180.00	9850.00	9960.00	10030.00	10030.00
	.892	1136.59	.00	1136.66	346.37	210.20	271.64	1.15	.00	.00	9980.00	10050.00	.00
	.892	1136.59	.00	1136.67	247.37	205.99	275.83	1.17	252.91	9800.00	9980.00	10050.00	10052.91
*	.992	1137.86	.00	1137.88	694.78	314.66	168.34	.00	.00	.00	9955.00	10020.00	.00
	.992	1138.06	.20	1138.10	319.66	247.71	235.29	.00	319.66	9700.00	9955.00	10020.00	10019.66
*	1.085	1139.64	.00	1139.70	678.93	400.48	82.52	.00	.00	.00	9975.00	10030.00	.00
*	1.085	1139.84	.20	1139.90	308.03	393.70	89.29	.00	423.14	9600.00	9975.00	10030.00	10023.14
*	1.189	1144.62	.00	1144.64	692.81	480.58	2.42	.00	.00	.00	9925.00	10030.00	.00
	1.189	1145.65	1.04	1145.72	537.22	323.74	159.26	.00	680.59	9325.00	9925.00	10030.00	10005.59
	1.294	1149.17	.00	1149.20	810.59	444.94	38.06	.00	.00	.00	9940.00	10020.00	.00
	1.294	1150.14	.98	1150.21	409.59	262.78	220.22	.00	409.59	9600.00	9940.00	10020.00	10009.59
*	1.394	1153.61	.00	1153.63	697.38	445.26	37.74	.00	.00	.00	9940.00	10020.00	.00
	1.394	1154.12	.51	1154.21	292.60	322.10	160.90	.00	314.42	9700.00	9940.00	10020.00	10014.42
*	1.489	1157.68	.00	1157.74	467.79	465.78	17.22	.00	.00	.00	9930.00	10050.00	.00

	1.489	1158.51	.83	1158.60	226.80	240.66	242.34	.00	226.80	9800.00	9930.00	10050.00	10026.80

1

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	1.598	1160.79	.00	1160.83	560.79	299.45	181.40	2.15	.00	.00	9975.00	10020.00	.00
*	1.598	1161.39	.60	1161.53	123.90	125.12	347.31	10.57	123.90	9900.00	9975.00	10020.00	10023.90

1

SUMMARY OF ERRORS AND SPECIAL NOTES

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WARNING SECNO=      .063  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .063  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .136  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .136  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .335  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .335  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .438  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .438  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .438  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=      .438  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .438  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .438  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=      .661  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .661  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .992  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.085  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.085  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.189  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.294  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.294  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.394  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.489  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.598  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.598  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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1

FLOODWAY DATA, ATCHISON, TOPEKA AND SANT
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
.000	147.	295.	2.0	1118.4	1118.4	.0
.063	178.	424.	1.4	1118.6	1118.6	.0
.136	315.	2049.	.3	1118.6	1118.6	.0
.231	302.	1714.	.3	1118.6	1118.6	.0
.335	270.	569.	1.0	1118.6	1118.6	.0
.438	93.	87.	5.6	1120.8	1120.8	.0
.545	176.	151.	3.2	1129.1	1129.1	.0
.661	180.	254.	1.9	1132.2	1132.1	.1
.771	180.	226.	2.1	1134.0	1133.9	.1
.892	253.	259.	1.9	1136.6	1136.6	.0
.992	320.	367.	1.3	1138.1	1137.9	.2
1.085	423.	256.	1.9	1139.8	1139.6	.2
1.189	681.	260.	1.9	1145.6	1144.6	1.0
1.294	410.	301.	1.6	1150.2	1149.2	1.0
1.394	314.	223.	2.2	1154.1	1153.6	.5
1.489	227.	217.	2.2	1158.5	1157.7	.8
1.598	124.	200.	2.4	1161.4	1160.8	.6

THIS RUN EXECUTED 19FEB92 13:28:08

13.H20
Latest Version
w/Floodway

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****************************************
 HEC-2 WATER SURFACE PROFILES

 Version  4.6.2;  May 1991
****************************************

T1      WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2      100 - YEAR STORM EVENT      FLOODPLAIN RUN        FILE: 13.H2I
T3      LOWER EL MIRAGE WASH (WASH 13), FROM AGUA FRIA RIVER TO ATCHISON,
T4      TOPEKA AND SANTA FE RAILROAD AT WADDELL RD.
T5      DISCHARGES ARE AS DERIVED FROM THE 24-HOUR STORM HEC1 MODEL.
T6

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2        0        0     .0075       0        0        0      1093      0

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

      1        0        0        0        0        0        0        0        0        0


VARIABLE CODES FOR SUMMARY PRINTOUT

    38       43        1       53       21       22       54       51        4        8
    42        5       26        0      110        0      200

NC    .045     .045     .03      .1       .3
QT       2     1753    1753
ET                      4.1     9845    11020

              CROSS-SECTION AT AGUA FRIA RIVER

              Q = Q AT CP173       (= 1753 CFS).

              MATCH THE FLOODPLAIN TO THAT FROM AGUA FRIA FLOODPLAIN MAPS,
              UPSTREAM TO CROSS-SECTION 0.386

              MATCH THE FLOODWAY TO THAT FROM AGUA FRIA FLOODPLAIN MAPS,
              UPSTREAM TO CROSS-SECTION 0.153

              ENTIRE CROSS-SECTION IS EFFECTIVE FLOW FOR THE NEXT TWO UPSTREAM
              CROSS-SECTIONS DUE TO UPSTREAM INFLOW AT X1= 0.153

X1    0.000       23     9990    10015        0        0        0
GR     1098     9535     1096     9735     1094     9810     1092     9875     1092     9990
GR   1091.7    10000     1092    10015     1092    10015     1094    10390   1094.3    10435
GR     1094    10480   1094.3    10550     1094    10610     1093    10705     1094    10810
GR   1094.3    10825     1094    10850     1092    10900   1090.5    10950   1090.5    11010
GR     1092    11015     1098    11050   1098.5    11075
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                        4.1     9973    10648
X1    0.076      17     9935    10070      400      380      400
GR     1098    9615     1096     9935   1094.2    10000   1094.7    10070     1095    10180
GR     1094   10250   1093.5    10290     1094    10320   1094.3    10465     1094    10525
GR     1092   10565     1091    10585     1092    10615     1096    10660     1096    10685
GR     1098   10715     1099    10745

ET                      4.1     9935    10332

                MARICOPA COUNTY,UNINCORPORATED AREAS ON THE EAST SIDE.
                CITY OF EL MIRAGE CORPORATE LIMITS ON THE WEST SIDE.

X1    0.153      12     9930    10165      410      410      410
GR   1096.3    9900     1096     9930   1094.5     9970   1094.5    10000   1094.5    10130
GR     1095   10165     1094    10200     1092    10265   1091.6    10285     1092    10310
GR     1098   10345   1098.6    10420

NC     .035    .035      .03       .1       .3
ET                      4.1     9848    10156
X1    0.186       8     9870    10150      130      200      170
GR   1096.5    9780     1096     9870   1094.5     9890   1094.5    10000   1094.5    10090
GR     1096   10150     1098    10260     1099    10340

ET                      4.1     9897    10146
X1    0.259      11     9960    10025      350      400      390
GR     1102    9800     1100     9830     1098     9890     1096     9930     1095     9960
GR   1094.8   10000     1095    10025     1096    10040     1098    10165     1100    10200
GR   1100.9   10255

ET                      4.1     9850    10048
X1    0.386       9     9980    10025      670      540      670
GR   1103.8    9630   1102.3     9785   1103.2     9850   1102.4     9900   1103.4     9950
GR     1102    9980   1100.2    10000     1102    10025   1103.8    10050

ET                      4.1     9810    10058
X1    0.485      15     9960    10025      520      520      520
GR   1105.3    9330     1104     9610   1103.5     9620     1104     9635   1104.5     9670
GR     1103    9700   1104.5     9810     1103     9875   1104.5     9940     1104     9960
GR     1102    9980   1101.2    10000     1102    10020     1104    10025   1105.3    10060

ET                      4.1     9930    10080
X1    0.581       8     9965    10040      510      510      510
GR   1105.7    9795     1104     9895     1102     9965   1101.6    10000     1102    10040
GR     1104   10100     1106    10135   1106.4    10160

ET                      4.1     9920    10165
X1    0.696      13     9970    10015      605      605      605
GR   1108.7    9915     1108     9950     1106     9970     1104     9985   1103.6    10000
GR     1104   10010     1106    10015     1108    10020   1108.5    10045     1108    10105
GR   1107.6   10140     1108    10155     1109    10250
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                        4.1     9950    10110
X1    0.791      9     9970    10020      530      460      500
GR   1111.2   9670     1110     9790     1108     9950     1106     9970   1105.4    10000
GR    1106  10020     1108    10030     1110    10170     1111    10200

QT       2   1768     1768
ET                    4.1     9830    10150

          CROSS-SECTION AT EL MIRAGE RD.

          Q = Q AT CP172      (= 1768 CFS).

X1    0.889      8     9950    10050      650      450      520
GR     1114   9605     1113     9740     1112     9890   1111.5     9950     1111    10000
GR   1111.5  10050     1112    10150   1112.8    10270

NC      .07    .10      .04       .1       .3
ET                    4.1     9962    10200
X1    0.985      8     9970    10030      350      770      510
GR   1116.5   9940     1116     9960     1114     9970   1112.2    10000   1113.6    10030
GR     1114  10460     1116    10760     1117    10980

ET                    4.1     9950    10150
X1    1.056     13     9950    10030      370      370      370
GR   1116.7   9665   1116.6     9675   1116.6     9950     1116     9965     1114     9975
GR   1113.3  10000     1114    10015   1114.7    10030     1114    10050   1113.7    10100
GR     1114  10280     1116    10450     1117    10730

QT       2   1771     1771
ET                    4.1     9900    10050

          CROSS-SECTION AT CACTUS RD.

          Q = Q AT CP157      (= 1771 CFS).

X1    1.118      6     9955    10030      280      330      330
GR   1117.7   9580     1116     9955   1114.2    10000     1116    10030     1118    10065
GR     1120  10080

ET                    4.1     9920    10140
X1    1.166     11     9920    10140      320      320      250
GR     1119   9735     1118     9895     1116     9920     1114     9925     1114    10000
GR     1114  10080     1116    10140     1116    10170     1118    10200     1120    10220
GR   1122.3  10235

ET                    4.1     9900    10070
X1    1.251     11     9995    10040      430      420      450
GR     1120   9405   1119.5     9440   1119.7     9475     1118     9960   1118.2     9980
GR     1118   9995   1116.8    10000     1118    10040   1118.4    10090   1118.1    10120
GR     1120  10440
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QT      2      1258      1258
ET                       4.1      9830      10075

                Q = Q AT 2I157      (= 1258 CFS).

X1    1.348      13      9955     10020       510       490       510
GR     1122    9825      1120      9850    1119.6      9865    1120.5      9900      1120      9920
GR     1118    9955      1117     10000      1118     10020      1120     10040    1121.6     10075
GR   1120.8   10120      1122     10265    1122.1     10340

ET                       4.1      9850     10080
X1    1.423      13      9965     10045       400       400       400
GR   1122.3    9780      1122      9865      1120      9875    1118.5      9895      1120      9920
GR     1120    9965    1118.4     10000      1120     10045      1122     10115    1123.9     10135
GR   1122.7   10160      1124     10255    1124.1     10400

ET                       4.1      9880     10091
X1    1.527      10      9880     10085       550       490       550
GR     1128    9510      1126      9690      1124      9810      1122      9880    1120.7     10000
GR     1122   10085      1124     10095    1125.5     10110    1124.7     10140    1125.5     10290

ET                       4.1      9910     10070
X1    1.622      10      9910     10050       500       490       500
GR     1128    9305      1126      9520    1125.8      9700    1125.1      9810    1124.6      9910
GR   1124.3   10000    1124.5     10050      1126     10145    1128.1     10250    1128.7     10385

ET                       4.1      9860     10095

                ENTIRE CROSS-SECTION IS EFFECTIVE DUE TO UPSTREAM INFLOW
                AT X1= 1.817

X1    1.716      16      9860     10095       500       480       500
GR   1130.1    9725      1130      9800    1128.7      9835    1129.6      9860      1128      9875
GR     1128   10000      1128     10080    1129.7     10095    1129.8     10225    1129.6     10330
GR     1130   10445    1130.1     10490      1130     10545    1129.6     10565      1130     10580
GR   1130.5   10610

NC      .10     .10      .045        .1        .3
ET                       4.1      9900     10100
X1    1.817      12      9900     10100       540       500       530
GR   1133.6    9400      1132      9530    1131.6      9660    1130.9      9900    1130.6     10000
GR     1131   10100    1131.3     10155    1130.7     10170    1131.6     10560    1131.4     10760
GR     1132   10885    1132.3     10915

ET                       4.1      9930     10070
X1    1.921       8      9930     10070       550       550       550
GR   1135.4    9630      1134      9655    1132.5      9930      1132     10000      1133     10070
GR   1132.5   10100      1134     10195      1135     10415
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ET                      4.1     9945    10070
X1    2.009       9     9945    10070      460      465      465
GR   1137.5    9370     1136     9800   1134.6     9945     1134     9980   1133.7    10000
GR     1134   10015   1134.5    10070     1136    10280   1136.8    10410

ET                      4.1     9900    10080
X1    2.104       6     9900    10080      500      500      500
GR     1138    9270     1136     9900   1135.5     9970   1135.2    10000     1136    10080
GR     1138   10375

NC      .10     .07     .045       .1       .3
QT        2     845     845
ET                      4.1     9750    10065

              Q = Q AT CP154      (= 845 CFS).

X1    2.208      10     9900    10065      530      570      550
GR     1140    9030     1138     9600   1137.6     9900   1137.3    10000     1138    10065
GR     1140   10175   1141.6    10250     1142    10310   1142.2    10330   1146.2    10450

ET                      4.1     9770    10095

              CITY OF EL MIRAGE CORPORATE LIMITS ON THE EAST SIDE OF DYSART RD
              MARICOPA COUNTY,UNINCORPORATED AREAS ON THE WEST SIDE OF DYSART
              RD.

              A DIVIDED FLOW WILL OCCUR DUE TO OVERTOPPING THE MAIN CHANNEL
              BANK INTO THE LOWER OVERBANK.

X1    2.284      16     9920    10015      270      420      400
GR   1141.3    9275     1140     9310     1139     9770     1140     9900   1142.2     9920
GR   1140.8    9935   1142.2     9975     1142     9995   1140.3    10000     1142    10005
GR   1142.3   10015     1142    10030   1140.3    10050   1140.3    10095     1142    10100
GR     1147   10130

NC      .10     .10     .045       .1       .3
ET                      4.1     9870    10140
X1    2.350      16     9915    10050      300      290      350
GR   1143.5    9140     1142     9555   1141.7     9800     1142     9850     1141     9885
GR     1142    9900   1142.5     9915   1141.8     9935   1142.1     9970   1141.8    10000
GR     1142   10010   1142.5    10050   1142.8    10200   1142.5    10360     1144    10400
GR   1144.2   10410

ET                      4.1     9925    10110
X1    2.469      13     9940    10050      550      650      630
GR   1145.2    9420   1144.3     9670     1144     9755   1143.5     9840     1144     9900
GR   1144.2    9920     1144     9940   1143.2    10000   1143.7    10050     1144    10110
GR     1145   10460   1144.4    10660   1145.8    11210
```

			4.1	9860	10100					
X1	2.571	11	9950	10050	490	380	535			
GR	1147.2	9850	1146	9870	1145.5	9950	1145	10000	1145.5	10050
GR	1146	10290	1146.4	10360	1146	10445	1145.7	10660	1146	10775
GR	1147	10900								

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= .100 CEHV= .300
*SECNO .000

3265 DIVIDED FLOW

CROSS-SECTION AT AGUA FRIA RIVER

Q = Q AT CP173 (= 1753 CFS).

MATCH THE FLOODPLAIN TO THAT FROM AGUA FRIA FLOODPLAIN MAPS,
UPSTREAM TO CROSS-SECTION 0.386

MATCH THE FLOODWAY TO THAT FROM AGUA FRIA FLOODPLAIN MAPS,
UPSTREAM TO CROSS-SECTION 0.153

ENTIRE CROSS-SECTION IS EFFECTIVE FLOW FOR THE NEXT TWO UPSTREAM
CROSS-SECTIONS DUE TO UPSTREAM INFLOW AT X1= 0.153

.000	2.44	1092.94	.00	1093.00	1093.16	.22	.00	.00	1092.00
1753.0	322.3	124.2	1306.5	122.3	27.2	335.4	.0	.0	1092.00
.00	2.64	4.56	3.90	.045	.030	.045	.000	1090.50	9844.49
.007577	0.	0.	0.	0	0	5	.00	490.46	11020.48

*SECNO .076

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.47

.076	3.96	1094.96	.00	.00	1095.07	.12	1.91	.01	1096.00
1753.0	.0	84.3	1668.7	.0	46.8	600.2	5.0	5.1	1094.70
.04	.00	1.80	2.78	.000	.030	.045	.000	1091.00	9972.29
.003519	400.	400.	380.	3	0	0	.00	661.81	10648.38

*SECNO .153

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.59

MARICOPA COUNTY,UNINCORPORATED AREAS ON THE EAST SIDE.
CITY OF EL MIRAGE CORPORATE LIMITS ON THE WEST SIDE.

.153	4.24	1095.84	.00	.00	1095.93	.09	.86	.00	1096.00
1753.0	.0	577.9	1175.1	.0	277.4	456.9	11.5	10.1	1095.00
.09	.00	2.08	2.57	.000	.030	.045	.000	1091.60	9934.17
.001386	410.	410.	410.	4	0	0	.00	398.25	10332.42

CCHV= .100 CEHV= .300
*SECNO .186

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .52

.186	1.62	1096.12	.00	.00	1096.43	.31	.43	.06	1096.00
1753.0	.7	1752.1	.2	1.4	395.0	.4	13.8	11.5	1096.00
.10	.48	4.44	.48	.035	.030	.035	.000	1094.50	9847.50
.005070	130.	170.	200.	2	0	0	.00	309.38	10156.88

*SECNO .259

.259	2.89	1097.69	.00	.00	1098.08	.39	1.63	.02	1095.00
1753.0	346.1	1063.1	343.8	94.6	181.7	122.8	17.4	14.0	1095.00
.12	3.66	5.85	2.80	.035	.030	.035	.000	1094.80	9896.08
.003541	350.	390.	400.	2	0	0	.00	249.91	10146.00

*SECNO .386
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.386	3.52	1103.72	1103.72	.00	1104.19	.47	2.96	.02	1102.00
1753.0	836.8	855.4	60.8	284.9	117.9	20.6	23.5	18.8	1102.00
.16	2.94	7.25	2.96	.035	.030	.035	.000	1100.20	9638.24
.005962	670.	670.	540.	20	11	0	.00	410.66	10048.89

*SECNO .485

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.35

.485	4.03	1105.23	.00	.00	1105.33	.10	1.10	.04	1104.00
1753.0	1039.4	692.7	20.9	658.4	201.5	20.6	31.3	25.6	1104.00
.22	1.58	3.44	1.01	.035	.030	.035	.000	1101.20	9343.36
.001077	520.	520.	520.	4	0	0	.00	714.97	10058.33

*SECNO .581

.581	4.05	1105.65	.00	.00	1105.76	.11	.43	.00	1102.00
1753.0	473.3	918.2	361.5	266.6	289.2	183.4	40.8	31.7	1102.00
.27	1.78	3.17	1.97	.035	.030	.035	.000	1101.60	9797.57
.000679	510.	510.	510.	3	0	0	.00	331.41	10128.98

*SECNO .696

3301 HV CHANGED MORE THAN HVINS

20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.696	5.01	1108.61	1108.61	.00	1109.37	.75	.79	.19	1106.00
1753.0	120.5	1458.9	173.6	41.7	192.6	97.6	48.2	36.0	1106.00
.30	2.89	7.57	1.78	.035	.030	.035	.000	1103.60	9919.30
.003416	605.	605.	605.	20	8	0	.00	294.03	10213.33

*SECNO .791

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.78

.791	4.72	1110.12	.00	.00	1110.31	.19	.88	.06	1106.00
1753.0	455.5	969.5	328.0	242.4	221.0	188.3	53.8	39.9	1106.00
.34	1.88	4.39	1.74	.035	.030	.035	.000	1105.40	9777.98
.001081	530.	500.	460.	2	0	0	.00	395.63	10173.61

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .889
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CROSS-SECTION AT EL MIRAGE RD.

Q = Q AT CP172 (= 1768 CFS).

.889	1.74	1112.74	1112.74	.00	1113.16	.41	1.29	.07	1111.50
1768.0	332.9	939.1	496.0	100.9	149.3	140.6	60.3	45.4	1111.50
.37	3.30	6.29	3.53	.035	.030	.035	.000	1111.00	9778.62
.009459	650.	520.	450.	20	22	0	.00	482.76	10261.38

CCHV= .100 CEHV= .300
*SECNO .985

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.96

.985	3.57	1115.77	.00	.00	1115.85	.08	2.67	.03	1114.00
1768.0	7.6	607.9	1152.4	7.9	166.7	1087.8	73.4	55.1	1113.60
.46	.96	3.65	1.06	.070	.040	.100	.000	1112.20	9961.11
.002472	350.	510.	770.	3	0	0	.00	765.62	10726.73

*SECNO 1.056

1.056	3.36	1116.66	.00	.00	1116.71	.06	.86	.00	1116.60
1768.0	2.7	520.8	1244.5	17.3	177.2	1037.0	84.0	62.5	1114.70
.52	.15	2.94	1.20	.070	.040	.100	.000	1113.30	9668.77
.002176	370.	370.	370.	3	0	0	.00	966.65	10635.42

*SECNO 1.118

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .49

CROSS-SECTION AT CACTUS RD.

Q = Q AT CP157 (= 1771 CFS).

1.118	3.43	1117.63	.00	.00	1118.10	.47	1.26	.12	1116.00
1771.0	510.1	1232.7	28.3	292.0	189.5	23.2	90.4	67.5	1116.00
.54	1.75	6.50	1.22	.070	.040	.100	.000	1114.20	9596.10
.008919	280.	330.	330.	3	0	0	.00	462.37	10058.47

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.166

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.72

1.166	4.37	1118.37	.00	.00	1118.43	.05	.29	.04	1116.00
1771.0	19.5	1698.7	52.8	45.4	897.0	113.1	95.3	70.3	1116.00
.58	.43	1.89	.47	.070	.040	.100	.000	1114.00	9835.35
.000400	320.	250.	320.	3	0	0	.00	368.38	10203.73

*SECNO 1.251
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.251	2.54	1119.34	1119.34	.00	1119.75	.41	.54	.11	1118.00
1771.0	707.0	680.2	383.8	299.9	87.3	219.4	103.7	75.9	1118.00
.61	2.36	7.79	1.75	.070	.040	.100	.000	1116.80	9577.46
.018239	430.	450.	420.	20	14	0	.00	751.52	10328.98

NO 1.348

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.69

Q = Q AT 2I157 (= 1258 CFS).

1.348	4.63	1121.63	.00	.00	1121.76	.14	1.99	.03	1118.00
1258.0	257.5	915.9	84.7	218.9	268.4	142.5	110.8	82.4	1118.00
.66	1.18	3.41	.59	.070	.040	.100	.000	1117.00	9829.63
.001274	510.	510.	490.	6	0	0	.00	390.60	10220.23

*SECNO 1.423

1.423	3.84	1122.24	.00	.00	1122.35	.11	.59	.00	1120.00
1258.0	411.3	784.7	62.0	256.9	243.7	87.5	116.4	85.7	1120.00
.70	1.60	3.22	.71	.070	.040	.100	.000	1118.40	9795.32
.001703	400.	400.	400.	3	0	0	.00	322.27	10117.59

*SECNO 1.527

1.527	2.66	1123.36	.00	.00	1123.49	.14	1.13	.01	1122.00
1258.0	26.6	1228.7	2.6	32.1	411.1	4.6	122.9	89.3	1122.00
.75	.83	2.99	.57	.070	.040	.100	.000	1120.70	9832.56
.002560	550.	550.	490.	2	0	0	.00	259.21	10091.78

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.622

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .43

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

1.622	1.43	1125.73	1125.62	.00	1126.07	.34	2.52	.06	1124.60
1258.0	240.9	955.8	61.3	119.4	181.8	48.0	127.5	93.2	1124.50
.78	2.02	5.26	1.28	.070	.040	.100	.000	1124.30	9710.84
.014123	500.	500.	490.	20	8	0	.00	417.13	10127.97

*SECNO 1.716

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.75

ENTIRE CROSS-SECTION IS EFFECTIVE DUE TO UPSTREAM INFLOW
AT X1= 1.817

1.716	1.66	1129.66	.00	.00	1129.83	.18	3.74	.02	1129.60
1258.0	22.5	1235.4	.1	24.9	364.4	1.4	131.7	97.5	1129.70
.82	.90	3.39	.08	.070	.040	.100	.000	1128.00	9809.27
.004636	500.	500.	480.	4	0	0	.00	335.54	10567.09

CCHV= .100 CEHV= .300
*SECNO 1.817

1.817	1.45	1132.05	.00	.00	1132.11	.05	2.26	.01	1130.90
1258.0	169.1	629.4	459.5	225.7	255.6	572.5	140.3	107.6	1131.00
.91	.75	2.46	.80	.100	.045	.100	.000	1130.60	9525.70
.004010	540.	530.	500.	5	0	0	.00	1364.60	10890.30

*SECNO 1.921

1.921	2.25	1134.25	.00	.00	1134.36	.11	2.24	.02	1132.50
1258.0	262.6	846.8	148.6	275.5	262.5	146.8	151.3	120.0	1133.00
.98	.95	3.23	1.01	.100	.045	.100	.000	1132.00	9650.54
.004129	550.	550.	550.	3	0	0	.00	599.41	10249.95

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.009

2.009	2.52	1136.22	.00	.00	1136.37	.15	2.00	.01	1134.60
1258.0	127.8	929.8	200.4	140.8	258.8	208.2	158.2	126.3	1134.50
1.02	.91	3.59	.96	.100	.045	.100	.000	1133.70	9736.28
.004487	460.	465.	465.	2	0	0	.00	579.84	10316.12

*SECNO 2.104

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.55

2.104	2.50	1137.70	.00	.00	1137.76	.06	1.38	.01	1136.00
1258.0	262.3	872.8	122.8	455.3	375.1	213.2	167.6	135.1	1136.00
1.10	.58	2.33	.58	.100	.045	.100	.000	1135.20	9364.40
.001866	500.	500.	500.	3	0	0	.00	966.40	10330.80

CCHV= .100 CEHV= .300
*SECNO 2.208

WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .54

Q = Q AT CP154 (= 845 CFS).

2.208	1.61	1138.91	.00	.00	1138.96	.05	1.19	.00	1137.60
845.0	335.1	494.9	15.0	447.1	226.8	22.4	178.5	145.9	1138.00
1.19	.75	2.18	.67	.100	.045	.070	.000	1137.30	9342.62
.002859	530.	550.	570.	2	0	0	.00	772.05	10114.67

*SECNO 2.284

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .52

CITY OF EL MIRAGE CORPORATE LIMITS ON THE EAST SIDE OF DYSART RD
MARICOPA COUNTY,UNINCORPORATED AREAS ON THE WEST SIDE OF DYSART
RD.

A DIVIDED FLOW WILL OCCUR DUE TO OVERTOPPING THE MAIN CHANNEL
BANK INTO THE LOWER OVERBANK.

2.284	1.46	1140.46	.00	.00	1140.49	.03	1.53	.00	1142.20
845.0	840.4	.0	4.6	568.5	.1	7.3	182.8	150.8	1142.30
1.25	1.48	.60	.63	.100	.045	.070	.000	1139.00	9297.69
.010578	270.	400.	420.	4	0	0	.00	654.70	10095.46

CCHV= .100 CEHV= .300

*SECNO 2.350

2.350	1.89	1142.89	.00	.00	1142.93	.04	2.43	.00	1142.50
845.0	554.2	255.7	35.1	497.6	111.9	77.6	187.2	156.7	1142.50
1.31	1.11	2.29	.45	.100	.045	.100	.000	1141.00	9307.78
.006155	300.	350.	290.	5	0	0	.00	1062.71	10370.50

*SECNO 2.469

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.60

2.469	1.86	1145.06	.00	.00	1145.09	.03	2.17	.00	1144.00
845.0	274.6	359.7	210.6	383.4	167.5	421.6	198.5	174.2	1143.70
1.44	.72	2.15	.50	.100	.045	.100	.000	1143.20	9460.32
.002413	550.	630.	650.	5	0	0	.00	1456.91	10917.23

*SECNO 2.571

2.571	1.57	1146.57	.00	.00	1146.63	.06	1.53	.01	1145.50
845.0	61.1	363.9	420.0	69.4	133.3	522.1	207.0	186.0	1145.50
1.52	.88	2.73	.80	.100	.045	.100	.000	1145.00	9860.29
.004663	490.	535.	380.	3	0	0	.00	987.54	10847.83

PROFILE FOR STREAM LOWER EL MIRAGE WASH (WA

PLOTTED POINTS (BY PRIORITY) E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA

ELEVATION SECNO	CUMDIS	1091. 1101. 1111. 1121. 1131. 1141. 1151. 1161. 1171. 1181.
.00	0.	I WE M
	50.	I LE M
	100.	I RE M
	150.	I E M
	200.	I WE M
	250.	I RE M
	300.	I EL M
	350.	I EL M
.08	400.	CI WEL M
	450.	CI RELM
	500.	CI RELM
	550.	CI RELM
	600.	CI RELM
	650.	CI REL
	700.	CI REL
	750.	CI REL
	800.	CI REL
.15	850.	CI EL
	900.	C I WE
	950.	C I RE
.19	1000.	C I E
	1050.	C ILEM
	1100.	C ILEM
	1150.	C ILWEM
	1200.	C ILWEM
	1250.	C IL E M.
	1300.	C IL E M.
	1350.	C IL E M
.26	1400.	C IL WE M
	1450.	C I E .M
	1500.	C IL E .M
	1550.	C I E.M
	1600.	C IL E.M
	1650.	C IL WEM
	1700.	C IL E M
	1750.	C IL WEM
	1800.	C IL.EM
	1850.	C IL.WE
	1900.	C I L EM
	1950.	C IL WE
	2000.	C I.L E
.39	2050.	. I LWE
	2100.	C I LWE
	2150.	C I L E
	2200.	C I L E
	2250.	C I L E
	2300.	C I L E
	2350.	C I LE
	2400.	C I LE
	2450.	C I LWE

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     2500.  C        .I L E    .         .         .         .         .         .         .         .         .
     2550.  C        .I L E    .         .         .         .         .         .         .         .         .
 .49 2600.  C        .I  LE    .         .         .         .         .         .         .         .         .
     2650.  C        .I L E    .         .         .         .         .         .         .         .         .
     2700.  C        .I L E    .         .         .         .         .         .         .         .         .
     2750.  C        .I L E    .         .         .         .         .         .         .         .         .
     2800.  C        .I L E    .         .         .         .         .         .         .         .         .
     2850.  C        .I L E    .         .         .         .         .         .         .         .         .
     2900.  C        .IL  E    .         .         .         .         .         .         .         .         .
     2950.  C        .IL  E    .         .         .         .         .         .         .         .         .
     3000.  C        .IL  E    .         .         .         .         .         .         .         .         .
     3050.  C        .IL  E    .         .         .         .         .         .         .         .         .
 .58 3100.  C        .IL  E    .         .         .         .         .         .         .         .         .
     3150.  C        .IL  WE   .         .         .         .         .         .         .         .         .
     3200.  C        .IL   E   .         .         .         .         .         .         .         .         .
     3250.  C        . I   E   .         .         .         .         .         .         .         .         .
     3300.  C        . IL  E   .         .         .         .         .         .         .         .         .
     3350.  C        . IL  WE  .         .         .         .         .         .         .         .         .
     3400.  C        . IL   E  .         .         .         .         .         .         .         .         .
     3450.  C        . I L  E  .         .         .         .         .         .         .         .         .
     3500.  C        . I L  WE .         .         .         .         .         .         .         .         .
     3550.  C        .  IL  WE .         .         .         .         .         .         .         .         .
     3600.  C        .  I L  E .         .         .         .         .         .         .         .         .
     3650.  C        .  I L  WE.         .         .         .         .         .         .         .         .
 .70 3700.  .        .  I  L WE.         .         .         .         .         .         .         .         .
     3750.  C        .  I  L WE.         .         .         .         .         .         .         .         .
     3800.  C        .  I  L WE.         .         .         .         .         .         .         .         .
     3850.  C        .   I L  E.         .         .         .         .         .         .         .         .
     3900.  C        .   I L  E.         .         .         .         .         .         .         .         .
     3950.  C        .   I L  E.         .         .         .         .         .         .         .         .
     4000.  C        .   I L  EM         .         .         .         .         .         .         .         .
     4050.  C        .   I L  WE         .         .         .         .         .         .         .         .
     4100.  C        .    IL  WE         .         .         .         .         .         .         .         .
     4150.  C        .    IL  WE         .         .         .         .         .         .         .         .
 .79 4200.  C        .    IL   EM        .         .         .         .         .         .         .         .
     4250.  C        .    IL   EM        .         .         .         .         .         .         .         .
     4300.  C        .     IL  EM        .         .         .         .         .         .         .         .
     4350.  C        .      I  WE        .         .         .         .         .         .         .         .
     4400.  C        .      IL .E        .         .         .         .         .         .         .         .
     4450.  C        .       I .E        .         .         .         .         .         .         .         .
     4500.  C        .       IL.EM       .         .         .         .         .         .         .         .
     4550.  C        .        I.WE       .         .         .         .         .         .         .         .
     4600.  C        .        IL E       .         .         .         .         .         .         .         .
     4650.  C        .         I E       .         .         .         .         .         .         .         .
 .89 4700.  .        .         .IWE      .         .         .         .         .         .         .         .
     4750.  C        .         .I E      .         .         .         .         .         .         .         .
     4800.  C        .         .I E      .         .         .         .         .         .         .         .
     4850.  C        .         .ILE      .         .         .         .         .         .         .         .
     4900.  C        .         .ILWE     .         .         .         .         .         .         .         .
     4950.  C        .         .IL E     .         .         .         .         .         .         .         .
     5000.  C        .         .IL E     .         .         .         .         .         .         .         .
     5050.  C        .         .IRLWE    .         .         .         .         .         .         .         .
     5100.  C        .         .I L E    .         .         .         .         .         .         .         .
     5150.  C        .         . IL EM   .         .         .         .         .         .         .         .
     5200.  C        .         . IL EM   .         .         .         .         .         .         .         .
 .99 5250.  C        .         . IRLEM   .         .         .         .         .         .         .         .
     5300.  C        .         . IRLEM   .         .         .         .         .         .         .         .
     5350.  C        .         . IRL E   .         .         .         .         .         .         .         .
     5400.  C        .         . I RLE   .         .         .         .         .         .         .         .
     5450.  C        .         . I RLE   .         .         .         .         .         .         .         .
     5500.  C        .         . I RLE   .         .         .         .         .         .         .         .
     5550.  C        .         .  IR E   .         .         .         .         .         .         .         .
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1.06 5600. C     .     . IR E  .     .     .     .     .     .     .     .
     5650. C     .     . IR E  .     .     .     .     .     .     .     .
     5700. C     .     . I RWE .     .     .     .     .     .     .     .
     5750. C     .     . I RLE .     .     .     .     .     .     .     .
     5800. C     .     . I RLE .     .     .     .     .     .     .     .
     5850. C     .     . I RLE .     .     .     .     .     .     .     .
     5900. C     .     . IRLE  .     .     .     .     .     .     .     .
1.12 5950. C     .     . I LWE .     .     .     .     .     .     .     .
     6000. C     .     . I LWE .     .     .     .     .     .     .     .
     6050. C     .     . I LWE .     .     .     .     .     .     .     .
     6100. C     .     . I L E .     .     .     .     .     .     .     .
     6150. C     .     . I L E .     .     .     .     .     .     .     .
1.17 6200. C     .     . I L EM.     .     .     .     .     .     .     .
     6250. C     .     . I L EM.     .     .     .     .     .     .     .
     6300. C     .     . I L EM.     .     .     .     .     .     .     .
     6350. C     .     . I L EM.     .     .     .     .     .     .     .
     6400. C     .     . IL WE.      .     .     .     .     .     .     .
     6450. C     .     . I LWE.      .     .     .     .     .     .     .
     6500. C     .     . I L E.      .     .     .     .     .     .     .
     6550. C     .     . IL E.       .     .     .     .     .     .     .
     6600. C     .     . IL E.       .     .     .     .     .     .     .
1.25 6650. .     .     . I LEM       .     .     .     .     .     .     .
     6700. C     .     . I LEM       .     .     .     .     .     .     .
     6750. C     .     . I LWE       .     .     .     .     .     .     .
     6800. C     .     . I L E       .     .     .     .     .     .     .
     6850. C     .     . I L E       .     .     .     .     .     .     .
     6900. C     .     . I L E       .     .     .     .     .     .     .
     6950. C     .     . I L EM      .     .     .     .     .     .     .
     7000. C     .     . I L WE      .     .     .     .     .     .     .
     7050. C     .     . I L .E      .     .     .     .     .     .     .
     7100. C     .     . I L .E      .     .     .     .     .     .     .
1.35 7150. C     .     .  IL .EM     .     .     .     .     .     .     .
     7200. C     .     .  IL .EM     .     .     .     .     .     .     .
     7250. C     .     .  IL .EM     .     .     .     .     .     .     .
     7300. C     .     .  IL .EM     .     .     .     .     .     .     .
     7350. C     .     .  I L.WE     .     .     .     .     .     .     .
     7400. C     .     .  I L. E     .     .     .     .     .     .     .
     7450. C     .     .   IL. E     .     .     .     .     .     .     .
     7500. C     .     .   IL. E     .     .     .     .     .     .     .
1.42 7550. C     .     .   I L E     .     .     .     .     .     .     .
     7600. C     .     .   I L E     .     .     .     .     .     .     .
     7650. C     .     .   I L E     .     .     .     .     .     .     .
     7700. C     .     .    IL EM    .     .     .     .     .     .     .
     7750. C     .     .    IL EM    .     .     .     .     .     .     .
     7800. C     .     .    IL EM    .     .     .     .     .     .     .
     7850. C     .     .    I.LE M   .     .     .     .     .     .     .
     7900. C     .     .    I.LWEM   .     .     .     .     .     .     .
     7950. C     .     .     IL EM   .     .     .     .     .     .     .
     8000. C     .     .     IL EM   .     .     .     .     .     .     .
     8050. C     .     .     IL E M  .     .     .     .     .     .     .
1.53 8100. C     .     .     I LE M  .     .     .     .     .     .     .
     8150. C     .     .     .ILE M  .     .     .     .     .     .     .
     8200. C     .     .     .ILWE M .     .     .     .     .     .     .
     8250. C     .     .     .IL E M .     .     .     .     .     .     .
     8300. C     .     .     . ILE M .     .     .     .     .     .     .
     8350. C     .     .     . ILE M .     .     .     .     .     .     .
     8400. C     .     .     . ILWE M .    .     .     .     .     .     .
     8450. C     .     .     .  I E M .    .     .     .     .     .     .
     8500. C     .     .     .  ILE M .    .     .     .     .     .     .
     8550. C     .     .     .  ILE M .    .     .     .     .     .     .
1.62 8600. .     .     .     .   IWE M .   .     .     .     .     .     .
     8650. C     .     .     .   ILE M .   .     .     .     .     .     .
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      8700.  C     .     .     .  IE M .     .     .     .     .     .     .
      8750.  C     .     .     .  IWEM .     .     .     .     .     .     .
      8800.  C     .     .     .  ILEM .     .     .     .     .     .     .
      8850.  C     .     .     .   IE M.     .     .     .     .     .     .
      8900.  C     .     .     .   ILEM.     .     .     .     .     .     .
      8950.  C     .     .     .   I EM.     .     .     .     .     .     .
      9000.  C     .     .     .    IWE.     .     .     .     .     .     .
      9050.  C     .     .     .    I E.     .     .     .     .     .     .
 1.72 9100.  C     .     .     .     IEM     .     .     .     .     .     .
      9150.  C     .     .     .     IWE     .     .     .     .     .     .
      9200.  C     .     .     .     ILE     .     .     .     .     .     .
      9250.  C     .     .     .     ILE     .     .     .     .     .     .
      9300.  C     .     .     .     I E     .     .     .     .     .     .
      9350.  C     .     .     .      IEM    .     .     .     .     .     .
      9400.  C     .     .     .      ILE    .     .     .     .     .     .
      9450.  C     .     .     .      ILE    .     .     .     .     .     .
      9500.  C     .     .     .      ILE    .     .     .     .     .     .
      9550.  C     .     .     .       IE    .     .     .     .     .     .
 1.82 9600.  C     .     .     .       IRE   .     .     .     .     .     .
      9650.  C     .     .     .       ILE   .     .     .     .     .     .
      9700.  C     .     .     .       ILE   .     .     .     .     .     .
      9750.  C     .     .     .       ILEM  .     .     .     .     .     .
      9800.  C     .     .     .       .IEM  .     .     .     .     .     .
      9850.  C     .     .     .       .I E  .     .     .     .     .     .
      9900.  C     .     .     .       .IRE  .     .     .     .     .     .
      9950.  C     .     .     .       .IREM .     .     .     .     .     .
     10000.  C     .     .     .       .ILEM .     .     .     .     .     .
     10050.  C     .     .     .       .ILEM .     .     .     .     .     .
     10100.  C     .     .     .       .IL E .     .     .     .     .     .
 1.92 10150. C     .     .     .       . IREM .     .     .     .     .     .
     10200.  C     .     .     .       . IREM .     .     .     .     .     .
     10250.  C     .     .     .       . IREM .     .     .     .     .     .
     10300.  C     .     .     .       . ILWE .     .     .     .     .     .
     10350.  C     .     .     .       . IL E .     .     .     .     .     .
     10400.  C     .     .     .       . IL E .     .     .     .     .     .
     10450.  C     .     .     .       .  I EM .     .     .     .     .     .
     10500.  C     .     .     .       .  ILEM .     .     .     .     .     .
     10550.  C     .     .     .       .  ILWE .     .     .     .     .     .
     10600.  C     .     .     .       .  IL E .     .     .     .     .     .
 2.01 10650. C     .     .     .       .  IL E .     .     .     .     .     .
     10700.  C     .     .     .       .  IL E .     .     .     .     .     .
     10750.  C     .     .     .       .  IL EM .     .     .     .     .     .
     10800.  C     .     .     .       .   ILEM .     .     .     .     .     .
     10850.  C     .     .     .       .   ILEM .     .     .     .     .     .
     10900.  C     .     .     .       .   ILWE .     .     .     .     .     .
     10950.  C     .     .     .       .   IL E .     .     .     .     .     .
     11000.  C     .     .     .       .   IL E .     .     .     .     .     .
     11050.  C     .     .     .       .   IL E .     .     .     .     .     .
     11100.  C     .     .     .       .    I E .     .     .     .     .     .
 2.10 11150. C     .     .     .       .    ILEM .     .     .     .     .     .
     11200.  C     .     .     .       .    ILEM .     .     .     .     .     .
     11250.  C     .     .     .       .    ILEM .     .     .     .     .     .
     11300.  C     .     .     .       .    IL E .     .     .     .     .     .
     11350.  C     .     .     .       .    IL E .     .     .     .     .     .
     11400.  C     .     .     .       .     I E .     .     .     .     .     .
     11450.  C     .     .     .       .     IREM.     .     .     .     .     .
     11500.  C     .     .     .       .     ILEM.     .     .     .     .     .
     11550.  C     .     .     .       .     ILEM.     .     .     .     .     .
     11600.  C     .     .     .       .     ILEM.     .     .     .     .     .
     11650.  C     .     .     .       .      IEM.     .     .     .     .     .
 2.21 11700. C     .     .     .       .      IE M     .     .     .     .     .
     11750.  C     .     .     .       .      ILEM     .     .     .     .     .
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      11800.  C     .     .     .     .     ILEM  .     .     .     .     .
      11850.  C     .     .     .     .     I EM  .     .     .     .     .
      11900.  C     .     .     .     .     IER   .     .     .     .     .
      11950.  C     .     .     .     .     IEL   .     .     .     .     .
      12000.  C     .     .     .     .     I EL  .     .     .     .     .
      12050.  C     .     .     .     .     I EL  .     .     .     .     .
 2.28 12100.  C     .     .     .     .     IEML  .     .     .     .     .
      12150.  C     .     .     .     .     IEML  .     .     .     .     .
      12200.  C     .     .     .     .     I.EL  .     .     .     .     .
      12250.  C     .     .     .     .     I.EL  .     .     .     .     .
      12300.  C     .     .     .     .      IEL  .     .     .     .     .
      12350.  C     .     .     .     .      I E  .     .     .     .     .
      12400.  C     .     .     .     .      I EM .     .     .     .     .
 2.35 12450.  C     .     .     .     .     .IEM  .     .     .     .     .
      12500.  C     .     .     .     .     .ILE  .     .     .     .     .
      12550.  C     .     .     .     .     .ILE  .     .     .     .     .
      12600.  C     .     .     .     .     .ILE  .     .     .     .     .
      12650.  C     .     .     .     .     .ILEM .     .     .     .     .
      12700.  C     .     .     .     .     .IREM .     .     .     .     .
      12750.  C     .     .     .     .     . IEM .     .     .     .     .
      12800.  C     .     .     .     .     . ILE .     .     .     .     .
      12850.  C     .     .     .     .     . ILE .     .     .     .     .
      12900.  C     .     .     .     .     . ILE .     .     .     .     .
      12950.  C     .     .     .     .     . ILE .     .     .     .     .
      13000.  C     .     .     .     .     . ILE .     .     .     .     .
 2.47 13050.  C     .     .     .     .     .  ILE .     .     .     .     .
      13100.  C     .     .     .     .     .  ILE .     .     .     .     .
      13150.  C     .     .     .     .     .  ILE .     .     .     .     .
      13200.  C     .     .     .     .     .  ILE .     .     .     .     .
      13250.  C     .     .     .     .     .  ILE .     .     .     .     .
      13300.  C     .     .     .     .     .   IEM .     .     .     .     .
      13350.  C     .     .     .     .     .   IEM .     .     .     .     .
      13400.  C     .     .     .     .     .   I E .     .     .     .     .
      13450.  C     .     .     .     .     .   ILE .     .     .     .     .
      13500.  C     .     .     .     .     .   ILE .     .     .     .     .
      13550.  C     .     .     .     .     .   ILE .     .     .     .     .
 2.57 13600.  C     .     .     .     .     .    IEM .     .     .     .     .
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     WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2   100 - YEAR STORM EVENT      FLOODWAY RUN        FILE: 13.H2I
T3   LOWER EL MIRAGE WASH (WASH 13), FROM AGUA FRIA RIVER TO ATCHISON,
T4   TOPEKA AND SANTA FE RAILROAD AT WADDELL RD.
T5   DISCHARGES ARE AS DERIVED FROM THE 24-HOUR STORM HEC1 MODEL.
T6

J1  ICHECK   INQ     NINV    IDIR    STRT    METRIC  HVINS   Q       WSEL    FQ

              3                                                    1092.94

J2  NPROF    IPLOT   PRFVS   XSECV   XSECH   FN      ALLDC   IBW     CHNIM   ITRACE

     14              -1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= .100 CEHV= .300
*SECNO .000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9845.0 11020.0 TYPE= 1 TARGET= 1175.000

CROSS-SECTION AT AGUA FRIA RIVER

Q = Q AT CP173 (= 1753 CFS).

MATCH THE FLOODPLAIN TO THAT FROM AGUA FRIA FLOODPLAIN MAPS,
UPSTREAM TO CROSS-SECTION 0.386

MATCH THE FLOODWAY TO THAT FROM AGUA FRIA FLOODPLAIN MAPS,
UPSTREAM TO CROSS-SECTION 0.153

ENTIRE CROSS-SECTION IS EFFECTIVE FLOW FOR THE NEXT TWO UPSTREAM
CROSS-SECTIONS DUE TO UPSTREAM INFLOW AT X1= 0.153

.000	2.44	1092.94	.00	1092.94	1093.16	.22	.00	.00	1092.00
1753.0	322.8	124.2	1306.0	122.4	27.2	335.8	.0	.0	1092.00
.00	2.64	4.56	3.89	.045	.030	.045	.000	1090.50	9845.00
.007550	0.	0.	0.	0	0	0	.00	489.74	11020.00

*SECNO .076

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.46

3470 ENCROACHMENT STATIONS= 9973.0 10648.0 TYPE= 1 TARGET= 675.000

.076	3.96	1094.96	.00	1094.96	1095.07	.12	1.91	.01	100000.00
1753.0	.0	84.3	1668.7	.0	46.7	599.3	5.0	5.1	1094.70
.04	.00	1.81	2.78	.000	.030	.045	.000	1091.00	9973.00
.003526	400.	400.	380.	3	0	0	.00	660.08	10648.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .153

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.60

3470 ENCROACHMENT STATIONS= 9935.0 10332.0 TYPE= 1 TARGET= 397.000

MARICOPA COUNTY,UNINCORPORATED AREAS ON THE EAST SIDE.
CITY OF EL MIRAGE CORPORATE LIMITS ON THE WEST SIDE.

.153	4.24	1095.84	.00	1095.84	1095.93	.09	.86	.00	100000.00
1753.0	.0	578.4	1174.5	.0	277.3	456.9	11.5	10.1	1095.00
.09	.00	2.09	2.57	.000	.030	.045	.000	1091.60	9935.00
.001383	410.	410.	410.	4	0	0	.00	397.00	10332.00

CCHV= .100 CEHV= .300
*SECNO .186

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .52

3470 ENCROACHMENT STATIONS= 9848.0 10156.0 TYPE= 1 TARGET= 308.000

.186	1.62	1096.12	.00	1096.12	1096.43	.31	.43	.06	1096.00
1753.0	.7	1752.1	.2	1.4	394.7	.4	13.8	11.5	1096.00
.10	.48	4.44	.51	.035	.030	.035	.000	1094.50	9848.00
.005082	130.	170.	200.	2	0	0	.00	308.00	10156.00

*SECNO .259

3470 ENCROACHMENT STATIONS= 9897.0 10146.0 TYPE= 1 TARGET= 249.000

.259	2.89	1097.69	.00	1097.69	1098.08	.39	1.63	.02	1095.00
1753.0	346.9	1062.6	343.5	94.6	181.7	122.8	17.4	13.9	1095.00
.12	3.67	5.85	2.80	.035	.030	.035	.000	1094.80	9897.00
.003539	350.	390.	400.	2	0	0	.00	248.96	10145.96

*SECNO .386
3280 CROSS SECTION .39 EXTENDED .20 FEET

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9850.0 10048.0 TYPE= 1 TARGET= 198.000

.386	3.80	1104.00	1104.00	1103.72	1104.71	.71	3.07	.10	1102.00
1753.0	591.2	1060.1	101.8	154.2	130.6	27.0	22.6	17.2	1102.00
.15	3.83	8.12	3.77	.035	.030	.035	.000	1100.20	9850.00
.006518	670.	670.	540.	20	11	0	.00	198.00	10048.00

*SECNO .485
3280 CROSS SECTION .49 EXTENDED .52 FEET

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.31

3470 ENCROACHMENT STATIONS= 9810.0 10058.0 TYPE= 1 TARGET= 248.000

.485	4.62	1105.82	.00	1105.23	1106.00	.18	1.24	.05	1104.00
1753.0	705.7	981.3	66.0	300.2	239.2	39.8	27.9	19.8	1104.00
.19	2.35	4.10	1.66	.035	.030	.035	.000	1101.20	9810.00
.001221	520.	520.	520.	4	0	0	.00	248.00	10058.00

*SECNO .581

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.44

3470 ENCROACHMENT STATIONS= 9930.0 10080.0 TYPE= 1 TARGET= 150.000

.581	4.69	1106.29	.00	1105.65	1106.42	.14	.42	.00	1102.00
1753.0	313.3	1103.4	336.3	132.6	336.6	144.8	34.9	22.2	1102.00
.24	2.36	3.28	2.32	.035	.030	.035	.000	1101.60	9930.00
.000592	510.	510.	510.	3	0	0	.00	150.00	10080.00

*SECNO .696

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9920.0 10165.0 TYPE= 1 TARGET= 245.000

.696	4.96	1108.56	1108.56	1108.61	1109.38	.82	.73	.20	1106.00
1753.0	117.3	1487.2	148.5	39.3	190.4	78.0	41.3	24.9	1106.00
.26	2.99	7.81	1.91	.035	.030	.035	.000	1103.60	9921.75
.003689	605.	605.	605.	20	8	0	.00	243.25	10165.00

*SECNO .791

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.61

3470 ENCROACHMENT STATIONS= 9950.0 10110.0 TYPE= 1 TARGET= 160.000

.791	4.81	1110.21	.00	1110.12	1110.51	.30	1.08	.05	1106.00
1753.0	207.5	1147.8	397.7	64.1	225.2	162.7	45.6	27.1	1106.00
.30	3.24	5.10	2.45	.035	.030	.035	.000	1105.40	9950.00
.001424	530.	500.	460.	2	0	0	.00	160.00	10110.00

*SECNO .889
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9830.0 10150.0 TYPE= 1 TARGET= 320.000

CROSS-SECTION AT EL MIRAGE RD.

Q = Q AT CP172 (= 1768 CFS).

.889	1.73	1112.73	1112.73	1112.74	1113.24	.51	1.61	.06	1111.50
1768.0	349.2	992.5	426.3	90.8	148.2	98.2	50.3	30.0	1111.50
.32	3.85	6.70	4.34	.035	.030	.035	.000	1111.00	9830.00
.010823	650.	520.	450.	20	22	0	.00	320.00	10150.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO .985

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.76

3470 ENCROACHMENT STATIONS= 9962.0 10200.0 TYPE= 1 TARGET= 238.000

.985	4.15	1116.35	.00	1115.77	1116.58	.23	3.31	.03	1114.00
1768.0	19.4	988.2	760.5	12.4	200.8	453.5	57.7	33.9	1113.60
.37	1.57	4.92	1.68	.070	.040	.100	.000	1112.20	9962.00
.003511	350.	510.	770.	3	0	0	.00	238.00	10200.00

*SECNO 1.056
3280 CROSS SECTION 1.06 EXTENDED .54 FEET

3470 ENCROACHMENT STATIONS= 9950.0 10150.0 TYPE= 1 TARGET= 200.000

1.056	4.24	1117.54	.00	1116.66	1117.70	.16	1.12	.01	1116.60
1768.0	.0	991.2	776.8	.0	247.7	438.5	63.4	35.7	1114.70
.40	.00	4.00	1.77	.000	.040	.100	.000	1113.30	9950.00
.002624	370.	370.	370.	3	0	0	.00	200.00	10150.00

*SECNO 1.118

3470 ENCROACHMENT STATIONS= 9900.0 10050.0 TYPE= 1 TARGET= 150.000

CROSS-SECTION AT CACTUS RD.

Q = Q AT CP157 (= 1771 CFS).

1.118	4.27	1118.47	.00	1117.63	1118.86	.40	1.09	.07	1116.00
1771.0	313.0	1403.0	55.0	128.8	252.5	37.9	67.5	37.0	1116.00
.42	2.43	5.56	1.45	.070	.040	.100	.000	1114.20	9900.00
.004441	280.	330.	330.	2	0	0	.00	150.00	10050.00

*SECNO 1.166

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.03

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=     9920.0   10140.0  TYPE=      1  TARGET=      220.000
   1.166      5.03   1119.03       .00   1118.37   1119.08       .04       .18       .04   1116.00
  1771.0        .0    1771.0        .0        .0    1042.0        .0      71.9      38.2 100000.00
     .46       .00      1.70       .00      .000      .040      .000      .000   1114.00   9920.00
 .000273      320.      250.      320.         2         0         0       .00    220.00  10140.00


*SECNO 1.251

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9900.0   10070.0  TYPE=      1  TARGET=      170.000
   1.251      2.93   1119.73   1119.73   1119.34   1120.60       .87       .39       .25   1118.00
  1771.0     648.2     985.0     137.8     154.8     105.0      48.4      78.8      40.1   1118.00
     .48      4.19      9.38      2.85      .070      .040      .100      .000   1116.80   9900.00
 020714      430.      450.      420.        20        14         0       .00    170.00  10070.00


*SECNO 1.348

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.53


3470 ENCROACHMENT STATIONS=     9830.0   10075.0  TYPE=      1  TARGET=      245.000

             Q = Q AT 2I157       (= 1258 CFS).

   1.348      5.08   1122.08       .00   1121.63   1122.18       .10      1.50       .08   1118.00
  1258.0     297.9     881.8      78.3     275.1     297.6     106.3      84.5      42.5   1118.00
     .54      1.08      2.96       .74      .070      .040      .100      .000   1117.00   9830.00
 .000837      510.      510.      490.         6         0         0       .00    245.00  10075.00


*SECNO 1.423
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=     9850.0   10080.0  TYPE=      1  TARGET=      230.000
   1.423      4.09   1122.49       .00   1122.24   1122.59       .10       .41       .00   1120.00
  1258.0     420.2     780.2      57.6     280.7     263.9      69.9      90.5      44.7   1120.00
     .59      1.50      2.96       .82      .070      .040      .100      .000   1118.40   9850.00
 .001292      400.      400.      400.         3         0         0       .00    230.00  10080.00


*SECNO 1.527

3470 ENCROACHMENT STATIONS=     9880.0   10091.0  TYPE=      1  TARGET=      211.000
   1.527      2.72   1123.42       .00   1123.36   1123.55       .14       .95       .01   1122.00
  1258.0        .0    1255.0       3.0        .0     423.0       4.9      97.0      47.5   1122.00
     .64       .00      2.97       .62      .000      .040      .100      .000   1120.70   9880.00
 .002450      550.      550.      490.         2         0         0       .00    211.00  10091.00


*SECNO 1.622

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9910.0   10070.0  TYPE=      1  TARGET=      160.000
   1.622      1.44   1125.74   1125.74   1125.73   1126.39       .65      2.76       .15   1124.60
  1258.0        .0    1208.8      49.2        .0     183.4      21.7     100.6      49.6   1124.50
     .66       .00      6.59      2.27      .000      .040      .100      .000   1124.30   9910.00
 .022199      500.      500.      490.        20        11         0       .00    160.00  10070.00


*SECNO 1.716

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.55


3470 ENCROACHMENT STATIONS=     9860.0   10095.0  TYPE=      1  TARGET=      235.000

             ENTIRE CROSS-SECTION IS EFFECTIVE DUE TO UPSTREAM INFLOW
             AT X1= 1.817
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  1.716      1.82   1129.82       .00   1129.66   1129.97       .15      3.53       .05   1129.60
 1258.0        .0    1258.0        .0        .0     403.8        .0     104.1      51.9 100000.00
    .70       .00      3.12       .00      .000      .040      .000      .000   1128.00   9860.00
.003427      500.      500.      480.         7         0         0       .00    235.00  10095.00

CCHV=     .100 CEHV=     .300
*SECNO 1.817
3280 CROSS SECTION      1.82 EXTENDED       .08 FEET

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .67

3470 ENCROACHMENT STATIONS=     9900.0   10100.0  TYPE=      1  TARGET=      200.000
  1.817      1.78   1132.38       .00   1132.05   1132.62       .24      2.62       .03   1130.90
 1258.0        .0    1258.0        .0        .0     320.1        .0     108.5      54.5 100000.00
    .74       .00      3.93       .00      .000      .045      .000      .000   1130.60   9900.00
.007710      540.      530.      500.         5         0         0       .00    200.00  10100.00

*SECNO 1.921

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.58

3470 ENCROACHMENT STATIONS=     9930.0   10070.0  TYPE=      1  TARGET=      140.000
  1.921      3.00   1135.00       .00   1134.25   1135.18       .18      2.56       .01   1132.50
 1258.0        .0    1258.0        .0        .0     367.1        .0     112.8      56.7 100000.00
    .79       .00      3.43       .00      .000      .045      .000      .000   1132.00   9930.00
.003106      550.      550.      550.         3         0         0       .00    140.00  10070.00

*SECNO 2.009

3470 ENCROACHMENT STATIONS=     9945.0   10070.0  TYPE=      1  TARGET=      125.000
  2.009      2.97   1136.67       .00   1136.22   1136.92       .25      1.72       .02   1134.60
 1258.0        .0    1258.0        .0        .0     314.7        .0     116.5      58.1 100000.00
    .82       .00      4.00       .00      .000      .045      .000      .000   1133.70   9945.00
.004474      460.      465.      465.         3         0         0       .00    125.00  10070.00

*SECNO 2.104
3280 CROSS SECTION      2.10 EXTENDED       .22 FEET

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.53
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=     9900.0   10080.0  TYPE=      1  TARGET=      180.000
   2.104      3.02   1138.22       .00   1137.70   1138.33       .11      1.40       .01   1136.00
  1258.0        .0    1258.0        .0        .0     467.8        .0     121.0      59.8 100000.00
     .87       .00      2.69       .00      .000      .045      .000      .000   1135.20   9900.00
 .001918      500.      500.      500.         2         0         0       .00    180.00  10080.00


CCHV=     .100 CEHV=     .300
*SECNO 2.208

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .68


3470 ENCROACHMENT STATIONS=     9750.0   10065.0  TYPE=      1  TARGET=      315.000

             Q = Q AT CP154       (= 845 CFS).

   2.208      2.03   1139.33       .00   1138.91   1139.38       .05      1.04       .01   1137.60
   845.0     217.1     627.9        .0     244.2     296.8        .0     127.3      62.9 100000.00
     .96       .89      2.12       .00      .100      .045      .000      .000   1137.30   9750.00
 .001896      530.      550.      570.         3         0         0       .00    315.00  10065.00


*SECNO 2.284

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .20


3470 ENCROACHMENT STATIONS=     9770.0   10095.0  TYPE=      1  TARGET=      325.000

             CITY OF EL MIRAGE CORPORATE LIMITS ON THE EAST SIDE OF DYSART RD
             MARICOPA COUNTY,UNINCORPORATED AREAS ON THE WEST SIDE OF DYSART
             RD.

             A DIVIDED FLOW WILL OCCUR DUE TO OVERTOPPING THE MAIN CHANNEL
             BANK INTO THE LOWER OVERBANK.

   2.284      1.92   1140.92   1140.62   1140.46   1141.15       .23      1.72       .05   1142.20
   845.0     745.8       3.0      96.2     188.1       1.4      30.0     130.1      64.9   1142.30
     .98      3.96      2.14      3.20      .100      .045      .070      .000   1139.00   9770.00
 .046544      270.      400.      420.         6        15         0       .00    198.88  10095.00
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO 2.350

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.71

3470 ENCROACHMENT STATIONS= 9870.0 10140.0 TYPE= 1 TARGET= 270.000

2.350	2.74	1143.74	.00	1142.89	1143.83	.09	2.66	.01	1142.50
845.0	130.6	616.2	98.2	94.1	226.9	104.0	132.5	66.5	1142.50
1.02	1.39	2.72	.94	.100	.045	.100	.000	1141.00	9870.00
.003385	300.	350.	290.	6	0	0	.00	270.00	10140.00

*SECNO 2.469

3470 ENCROACHMENT STATIONS= 9925.0 10110.0 TYPE= 1 TARGET= 185.000

2.469	2.47	1145.67	.00	1145.06	1145.79	.11	1.95	.01	1144.00
845.0	24.5	692.8	127.7	24.0	235.4	109.3	138.2	69.8	1143.70
1.08	1.02	2.94	1.17	.100	.045	.100	.000	1143.20	9925.00
.002881	550.	630.	650.	6	0	0	.00	185.00	10110.00

*SECNO 2.571
3280 CROSS SECTION 2.57 EXTENDED .25 FEET

3470 ENCROACHMENT STATIONS= 9860.0 10100.0 TYPE= 1 TARGET= 240.000

2.571	2.25	1147.25	.00	1146.57	1147.36	.11	1.57	.00	1145.50
845.0	141.8	602.2	101.0	129.7	200.2	85.0	142.5	72.2	1145.50
1.14	1.09	3.01	1.19	.100	.045	.100	.000	1145.00	9860.00
.003290	490.	535.	380.	2	0	0	.00	240.00	10100.00

THIS RUN EXECUTED 19FEB92 13:31:17

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HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LOWER EL MIRAGE WASH (WA

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	.000	1753.00	1092.94	9844.49	9990.00	10015.00	11020.48	.00	490.46	2.44	1090.50	75.77	4.56
	.000	1753.00	1092.94	9845.00	9990.00	10015.00	11020.00	.00	489.74	2.44	1090.50	75.50	4.56
*	.076	1753.00	1094.96	9972.29	9935.00	10070.00	10648.38	2.02	661.81	3.96	1091.00	35.19	1.80
*	.076	1753.00	1094.96	9973.00	9935.00	10070.00	10648.00	2.02	660.08	3.96	1091.00	35.26	1.81
	.153	1753.00	1095.84	9934.17	9930.00	10165.00	10332.42	.89	398.25	4.24	1091.60	13.86	2.08
*	.153	1753.00	1095.84	9935.00	9930.00	10165.00	10332.00	.89	397.00	4.24	1091.60	13.83	2.09
*	.186	1753.00	1096.12	9847.50	9870.00	10150.00	10156.88	.28	309.38	1.62	1094.50	50.70	4.44
*	.186	1753.00	1096.12	9848.00	9870.00	10150.00	10156.00	.28	308.00	1.62	1094.50	50.82	4.44
	.259	1753.00	1097.69	9896.08	9960.00	10025.00	10146.00	1.57	249.91	2.89	1094.80	35.41	5.85
	.259	1753.00	1097.69	9897.00	9960.00	10025.00	10145.96	1.57	248.96	2.89	1094.80	35.39	5.85
*	.386	1753.00	1103.72	9638.24	9980.00	10025.00	10048.89	6.03	410.66	3.52	1100.20	59.62	7.25
*	.386	1753.00	1104.00	9850.00	9980.00	10025.00	10048.00	6.31	198.00	3.80	1100.20	65.18	8.12
*	.485	1753.00	1105.23	9343.36	9960.00	10025.00	10058.33	1.51	714.97	4.03	1101.20	10.77	3.44
*	.485	1753.00	1105.82	9810.00	9960.00	10025.00	10058.00	1.82	248.00	4.62	1101.20	12.21	4.10
	.581	1753.00	1105.65	9797.57	9965.00	10040.00	10128.98	.42	331.41	4.05	1101.60	6.79	3.17
*	.581	1753.00	1106.29	9930.00	9965.00	10040.00	10080.00	.47	150.00	4.69	1101.60	5.92	3.28
*	.696	1753.00	1108.61	9919.30	9970.00	10015.00	10213.33	2.96	294.03	5.01	1103.60	34.16	7.57
*	.696	1753.00	1108.56	9921.75	9970.00	10015.00	10165.00	2.28	243.25	4.96	1103.60	36.89	7.81
*	.791	1753.00	1110.12	9777.98	9970.00	10020.00	10173.61	1.51	395.63	4.72	1105.40	10.81	4.39
*	.791	1753.00	1110.21	9950.00	9970.00	10020.00	10110.00	1.64	160.00	4.81	1105.40	14.24	5.10
*	.889	1768.00	1112.74	9778.62	9950.00	10050.00	10261.38	2.62	482.76	1.74	1111.00	94.59	6.29
	.889	1768.00	1112.73	9830.00	9950.00	10050.00	10150.00	2.53	320.00	1.73	1111.00	108.23	6.70

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
*	.985	1768.00	1115.77	9961.11	9970.00	10030.00	10726.73	3.03	765.62	3.57	1112.20	24.72	3.65
*	.985	1768.00	1116.35	9962.00	9970.00	10030.00	10200.00	3.61	238.00	4.15	1112.20	35.11	4.92
	1.056	1768.00	1116.66	9668.77	9950.00	10030.00	10635.42	.89	966.65	3.36	1113.30	21.76	2.94
	1.056	1768.00	1117.54	9950.00	9950.00	10030.00	10150.00	1.19	200.00	4.24	1113.30	26.24	4.00
*	1.118	1771.00	1117.63	9596.10	9955.00	10030.00	10058.47	.97	462.37	3.43	1114.20	89.19	6.50
	1.118	1771.00	1118.47	9900.00	9955.00	10030.00	10050.00	.93	150.00	4.27	1114.20	44.41	5.56
*	1.166	1771.00	1118.37	9835.35	9920.00	10140.00	10203.73	.74	368.38	4.37	1114.00	4.00	1.89
*	1.166	1771.00	1119.03	9920.00	9920.00	10140.00	10140.00	.57	220.00	5.03	1114.00	2.73	1.70
*	1.251	1771.00	1119.34	9577.46	9995.00	10040.00	10328.98	.97	751.52	2.54	1116.80	182.39	7.79
*	1.251	1771.00	1119.73	9900.00	9995.00	10040.00	10070.00	.70	170.00	2.93	1116.80	207.14	9.38
*	1.348	1258.00	1121.63	9829.63	9955.00	10020.00	10220.23	2.29	390.60	4.63	1117.00	12.74	3.41
*	1.348	1258.00	1122.08	9830.00	9955.00	10020.00	10075.00	2.35	245.00	5.08	1117.00	8.37	2.96
	1.423	1258.00	1122.24	9795.32	9965.00	10045.00	10117.59	.61	322.27	3.84	1118.40	17.03	3.22
	1.423	1258.00	1122.49	9850.00	9965.00	10045.00	10080.00	.42	230.00	4.09	1118.40	12.92	2.96
	1.527	1258.00	1123.36	9832.56	9880.00	10085.00	10091.78	1.12	259.21	2.66	1120.70	25.60	2.99
	1.527	1258.00	1123.42	9880.00	9880.00	10085.00	10091.00	.92	211.00	2.72	1120.70	24.50	2.97
	1.622	1258.00	1125.73	9710.84	9910.00	10050.00	10127.97	2.37	417.13	1.43	1124.30	141.23	5.26
*	1.622	1258.00	1125.74	9910.00	9910.00	10050.00	10070.00	2.33	160.00	1.44	1124.30	221.99	6.59
*	1.716	1258.00	1129.66	9809.27	9860.00	10095.00	10567.09	3.92	335.54	1.66	1128.00	46.36	3.39
*	1.716	1258.00	1129.82	9860.00	9860.00	10095.00	10095.00	4.08	235.00	1.82	1128.00	34.27	3.12
	1.817	1258.00	1132.05	9525.70	9900.00	10100.00	10890.30	2.40	1364.60	1.45	1130.60	40.10	2.46
*	1.817	1258.00	1132.38	9900.00	9900.00	10100.00	10100.00	2.55	200.00	1.78	1130.60	77.10	3.93
	1.921	1258.00	1134.25	9650.54	9930.00	10070.00	10249.95	2.19	599.41	2.25	1132.00	41.29	3.23
*	1.921	1258.00	1135.00	9930.00	9930.00	10070.00	10070.00	2.62	140.00	3.00	1132.00	31.06	3.43
	2.009	1258.00	1136.22	9736.28	9945.00	10070.00	10316.12	1.97	579.84	2.52	1133.70	44.87	3.59
	2.009	1258.00	1136.67	9945.00	9945.00	10070.00	10070.00	1.67	125.00	2.97	1133.70	44.74	4.00
*	2.104	1258.00	1137.70	9364.40	9900.00	10080.00	10330.80	1.48	966.40	2.50	1135.20	18.66	2.33
*	2.104	1258.00	1138.22	9900.00	9900.00	10080.00	10080.00	1.55	180.00	3.02	1135.20	19.18	2.69
*	2.208	845.00	1138.91	9342.62	9900.00	10065.00	10114.67	1.21	772.05	1.61	1137.30	28.59	2.18
*	2.208	845.00	1139.33	9750.00	9900.00	10065.00	10065.00	1.11	315.00	2.03	1137.30	18.96	2.12
*	2.284	845.00	1140.46	9297.69	9920.00	10015.00	10095.46	1.55	654.70	1.46	1139.00	105.78	.60
*	2.284	845.00	1140.92	9770.00	9920.00	10015.00	10095.00	1.59	198.88	1.92	1139.00	465.44	2.14
	2.350	845.00	1142.89	9307.78	9915.00	10050.00	10370.50	2.43	1062.71	1.89	1141.00	61.55	2.29
*	2.350	845.00	1143.74	9870.00	9915.00	10050.00	10140.00	2.82	270.00	2.74	1141.00	33.85	2.72

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
*	2.469	845.00	1145.06	9460.32	9940.00	10050.00	10917.23	2.17	1456.91	1.86	1143.20	24.13	2.15
	2.469	845.00	1145.67	9925.00	9940.00	10050.00	10110.00	1.93	185.00	2.47	1143.20	28.81	2.94
	2.571	845.00	1146.57	9860.29	9950.00	10050.00	10847.83	1.51	987.54	1.57	1145.00	46.63	2.73
	2.571	845.00	1147.25	9860.00	9950.00	10050.00	10100.00	1.58	240.00	2.25	1145.00	32.90	3.01

R EL MIRAGE WASH (WA

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	.000	1092.94	-.06	1093.16	490.46	322.34	124.17	1306.49	.00	.00	9990.00	10015.00	.00
	.000	1092.94	.00	1093.16	489.74	322.78	124.19	1306.03	1175.00	9845.00	9990.00	10015.00	11020.00
*	.076	1094.96	.00	1095.07	661.81	.00	84.31	1668.69	.00	.00	9935.00	10070.00	.00
*	.076	1094.96	.00	1095.07	660.08	.00	84.34	1668.66	675.00	9973.00	9935.00	10070.00	10648.00
*	.153	1095.84	.00	1095.93	398.25	.00	577.92	1175.08	.00	.00	9930.00	10165.00	.00
*	.153	1095.84	.00	1095.93	397.00	.00	578.45	1174.55	397.00	9935.00	9930.00	10165.00	10332.00
*	.186	1096.12	.00	1096.43	309.38	.67	1752.13	.20	.00	.00	9870.00	10150.00	.00
*	.186	1096.12	.00	1096.43	308.00	.66	1752.12	.21	308.00	9848.00	9870.00	10150.00	10156.00
	.259	1097.69	.00	1098.08	249.91	346.12	1063.08	343.79	.00	.00	9960.00	10025.00	.00
	.259	1097.69	.00	1098.08	248.96	346.94	1062.55	343.51	249.00	9897.00	9960.00	10025.00	10146.00
*	.386	1103.72	.00	1104.19	410.66	836.78	855.39	60.83	.00	.00	9980.00	10025.00	.00
*	.386	1104.00	.28	1104.71	198.00	591.16	1060.07	101.76	198.00	9850.00	9980.00	10025.00	10048.00
*	.485	1105.23	.00	1105.33	714.97	1039.38	692.74	20.87	.00	.00	9960.00	10025.00	.00
	.485	1105.82	.58	1106.00	248.00	705.67	981.34	65.99	248.00	9810.00	9960.00	10025.00	10058.00
	.581	1105.65	.00	1105.76	331.41	473.26	918.20	361.54	.00	.00	9965.00	10040.00	.00
*	.581	1106.29	.63	1106.42	150.00	313.30	1103.42	336.27	150.00	9930.00	9965.00	10040.00	10080.00
*	.696	1108.61	.00	1109.37	294.03	120.50	1458.87	173.63	.00	.00	9970.00	10015.00	.00
*	.696	1108.56	-.05	1109.38	243.25	117.29	1487.18	148.53	245.00	9920.00	9970.00	10015.00	10165.00
*	.791	1110.12	.00	1110.31	395.63	455.50	969.46	328.03	.00	.00	9970.00	10020.00	.00
*	.791	1110.21	.08	1110.51	160.00	207.49	1147.81	397.70	160.00	9950.00	9970.00	10020.00	10110.00
*	.889	1112.74	.00	1113.16	482.76	332.90	939.08	496.02	.00	.00	9950.00	10050.00	.00
*	.889	1112.73	-.01	1113.24	320.00	349.20	992.49	426.31	320.00	9830.00	9950.00	10050.00	10150.00
*	.985	1115.77	.00	1115.85	765.62	7.61	607.94	1152.44	.00	.00	9970.00	10030.00	.00
*	.985	1116.35	.57	1116.58	238.00	19.38	988.16	760.45	238.00	9962.00	9970.00	10030.00	10200.00
	1.056	1116.66	.00	1116.71	966.65	2.68	520.82	1244.50	.00	.00	9950.00	10030.00	.00
	1.056	1117.54	.88	1117.70	200.00	.00	991.21	776.79	200.00	9950.00	9950.00	10030.00	10150.00
*	1.118	1117.63	.00	1118.10	462.37	510.05	1232.66	28.29	.00	.00	9955.00	10030.00	.00
	1.118	1118.47	.84	1118.86	150.00	312.98	1403.01	55.01	150.00	9900.00	9955.00	10030.00	10050.00
*	1.166	1118.37	.00	1118.43	368.38	19.50	1698.71	52.79	.00	.00	9920.00	10140.00	.00
*	1.166	1119.03	.66	1119.08	220.00	.00	1771.00	.00	220.00	9920.00	9920.00	10140.00	10140.00
	1.251	1119.34	.00	1119.75	751.52	706.97	680.18	383.85	.00	.00	9995.00	10040.00	.00
*	1.251	1119.73	.39	1120.60	170.00	648.20	985.01	137.79	170.00	9900.00	9995.00	10040.00	10070.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	1.348	1121.63	.00	1121.76	390.60	257.47	915.88	84.65	.00	.00	9955.00	10020.00	.00
*	1.348	1122.08	.45	1122.18	245.00	297.93	881.77	78.30	245.00	9830.00	9955.00	10020.00	10075.00
	1.423	1122.24	.00	1122.35	322.27	411.33	784.69	61.97	.00	.00	9965.00	10045.00	.00
	1.423	1122.49	.26	1122.59	230.00	420.17	780.22	57.61	230.00	9850.00	9965.00	10045.00	10080.00
	1.527	1123.36	.00	1123.49	259.21	26.63	1228.74	2.63	.00	.00	9880.00	10085.00	.00
	1.527	1123.42	.06	1123.55	211.00	.00	1254.98	3.02	211.00	9880.00	9880.00	10085.00	10091.00
*	1.622	1125.73	.00	1126.07	417.13	240.89	955.79	61.32	.00	.00	9910.00	10050.00	.00
*	1.622	1125.74	.01	1126.39	160.00	.00	1208.84	49.16	160.00	9910.00	9910.00	10050.00	10070.00
*	1.716	1129.66	.00	1129.83	335.54	22.46	1235.42	.12	.00	.00	9860.00	10095.00	.00
*	1.716	1129.82	.17	1129.97	235.00	.00	1258.00	.00	235.00	9860.00	9860.00	10095.00	10095.00
	1.817	1132.05	.00	1132.11	1364.60	169.05	629.44	459.50	.00	.00	9900.00	10100.00	.00
*	1.817	1132.38	.32	1132.62	200.00	.00	1258.00	.00	200.00	9900.00	9900.00	10100.00	10100.00
	1.921	1134.25	.00	1134.36	599.41	262.62	846.78	148.60	.00	.00	9930.00	10070.00	.00
*	1.921	1135.00	.75	1135.18	140.00	.00	1258.00	.00	140.00	9930.00	9930.00	10070.00	10070.00
	2.009	1136.22	.00	1136.37	579.84	127.76	929.84	200.40	.00	.00	9945.00	10070.00	.00
	2.009	1136.67	.45	1136.92	125.00	.00	1258.00	.00	125.00	9945.00	9945.00	10070.00	10070.00
	2.104	1137.70	.00	1137.76	966.40	262.32	872.85	122.83	.00	.00	9900.00	10080.00	.00
*	2.104	1138.22	.52	1138.33	180.00	.00	1258.00	.00	180.00	9900.00	9900.00	10080.00	10080.00
*	2.208	1138.91	.00	1138.96	772.05	335.09	494.93	14.98	.00	.00	9900.00	10065.00	.00
*	2.208	1139.33	.42	1139.38	315.00	217.12	627.88	.00	315.00	9750.00	9900.00	10065.00	10065.00
*	2.284	1140.46	.00	1140.49	654.70	840.40	.04	4.55	.00	.00	9920.00	10015.00	.00
*	2.284	1140.92	.46	1141.15	198.88	745.80	2.99	96.21	325.00	9770.00	9920.00	10015.00	10095.00
	2.350	1142.89	.00	1142.93	1062.71	554.17	255.69	35.13	.00	.00	9915.00	10050.00	.00
*	2.350	1143.74	.85	1143.83	270.00	130.61	616.16	98.23	270.00	9870.00	9915.00	10050.00	10140.00
*	2.469	1145.06	.00	1145.09	1456.91	274.63	359.75	210.62	.00	.00	9940.00	10050.00	.00
	2.469	1145.67	.61	1145.79	185.00	24.47	692.84	127.68	185.00	9925.00	9940.00	10050.00	10110.00
	2.571	1146.57	.00	1146.63	987.54	61.08	363.89	420.03	.00	.00	9950.00	10050.00	.00
	2.571	1147.25	.68	1147.36	240.00	141.81	602.23	100.96	240.00	9860.00	9950.00	10050.00	10100.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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WARNING SECNO=      .076  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .076  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .153  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .153  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .186  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .186  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .386  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .386  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .386  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=      .386  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .386  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .386  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=      .485  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .485  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .581  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .696  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .696  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .696  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=      .696  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .696  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .696  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=      .791  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .791  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .889  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .889  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .889  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=      .889  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .889  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .889  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=      .985  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .985  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.118  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.166  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.166  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.251  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.251  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.251  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     1.251  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.251  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
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ON SECNO=      1.251  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=      1.348  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      1.348  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      1.622  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
WARNING SECNO=      1.622  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=      1.622  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      1.622  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=      1.716  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      1.716  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      1.817  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      1.921  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      2.104  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      2.104  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      2.208  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      2.208  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      2.284  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      2.284  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

NG SECNO=      2.350  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      2.469  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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FLOODWAY DATA, LOWER EL MIRAGE WASH (WA
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
.000	1175.	485.	3.6	1092.9	1092.9	.0
.076	675.	646.	2.7	1095.0	1095.0	.0
.153	397.	734.	2.4	1095.8	1095.8	.0
.186	308.	397.	4.4	1096.1	1096.1	.0
.259	249.	399.	4.4	1097.7	1097.7	.0
.386	198.	312.	5.6	1104.0	1103.7	.3
.485	248.	579.	3.0	1105.8	1105.2	.6
.581	150.	614.	2.9	1106.3	1105.7	.6
.696	243.	308.	5.7	1108.6	1108.6	.0
.791	160.	452.	3.9	1110.2	1110.1	.1
.889	320.	337.	5.2	1112.7	1112.7	.0
.985	238.	667.	2.7	1116.4	1115.8	.6
1.056	200.	686.	2.6	1117.6	1116.7	.9
1.118	150.	419.	4.2	1118.4	1117.6	.8
1.166	220.	1042.	1.7	1119.1	1118.4	.7
1.251	170.	308.	5.7	1119.7	1119.3	.4
1.348	245.	679.	1.9	1122.1	1121.6	.5
1.423	230.	614.	2.0	1122.5	1122.2	.3
1.527	211.	428.	2.9	1123.5	1123.4	.1
1.622	160.	205.	6.1	1125.7	1125.7	.0
1.716	235.	404.	3.1	1129.9	1129.7	.2
1.817	200.	320.	3.9	1132.4	1132.1	.3
1.921	140.	367.	3.4	1134.9	1134.2	.7
2.009	125.	315.	4.0	1136.6	1136.2	.4
2.104	180.	468.	2.7	1138.2	1137.7	.5
2.208	315.	541.	1.6	1139.3	1138.9	.4
2.284	325.	220.	3.8	1141.0	1140.5	.5
2.350	270.	425.	2.0	1143.8	1142.9	.9
2.469	185.	369.	2.3	1145.7	1145.1	.6
2.571	240.	415.	2.0	1147.3	1146.6	.7

THIS RUN EXECUTED 19FEB92 13:50:57

13A.H20
Latest Version
w/Floodway.

```
************************************
HEC-2 WATER SURFACE PROFILES

Version   4.6.2;  May 1991
************************************

T1      WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2      100 - YEAR STORM EVENT     FLOODPLAIN RUN         FILE: 13A.H2I
T3      LOWER EL MIRAGE WASH TRIBUTARY  (WASH 13A), FROM JUST NORTH OF CACTUS
T4      RD. TO LITCHFIELD RD.
T5      DISCHARGES ARE AS DERIVED FROM THE 24-HOUR STORM HEC1 MODEL.
T6
T7      STARTING WSEL IS TAKEN FROM THE CONFLUENCE WITH LOWER EL MIRAGE WASH,
T8      (AT CROSS-SECTION  1.259).
T9

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2        0        0        0        0        0        0    1119.34     0

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

      1        0        0        0        0        0        0        0        0        0

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     38       43        1       53       21       22       54       51        4        8
     42        5       26        0      110        0      200

NC     .07      .07      .04       .1       .3
QT       2     1771     1771
ET                       4.1     9900    10070

                Q = Q AT CP157    (= 1771 CFS ).

                AT THE CONFLUENCE WITH LOWER  EL MIRAGE WASH. (AT SEC. 1.259)

X1   0.000       11     9995    10040        0        0        0
GR    1120     9405   1119.5     9440   1119.7     9475     1118     9960   1118.2     9980
GR    1118     9995   1116.8    10000     1118    10040   1118.4    10090   1118.1    10120
GR    1120    10440

QT       2     1170     1170
ET                       4.1     9900    10055
```

Q = ROUTED FLOW FROM SUB. 156 TO SUB. 157 + 40% HYD. AT SUB. 157
= 792 + .4 (946) = 1170 CFS .

```
X1    0.045      11    9970   10055     120     260     240
GR     1121    9300    1120    9480  1119.5    9545  1119.7    9600  1119.1    9940
GR   1119.5    9960    1118    9970  1117.6   10000    1118   10055    1120   10080
GR     1122   10095

ET                     4.1    9830   10057
X1    0.110      11    9975   10045     380     310     340
GR     1122    9330    1120    9500  1119.8    9550    1120    9585    1121    9660
GR     1120    9680  1119.5    9850  1119.8    9975  1118.6   10000    1120   10045
GR     1122   10065

ET                     4.1    9970   10085
X1    0.174      14    9985   10085     280     350     340
GR     1123    9235    1122    9390    1121    9665    1122    9775    1122    9785
GR     1122    9800  1120.4    9900  1121.3    9985    1120    9995  1119.7   10000
GR     1120   10005    1121   10085    1122   10190  1122.7   10290

ET                     4.1    9940   10040
X1    0.263      12    9970   10040     450     480     470
GR     1125    9420    1124    9500  1123.2    9680  1123.7    9770  1122.2    9900
GR   1122.5    9970    1122    9995  1121.7   10000    1122   10005  1122.5   10040
GR     1124   10195    1126   10325

N      .10     .10    .045      .1      .3
ET                     4.1    9900   10050
X1    0.354       9    9950   10050     480     480     480
GR     1127    9420    1126    9630    1125    9740  1125.8    9885  1124.8    9950
GR   1124.1   10000  1124.5   10050    1126   10320    1128   10400

ET                     4.1    9930   10050
X1    0.453       7    9940   10050     520     520     520
GR     1129    9300    1128    9550  1127.4    9940    1127   10000  1127.5   10050
GR     1128   10155  1129.4   10280

ET                     4.1    9920   10070
X1    0.549       9    9950   10050     490     500     510
GR     1131    9290    1130    9640    1129    9950  1128.7   10000    1129   10050
GR     1130   10185  1130.1   10215    1130   10330    1131   10570

ET                     4.1    9885   10105
X1    0.614       7    9885   10105     350     300     340
GR     1132    9300    1130    9885  1129.9   10000    1130   10105  1131.4   10310
GR   1131.1   10445    1132   10755

ET                     4.1    9940   10150
X1    0.705       9    9945   10105     490     470     485
GR   1134.2    9435    1134    9945  1133.2   10000  1133.6   10105  1133.3   10210
GR   1133.7   10365  1133.5   10510    1134   10670  1134.8   10920
```

```
ET                      4.1     9900    10135
X1    0.778       8     9950    10120      390      340      385
GR   1135.9    9350   1134.4     9730   1134.8     9950   1134.4    10000   1134.7    10120
GR   1134.8   10520   1134.4    10730     1136    10760

ET                      4.1     9900    10130
X1    0.888       7     9900    10130      550      600      580
GR   1137.4    9370   1136.3     9740   1136.6     9850     1136     9900   1135.8    10000
GR     1136   10130     1138    10690

ET                      4.1     9900    10100

              CROSS-SECTION AT 110 FEET SOUTH OF WADDELL RD.

X1    0.960      13     9900    10100      350      400      380
GR   1138.9    9480     1138     9600   1137.7     9900   1137.6    10000   1137.7    10100
GR     1138   10240   1138.4    10265   1137.8    10295   1138.5    10310     1138    10320
GR   1137.8   10390     1138    10420     1139    10625

QT        2     829      829
ET                      4.1     9920    10090

              Q = Q AT CP156    (= 829 CFS ).

X1    1.054      11     9920    10090      500      400      495
GR   1141.6    9475     1140     9690   1139.7     9820   1139.8     9920   1139.7    10000
GR     1140   10090   1140.2    10150     1140    10260   1140.2    10370     1140    10470
GR   1140.9   10690

ET                      4.1     9910    10090
X1    1.137      12     9920    10080      450      370      440
GR   1142.5    9450     1142     9455   1141.6     9470   1141.8     9655   1141.7     9785
GR   1141.9    9920   1141.7    10000   1141.8    10080   1141.3    10465   1141.1    10600
GR     1142   10950   1143.5    11060

ET                      4.1     9910    10090
X1    1.232      15     9950    10050      500      500      500
GR   1144.4    9165     1144     9190   1143.8     9290     1144     9480   1144.3     9575
GR     1144    9680   1143.5     9950   1143.3    10000   1143.5    10050     1144    10545
GR   1144.2   10570     1144    10600   1143.8    10700     1144    10795   1144.7    10810

ET                      4.1     9910    10090
X1    1.317       9     9950    10050      450      450      450
GR   1146.5    9190     1146     9425   1145.7     9670   1145.3     9950   1145.1    10000
GR   1145.3   10050   1145.2    10355     1146    10520   1146.5    10625

QT        2     843      843
ET                      4.1     9900    10100
```

CROSS-SECTION AT AT & SF RAILROAD

Q = Q AT CP139 (= 843 CFS).

```
X1    1.363      9     9950    10050     230     240     240
GR   1148.5   9230     1148     9625  1147.5    9680  1147.3     9950   1147.2    10000
GR   1147.3  10050   1147.2    10280    1148   10475  1149.1    10795

ET                     4.1     9900   10100
X1    1.452     13     9950    10050     460     470     470
GR   1150.2   9060     1150     9080  1148.6    9290  1148.7     9485   1148.7     9690
GR   1148.4   9950   1148.3    10000  1148.4   10050  1148.5    10205   1148.7    10350
GR   1149.3  10585     1150    10825  1150.7   10950

ET                     4.1     9900   10100
X1    1.563      8     9950    10050     600     540     590
GR   1151.5   9170   1150.9     9210  1150.4    9950  1150.1    10000   1150.4    10050
GR   1151.2  10565     1152    10690  1152.7   10960

ET                     4.1     9950   10100
X1    1.670     10     9950    10050     560     560     560
GR   1154.4   9750   1153.7     9805  1154.1    9850    1154     9890     1153     9950
GR   1152.4  10000   1152.6    10050  1152.9   10210    1154    10500   1154.6    10780

ET                     4.1     9960   10120
X1    1.774      8     9960    10050     530     560     550
GR   1157.3   9710     1156     9905  1155.3    9960  1154.3    10000   1154.5    10050
GR    1155  10380     1156    10760    1157   11200

QT       2    764      764
ET                     4.1     9975   10100
```

Q = (DIVERTED FLOW FROM SUB. 126 TO SUB. 139 + Q AT CP139)/2
= (685 + 843)/2 =764 CFS.

```
X1    1.884     11     9975    10050     580     560     580
GR   1158.6   9670     1158     9890  1156.5    9975    1156     9990   1155.8    10000
GR    1156  10015   1156.4    10050  1156.9   10475  1156.5    10745     1158    11010
GR   1158.5  11020

ET                     4.1     9850   10150
X1    1.976     10     9940    10050     400     370     490
GR    1159   9435   1158.2     9840    1158    9900  1157.9     9940   1157.6    10000
GR   1157.9  10050   1157.8    10150    1158   10380    1158    10440   1159.3    10580

ET                     4.1     9900   10146
X1    2.054     11     9950    10050     350     430     410
GR   1160.5   9110     1160     9240  1159.8    9300  1159.9     9350   1159.8     9460
GR   1159.9   9530   1159.3     9950  1159.1    10000  1159.3    10050     1160    10140
GR   1160.7  10150
```

```
ET                        4.1      9900     10060
X1    2.135        9     9950     10070       370       470       430
GR   1161.9     9170     1161      9200    1160.8      9450    1161.4      9465    1160.8      9500
GR   1160.7     9950   1160.5     10000      1162     10070    1162.6     10075

ET                        4.1      9900     10085
X1    2.221       11     9950     10050       440       450       450
GR   1163.9     9155   1163.2      9170    1162.8      9450    1163.8      9475    1162.8      9500
GR   1163.2     9735   1163.3      9950    1162.8     10000    1163.8     10050    1163.7     10080
GR   1164.3    10110

ET                        4.1      9930     10096

                CITY OF EL MIRAGE CORPORATE LIMITS WEST OF DYSART ROAD AND SOUTH
                OF GREENWAY ROAD.
                TOWN OF SURPRISE CORPORATE LIMITS NORTH OF GREENWAY ROAD.

                CROSS-SECTION AT  GREENWAY RD. & DYSART RD.

X1    2.260        6     9930     10060       300       260       280
GR   1166.5     9750     1166      9930    1164.5     10000      1165     10060      1166     10090
GR   1166.5    10100

NC     .10       .05     .045        .1        .3
OT       2       856      856
ET                        4.1      9960     10090

                Q = Q AT CP126     (= 856 CFS ).

                ENTIRE CROSS-SECTION IS EFFECTIVE DUE TO UPSREAM INPUT AT
                X1= 2.615

                WSEL EXTENSION IS DUE TO LIMITED GRADE AT THE RIGHT OVRERBANK.
                THIS HAS BEEN REFLECTED BY A DIVERSION IN THE HEC1 MODEL.

X1    2.302        9     9960     10035       350       120       210
GR     1168     9370   1166.8      9835      1168      9950    1168.2      9960      1168      9975
GR   1166.5    10000     1167     10035    1164.5     10070    1164.8     10090

ET                        4.1      9965     10115

                WSEL EXTENSION IS DUE TO LIMITED GRADE AT THE RIGHT OVERBANK.
                THIS HAS BEEN REFLECTED BY A DIVERSION IN THE HEC1 MODEL.

X1    2.399       10     9965     10035       570       510       510
GR     1169     9150     1168      9365    1166.9      9655      1168      9955    1168.2      9965
GR     1168     9980   1166.6     10000    1167.5     10035      1165     10080      1166     10115
```

```
ET                      4.1     9965    10087
X1      2.497     15    9965    10035      530      520      520
GR       1170   9210    1168     9745   1167.9     9915     1168     9945   1168.5     9965
GR       1168   9980  1166.7    10000     1168    10020   1168.5    10035     1168    10045
GR       1166  10055  1165.7    10065     1166    10080     1168    10085   1180.2    10105

NC        .10    .07    .045       .1       .3
QT          2    770     770
ET                      4.1     9960    10027

                Q = ROUTED DIVERSION FROM SUB. 125 TO SUB. 126 + 60% OF
                HYDROGRAPH AT SUB. 126   = 433 + .6(562) = 770 CFS.

X1      2.615      9    9980    10025      620      620      620
GR       1172   9430  1170.1     9845     1170     9920   1170.8     9960     1170     9980
GR       1168  10000    1170    10025     1172    10030   1172.9    10045

ET                      4.1     9970    10041
X1      2.709      8    9970    10035      500      500      500
GR     1174.7   9460    1174     9730   1172.7     9945   1174.1     9970   1171.5    10000
GR       1172  10010    1174    10035   1175.3    10050

ET                      4.1     9960    10040
X1      2.796      9    9975    10025      460      460      460
GR       1178   9530  1176.5     9910   1176.8     9960     1176     9975   1174.5     9980
GR     1174.5  10000  1174.5    10020     1176    10025   1177.9    10050

ET                      4.1     9945    10042
X1      2.889     13    9970    10030      490      490      490
GR     1180.9   9110    1180     9540     1178     9895   1177.7     9920   1178.7     9945
GR       1178   9960    1176     9970   1174.6     9975   1174.6    10000   1174.6    10025
GR       1176  10030    1178    10035     1179    10045

QT          2    545     545
ET                      4.1     9963    10027

                Q = ROUTED DIVERSION FROM SUB. 125 TO SUB. 126 + 20% OF
                HYDROGRAPH AT SUB. 126   = 433 + .2(562) = 545 CFS.

X1      2.986     13    9980    10010      510      510      510
GR     1183.2   9260    1182     9520     1180     9875   1179.5     9900     1180     9930
GR     1180.3   9945    1180     9960     1178     9970     1176     9980   1174.3    10000
GR       1176  10010    1180    10030   1181.2    10040

ET                      4.1     9969    10030
X1      3.088     14    9970    10030      540      540      540
GR     1184.9   9335    1184     9560     1182     9880   1180.9     9915     1182     9930
GR     1182.7   9945    1182     9960     1180     9970     1176     9985   1175.2    10000
GR       1176  10010    1180    10030     1182    10035   1182.6    10055
```

```
ET                      4.1     9970    10027
X1    3.177     14     9985    10015      470      470      470
GR     1186   9350     1184     9765   1182.6     9910     1184     9935   1184.4     9940
GR     1184   9950     1182     9965     1180     9975     1178     9985     1176    10000
GR     1178  10015     1180    10025     1182    10030   1183.3    10050

ET                      4.1     9960    10040

              CROSS-SECTION AT GREENWAY RD. & LITCHFIELD RD.

X1    3.257     11     9970    10035      380      430      420
GR     1186   9390   1184.8     9900   1185.6     9935     1184     9955     1182     9960
GR     1180   9970   1178.1    10000     1180    10035     1182    10040     1184    10050
GR   1184.6  10100
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= .100 CEHV= .300
*SECNO .000

Q = Q AT CP157 (= 1771 CFS).

AT THE CONFLUENCE WITH LOWER EL MIRAGE WASH. (AT SEC. 1.259)

.000	2.54	1119.34	.00	1119.34	1119.67	.33	.00	.00	1118.00
1771.0	646.7	622.7	501.6	299.5	87.3	219.2	.0	.0	1118.00
.00	2.16	7.13	2.29	.070	.040	.070	.000	1116.80	9577.71
.015310	0.	0.	0.	0	0	0	.00	751.13	10328.84

*SECNO .045

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.05

Q = ROUTED FLOW FROM SUB. 156 TO SUB. 157 + 40% HYD. AT SUB. 157
= 792 + .4 (946) = 1170 CFS .

.045	2.91	1120.51	.00	.00	1120.59	.08	.89	.02	1118.00
1170.0	467.0	660.9	42.1	540.6	230.1	38.7	2.8	2.7	1118.00
.03	.86	2.87	1.09	.070	.040	.070	.000	1117.60	9388.66
.001584	120.	240.	260.	5	0	0	.00	695.15	10083.81

*SECNO .110

.110	2.60	1121.20	.00	.00	1121.25	.05	.67	.00	1119.80
1170.0	799.2	365.7	5.1	681.3	135.8	7.3	9.7	8.5	1120.00
.09	1.17	2.69	.70	.070	.040	.070	.000	1118.60	9397.58
.002171	380.	340.	310.	4	0	0	.00	659.47	10057.05

*SECNO .174

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .69

.174	2.40	1122.10	.00	.00	1122.20	.11	.93	.02	1121.30
1170.0	529.9	576.3	63.8	428.0	164.6	63.2	14.7	13.5	1121.00
.12	1.24	3.50	1.01	.070	.040	.070	.000	1119.70	9375.13
.004578	280.	340.	350.	1	0	0	.00	828.58	10203.71

```
 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO  .263
    .263      2.37   1124.07       .00       .00   1124.16       .09      1.96       .00   1122.50
  1170.0     558.3     464.4     147.3     405.1     131.2     126.8      21.7      21.5   1122.50
     .18      1.38      3.54      1.16      .070      .040      .070      .000   1121.70   9494.65
 .003931      450.      470.      480.         4         0         0       .00    704.70  10199.35


CCHV=     .100 CEHV=     .300
*SECNO  .354
    .354      2.11   1126.21       .00       .00   1126.33       .12      2.17       .01   1124.80
  1170.0     238.7     658.6     272.7     260.4     183.8     260.9      29.2      29.5   1124.50
     .24       .92      3.58      1.05      .100      .045      .100      .000   1124.10   9585.29
 .005231      480.      480.      480.         3         0         0       .00    743.22  10328.52


*SECNO  .453
    .453      1.81   1128.81       .00       .00   1128.88       .07      2.54       .00   1127.40
  1170.0     509.1     529.1     131.7     513.0     174.2     140.0      38.4      39.2   1127.50
     .31       .99      3.04       .94      .100      .045      .100      .000   1127.00   9348.31
 .004580      520.      520.      520.         4         0         0       .00    878.72  10227.03


*SECNO  .549
    .549      2.02   1130.72       .00       .00   1130.78       .06      1.90       .00   1129.00
  1170.0     398.1     527.3     244.6     466.5     186.6     322.1      48.6      50.5   1129.00
     .39       .85      2.83       .76      .100      .045      .100      .000   1128.70   9389.51
 .003189      490.      510.      500.         4         0         0       .00   1112.26  10501.77


*SECNO  .614
    .614      1.71   1131.61       .00       .00   1131.66       .05       .88       .00   1130.00
  1170.0     227.7     791.6     150.7     377.3     364.4     278.0      56.3      59.2   1130.00
     .45       .60      2.17       .54      .100      .045      .100      .000   1129.90   9415.19
 .002209      350.      340.      300.         2         0         0       .00   1204.18  10619.36


*SECNO  .705

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .27

    .705       .97   1134.17       .00       .00   1134.35       .18      2.65       .04   1134.00
  1170.0      20.0     522.9     627.2      38.6     112.9     336.3      64.6      72.6   1133.60
     .49       .52      4.63      1.86      .100      .045      .100      .000   1133.20   9501.01
 .031353      490.      485.      470.         2         0         0       .00   1223.39  10724.39
```

ECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .778

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.47

.778	1.48	1135.88	.00	.00	1135.90	.02	1.53	.02	1134.80
1170.0	330.5	352.4	487.1	560.8	224.1	743.2	72.9	83.6	1134.70
.60	.59	1.57	.66	.100	.045	.100	.000	1134.40	9354.33
.001569	390.	385.	340.	4	0	0	.00	1403.48	10757.80

*SECNO .888

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .61

.888	1.44	1137.24	.00	.00	1137.32	.08	1.40	.02	1136.00
1170.0	205.4	811.2	153.5	285.8	309.8	217.6	88.5	99.9	1136.00
.68	.72	2.62	.71	.100	.045	.100	.000	1135.80	9421.53
.004228	550.	580.	600.	5	0	0	.00	1057.58	10479.11

*O .960

CROSS-SECTION AT 110 FEET SOUTH OF WADDELL RD.

.960	1.25	1138.85	.00	.00	1138.90	.05	1.58	.00	1137.70
1170.0	306.7	566.9	296.4	343.6	237.8	358.9	96.0	109.2	1137.70
.75	.89	2.38	.83	.100	.045	.100	.000	1137.60	9488.14
.004138	350.	380.	400.	3	0	0	.00	1103.86	10591.99

*SECNO 1.054

Q = Q AT CP156 (= 829 CFS).

1.054	1.10	1140.80	.00	.00	1140.83	.03	1.93	.00	1139.80
829.0	236.9	354.7	237.4	270.7	169.1	342.8	105.1	120.5	1140.00
.85	.88	2.10	.69	.100	.045	.100	.000	1139.70	9582.84
.004065	500.	495.	400.	2	0	0	.00	1082.10	10664.94

*SECNO 1.137

1.137	1.23	1142.33	.00	.00	1142.34	.01	1.50	.00	1141.90
829.0	161.2	112.8	555.0	269.9	88.1	725.7	113.7	132.5	1141.80
.99	.60	1.28	.76	.100	.045	.100	.000	1141.10	9451.75
.003336	450.	440.	370.	4	0	0	.00	1522.12	10973.87

ECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.232

1.232	1.09	1144.39	.00	.00	1144.42	.03	2.08	.01	1143.50
829.0	259.7	238.4	330.9	370.2	99.3	432.4	125.1	150.7	1143.50
1.10	.70	2.40	.77	.100	.045	.100	.000	1143.30	9165.42
.005330	500.	500.	500.	4	0	0	.00	1638.01	10803.43

*SECNO 1.317

1.317	1.19	1146.29	.00	.00	1146.32	.02	1.89	.00	1145.30
829.0	231.0	227.2	370.8	357.8	110.4	447.1	134.5	165.9	1145.30
1.21	.65	2.06	.83	.100	.045	.100	.000	1145.10	9282.31
.003409	450.	450.	450.	2	0	0	.00	1301.44	10583.75

*SECNO 1.363

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .40

CROSS-SECTION AT AT & SF RAILROAD

Q = Q AT CP139 (= 843 CFS).

1.363	.73	1147.93	1147.77	.00	1148.03	.10	1.69	.02	1147.30
843.0	223.8	266.7	352.5	156.2	68.9	225.1	138.2	171.6	1147.30
1.24	1.43	3.87	1.57	.100	.045	.100	.000	1147.20	9631.70
.022564	230.	240.	240.	13	11	0	.00	828.45	10460.15

*SECNO 1.452

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.11

1.452	1.34	1149.64	.00	.00	1149.65	.01	1.61	.01	1148.40
843.0	397.0	184.8	261.2	751.3	129.1	506.3	148.0	184.4	1148.40
1.42	.53	1.43	.52	.100	.045	.100	.000	1148.30	9133.81
.001336	460.	470.	470.	6	0	0	.00	1568.17	10701.99

*SECNO 1.563

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .39

ECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1.563	1.12	1151.22	.00	.00	1151.27	.06	1.61	.01	1150.40
843.0	392.6	288.3	162.1	418.2	96.1	211.6	162.0	203.9	1150.40
1.52	.94	3.00	.77	.100	.045	.100	.000	1150.10	9189.28
.008707	600.	590.	540.	5	0	0	.00	1377.42	10566.70

*SECNO 1.670

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.57

1.670	1.76	1154.16	.00	.00	1154.22	.06	2.95	.00	1153.00
843.0	34.5	411.8	396.6	64.3	156.2	438.4	170.9	217.9	1152.60
1.61	.54	2.64	.90	.100	.045	.100	.000	1152.40	9768.72
.003519	560.	560.	560.	4	0	0	.00	806.76	10575.48

*SECNO 1.774

1.774	1.73	1156.03	.00	.00	1156.06	.04	1.84	.00	1155.30
843.0	9.1	309.9	524.0	20.9	130.6	623.6	180.1	228.6	1154.50
1.72	.44	2.37	.84	.100	.045	.100	.000	1154.30	9900.59
03140	530.	550.	560.	3	0	0	.00	872.36	10772.94

*SECNO 1.884

Q = (DIVERTED FLOW FROM SUB. 126 TO SUB. 139 + Q AT CP139)/2
= (685 + 843)/2 =764 CFS.

1.884	1.80	1157.60	.00	.00	1157.63	.03	1.56	.00	1156.50
764.0	17.1	238.0	508.9	34.8	112.4	761.2	191.0	240.9	1156.40
1.86	.49	2.12	.67	.100	.045	.100	.000	1155.80	9912.18
.002398	580.	580.	560.	3	0	0	.00	1028.66	10940.84

*SECNO 1.976

1.976	1.26	1158.86	.00	.00	1158.89	.04	1.26	.00	1157.90
764.0	119.5	276.8	367.7	194.3	122.6	415.5	198.4	250.1	1157.90
1.95	.62	2.26	.88	.100	.045	.100	.000	1157.60	9503.47
.004042	400.	490.	370.	2	0	0	.00	1029.66	10533.12

*SECNO 2.054

2.054	1.34	1160.44	.00	.00	1160.48	.04	1.58	.00	1159.30
764.0	410.0	297.0	57.1	543.9	123.7	72.2	204.9	259.0	1159.30
2.03	.75	2.40	.79	.100	.045	.100	.000	1159.10	9126.28
03976	350.	410.	430.	4	0	0	.00	1019.97	10146.25

ECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.135

2.135	1.30	1161.80	.00	.00	1161.82	.02	1.34	.00	1160.70
764.0	596.3	167.7	.0	747.5	100.0	.0	211.9	267.3	1162.00
2.14	.80	1.68	.00	.100	.045	.000	.000	1160.50	9173.15
.002956	370.	430.	470.	3	0	0	.00	887.78	10060.93

*SECNO 2.221

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .60

2.221	1.02	1163.82	.00	.00	1163.85	.03	2.03	.00	1163.30
764.0	622.9	140.6	.5	569.7	63.8	2.2	219.4	276.5	1163.80
2.23	1.09	2.20	.21	.100	.045	.100	.000	1162.80	9156.86
.008097	440.	450.	450.	3	0	0	.00	928.81	10085.67

*SECNO 2.260

CITY OF EL MIRAGE CORPORATE LIMITS WEST OF DYSART ROAD AND SOUTH
OF GREENWAY ROAD.
TOWN OF SURPRISE CORPORATE LIMITS NORTH OF GREENWAY ROAD.

CROSS-SECTION AT GREENWAY RD. & DYSART RD.

2.260	1.85	1166.35	.00	.00	1166.60	.25	2.69	.07	1166.00
764.0	10.4	717.8	35.8	21.7	172.6	26.6	222.3	280.7	1165.00
2.25	.48	4.16	1.35	.100	.045	.100	.000	1164.50	9805.11
.010869	300.	280.	260.	4	0	0	.00	291.83	10096.94

CCHV= .100 CEHV= .300
*SECNO 2.302

3265 DIVIDED FLOW

3280 CROSS SECTION 2.30 EXTENDED 3.06 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.61

Q = Q AT CP126 (= 856 CFS).

ENTIRE CROSS-SECTION IS EFFECTIVE DUE TO UPSREAM INPUT AT
X1= 2.615

WSEL EXTENSION IS DUE TO LIMITED GRADE AT THE RIGHT OVRERBANK.
THIS HAS BEEN REFLECTED BY A DIVERSION IN THE HEC1 MODEL.

2.302	3.36	1167.86	.00	.00	1168.02	.16	1.41	.01	1168.20
856.0	193.3	125.5	537.2	272.8	54.4	138.2	224.2	283.8	1167.00
2.27	.71	2.31	3.89	.100	.045	.050	.000	1164.50	9423.26
.005282	350.	210.	120.	3	0	0	.00	626.27	10090.00

*SECNO 2.399
3280 CROSS SECTION 2.40 EXTENDED 2.80 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.79

WSEL EXTENSION IS DUE TO LIMITED GRADE AT THE RIGHT OVERBANK.
THIS HAS BEEN REFLECTED BY A DIVERSION IN THE HEC1 MODEL.

2.399	3.80	1168.80	.00	.00	1168.82	.02	.78	.01	1168.20
856.0	391.4	111.8	352.9	870.4	101.6	230.1	234.8	293.7	1167.50
2.42	.45	1.10	1.53	.100	.045	.050	.000	1165.00	9193.51
00676	570.	510.	510.	6	0	0	.00	921.49	10115.00

*SECNO 2.497

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .63

2.497	3.61	1169.31	.00	.00	1169.36	.05	.53	.01	1168.50
856.0	323.8	202.7	329.4	522.1	110.1	133.1	246.7	303.5	1168.50
2.51	.62	1.84	2.48	.100	.045	.050	.000	1165.70	9394.85
.001702	530.	520.	520.	3	0	0	.00	692.29	10087.15

CCHV= .100 CEHV= .300
*SECNO 2.615

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .39

Q = ROUTED DIVERSION FROM SUB. 125 TO SUB. 126 + 60% OF
HYDROGRAPH AT SUB. 126 = 433 + .6(562) = 770 CFS.

2.615	3.12	1171.12	1171.00	.00	1171.40	.28	1.97	.07	1170.00
770.0	272.6	495.3	2.1	238.3	95.6	1.6	254.5	311.3	1170.00
2.56	1.14	5.18	1.31	.100	.045	.070	.000	1168.00	9621.44
009074	620.	620.	620.	6	10	0	.00	406.37	10027.81

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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 2.709
   2.709     3.05   1174.55       .00       .00   1174.65       .11      3.24       .02   1174.10
   770.0    359.1     409.8       1.1     344.5     119.2       1.7     259.1     316.7   1174.00
    2.62     1.04      3.44       .62      .100      .045      .070      .000   1171.50   9518.34
 .004854     500.      500.      500.         5         0         0       .00    522.99  10041.33


*SECNO 2.796
   2.796     2.67   1177.17   1176.84       .00   1177.58       .41      2.83       .09   1176.00
   770.0     71.2     686.9      11.9      93.6     125.8       9.0     262.8     321.0   1176.00
    2.64      .76      5.46      1.33      .100      .045      .070      .000   1174.50   9741.12
 .008077     460.      460.      460.         6        14         0       .00    299.23  10040.35


*SECNO 2.889

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.54

   2.889     4.15   1178.75       .00       .00   1178.87       .13      1.26       .03   1176.00
   770.0     45.0     714.8      10.2     110.7     242.3      11.6     266.1     324.3   1176.00
    2.69      .41      2.95       .88      .100      .045      .070      .000   1174.60   9760.96
 .001251     490.      490.      490.         3         0         0       .00    281.59  10042.55


*SECNO 2.986

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .59


            Q = ROUTED DIVERSION FROM SUB. 125 TO SUB. 126 + 20% OF
            HYDROGRAPH AT SUB. 126    = 433 + .2(562) = 545 CFS.

   2.986     5.14   1179.44       .00       .00   1179.63       .19       .74       .02   1176.00
   545.0     30.3     476.7      38.0      29.6     128.7      29.6     269.3     326.3   1176.00
    2.73     1.02      3.70      1.28      .100      .045      .070      .000   1174.30   9962.79
 .001820     510.      510.      510.         3         0         0       .00     64.42  10027.21


*SECNO 3.088
   3.088     5.17   1180.37       .00       .00   1180.48       .11       .84       .01   1180.00
   545.0       .1     544.9        .0        .3     202.0        .2     271.8     327.1   1180.00
    2.79      .17      2.70       .24      .100      .045      .070      .000   1175.20   9968.17
 .001351     540.      540.      540.         2         0         0       .00     62.75  10030.92
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 3.177

3.177	5.09	1181.09	.00	.00	1181.31	.22	.80	.03	1178.00
545.0	25.1	485.1	34.8	24.0	123.0	22.5	273.8	327.8	1178.00
2.82	1.04	3.94	1.55	.100	.045	.070	.000	1176.00	9969.50
.002198	470.	470.	470.	1	0	0	.00	58.25	10027.75

*SECNO 3.257

CROSS-SECTION AT GREENWAY RD. & LITCHFIELD RD.

3.257	3.90	1182.00	.00	.00	1182.12	.12	.80	.01	1180.00
545.0	6.0	534.8	4.2	10.0	191.9	5.0	275.6	328.4	1180.00
2.87	.60	2.79	.83	.100	.045	.070	.000	1178.10	9959.99
.001684	380.	420.	430.	2	0	0	.00	80.02	10040.01

PROFILE FOR STREAM LOWER EL MIRAGE WASH TRI

PLOTTED POINTS (BY PRIORITY) E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA

ELEVATION	1117.	1127.	1137.	1147.	1157.	1167.	1177.	1187.	1197.	1207.
SECNO	CUMDIS									
.00	0.	IL E	.	.	.	.	.	.	.	.	.
	50.	IL E	.	.	.	.	.	.	.	.	.
	100.	IL EM	.	.	.	.	.	.	.	.	.
	150.	IL EM	.	.	.	.	.	.	.	.	.
	200.	CI E	.	.	.	.	.	.	.	.	.
.05	250.	CI E	.	.	.	.	.	.	.	.	.
	300.	CI E	.	.	.	.	.	.	.	.	.
	350.	CIL E	.	.	.	.	.	.	.	.	.
	400.	CIL EM	.	.	.	.	.	.	.	.	.
	450.	CIL EM	.	.	.	.	.	.	.	.	.
	500.	C ILEM	.	.	.	.	.	.	.	.	.
	550.	C ILEM	.	.	.	.	.	.	.	.	.
.11	600.	C ILEM	.	.	.	.	.	.	.	.	.
	650.	C IL E	.	.	.	.	.	.	.	.	.
	700.	C IL E	.	.	.	.	.	.	.	.	.
	750.	C I LEM	.	.	.	.	.	.	.	.	.
	800.	C I LEM	.	.	.	.	.	.	.	.	.
	850.	C ILEM	.	.	.	.	.	.	.	.	.
	900.	C ILEM	.	.	.	.	.	.	.	.	.
.17	950.	C IREM	.	.	.	.	.	.	.	.	.
	1000.	C IRLE	.	.	.	.	.	.	.	.	.
	1050.	C I LE	.	.	.	.	.	.	.	.	.
	1100.	C ILEM	.	.	.	.	.	.	.	.	.
	1150.	C ILEM	.	.	.	.	.	.	.	.	.
	1200.	C ILEM	.	.	.	.	.	.	.	.	.
	1250.	C IL E	.	.	.	.	.	.	.	.	.
	1300.	C IL EM	.	.	.	.	.	.	.	.	.
	1350.	C ILEM	.	.	.	.	.	.	.	.	.
.26	1400.	C ILEM	.	.	.	.	.	.	.	.	.
	1450.	C ILWE	.	.	.	.	.	.	.	.	.
	1500.	C IL EM.	.	.	.	.	.	.	.	.	.
	1550.	C I EM.	.	.	.	.	.	.	.	.	.
	1600.	C ILEM.	.	.	.	.	.	.	.	.	.
	1650.	C ILEM.	.	.	.	.	.	.	.	.	.
	1700.	C IL E.	.	.	.	.	.	.	.	.	.
	1750.	C I EM	.	.	.	.	.	.	.	.	.
	1800.	C ILEM	.	.	.	.	.	.	.	.	.
	1850.	C ILEM	.	.	.	.	.	.	.	.	.
.35	1900.	C ILWE	.	.	.	.	.	.	.	.	.
	1950.	C I E	.	.	.	.	.	.	.	.	.
	2000.	C I EM	.	.	.	.	.	.	.	.	.
	2050.	C ILEM	.	.	.	.	.	.	.	.	.
	2100.	C ILWE	.	.	.	.	.	.	.	.	.
	2150.	C I.E	.	.	.	.	.	.	.	.	.
	2200.	C I.E	.	.	.	.	.	.	.	.	.
	2250.	C ILEM	.	.	.	.	.	.	.	.	.
	2300.	C IEM	.	.	.	.	.	.	.	.	.
	2350.	C I E	.	.	.	.	.	.	.	.	.
.45	2400.	C ILE	.	.	.	.	.	.	.	.	.
	2450.	C ILE	.	.	.	.	.	.	.	.	.

	2500.	C	.IEM
	2550.	C	.I E
	2600.	C	.I E
	2650.	C	.I E
	2700.	C	.ILE
	2750.	C	.ILEM
	2800.	C	. I E
	2850.	C	. I E
.55	2900.	C	. I E
	2950.	C	. I E
	3000.	C	. I E
	3050.	C	. ILEM
	3100.	C	. IEM
	3150.	C	. I E
	3200.	C	. I E
.61	3250.	C	. I E
	3300.	C	. ILE
	3350.	C	. IEM
	3400.	C	. I E
	3450.	C	. ILE
	3500.	C	. IE
	3550.	C	. IWE
	3600.	C	. ILE
	3650.	C	. IE
	3700.	C	. IE
.70	3750.	C	. IWE
	3800.	C	. IE
	3850.	C	. IE
	3900.	C	. IE
	3950.	C	. IE
	4000.	C	. IWE.
	4050.	C	. ILE.
	4100.	C	. ILE.
.78	4150.	C	. IE.
	4200.	C	. IE.
	4250.	C	. IE.
	4300.	C	. IE.
	4350.	C	. I E
	4400.	C	. ILE
	4450.	C	. ILE
	4500.	C	. ILE
	4550.	C	. IE
	4600.	C	. IE
	4650.	C	. IE
.89	4700.	C	. IWE
	4750.	C	. I.E
	4800.	C	. ILE
	4850.	C	. IE
	4900.	C	. IE
	4950.	C	. IWE
	5000.	C	. ILE
	5050.	C	. .IE
.96	5100.	C	. .IE
	5150.	C	. .IE
	5200.	C	. .IEM
	5250.	C	. .ILE
	5300.	C	. . IE
	5350.	C	. . IE
	5400.	C	. . IE
	5450.	C	. . IEM
	5500.	C	. . ILE
	5550.	C	. . IE

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1.05  5600.  C  .  .  IE   .  .  .  .  .  .  .  .
      5650.  C  .  .  IE   .  .  .  .  .  .  .  .
      5700.  C  .  .  IE   .  .  .  .  .  .  .  .
      5750.  C  .  .  ILE  .  .  .  .  .  .  .  .
      5800.  C  .  .  IE   .  .  .  .  .  .  .  .
      5850.  C  .  .  IE   .  .  .  .  .  .  .  .
      5900.  C  .  .  IE   .  .  .  .  .  .  .  .
      5950.  C  .  .  IE   .  .  .  .  .  .  .  .
      6000.  C  .  .  IEM  .  .  .  .  .  .  .  .
1.14  6050.  C  .  .  ILE  .  .  .  .  .  .  .  .
      6100.  C  .  .  IE   .  .  .  .  .  .  .  .
      6150.  C  .  .  IE   .  .  .  .  .  .  .  .
      6200.  C  .  .  IE   .  .  .  .  .  .  .  .
      6250.  C  .  .  IE   .  .  .  .  .  .  .  .
      6300.  C  .  .  ILE  .  .  .  .  .  .  .  .
      6350.  C  .  .  IE   .  .  .  .  .  .  .  .
      6400.  C  .  .  IE   .  .  .  .  .  .  .  .
      6450.  C  .  .  IE   .  .  .  .  .  .  .  .
      6500.  C  .  .  IE   .  .  .  .  .  .  .  .
1.23  6550.  C  .  .  IE   .  .  .  .  .  .  .  .
      6600.  C  .  .  IE   .  .  .  .  .  .  .  .
      6650.  C  .  .  IE   .  .  .  .  .  .  .  .
      6700.  C  .  .  IE   .  .  .  .  .  .  .  .
      6750.  C  .  .  IEM. .  .  .  .  .  .  .  .
      6800.  C  .  .  ILE. .  .  .  .  .  .  .  .
      6850.  C  .  .  IE.  .  .  .  .  .  .  .  .
      6900.  C  .  .  IE.  .  .  .  .  .  .  .  .
      6950.  C  .  .  IE.  .  .  .  .  .  .  .  .
1.32  7000.  C  .  .  ILE  .  .  .  .  .  .  .  .
      7050.  C  .  .  IE   .  .  .  .  .  .  .  .
      7100.  C  .  .  IEM  .  .  .  .  .  .  .  .
      7150.  C  .  .  IE   .  .  .  .  .  .  .  .
1.36  7200.  .  .  .  IEM  .  .  .  .  .  .  .  .
      7250.  C  .  .  .EM  .  .  .  .  .  .  .  .
      7300.  C  .  .  .IE  .  .  .  .  .  .  .  .
      7350.  C  .  .  .IE  .  .  .  .  .  .  .  .
      7400.  C  .  .  .IE  .  .  .  .  .  .  .  .
      7450.  C  .  .  .IEM .  .  .  .  .  .  .  .
      7500.  C  .  .  .IEM .  .  .  .  .  .  .  .
      7550.  C  .  .  .IEM .  .  .  .  .  .  .  .
      7600.  C  .  .  .I E .  .  .  .  .  .  .  .
      7650.  C  .  .  .ILE .  .  .  .  .  .  .  .
1.45  7700.  C  .  .  . IE .  .  .  .  .  .  .  .
      7750.  C  .  .  . IEM .  .  .  .  .  .  .  .
      7800.  C  .  .  . IEM .  .  .  .  .  .  .  .
      7850.  C  .  .  . IEM .  .  .  .  .  .  .  .
      7900.  C  .  .  . IEM .  .  .  .  .  .  .  .
      7950.  C  .  .  . I E .  .  .  .  .  .  .  .
      8000.  C  .  .  . ILE .  .  .  .  .  .  .  .
      8050.  C  .  .  .  IE .  .  .  .  .  .  .  .
      8100.  C  .  .  .  IE .  .  .  .  .  .  .  .
      8150.  C  .  .  .  IE .  .  .  .  .  .  .  .
      8200.  C  .  .  .  IEM .  .  .  .  .  .  .  .
      8250.  C  .  .  .  IEM .  .  .  .  .  .  .  .
1.56  8300.  C  .  .  .  IEM .  .  .  .  .  .  .  .
      8350.  C  .  .  .   IE .  .  .  .  .  .  .  .
      8400.  C  .  .  .   IE .  .  .  .  .  .  .  .
      8450.  C  .  .  .   IE .  .  .  .  .  .  .  .
      8500.  C  .  .  .   IWE .  .  .  .  .  .  .  .
      8550.  C  .  .  .   ILE .  .  .  .  .  .  .  .
      8600.  C  .  .  .    IE .  .  .  .  .  .  .  .
      8650.  C  .  .  .    IEM .  .  .  .  .  .  .  .
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	8700.	C	I E
	8750.	C	ILE
	8800.	C	ILE
1.67	8850.	C	IEM
	8900.	C	I E
	8950.	C	ILE
	9000.	C	ILE
	9050.	C	ILEM.
	9100.	C	ILEM.
	9150.	C	IEM.
	9200.	C	ILE.
	9250.	C	ILE.
	9300.	C	ILEM
	9350.	C	ILEM
1.77	9400.	C	IEM
	9450.	C	IEM
	9500.	C	ILE
	9550.	C	ILEM
	9600.	C	ILEM
	9650.	C	ILEM
	9700.	C	ILEM
	9750.	C	ILEM
	9800.	C	IEM
	9850.	C	IEM
	9900.	C	ILE
1.88	9950.	C	ILEM
	10000.	C	ILEM
	10050.	C	ILEM
	10100.	C	IEM
	10150.	C	IEM
	10200.	C	IEM
	10250.	C	ILE
	10300.	C	ILE
	10350.	C	ILE
	10400.	C	.IE
1.98	10450.	C	.IE
	10500.	C	.IE
	10550.	C	.IEM
	10600.	C	.ILE
	10650.	C	. IE
	10700.	C	. IE
	10750.	C	. IE
	10800.	C	. IE
2.05	10850.	C	. ILE
	10900.	C	. ILE
	10950.	C	. IE
	11000.	C	. IE
	11050.	C	. IE
	11100.	C	. IEM
	11150.	C	. IRE
	11200.	C	. ILE
	11250.	C	. IE
2.13	11300.	C	. IE
	11350.	C	. IE
	11400.	C	. IER
	11450.	C	. ILE
	11500.	C	. IE
	11550.	C	. IE
	11600.	C	. IE
	11650.	C	. ILE
	11700.	C	. IE
2.22	11750.	C	. IE

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     11800.  C     .     .     .     .   IWE .     .     .     .     .     .
     11850.  C     .     .     .     .    IE .     .     .     .     .     .
     11900.  C     .     .     .     .   IWE.     .     .     .     .     .
     11950.  C     .     .     .     .   ILE.     .     .     .     .     .
     12000.  C     .     .     .     .    IWE     .     .     .     .     .
2.26 12050.  C     .     .     .     .    ILE     .     .     .     .     .
     12100.  C     .     .     .     .    IRE     .     .     .     .     .
     12150.  C     .     .     .     .    IRE     .     .     .     .     .
     12200.  C     .     .     .     .    I RE     .     .     .     .     .
2.30 12250.  C     .     .     .     .    I RE     .     .     .     .     .
     12300.  C     .     .     .     .    I RE     .     .     .     .     .
     12350.  C     .     .     .     .    I RE     .     .     .     .     .
     12400.  C     .     .     .     .    I RE     .     .     .     .     .
     12450.  C     .     .     .     .    I RWE     .     .     .     .     .
     12500.  C     .     .     .     .    IMRLE     .     .     .     .     .
     12550.  C     .     .     .     .    IMRLE     .     .     .     .     .
     12600.  C     .     .     .     .    IM.LE     .     .     .     .     .
     12650.  C     .     .     .     .    IM.LE     .     .     .     .     .
     12700.  C     .     .     .     .    IM.LE     .     .     .     .     .
2.40 12750.  C     .     .     .     .    IM.LE     .     .     .     .     .
     12800.  C     .     .     .     .    I MLE     .     .     .     .     .
     12850.  C     .     .     .     .    I MLE     .     .     .     .     .
     12900.  C     .     .     .     .    I MLE     .     .     .     .     .
     12950.  C     .     .     .     .    I .RE     .     .     .     .     .
     13000.  C     .     .     .     .     I.RE     .     .     .     .     .
     13050.  C     .     .     .     .     I.RE     .     .     .     .     .
     13100.  C     .     .     .     .     I.RE     .     .     .     .     .
     13150.  C     .     .     .     .     I.RE     .     .     .     .     .
     13200.  C     .     .     .     .     I. EM     .     .     .     .     .
2.50 13250.  C     .     .     .     .     I. LE     .     .     .     .     .
     13300.  C     .     .     .     .     I. LE     .     .     .     .     .
     13350.  C     .     .     .     .     I. LEM     .     .     .     .     .
     13400.  C     .     .     .     .     I. LEM     .     .     .     .     .
     13450.  C     .     .     .     .      I LEM     .     .     .     .     .
     13500.  C     .     .     .     .      I LEM     .     .     .     .     .
     13550.  C     .     .     .     .      I LWE     .     .     .     .     .
     13600.  C     .     .     .     .      I  LE     .     .     .     .     .
     13650.  C     .     .     .     .      I  LE     .     .     .     .     .
     13700.  C     .     .     .     .     .I LEM     .     .     .     .     .
     13750.  C     .     .     .     .     .I LEM     .     .     .     .     .
     13800.  C     .     .     .     .     .I LEM     .     .     .     .     .
     13850.  .     .     C     .     .     .I LWE     .     .     .     .     .
2.62 13900.  .     .     .     .     .     .I LWE     .     .     .     .     .
     13950.  C     .     .     .     .     . I LE     .     .     .     .     .
     14000.  C     .     .     .     .     . I LEM     .     .     .     .     .
     14050.  C     .     .     .     .     . I LWE     .     .     .     .     .
     14100.  C     .     .     .     .     .  I LE     .     .     .     .     .
     14150.  C     .     .     .     .     .  I LEM     .     .     .     .     .
     14200.  C     .     .     .     .     .  I  WE     .     .     .     .     .
     14250.  C     .     .     .     .     .   I LE     .     .     .     .     .
     14300.  C     .     .     .     .     .   I LE     .     .     .     .     .
     14350.  C     .     .     .     .     .   I  WE     .     .     .     .     .
2.71 14400.  C     .     .     .     .     .    I LE     .     .     .     .     .
     14450.  C     .     .     .     .     .    I RE     .     .     .     .     .
     14500.  C     .     .     .     .     .    I  EM.     .     .     .     .     .
     14550.  C     .     .     .     .     .     I LE.     .     .     .     .     .
     14600.  C     .     .     .     .     .     I LE.     .     .     .     .     .
     14650.  C     .     .     .     .     .     I LEM     .     .     .     .     .
     14700.  C     .     .     .     .     .      I WE     .     .     .     .     .
     14750.  C     .     .     .     .     .      I LE     .     .     .     .     .
     14800.  C     .     .     .     .     .      I LEM     .     .     .     .     .
2.80 14850.  .     .     .     .     .     .       ILWE     .     .     .     .     .
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	14900.	C	.	.	.	.	.	IL.E	.	.	.	.
	14950.	C	.	.	.	.	.	IL.E	.	.	.	.
	15000.	C	.	.	.	.	.	IL.E	.	.	.	.
	15050.	C	.	.	.	.	.	IL.EM	.	.	.	.
	15100.	C	.	.	.	.	.	IL.EM	.	.	.	.
	15150.	C	.	.	.	.	.	IL.WE	.	.	.	.
	15200.	C	.	.	.	.	.	IL. E	.	.	.	.
	15250.	C	.	.	.	.	.	IL. E	.	.	.	.
	15300.	C	.	.	.	.	.	IL. E	.	.	.	.
2.89	15350.	C	.	.	.	.	.	IL. E	.	.	.	.
	15400.	C	.	.	.	.	.	IL. E	.	.	.	.
	15450.	C	.	.	.	.	.	IL. EM	.	.	.	.
	15500.	C	.	.	.	.	.	IL. EM	.	.	.	.
	15550.	C	.	.	.	.	.	IL. EM	.	.	.	.
	15600.	C	.	.	.	.	.	IL. EM	.	.	.	.
	15650.	C	.	.	.	.	.	IL. WE	.	.	.	.
	15700.	C	.	.	.	.	.	IL. WEM	.	.	.	.
	15750.	C	.	.	.	.	.	IL. WEM	.	.	.	.
	15800.	C	.	.	.	.	.	IL. EM	.	.	.	.
2.99	15850.	C	.	.	.	.	.	IL. EM	.	.	.	.
	15900.	C	.	.	.	.	.	I L E M	.	.	.	.
	15950.	C	.	.	.	.	.	I L E M	.	.	.	.
	16000.	C	.	.	.	.	.	I L E M	.	.	.	.
	16050.	C	.	.	.	.	.	I .L E M	.	.	.	.
	16100.	C	.	.	.	.	.	I .L E M	.	.	.	.
	16150.	C	.	.	.	.	.	I .L E M	.	.	.	.
	16200.	C	.	.	.	.	.	I . LE M	.	.	.	.
	16250.	C	.	.	.	.	.	I . LE M	.	.	.	.
	16300.	C	.	.	.	.	.	I . WE M	.	.	.	.
	16350.	C	.	.	.	.	.	I . LE M	.	.	.	.
3.09	16400.	C	.	.	.	.	.	I . LE M	.	.	.	.
	16450.	C	.	.	.	.	.	I . LE M	.	.	.	.
	16500.	C	.	.	.	.	.	I. LE M	.	.	.	.
	16550.	C	.	.	.	.	.	I. LE M	.	.	.	.
	16600.	C	.	.	.	.	.	I. L E M	.	.	.	.
	16650.	C	.	.	.	.	.	I. L E M	.	.	.	.
	16700.	C	.	.	.	.	.	I. L E M	.	.	.	.
	16750.	C	.	.	.	.	.	I. L E M	.	.	.	.
	16800.	C	.	.	.	.	.	I.L E M	.	.	.	.
3.18	16850.	C	.	.	.	.	.	I.L WE M	.	.	.	.
	16900.	C	.	.	.	.	.	I.L WE M	.	.	.	.
	16950.	C	.	.	.	.	.	I L E M	.	.	.	.
	17000.	C	.	.	.	.	.	I L E M	.	.	.	.
	17050.	C	.	.	.	.	.	I L E M	.	.	.	.
	17100.	C	.	.	.	.	.	I L E M	.	.	.	.
	17150.	C	.	.	.	.	.	.I L E M	.	.	.	.
	17200.	C	.	.	.	.	.	.I L E M	.	.	.	.
	17250.	C	.	.	.	.	.	.I L E M	.	.	.	.
3.26	17300.	C	.	.	.	.	.	.I L E M	.	.	.	.

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     WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
     100 - YEAR STORM EVENT     FLOODWAY RUN        FILE: 13A.H2I
T3   LOWER EL MIRAGE WASH TRIBUTARY  (WASH 13A), FROM JUST NORTH OF CACTUS
T4   RD. TO LITCHFIELD RD.
T5   DISCHARGES ARE AS DERIVED FROM THE 24-HOUR STORM HEC1 MODEL.
T6

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

              3                                                     1119.34

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    14                 -1
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ECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= .100 CEHV= .300
*SECNO .000
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9900.0 10070.0 TYPE= 1 TARGET= 170.000

Q = Q AT CP157 (= 1771 CFS).

AT THE CONFLUENCE WITH LOWER EL MIRAGE WASH. (AT SEC. 1.259)

.000	2.91	1119.71	1119.71	1119.34	1120.54	.83	.00	.00	1118.00
1771.0	625.2	955.9	189.9	152.9	104.1	47.8	.0	.0	1118.00
.00	4.09	9.19	3.97	.070	.040	.070	.000	1116.80	9900.00
.020085	0.	0.	0.	0	7	0	.00	170.00	10070.00

*[illegible] .045

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.54

3470 ENCROACHMENT STATIONS= 9900.0 10055.0 TYPE= 1 TARGET= 155.000

Q = ROUTED FLOW FROM SUB. 156 TO SUB. 157 + 40% HYD. AT SUB. 157
= 792 + .4 (946) = 1170 CFS .

.045	3.80	1121.40	.00	1120.51	1121.53	.13	.92	.07	1118.00
1170.0	211.3	958.7	.0	159.2	306.1	.0	1.7	.7	100000.00
.02	1.33	3.13	.00	.070	.040	.000	.000	1117.60	9900.00
.001356	120.	240.	260.	4	0	0	.00	155.00	10055.00

*SECNO .110
3280 CROSS SECTION .11 EXTENDED .00 FEET

3470 ENCROACHMENT STATIONS= 9830.0 10057.0 TYPE= 1 TARGET= 227.000

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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

    .110      3.39   1121.99       .00   1121.20   1122.09       .10       .56       .00   1119.80
  1170.0     551.9     599.7      18.4     343.5     191.7      16.8       5.9       2.3   1120.00
     .06      1.61      3.13      1.09      .070      .040      .070      .000   1118.60   9830.00
 .001854      380.      340.      310.         3         0         0       .00    227.00  10057.00


*SECNO  .174
3280 CROSS SECTION       .17 EXTENDED       .09 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .58


3470 ENCROACHMENT STATIONS=     9970.0   10085.0  TYPE=      1  TARGET=      115.000
    .174      3.08   1122.78       .00   1122.10   1123.13       .35       .97       .08   1121.30
  1170.0      46.7    1123.3        .0      23.5     233.5        .0       8.8       3.5 100000.00
     .08      1.99      4.81       .00      .070      .040      .000      .000   1119.70   9970.00
 .005547      280.      340.      350.         2         0         0       .00    115.00  10085.00


*SECNO  .263

3470 ENCROACHMENT STATIONS=     9940.0   10040.0  TYPE=      1  TARGET=      100.000
    .263      3.38   1125.08       .00   1124.07   1125.40       .31      2.26       .00   1122.50
  1170.0     198.8     971.2        .0      79.4     202.4        .0      11.7       4.6 100000.00
     .11      2.50      4.80       .00      .070      .040      .000      .000   1121.70   9940.00
 .004255      450.      470.      480.         3         0         0       .00    100.00  10040.00


CCHV=     .100 CEHV=     .300
*SECNO  .354

3470 ENCROACHMENT STATIONS=     9900.0   10050.0  TYPE=      1  TARGET=      150.000
    .354      3.00   1127.10       .00   1126.21   1127.30       .21      1.89       .01   1124.80
  1170.0     129.5    1040.5        .0      95.5     271.9        .0      15.3       6.0 100000.00
     .15      1.36      3.83       .00      .100      .045      .000      .000   1124.10   9900.00
 .003661      480.      480.      480.         2         0         0       .00    150.00  10050.00


*SECNO  .453
3280 CROSS SECTION       .45 EXTENDED       .10 FEET
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=     9930.0   10050.0  TYPE=      1  TARGET=      120.000
      .453      2.50   1129.50       .00   1128.81   1129.81       .31      2.48       .03   1127.40
    1170.0      35.9    1134.1        .0      20.9     250.3        .0      19.1       7.6 100000.00
      .18      1.72      4.53       .00      .100      .045      .000      .000   1127.00   9930.00
   .006445      520.      520.      520.         3         0         0       .00    120.00  10050.00


*SECNO  .549
3280 CROSS SECTION       .55 EXTENDED       .70 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.54


3470 ENCROACHMENT STATIONS=     9920.0   10070.0  TYPE=      1  TARGET=      150.000
      .549      2.99   1131.69       .00   1130.72   1131.86       .16      2.03       .01   1129.00
    1170.0     111.7     986.7      71.5      79.5     285.0      52.5      23.1       9.2   1129.00
      .23      1.40      3.46      1.36      .100      .045      .100      .000   1128.70   9920.00
   .002721      490.      510.      500.         2         0         0       .00    150.00  10070.00


*SECNO  .614
3280 CROSS SECTION       .61 EXTENDED       .42 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.44


3470 ENCROACHMENT STATIONS=     9885.0   10105.0  TYPE=      1  TARGET=      220.000
      .614      2.52   1132.42       .00   1131.61   1132.49       .07       .62       .01   1130.00
    1170.0        .0    1170.0        .0        .0     542.6        .0      26.8      10.6 100000.00
      .27       .00      2.16       .00      .000      .045      .000      .000   1129.90   9885.00
   .001317      350.      340.      300.         3         0         0       .00    220.00  10105.00


*SECNO  .705
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9940.0   10150.0  TYPE=      1  TARGET=      210.000
      .705      1.34   1134.54   1134.54   1134.17   1135.07       .53      1.76       .14   1134.00
    1170.0       4.4    1048.4     117.3       2.7     171.0      45.1      31.0      13.0   1133.60
      .29      1.63      6.13      2.60      .100      .045      .100      .000   1133.20   9940.00
   .031545      490.      485.      470.        20        11         0       .00    210.00  10150.00
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ECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .778
3280 CROSS SECTION .78 EXTENDED .91 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.05

3470 ENCROACHMENT STATIONS= 9900.0 10135.0 TYPE= 1 TARGET= 235.000

.778	2.51	1136.91	.00	1135.88	1137.01	.09	1.89	.04	1134.80
1170.0	114.2	1022.3	33.5	108.0	399.5	33.2	34.4	15.0	1134.70
.34	1.06	2.56	1.01	.100	.045	.100	.000	1134.40	9900.00
.001921	390.	385.	340.	7	0	0	.00	235.00	10135.00

*SECNO .888
3280 CROSS SECTION .89 EXTENDED .04 FEET

3470 ENCROACHMENT STATIONS= 9900.0 10130.0 TYPE= 1 TARGET= 230.000

.888	2.23	1138.03	.00	1137.24	1138.12	.09	1.11	.00	1136.00
70.0	.0	1170.0	.0	.0	491.6	.0	41.2	18.0	100000.00
.41	.00	2.38	.00	.000	.045	.000	.000	1135.80	9900.00
.001931	550.	580.	600.	5	0	0	.00	230.00	10130.00

*SECNO .960
3280 CROSS SECTION .96 EXTENDED .22 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .52

3470 ENCROACHMENT STATIONS= 9900.0 10100.0 TYPE= 1 TARGET= 200.000

CROSS-SECTION AT 110 FEET SOUTH OF WADDELL RD.

.960	1.62	1139.22	.00	1138.85	1139.43	.22	1.27	.04	1137.70
1170.0	.0	1170.0	.0	.0	313.2	.0	44.7	19.9	100000.00
.43	.00	3.74	.00	.000	.045	.000	.000	1137.60	9900.00
.007180	350.	380.	400.	2	0	0	.00	200.00	10100.00

ECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.054
3280 CROSS SECTION 1.05 EXTENDED .75 FEET

3470 ENCROACHMENT STATIONS= 9920.0 10090.0 TYPE= 1 TARGET= 170.000

Q = Q AT CP156 (= 829 CFS).

1.054	1.96	1141.66	.00	1140.80	1141.76	.11	2.32	.01	1139.80
829.0	.0	829.0	.0	.0	313.9	.0	48.3	22.0	100000.00
.49	.00	2.64	.00	.000	.045	.000	.000	1139.70	9920.00
.002902	500.	495.	400.	3	0	0	.00	170.00	10090.00

*SECNO 1.137

3470 ENCROACHMENT STATIONS= 9910.0 10090.0 TYPE= 1 TARGET= 180.000

1.137	2.21	1143.31	.00	1142.33	1143.46	.15	1.68	.01	1141.90
829.0	17.8	791.3	19.8	14.2	246.7	15.2	51.2	23.8	1141.80
.52	1.25	3.21	1.30	.100	.045	.100	.000	1141.10	9910.00
05297	450.	440.	370.	2	0	0	.00	180.00	10090.00

*SECNO 1.232
3280 CROSS SECTION 1.23 EXTENDED .74 FEET

3470 ENCROACHMENT STATIONS= 9910.0 10090.0 TYPE= 1 TARGET= 180.000

1.232	2.14	1145.44	.00	1144.39	1145.56	.12	2.09	.00	1143.50
829.0	98.2	631.3	99.6	76.1	204.1	76.8	54.9	25.8	1143.50
.58	1.29	3.09	1.30	.100	.045	.100	.000	1143.30	9910.00
.003391	500.	500.	500.	2	0	0	.00	180.00	10090.00

*SECNO 1.317
3280 CROSS SECTION 1.32 EXTENDED .62 FEET

3470 ENCROACHMENT STATIONS= 9910.0 10090.0 TYPE= 1 TARGET= 180.000

1.317	2.01	1147.11	.00	1146.29	1147.25	.13	1.69	.00	1145.30
829.0	98.1	629.7	101.2	71.5	191.6	72.9	58.5	27.7	1145.30
.62	1.37	3.29	1.39	.100	.045	.100	.000	1145.10	9910.00
.004160	450.	450.	450.	2	0	0	.00	180.00	10090.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.363

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .61

3470 ENCROACHMENT STATIONS= 9900.0 10100.0 TYPE= 1 TARGET= 200.000

CROSS-SECTION AT AT & SF RAILROAD

Q = Q AT CP139 (= 843 CFS).

1.363	1.41	1148.61	.00	1147.93	1148.84	.23	1.56	.03	1147.30
843.0	121.1	596.4	125.6	64.7	136.2	66.1	60.1	28.7	1147.30
.64	1.87	4.38	1.90	.100	.045	.100	.000	1147.20	9900.00
.011653	230.	240.	240.	3	0	0	.00	200.00	10100.00

*SECNO 1.452

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.41

3470 ENCROACHMENT STATIONS= 9900.0 10100.0 TYPE= 1 TARGET= 200.000

1.452	2.36	1150.66	.00	1149.64	1150.73	.08	1.88	.01	1148.40
843.0	123.0	596.0	124.1	111.3	230.6	112.0	64.0	30.9	1148.40
.70	1.10	2.58	1.11	.100	.045	.100	.000	1148.30	9900.00
.002011	460.	470.	470.	4	0	0	.00	200.00	10100.00

*SECNO 1.563

3470 ENCROACHMENT STATIONS= 9900.0 10100.0 TYPE= 1 TARGET= 200.000

1.563	2.09	1152.19	.00	1151.22	1152.31	.12	1.57	.01	1150.40
843.0	116.1	613.1	113.8	88.9	194.6	87.8	69.5	33.5	1150.40
.76	1.31	3.15	1.30	.100	.045	.100	.000	1150.10	9900.00
.003749	600.	590.	540.	4	0	0	.00	200.00	10100.00

*SECNO 1.670

3470 ENCROACHMENT STATIONS= 9950.0 10100.0 TYPE= 1 TARGET= 150.000

1.670	2.15	1154.55	.00	1154.16	1154.72	.17	2.39	.02	1153.00
843.0	.0	694.9	148.1	.0	194.8	95.0	73.7	35.8	1152.60
.81	.00	3.57	1.56	.000	.045	.100	.000	1152.40	9950.00
.004900	560.	560.	560.	3	0	0	.00	150.00	10100.00

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 1.774

3470 ENCROACHMENT STATIONS=     9960.0   10120.0  TYPE=      1  TARGET=      160.000
   1.774      2.48   1156.78       .00   1156.03   1156.90       .12      2.17       .00   1155.30
   843.0        .0     622.9     220.1        .0     198.1     155.8      77.8      37.8   1154.50
     .87       .00      3.14      1.41      .000      .045      .100      .000   1154.30   9960.00
 .003235      530.      550.      560.         2         0         0       .00    160.00  10120.00


*SECNO 1.884
3280 CROSS SECTION      1.88 EXTENDED       .09 FEET


3470 ENCROACHMENT STATIONS=     9975.0   10100.0  TYPE=      1  TARGET=      125.000

              Q = (DIVERTED FLOW FROM SUB. 126 TO SUB. 139 + Q AT CP139)/2
                = (685 + 843 )/2 =764 CFS.

   1.884      2.79   1158.59       .00   1157.60   1158.74       .14      1.83       .01   1156.50
   764.0        .0     618.1     145.9        .0     185.9     108.0      82.1      39.6   1156.40
     .92       .00      3.32      1.35      .000      .045      .100      .000   1155.80   9975.00
 .003135      580.      580.      560.         2         0         0       .00    125.00  10100.00


*SECNO 1.976
3280 CROSS SECTION      1.98 EXTENDED       .42 FEET


3470 ENCROACHMENT STATIONS=     9850.0   10150.0  TYPE=      1  TARGET=      300.000
   1.976      2.12   1159.72       .00   1158.86   1159.77       .05      1.02       .01   1157.90
   764.0     131.2     461.8     171.0     152.9     217.0     187.3      86.3      41.7   1157.90
    1.00       .86      2.13       .91      .100      .045      .100      .000   1157.60   9850.00
 .001679      400.      490.      370.         2         0         0       .00    300.00  10150.00


*SECNO 2.054
3280 CROSS SECTION      2.05 EXTENDED       .10 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .55


3470 ENCROACHMENT STATIONS=     9900.0   10146.0  TYPE=      1  TARGET=      246.000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.054	1.70	1160.80	.00	1160.44	1160.93	.13	1.13	.02	1159.30
764.0	101.8	534.9	127.3	73.0	159.6	106.6	90.4	44.2	1159.30
1.04	1.40	3.35	1.19	.100	.045	.100	.000	1159.10	9900.00
.005526	350.	410.	430.	2	0	0	.00	246.00	10146.00

*SECNO 2.135
3280 CROSS SECTION 2.13 EXTENDED .13 FEET

3470 ENCROACHMENT STATIONS= 9900.0 10060.0 TYPE= 1 TARGET= 160.000

2.135	2.24	1162.74	.00	1161.80	1162.87	.12	1.94	.00	1160.70
764.0	146.0	618.0	.0	101.4	202.1	.0	93.5	46.2	100000.00
1.08	1.44	3.06	.00	.100	.045	.000	.000	1160.50	9900.00
.003855	370.	430.	470.	3	0	0	.00	160.00	10060.00

*SECNO 2.221
3280 CROSS SECTION 2.22 EXTENDED .55 FEET

3470 ENCROACHMENT STATIONS= 9900.0 10085.0 TYPE= 1 TARGET= 185.000

2.221	2.04	1164.84	.00	1163.82	1165.00	.16	2.12	.01	1163.30
764.0	117.7	600.3	46.0	77.9	167.1	38.4	96.5	48.0	1163.80
1.12	1.51	3.59	1.20	.100	.045	.100	.000	1162.80	9900.00
.005969	440.	450.	450.	1	0	0	.00	185.00	10085.00

*SECNO 2.260
3280 CROSS SECTION 2.26 EXTENDED .07 FEET

3470 ENCROACHMENT STATIONS= 9930.0 10096.0 TYPE= 1 TARGET= 166.000

CITY OF EL MIRAGE CORPORATE LIMITS WEST OF DYSART ROAD AND SOUTH
OF GREENWAY ROAD.
TOWN OF SURPRISE CORPORATE LIMITS NORTH OF GREENWAY ROAD.

CROSS-SECTION AT GREENWAY RD. & DYSART RD.

2.260	2.08	1166.58	.00	1166.35	1166.77	.19	1.76	.01	1166.00
764.0	.0	721.8	42.2	.0	201.8	34.7	98.2	49.1	1165.00
1.14	.00	3.58	1.22	.000	.045	.100	.000	1164.50	9930.00
.006572	300.	280.	260.	3	0	0	.00	166.00	10096.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO 2.302
3280 CROSS SECTION 2.30 EXTENDED 3.01 FEET

3470 ENCROACHMENT STATIONS= 9960.0 10090.0 TYPE= 1 TARGET= 130.000

Q = Q AT CP126 (= 856 CFS).

ENTIRE CROSS-SECTION IS EFFECTIVE DUE TO UPSREAM INPUT AT
X1= 2.615

WSEL EXTENSION IS DUE TO LIMITED GRADE AT THE RIGHT OVRERBANK.
THIS HAS BEEN REFLECTED BY A DIVERSION IN THE HEC1 MODEL.

2.302	3.31	1167.81	.00	1167.86	1168.18	.37	1.36	.05	1168.20
856.0	.0	155.5	700.5	.0	51.4	135.3	99.0	49.7	1167.00
1.15	.00	3.03	5.18	.000	.045	.050	.000	1164.50	9978.16
.009604	350.	210.	120.	2	0	0	.00	111.83	10090.00

*SECNO 2.399
3280 CROSS SECTION 2.40 EXTENDED 3.39 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.96

3470 ENCROACHMENT STATIONS= 9965.0 10115.0 TYPE= 1 TARGET= 150.000

WSEL EXTENSION IS DUE TO LIMITED GRADE AT THE RIGHT OVERBANK.
THIS HAS BEEN REFLECTED BY A DIVERSION IN THE HEC1 MODEL.

2.399	4.39	1169.39	.00	1168.80	1169.45	.07	1.25	.03	1168.20
856.0	.0	248.1	607.9	.0	142.9	277.2	102.6	51.2	1167.50
1.22	.00	1.74	2.19	.000	.045	.050	.000	1165.00	9965.00
.001094	570.	510.	510.	5	0	0	.00	150.00	10115.00

*SECNO 2.497

3470 ENCROACHMENT STATIONS= 9965.0 10087.0 TYPE= 1 TARGET= 122.000

2.497	4.35	1170.05	.00	1169.31	1170.16	.10	.69	.01	1168.50
856.0	.0	376.1	479.9	.0	162.5	172.0	107.1	52.9	1168.50
1.28	.00	2.31	2.79	.000	.045	.050	.000	1165.70	9965.00
.001648	530.	520.	520.	3	0	0	.00	122.00	10087.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO 2.615

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .38

3470 ENCROACHMENT STATIONS= 9960.0 10027.0 TYPE= 1 TARGET= 67.000

Q = ROUTED DIVERSION FROM SUB. 125 TO SUB. 126 + 60% OF
HYDROGRAPH AT SUB. 126 = 433 + .6(562) = 770 CFS.

2.615	3.68	1171.68	.00	1171.12	1172.21	.53	1.92	.13	1170.00
770.0	41.0	724.5	4.6	25.4	120.3	2.5	110.5	54.2	1170.00
1.31	1.61	6.02	1.80	.100	.045	.070	.000	1168.00	9960.00
.009020	620.	620.	620.	3	0	0	.00	67.00	10027.00

*SECNO 2.709
3280 CROSS SECTION 2.71 EXTENDED .02 FEET

3470 ENCROACHMENT STATIONS= 9970.0 10041.0 TYPE= 1 TARGET= 71.000

2.709	3.82	1175.32	.00	1174.55	1175.63	.31	3.40	.02	1174.10
770.0	.0	760.6	9.4	.0	169.4	6.4	112.4	55.0	1174.00
1.34	.00	4.49	1.48	.000	.045	.070	.000	1171.50	9970.00
.005307	500.	500.	500.	4	0	0	.00	71.00	10041.00

*SECNO 2.796

3470 ENCROACHMENT STATIONS= 9960.0 10040.0 TYPE= 1 TARGET= 80.000

2.796	3.16	1177.66	.00	1177.17	1177.99	.34	2.36	.01	1176.00
770.0	22.1	722.9	25.1	18.8	150.3	16.3	114.3	55.8	1176.00
1.37	1.17	4.81	1.54	.100	.045	.070	.000	1174.50	9960.00
.004947	460.	460.	460.	3	0	0	.00	80.00	10040.00

*SECNO 2.889

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.06

3470 ENCROACHMENT STATIONS= 9945.0 10042.0 TYPE= 1 TARGET= 97.000

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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

   2.889      4.32   1178.92       .00   1178.75   1179.05       .13      1.04       .02   1176.00
   770.0      18.0     739.8      12.3      27.9     252.6      13.7     117.0      56.8   1176.00
    1.42       .64      2.93       .90      .100      .045      .070      .000   1174.60   9945.00
 .001167      490.      490.      490.         3         0         0       .00     97.00  10042.00

*SECNO 2.986

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .60

3470 ENCROACHMENT STATIONS=     9963.0   10027.0  TYPE=      1  TARGET=       64.000

             Q = ROUTED DIVERSION FROM SUB. 125 TO SUB. 126 + 20% OF
             HYDROGRAPH AT SUB. 126   = 433 + .2(562) = 545 CFS.

   2.986      5.27   1179.57       .00   1179.44   1179.74       .17       .68       .01   1176.00
   545.0      31.7     472.8      40.5      31.8     132.6      31.8     119.9      57.7   1176.00
    1.46      1.00      3.57      1.27      .100      .045      .070      .000   1174.30   9963.00
 .001623      510.      510.      510.         3         0         0       .00     64.00  10027.00

*SECNO 3.088

3470 ENCROACHMENT STATIONS=     9969.0   10030.0  TYPE=      1  TARGET=       61.000
   3.088      5.22   1180.42       .00   1180.37   1180.53       .11       .78       .01   1180.00
   545.0        .1     544.9        .0        .3     205.2        .0     122.4      58.5 100000.00
    1.52       .22      2.66       .00      .100      .045      .000      .000   1175.20   9969.00
 .001294      540.      540.      540.         2         0         0       .00     61.00  10030.00

*SECNO 3.177

3470 ENCROACHMENT STATIONS=     9970.0   10027.0  TYPE=      1  TARGET=       57.000
   3.177      5.12   1181.12       .00   1181.09   1181.34       .22       .77       .03   1178.00
   545.0      25.3     484.7      35.0      24.2     123.4      22.6     124.4      59.1   1178.00
    1.55      1.04      3.93      1.55      .100      .045      .070      .000   1176.00   9970.00
 .002171      470.      470.      470.         1         0         0       .00     57.00  10027.00

*SECNO 3.257

3470 ENCROACHMENT STATIONS=     9960.0   10040.0  TYPE=      1  TARGET=       80.000
```

CROSS-SECTION AT GREENWAY RD. & LITCHFIELD RD.

3.257	3.92	1182.02	.00	1182.00	1182.14	.12	.79	.01	1180.00
545.0	6.1	534.6	4.2	10.2	193.0	5.1	126.2	59.8	1180.00
1.59	.60	2.77	.83	.100	.045	.070	.000	1178.10	9960.00
.001653	380.	420.	430.	2	0	0	.00	80.00	10040.00

THIS RUN EXECUTED 19FEB92 13:54:54

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LOWER EL MIRAGE WASH TRI

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	.000	1771.00	1119.34	9577.71	9995.00	10040.00	10328.84	.00	751.13	2.54	1116.80	153.10	7.13
*	.000	1771.00	1119.71	9900.00	9995.00	10040.00	10070.00	.00	170.00	2.91	1116.80	200.85	9.19
*	.045	1170.00	1120.51	9388.66	9970.00	10055.00	10083.81	1.17	695.15	2.91	1117.60	15.84	2.87
*	.045	1170.00	1121.40	9900.00	9970.00	10055.00	10055.00	1.69	155.00	3.80	1117.60	13.56	3.13
	.110	1170.00	1121.20	9397.58	9975.00	10045.00	10057.05	.70	659.47	2.60	1118.60	21.71	2.69
	.110	1170.00	1121.99	9830.00	9975.00	10045.00	10057.00	.59	227.00	3.39	1118.60	18.54	3.13
*	.174	1170.00	1122.10	9375.13	9985.00	10085.00	10203.71	.89	828.58	2.40	1119.70	45.78	3.50
*	.174	1170.00	1122.78	9970.00	9985.00	10085.00	10085.00	.79	115.00	3.08	1119.70	55.47	4.81
	.263	1170.00	1124.07	9494.65	9970.00	10040.00	10199.35	1.97	704.70	2.37	1121.70	39.31	3.54
	.263	1170.00	1125.08	9940.00	9970.00	10040.00	10040.00	2.30	100.00	3.38	1121.70	42.55	4.80
	.354	1170.00	1126.21	9585.29	9950.00	10050.00	10328.52	2.15	743.22	2.11	1124.10	52.31	3.58
	.354	1170.00	1127.10	9900.00	9950.00	10050.00	10050.00	2.01	150.00	3.00	1124.10	36.61	3.83
	.453	1170.00	1128.81	9348.31	9940.00	10050.00	10227.03	2.59	878.72	1.81	1127.00	45.80	3.04
	.453	1170.00	1129.50	9930.00	9940.00	10050.00	10050.00	2.40	120.00	2.50	1127.00	64.45	4.53
	.549	1170.00	1130.72	9389.51	9950.00	10050.00	10501.77	1.91	1112.26	2.02	1128.70	31.89	2.83
*	.549	1170.00	1131.69	9920.00	9950.00	10050.00	10070.00	2.20	150.00	2.99	1128.70	27.21	3.46
	.614	1170.00	1131.61	9415.19	9885.00	10105.00	10619.36	.90	1204.18	1.71	1129.90	22.09	2.17
*	.614	1170.00	1132.42	9885.00	9885.00	10105.00	10105.00	.72	220.00	2.52	1129.90	13.17	2.16
*	.705	1170.00	1134.17	9501.01	9945.00	10105.00	10724.39	2.56	1223.39	.97	1133.20	313.53	4.63
*	.705	1170.00	1134.54	9940.00	9945.00	10105.00	10150.00	2.12	210.00	1.34	1133.20	315.45	6.13
*	.778	1170.00	1135.88	9354.33	9950.00	10120.00	10757.80	1.71	1403.48	1.48	1134.40	15.69	1.57
*	.778	1170.00	1136.91	9900.00	9950.00	10120.00	10135.00	2.38	235.00	2.51	1134.40	19.21	2.56

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
*	.888	1170.00	1137.24	9421.53	9900.00	10130.00	10479.11	1.36	1057.58	1.44	1135.80	42.28	2.62
	.888	1170.00	1138.03	9900.00	9900.00	10130.00	10130.00	1.12	230.00	2.23	1135.80	19.31	2.38
	.960	1170.00	1138.85	9488.14	9900.00	10100.00	10591.99	1.61	1103.86	1.25	1137.60	41.38	2.38
*	.960	1170.00	1139.22	9900.00	9900.00	10100.00	10100.00	1.18	200.00	1.62	1137.60	71.80	3.74
	1.054	829.00	1140.80	9582.84	9920.00	10090.00	10664.94	1.95	1082.10	1.10	1139.70	40.65	2.10
	1.054	829.00	1141.66	9920.00	9920.00	10090.00	10090.00	2.44	170.00	1.96	1139.70	29.02	2.64
	1.137	829.00	1142.33	9451.75	9920.00	10080.00	10973.87	1.53	1522.12	1.23	1141.10	33.36	1.28
	1.137	829.00	1143.31	9910.00	9920.00	10080.00	10090.00	1.65	180.00	2.21	1141.10	52.97	3.21
	1.232	829.00	1144.39	9165.42	9950.00	10050.00	10803.43	2.06	1638.01	1.09	1143.30	53.30	2.40
	1.232	829.00	1145.44	9910.00	9950.00	10050.00	10090.00	2.13	180.00	2.14	1143.30	33.91	3.09
	1.317	829.00	1146.29	9282.31	9950.00	10050.00	10583.75	1.90	1301.44	1.19	1145.10	34.09	2.06
	1.317	829.00	1147.11	9910.00	9950.00	10050.00	10090.00	1.68	180.00	2.01	1145.10	41.60	3.29
*	1.363	843.00	1147.93	9631.70	9950.00	10050.00	10460.15	1.64	828.45	.73	1147.20	225.64	3.87
*	1.363	843.00	1148.61	9900.00	9950.00	10050.00	10100.00	1.50	200.00	1.41	1147.20	116.53	4.38
*	1.452	843.00	1149.64	9133.81	9950.00	10050.00	10701.99	1.71	1568.17	1.34	1148.30	13.36	1.43
*	1.452	843.00	1150.66	9900.00	9950.00	10050.00	10100.00	2.04	200.00	2.36	1148.30	20.11	2.58
	1.563	843.00	1151.22	9189.28	9950.00	10050.00	10566.70	1.57	1377.42	1.12	1150.10	87.07	3.00
	1.563	843.00	1152.19	9900.00	9950.00	10050.00	10100.00	1.54	200.00	2.09	1150.10	37.49	3.15
*	1.670	843.00	1154.16	9768.72	9950.00	10050.00	10575.48	2.94	806.76	1.76	1152.40	35.19	2.64
	1.670	843.00	1154.55	9950.00	9950.00	10050.00	10100.00	2.35	150.00	2.15	1152.40	49.00	3.57
	1.774	843.00	1156.03	9900.59	9960.00	10050.00	10772.94	1.87	872.36	1.73	1154.30	31.40	2.37
	1.774	843.00	1156.78	9960.00	9960.00	10050.00	10120.00	2.23	160.00	2.48	1154.30	32.35	3.14
	1.884	764.00	1157.60	9912.18	9975.00	10050.00	10940.84	1.57	1028.66	1.80	1155.80	23.98	2.12
	1.884	764.00	1158.59	9975.00	9975.00	10050.00	10100.00	1.82	125.00	2.79	1155.80	31.35	3.32
	1.976	764.00	1158.86	9503.47	9940.00	10050.00	10533.12	1.26	1029.66	1.26	1157.60	40.42	2.26
	1.976	764.00	1159.72	9850.00	9940.00	10050.00	10150.00	1.13	300.00	2.12	1157.60	16.79	2.13
	2.054	764.00	1160.44	9126.28	9950.00	10050.00	10146.25	1.58	1019.97	1.34	1159.10	39.76	2.40
*	2.054	764.00	1160.80	9900.00	9950.00	10050.00	10146.00	1.07	246.00	1.70	1159.10	55.26	3.35
	2.135	764.00	1161.80	9173.15	9950.00	10070.00	10060.93	1.36	887.78	1.30	1160.50	29.56	1.68
	2.135	764.00	1162.74	9900.00	9950.00	10070.00	10060.00	1.95	160.00	2.24	1160.50	38.55	3.06
*	2.221	764.00	1163.82	9156.86	9950.00	10050.00	10085.67	2.02	928.81	1.02	1162.80	80.97	2.20
	2.221	764.00	1164.84	9900.00	9950.00	10050.00	10085.00	2.10	185.00	2.04	1162.80	59.69	3.59
	2.260	764.00	1166.35	9805.11	9930.00	10060.00	10096.94	2.53	291.83	1.85	1164.50	108.69	4.16
	2.260	764.00	1166.58	9930.00	9930.00	10060.00	10096.00	1.74	166.00	2.08	1164.50	65.72	3.58

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
*	2.302	856.00	1167.86	9423.26	9960.00	10035.00	10090.00	1.51	626.27	3.36	1164.50	52.82	2.31
	2.302	856.00	1167.81	9978.16	9960.00	10035.00	10090.00	1.23	111.83	3.31	1164.50	96.04	3.03
*	2.399	856.00	1168.80	9193.51	9965.00	10035.00	10115.00	.93	921.49	3.80	1165.00	6.76	1.10
*	2.399	856.00	1169.39	9965.00	9965.00	10035.00	10115.00	1.58	150.00	4.39	1165.00	10.94	1.74
*	2.497	856.00	1169.31	9394.85	9965.00	10035.00	10087.15	.51	692.29	3.61	1165.70	17.02	1.84
	2.497	856.00	1170.05	9965.00	9965.00	10035.00	10087.00	.66	122.00	4.35	1165.70	16.48	2.31
*	2.615	770.00	1171.12	9621.44	9980.00	10025.00	10027.81	1.81	406.37	3.12	1168.00	90.74	5.18
*	2.615	770.00	1171.68	9960.00	9980.00	10025.00	10027.00	1.62	67.00	3.68	1168.00	90.20	6.02
	2.709	770.00	1174.55	9518.34	9970.00	10035.00	10041.33	3.43	522.99	3.05	1171.50	48.54	3.44
	2.709	770.00	1175.32	9970.00	9970.00	10035.00	10041.00	3.64	71.00	3.82	1171.50	53.07	4.49
	2.796	770.00	1177.17	9741.12	9975.00	10025.00	10040.35	2.62	299.23	2.67	1174.50	80.77	5.46
	2.796	770.00	1177.66	9960.00	9975.00	10025.00	10040.00	2.34	80.00	3.16	1174.50	49.47	4.81
*	2.889	770.00	1178.75	9760.96	9970.00	10030.00	10042.55	1.58	281.59	4.15	1174.60	12.51	2.95
*	2.889	770.00	1178.92	9945.00	9970.00	10030.00	10042.00	1.27	97.00	4.32	1174.60	11.67	2.93
*	2.986	545.00	1179.44	9962.79	9980.00	10010.00	10027.21	.69	64.42	5.14	1174.30	18.20	3.70
*	2.986	545.00	1179.57	9963.00	9980.00	10010.00	10027.00	.65	64.00	5.27	1174.30	16.23	3.57
	3.088	545.00	1180.37	9968.17	9970.00	10030.00	10030.92	.93	62.75	5.17	1175.20	13.51	2.70
	3.088	545.00	1180.42	9969.00	9970.00	10030.00	10030.00	.85	61.00	5.22	1175.20	12.94	2.66
	3.177	545.00	1181.09	9969.50	9985.00	10015.00	10027.75	.72	58.25	5.09	1176.00	21.98	3.94
	3.177	545.00	1181.12	9970.00	9985.00	10015.00	10027.00	.70	57.00	5.12	1176.00	21.71	3.93
	3.257	545.00	1182.00	9959.99	9970.00	10035.00	10040.01	.91	80.02	3.90	1178.10	16.84	2.79
	3.257	545.00	1182.02	9960.00	9970.00	10035.00	10040.00	.90	80.00	3.92	1178.10	16.53	2.77

EL MIRAGE WASH TRI

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	.000	1119.34	.00	1119.67	751.13	646.68	622.71	501.61	.00	.00	9995.00	10040.00	.00
*	.000	1119.71	.37	1120.54	170.00	625.19	955.94	189.87	170.00	9900.00	9995.00	10040.00	10070.00
*	.045	1120.51	.00	1120.59	695.15	467.01	660.89	42.09	.00	.00	9970.00	10055.00	.00
*	.045	1121.40	.89	1121.53	155.00	211.28	958.72	.00	155.00	9900.00	9970.00	10055.00	10055.00
	.110	1121.20	.00	1121.25	659.47	799.20	365.69	5.11	.00	.00	9975.00	10045.00	.00
	.110	1121.99	.79	1122.09	227.00	551.89	599.71	18.40	227.00	9830.00	9975.00	10045.00	10057.00
*	.174	1122.10	.00	1122.20	828.58	529.91	576.32	63.77	.00	.00	9985.00	10085.00	.00
*	.174	1122.78	.69	1123.13	115.00	46.67	1123.33	.00	115.00	9970.00	9985.00	10085.00	10085.00
	.263	1124.07	.00	1124.16	704.70	558.34	464.37	147.29	.00	.00	9970.00	10040.00	.00
	.263	1125.08	1.02	1125.40	100.00	198.76	971.24	.00	100.00	9940.00	9970.00	10040.00	10040.00
	.354	1126.21	.00	1126.33	743.22	238.74	658.59	272.67	.00	.00	9950.00	10050.00	.00
	.354	1127.10	.88	1127.30	150.00	129.49	1040.50	.00	150.00	9900.00	9950.00	10050.00	10050.00
	.453	1128.81	.00	1128.88	878.72	509.12	529.15	131.73	.00	.00	9940.00	10050.00	.00
	.453	1129.50	.69	1129.81	120.00	35.94	1134.06	.00	120.00	9930.00	9940.00	10050.00	10050.00
	.549	1130.72	.00	1130.78	1112.26	398.13	527.26	244.61	.00	.00	9950.00	10050.00	.00
*	.549	1131.69	.98	1131.86	150.00	111.74	986.75	71.51	150.00	9920.00	9950.00	10050.00	10070.00
	.614	1131.61	.00	1131.66	1204.18	227.68	791.62	150.70	.00	.00	9885.00	10105.00	.00
*	.614	1132.42	.80	1132.49	220.00	.00	1170.00	.00	220.00	9885.00	9885.00	10105.00	10105.00
*	.705	1134.17	.00	1134.35	1223.39	19.97	522.87	627.16	.00	.00	9945.00	10105.00	.00
*	.705	1134.54	.36	1135.07	210.00	4.37	1048.36	117.27	210.00	9940.00	9945.00	10105.00	10150.00
*	.778	1135.88	.00	1135.90	1403.48	330.48	352.44	487.09	.00	.00	9950.00	10120.00	.00
*	.778	1136.91	1.03	1137.01	235.00	114.24	1022.26	33.50	235.00	9900.00	9950.00	10120.00	10135.00
*	.888	1137.24	.00	1137.32	1057.58	205.37	811.17	153.46	.00	.00	9900.00	10130.00	.00
	.888	1138.03	.79	1138.12	230.00	.00	1170.00	.00	230.00	9900.00	9900.00	10130.00	10130.00
	.960	1138.85	.00	1138.90	1103.86	306.67	566.95	296.39	.00	.00	9900.00	10100.00	.00
*	.960	1139.22	.37	1139.43	200.00	.00	1170.00	.00	200.00	9900.00	9900.00	10100.00	10100.00
	1.054	1140.80	.00	1140.83	1082.10	236.89	354.70	237.41	.00	.00	9920.00	10090.00	.00
	1.054	1141.66	.86	1141.76	170.00	.00	829.00	.00	170.00	9920.00	9920.00	10090.00	10090.00
	1.137	1142.33	.00	1142.34	1522.12	161.23	112.82	554.95	.00	.00	9920.00	10080.00	.00
	1.137	1143.31	.98	1143.46	180.00	17.83	791.33	19.83	180.00	9910.00	9920.00	10080.00	10090.00
	1.232	1144.39	.00	1144.42	1638.01	259.66	238.40	330.94	.00	.00	9950.00	10050.00	.00
	1.232	1145.44	1.05	1145.56	180.00	98.17	631.27	99.56	180.00	9910.00	9950.00	10050.00	10090.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	1.317	1146.29	.00	1146.32	1301.44	231.01	227.23	370.76	.00	.00	9950.00	10050.00	.00
	1.317	1147.11	.82	1147.25	180.00	98.10	629.69	101.22	180.00	9910.00	9950.00	10050.00	10090.00
*	1.363	1147.93	.00	1148.03	828.45	223.80	266.67	352.53	.00	.00	9950.00	10050.00	.00
*	1.363	1148.61	.68	1148.84	200.00	121.06	596.35	125.58	200.00	9900.00	9950.00	10050.00	10100.00
*	1.452	1149.64	.00	1149.65	1568.17	397.01	184.82	261.17	.00	.00	9950.00	10050.00	.00
*	1.452	1150.66	1.01	1150.73	200.00	122.96	595.95	124.09	200.00	9900.00	9950.00	10050.00	10100.00
*	1.563	1151.22	.00	1151.27	1377.42	392.60	288.28	162.13	.00	.00	9950.00	10050.00	.00
	1.563	1152.19	.98	1152.31	200.00	116.09	613.14	113.78	200.00	9900.00	9950.00	10050.00	10100.00
*	1.670	1154.16	.00	1154.22	806.76	34.52	411.83	396.65	.00	.00	9950.00	10050.00	.00
	1.670	1154.55	.39	1154.72	150.00	.00	694.95	148.05	150.00	9950.00	9950.00	10050.00	10100.00
	1.774	1156.03	.00	1156.06	872.36	9.11	309.91	523.99	.00	.00	9960.00	10050.00	.00
	1.774	1156.78	.75	1156.90	160.00	.00	622.95	220.05	160.00	9960.00	9960.00	10050.00	10120.00
	1.884	1157.60	.00	1157.63	1028.66	17.09	237.98	508.93	.00	.00	9975.00	10050.00	.00
	1.884	1158.59	.99	1158.74	125.00	.00	618.05	145.95	125.00	9975.00	9975.00	10050.00	10100.00
	1.976	1158.86	.00	1158.89	1029.66	119.53	276.76	367.70	.00	.00	9940.00	10050.00	.00
	1.976	1159.72	.87	1159.77	300.00	131.21	461.77	171.02	300.00	9850.00	9940.00	10050.00	10150.00
	2.054	1160.44	.00	1160.48	1019.97	409.96	296.96	57.08	.00	.00	9950.00	10050.00	.00
*	2.054	1160.80	.36	1160.93	246.00	101.84	534.85	127.30	246.00	9900.00	9950.00	10050.00	10146.00
	2.135	1161.80	.00	1161.82	887.78	596.34	167.66	.00	.00	.00	9950.00	10070.00	.00
	2.135	1162.74	.94	1162.87	160.00	145.98	618.02	.00	160.00	9900.00	9950.00	10070.00	10060.00
*	2.221	1163.82	.00	1163.85	928.81	622.94	140.59	.47	.00	.00	9950.00	10050.00	.00
	2.221	1164.84	1.02	1165.00	185.00	117.70	600.28	46.02	185.00	9900.00	9950.00	10050.00	10085.00
	2.260	1166.35	.00	1166.60	291.83	10.44	717.76	35.80	.00	.00	9930.00	10060.00	.00
	2.260	1166.58	.23	1166.77	166.00	.00	721.83	42.17	166.00	9930.00	9930.00	10060.00	10096.00
*	2.302	1167.86	.00	1168.02	626.27	193.26	125.49	537.25	.00	.00	9960.00	10035.00	.00
	2.302	1167.81	-.05	1168.18	111.83	.00	155.53	700.47	130.00	9960.00	9960.00	10035.00	10090.00
*	2.399	1168.80	.00	1168.82	921.49	391.36	111.77	352.87	.00	.00	9965.00	10035.00	.00
*	2.399	1169.39	.59	1169.45	150.00	.00	248.11	607.89	150.00	9965.00	9965.00	10035.00	10115.00
*	2.497	1169.31	.00	1169.36	692.29	323.80	202.75	329.45	.00	.00	9965.00	10035.00	.00
	2.497	1170.05	.74	1170.16	122.00	.00	376.05	479.95	122.00	9965.00	9965.00	10035.00	10087.00
*	2.615	1171.12	.00	1171.40	406.37	272.62	495.31	2.07	.00	.00	9980.00	10025.00	.00
*	2.615	1171.68	.55	1172.21	67.00	40.97	724.46	4.57	67.00	9960.00	9980.00	10025.00	10027.00
	2.709	1174.55	.00	1174.65	522.99	359.07	409.84	1.08	.00	.00	9970.00	10035.00	.00
	2.709	1175.32	.77	1175.63	71.00	.00	760.60	9.40	71.00	9970.00	9970.00	10035.00	10041.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	2.796	1177.17	.00	1177.58	299.23	71.19	686.90	11.90	.00	.00	9975.00	10025.00	.00
	2.796	1177.66	.49	1177.99	80.00	22.07	722.86	25.07	80.00	9960.00	9975.00	10025.00	10040.00
*	2.889	1178.75	.00	1178.87	281.59	44.95	714.81	10.24	.00	.00	9970.00	10030.00	.00
*	2.889	1178.92	.18	1179.05	97.00	17.96	739.77	12.27	97.00	9945.00	9970.00	10030.00	10042.00
*	2.986	1179.44	.00	1179.63	64.42	30.31	476.68	38.01	.00	.00	9980.00	10010.00	.00
*	2.986	1179.57	.13	1179.74	64.00	31.71	472.84	40.45	64.00	9963.00	9980.00	10010.00	10027.00
	3.088	1180.37	.00	1180.48	62.75	.06	544.90	.04	.00	.00	9970.00	10030.00	.00
	3.088	1180.42	.05	1180.53	61.00	.07	544.93	.00	61.00	9969.00	9970.00	10030.00	10030.00
	3.177	1181.09	.00	1181.31	58.25	25.09	485.10	34.81	.00	.00	9985.00	10015.00	.00
	3.177	1181.12	.03	1181.34	57.00	25.29	484.73	34.98	57.00	9970.00	9985.00	10015.00	10027.00
	3.257	1182.00	.00	1182.12	80.02	6.05	534.79	4.17	.00	.00	9970.00	10035.00	.00
	3.257	1182.02	.02	1182.14	80.00	6.14	534.63	4.23	80.00	9960.00	9970.00	10035.00	10040.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO=      .000  PROFILE=  2  CRITICAL DEPTH ASSUMED

WARNING SECNO=      .045  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .045  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .174  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .174  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .549  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .614  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .705  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=      .705  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .705  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .705  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=      .778  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .778  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .888  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .960  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.363  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.363  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.452  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.452  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.563  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.670  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.054  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.221  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.302  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.399  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.399  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.497  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.615  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.615  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.889  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.889  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO=      2.986  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      2.986  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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FLOODWAY DATA, LOWER EL MIRAGE WASH TRI
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
.000	170.	305.	5.8	1119.7	1119.3	.4
.045	155.	465.	2.5	1121.4	1120.5	.9
.110	227.	552.	2.1	1122.0	1121.2	.8
.174	115.	257.	4.6	1122.8	1122.1	.7
.263	100.	282.	4.2	1125.1	1124.1	1.0
.354	150.	367.	3.2	1127.1	1126.2	.9
.453	120.	271.	4.3	1129.5	1128.8	.7
.549	150.	417.	2.8	1131.7	1130.7	1.0
.614	220.	543.	2.2	1132.4	1131.6	.8
.705	210.	219.	5.3	1134.6	1134.2	.4
.778	235.	541.	2.2	1136.9	1135.9	1.0
.888	230.	492.	2.4	1138.0	1137.2	.8
.960	200.	313.	3.7	1139.2	1138.8	.4
1.054	170.	314.	2.6	1141.7	1140.8	.9
1.137	180.	276.	3.0	1143.3	1142.3	1.0
1.232	180.	357.	2.3	1145.4	1144.4	1.0
1.317	180.	336.	2.5	1147.1	1146.3	.8
1.363	200.	267.	3.2	1148.6	1147.9	.7
1.452	200.	454.	1.9	1150.6	1149.6	1.0
1.563	200.	371.	2.3	1152.2	1151.2	1.0
1.670	150.	290.	2.9	1154.6	1154.2	.4
1.774	160.	354.	2.4	1156.8	1156.0	.8
1.884	125.	294.	2.6	1158.6	1157.6	1.0
1.976	300.	557.	1.4	1159.8	1158.9	.9
2.054	246.	339.	2.3	1160.8	1160.4	.4
2.135	160.	303.	2.5	1162.7	1161.8	.9
2.221	185.	283.	2.7	1164.8	1163.8	1.0
2.260	166.	236.	3.2	1166.5	1166.3	.2
2.302	112.	187.	4.6	1167.8	1167.9	-.1
2.399	150.	420.	2.0	1169.4	1168.8	.6
2.497	122.	335.	2.6	1170.0	1169.3	.7
2.615	67.	148.	5.2	1171.7	1171.1	.6
2.709	71.	176.	4.4	1175.3	1174.5	.8
2.796	80.	185.	4.2	1177.7	1177.2	.5
2.889	97.	294.	2.6	1178.9	1178.7	.2
2.986	64.	196.	2.8	1179.5	1179.4	.1
3.088	61.	206.	2.7	1180.5	1180.4	.1
3.177	57.	170.	3.2	1181.1	1181.1	.0
3.257	80.	208.	2.6	1182.0	1182.0	.0

THIS RUN EXECUTED 19FEB92 14:02:56

14-2.H20
Latest version
w/Floodway.

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************************************
HEC-2 WATER SURFACE PROFILES

Version   4.6.2;  May 1991
************************************

T1      WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2      100 - YEAR STORM EVENT     FLOODPLAIN RUN      FILE:  14-2.H21
T3      INTERSTATE 10 - JACKRABBIT TRAIL WEST TO TUTHILL ROAD (WASH 14-2)

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2        0        0     0.0047      0        0        0     1072.0     0

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

      1        0        0        0        0        0        0        0        0        0


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     38       43        1       53       21       22       54       51        4        8
     42        5       26        0      110        0      200

NC     .05      .045     .035       .1       .3
QT       2      325      325
ET                       9.1                                                   9954.98   10022.90
         CONFLUENCE WITH JACKRABBIT TRAIL WASH

         Q @ X1 = 0.000 TO X1 = 0.197 EQUALS Q AT SUB 46/2
         Q = 651/2 = 325 CFS


X1    0.000        8     9980    10015        0        0        0
GR     1074     9690     1072     9885     1070     9980     1068     9990   1067.5    10000
GR     1070    10015     1072    10045     1073    10065

ET                       9.1                                                    9930    10015
X1    0.044       13     9970    10015      235      235      235
GR     1076     9540     1074     9750     1072     9875     1071     9890     1072     9910
GR   1072.5     9930     1072     9945     1071     9970     1070    10000     1072    10015
GR     1074    10030     1076    10045   1076.4    10065

ET                       9.1                                                    9945 10025.77
X1    0.106       10     9975    10015      325      325      325
GR     1076     9705     1075     9815     1074     9945   1073.5     9975   1073.1    10000
GR     1074    10015     1076    10045     1078    10065     1080    10075   1081.4    10100
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                        9.1                                                 9940    10017.25
X1    0.197       10    9975    10010     480     480     480
GR     1081     9490    1078     9740    1076    9840  1075.5     9890  1075.9     9975
GR   1075.8    10000    1076    10010    1078   10025    1080    10035    1082    10045

QT        2      316     316
ET                        9.1                                                 9940    10006.30

          Q @ X1 = 0.288 TO X1 = 0.477 EQUALS Q AT CP46-1
          Q = 316 CFS

X1    0.288       10    9960    10010     480     480     480
GR     1082     9545    1080     9745  1079.2    9835  1078.5     9880  1078.9     9940
GR   1078.5     9960    1078    10000    1080   10010    1082    10050  1082.6    10070

ET                        9.1                                                 9940    10032.39
X1    0.383        9    9970    10010     500     500     500
GR     1086     9415    1084     9605    1082    9875    1081     9970  1080.1    10000
GR     1081    10010    1082    10030    1084   10050  1085.2    10085

ET                        9.1                                                 9940    10026.52
X1    0.477        9    9970    10010     500     500     500
GR     1088     9375    1086     9600    1084    9870    1082     9970  1081.7    10000
GR     1082    10010    1084    10030    1086   10040    1088    10075

QT        2     1030    1030
ET                        9.1                                                 9890    10062.86

          1/2 MILE WEST OF JACKRABBIT TRAIL
          Q @ X1 = 0.501 TO X1 = 0.650 EQUALS Q AT CP45
          Q = 1030 CFS

          DIKE

X1    0.501        8    9970    10010     125     125     125
GR     1088     9485    1086     9635  1085.3    9970    1085    10000  1085.3    10010
GR     1086    10060    1088    10075    1089   10100

ET                        9.1                                                 9890    10079.26
X1    0.554       11    9980    10010     280     280     280
GR     1088     9545    1086     9740    1084    9810    1083     9980  1082.5    10000
GR     1083    10010    1084    10055    1086   10070    1088    10090    1090    10100
GR   1090.5    10120

ET                        9.1                                                 9890    10043.28
X1    0.650       11    9970    10020     510     510     510
GR     1088     9580    1086     9765    1084    9860  1083.4     9970    1083    10000
GR     1084    10020    1086    10035    1088   10050    1090    10060    1092    10070
GR   1092.7    10100
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QT      2      1104      1104
ET                       9.1                                                    9890    10032.41

        Q @ X1 = 0.743 TO X1 = 0.837 EQUALS Q AT CP45-1 AFTER DIVERSION
        Q = 1104 CFS

X1    0.743       8      9970     10025       500       500       500
GR     1090    9455      1088      9680      1086      9880    1084.5      9970    1084.1     10000
GR     1086   10025      1088     10035      1090     10050

ET                       9.1                                                    9900    10039.08
X1    0.837      10      9975     10020       495       495       495
GR     1092    9435      1090      9570      1088      9755      1086      9950    1085.5      9975
GR     1085   10000      1086     10020      1088     10035      1090     10050      1096     10070

QT      2      1440      1440
ET                       9.1                                                    9900    10040.91

        JUST DOWNSTREAM OF TUTHILL DIKE

        Q @ X1 = 0.931 EQUALS Q AT CP45-1 BEFORE DIVERSION
        Q = 1440 CFS

X1    0.931       9      9980     10015       495       495       495
GR     1092    9435      1090      9630      1088      9785      1086      9980    1085.9     10000
GR     1086   10015      1088     10030      1090     10045      1096     10075
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= .100 CEHV= .300
*SECNO .000
CONFLUENCE WITH JACKRABBIT TRAIL WASH

Q @ X1 = 0.000 TO X1 = 0.197 EQUALS Q AT SUB 46/2
Q = 651/2 = 325 CFS

.000	3.02	1070.52	.00	1072.00	1070.84	.32	.00	.00	1070.00
325.0	5.4	317.8	1.9	6.4	69.5	2.0	.0	.0	1070.00
.00	.83	4.57	.92	.050	.035	.045	.000	1067.50	9955.27
.004726	0.	0.	0.	0	0	5	.00	67.54	10022.81

*SECNO .044

3265 DIVIDED FLOW

.044	1.99	1071.99	.00	.00	1072.28	.29	1.44	.00	1071.00
325.0	49.4	275.6	.0	29.4	59.5	.0	.5	.5	1072.00
.02	1.68	4.63	.00	.050	.035	.000	.000	1070.00	9875.15
.008196	235.	235.	235.	2	0	0	.00	104.32	10014.92

*SECNO .106

.106	1.56	1074.66	.00	.00	1074.87	.22	2.59	.01	1073.50
325.0	100.9	219.7	4.4	55.0	50.4	3.2	1.2	1.5	1074.00
.04	1.84	4.36	1.38	.050	.035	.045	.000	1073.10	9859.94
.007742	325.	325.	325.	3	0	0	.00	164.87	10024.81

*SECNO .197

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.74

.197	1.32	1076.82	.00	.00	1076.87	.04	1.98	.02	1075.90
325.0	252.8	69.8	2.3	165.9	33.5	2.5	2.9	3.6	1076.00
.12	1.52	2.08	.92	.050	.035	.045	.000	1075.50	9798.90
.002551	480.	480.	480.	5	0	0	.00	217.27	10016.17

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .288
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

Q @ X1 = 0.288 TO X1 = 0.477 EQUALS Q AT CP46-1
Q = 316 CFS

.288	1.19	1079.19	1079.19	.00	1079.45	.26	2.43	.06	1078.50
316.0	116.7	199.3	.0	54.6	41.2	.0	4.5	5.7	1080.00
.16	2.14	4.84	.00	.050	.035	.000	.000	1078.00	9835.59
.015090	480.	480.	480.	3	12	0	.00	170.37	10005.95

*SECNO .383

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.26

.383	2.09	1082.19	.00	.00	1082.31	.12	2.85	.01	1081.00
316.0	84.6	211.7	19.6	68.5	65.8	14.1	5.9	7.7	1081.00
.21	1.23	3.22	1.40	.050	.035	.045	.000	1080.10	9848.75
02967	500.	500.	500.	7	0	0	.00	183.20	10031.94

*SECNO .477

.477	1.89	1083.58	.00	.00	1083.70	.11	1.39	.00	1082.00
316.0	81.3	216.7	18.0	62.6	69.3	12.5	7.6	9.6	1082.00
.27	1.30	3.13	1.44	.050	.035	.045	.000	1081.70	9890.87
.002608	500.	500.	500.	5	0	0	.00	134.95	10025.83

*SECNO .501
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1/2 MILE WEST OF JACKRABBIT TRAIL
Q @ X1 = 0.501 TO X1 = 0.650 EQUALS Q AT CP45
Q = 1030 CFS

DIKE

.501	1.28	1086.28	1086.28	.00	1086.56	.28	1.21	.05	1085.30
1030.0	638.0	286.4	105.6	214.2	45.2	31.8	8.2	10.4	1085.30
.27	2.98	6.33	3.32	.050	.035	.045	.000	1085.00	9613.95
.018898	125.	125.	125.	20	20	0	.00	448.15	10062.10

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .554

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 9.00

.554	4.28	1086.78	.00	.00	1086.79	.02	.21	.03	1083.00
1030.0	647.5	198.2	184.4	710.4	120.8	177.0	12.4	13.2	1083.00
.35	.91	1.64	1.04	.050	.035	.045	.000	1082.50	9664.40
.000233	280.	280.	280.	4	0	0	.00	413.35	10077.75

*SECNO .650

.650	3.92	1086.92	.00	.00	1086.95	.03	.15	.00	1083.40
1030.0	640.5	359.0	30.5	575.5	180.0	32.0	22.9	17.7	1084.00
.45	1.11	2.00	.95	.050	.035	.045	.000	1083.00	9679.97
.000401	510.	510.	510.	3	0	0	.00	361.92	10041.89

*SECNO .743

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .42

Q @ X1 = 0.743 TO X1 = 0.837 EQUALS Q AT CP45-1 AFTER DIVERSION
Q = 1104 CFS

.743	3.15	1087.25	.00	.00	1087.41	.16	.42	.04	1084.50
1104.0	515.7	583.5	4.7	258.5	143.6	3.9	29.8	21.4	1086.00
.49	1.99	4.06	1.20	.050	.035	.045	.000	1084.10	9754.82
.002552	500.	500.	500.	2	0	0	.00	276.44	10031.26

*SECNO .837

.837	3.35	1088.35	.00	.00	1088.48	.12	1.06	.00	1085.50
1104.0	564.8	504.4	34.8	334.0	134.5	20.7	34.9	24.7	1086.00
.54	1.69	3.75	1.68	.050	.035	.045	.000	1085.00	9722.60
.001813	495.	495.	495.	2	0	0	.00	315.02	10037.63

*SECNO .931

JUST DOWNSTREAM OF TUTHILL DIKE

Q @ X1 = 0.931 EQUALS Q AT CP45-1 BEFORE DIVERSION

Q = 1440 CFS

.931	3.32	1089.22	.00	.00	1089.32	.11	.84	.00	1086.00
1440.0	929.1	430.9	80.0	488.8	114.2	38.7	41.3	28.5	1086.00
.60	1.90	3.77	2.07	.050	.035	.045	.000	1085.90	9690.93
.001630	495.	495.	495.	2	0	0	.00	348.18	10039.10

PROFILE FOR STREAM INTERSTATE 10 - JACKRABB

PLOTTED POINTS (BY PRIORITY) E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA

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ELEVATION  1068.     1073.     1078.     1083.     1088.     1093.     1098.     1103.     1108.     1113.
   SECNO   CUMDIS

   .00      0.  I    LWE  .M        .         .         .         .         .         .         .         .
           50.  CI   LRE  . M       .         .         .         .         .         .         .         .
          100.  C I   LWE .   M     .         .         .         .         .         .         .         .
          150.  C  I  L WE.    M    .         .         .         .         .         .         .         .
          200.  C   I  LRE.     M   .         .         .         .         .         .         .         .
   .04    250.  C    I L WE      M  .         .         .         .         .         .         .         .
          300.  C     I L E      M  .         .         .         .         .         .         .         .
          350.  C      I LRE     M  .         .         .         .         .         .         .         .
          400.  C       IL.WE    M  .         .         .         .         .         .         .         .
          450.  C        ILRWE   M  .         .         .         .         .         .         .         .
          500.  C         ILRWE  M  .         .         .         .         .         .         .         .
          550.  C         .ILRE  M  .         .         .         .         .         .         .         .
   .11    600.  C         .ILRWE M  .         .         .         .         .         .         .         .
          650.  C         . IL E  M .         .         .         .         .         .         .         .
          700.  C         . ILRWE  M.         .         .         .         .         .         .         .
          750.  C         .  IL E   M         .         .         .         .         .         .         .
          800.  C         .  ILRE   .M        .         .         .         .         .         .         .
          850.  C         .   IL E  . M       .         .         .         .         .         .         .
          900.  C         .   ILRE  .  M      .         .         .         .         .         .         .
          950.  C         .    ILWE .   M     .         .         .         .         .         .         .
         1000.  C         .    IL E .    M    .         .         .         .         .         .         .
   .20   1050.  C         .     IL E.      M  .         .         .         .         .         .         .
         1100.  C         .      IRE.      M  .         .         .         .         .         .         .
         1150.  C         .      ILRE      M  .         .         .         .         .         .         .
         1200.  C         .       I E       M .         .         .         .         .         .         .
         1250.  C         .       ILRE      M .         .         .         .         .         .         .
         1300.  C         .        ILE      M .         .         .         .         .         .         .
         1350.  C         .        IL E     M .         .         .         .         .         .         .
         1400.  C         .         ILWE    M .         .         .         .         .         .         .
         1450.  C         .         IL ER    M.         .         .         .         .         .         .
         1500.  C         .         .ILWER   M.         .         .         .         .         .         .
   .29   1550.  .         .         .ILWER   M.         .         .         .         .         .         .
         1600.  C         .         .I LER    M         .         .         .         .         .         .
         1650.  C         .         . IL E    M         .         .         .         .         .         .
         1700.  C         .         . I LWE   .M        .         .         .         .         .         .
         1750.  C         .         .  IL E   . M       .         .         .         .         .         .
         1800.  C         .         .  I LWE  . M       .         .         .         .         .         .
         1850.  C         .         .   ILRE  .  M      .         .         .         .         .         .
         1900.  C         .         .   I L E .  M      .         .         .         .         .         .
         1950.  C         .         .   I LRE .   M     .         .         .         .         .         .
         2000.  C         .         .    I L E.    M    .         .         .         .         .         .
   .38   2050.  C         .         .    I L WE    M    .         .         .         .         .         .
         2100.  C         .         .     IL  E     M   .         .         .         .         .         .
         2150.  C         .         .     IL  E      M  .         .         .         .         .         .
         2200.  C         .         .     I L E      M  .         .         .         .         .         .
         2250.  C         .         .     I L WE      M .         .         .         .         .         .
         2300.  C         .         .      IL .E      M .         .         .         .         .         .
         2350.  C         .         .      IL .E       M.         .         .         .         .         .
         2400.  C         .         .      IL .WE      M.         .         .         .         .         .
         2450.  C         .         .       IL. E       M         .         .         .         .         .
```

	2500.	C	IL. E M
.48	2550.	C	IL. E .M
	2600.	C	.IL WE .M
.50	2650.	.	. IL E .M
	2700.	C	. IL E .M
	2750.	C	. IL E .M
	2800.	C	. IL E .M
	2850.	C	.IL E .M
	2900.	C	.I WE.M
.55	2950.	C	IL E.M
	3000.	C	IL E.M
	3050.	C	IL E.M
	3100.	C	ILR E.M
	3150.	C	ILR E.M
	3200.	C	ILR E.M
	3250.	C	.IR E.M
	3300.	C	.IL E.M
	3350.	C	.ILR E.M
	3400.	C	.ILR E.M
.65	3450.	C	.ILR E.M
	3500.	C	.ILR E.M
	3550.	C	.IL R E. M
	3600.	C	. I R E. M
	3650.	C	. IL R E. M
	3700.	C	. IL R E. M
	3750.	C	. IL R E. M
	3800.	C	. I R WE M
	3850.	C	. IL R WE M
	3900.	C	. IL R WE M
.74	3950.	C	. IL R E M
	4000.	C	. IL R E M
	4050.	C	. I R E M
	4100.	C	. IL R E M
	4150.	C	. IL R WE M
	4200.	C	. IL R .E M
	4250.	C	. IL R .E M
	4300.	C	. IL R .E M
	4350.	C	. ILR .WE M
	4400.	C	. ILR .WE M.
.84	4450.	C	. ILR . E M.
	4500.	C	. ILR . E M.
	4550.	C	. ILR . E M.
	4600.	C	. IR . E M.
	4650.	C	. IR . WE M.
	4700.	C	. IL . E M.
	4750.	C	. IL . E M.
	4800.	C	. IL . E M.
	4850.	C	. IL . E M.
	4900.	C	. I . E M.
.93	4950.	C	. I . WE M.

T1 WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2 100 - YEAR STORM EVENT FLOODWAY RUN FILE: 14-2.H2I
T3 INTERSTATE 10 - JACKRABBIT TRAIL WEST TO TUTHILL ROAD (WASH 14-2)

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	3	0	0	0	0	0	0	1070.52	0

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15	0	-1	0	0	0	0	0	0	0

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= .100 CEHV= .300
*SECNO .000

3470 ENCROACHMENT STATIONS= 9955.0 10022.9 TYPE= 1 TARGET= 67.920
CONFLUENCE WITH JACKRABBIT TRAIL WASH

Q @ X1 = 0.000 TO X1 = 0.197 EQUALS Q AT SUB 46/2
Q = 651/2 = 325 CFS

.000	3.02	1070.52	.00	1070.52	1070.84	.32	.00	.00	1070.00
325.0	5.3	317.8	1.9	6.4	69.5	2.0	.0	.0	1070.00
.00	.83	4.58	.92	.050	.035	.045	.000	1067.50	9955.30
.004732	0.	0.	0.	0	0	0	.00	67.50	10022.80

*SECNO .044

3470 ENCROACHMENT STATIONS= 9930.0 10015.0 TYPE= 1 TARGET= 85.000

.044	2.01	1072.01	.00	1071.99	1072.37	.36	1.52	.01	1071.00
325.0	23.3	301.7	.0	12.7	60.4	.0	.4	.4	100000.00
.01	1.83	5.00	.00	.050	.035	.000	.000	1070.00	9944.76
.009411	235.	235.	235.	2	0	0	.00	70.24	10015.00

*SECNO .106

3470 ENCROACHMENT STATIONS= 9945.0 10025.8 TYPE= 1 TARGET= 80.770

.106	1.67	1074.77	.00	1074.66	1075.02	.25	2.63	.01	1073.50
325.0	75.9	242.3	6.7	30.6	55.0	4.4	1.0	.9	1074.00
.04	2.48	4.40	1.52	.050	.035	.045	.000	1073.10	9945.00
.007034	325.	325.	325.	4	0	0	.00	80.77	10025.77

*SECNO .197

3470 ENCROACHMENT STATIONS= 9940.0 10017.3 TYPE= 1 TARGET= 77.250

.197	1.87	1077.37	.00	1076.82	1077.51	.15	2.48	.01	1075.90
325.0	130.6	182.8	11.6	53.9	52.3	6.3	2.1	1.8	1076.00
.08	2.42	3.49	1.83	.050	.035	.045	.000	1075.50	9940.00
.003964	480.	480.	480.	4	0	0	.00	77.25	10017.25

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .288

3470 ENCROACHMENT STATIONS= 9940.0 10006.3 TYPE= 1 TARGET= 66.300

Q @ X1 = 0.288 TO X1 = 0.477 EQUALS Q AT CP46-1
Q = 316 CFS

.288	1.68	1079.68	.00	1079.19	1079.93	.25	2.39	.03	1078.50
316.0	45.6	270.4	.0	19.7	64.1	.0	3.2	2.6	100000.00
.12	2.31	4.22	.00	.050	.035	.000	.000	1078.00	9940.00
.006495	480.	480.	480.	3	0	0	.00	66.30	10006.30

*SECNO .383

3470 ENCROACHMENT STATIONS= 9940.0 10032.4 TYPE= 1 TARGET= 92.390

.383	2.09	1082.19	.00	1082.19	1082.36	.16	2.42	.01	1081.00
316.0	56.7	237.4	22.0	31.1	65.7	14.1	4.3	3.5	1081.00
.16	1.82	3.61	1.56	.050	.035	.045	.000	1080.10	9940.00
.003735	500.	500.	500.	3	0	0	.00	91.93	10031.93

*SECNO .477

3470 ENCROACHMENT STATIONS= 9940.0 10026.5 TYPE= 1 TARGET= 86.520

.477	1.99	1083.69	.00	1083.58	1083.80	.11	1.44	.00	1082.00
316.0	71.9	223.9	20.3	41.6	73.5	14.2	5.7	4.5	1082.00
.21	1.73	3.04	1.42	.050	.035	.045	.000	1081.70	9940.00
.002284	500.	500.	500.	3	0	0	.00	86.52	10026.52

*SECNO .501
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9890.0 10062.9 TYPE= 1 TARGET= 172.860

1/2 MILE WEST OF JACKRABBIT TRAIL
Q @ X1 = 0.501 TO X1 = 0.650 EQUALS Q AT CP45
Q = 1030 CFS

DIKE

```
    .501      1.54   1086.54   1086.54   1086.28   1087.07      .54      1.18      .13   1085.30
  1030.0     422.6     414.3     193.1      92.1      55.4     45.2       6.2      4.9   1085.30
     .22      4.59      7.48      4.27      .050      .035     .045      .000   1085.00   9890.00
 .020097      125.      125.      125.        20        15        0       .00    172.86  10062.86


*SECNO  .554

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  8.22


3470 ENCROACHMENT STATIONS=     9890.0   10079.3  TYPE=      1  TARGET=      189.260
    .554      4.85   1087.35       .00   1086.78   1087.39      .04       .26       .05   1083.00
  1030.0     468.6     279.5     281.9     367.7     138.0    216.8       9.1       6.1   1083.00
     .27      1.27      2.02      1.30      .050      .035     .045      .000   1082.50   9890.00
 .000297      280.      280.      280.         4         0        0       .00    189.26  10079.26


*SECNO  .650

3470 ENCROACHMENT STATIONS=     9890.0   10043.3  TYPE=      1  TARGET=      153.280
    .650      4.52   1087.52       .00   1086.92   1087.58      .06       .19       .01   1083.40
  1030.0     478.2     497.2      54.6     312.2     210.0     45.8      16.7       8.1   1084.00
     .34      1.53      2.37      1.19      .050      .035     .045      .000   1083.00   9890.00
 .000459      510.      510.      510.         3         0        0       .00    153.28  10043.28


*SECNO  .743

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .60


3470 ENCROACHMENT STATIONS=     9890.0   10032.4  TYPE=      1  TARGET=      142.410

        Q @ X1 = 0.743 TO X1 = 0.837 EQUALS Q AT CP45-1 AFTER DIVERSION
        Q = 1104 CFS

    .743      3.75   1087.85       .00   1087.25   1087.99      .14       .39       .02   1084.50
  1104.0     466.3     627.0      10.7     214.6     176.4     8.2      22.2       9.8   1086.00
     .39      2.17      3.55      1.30      .050      .035     .045      .000   1084.10   9890.00
 .001484      500.      500.      500.         2         0        0       .00    142.41  10032.41


*SECNO  .837
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 9900.0 10039.1 TYPE= 1 TARGET= 139.080

.837	3.65	1088.65	.00	1088.35	1088.82	.18	.82	.01	1085.50
1104.0	455.3	598.8	49.9	191.7	147.7	26.2	26.6	11.4	1086.00
.43	2.37	4.05	1.90	.050	.035	.045	.000	1085.00	9900.00
.001869	495.	495.	495.	2	0	0	.00	139.08	10039.08

*SECNO .931

3470 ENCROACHMENT STATIONS= 9900.0 10040.9 TYPE= 1 TARGET= 140.910

JUST DOWNSTREAM OF TUTHILL DIKE

Q @ X1 = 0.931 EQUALS Q AT CP45-1 BEFORE DIVERSION
Q = 1440 CFS

.931	3.70	1089.60	.00	1089.22	1089.81	.21	.98	.01	1086.00
1440.0	731.4	585.3	123.2	255.5	127.9	48.6	31.1	13.0	1086.00
.47	2.86	4.58	2.53	.050	.035	.045	.000	1085.90	9900.00
002065	495.	495.	495.	2	0	0	.00	140.91	10040.91

THIS RUN EXECUTED 19FEB92 14:03:51

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

INTERSTATE 10 - JACKRABB

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	.000	325.00	1070.52	9955.27	9980.00	10015.00	10022.81	.00	67.54	3.02	1067.50	47.26	4.57
	.000	325.00	1070.52	9955.30	9980.00	10015.00	10022.80	.00	67.50	3.02	1067.50	47.32	4.58
	.044	325.00	1071.99	9875.15	9970.00	10015.00	10014.92	1.47	104.32	1.99	1070.00	81.96	4.63
	.044	325.00	1072.01	9944.76	9970.00	10015.00	10015.00	1.49	70.24	2.01	1070.00	94.11	5.00
	.106	325.00	1074.66	9859.94	9975.00	10015.00	10024.81	2.67	164.87	1.56	1073.10	77.42	4.36
	.106	325.00	1074.77	9945.00	9975.00	10015.00	10025.77	2.76	80.77	1.67	1073.10	70.34	4.40
*	.197	325.00	1076.82	9798.90	9975.00	10010.00	10016.17	2.17	217.27	1.32	1075.50	25.51	2.08
	.197	325.00	1077.37	9940.00	9975.00	10010.00	10017.25	2.60	77.25	1.87	1075.50	39.64	3.49
*	.288	316.00	1079.19	9835.59	9960.00	10010.00	10005.95	2.37	170.37	1.19	1078.00	150.90	4.84
	.288	316.00	1079.68	9940.00	9960.00	10010.00	10006.30	2.32	66.30	1.68	1078.00	64.95	4.22
*	.383	316.00	1082.19	9848.75	9970.00	10010.00	10031.94	3.00	183.20	2.09	1080.10	29.67	3.22
	.383	316.00	1082.19	9940.00	9970.00	10010.00	10031.93	2.51	91.93	2.09	1080.10	37.35	3.61
	.477	316.00	1083.58	9890.87	9970.00	10010.00	10025.83	1.39	134.95	1.89	1081.70	26.08	3.13
	.477	316.00	1083.69	9940.00	9970.00	10010.00	10026.52	1.49	86.52	1.99	1081.70	22.84	3.04
*	.501	1030.00	1086.28	9613.95	9970.00	10010.00	10062.10	2.70	448.15	1.28	1085.00	188.98	6.33
*	.501	1030.00	1086.54	9890.00	9970.00	10010.00	10062.86	2.85	172.86	1.54	1085.00	200.97	7.48
*	.554	1030.00	1086.78	9664.40	9980.00	10010.00	10077.75	.49	413.35	4.28	1082.50	2.33	1.64
*	.554	1030.00	1087.35	9890.00	9980.00	10010.00	10079.26	.82	189.26	4.85	1082.50	2.97	2.02
	.650	1030.00	1086.92	9679.97	9970.00	10020.00	10041.89	.14	361.92	3.92	1083.00	4.01	2.00
	.650	1030.00	1087.52	9890.00	9970.00	10020.00	10043.28	.17	153.28	4.52	1083.00	4.59	2.37
*	.743	1104.00	1087.25	9754.82	9970.00	10025.00	10031.26	.33	276.44	3.15	1084.10	25.52	4.06
*	.743	1104.00	1087.85	9890.00	9970.00	10025.00	10032.41	.33	142.41	3.75	1084.10	14.84	3.55

SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
.837	1104.00	1088.35	9722.60	9975.00	10020.00	10037.63	1.10	315.02	3.35	1085.00	18.13	3.75
.837	1104.00	1088.65	9900.00	9975.00	10020.00	10039.08	.80	139.08	3.65	1085.00	18.69	4.05
.931	1440.00	1089.22	9690.93	9980.00	10015.00	10039.10	.86	348.18	3.32	1085.90	16.30	3.77
.931	1440.00	1089.60	9900.00	9980.00	10015.00	10040.91	.96	140.91	3.70	1085.90	20.65	4.58

STATE 10 - JACKRABB

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	.000	1070.52	-1.48	1070.84	67.54	5.36	317.76	1.88	.00	.00	9980.00	10015.00	.00
	.000	1070.52	.00	1070.84	67.50	5.35	317.78	1.87	67.92	9954.98	9980.00	10015.00	10022.90
	.044	1071.99	.00	1072.28	104.32	49.44	275.56	.00	.00	.00	9970.00	10015.00	.00
	.044	1072.01	.02	1072.37	70.24	23.30	301.70	.00	85.00	9930.00	9970.00	10015.00	10015.00
	.106	1074.66	.00	1074.87	164.87	100.88	219.70	4.42	.00	.00	9975.00	10015.00	.00
	.106	1074.77	.11	1075.02	80.77	75.94	242.32	6.73	80.77	9945.00	9975.00	10015.00	10025.77
*	.197	1076.82	.00	1076.87	217.27	252.85	69.83	2.32	.00	.00	9975.00	10010.00	.00
	.197	1077.37	.54	1077.51	77.25	130.65	182.76	11.59	77.25	9940.00	9975.00	10010.00	10017.25
*	.288	1079.19	.00	1079.45	170.37	116.75	199.25	.00	.00	.00	9960.00	10010.00	.00
	.288	1079.68	.49	1079.93	66.30	45.63	270.37	.00	66.30	9940.00	9960.00	10010.00	10006.30
*	.383	1082.19	.00	1082.31	183.20	84.62	211.74	19.65	.00	.00	9970.00	10010.00	.00
	.383	1082.19	.00	1082.36	91.93	56.66	237.35	21.99	92.39	9940.00	9970.00	10010.00	10032.39
	.477	1083.58	.00	1083.70	134.95	81.27	216.72	18.00	.00	.00	9970.00	10010.00	.00
	.477	1083.69	.10	1083.80	86.52	71.87	223.86	20.26	86.52	9940.00	9970.00	10010.00	10026.52
*	.501	1086.28	.00	1086.56	448.15	637.95	286.44	105.61	.00	.00	9970.00	10010.00	.00
*	.501	1086.54	.25	1087.07	172.86	422.60	414.28	193.11	172.86	9890.00	9970.00	10010.00	10062.86
*	.554	1086.78	.00	1086.79	413.35	647.46	198.16	184.38	.00	.00	9980.00	10010.00	.00
*	.554	1087.35	.58	1087.39	189.26	468.62	279.48	281.91	189.26	9890.00	9980.00	10010.00	10079.26
	.650	1086.92	.00	1086.95	361.92	640.53	359.02	30.45	.00	.00	9970.00	10020.00	.00
	.650	1087.52	.60	1087.58	153.28	478.17	497.23	54.60	153.28	9890.00	9970.00	10020.00	10043.28
*	.743	1087.25	.00	1087.41	276.44	515.74	583.54	4.72	.00	.00	9970.00	10025.00	.00
*	.743	1087.85	.60	1087.99	142.41	466.30	627.01	10.69	142.41	9890.00	9970.00	10025.00	10032.41
	.837	1088.35	.00	1088.48	315.02	564.82	504.39	34.79	.00	.00	9975.00	10020.00	.00
	.837	1088.65	.29	1088.82	139.08	455.33	598.81	49.86	139.08	9900.00	9975.00	10020.00	10039.08
	.931	1089.22	.00	1089.32	348.18	929.07	430.90	80.02	.00	.00	9980.00	10015.00	.00
	.931	1089.60	.39	1089.81	140.91	731.42	585.34	123.24	140.91	9900.00	9980.00	10015.00	10040.91

SUMMARY OF ERRORS AND SPECIAL NOTES

```
WARNING SECNO=      .197  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .288  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .288  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      .383  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .501  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .501  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .501  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=      .501  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .501  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .501  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=      .554  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .554  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .743  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .743  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
```

FLOODWAY DATA, INTERSTATE 10 - JACKRABB
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
.000	67.	78.	4.2	1070.5	1070.5	.0
.044	70.	73.	4.4	1072.0	1072.0	.0
.106	81.	90.	3.6	1074.8	1074.7	.1
.197	77.	113.	2.9	1077.3	1076.8	.5
.288	66.	84.	3.8	1079.7	1079.2	.5
.383	92.	111.	2.9	1082.2	1082.2	.0
.477	87.	129.	2.4	1083.7	1083.6	.1
.501	173.	193.	5.3	1086.6	1086.3	.3
.554	189.	722.	1.4	1087.4	1086.8	.6
.650	153.	568.	1.8	1087.5	1086.9	.6
.743	142.	399.	2.8	1087.9	1087.3	.6
.837	139.	366.	3.0	1088.7	1088.4	.3
.931	141.	432.	3.3	1089.6	1089.2	.4

THIS RUN EXECUTED 19FEB92 14:18:20

14-3.H20
Latest Version
Approximate study.

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**************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.2;  May 1991
**************************************

T1      WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2      100 - YEAR STORM EVENT     FLOODPLAIN RUN       FILE:  14-3.H2I
T3      INTERSTATE 10 - PERRYVILLE ROAD WEST TO JACKRABBIT TRAIL (WASH 14-3).

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2        0        0    0.0077       0        0        0    1048.0      0

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

      1        0        0        0        0        0        0        0        0        0


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     38       43        1       53       21       22       54       51        4        8
     42        5       26        0      110        0      200

NC     .05      .04      .03       .1       .3
QT       1      583
          PERRYVILLE ROAD

          Q @ X1 = 0.000 TO X1 = 0.092 EQUALS Q AT SUB 274/2 + D273
          Q = 329/2 + 419 = 583 CFS

X1    0.000        6     9970    10015        0        0        0
GR     1050     9605     1048     9810     1046     9970     1045    10000     1050    10015
GR     1060    10040

X1    0.092        8     9990    10010      460      485      485
GR     1050     9625     1048     9870     1046     9990   1045.2    10000     1046    10010
GR     1048    10020     1050    10030     1060    10045

QT       1      419

          Q @ X1 = 0.186 TO X1 = 0.338 EQUALS Q AT D273
          Q = 419 CFS

X1    0.186        6     9950    10010      505      495      495
GR     1054     9405     1052     9660     1050     9950   1048.3    10000     1050    10010
GR     1060    10050
```

```
X1    0.280      10     9980    10015      520      495      500
GR     1058    9410     1056     9575     1054     9760   1052.5     9980     1052    10000
GR     1054   10015     1056    10025     1058    10035   1059.1    10050   1059.4    10075

          BEGIN MATCHING FLOODPLAIN INTO FLOODPLAIN FOR 191ST AVE. WASH

           DIKE

X1    0.338       7     9730    10015      325      300      305
GR     1058    9515     1056     9730   1055.5    10000     1056    10015     1058    10030
GR   1059.1   10040   1059.4    10065

QT        1    1407

          Q @ X1 = 0.370 EQUALS Q AT CP273
          Q = 1407 CFS

X1    0.370       8     9950    10020      195      165      170
GR     1058    9610     1056     9820     1055     9950   1054.1    10000     1056    10020
GR     1058   10025   1059.4    10035   1059.7    10060

QT        1     335

          END MATCHING INTO 191ST AVE. FLOODPLAIN
          Q @ X1 = 0.447 TO X1 = 0.636 EQUALS Q AT SUB 273/2
          Q = 671/2 = 335 CFS

X1    0.447       8     9970    10020      405      405      405
GR     1060    9600     1058     9880   1056.5     9970   1056.1    10000     1058    10020
GR     1060   10035   1060.5    10040   1060.8    10065

X1    0.541      11     9970    10020      500      490      495
GR     1064    9440     1062     9630     1060     9915   1058.5     9970     1058     9990
GR   1057.9   10000     1058    10010     1060    10020     1062    10030   1063.3    10040
GR   1063.6   10065

X1    0.636      10     9990    10010      495      510      505
GR     1066    9510     1064     9755     1062     9965     1060     9990   1059.6    10000
GR     1060   10010     1062    10020     1064    10035     1066    10050     1067    10060

QT        1     168

          Q @ X1 = 0.729 TO X1 = 0.822 EQUALS Q AT SUB 273/4
          Q = 671/4 = 168 CFS

X1    0.729      10     9990    10010      500      490      490
GR     1068    9560     1066     9810     1064     9915     1062     9990   1061.8    10000
GR     1062   10010     1064    10020     1066    10030     1068    10040     1070    10050
```

X	0.822	8	9980	10015	500	490	490			
GR	1070	9620	1068	9830	1066	9980	1064	10000	1066	10015
GR	1068	10035	1070	10045	1072	10055				

QT 1 84

Q @ X1 = 0.915 TO X1 = 0.968 EQUALS Q AT SUB 273/8
Q = 671/8 = 84 CFS

X1	0.915	12	9970	10010	490	495	490			
GR	1072	9550	1070	9840	1068.9	9935	1069.4	9970	1068.7	10000
GR	1070	10010	1072	10020	1073	10030	1073	10055	1072.8	10065
GR	1074	10085	1076	10105						

JUST DOWNSTREAM OF JACKRABBIT TRAIL

X1	0.968	12	9970	10025	295	280	280			
GR	1074	9640	1072	9790	1070	9970	1069.8	10000	1070	10025
GR	1072	10045	1072	10070	1071.8	10080	1072	10095	1074	10105
GR	1076	10120	1078	10130						

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= .100 CEHV= .300

*SECNO .000

PERRYVILLE ROAD

Q @ X1 = 0.000 TO X1 = 0.092 EQUALS Q AT SUB 274/2 + D273

Q = 329/2 + 419 = 583 CFS

.000	2.41	1047.41	1047.35	1048.00	1047.88	.47	.00	.00	1046.00
583.0	164.3	418.7	.0	79.1	65.9	.0	.0	.0	1050.00
.00	2.08	6.36	.00	.050	.030	.000	.000	1045.00	9857.47
.007800	0.	0.	0.	0	19	0	.00	149.75	10007.22

*SECNO .092

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.83

.092	3.64	1048.84	.00	.00	1048.93	.08	1.01	.04	1046.00
583.0	330.9	219.3	32.8	264.4	64.8	20.2	2.7	2.2	1046.00
.06	1.25	3.38	1.63	.050	.030	.040	.000	1045.20	9766.89
.000976	460.	485.	485.	5	0	0	.00	257.31	10024.21

*SECNO .186

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

Q @ X1 = 0.186 TO X1 = 0.338 EQUALS Q AT D273

Q = 419 CFS

.186	2.05	1050.35	1050.35	.00	1050.84	.49	.96	.12	1050.00
419.0	8.5	410.2	.3	9.0	72.1	.2	5.1	4.3	1050.00
.09	.95	5.69	1.16	.050	.030	.040	.000	1048.30	9899.01
.010366	505.	495.	495.	20	11	0	.00	112.40	10011.41

*SECNO .280

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.57

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
.280	1.93	1053.93	.00	.00	1054.06	.13	3.18	.04	1052.50
419.0	230.3	188.7	.0	149.4	47.5	.0	6.8	6.4	1054.00
.14	1.54	3.97	.00	.050	.030	.000	.000	1052.00	9770.65
.004219	520.	500.	495.	4	0	0	.00	243.80	10014.46

*SECNO .338

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .52

BEGIN MATCHING FLOODPLAIN INTO FLOODPLAIN FOR 191ST AVE. WASH

DIKE

.338	.67	1056.17	1056.16	.00	1056.36	.19	2.28	.02	1056.00
419.0	1.1	417.8	.1	1.5	119.6	.1	7.9	8.4	1056.00
.17	.72	3.49	.90	.050	.030	.040	.000	1055.50	9711.75
.015812	325.	305.	300.	4	22	0	.00	304.53	10016.27

*SECNO .370

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 6.64

Q @ X1 = 0.370 EQUALS Q AT CP273
Q = 1407 CFS

.370	2.88	1056.98	.00	.00	1057.29	.32	.90	.04	1055.00
1407.0	531.1	874.3	1.7	242.7	160.1	1.2	9.0	9.6	1056.00
.18	2.19	5.46	1.40	.050	.030	.040	.000	1054.10	9717.15
.004043	195.	170.	165.	4	0	0	.00	305.30	10022.45

*SECNO .447

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .47

END MATCHING INTO 191ST AVE. FLOODPLAIN
Q @ X1 = 0.447 TO X1 = 0.636 EQUALS Q AT SUB 273/2
Q = 671/2 = 335 CFS

```
     .447      2.32   1058.42      .00      .00   1058.48      .06      1.17      .03   1056.50
    335.0     117.0     217.7       .3    117.9      91.1       .7      11.9     12.0   1058.00
      .24       .99      2.39      .42     .050      .030     .040      .000  1056.10   9820.94
  .001048      405.      405.     405.        4         0        0       .00   202.23  10023.16


*SECNO  .541

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .31

     .541      1.45   1059.35  1059.34      .00   1059.82      .48      1.21      .12   1058.50
    335.0      23.1     311.9       .0     13.1      54.4       .0      13.4     13.6   1060.00
      .26      1.76      5.74      .00     .050      .030     .000      .000  1057.90   9938.98
  .011006      500.      495.     490.        6        14        0       .00    77.75  10016.73


*SECNO  .636

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.87

     .636      2.64   1062.23      .00      .00   1062.54      .30      2.70      .02   1060.00
    335.0      60.4     245.2     29.4     33.8      48.7     12.6      14.4     14.5   1060.00
      .30      1.79      5.03      2.34     .050      .030     .040      .000  1059.60   9940.26
  .003154      495.      505.     510.        3         0        0       .00    81.50  10021.77


*SECNO  .729

          Q @ X1 = 0.729 TO X1 = 0.822 EQUALS Q AT SUB 273/4
          Q = 671/4 = 168 CFS

     .729      1.88   1063.68      .00      .00   1063.76      .09      1.20      .02   1062.00
    168.0      55.7     103.2      9.2     52.8      35.6      7.0      15.5     15.5   1062.00
      .36      1.05      2.90      1.30     .050      .030     .040      .000  1061.80   9927.08
  .001593      500.      490.     490.        4         0        0       .00    91.31  10018.39


*SECNO  .822
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     .822      1.86   1065.86  1065.86      .00   1066.34      .48      1.75      .12   1066.00
    168.0        .0     168.0       .0       .0      30.3       .0      16.2     16.2   1066.00
      .38       .00      5.55      .00     .000      .030     .000      .000  1064.00   9981.41
  .013971      500.      490.     490.       20         5        0       .00    32.54  10013.95
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .915

Q @ X1 = 0.915 TO X1 = 0.968 EQUALS Q AT SUB 273/8
Q = 671/8 = 84 CFS

.915	.99	1069.69	.00	.00	1069.72	.03	3.33	.04	1069.40
84.0	41.7	42.3	.0	46.1	23.1	.0	16.7	17.2	1070.00
.48	.90	1.84	.00	.050	.030	.000	.000	1068.70	9866.56
.002645	490.	490.	495.	4	0	0	.00	141.08	10007.63

*SECNO .968

JUST DOWNSTREAM OF JACKRABBIT TRAIL

.968	.73	1070.53	.00	.00	1070.59	.06	.86	.01	1070.00
84.0	9.0	73.8	1.2	12.4	34.4	1.4	17.1	18.0	1070.00
.52	.72	2.15	.90	.050	.030	.040	.000	1069.80	9922.74
.003513	295.	280.	280.	5	0	0	.00	107.52	10030.25

PROFILE FOR STREAM INTERSTATE 10 - PERRYVIL

PLOTTED POINTS (BY PRIORITY) E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA

```
ELEVATION  1045.     1050.     1055.     1060.     1065.     1070.     1075.     1080.     1085.     1090.
   SECNO   CUMDIS

   .00      0.  I L  WE   R        .         .         .         .         .         .         .         .         .
            50.  I L  WE  RM        .         .         .         .         .         .         .         .         .
           100.  I L  WE R M        .         .         .         .         .         .         .         .         .
           150.  I L   E R M        .         .         .         .         .         .         .         .         .
           200.  I L   WE  M        .         .         .         .         .         .         .         .         .
           250.  I L   WE  M        .         .         .         .         .         .         .         .         .
           300.  I L  R E  M        .         .         .         .         .         .         .         .         .
           350.  I L R  E  M        .         .         .         .         .         .         .         .         .
           400.  I LR   E  M        .         .         .         .         .         .         .         .         .
           450.  I LR   WE M        .         .         .         .         .         .         .         .         .
   .09     500.  I L     E M        .         .         .         .         .         .         .         .         .
           550.  CI L    E .M       .         .         .         .         .         .         .         .         .
           600.  C I L   WE. M      .         .         .         .         .         .         .         .         .
           650.  C I L    E. M      .         .         .         .         .         .         .         .         .
           700.  C  I L   E.  M     .         .         .         .         .         .         .         .         .
           750.  C   I L  WE   M    .         .         .         .         .         .         .         .         .
           800.  C   I  L  E    M   .         .         .         .         .         .         .         .         .
           850.  C    I  L WE    M  .         .         .         .         .         .         .         .         .
           900.  C    I  L WE    M  .         .         .         .         .         .         .         .         .
           950.  C     I  LWE     M .         .         .         .         .         .         .         .         .
   .19    1000.  .      I  LWE     M .         .         .         .         .         .         .         .         .
          1050.  C      I  .WE      M.         .         .         .         .         .         .         .         .
          1100.  C       I .LWE      M         .         .         .         .         .         .         .         .
          1150.  C        I. LWE     M         .         .         .         .         .         .         .         .
          1200.  C         I LRE     .M        .         .         .         .         .         .         .         .
          1250.  C         I  LWE    . M       .         .         .         .         .         .         .         .
          1300.  C         .I L WE   .  M      .         .         .         .         .         .         .         .
          1350.  C         . I L E   .   M     .         .         .         .         .         .         .         .
          1400.  C         .  IL WE  .   M     .         .         .         .         .         .         .         .
          1450.  C         .  I L E  .    M    .         .         .         .         .         .         .         .
   .28    1500.  C         .   IL  E .     M   .         .         .         .         .         .         .         .
          1550.  C         .    IL  E.     M   .         .         .         .         .         .         .         .
          1600.  C         .     IL WE     M   .         .         .         .         .         .         .         .
          1650.  C         .      IL E     M   .         .         .         .         .         .         .         .
          1700.  C         .        ILE    M   .         .         .         .         .         .         .         .
          1750.  C         .         ILE   M   .         .         .         .         .         .         .         .
   .34    1800.  .         .         .IWE  M   .         .         .         .         .         .         .         .
          1850.  C         .         ILRE  M   .         .         .         .         .         .         .         .
          1900.  C         .        I.LRWE M   .         .         .         .         .         .         .         .
          1950.  C         .        IL R E M   .         .         .         .         .         .         .         .
   .37    2000.  C         .       I L R WEM   .         .         .         .         .         .         .         .
          2050.  C         .        IL R WEM   .         .         .         .         .         .         .         .
          2100.  C         .        I.L R E M  .         .         .         .         .         .         .         .
          2150.  C         .         IL R E M  .         .         .         .         .         .         .         .
          2200.  C         .         IL  RWE M .         .         .         .         .         .         .         .
          2250.  C         .         .IL R E M .         .         .         .         .         .         .         .
          2300.  C         .         .IL  RE  M.         .         .         .         .         .         .         .
          2350.  C         .         . IL RWE M.         .         .         .         .         .         .         .
   .45    2400.  C         .         . IL  RE  M         .         .         .         .         .         .         .
          2450.  C         .         .  I  RE  .M        .         .         .         .         .         .         .
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     2500.  C        .         . IL  WE .M       .         .         .         .         .         .
     2550.  C        .         . IL  WE . M      .         .         .         .         .         .
     2600.  C        .         .  IL  E .  M     .         .         .         .         .         .
     2650.  C        .         .  IL  E .   M    .         .         .         .         .         .
     2700.  C        .         .  IL  WE.   M    .         .         .         .         .         .
     2750.  C        .         .   IL WE.    M   .         .         .         .         .         .
     2800.  C        .         .   IL WE.     M  .         .         .         .         .         .
     2850.  C        .         .   I L ER      M .         .         .         .         .         .
.54  2900.  .        .         .    IL WE      M .         .         .         .         .         .
     2950.  C        .         .    IL WE       M.         .         .         .         .         .
     3000.  C        .         .    I L WE      M.         .         .         .         .         .
     3050.  C        .         .     IL WE       M.        .         .         .         .         .
     3100.  C        .         .     IL RWE      M.        .         .         .         .         .
     3150.  C        .         .     IL R E       M        .         .         .         .         .
     3200.  C        .         .      ILR WE      M        .         .         .         .         .
     3250.  C        .         .      ILR  E     .M        .         .         .         .         .
     3300.  C        .         .      ILR  WE    .M        .         .         .         .         .
     3350.  C        .         .       IL   E    .M        .         .         .         .         .
.64  3400.  C        .         .       IL   WE   . M       .         .         .         .         .
     3450.  C        .         .        I    E   . M       .         .         .         .         .
     3500.  C        .         .        IL   WE  .  M      .         .         .         .         .
     3550.  C        .         .        .I   WE  .  M      .         .         .         .         .
     3600.  C        .         .        .IL   E  .   M     .         .         .         .         .
     3650.  C        .         .        .IL   E  .   M     .         .         .         .         .
     3700.  C        .         .        . I   WE .   M     .         .         .         .         .
     3750.  C        .         .        . IL   E .    M    .         .         .         .         .
     3800.  C        .         .        .  I   E .    M    .         .         .         .         .
.73  3850.  C        .         .        .   I  WE .     M  .         .         .         .         .
     3900.  C        .         .        .   IL  E .     M  .         .         .         .         .
     3950.  C        .         .        .   I L WE.      M .         .         .         .         .
     4000.  C        .         .        .    IL  E.      M .         .         .         .         .
     4050.  C        .         .        .    I L WE       M.         .         .         .         .
     4100.  C        .         .        .     I L E       M.         .         .         .         .
     4150.  C        .         .        .     I  LWE      M.         .         .         .         .
     4200.  C        .         .        .      I  WE       M.        .         .         .         .
     4250.  C        .         .        .      I  .WE      M.        .         .         .         .
     4300.  C        .         .        .       I .WE       M        .         .         .         .
.82  4350.  .        .         .        .       I . WE      M        .         .         .         .
     4400.  C        .         .        .        I.  E      M        .         .         .         .
     4450.  C        .         .        .         I  WE     .M        .         .         .         .
     4500.  C        .         .        .         .I  WE    .M        .         .         .         .
     4550.  C        .         .        .         . I  E    . M       .         .         .         .
     4600.  C        .         .        .         .  I LE   . M       .         .         .         .
     4650.  C        .         .        .         .   I WE  . M       .         .         .         .
     4700.  C        .         .        .         .    I WE .  M      .         .         .         .
     4750.  C        .         .        .         .     I ER.  M      .         .         .         .
     4800.  C        .         .        .         .      ILE.   M     .         .         .         .
.92  4850.  C        .         .        .         .      I ER   M     .         .         .         .
     4900.  C        .         .        .         .       ILE    M    .         .         .         .
     4950.  C        .         .        .         .       ILE    M    .         .         .         .
     5000.  C        .         .        .         .        IE     M   .         .         .         .
     5050.  C        .         .        .         .        ILE     M  .         .         .         .
     5100.  C        .         .        .         .        ILE      M .         .         .         .
.97  5150.  C        .         .        .         .         IE      M .         .         .         .
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THIS RUN EXECUTED 19FEB92 14:18:49

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

INTERSTATE 10 - PERRYVIL

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	.000	583.00	1047.41	9857.47	9970.00	10015.00	10007.22	.00	149.75	2.41	1045.00	78.00	6.36
*	.092	583.00	1048.84	9766.89	9990.00	10010.00	10024.21	1.44	257.31	3.64	1045.20	9.76	3.38
*	.186	419.00	1050.35	9899.01	9950.00	10010.00	10011.41	1.51	112.40	2.05	1048.30	103.66	5.69
*	.280	419.00	1053.93	9770.65	9980.00	10015.00	10014.46	3.58	243.80	1.93	1052.00	42.19	3.97
*	.338	419.00	1056.17	9711.75	9730.00	10015.00	10016.27	2.24	304.53	.67	1055.50	158.12	3.49
*	.370	1407.00	1056.98	9717.15	9950.00	10020.00	10022.45	.81	305.30	2.88	1054.10	40.43	5.46
*	.447	335.00	1058.42	9820.94	9970.00	10020.00	10023.16	1.44	202.23	2.32	1056.10	10.48	2.39
*	.541	335.00	1059.35	9938.98	9970.00	10020.00	10016.73	.92	77.75	1.45	1057.90	110.06	5.74
*	.636	335.00	1062.23	9940.26	9990.00	10010.00	10021.77	2.89	81.50	2.64	1059.60	31.54	5.03
	.729	168.00	1063.68	9927.08	9990.00	10010.00	10018.39	1.44	91.31	1.88	1061.80	15.93	2.90
*	.822	168.00	1065.86	9981.41	9980.00	10015.00	10013.95	2.18	32.54	1.86	1064.00	139.71	5.55
	.915	84.00	1069.69	9866.56	9970.00	10010.00	10007.63	3.83	141.08	.99	1068.70	26.45	1.84
	.968	84.00	1070.53	9922.74	9970.00	10025.00	10030.25	.84	107.52	.73	1069.80	35.13	2.15

STATE 10 - PERRYVIL

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	.000	1047.41	-.59	1047.88	149.75	164.27	418.73	.00	.00	.00	9970.00	10015.00	.00
*	.092	1048.84	.00	1048.93	257.31	330.88	219.28	32.84	.00	.00	9990.00	10010.00	.00
*	.186	1050.35	.00	1050.84	112.40	8.52	410.20	.29	.00	.00	9950.00	10010.00	.00
*	.280	1053.93	.00	1054.06	243.80	230.33	188.67	.00	.00	.00	9980.00	10015.00	.00
*	.338	1056.17	.00	1056.36	304.53	1.12	417.78	.10	.00	.00	9730.00	10015.00	.00
*	.370	1056.98	.00	1057.29	305.30	531.07	874.25	1.68	.00	.00	9950.00	10020.00	.00
*	.447	1058.42	.00	1058.48	202.23	117.05	217.67	.28	.00	.00	9970.00	10020.00	.00
*	.541	1059.35	.00	1059.82	77.75	23.05	311.95	.00	.00	.00	9970.00	10020.00	.00
*	.636	1062.23	.00	1062.54	81.50	60.41	245.19	29.40	.00	.00	9990.00	10010.00	.00
	.729	1063.68	.00	1063.76	91.31	55.69	103.15	9.16	.00	.00	9990.00	10010.00	.00
*	.822	1065.86	.00	1066.34	32.54	.00	168.00	.00	.00	.00	9980.00	10015.00	.00
	.915	1069.69	.00	1069.72	141.08	41.66	42.34	.00	.00	.00	9970.00	10010.00	.00
	.968	1070.53	.00	1070.59	107.52	8.96	73.80	1.24	.00	.00	9970.00	10025.00	.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
WARNING SECNO=      .092  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .186  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .186  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .186  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=      .280  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .338  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .370  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .447  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .541  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .636  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .822  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .822  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .822  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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THIS RUN EXECUTED 19FEB92 15:35:43

14-6-H20
Latest Version
Approximate Delineation

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*************************************
HEC-2 WATER SURFACE PROFILES

Version   4.6.2;  May 1991
*************************************

T1      WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2      100 - YEAR STORM EVENT     FLOODPLAIN RUN       FILE:  14-6.H2I
T3      INTERSTATE 10 - R.I.D. CANAL CROSSING WEST TO COTTON LANE. (WASH 14-6)

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2        0        0    0.0025       0        0        0    1009.5       0

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

     -1        0        0        0        0        0        0        0        0        0


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     38       43        1       53       21       22       54       51        4        8
     42        5       26        0      110        0      200

NC     .05      .03     .035       .1       .3
QT       1      896

          Q AT X1 = 0.000 TO X1 = 0.455 EQUALS Q AT D280
          Q = 896 CFS

X1   0.000        8     9950    10040        0        0        0
GR    1010     9150   1009.1     9580   1008.6     9770   1008.5     9870   1008.4     9950
GR  1008.3    10000     1010    10040     1020    10065

X1   0.094        7     9860    10050      505      490      495
GR    1012     9100     1010     9510   1009.8     9640   1009.7     9860   1009.5    10000
GR    1010    10050     1020    10080

X1   0.190        6     9800    10050      510      515      510
GR    1014     9175     1012     9800   1010.3    10000     1012    10050     1020    10085
GR    1024    10105

X1   0.286        6     9815    10060      500      510      505
GR    1014     9380     1012     9815   1010.9    10000     1012    10060     1020    10090
GR    1022    10100
```

X1	0.381	9	9870	10050	505	500	500			
GR	1016	9100	1014	9480	1012	9870	1011.5	10000	1012	10050
GR	1014	10065	1016	10073	1018	10082	1019.7	10115		
X1	0.455	7	9910	10060	395	375	390			
GR	1016	9250	1014	9495	1012	9910	1011.9	10000	1012	10060
GR	1014	10095	1016	10160						

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= .100 CEHV= .300
*SECNO .000

Q AT X1 = 0.000 TO X1 = 0.455 EQUALS Q AT D280
Q = 896 CFS

.000	1.44	1009.74	.00	1009.50	1009.79	.04	.00	.00	1008.40
896.0	681.4	214.5	.0	492.1	94.3	.0	.0	.0	1010.00
.00	1.38	2.28	.00	.050	.035	.000	.000	1008.30	9272.12
.002465	0.	0.	0.	0	0	5	.00	761.86	10033.99

*SECNO .094

.094	1.29	1010.79	.00	.00	1010.83	.04	1.04	.00	1009.70
896.0	468.1	426.9	1.0	407.2	218.1	.9	7.0	8.5	1010.00
.09	1.15	1.96	1.08	.050	.035	.030	.000	1009.50	9348.57
.001768	505.	495.	490.	3	0	0	.00	703.79	10052.36

*SECNO .190

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .54

.190	1.90	1012.20	.00	.00	1012.38	.18	1.52	.04	1012.00
896.0	3.1	892.9	.0	6.3	262.6	.1	12.2	14.4	1012.00
.13	.50	3.40	.04	.050	.035	.030	.000	1010.30	9737.34
.006006	510.	510.	515.	2	0	0	.00	313.53	10050.88

*SECNO .286

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.71

.286	2.33	1013.23	.00	.00	1013.28	.04	.88	.01	1012.00
896.0	104.4	788.7	2.9	168.3	439.6	2.9	17.3	19.2	1012.00
.22	.62	1.79	1.01	.050	.035	.030	.000	1010.90	9544.39
.000819	500.	505.	510.	3	0	0	.00	520.28	10064.67

*SECNO .381

.381	2.16	1013.66	.00	.00	1013.71	.05	.43	.00	1012.00
896.0	211.4	671.2	13.5	270.2	344.7	10.4	24.4	25.2	1012.00
.30	.78	1.95	1.30	.050	.035	.030	.000	1011.50	9545.37
.000885	505.	500.	500.	3	0	0	.00	517.12	10062.49

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .455

.455	2.07	1013.97	.00	.00	1014.01	.03	.30	.00	1012.00
896.0	312.6	539.5	43.9	406.9	304.6	34.3	30.6	30.2	1012.00
.38	.77	1.77	1.28	.050	.035	.030	.000	1011.90	9499.05
.000677	395.	390.	375.	1	0	0	.00	595.61	10094.66

PROFILE FOR STREAM INTERSTATE 10 - R.I.D. C

PLOTTED POINTS (BY PRIORITY) E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA

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ELEVATION  1008.    1009.    1010.    1011.    1012.    1013.    1014.    1015.    1016.    1017.
   SECNO   CUMDIS

   .00      0.  IL       .  WE R  .        .        .        .        .        .        .        .
            50. CIL      .   WER M.        .        .        .        .        .        .        .
           100. C I L    .     E  .M       .        .        .        .        .        .        .
           150. C  IL    .     RE .  M     .        .        .        .        .        .        .
           200. C   IL   .     R E.    M   .        .        .        .        .        .        .
           250. C    I L .     R  E     M  .        .        .        .        .        .        .
           300. C     I L.     R  .E    M. .        .        .        .        .        .        .
           350. C      I L     R  . E      .M       .        .        .        .        .        .
           400. C       I L    R  .  E     .  M     .        .        .        .        .        .
           450. C       .I L   R  .   E    .   M    .        .        .        .        .        .
   .09     500. C       . I L  R  .    E   .     M  .        .        .        .        .        .
           550. C       .  I  L  R.     WE  .       M.        .        .        .        .        .
           600. C       .   I   L.R      E .        .M       .        .        .        .        .
           650. C       .   I    .L R    WE         .  M     .        .        .        .        .
           700. C       .    I   .  L R   WE        .   M    .        .        .        .        .
           750. C       .     I  .   L R  . WE      .     M  .        .        .        .        .
           800. C       .      I .      LR.  WE     .       M.        .        .        .        .
           850. C       .      I .        LR   WE   .        .M       .        .        .        .
           900. C       .       I .        . LR  WE .        .  M     .        .        .        .
           950. C       .        I.        .   LR W E.        .   M    .        .        .        .
          1000. C       .         I        .     L WE        .     M  .        .        .        .
   .19    1050. C       .         I        .     L W.E       .     M  .        .        .        .
          1100. C       .         .I       .     L  W E      .     M  .        .        .        .
          1150. C       .         .I       .     L  .W E     .     M  .        .        .        .
          1200. C       .         . I      .     L  . WE     .     M  .        .        .        .
          1250. C       .         . I      .     L  .  WE    .     M  .        .        .        .
          1300. C       .         .  I     .     L  .   WE   .     M  .        .        .        .
          1350. C       .         .   I    .     L  .   WE   .     M  .        .        .        .
          1400. C       .         .   I    .     L  .    WE  .     M  .        .        .        .
          1450. C       .         .    I   .     L  .     WE .     M  .        .        .        .
          1500. C       .         .    I   .     L  .      WE.     M  .        .        .        .
   .29    1550. C       .         .     I  .     L  .       WE     M  .        .        .        .
          1600. C       .         .      I .     L  .        E       M.        .        .        .
          1650. C       .         .      I .     L  .        WE       .M       .        .        .
          1700. C       .         .       I.     L  .        .E       .  M     .        .        .
          1750. C       .         .       I.     L  .        .WE      .   M    .        .        .
          1800. C       .         .        I.    L  .        .WE      .    M   .        .        .
          1850. C       .         .         I    L  .        . E      .     M.        .        .
          1900. C       .         .         I    L  .        . WE     .      .M       .        .
          1950. C       .         .         .I   L  .        .  E     .       . M      .        .
          2000. C       .         .         .I   L  .        .  WE    .        .  M    .        .
   .38    2050. C       .         .         . I  L  .        .   E    .        .    M   .        .
          2100. C       .         .         .  I L  .        .   E    .        .    M   .        .
          2150. C       .         .         .  I L  .        .   WE   .        .    M   .        .
          2200. C       .         .         .   I L .        .    E   .        .    M   .        .
          2250. C       .         .         .   I L .        .    WE  .        .    M   .        .
          2300. C       .         .         .    I L .        .    E   .        .    M   .        .
          2350. C       .         .         .    I L .        .    E   .        .    M   .        .
   .46    2400. C       .         .         .     IL .        .     E  .        .    M   .        .
```

THIS RUN EXECUTED 19FEB92 15:35:48

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

INTERSTATE 10 - R.I.D. C

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	.000	896.00	1009.74	9272.12	9950.00	10040.00	10033.99	.00	761.86	1.44	1008.30	24.65	2.28
	.094	896.00	1010.79	9348.57	9860.00	10050.00	10052.36	1.04	703.79	1.29	1009.50	17.68	1.96
*	.190	896.00	1012.20	9737.34	9800.00	10050.00	10050.88	1.42	313.53	1.90	1010.30	60.06	3.40
	.286	896.00	1013.23	9544.39	9815.00	10060.00	10064.67	1.03	520.28	2.33	1010.90	8.19	1.79
	.381	896.00	1013.66	9545.37	9870.00	10050.00	10062.49	.42	517.12	2.16	1011.50	8.85	1.95
	.455	896.00	1013.97	9499.05	9910.00	10060.00	10094.66	.32	595.61	2.07	1011.90	6.77	1.77

STATE 10 - R.I.D. C

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	.000	1009.74	.24	1009.79	761.86	681.45	214.55	.00	.00	.00	9950.00	10040.00	.00
	.094	1010.79	.00	1010.83	703.79	468.10	426.90	1.00	.00	.00	9860.00	10050.00	.00
*	.190	1012.20	.00	1012.38	313.53	3.12	892.87	.00	.00	.00	9800.00	10050.00	.00
*	.286	1013.23	.00	1013.28	520.28	104.36	788.71	2.93	.00	.00	9815.00	10060.00	.00
	.381	1013.66	.00	1013.71	517.12	211.37	671.16	13.47	.00	.00	9870.00	10050.00	.00
	.455	1013.97	.00	1014.01	595.61	312.61	539.49	43.89	.00	.00	9910.00	10060.00	.00

SUMMARY OF ERRORS AND SPECIAL NOTES

WARNING SECNO= .190 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= .286 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

```
1*****************************************
* HEC-2 WATER SURFACE PROFILES           *
*                                        *
* Version   4.6.2;  May 1991             *
*                                        *
* RUN DATE    15NOV91    TIME   16:18:21 *
*****************************************
```

```
****************************************
* U.S. ARMY CORPS OF ENGINEERS         *
* HYDROLOGIC ENGINEERING CENTER        *
* 609 SECOND STREET, SUITE D           *
* DAVIS, CALIFORNIA 95616-4687         *
*          (916) 756-1104              *
****************************************
```

```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X    X            X    X
X     X  X        X                      X
XXXXXXX  XXXX     X         XXXXX   XXXXX
X     X  X        X                 X
X     X  X        X    X            X
X     X  XXXXXXX   XXXXX             XXXXXXX
```

1

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THIS RUN EXECUTED 15NOV91 16:18:21

17.H2D – DYSART DRAIN
Latest Version

```
****************************************
HEC-2 WATER SURFACE PROFILES

Version   4.6.2;  May 1991
****************************************
```

```
T1      WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2      100 - YEAR STORM EVENT     FLOODPLAIN RUN      FILE: 17.H2I
T3      DYSART DRAIN - WASH "17" - LUKE A.F. BASE FLOOD CONTROL CHANNEL

J1  ICHECK   INQ     NINV    IDIR    STRT    METRIC  HVINS   Q       WSEL    FQ

      0       2       0       0      -1       0       0       0      1057     0

J2  NPROF    IPLOT   PRFVS   XSECV   XSECH   FN      ALLDC   IBW     CHNIM   ITRACE

     -1       0       0       0       0       0       0       0       0       0


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     38      43       1      53      21      22      54      51       4       8
     42       5      26       0     110       0     200

NC     .04     .04    .016      .1      .3
QT       1    1722

                AGUA FRIA RIVER - CROSS SECTION 0.000 - MATCH FLOODPLAIN INTO
                EXISTING AGUA FRIA F.I.S. AT ELEVATION 1059.4
                Q = 1722 CFS

X1    .000      11    9960   10025       0       0       0
GR  1058.5    9920    1058    9940    1054    9960    1052    9975  1051.5   10000
```

```
GR     1052      10020      1054      10025     1055.6    10045     1056      10075     1058      10120
GR   1058.7      10165

X1     .019         8      9980      10020      101       101       101
GR     1072       9940      1070       9970      1066      9980    1058.5      9995    1058.5      10000
GR   1058.5      10005      1066      10020      1068      10030

X1     .077         9      9980      10020      308       308       308
GR     1078       9950      1076       9965      1070      9975    1068.5      9980      1061       9995
GR     1061      10000      1061      10005    1068.5      10020     1070      10025

X1     .153         8      9980      10020      400       400       400
GR     1080       9955      1078       9960      1070      9980    1062.5      9995    1062.5      10000
GR   1062.5      10005      1070      10020      1072      10030
```



```
                EL MIRAGE ROAD

X1     .187        11      9977.9    10022.1    180       180       180
X3       10                                                        1076      1076
GR     1078       9955     1077.2     9977.9    1070.7    9978    1070.7      9980    1063.2      9995
GR   1063.2      10000     1063.2     10005     1070.7    10020   1070.7      10022   1077.2    10022.1
GR   1077.2      10045

SB       0        1.6        2.6        0        10        0       363.5     1.65      1063.5    1063.2
X1     .203        11      9977.9    10022.1    84        84        84
         0         0          1       1075      1077.5
X3       10                                                        1077.5    1077.5
BT       6       9755     1077.5     1077.5    9977.9    1077.5  1077.5      9978    1077.5      1075
BT   10022      1077.5      1075     10022.1    1077.5    1077.5  10045     1077.5    1077.5
GR     1078       9755     1077.5     9977.9    1071      9978    1071      9980    1063.5      9995
GR   1063.5      10000     1063.5     10005     1071      10020   1071      10022   1077.5    10022.1
GR   1077.5      10045

X1     .267         9      9980      10020      335       335       335
GR   1079.9       9935     1078       9960      1076      9970    1072.3      9980    1064.8      9995
GR   1064.8      10000     1064.8     10005     1072.3    10020     1075      10035

                PONDING OCCURS IN THE LEFT OVERBANK AREA FOR THE NEXT TWO
                UPSTREAM CROSS SECTIONS.  FLOWS ARE ASSUMED NON-EFFECTIVE.

X1     .350        11      9980      10020      440       440       440
X3                                   9970                10035
GR     1076       9635     1074       9865      1072.9    9940    1074      9960    1075       9970
GR   1074.2       9980     1066.7     9995      1066.7    10000   1066.7    10005   1074.2      10020
GR   1075.8      10035

QT       1        565

                CROSS SECTION 0.441
                Q = 565 CFS

X1     .441        19      9980      10020      483       483       483
X3                                   9975                10035
GR     1080       8880     1078       8930      1076      9150    1075.2      9250    1076       9330
GR   1076.2       9370     1076       9410      1074      9445    1072      9690    1072       9950
GR     1076       9970     1077.6     9975      1076.9    9980    1069.4      9995    1069.4      10000
```

```
GR   1069.4    10005    1076.9    10020    1078     10030    1078.9   10035

X1   .530      17       9980      10020    470      470      470
X3                                9975              10035
     1081      8500     1080      8520     1078     8590     1076     8700     1074     8900
     1072      9420     1072      9440     1074     9720     1076     9860     1078     9900
GR   1080      9975     1079.7    9980     1072.2   9995     1072.2   10000    1072.2   10005
GR   1079.7    10020    1081      10035
1
   15NOV91     16:18:21                                                                    PAGE    3


X1   .631      12       9977      10023    530      530      530
X3                                9835              10040
GR   1088.1    9450     1086      9835     1084.7   9950     1084     9960     1082     9970
GR   1081.3    9977     1072.3    9995     1072.3   10000    1072.3   10005    1081.3   10023
GR   1082      10030    1082.4    10040

X1   .731      11       9977      10023    530      530      530
X3   10                                                              1081.5
GR   1081      9060     1079      9250     1079.5   9750     1080     9960     1081.5   9977
GR   1072.5    9995     1072.5    10000    1072.5   10005    1081.5   10023    1083     10028
GR   1083.4    10032

X1   .841      14       9977      10023    580      580      580
X3   10                                                              1082.9
GR   1085      9200     1084      9400     1082     9570     1080     9695     1079.8   9715
GR   1082.1    9880     1082.9    9945     1082.3   9977     1073.3   9995     1073.3   10000
GR   1073.3    10005    1082.3    10023    1084     10032    1084.3   10040

X1   .938      10       9977      10023    510      510      510
X3   10                                                              1084.18  1084.18
GR   1086      9920     1085.8    9965     1085.7   9977     1081.6   9978     1072.6   9995
GR   1072.6    10000    1072.6    10005    1081.6   10022    1085.6   10023    1085.7   10055

SB   0         1.6      2.6       0        10       0        301.68   2        1072.6   1072.6
X1   .942      10       9977      10023    25       25       25
X2   0         0        1         1082.68  1085.68
X3   10                                                              1085.68  1085.68
BT   6         9965     1085.8    1085.8   9977     1085.68  1085.68  9978     1085.68  1082.68
BT   10022     1085.68  1082.68   10023    1085.68  1085.68  10055    1085.8   1085.8
GR   1086      9920     1085.8    9965     1085.68  9977     1081.6   9978     1072.6   9995
GR   1072.6    10000    1072.6    10005    1081.6   10022    1085.6   10023    1085.7   10055

X1   .970      10       9977      10023    145      145      145
X3   10                                                              1087
GR   1087      9675     1086      9690     1084.8   9955     1084     9970     1081.3   9977
GR   1072.3    9995     1072.3    10000    1072.3   10005    1081.3   10023    1084     10050

X1   1.079     12       9977      10023    575      575      575
X3   10                                                              1100
GR   1084      9710     1082.7    9825     1082.6   9935     1082.5   9955     1082     9975
GR   1080.2    9977     1071.2    9995     1071.2   10000    1071.2   10005    1080.2   10023
GR   1082      10025    1084.9    10040


                DYSART ROAD

X1   1.184     10       9977      10023    555      555      555
X3   10                                                              1081.6   1081.6
GR   1082      9670     1083      9935     1083.1   9977     1079     9978     1070     9995
```

```
GR     1070      10000      1070      10005      1079      10022      1083.1      10023      1083.2      10040
1
   15NOV91      16:18:21                                                                                  PAGE    4

SB        0        1.6       2.6          0        10          0      301.68          2       1070       1070
X1    1.192         10      9977      10023        43         43          43
X2        0          0         1     1080.1    1083.1
X3       10                                                                     1083.1     1083.1
BT        6       9935      1083       1083      9977     1083.1      1083.1       9978     1083.1     1080.1
BT    10022     1083.1    1080.1      10023    1083.1     1083.1       10040     1083.2     1083.2
GR     1082       9670      1083       9935    1083.1       9977        1079       9978       1070       9995
GR     1070      10000      1070      10005      1079      10022      1083.1      10023      1083.2      10040

QT        1        345

                CROSS SECTION 1.312
                Q = 345 CFS

X1    1.312         11      9977      10023       635        635         635
X3                                    9950                  10040
GR   1079.6       9540      1080       9945    1080.5       9950        1080       9965     1078.6       9977
GR   1069.6       9995    1069.6      10000    1069.6      10005      1078.6      10023       1080      10030
GR   1080.3      10040

X1    1.422          9      9977      10023       580        580         580
X3                                    9930                  10040
GR   1079.3       9500    1079.5       9930    1078.7       9955      1078.2       9977     1069.2       9995
GR   1069.2      10000    1069.2      10005    1078.2      10023      1079.4      10040

                PONDING OCCURS IN THE LEFT OVERBANK AREA FOR THE NEXT NINE
                UPSTREAM CROSS SECTIONS.  FLOWS ARE ASSUMED NON-EFFECTIVE
                OUTSIDE THE EXPANSION AND CONTRATION LIMITS.  EXTENDED
                CROSS SECTIONS FROM X1=1.533 TO X1=1.937 ARE CONFINED BY
                A WALL ON THE SOUTH BANK OF DYSART DRAIN, THEREFORE, THE
                FLOODPLAIN IS LIMITED AT THAT POINT.

X1    1.533         11      9977      10023       585        585         585
X3                                    9350                  10040
GR    1080       8550      1078       9440    1077.5       9750      1077.9       9965     1077.8       9977
GR   1068.8       9995    1068.8      10000    1068.8      10005      1077.8      10023       1078      10028
GR   1078.8      10040

X1    1.643         12      9977      10023       580        580         580
X3                                    9300                  10040
GR    1080       7930      1079       8830      1078       9245      1077.3       9705     1077.6       9965
GR   1077.4       9977    1068.4       9995    1068.4      10000      1068.4      10005     1077.4      10023
GR    1078      10028    1078.2      10040

X1    1.747         14      9977      10023       550        550         550
X3                                    9450                  10040
GR    1080       7960      1079       8770      1078       9420      1077.5       9790       1078       9960
GR   1078.5       9965      1078       9970      1077       9977        1068       9995       1068      10000
GR    1068      10005      1077      10023      1078      10035      1078.5      10040
   15NOV91      16:18:21                                                                                  PAGE    5

X1    1.849         13      9977      10023       540        540         540
```

```
X3                                  9575                10040
GR    1079.5      8790      1078      9830     1077.7     9915      1078      9955    1078.4      9970
GR      1078      9975    1076.7      9977     1067.7     9995    1067.7     10000    1067.7     10005
GR    1076.7     10023      1078     10030     1078.5    10040
```

FLOWS BREAKOUT TO THE SOUTH OVER DYSART DRAIN FROM X1 = 1.937
TO X1 = 2.153. APPROXIMATELY 600 CFS IS DIVERTED SOUTH.
EXTENDED CORSS SECTIONS IN THIS AREA INDICATE CHANNEL CAPACITY
IS EXCEEDED.

```
X1    1.937        12      9977     10023       465       465       465
X3                                  9700
GR     1080      8960      1079      9380    1078.8      9460    1078.2      9570      1078      9975
GR   1076.4      9977    1067.4      9995    1067.4     10000    1067.4     10005    1076.4     10023
GR     1078     10028    1078.3     10040

X1    1.988         8      9977     10023       265       265       265
X3                                  9700
GR     1080      9110      1078      9595    1076.2      9977    1067.2      9995    1067.2     10000
GR   1067.2     10005    1076.2     10023    1077.5     10040

X1    2.070        10      9977     10023       435       435       435
X3                                  9800
GR     1080      8870      1078      9755    1077.2      9880      1076      9970    1075.9      9977
GR   1066.9      9995    1066.9     10000    1066.9     10005    1075.9     10023    1077.4     10045

X1    2.153        14      9977     10023       440       440       440
X3                                  9800
GR     1080      8800      1078      9825    1077.8      9890      1078      9930    1078.6      9940
       1078      9970    1075.8      9977    1066.8      9995    1066.8     10000    1066.8     10005
GR   1075.8     10023      1076     10026      1078     10040    1079.2     10055

QT        1       945
```

CROSS SECTION 2.174
Q = 945 CFS

```
X1    2.174        16      9978     10022       100       130       110
X3                                  9800
GR     1081      7400      1080      8830      1078      9855      1078      9900    1077.8      9920
GR     1078      9945    1078.9      9955      1078      9965      1076      9978    1067.4      9995
GR   1067.4     10000    1067.4     10005      1076     10022      1078     10035      1080     10070
GR   1080.7     10145
```

LITCHFIELD ROAD


```
X1    2.203        11      9979     10021       220        85       155
X3       10                                                      1081.25   1081.25
GR   1081.5      9780  1081.25      9979  1075.24    9979.1  1075.24      9981    1068.2      9995
GR   1068.2     10000  1068.24     10005  1075.24     10019  1075.24   10020.9  1081.25     10021
     1081.5     10200

SB    1.05       1.6       2.6         0        10       1.5    326.79       1.6   1068.94   1068.24
X1    2.228        11      9979     10021       130       130       130
X2        0         0         1   1080.12   1081.95
X3       10                                                      1081.95   1081.95
```

```
BT      4     9840     1082              9979   1081.95              10021   1081.95
BT  10200     1082
GR   1082     9840   1081.95      9979  1075.94   9979.1   1075.94    9981    1068.9     9995
GR 1068.9    10000   1068.94     10005  1075.94    10019   1075.94 10020.9   1081.95    10021
     1082    10200

X1  2.256       10     9980     10020      150      150       150
GR 1082.1     9920   1081.7      9960     1080     9970    1077.2     9980    1069.7     9995
GR 1069.7    10000   1069.7     10005   1077.2    10020      1079    10035    1081.5    10170

X1  2.337       11     9980     10020      425      425       425
GR 1082.8     9920   1082.1      9955   1083.8     9960      1080     9975    1079.4     9980
GR 1071.9     9995   1071.9     10000   1071.9    10005    1079.4    10020      1080    10035
GR 1082.5    10260

X1  2.411       15     9985     10023      405      380       390
GR 1084.5     9925    1084      9935     1080     9945      1076     9955    1075.3     9965
GR  1076      9970    1078      9980     1079     9985    1073.9     9995    1073.9    10000
GR 1073.9    10005   1081.5     10023     1082    10035    1082.5    10065      1083    10220

X1  2.454       11     9983     10017      231      231       231
X3     10                                                          1084.2    1084.2
GR 1084.9     9690   1082.8      9750     1084     9900   1085.56     9983    1081.5     9984
GR 1075.5     9995   1075.5     10000   1075.5    10005    1081.5    10016   1085.56    10017
GR 1085.8    10065

SB      0      1.6      2.6         0       10        0    176.54        2    1075.7    1075.5
X1  2.459       11     9983     10017       26       26        26
X2                        1   1083.01  1085.76
X3     10                                                          1085.76   1085.76
        8     9670   1084.9    1084.9     9740     1083      1083     9890      1084      1084
BT   9983  1085.76  1085.76     9984  1085.76  1083.01     10016  1085.76   1083.01     10017
BT 1085.8   1085.8    10065   1085.8   1085.8
GR 1084.9     9670     1083     9740     1084     9890   1085.76     9983    1081.7     9984
GR 1075.7     9995   1075.7     10000   1075.7    10005    1081.7    10016    1085.8    10017
GR 1085.8    10065

X1  2.504       17     9981     10019      233      233       233
GR 1085.8     9060   1085.4      9380   1084.2     9420    1084.7     9560      1084     9670
GR 1082.5     9790   1082.7      9860     1083     9885    1082.7     9910    1083.9     9975
GR 1083.7     9981   1076.7      9995   1076.7    10000    1076.7    10005    1083.7    10019
GR  1084     10030   1085.6     10040
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QT      1      509

        CROSS SECTION 2.164
        Q = 509 CFS

X1  2.614       17     9980     10020      585      585       585
GR   1089     8400     1088      8650     1086     9280    1085.5     9360      1086     9440
GR 1086.3     9470     1086      9620     1085     9850      1086     9965    1086.7     9973
   1086.6     9980   1079.1      9995   1079.1    10000    1079.1    10005    1086.6    10020
     1088    10035   1088.1     10040

X1  2.642       16     9980     10020      147      147       147
GR   1089     8500     1088      8730     1086     9370    1085.7     9500      1086     9560
GR 1086.4     9575     1086      9730   1085.5     9900      1086     9960    1087.2     9980
GR 1079.7     9995   1079.7     10000   1079.7    10005    1087.2    10020      1088    10030
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GR   1088.5     10040

NC     .04       .04      .016       .3        .5
X1    2.656       17    9989.5   10010.5       75        75        75
      10                                                        1087.5
GR    1089     8580      1088     8880      1086      9470    1085.7      9570      1086      9640
GR   1086.4     9655      1086     9785    1085.5      9900      1086      9960    1087.5      9970
GR   1086.5   9989.5    1080.4     9995    1080.4     10000    1080.4     10005    1086.5   10010.5
GR    1088     10030    1088.7    10040

NC    .016      .016      .016       .3        .5
X1    2.672       19    9987.9   10012.1       86        86        86
X3      10                                                      1087.08   1087.08
GR   1089.5     8600      1088     9060      1086      9610    1085.8      9700      1086      9750
GR   1088.5     9770      1086     9890    1085.9      9900      1086      9910      1088      9955
GR   1088.2     9973      1088     9985   1087.73    9987.9    1080.9      9988    1080.9     10000
GR   1080.9    10012   1087.73   10012.1      1088     10025    1089.2     10040

SC    2.013       .5         3        0       5.5        10       638       8.1      1082    1080.9

                 2-10 X 5 BOX CULVERTS

X1    2.794        7    9988.4   10011.6       638       638       638
X2        0        0         2    1087.5   1088.58
X3       10                                                      1088.58   1088.58
BT        4     9890      1090            9988.4   1088.58            10011.6   1088.58
BT    10065   1089.2
GR    1090     9890   1088.58     9988.4      1082    9988.5      1082     10000      1082   10011.5
GR   1088.6  10011.6    1089.2     10065

      .04      .025      .025        .3        .5
QT       1      859
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                 CROSS SECTION 2.804
                 Q = 859 CFS

X1    2.804        7      9968     10032        53        53        53
GR    1090      9705    1089.1      9968    1082.3      9985    1082.3     10000    1082.3     10015
GR   1089.1     10032    1089.2     10070

NC     .04      .025      .045        .1        .3

                 FLOWS BREAKOUT TO THE SOUTH OVER DYSART DRAIN FROM X1 =2.834
                 TO X1 = 3.317.  APPROXIMATELY 2050 CFS IS DIVERTED SOUTH ONTO
                 LUKE AIR FORCE BASE.  EXTENDED CROSS SECTIONS IN THIS AREA
                 INDICATE CHANNEL CAPACITY IS EXCEEDED.

X1    2.834       11      9970     10030       161       161       161
GR   1089.5     9930      1088      9970      1086      9970      1084      9985    1082.5      9995
GR   1082.5    10000    1082.5     10005      1084     10010      1086     10020      1088     10030
GR   1088.8    10070

      2.916       10      9980     10039       432       432       432
GR   1089.4     9940    1089.1      9950    1088.6      9965      1088      9980    1082.5      9995
GR   1082.5    10000    1082.5     10005      1086     10020    1087.5     10039    1087.7     10070

X1    3.021       15      9988     10023       555       555       555
GR    1090      9900    1089.2      9940    1088.9      9950    1088.4      9965      1088      9980
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GR     1086      9988      1084      9990    1082.8      9995    1082.8     10000    1082.8     10005
GR     1084     10012      1086     10023    1087.5     10035      1088     10045    1088.2     10070

X1    3.116        12      9980     10030       500       500       500
GR   1090.5      9940    1090.2      9950      1090      9970      1088      9980      1086      9986
GR   1084.2      9995    1084.2     10000    1084.2     10005      1086     10020      1088     10030
GR   1088.5     10055    1088.8     10070

X1    3.218        14      9975     10042       540       540       540
GR   1092.1      9935      1092      9950    1091.9      9955      1092      9960    1092.7      9965
GR     1092      9970      1090      9975      1088      9985    1085.7      9995    1085.7     10000
GR   1085.7     10005      1088     10017      1090     10042    1090.3     10065

X1    3.317        14      9980     10025       525       525       525
GR   1093.6      9935    1093.3      9947      1094      9955    1094.2      9962      1094      9968
GR     1090      9980      1088      9990      1087      9995      1087     10000      1087     10005
GR     1088     10008      1090     10025    1091.5     10050    1091.8     10062

X1    3.414        11      9982     10021       510       510       510
GR   1094.8      9935    1094.5      9947      1094      9973      1090      9982    1088.2      9995
GR   1088.2     10000    1088.2     10005      1090     10021      1092     10032      1094     10050
GR   1094.1     10060

QT        1       812
1
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            CROSS SECTION 3.507
            Q = 812 CFS

X1    3.507        22      9980     10023       490       490       490
GR   1096.5      9480      1096      9600    1095.5      9740      1096      9770      1097      9800
GR     1096      9820      1096      9875      1098      9885    1095.3      9910    1095.7      9935
GR   1095.4      9948      1094      9970      1092      9980      1090      9985      1089      9995
GR     1089     10000      1089     10005      1090     10013      1092     10023      1094     10033
GR   1094.5     10043    1094.8     10060

X1    3.602        20      9979     10031       500       500       500
GR     1097      9450      1096      9705    1095.8      9730      1096      9745      1098      9780
GR     1099      9800      1098      9825      1096      9840      1096      9905    1095.5      9920
GR   1095.9      9940    1095.6      9953      1094      9979      1090      9993    1089.8     10000
GR     1090     10007      1092     10021      1094     10031      1095     10046    1095.5     10059

X1    3.663        21      9987     10020       150       150       150
X3       10                         9810
GR     1097      9450    1096.2      9755      1091      9795      1099      9810      1098      9815
GR     1096      9825      1096      9895    1096.4      9910    1096.1      9920    1096.2      9937
GR     1096      9964      1094      9987      1090      9987    1089.7      9995    1089.6     10000
GR   1089.7     10004      1090     10006      1094     10020    1095.3     10032      1095     10043
GR   1095.8     10054

X1    3.729        12      9980     10016       350       350       350
GR     1098      9140    1096.5      9937    1096.2      9947      1096      9970      1094      9980
GR     1092      9989    1090.2      9995    1090.1     10000      1092     10006      1094     10016
GR     1096     10026    1096.7     10038

X1    3.839        14      9967     10014       580       580       580
GR   1100.5      8750      1100      8880      1098      9460    1096.9      9933    1096.6      9946
GR     1096      9967      1094      9981      1092      9991    1091.9     10005      1092     10005
GR     1094     10010      1096     10014      1098     10020    1099.6     10032
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X1    3.871      14      9967    10015     170     170     170
GR    1101     8760      1100     9000    1098    9590  1096.9     9933   1096.6     9946
GR    1096     9967      1094     9980  1092.5    9995  1092.4    10000   1092.5    10005
      1094    10010      1096    10015    1098   10020  1099.9    10032

NC     .04     .025      .045       .3      .5
X1    3.894      13      9995    10005     120     120     120
X3       10                                                      1095.5   1095.5
GR   1101.5     8610      1100     8930    1098    9640  1097.3     9830   1095.5     9930
GR    1094     9970    1092.5     9990  1092.5    9995  1092.5    10000   1092.5    10005
GR  1092.5    10020      1096    10050    1101   10070

SB    1.05      1.6       2.6        0      10       2      20        0   1092.6    1092.5

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                2 - 4' X 2.5' BOX CULVERTS AT NORTHERN AVENUE

X1    3.916      13      9995    10005     115     115     115
X2        0       0         1   1095.1  1095.5
X3       10                                                      1095.5   1095.5
BT       10    8910      1101            9695    1098             9860   1097.6
BT     9940  1098.3              9995  1095.5            10000   1095.5          10005
BT   1095.5            10045     1097            10135   1095.5          10200     1100
BT
GR     1101    8910      1100     9180    1098    9695  1097.6     9860   1098.3     9940
GR   1092.6    9990    1092.6     9995  1092.6   10000  1092.6    10005   1092.6    10010
      1097   10045    1095.5    10135    1100   10200

NC     .05     .025      .045       .1      .3
X1    3.951      18      9986    10008     185     185     185
GR   1101.5    8840      1100     9170    1098    9780  1097.8     9915     1098     9955
GR   1098.4    9970      1098     9975    1096    9986  1092.7     9995   1092.7    10000
GR   1092.7   10005      1096    10008  1097.4   10032  1097.7    10045     1096    10070
GR   1095.5   10100      1096    10125    1101   10150

NC     .05     .025      .045       .3      .5
X1    3.974      10      9970    10040     120     120     120
X3       10                                                      1098     1098
GR   1099.5    9450      1098     9830  1097.8    9900    1098     9955   1098.5     9970
GR   1092.5    9991    1092.5    10000  1092.5   10009  1098.5    10040     1099    10100

SC    2.012     0.5       2.6        0     5.5       0      24      1.1   1092.7    1092.7

                2 - 66" RCP'S

X1    3.978      10      9970    10040      24      24      24
X2        0       0         2   1098.0  1098.5
X3       10                                                      1098.5   1098.5
BT        7    9450    1099.5            9830    1098             9900   1097.8
BT     9955    1098              9970  1098.5            10040   1098.5          10100
BT     1099
      1099.5    9450      1098     9830  1097.8    9900    1098     9955   1098.5     9970
      1092.5    9991    1092.5    10000  1092.5   10009  1098.5    10040     1099    10100

NC     .04     .025      .045       .1      .3

                FLOWS BREAKOUT TO THE SOUTH FROM X1= 4.070 TO X1 = 4.465
                APPROXIMATELY 1536 CFS IS DIVERTED SOUTH.  EXTENDED CROSS
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SECTIONS IN THIS AREA REFLECT OVERTOPPING OF NORTHERN AVE.

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X1    4.070      11      9987     10016      484      484      484
GR   1100.5    9515      1100      9650   1099.2     9845   1099.1      9975      1098      9987
      1096     9993    1095.6     10000     1096    10008     1098     10016      1100     10022
GR   1100.1    10026
1
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X1    4.166      13      9980     10018      510      510      510
X3       10                                                          1100.2
GR   1101.5    9530      1100      9875   1099.8     9940     1100      9955    1100.2      9975
GR     1100    9980      1098      9990   1096.4    10000     1098     10011      1100     10018
GR   1101.3   10026    1100.9     10035   1101.1    10045

NC      .05     .025      .045       .3       .5
X1    4.212       8      9980     10020      240      240      240
X3       10                                                          1101.4    1101.4
GR   1102.2    9635    1100.5      9940   1101.6     9980   1096.6      9991    1096.6     10000
GR   1096.6   10009    1101.6     10020   1102.2    10030

SC    2.012      .5       3.0         0      4.5        0       24       1.1    1096.7    1096.6

                2 - 54" RCP'S

X1    4.216       8      9980     10020       24       24       24
X2        0       0         2    1101.2   1101.7
X3       10                                                          1101.7    1101.7
          5    9640    1102.2            9940   1100.5               9980    1101.7
B1    10020   1101.7            10030   1102.2
GR   1102.2    9640    1100.5      9940   1101.7     9980   1096.7      9991    1096.7     10000
GR   1096.7   10009    1101.7     10020   1102.2    10030

NC      .05     .025       .04       .1       .3
X1    4.268      13      9990     10010      270      270      270
GR   1103.8    9200      1103      9425     1102     9765   1100.8      9950    1101.3      9980
GR     1100    9990      1098      9995   1097.9    10000     1098     10005      1100     10010
GR     1102   10025    1102.1     10035   1102.4    10045

X1    4.334      13      9985     10030      350      350      350
X3       10                                                          1102.2
GR     1104    9200      1103      9400     1102     9875   1101.7      9960      1102      9970
GR   1102.2    9980      1102      9985     1100     9990   1098.6     10000      1100     10015
GR     1102   10030    1102.6     10035   1102.9    10050

QT        1    2347

                CROSS SECTION 4.399
                Q = 2347 CFS

X1    4.399      15      9985     10025      345      345      345
X3       10                                                          1102.6
GR     1106    8450      1105      8800   1104.1     9175     1104      9450      1102      9940
     1101.9    9950      1102      9960   1102.6     9980     1102      9985      1100      9990
     1099.5   10000      1100     10010     1102    10025   1103.2     10035    1103.5     10045

NC      .05     .025       .04       .3       .5
X1    4.454      10      9985     10010      285      295      290
GR     1106    8350      1105      9100     1104     9420     1103      9900      1103      9970
GR     1102    9985    1100.3     10000     1102    10010     1104     10035    1104.1     10060
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REEMS ROAD

X1	4.465	11	9990	10010	53	63	58			
GR	1106	8450	1105	9100	1104	9575	1103.5	9750	1103.5	9905
GR	1103.4	9970	1102	9990	1100.6	10000	1102	10010	1104	10060
GR	1104.2	10110								
X1	4.482	15	9985	10010	83	101	89			
GR	1106	8650	1105	9200	1104	9740	1103.8	9850	1104	9935
GR	1104.1	9965	1104	9975	1102	9985	1101.1	10000	1102.5	10005
GR	1103.2	10010	1103.5	10035	1104	10065	1106	10075	1108	10095
X1	4.565	11	9975	10025	445	430	438			
GR	1107.5	8960	1106	9500	1105.8	9700	1106	9960	1106.4	9965
GR	1106	9975	1105.3	9980	1105	10000	1105.3	10020	1106	10025
GR	1108	10800								

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1
0

CCHV= .100 CEHV= .300
*SECNO .000
3720 CRITICAL DEPTH ASSUMED

AGUA FRIA RIVER - CROSS SECTION 0.000 - MATCH FLOODPLAIN INTO
EXISTING AGUA FRIA F.I.S. AT ELEVATION 1059.4
Q = 1722 CFS

.000	3.44	1054.94	1054.94	1057.00	1056.30	1.36	.00	.00	1054.00
1722.0	2.5	1713.1	6.4	2.2	182.6	5.6	.0	.0	1054.00
.00	1.13	9.38	1.15	.040	.016	.040	.000	1051.50	9955.28
.002603	0.	0.	0.	0	13	0	.00	81.51	10036.79

*SECNO .019

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
[illegible] CRITICAL DEPTH ASSUMED

.019	6.49	1064.99	1064.99	.00	1067.06	2.07	.26	.21	1066.00
1722.0	.0	1722.0	.0	.0	149.0	.0	.4	.1	1066.00
.00	.00	11.56	.00	.000	.016	.000	.000	1058.50	9982.03
.002594	101.	101.	101.	20	14	0	.00	35.94	10017.97

*SECNO .077
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.077	6.46	1067.46	1067.46	.00	1069.56	2.10	.81	.01	1068.50
1722.0	.0	1722.0	.0	.0	148.1	.0	1.4	.4	1068.50
.01	.00	11.63	.00	.000	.016	.000	.000	1061.00	9982.08
.002638	308.	308.	308.	20	5	0	.00	35.84	10017.92

*SECNO .153
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3720 CRITICAL DEPTH ASSUMED

.153	6.47	1068.97	1068.97	.00	1071.06	2.09	1.05	.00	1070.00
1722.0	.0	1722.0	.0	.0	148.3	.0	2.8	.7	1070.00
.02	.00	11.61	.00	.000	.016	.000	.000	1062.50	9982.07
.002625	400.	400.	400.	20	5	0	.00	35.87	10017.93

*SECNO .187
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1076.00 ELREA= 1076.00

EL MIRAGE ROAD

.187	6.47	1069.67	1069.67	.00	1071.76	2.09	.47	.00	1077.20
1722.0	.0	1722.0	.0	.0	148.3	.0	3.4	.9	1077.20
.02	.00	11.62	.00	.000	.016	.000	.000	1063.20	9982.07
.002628	180.	180.	180.	20	5	0	.00	35.86	10017.93

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.60	2.60	.00	10.00	.00	363.50	1.65	1063.50	1063.20

*SECNO .203

6070,LOW FLOW BY NORMAL BRIDGE

QS= .000 EGLWC= 1072.060 ELLC= 1075.000 PCWSE= 1069.665 ELTRD= 1077.500

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 1077.50 MAX ELLC= 1075.00

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1077.50 ELREA= 1077.50

.203	6.46	1069.96	1069.96	.00	1072.06	2.10	.22	.00	1077.50
1722.0	.0	1722.0	.0	.0	147.9	.0	3.7	.9	1077.50
.03	.00	11.64	.00	.000	.016	.000	.000	1063.50	9982.09
.002645	84.	84.	84.	2	15	0	.00	35.82	10017.91

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .267
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.267	6.47	1071.27	1071.27	.00	1073.36	2.09	.88	.00	1072.30
1722.0	.0	1722.0	.0	.0	148.4	.0	4.8	1.2	1072.30
.03	.00	11.60	.00	.000	.016	.000	.000	1064.80	9982.06
.002622	335.	335.	335.	20	5	0	.00	35.88	10017.94

*SECNO .350
[illegible] 20 TRIALS ATTEMPTED WSEL,CWSEL
[illegible] PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9970.0 10035.0 TYPE= 1 TARGET= 65.000

PONDING OCCURS IN THE LEFT OVERBANK AREA FOR THE NEXT TWO
UPSTREAM CROSS SECTIONS. FLOWS ARE ASSUMED NON-EFFECTIVE.

.350	6.47	1073.17	1073.17	.00	1075.26	2.09	1.15	.00	1074.20
1722.0	.0	1722.0	.0	.0	148.3	.0	6.3	1.6	1074.20
.04	.00	11.61	.00	.000	.016	.000	.000	1066.70	9982.07
.002627	440.	440.	440.	20	5	0	.00	35.87	10017.93

*SECNO .441

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9975.0 10035.0 TYPE= 1 TARGET= 60.000

CROSS SECTION 0.441
Q = 565 CFS

.441	6.39	1075.79	.00	.00	1076.02	.23	.57	.19	1076.90
565.0	.0	565.0	.0	.0	145.4	.0	8.0	2.0	1076.90
.08	.00	3.89	.00	.000	.016	.000	.000	1069.40	9982.23
.000298	483.	483.	483.	3	0	0	.00	35.54	10017.77

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .530

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9975.0 10035.0 TYPE= 1 TARGET= 60.000

.530	3.80	1075.80	1075.80	.00	1077.09	1.29	.33	.32	1079.70
565.0	.0	565.0	.0	.0	62.0	.0	9.1	2.3	1079.70
.09	.00	9.12	.00	.000	.016	.000	.000	1072.00	9987.79
.003042	470.	470.	470.	20	14	0	.00	24.41	10012.21

*SECNO .631

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.01

3470 ENCROACHMENT STATIONS= 9835.0 10040.0 TYPE= 1 TARGET= 205.000

.631	5.12	1077.42	.00	.00	1077.89	.46	.71	.08	1081.30
565.0	.0	565.0	.0	.0	103.5	.0	10.1	2.6	1081.30
.12	.00	5.46	.00	.000	.016	.000	.000	1072.30	9984.77
.000750	530.	530.	530.	0	0	0	.00	30.46	10015.23

*SECNO .731

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1081.50 ELREA= 1081.50

.731	5.35	1077.85	.00	.00	1078.25	.40	.36	.01	1081.50
565.0	.0	565.0	.0	.0	111.0	.0	11.4	3.0	1081.50
.15	.00	5.09	.00	.000	.016	.000	.000	1072.50	9984.29
.000620	530.	530.	530.	2	0	0	.00	31.43	10015.71

*SECNO .841

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1082.90 ELREA= 1082.30

.841	4.89	1078.19	.00	.00	1078.72	.53	.43	.04	1082.30
565.0	.0	565.0	.0	.0	96.7	.0	12.8	3.4	1082.30
.18	.00	5.84	.00	.000	.016	.000	.000	1073.30	9985.22
000900	580.	580.	580.	2	0	0	.00	29.56	10014.78

*SECNO .938

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.56

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1084.18 ELREA= 1084.18

.938	6.14	1078.74	.00	.00	1079.03	.28	.28	.02	1085.70
565.0	.0	565.0	.0	.0	132.8	.0	14.1	3.8	1085.60
.21	.00	4.26	.00	.000	.016	.000	.000	1072.60	9983.39
.000372	510.	510.	510.	2	0	0	.00	33.21	10016.61

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.60	2.60	.00	10.00	.00	301.68	2.00	1072.60	1072.60

*SECNO .942

6070,LOW FLOW BY NORMAL BRIDGE

= .000 EGLWC= 1079.026 ELLC= 1082.680 PCWSE= 1078.744 ELTRD= 1085.680

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 1085.68 MAX ELLC= 1082.68

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1085.68 ELREA= 1085.68

.942	6.15	1078.75	.00	.00	1079.03	.28	.01	.00	1085.68
565.0	.0	565.0	.0	.0	132.8	.0	14.2	3.8	1085.60
.21	.00	4.26	.00	.000	.016	.000	.000	1072.60	9983.39
.000372	25.	25.	25.	0	0	0	.00	33.21	10016.61

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .970

OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1087.00 ELREA= 1081.30

.970	6.57	1078.87	.00	.00	1079.09	.21	.05	.01	1081.30
565.0	.0	565.0	.0	.0	152.1	.0	14.7	3.9	1081.30
.22	.00	3.71	.00	.000	.016	.000	.000	1072.30	9981.86
.000264	145.	145.	145.	2	0	0	.00	36.29	10018.14

*SECNO 1.079

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.47

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1100.00 ELREA= 1080.20

1.079	7.87	1079.07	.00	.00	1079.20	.12	.10	.01	1080.20
565.0	.0	565.0	.0	.0	202.4	.0	17.0	4.4	1080.20
.28	.00	2.79	.00	.000	.016	.000	.000	1071.20	9979.27
.000122	575.	575.	575.	1	0	0	.00	41.46	10020.73

*SECNO 1.184

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1081.60 ELREA= 1081.60

DYSART ROAD

1.184	9.17	1079.17	.00	.00	1079.25	.08	.05	.00	1083.10
565.0	.0	565.0	.0	.0	250.7	.0	19.9	5.0	1083.10
.35	.00	2.25	.00	.000	.016	.000	.000	1070.00	9977.96
.000066	555.	555.	555.	1	0	0	.00	44.09	10022.04

SPECIAL BRIDGE

XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
.00	1.60	2.60	.00	10.00	.00	301.68	2.00	1070.00	1070.00

*SECNO 1.192

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= .000 EGLWC= 1079.249 ELLC= 1080.100 PCWSE= 1079.170 ELTRD= 1083.100

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 1083.10 MAX ELLC= 1080.10

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1083.10 ELREA= 1083.10

1.192	9.17	1079.17	.00	.00	1079.25	.08	.00	.00	1083.10
565.0	.0	565.0	.0	.0	250.5	.0	20.1	5.0	1083.10
.35	.00	2.26	.00	.000	.016	.000	.000	1070.00	9977.96
.000067	43.	43.	43.	0	0	0	.00	44.08	10022.04

*SECNO 1.312

3470 ENCROACHMENT STATIONS= 9950.0 10040.0 TYPE= 1 TARGET= 90.000

CROSS SECTION 1.312
Q = 345 CFS

1.312	9.66	1079.26	.00	.00	1079.28	.02	.02	.01	1078.60
345.0	.1	344.8	.1	1.8	282.2	1.1	24.1	5.7	1078.60
.50	.07	1.22	.07	.040	.016	.040	.000	1069.60	9971.37
.000017	635.	635.	635.	2	0	0	.00	54.91	10026.28

*SECNO 1.422

3470 ENCROACHMENT STATIONS= 9930.0 10040.0 TYPE= 1 TARGET= 110.000

1.422	10.07	1079.27	.00	.00	1079.29	.02	.01	.00	1078.20
345.0	2.5	341.8	.7	23.3	301.5	8.2	28.2	6.8	1078.20
.64	.11	1.13	.09	.040	.016	.040	.000	1069.20	9937.02
.000014	580.	580.	580.	1	0	0	.00	101.21	10038.23

*SECNO 1.533
3280 CROSS SECTION 1.53 EXTENDED .48 FEET

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.59

3470 ENCROACHMENT STATIONS= 9350.0 10040.0 TYPE= 1 TARGET= 690.000

PONDING OCCURS IN THE LEFT OVERBANK AREA FOR THE NEXT NINE
UPSTREAM CROSS SECTIONS. FLOWS ARE ASSUMED NON-EFFECTIVE
OUTSIDE THE EXPANSION AND CONTRATION LIMITS. EXTENDED
CROSS SECTIONS FROM X1=1.533 TO X1=1.937 ARE CONFINED BY
A WALL ON THE SOUTH BANK OF DYSART DRAIN, THEREFORE, THE
FLOODPLAIN IS LIMITED AT THAT POINT.

1.533	10.49	1079.29	.00	.00	1079.30	.01	.00	.00	1077.80
345.0	106.4	237.1	1.6	939.7	320.3	17.5	39.0	12.1	1077.80
.94	.11	.74	.09	.040	.016	.040	.000	1068.80	9350.00
.000005	585.	585.	585.	1	0	0	.00	690.00	10040.00

*SECNO 1.643
3280 CROSS SECTION 1.64 EXTENDED 1.09 FEET

ENCROACHMENT STATIONS= 9300.0 10040.0 TYPE= 1 TARGET= 740.000

1.643	10.89	1079.29	.00	.00	1079.30	.00	.00	.00	1077.40
345.0	124.2	218.9	1.9	1184.4	339.2	22.3	57.8	21.6	1077.40
1.30	.10	.65	.08	.040	.016	.040	.000	1068.40	9300.00
.000004	580.	580.	580.	0	0	0	.00	740.00	10040.00

*SECNO 1.747
3280 CROSS SECTION 1.75 EXTENDED .80 FEET

3470 ENCROACHMENT STATIONS= 9450.0 10040.0 TYPE= 1 TARGET= 590.000

1.747	11.29	1079.29	.00	.00	1079.30	.01	.00	.00	1077.00
345.0	85.2	256.9	2.8	818.6	357.6	26.8	75.1	30.0	1077.00
1.57	.10	.72	.11	.040	.016	.040	.000	1068.00	9450.00
.000004	550.	550.	550.	0	0	0	.00	590.00	10040.00

*SECNO 1.849
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3280 CROSS SECTION 1.85 EXTENDED .80 FEET

3470 ENCROACHMENT STATIONS= 9575.0 10040.0 TYPE= 1 TARGET= 465.000

1.849	11.60	1079.30	.00	.00	1079.30	.01	.00	.00	1076.70
345.0	47.3	295.1	2.6	490.6	371.5	24.1	88.1	36.5	1076.70
1.79	.10	.79	.11	.040	.016	.040	.000	1067.70	9575.00
.000005	540.	540.	540.	0	0	0	.00	465.00	10040.00

*SECNO 1.937
3280 CROSS SECTION 1.94 EXTENDED 1.00 FEET

3470 ENCROACHMENT STATIONS= 9700.0 10040.0 TYPE= 1 TARGET= -9700.000

FLOWS BREAKOUT TO THE SOUTH OVER DYSART DRAIN FROM X1 = 1.937
TO X1 = 2.153. APPROXIMATELY 600 CFS IS DIVERTED SOUTH.
EXTENDED CORSS SECTIONS IN THIS AREA INDICATE CHANNEL CAPACITY
IS EXCEEDED.

1.937	11.90	1079.30	.00	.00	1079.31	.01	.00	.00	1076.40
345.0	32.5	309.9	2.6	342.5	385.3	24.3	96.8	40.8	1076.40
1.96	.09	.80	.11	.040	.016	.040	.000	1067.40	9700.00
.000005	465.	465.	465.	0	0	0	.00	340.00	10040.00

*SECNO 1.988
3280 CROSS SECTION 1.99 EXTENDED 1.80 FEET

3470 ENCROACHMENT STATIONS= 9700.0 10040.0 TYPE= 1 TARGET= -9700.000

1.988	12.10	1079.30	.00	.00	1079.31	.01	.00	.00	1076.20
345.0	81.4	258.9	4.7	677.7	394.6	41.6	102.5	42.9	1076.20
2.11	.12	.66	.11	.040	.016	.040	.000	1067.20	9700.00
.000003	265.	265.	265.	0	0	0	.00	340.00	10040.00

*SECNO 2.070

3280 CROSS SECTION 2.07 EXTENDED 1.90 FEET

3470 ENCROACHMENT STATIONS= 9800.0 10045.0 TYPE= 1 TARGET= -9800.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.070	12.40	1079.30	.00	.00	1079.31	.01	.00	.00	1075.90
345.0	51.6	286.1	7.3	414.8	408.6	58.4	112.5	45.8	1075.90
2.31	.12	.70	.13	.040	.016	.040	.000	1066.90	9800.00
.000003	435.	435.	435.	0	0	0	.00	245.00	10045.00

*SECNO 2.153
3280 CROSS SECTION 2.15 EXTENDED .11 FEET

3470 ENCROACHMENT STATIONS= 9800.0 10055.0 TYPE= 1 TARGET= -9800.000

2.153	12.50	1079.30	.00	.00	1079.31	.01	.00	.00	1075.80
345.0	21.9	316.5	6.6	236.6	413.2	53.1	120.5	48.4	1075.80
2.48	.09	.77	.12	.040	.016	.040	.000	1066.80	9800.00
.000004	440.	440.	440.	0	0	0	.00	255.00	10055.00

*SECNO 2.174

3470 ENCROACHMENT STATIONS= 9800.0 10145.0 TYPE= 1 TARGET= -9800.000

CROSS SECTION 2.174
Q = 945 CFS

2.174	11.86	1079.26	.00	.00	1079.33	.08	.00	.02	1076.00
945.0	65.4	865.5	14.1	229.6	375.6	43.2	122.1	49.0	1076.00
2.49	.28	2.30	.33	.040	.016	.040	.000	1067.40	9800.00
.000040	100.	110.	130.	2	0	0	.00	257.03	10057.03

*SECNO 2.203

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1081.25 ELREA= 1081.25

LITCHFIELD ROAD

2.203	11.03	1079.23	.00	.00	1079.36	.12	.01	.01	1081.25
945.0	.0	945.0	.0	.0	335.8	.0	124.0	49.6	1081.25
2.51	.00	2.81	.00	.000	.016	.000	.000	1068.20	9979.03
.000079	220.	155.	85.	2	0	0	.00	41.93	10020.97

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV

Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.05	1.60	2.60	.00	10.00	1.50	326.79	1.60	1068.94	1068.24

*SECNO 2.228
CLASS A LOW FLOW

3420 BRIDGE W.S.= 1079.57 BRIDGE VELOCITY= 3.30 CALCULATED CHANNEL AREA= 271.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	1079.39	.01	0.	945.	327.	295.	1080.12	1081.95	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1081.95 ELREA= 1081.95

2.228	10.34	1079.24	.00	.00	1079.39	.15	.03	.00	1081.95
945.0	.0	945.0	.0	.0	306.8	.0	125.0	49.7	1081.95
2.52	.00	3.08	.00	.000	.016	.000	.000	1068.90	9979.04
.000102	130.	130.	130.	0	0	0	.00	41.91	10020.96

*SECNO 2.256

2.256	9.53	1079.23	.00	.00	1079.42	.19	.02	.01	1077.20
945.0	3.0	934.3	7.7	7.4	268.8	18.4	126.0	49.9	1077.20
2.53	.41	3.48	.42	.040	.016	.040	.000	1069.70	9972.74
.000124	150.	150.	150.	2	0	0	.00	74.79	10047.54

*SECNO 2.337

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .50

2.337	7.25	1079.15	.00	.00	1079.59	.44	.09	.08	1079.40
945.0	.0	945.0	.0	.0	177.5	.0	128.3	50.5	1079.40
2.55	.00	5.32	.00	.000	.016	.000	.000	1071.90	9980.50
.000487	425.	425.	425.	2	0	0	.00	38.99	10019.50

*SECNO 2.411

2.411	5.48	1079.38	.00	.00	1079.84	.46	.25	.01	1079.00
945.0	215.4	729.6	.0	98.4	119.6	.0	130.1	51.0	1081.50
2.57	2.19	6.10	.00	.040	.016	.000	.000	1073.90	9946.55
.000848	405.	390.	380.	2	0	0	.00	71.42	10017.98

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.454

HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1084.20 ELREA= 1084.20

2.454	4.84	1080.34	1080.34	.00	1082.00	1.66	.33	.36	1085.56
945.0	.0	945.0	.0	.0	91.3	.0	130.9	51.3	1085.56
2.58	.00	10.35	.00	.000	.016	.000	.000	1075.50	9986.13
.002845	231.	231.	231.	20	11	0	.00	27.74	10013.87

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.60	2.60	.00	10.00	.00	176.54	2.00	1075.70	1075.50

*SECNO 2.459

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= .000 EGLWC= 1082.202 ELLC= 1083.010 PCWSE= 1080.337 ELTRD= 1085.760

NORMAL BRIDGE, NRD= 8 MIN ELTRD= 1085.76 MAX ELLC= 1083.01

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1085.76 ELREA= 1085.76

2.459	4.84	1080.54	1080.54	.00	1082.20	1.66	.07	.00	1085.76
945.0	.0	945.0	.0	.0	91.4	.0	131.0	51.3	1085.80
2.58	.00	10.33	.00	.000	.016	.000	.000	1075.70	9986.12
.002829	26.	26.	26.	20	16	0	.00	27.76	10013.88

*SECNO 2.504
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.504	4.76	1081.46	1081.46	.00	1083.07	1.61	.66	.00	1083.70
945.0	.0	945.0	.0	.0	92.8	.0	131.5	51.4	1083.70
2.59	.00	10.18	.00	.000	.016	.000	.000	1076.70	9985.49
.002818	233.	233.	233.	3	8	0	.00	29.03	10014.51

*SECNO 2.614

3301 HV CHANGED MORE THAN HVINS

CROSS SECTION 2.164
Q = 509 CFS

2.614	4.60	1083.70	.00	.00	1084.22	.52	1.04	.11	1086.60
509.0	.0	509.0	.0	.0	88.4	.0	132.7	51.8	1086.60
2.62	.00	5.76	.00	.000	.016	.000	.000	1079.10	9985.80
.000934	585.	585.	585.	3	0	0	.00	28.41	10014.20

*SECNO 2.642

2.642	4.00	1083.70	.00	.00	1084.47	.77	.18	.08	1087.20
509.0	.0	509.0	.0	.0	72.2	.0	133.0	51.9	1087.20
2.62	.00	7.05	.00	.000	.016	.000	.000	1079.70	9986.99
.001625	147.	147.	147.	2	0	0	.00	26.03	10013.01

CCHV= .300 CEHV= .500
*SECNO 2.656

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1087.50 ELREA= 1086.50

2.656	3.82	1084.22	1084.22	.00	1085.75	1.52	.17	.38	1086.50
509.0	.0	509.0	.0	.0	51.4	.0	133.1	51.9	1086.50
2.62	.00	9.90	.00	.000	.016	.000	.000	1080.40	9991.55
.003294	75.	75.	75.	20	8	0	.00	16.89	10008.45

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .300 CEHV= .500
*SECNO 2.672

3301 HV CHANGED MORE THAN HVINS

[illegible] WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.94

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1087.08 ELREA= 1087.08

2.672	5.02	1085.92	.00	.00	1086.19	.28	.07	.37	1087.73
509.0	.0	509.0	.0	.0	120.7	.0	133.2	52.0	1087.73

2.63	.00	4.22	.00	.000	.016	.000	.000	1080.90	9987.93
.000382	86.	86.	86.	3	0	0	.00	24.15	10012.07

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	2	.013	.50	3.00	.00	5.50	10.00	638.00	8	1	1082.00	1080.90

CHART 8 - BOX CULVERT WITH FLARED WINGWALLS; NO INLET TOP EDGE BEVEL
SCALE 1 - WINGWALLS FLARED 30 TO 75 DEGREES

*SECNO 2.794

SPECIAL CULVERT OUTLET CONTROL
EGIC = 1086.357 EGOC = 1087.069 PCWSE= 1085.916 ELTRD= 1088.580

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1086.36	1087.07	.88	0.	509.	4.660	110.0	1088.58	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1088.58 ELREA= 1088.58

2-10 X 5 BOX CULVERTS

2.794	4.73	1086.73	.00	.00	1087.07	.34	.88	.00	1088.58
509.0	.0	509.0	.0	.0	109.2	.0	134.9	52.3	1088.60
2.67	.00	4.66	.00	.000	.016	.000	.000	1082.00	9988.43
.000500	638.	638.	638.	2	0	0	.00	23.14	10011.57

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .300 CEHV= .500
*SECNO 2.804

CROSS SECTION 2.804
Q = 859 CFS

2.804	4.48	1086.78	.00	.00	1087.11	.34	.04	.00	1089.10
859.0	.0	859.0	.0	.0	184.3	.0	135.1	52.4	1089.10
2.67	.00	4.66	.00	.000	.025	.000	.000	1082.30	9973.81
.001199	53.	53.	53.	2	0	0	.00	52.38	10026.19

CCHV= .100 CEHV= .300
*SECNO 2.834

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .41

FLOWS BREAKOUT TO THE SOUTH OVER DYSART DRAIN FROM X1 =2.834
TO X1 = 3.317. APPROXIMATELY 2050 CFS IS DIVERTED SOUTH ONTO
LUKE AIR FORCE BASE. EXTENDED CROSS SECTIONS IN THIS AREA
INDICATE CHANNEL CAPACITY IS EXCEEDED.

2.834	4.58	1087.08	.00	.00	1087.53	.46	.39	.04	1088.00
859.0	.0	859.0	.0	.0	158.1	.0	135.7	52.6	1088.00
2.68	.00	5.43	.00	.000	.045	.000	.000	1082.50	9970.00
.006991	161.	161.	161.	2	0	0	.00	55.39	10025.39

*SECNO 2.916
3280 CROSS SECTION 2.92 EXTENDED 1.09 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.96

2.916	6.28	1088.78	.00	.00	1088.95	.17	1.38	.03	1088.00
859.0	7.3	749.5	102.2	7.8	222.6	36.7	137.9	53.4	1087.50
2.72	.94	3.37	2.78	.040	.045	.025	.000	1082.50	9959.44
.001828	432.	432.	432.	1	0	0	.00	110.56	10070.00

*SECNO 3.021
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3280 CROSS SECTION 3.02 EXTENDED 1.28 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.53

3.021	6.68	1089.48	.00	.00	1089.59	.11	.64	.01	1086.00
859.0	75.1	567.8	216.1	57.7	198.0	84.5	141.7	55.0	1086.00
2.77	1.30	2.87	2.56	.040	.045	.025	.000	1082.80	9926.05
.000784	555.	555.	555.	3	0	0	.00	143.95	10070.00

*SECNO 3.116
3280 CROSS SECTION 3.12 EXTENDED 1.14 FEET

3.116	5.74	1089.94	.00	.00	1090.08	.14	.48	.01	1088.00
859.0	11.8	677.3	169.8	9.4	220.6	61.6	145.3	56.4	1088.00
2.82	1.26	3.07	2.76	.040	.045	.025	.000	1084.20	9970.30
.001220	500.	500.	500.	2	0	0	.00	99.70	10070.00

*SECNO 3.218
3280 CROSS SECTION 3.22 EXTENDED .58 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .62

3.218	5.18	1090.88	.00	.00	1091.12	.23	1.01	.03	1090.00
859.0	1.1	812.3	45.5	1.0	206.6	16.9	148.5	57.6	1090.00
2.86	1.16	3.93	2.70	.040	.045	.025	.000	1085.70	9972.79
.003208	540.	540.	540.	2	0	0	.00	92.21	10065.00

*SECNO 3.317

3280 CROSS SECTION 3.32 EXTENDED .47 FEET

3.317	5.28	1092.28	.00	.00	1092.49	.22	1.38	.00	1090.00
859.0	14.2	689.9	154.9	7.8	179.4	45.6	151.3	58.7	1090.00
2.90	1.83	3.85	3.40	.040	.045	.025	.000	1087.00	9973.18
.002184	525.	525.	525.	2	0	0	.00	88.82	10062.00

*SECNO 3.414

3.414	5.13	1093.33	.00	.00	1093.58	.24	1.07	.01	1090.00
859.0	27.5	696.8	134.8	12.4	173.8	33.5	153.9	59.6	1090.00
2.93	2.21	4.01	4.03	.040	.045	.025	.000	1088.20	9974.52
.002026	510.	510.	510.	2	0	0	.00	69.40	10043.92

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 3.507

CROSS SECTION 3.507
Q = 812 CFS

3.507	5.33	1094.33	.00	.00	1094.56	.23	.98	.00	1092.00
812.0	26.6	742.7	42.7	14.2	190.2	14.4	156.4	60.4	1092.00
2.97	1.88	3.90	2.97	.040	.045	.025	.000	1089.00	9964.81
.001967	490.	490.	490.	2	0	0	.00	74.79	10039.60

*SECNO 3.602

3.602	5.55	1095.35	.00	.00	1095.55	.20	.99	.00	1094.00
812.0	18.7	762.1	31.2	14.6	207.2	14.2	159.0	61.4	1094.00
3.01	1.27	3.68	2.21	.040	.045	.025	.000	1089.80	9957.19
.002009	500.	500.	500.	1	0	0	.00	97.72	10054.90

*SECNO 3.663

3470 ENCROACHMENT STATIONS= 9810.0 10054.0 TYPE= 1 TARGET= -9810.000

3.663	6.03	1095.63	.00	.00	1095.93	.29	.34	.03	1094.00
812.0	25.9	735.8	50.3	15.5	162.8	20.1	159.8	61.7	1094.00
3.02	1.67	4.52	2.50	.040	.045	.025	.000	1089.60	9968.14
.002655	150.	150.	150.	1	0	0	.00	83.66	10051.80

*SECNO 3.729

3.729	6.43	1096.53	.00	.00	1096.79	.26	.86	.00	1094.00
812.0	46.8	705.1	60.0	27.2	164.4	17.7	161.4	62.5	1094.00

3.04	1.72	4.29	3.39	.040	.045	.025	.000	1090.10	9921.24
.002306	350.	350.	350.	2	0	0	.00	113.84	10035.08

NO 3.839

3.839	5.80	1097.70	.00	.00	1097.83	.12	1.02	.01	1096.00
812.0	171.5	632.2	8.3	180.1	199.7	4.3	165.4	66.2	1096.00
3.10	.95	3.17	1.92	.040	.045	.025	.000	1091.90	9588.13
.001385	580.	580.	580.	2	0	0	.00	430.97	10019.11

*SECNO 3.871

3.871	5.55	1097.95	.00	.00	1098.04	.10	.21	.00	1096.00
812.0	222.0	581.1	8.9	221.0	201.9	4.7	166.9	67.8	1096.00
3.12	1.00	2.88	1.88	.040	.045	.025	.000	1092.40	9606.60
.001144	170.	170.	170.	2	0	0	.00	413.27	10019.87

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .300 CEHV= .500

*SECNO 3.894

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.05

3.894	5.57	1098.07	.00	.00	1098.10	.03	.03	.02	1092.50
812.0	385.8	64.0	362.1	504.8	55.7	206.7	168.6	69.0	1092.50
3.15	.76	1.15	1.75	.040	.045	.025	.000	1092.50	9615.04
.000123	120.	120.	120.	2	0	0	.00	443.24	10058.28

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1096.66 , NOT 1098.07 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.05	1.60	2.60	.00	10.00	2.00	20.00	.00	1092.60	1092.50

*SECNO 3.916

3265 DIVIDED FLOW

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
139.02	1102.58	.00	790.	22.	20.	20.	1095.10	1095.50	477.

2 - 4' X 2.5' BOX CULVERTS AT NORTHERN AVENUE

3.916	5.47	1098.07	.00	.00	1098.10	.03	.00	.00	1092.60
812.0	192.8	80.0	539.2	216.5	54.7	353.4	170.4	70.2	1092.60
3.17	.89	1.46	1.53	.040	.045	.025	.000	1092.60	9676.89
.000203	115.	115.	115.	2	0	13	.00	466.96	10172.13

CCHV= .100 CEHV= .300
*SECNO 3.951

3265 DIVIDED FLOW

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .50

3.951	5.39	1098.09	.00	.00	1098.19	.10	.07	.02	1096.00
812.0	20.8	241.3	549.8	47.8	98.9	211.7	172.5	72.0	1096.00
3.19	.44	2.44	2.60	.050	.045	.025	.000	1092.70	9750.96
.000829	185.	185.	185.	1	0	0	.00	369.28	10135.48

= .300 CEHV= .500
*SECNO 3.974

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .68

3.974	5.70	1098.20	.00	.00	1098.36	.16	.14	.03	1098.50
812.0	22.7	789.3	.0	43.2	243.4	.0	173.4	72.8	1098.50
3.20	.52	3.24	.00	.050	.045	.000	.000	1092.50	9779.25
.001787	120.	120.	120.	2	0	0	.00	249.16	10038.45

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	2	.012	.50	2.60	.00	5.50	.00	24.00	1	1	1092.70	1092.70

CHART 1 - CONCRETE PIPE CULVERT; NO BEVELED RING ENTRANCE
SCALE 1 - SQUARE EDGE ENTRANCE WITH HEADWALL

*SECNO 3.978

IAL CULVERT INLET CONTROL + WEIR FLOW, EG = 1098.79
IAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1108.01	1105.30	.43	449.	367.	2.515	47.5	1098.50	444.

2 - 66" RCP'S

3.978	6.20	1098.70	.00	.00	1098.79	.09	.43	.00	1098.50
812.0	111.3	699.7	1.0	169.6	278.2	2.5	173.6	73.0	1098.50
3.21	.66	2.52	.40	.050	.045	.025	.000	1092.50	9652.03
.000947	24.	24.	24.	2	0	0	.00	412.27	10064.30

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO 4.070
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

FLOWS BREAKOUT TO THE SOUTH FROM X1= 4.070 TO X1 = 4.465
APPROXIMATELY 1536 CFS IS DIVERTED SOUTH. EXTENDED CROSS
SECTIONS IN THIS AREA REFLECT OVERTOPPING OF NORTHERN AVE.

4.070	4.12	1099.72	1099.72	.00	1100.10	.38	.95	.09	1098.00
812.0	235.1	558.7	18.2	121.1	96.9	4.4	177.3	77.0	1098.00
3.24	1.94	5.77	4.11	.040	.045	.025	.000	1095.60	9718.28
.006274	484.	484.	484.	20	15	0	.00	302.88	10021.16

*SECNO 4.166
3280 CROSS SECTION 4.17 EXTENDED .24 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.18

4.166	4.94	1101.34	.00	.00	1101.40	.06	1.27	.03	1100.00
812.0	461.5	335.8	14.6	353.2	126.8	11.1	181.5	81.5	1100.00
3.31	1.31	2.65	1.32	.040	.045	.025	.000	1096.40	9566.50
.001324	510.	510.	510.	4	0	0	.00	478.50	10045.00

CCHV= .300 CEHV= .500
*SECNO 4.212

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .67

4.212	5.12	1101.72	.00	.00	1101.93	.21	.45	.08	1101.60
812.0	188.4	623.6	.1	161.0	149.9	.1	183.7	83.7	1101.60
3.33	1.17	4.16	.50	.050	.045	.025	.000	1096.60	9720.66
.002924	240.	240.	240.	2	0	0	.00	301.39	10022.04

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	2	.012	.50	3.00	.00	4.50	.00	24.00	1	1	1096.70	1096.60

CHART 1 - CONCRETE PIPE CULVERT; NO BEVELED RING ENTRANCE
SCALE 1 - SQUARE EDGE ENTRANCE WITH HEADWALL

5130, EGIC= 1125.64..MAY BE TOO LARGE IF INLET CONTROLS.
5135, EGOC= 1117.77 ..MAY BE TOO LARGE IF OUTLET CONTROLS.
*SECNO 4.216

SPECIAL CULVERT INLET CONTROL + WEIR FLOW, EG = 1101.94
SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1125.64	1117.77	.02	576.	237.	4.233	31.8	1101.70	339.

2 - 54" RCP'S

4.216	5.03	1101.73	.00	.00	1101.94	.22	.02	.00	1101.70
812.0	192.5	619.5	.0	159.5	146.3	.0	183.9	83.9	1101.70
3.33	1.21	4.23	.03	.050	.045	.025	.000	1096.70	9722.40
.003128	24.	24.	24.	2	0	0	.00	298.26	10020.66

CCHV= .100 CEHV= .300
*SECNO 4.268
3280 CROSS SECTION 4.27 EXTENDED .08 FEET

4.268	4.58	1102.48	.00	.00	1102.61	.13	.66	.01	1100.00
812.0	404.3	323.6	84.2	300.7	80.1	28.8	186.1	86.2	1100.00
3.36	1.34	4.04	2.92	.050	.040	.025	.000	1097.90	9601.35
.001953	270.	270.	270.	2	0	0	.00	443.65	10045.00

*SECNO 4.334
3280 CROSS SECTION 4.33 EXTENDED .21 FEET

4.334	4.52	1103.12	.00	.00	1103.19	.07	.57	.01	1102.00
812.0	402.6	395.6	13.8	426.8	137.5	9.5	190.1	90.6	1102.00
3.41	.94	2.88	1.45	.050	.040	.025	.000	1098.60	9377.66
.001379	350.	350.	350.	2	0	0	.00	672.34	10050.00

*SECNO 4.399

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

```
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3280 CROSS SECTION      4.40 EXTENDED       .57 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.58


               CROSS SECTION 4.399
               Q = 2347 CFS

    4.399      4.56   1104.06      .00       .00   1104.32      .27      1.08      .06   1102.00
   2347.0    1368.7    880.2     98.1     614.2     147.6     21.8     195.4     96.4   1102.00
     3.44      2.23     5.96     4.50      .050      .040     .025      .000  1099.50   9270.70
  .004600      345.     345.     345.         1         0        0       .00   774.30  10045.00


CCHV=     .300 CEHV=     .500
*SECNO 4.454
3280 CROSS SECTION      4.45 EXTENDED       .95 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.65

    4.454      4.75   1105.05      .00       .00   1105.13      .08       .75      .05   1102.00
   2347.0    1721.8    365.3    259.9    1099.8      97.4     76.1     202.2    102.2   1102.00
     3.48      1.57     3.75     3.42      .050      .040     .025      .000  1100.30   9064.84
  .001683      285.     290.     295.         2         0        0       .00   995.16  10060.00


*SECNO 4.465
3280 CROSS SECTION      4.47 EXTENDED       .93 FEET


               REEMS ROAD

    4.465      4.53   1105.13      .00       .00   1105.24      .11       .10      .01   1102.00
   2347.0    1450.3    302.6    594.0     960.4      76.7    158.4     203.7    103.5   1102.00
     3.48      1.51     3.95     3.75      .050      .040     .025      .000  1100.60   9013.04
  .001906       53.      58.      63.         2         0        0       .00  1096.96  10110.00


*SECNO 4.482
    4.482      4.22   1105.32      .00       .00   1105.49      .17       .22      .03   1102.00
   2347.0    1437.7    418.3    491.0     820.4      86.5    100.6     205.9    105.5   1103.20
     3.49      1.75     4.84     4.88      .050      .040     .025      .000  1101.10   9024.83
  .003288       83.      89.     101.         2         0        0       .00  1046.76  10071.59


1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 4.565
    4.565      2.07   1107.07      .00       .00   1107.16      .09      1.65      .02   1106.00
```

2347.0	1449.2	329.4	568.4	757.1	91.0	221.7	216.4	117.6	1106.00
3.54	1.91	3.62	2.56	.050	.040	.025	.000	1105.00	9114.91
.004285	445.	438.	430.	3	0	0	.00	1324.60	10439.51

1

PROFILE FOR STREAM DYSART DRAIN - WASH "17"

PLOTTED POINTS (BY PRIORITY) E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA

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ELEVATION  1052.    1062.    1072.    1082.    1092.    1102.    1112.    1122.    1132.    1142.
   SECNO   CUMDIS

    .00     0.  I W E M .        .        .        .        .        .        .        .        .
            50. . I   W E M      .        .        .        .        .        .        .        .
           100. .     I . WLEM   .        .        .        .        .        .        .        .
    .02    150. .     I . W LEM  .        .        .        .        .        .        .        .
           200. .     I .  WLEM  .        .        .        .        .        .        .        .
           250. .      I .  WLEM .        .        .        .        .        .        .        .
           300. .      I .   WLE .        .        .        .        .        .        .        .
           350. .       I.   WLEM .        .        .        .        .        .        .        .
           400. .       I.   W LE .        .        .        .        .        .        .        .
    .08    450. .        I    WLEM.        .        .        .        .        .        .        .
           500. .        I    WLEM.        .        .        .        .        .        .        .
           550. .        I    WLEM.        .        .        .        .        .        .        .
           600. .        I     WLE.        .        .        .        .        .        .        .
           650. .        I     WLEM        .        .        .        .        .        .        .
           700. .        I     WLEM        .        .        .        .        .        .        .
           750. .        .I    WLEM        .        .        .        .        .        .        .
           800. .        .I    WLEM        .        .        .        .        .        .        .
    .15    850. .        .I    W LEM       .        .        .        .        .        .        .
           900. .        .I     W E M      .        .        .        .        .        .        .
           950. .        .I     W E LM     .        .        .        .        .        .        .
    .19   1000. .        . I    W E    L   .        .        .        .        .        .        .
          1050. .        . I    W E    L   .        .        .        .        .        .        .
    .20   1100. .        . I    W .E   L   .        .        .        .        .        .        .
          1150. .        . I     W.E  LM   .        .        .        .        .        .        .
          1200. .        . I     W.E  LM   .        .        .        .        .        .        .
          1250. .        .  I    W.E  LM   .        .        .        .        .        .        .
          1300. .        .  I    W.E L M   .        .        .        .        .        .        .
          1350. .        .  I    W. E M    .        .        .        .        .        .        .
          1400. .        .  I     WLE M    .        .        .        .        .        .        .
    .27   1450. .        .  I     WLE M    .        .        .        .        .        .        .
          1500. .        .   I    WLE M    .        .        .        .        .        .        .
          1550. .        .   I    WLE M    .        .        .        .        .        .        .
          1600. .        .   I    WL EM    .        .        .        .        .        .        .
          1650. .        .   I    .WLEM    .        .        .        .        .        .        .
          1700. .        .   I    .WLEM    .        .        .        .        .        .        .
          1750. .        .    I   .WLEM    .        .        .        .        .        .        .
          1800. .        .    I   .WLEM    .        .        .        .        .        .        .
    .35   1850. .        .    I   . WLE    .        .        .        .        .        .        .
          1900. C        .    I   . WLEM   .        .        .        .        .        .        .
          1950. C        .     I  . WLEM   .        .        .        .        .        .        .
          2000. C        .     I  . W EM   .        .        .        .        .        .        .
          2050. C        .     I  .  WE M  .        .        .        .        .        .        .
          2100. C        .      I .  WE M  .        .        .        .        .        .        .
          2150. C        .      I .  WE M  .        .        .        .        .        .        .
          2200. C        .      I .   EL M .        .        .        .        .        .        .
```

	2250.	C	.	I .	EL M	.	.	.	.	.	.	.	.	.
	2300.	C	.	I .	EL M	.	.	.	.	.	.	.	.	.
.44	2350.	C	.	I .	WE M	.	.	.	.	.	.	.	.	.
	2400.	C	.	I .	WEL M	.	.	.	.	.	.	.	.	.
	2450.	C	.	I .	WEL M	.	.	.	.	.	.	.	.	.
	2500.	C	.	I.	WEL M	.	.	.	.	.	.	.	.	.
	2550.	C	.	I.	WE LM	.	.	.	.	.	.	.	.	.
	2600.	C	.	I.	WE L M.	.	.	.	.	.	.	.	.	.
	2650.	C	.	I	WE L M.	.	.	.	.	.	.	.	.	.
	2700.	C	.	I	WE L M.	.	.	.	.	.	.	.	.	.
	2750.	C	.	I	WE LM.	.	.	.	.	.	.	.	.	.
	2800.	C	.	I	W E LM.	.	.	.	.	.	.	.	.	.
.53	2850.	.	.	.I	W E L M	.	.	.	.	.	.	.	.	.
	2900.	C	.	.I	W E L M	.	.	.	.	.	.	.	.	.
	2950.	C	.	.I	WE LM	.	.	.	.	.	.	.	.	.
	3000.	C	.	.I	WE LM	.	.	.	.	.	.	.	.	.
	3050.	C	.	.I	WE LM	.	.	.	.	.	.	.	.	.
	3100.	C	.	.I	WE LM	.	.	.	.	.	.	.	.	.
	3150.	C	.	.I	WE LM	.	.	.	.	.	.	.	.	.
	3200.	C	.	.I	WE LM	.	.	.	.	.	.	.	.	.
	3250.	C	.	.I	E L.M	.	.	.	.	.	.	.	.	.
	3300.	C	.	.I	E LM	.	.	.	.	.	.	.	.	.
.63	3350.	C	.	.I	E LM	.	.	.	.	.	.	.	.	.
	3400.	C	.	.I	E LM	.	.	.	.	.	.	.	.	.
	3450.	C	.	.I	E LM	.	.	.	.	.	.	.	.	.
	3500.	C	.	.I	E LM	.	.	.	.	.	.	.	.	.
	3550.	C	.	.I	WE L	.	.	.	.	.	.	.	.	.
	3600.	C	.	.I	WE L	.	.	.	.	.	.	.	.	.
	3650.	C	.	.I	WE L	.	.	.	.	.	.	.	.	.
	3700.	C	.	.I	WE L	.	.	.	.	.	.	.	.	.
	3750.	C	.	.I	WE L	.	.	.	.	.	.	.	.	.
	3800.	C	.	.I	WE L	.	.	.	.	.	.	.	.	.
	3850.	C	.	.I	WE L	.	.	.	.	.	.	.	.	.
.73	3900.	C	.	.I	WE L	.	.	.	.	.	.	.	.	.
	3950.	C	.	.I	WE L	.	.	.	.	.	.	.	.	.
	4000.	C	.	.I	WE L	.	.	.	.	.	.	.	.	.
	4050.	C	.	.I	WE L	.	.	.	.	.	.	.	.	.
	4100.	C	.	.I	WE LM	.	.	.	.	.	.	.	.	.
	4150.	C	.	.I	E LM	.	.	.	.	.	.	.	.	.
	4200.	C	.	.I	E LM	.	.	.	.	.	.	.	.	.
	4250.	C	.	.I	E LM	.	.	.	.	.	.	.	.	.
	4300.	C	.	. I	E .LM	.	.	.	.	.	.	.	.	.
	4350.	C	.	. I	E .LM	.	.	.	.	.	.	.	.	.
	4400.	C	.	. I	E .LM	.	.	.	.	.	.	.	.	.
.84	4450.	C	.	. I	E .L M	.	.	.	.	.	.	.	.	.
	4500.	C	.	. I	E .L M	.	.	.	.	.	.	.	.	.
	4550.	C	.	. I	E .L M	.	.	.	.	.	.	.	.	.
	4600.	C	.	. I	E . LM	.	.	.	.	.	.	.	.	.
	4650.	C	.	. I	E . LM	.	.	.	.	.	.	.	.	.
	4700.	C	.	.I	E . LM	.	.	.	.	.	.	.	.	.
	4750.	C	.	.I	E . LM	.	.	.	.	.	.	.	.	.
	4800.	C	.	.I	E . LM	.	.	.	.	.	.	.	.	.
	4850.	C	.	.I	E . LM	.	.	.	.	.	.	.	.	.
	4900.	C	.	.I	E . L	.	.	.	.	.	.	.	.	.
	4950.	C	.	.I	WE . L	.	.	.	.	.	.	.	.	.
.94	5000.	C	.	.I	WE . L	.	.	.	.	.	.	.	.	.
.94	5050.	C	.	.I	WE . L	.	.	.	.	.	.	.	.	.
	5100.	C	.	.I	WE . LM	.	.	.	.	.	.	.	.	.
.97	5150.	C	.	.I	WE L M	.	.	.	.	.	.	.	.	.
	5200.	C	.	.I	WE L M	.	.	.	.	.	.	.	.	.
	5250.	C	.	.I	WE L M	.	.	.	.	.	.	.	.	.
	5300.	C	.	.I	WE L M	.	.	.	.	.	.	.	.	.

	5350.	C	.	I	WEL. M	.	.	.	.	.	.	.
	5400.	C	.	I	WEL. M	.	.	.	.	.	.	.
	5450.	C	.	I	WEL. M	.	.	.	.	.	.	.
	5500.	C	.	I	WEL. M	.	.	.	.	.	.	.
	5550.	C	.	I	EL. M	.	.	.	.	.	.	.
	5600.	C	.	I	EL. M	.	.	.	.	.	.	.
	5650.	C	.	I	EL. M	.	.	.	.	.	.	.
1.08	5700.	C	.	I	EL. M	.	.	.	.	.	.	.
	5750.	C	.	I	EL. M	.	.	.	.	.	.	.
	5800.	C	.	I.	EL. M	.	.	.	.	.	.	.
	5850.	C	.	I.	EL. M	.	.	.	.	.	.	.
	5900.	C	.	I.	E L M	.	.	.	.	.	.	.
	5950.	C	.	I.	E L M	.	.	.	.	.	.	.
	6000.	C	.	I.	E LM	.	.	.	.	.	.	.
	6050.	C	.	I.	E .L	.	.	.	.	.	.	.
	6100.	C	.	I.	E .L	.	.	.	.	.	.	.
	6150.	C	.	I.	E .L	.	.	.	.	.	.	.
	6200.	C	.	I.	E .L	.	.	.	.	.	.	.
	6250.	C	.	I.	E .ML	.	.	.	.	.	.	.
1.18	6300.	C	.	I.	E .ML	.	.	.	.	.	.	.
1.19	6350.	C	.	I.	E .ML	.	.	.	.	.	.	.
	6400.	C	.	I .	E ML	.	.	.	.	.	.	.
	6450.	C	.	I .	E ML	.	.	.	.	.	.	.
	6500.	C	.	I .	E ML	.	.	.	.	.	.	.
	6550.	C	.	I .	E L	.	.	.	.	.	.	.
	6600.	C	.	I .	E L	.	.	.	.	.	.	.
	6650.	C	.	I .	ELM	.	.	.	.	.	.	.
	6700.	C	.	I .	ELM	.	.	.	.	.	.	.
	6750.	C	.	I .	EL.	.	.	.	.	.	.	.
	6800.	C	.	I .	EM.	.	.	.	.	.	.	.
	6850.	C	.	I .	EM.	.	.	.	.	.	.	.
	6900.	C	.	I .	EM.	.	.	.	.	.	.	.
1.31	6950.	C	.	I .	LEM.	.	.	.	.	.	.	.
	7000.	C	.	I .	LEM.	.	.	.	.	.	.	.
	7050.	C	.	I .	LEM.	.	.	.	.	.	.	.
	7100.	C	.	I .	LEM.	.	.	.	.	.	.	.
	7150.	C	.	I .	LE .	.	.	.	.	.	.	.
	7200.	C	.	I .	LE .	.	.	.	.	.	.	.
	7250.	C	.	I .	LE .	.	.	.	.	.	.	.
	7300.	C	.	I .	LE .	.	.	.	.	.	.	.
	7350.	C	.	I .	LE .	.	.	.	.	.	.	.
	7400.	C	.	I .	LE .	.	.	.	.	.	.	.
	7450.	C	.	I .	LE .	.	.	.	.	.	.	.
	7500.	C	.	I .	LE .	.	.	.	.	.	.	.
1.42	7550.	C	.	I .	LE .	.	.	.	.	.	.	.
	7600.	C	.	I .	LE .	.	.	.	.	.	.	.
	7650.	C	.	I .	LE .	.	.	.	.	.	.	.
	7700.	C	.	I .	LE .	.	.	.	.	.	.	.
	7750.	C	.	I .	LE .	.	.	.	.	.	.	.
	7800.	C	.	I .	LE .	.	.	.	.	.	.	.
	7850.	C	.	I .	L E .	.	.	.	.	.	.	.
	7900.	C	.	I .	L E .	.	.	.	.	.	.	.
	7950.	C	.	I .	LME .	.	.	.	.	.	.	.
	8000.	C	.	I .	LME .	.	.	.	.	.	.	.
	8050.	C	.	I .	LME .	.	.	.	.	.	.	.
1.53	8100.	C	.	I .	LME .	.	.	.	.	.	.	.
	8150.	C	.	I .	LME .	.	.	.	.	.	.	.
	8200.	C	.	I .	LME .	.	.	.	.	.	.	.
	8250.	C	.	I .	LME .	.	.	.	.	.	.	.
	8300.	C	.	I .	LME .	.	.	.	.	.	.	.
	8350.	C	.	I .	LME .	.	.	.	.	.	.	.
	8400.	C	.	I .	LME .	.	.	.	.	.	.	.

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      8450.  C     .    I  .    LME .     .     .     .     .     .     .
      8500.  C     .    I  .    LME .     .     .     .     .     .     .
      8550.  C     .    I  .    LME .     .     .     .     .     .     .
      8600.  C     .    I  .    LME .     .     .     .     .     .     .
      8650.  C     .    I  .    LME .     .     .     .     .     .     .
 1.64 8700.  C     .    I  .    LME .     .     .     .     .     .     .
      8750.  C     .    I  .    LME .     .     .     .     .     .     .
      8800.  C     .    I  .    LME .     .     .     .     .     .     .
      8850.  C     .    I  .    LME .     .     .     .     .     .     .
      8900.  C     .    I  .    LME .     .     .     .     .     .     .
      8950.  C     .    I  .    LME .     .     .     .     .     .     .
      9000.  C     .    I  .    LME .     .     .     .     .     .     .
      9050.  C     .    I  .    LME .     .     .     .     .     .     .
      9100.  C     .    I  .    LME .     .     .     .     .     .     .
      9150.  C     .    I  .    LME .     .     .     .     .     .     .
      9200.  C     .    I  .    LME .     .     .     .     .     .     .
 1.75 9250.  C     .    I  .    LME .     .     .     .     .     .     .
      9300.  C     .    I  .   L ME .     .     .     .     .     .     .
      9350.  C     .    I  .   L ME .     .     .     .     .     .     .
      9400.  C     .    I  .   L ME .     .     .     .     .     .     .
      9450.  C     .    I  .   L ME .     .     .     .     .     .     .
      9500.  C     .    I  .   L ME .     .     .     .     .     .     .
      9550.  C     .    I  .   L ME .     .     .     .     .     .     .
      9600.  C     .    I  .   L ME .     .     .     .     .     .     .
      9650.  C     .    I  .   L ME .     .     .     .     .     .     .
      9700.  C     .    I  .   L ME .     .     .     .     .     .     .
      9750.  C     .    I  .   L ME .     .     .     .     .     .     .
 1.85 9800.  C     .    I  .   L ME .     .     .     .     .     .     .
      9850.  C     .    I  .   L ME .     .     .     .     .     .     .
      9900.  C     .    I  .   L ME .     .     .     .     .     .     .
      9950.  C     .    I  .   L ME .     .     .     .     .     .     .
     10000.  C     .    I  .   L ME .     .     .     .     .     .     .
     10050.  C     .    I  .   L ME .     .     .     .     .     .     .
     10100.  C     .    I  .   L ME .     .     .     .     .     .     .
     10150.  C     .    I  .   L ME .     .     .     .     .     .     .
     10200.  C     .    I  .   L ME .     .     .     .     .     .     .
 1.94 10250. C     .    I  .   L ME .     .     .     .     .     .     .
     10300.  C     .    I  .   L ME .     .     .     .     .     .     .
     10350.  C     .    I  .   LM E .     .     .     .     .     .     .
     10400.  C     .    I  .   LM E .     .     .     .     .     .     .
     10450.  C     .    I  .   LM E .     .     .     .     .     .     .
 1.99 10500. C     .    I  .   LM E .     .     .     .     .     .     .
     10550.  C     .    I  .   LM E .     .     .     .     .     .     .
     10600.  C     .    I  .   LM E .     .     .     .     .     .     .
     10650.  C     .    I  .   LM E .     .     .     .     .     .     .
     10700.  C     .    I  .   LM E .     .     .     .     .     .     .
     10750.  C     .    I  .   LM E .     .     .     .     .     .     .
     10800.  C     .    I  .  L M E .     .     .     .     .     .     .
     10850.  C     .    I  .  L M E .     .     .     .     .     .     .
     10900.  C     .    I  .  L M E .     .     .     .     .     .     .
 2.07 10950. C     .    I  .  L M E .     .     .     .     .     .     .
     11000.  C     .    I  .  L M E .     .     .     .     .     .     .
     11050.  C     .    I  .  L M E .     .     .     .     .     .     .
     11100.  C     .    I  .  L  ME .     .     .     .     .     .     .
     11150.  C     .    I  .  L  ME .     .     .     .     .     .     .
     11200.  C     .    I  .  L  ME .     .     .     .     .     .     .
     11250.  C     .    I  .  L  ME .     .     .     .     .     .     .
     11300.  C     .    I  .  L  ME .     .     .     .     .     .     .
     11350.  C     .    I  .  L   E .     .     .     .     .     .     .
 2.15 11400. C     .    I  .  L   E .     .     .     .     .     .     .
     11450.  C     .    I  .  L   E .     .     .     .     .     .     .
 2.17 11500. C     .    I  .   L  EM.     .     .     .     .     .     .
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     11550.  C        .   I  .    L EM.        .        .        .        .        .        .
     11600.  C        .   I  .      E M        .        .        .        .        .        .
2.20 11650.  C        .    I .      E L        .        .        .        .        .        .
     11700.  C        .    I .      E L        .        .        .        .        .        .
     11750.  C        .    I .      E L        .        .        .        .        .        .
2.23 11800.  C        .    I .      E LM       .        .        .        .        .        .
     11850.  C        .     I .     ELM        .        .        .        .        .        .
     11900.  C        .     I .    LE M        .        .        .        .        .        .
2.26 11950.  C        .     I .   L E M        .        .        .        .        .        .
     12000.  C        .     I .   L E M        .        .        .        .        .        .
     12050.  C        .      I.   L E M        .        .        .        .        .        .
     12100.  C        .      I.   L E M        .        .        .        .        .        .
     12150.  C        .      I.    LE M        .        .        .        .        .        .
     12200.  C        .      I.    LE .M       .        .        .        .        .        .
     12250.  C        .       I    LE .M       .        .        .        .        .        .
     12300.  C        .       I     E .M       .        .        .        .        .        .
2.34 12350.  C        .       I     E .M       .        .        .        .        .        .
     12400.  C        .      .I     E .M       .        .        .        .        .        .
     12450.  C        .      .I     E .M       .        .        .        .        .        .
     12500.  C        .      .I     ER.M       .        .        .        .        .        .
     12550.  C        .      .I     ER.M       .        .        .        .        .        .
     12600.  C        .      . I    ER.M       .        .        .        .        .        .
     12650.  C        .      . I    E RM       .        .        .        .        .        .
     12700.  C        .      . I    E RM       .        .        .        .        .        .
2.41 12750.  C        .      . I    E R M      .        .        .        .        .        .
     12800.  C        .      .  I   WE.RM      .        .        .        .        .        .
     12850.  C        .      .  I   WEL R      .        .        .        .        .        .
     12900.  C        .      .  I    WE LR     .        .        .        .        .        .
     12950.  C        .      .   I   WE  LR    .        .        .        .        .        .
2.45 13000.  .        .      .   I   W.E ML    .        .        .        .        .        .
2.46 13050.  .        .      .   I   W.E ML    .        .        .        .        .        .
     13100.  .        .      .   I   W.E  L    .        .        .        .        .        .
     13150.  .        .      .    I  W.E LM    .        .        .        .        .        .
     13200.  .        .      .    I   WE LM    .        .        .        .        .        .
2.50 13250.  .        .      .    I   W E M    .        .        .        .        .        .
     13300.  C        .      .    I   W E M    .        .        .        .        .        .
     13350.  C        .      .     I  W EL M   .        .        .        .        .        .
     13400.  C        .      .     I  .WEL M   .        .        .        .        .        .
     13450.  C        .      .     I  .WEL M   .        .        .        .        .        .
     13500.  C        .      .     I  .WEL M   .        .        .        .        .        .
     13550.  C        .      .     I  .WE LM   .        .        .        .        .        .
     13600.  C        .      .      I .WE L M  .        .        .        .        .        .
     13650.  C        .      .      I .WE L M  .        .        .        .        .        .
     13700.  C        .      .      I . E L M  .        .        .        .        .        .
     13750.  C        .      .      I . WE LM  .        .        .        .        .        .
     13800.  C        .      .      I . WE LM  .        .        .        .        .        .
2.61 13850.  C        .      .       I . WE L M .        .        .        .        .        .
     13900.  C        .      .       I . WE L M .        .        .        .        .        .
     13950.  C        .      .       I . WE  LM .        .        .        .        .        .
2.64 14000.  C        .      .       I . WE  LM .        .        .        .        .        .
2.66 14050.  .        .      .        I. WEL M  .        .        .        .        .        .
     14100.  C        .      .        I.  WELM  .        .        .        .        .        .
2.67 14150.  C        .      .        I.  WEL M .        .        .        .        .        .
     14200.  C        .      .        I.  WEL M .        .        .        .        .        .
     14250.  C        .      .         I   EL M .        .        .        .        .        .
     14300.  C        .      .         I   EL M .        .        .        .        .        .
     14350.  C        .      .         I   ELRM .        .        .        .        .        .
     14400.  C        .      .         I   E LM .        .        .        .        .        .
     14450.  C        .      .         I   E LM .        .        .        .        .        .
     14500.  C        .      .         I   E LM .        .        .        .        .        .
     14550.  C        .      .         I   E LM .        .        .        .        .        .
     14600.  C        .      .         I   E LM .        .        .        .        .        .
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     14650.  C     .     .     I    E LM .     .     .     .     .     .     .
     14700.  C     .     .     I    E LM .     .     .     .     .     .     .
2.79 14750.  C     .     .     .I   WELM .     .     .     .     .     .     .
     14800.  C     .     .     .I   WE L .     .     .     .     .     .     .
2.80 14850.  C     .     .     .I   WE L .     .     .     .     .     .     .
     14900.  C     .     .     .I   WELM .     .     .     .     .     .     .
     14950.  C     .     .     .I   WEL  .     .     .     .     .     .     .
2.83 15000.  C     .     .     .I    EL  .     .     .     .     .     .     .
     15050.  C     .     .     .I    EL  .     .     .     .     .     .     .
     15100.  C     .     .     .I    EL  .     .     .     .     .     .     .
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     15200.  C     .     .     .I    WE  .     .     .     .     .     .     .
     15250.  C     .     .     .I    RE  .     .     .     .     .     .     .
     15300.  C     .     .     .I    RE  .     .     .     .     .     .     .
     15350.  C     .     .     .I    RE  .     .     .     .     .     .     .
2.92 15400.  C     .     .     .I    RE  .     .     .     .     .     .     .
     15450.  C     .     .     .I    LWE .     .     .     .     .     .     .
     15500.  C     .     .     .I    LWE .     .     .     .     .     .     .
     15550.  C     .     .     .I    LWE .     .     .     .     .     .     .
     15600.  C     .     .     .I   RL E .     .     .     .     .     .     .
     15650.  C     .     .     .I   RL E .     .     .     .     .     .     .
     15700.  C     .     .     .I   LM E .     .     .     .     .     .     .
     15750.  C     .     .     .I   L ME .     .     .     .     .     .     .
     15800.  C     .     .     .I   L ME .     .     .     .     .     .     .
     15850.  C     .     .     .I   L ME .     .     .     .     .     .     .
     15900.  C     .     .     .I   L ME .     .     .     .     .     .     .
     15950.  C     .     .     .I   L ME .     .     .     .     .     .     .
3.02 16000.  C     .     .     .I   L ME .     .     .     .     .     .     .
     16050.  C     .     .     .I   L ME .     .     .     .     .     .     .
     16100.  C     .     .     . I  L ME .     .     .     .     .     .     .
     16150.  C     .     .     . I  L ME .     .     .     .     .     .     .
     16200.  C     .     .     . I  L ME .     .     .     .     .     .     .
     16250.  C     .     .     . I   LME .     .     .     .     .     .     .
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     16450.  C     .     .     .  I  LMWE.     .     .     .     .     .     .
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     16550.  C     .     .     .  I   L E.     .     .     .     .     .     .
     16600.  C     .     .     .  I   LME.     .     .     .     .     .     .
     16650.  C     .     .     .  I   LME.     .     .     .     .     .     .
     16700.  C     .     .     .  I   LME.     .     .     .     .     .     .
     16750.  C     .     .     .  I   LME.     .     .     .     .     .     .
     16800.  C     .     .     .   I   LE.     .     .     .     .     .     .
     16850.  C     .     .     .   I   LE.     .     .     .     .     .     .
     16900.  C     .     .     .   I   LE.     .     .     .     .     .     .
     16950.  C     .     .     .   I   LE.     .     .     .     .     .     .
3.22 17000.  C     .     .     .   I    WE     .     .     .     .     .     .
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3.32 17550.  C     .     .     .     I  LME    .     .     .     .     .     .
     17600.  C     .     .     .     I  L.E    .     .     .     .     .     .
     17650.  C     .     .     .     I  L.E    .     .     .     .     .     .
     17700.  C     .     .     .     I  L.E    .     .     .     .     .     .
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       17750.  C     .     .     .  I  L.E    .     .     .     .     .     .
       17800.  C     .     .     .  I  L.WE   .     .     .     .     .     .
       17850.  C     .     .     .  I  L.WE   .     .     .     .     .     .
       17900.  C     .     .     .  I  L.WE   .     .     .     .     .     .
       17950.  C     .     .     .  I  L. E   .     .     .     .     .     .
       18000.  C     .     .     .   I L. E   .     .     .     .     .     .
  3.41 18050.  C     .     .     .   I L. EM  .     .     .     .     .     .
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       18200.  C     .     .     .   I L. EM  .     .     .     .     .     .
       18250.  C     .     .     .   I L. EM  .     .     .     .     .     .
       18300.  C     .     .     .   I  L WE  .     .     .     .     .     .
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       18450.  C     .     .     .   I  L  E  .     .     .     .     .     .
       18500.  C     .     .     .   I  L  E  .     .     .     .     .     .
  3.51 18550.  C     .     .     .    I .L E  .     .     .     .     .     .
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       18650.  C     .     .     .    I .L E  .     .     .     .     .     .
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       18750.  C     .     .     .    I .L EM .     .     .     .     .     .
       18800.  C     .     .     .    I . LWE .     .     .     .     .     .
       18850.  C     .     .     .    I . LWE .     .     .     .     .     .
       18900.  C     .     .     .    I . L E .     .     .     .     .     .
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  3.60 19050.  C     .     .     .    I .  LE .     .     .     .     .     .
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  3.66 19200.  C     .     .     .    I .  LE .     .     .     .     .     .
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  3.73 19550.  C     .     .     .     I.  L E .     .     .     .     .     .
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       20000.  C     .     .     .      I   L EM .     .     .     .     .     .
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  3.84 20100.  C     .     .     .      I    LE M.     .     .     .     .     .
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  3.87 20300.  C     .     .     .      .I   LWEM.     .     .     .     .     .
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  3.92 20550.  C     .     .     .      .I     E M.   .     .     .     .     .
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       20800.  C     .     .     .      .I     EM .   .     .     .     .     .
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3.97 20850.  C        .         .         .        .I     EM .        .         .         .         .         .
3.98 20900.  C        .         .         .        .I     EM .        .         .         .         .         .
     20950.  C        .         .         .        .I     EM .        .         .         .         .         .
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4.07 21350.  .        .         .         .        .   I  LWE.        .         .         .         .         .
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     21650.  C        .         .         .        .    I  LE.        .         .         .         .         .
     21700.  C        .         .         .        .    I  LE.        .         .         .         .         .
     21750.  C        .         .         .        .    I  LWE        .         .         .         .         .
     21800.  C        .         .         .        .    I  LME        .         .         .         .         .
4.17 21850.  C        .         .         .        .    I   LE        .         .         .         .         .
     21900.  C        .         .         .        .    I   LE        .         .         .         .         .
     21950.  C        .         .         .        .    I   LE        .         .         .         .         .
     22000.  C        .         .         .        .    I   LE        .         .         .         .         .
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4.21 22100.  C        .         .         .        .    I    EM       .         .         .         .         .
4.22 22150.  C        .         .         .        .    I    EM       .         .         .         .         .
     22200.  C        .         .         .        .    I    WE       .         .         .         .         .
     22250.  C        .         .         .        .     I   LE       .         .         .         .         .
     22300.  C        .         .         .        .     I  L.E       .         .         .         .         .
     22350.  C        .         .         .        .     I  L.E       .         .         .         .         .
4.27 22400.  C        .         .         .        .     I  L.E       .         .         .         .         .
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     22500.  C        .         .         .        .      I L.E       .         .         .         .         .
     22550.  C        .         .         .        .      I L.E       .         .         .         .         .
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4.33 22750.  C        .         .         .        .      I  .LE      .         .         .         .         .
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     23050.  C        .         .         .        .       I .LWE     .         .         .         .         .
4.40 23100.  C        .         .         .        .       I .LME     .         .         .         .         .
     23150.  C        .         .         .        .       I .LME     .         .         .         .         .
     23200.  C        .         .         .        .       I .LME     .         .         .         .         .
     23250.  C        .         .         .        .       I .LME     .         .         .         .         .
     23300.  C        .         .         .        .        I.LME     .         .         .         .         .
4.45 23350.  C        .         .         .        .        I.L ME    .         .         .         .         .
     23400.  C        .         .         .        .        I.L ME    .         .         .         .         .
4.47 23450.  C        .         .         .        .        I.L ME    .         .         .         .         .
4.48 23500.  C        .         .         .        .         ILR EM   .         .         .         .         .
     23550.  C        .         .         .        .         ILR EM   .         .         .         .         .
     23600.  C        .         .         .        .         ILR EM   .         .         .         .         .
     23650.  C        .         .         .        .         .ILRWE   .         .         .         .         .
     23700.  C        .         .         .        .         .ILR E   .         .         .         .         .
     23750.  C        .         .         .        .         . IL E   .         .         .         .         .
     23800.  C        .         .         .        .         . ILREM  .         .         .         .         .
     23850.  C        .         .         .        .         .  ILEM  .         .         .         .         .
     23900.  C        .         .         .        .         .  ILWE  .         .         .         .         .
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4.57 23950. C . . . . . ILE . . . . .

1

THIS RUN EXECUTED 15NOV91 16:19:05

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

DYSART DRAIN - WASH "17"

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
*	.000	1722.00	1054.94	9955.28	9960.00	10025.00	10036.79	.00	81.51	3.44	1051.50	26.03	9.38
*	.019	1722.00	1064.99	9982.03	9980.00	10020.00	10017.97	10.04	35.94	6.49	1058.50	25.94	11.56
*	.077	1722.00	1067.46	9982.08	9980.00	10020.00	10017.92	2.47	35.84	6.46	1061.00	26.38	11.63
*	.153	1722.00	1068.97	9982.07	9980.00	10020.00	10017.93	1.51	35.87	6.47	1062.50	26.25	11.61
*	.187	1722.00	1069.67	9982.07	9977.90	10022.10	10017.93	.70	35.86	6.47	1063.20	26.28	11.62
*	.203	1722.00	1069.96	9982.09	9977.90	10022.10	10017.91	.29	35.82	6.46	1063.50	26.45	11.64
*	.267	1722.00	1071.27	9982.06	9980.00	10020.00	10017.94	1.31	35.88	6.47	1064.80	26.22	11.60
*	.350	1722.00	1073.17	9982.07	9980.00	10020.00	10017.93	1.90	35.87	6.47	1066.70	26.27	11.61
	.441	565.00	1075.79	9982.23	9980.00	10020.00	10017.77	2.62	35.54	6.39	1069.40	2.98	3.89
*	.530	565.00	1075.80	9987.79	9980.00	10020.00	10012.21	.02	24.41	3.80	1072.00	30.42	9.12
*	.631	565.00	1077.42	9984.77	9977.00	10023.00	10015.23	1.62	30.46	5.12	1072.30	7.50	5.46
	.731	565.00	1077.85	9984.29	9977.00	10023.00	10015.71	.43	31.43	5.35	1072.50	6.20	5.09
	.841	565.00	1078.19	9985.22	9977.00	10023.00	10014.78	.34	29.56	4.89	1073.30	9.00	5.84
*	.938	565.00	1078.74	9983.39	9977.00	10023.00	10016.61	.55	33.21	6.14	1072.60	3.72	4.26
	.942	565.00	1078.75	9983.39	9977.00	10023.00	10016.61	.01	33.21	6.15	1072.60	3.72	4.26
	.970	565.00	1078.87	9981.86	9977.00	10023.00	10018.14	.12	36.29	6.57	1072.30	2.64	3.71
*	1.079	565.00	1079.07	9979.27	9977.00	10023.00	10020.73	.20	41.46	7.87	1071.20	1.22	2.79

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	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	1.184	565.00	1079.17	9977.96	9977.00	10023.00	10022.04	.10	44.09	9.17	1070.00	.66	2.25
	1.192	565.00	1079.17	9977.96	9977.00	10023.00	10022.04	.00	44.08	9.17	1070.00	.67	2.26
	1.312	345.00	1079.26	9971.37	9977.00	10023.00	10026.28	.08	54.91	9.66	1069.60	.17	1.22
	1.422	345.00	1079.27	9937.02	9977.00	10023.00	10038.23	.01	101.21	10.07	1069.20	.14	1.13
*	1.533	345.00	1079.29	9350.00	9977.00	10023.00	10040.00	.02	690.00	10.49	1068.80	.05	.74
	1.643	345.00	1079.29	9300.00	9977.00	10023.00	10040.00	.00	740.00	10.89	1068.40	.04	.65
	1.747	345.00	1079.29	9450.00	9977.00	10023.00	10040.00	.00	590.00	11.29	1068.00	.04	.72
	1.849	345.00	1079.30	9575.00	9977.00	10023.00	10040.00	.00	465.00	11.60	1067.70	.05	.79
	1.937	345.00	1079.30	9700.00	9977.00	10023.00	10040.00	.00	340.00	11.90	1067.40	.05	.80
	1.988	345.00	1079.30	9700.00	9977.00	10023.00	10040.00	.01	340.00	12.10	1067.20	.03	.66
	2.070	345.00	1079.30	9800.00	9977.00	10023.00	10045.00	.00	245.00	12.40	1066.90	.03	.70
	2.153	345.00	1079.30	9800.00	9977.00	10023.00	10055.00	.00	255.00	12.50	1066.80	.04	.77
	2.174	945.00	1079.26	9800.00	9978.00	10022.00	10057.03	-.05	257.03	11.86	1067.40	.40	2.30
	2.203	945.00	1079.23	9979.03	9979.00	10021.00	10020.97	-.02	41.93	11.03	1068.20	.79	2.81
	2.228	945.00	1079.24	9979.04	9979.00	10021.00	10020.96	.01	41.91	10.34	1068.90	1.02	3.08
	2.256	945.00	1079.23	9972.74	9980.00	10020.00	10047.54	-.01	74.79	9.53	1069.70	1.24	3.48
*	2.337	945.00	1079.15	9980.50	9980.00	10020.00	10019.50	-.09	38.99	7.25	1071.90	4.87	5.32
	2.411	945.00	1079.38	9946.55	9985.00	10023.00	10017.98	.23	71.42	5.48	1073.90	8.48	6.10
*	2.454	945.00	1080.34	9986.13	9983.00	10017.00	10013.87	.96	27.74	4.84	1075.50	28.45	10.35
*	2.459	945.00	1080.54	9986.12	9983.00	10017.00	10013.88	.21	27.76	4.84	1075.70	28.29	10.33
*	2.504	945.00	1081.46	9985.49	9981.00	10019.00	10014.51	.91	29.03	4.76	1076.70	28.18	10.18
	2.614	509.00	1083.70	9985.80	9980.00	10020.00	10014.20	2.25	28.41	4.60	1079.10	9.34	5.76
	2.642	509.00	1083.70	9986.99	9980.00	10020.00	10013.01	.00	26.03	4.00	1079.70	16.25	7.05
*	2.656	509.00	1084.22	9991.55	9989.50	10010.50	10008.45	.52	16.89	3.82	1080.40	32.94	9.90
*	2.672	509.00	1085.92	9987.93	9987.90	10012.10	10012.07	1.69	24.15	5.02	1080.90	3.82	4.22
	2.794	509.00	1086.73	9988.43	9988.40	10011.60	10011.57	.82	23.14	4.73	1082.00	5.00	4.66

SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
2.804	859.00	1086.78	9973.81	9968.00	10032.00	10026.19	.04	52.38	4.48	1082.30	11.99	4.66

*	2.834	859.00	1087.08	9970.00	9970.00	10030.00	10025.39	.30	55.39	4.58	1082.50	69.91	5.43
*	2.916	859.00	1088.78	9959.44	9980.00	10039.00	10070.00	1.70	110.56	6.28	1082.50	18.28	3.37
*	3.021	859.00	1089.48	9926.05	9988.00	10023.00	10070.00	.70	143.95	6.68	1082.80	7.84	2.87
	3.116	859.00	1089.94	9970.30	9980.00	10030.00	10070.00	.46	99.70	5.74	1084.20	12.20	3.07
*	3.218	859.00	1090.88	9972.79	9975.00	10042.00	10065.00	.94	92.21	5.18	1085.70	32.08	3.93
	3.317	859.00	1092.28	9973.18	9980.00	10025.00	10062.00	1.39	88.82	5.28	1087.00	21.84	3.85
	3.414	859.00	1093.33	9974.52	9982.00	10021.00	10043.92	1.05	69.40	5.13	1088.20	20.26	4.01
	3.507	812.00	1094.33	9964.81	9980.00	10023.00	10039.60	1.00	74.79	5.33	1089.00	19.67	3.90
	3.602	812.00	1095.35	9957.19	9979.00	10031.00	10054.90	1.02	97.72	5.55	1089.80	20.09	3.68
	3.663	812.00	1095.63	9968.14	9987.00	10020.00	10051.80	.28	83.66	6.03	1089.60	26.55	4.52
	3.729	812.00	1096.53	9921.24	9980.00	10016.00	10035.08	.90	113.84	6.43	1090.10	23.06	4.29
	3.839	812.00	1097.70	9588.13	9967.00	10014.00	10019.11	1.17	430.97	5.80	1091.90	13.85	3.17
	3.871	812.00	1097.95	9606.60	9967.00	10015.00	10019.87	.24	413.27	5.55	1092.40	11.44	2.88
*	3.894	812.00	1098.07	9615.04	9995.00	10005.00	10058.28	.12	443.24	5.57	1092.50	1.23	1.15
*	3.916	812.00	1098.07	9676.89	9995.00	10005.00	10172.13	.00	466.96	5.47	1092.60	2.03	1.46
*	3.951	812.00	1098.09	9750.96	9986.00	10008.00	10135.48	.02	369.28	5.39	1092.70	8.29	2.44
*	3.974	812.00	1098.20	9779.25	9970.00	10040.00	10038.45	.11	249.16	5.70	1092.50	17.87	3.24
	3.978	812.00	1098.70	9652.03	9970.00	10040.00	10064.30	.50	412.27	6.20	1092.50	9.47	2.52
*	4.070	812.00	1099.72	9718.28	9987.00	10016.00	10021.16	1.02	302.88	4.12	1095.60	62.74	5.77
*	4.166	812.00	1101.34	9566.50	9980.00	10018.00	10045.00	1.62	478.50	4.94	1096.40	13.24	2.65
*	4.212	812.00	1101.72	9720.66	9980.00	10020.00	10022.04	.38	301.39	5.12	1096.60	29.24	4.16
	4.216	812.00	1101.73	9722.40	9980.00	10020.00	10020.66	.01	298.26	5.03	1096.70	31.28	4.23
	4.268	812.00	1102.48	9601.35	9990.00	10010.00	10045.00	.76	443.65	4.58	1097.90	19.53	4.04
	4.334	812.00	1103.12	9377.66	9985.00	10030.00	10050.00	.63	672.34	4.52	1098.60	13.79	2.88
*	4.399	2347.00	1104.06	9270.70	9985.00	10025.00	10045.00	.94	774.30	4.56	1099.50	46.00	5.96

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	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
*	4.454	2347.00	1105.05	9064.84	9985.00	10010.00	10060.00	.99	995.16	4.75	1100.30	16.83	3.75
	4.465	2347.00	1105.13	9013.04	9990.00	10010.00	10110.00	.09	1096.96	4.53	1100.60	19.06	3.95
	4.482	2347.00	1105.32	9024.83	9985.00	10010.00	10071.59	.18	1046.76	4.22	1101.10	32.88	4.84

4.565	2347.00	1107.07	9114.91	9975.00	10025.00	10439.51	1.75	1324.60	2.07	1105.00	42.85	3.62

DYSART DRAIN - WASH "17"

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	.000	1054.94	-2.06	1056.30	81.51	2.52	1713.10	6.38	.00	.00	9960.00	10025.00	.00
*	.019	1064.99	.00	1067.06	35.94	.00	1722.00	.00	.00	.00	9980.00	10020.00	.00
*	.077	1067.46	.00	1069.56	35.84	.00	1722.00	.00	.00	.00	9980.00	10020.00	.00
*	.153	1068.97	.00	1071.06	35.87	.00	1722.00	.00	.00	.00	9980.00	10020.00	.00
*	.187	1069.67	.00	1071.76	35.86	.00	1722.00	.00	.00	.00	9977.90	10022.10	.00
*	.203	1069.96	.00	1072.06	35.82	.00	1722.00	.00	.00	.00	9977.90	10022.10	.00
*	.267	1071.27	.00	1073.36	35.88	.00	1722.00	.00	.00	.00	9980.00	10020.00	.00
*	.350	1073.17	.00	1075.26	35.87	.00	1722.00	.00	65.00	9970.00	9980.00	10020.00	10035.00
	.441	1075.79	.00	1076.02	35.54	.00	565.00	.00	60.00	9975.00	9980.00	10020.00	10035.00
*	.530	1075.80	.00	1077.09	24.41	.00	565.00	.00	60.00	9975.00	9980.00	10020.00	10035.00
*	.631	1077.42	.00	1077.89	30.46	.00	565.00	.00	205.00	9835.00	9977.00	10023.00	10040.00
	.731	1077.85	.00	1078.25	31.43	.00	565.00	.00	.00	.00	9977.00	10023.00	.00
	.841	1078.19	.00	1078.72	29.56	.00	565.00	.00	.00	.00	9977.00	10023.00	.00
*	.938	1078.74	.00	1079.03	33.21	.00	565.00	.00	.00	.00	9977.00	10023.00	.00
	.942	1078.75	.00	1079.03	33.21	.00	565.00	.00	.00	.00	9977.00	10023.00	.00
	.970	1078.87	.00	1079.09	36.29	.00	565.00	.00	.00	.00	9977.00	10023.00	.00
*	1.079	1079.07	.00	1079.20	41.46	.00	565.00	.00	.00	.00	9977.00	10023.00	.00
	1.184	1079.17	.00	1079.25	44.09	.00	565.00	.00	.00	.00	9977.00	10023.00	.00
	1.192	1079.17	.00	1079.25	44.08	.00	565.00	.00	.00	.00	9977.00	10023.00	.00
	1.312	1079.26	.00	1079.28	54.91	.14	344.79	.08	90.00	9950.00	9977.00	10023.00	10040.00
	1.422	1079.27	.00	1079.29	101.21	2.50	341.75	.74	110.00	9930.00	9977.00	10023.00	10040.00
	1.533	1079.29	.00	1079.30	690.00	106.38	237.06	1.56	690.00	9350.00	9977.00	10023.00	10040.00
	1.643	1079.29	.00	1079.30	740.00	124.25	218.87	1.88	740.00	9300.00	9977.00	10023.00	10040.00
	1.747	1079.29	.00	1079.30	590.00	85.23	256.92	2.85	590.00	9450.00	9977.00	10023.00	10040.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	1.849	1079.30	.00	1079.30	465.00	47.26	295.13	2.62	465.00	9575.00	9977.00	10023.00	10040.00
	1.937	1079.30	.00	1079.31	340.00	32.52	309.92	2.56	-9700.00	9700.00	9977.00	10023.00	10040.00
	1.988	1079.30	.00	1079.31	340.00	81.40	258.91	4.69	-9700.00	9700.00	9977.00	10023.00	10040.00
	2.070	1079.30	.00	1079.31	245.00	51.60	286.08	7.33	-9800.00	9800.00	9977.00	10023.00	10045.00
	2.153	1079.30	.00	1079.31	255.00	21.90	316.53	6.57	-9800.00	9800.00	9977.00	10023.00	10055.00
	2.174	1079.26	.00	1079.33	257.03	65.39	865.49	14.13	-9800.00	9800.00	9978.00	10022.00	10145.00
	2.203	1079.23	.00	1079.36	41.93	.00	945.00	.00	.00	.00	9979.00	10021.00	.00
	2.228	1079.24	.00	1079.39	41.91	.00	945.00	.00	.00	.00	9979.00	10021.00	.00
	2.256	1079.23	.00	1079.42	74.79	3.00	934.27	7.73	.00	.00	9980.00	10020.00	.00
*	2.337	1079.15	.00	1079.59	38.99	.00	945.00	.00	.00	.00	9980.00	10020.00	.00
	2.411	1079.38	.00	1079.84	71.42	215.38	729.61	.00	.00	.00	9985.00	10023.00	.00
*	2.454	1080.34	.00	1082.00	27.74	.00	945.00	.00	.00	.00	9983.00	10017.00	.00
	2.459	1080.54	.00	1082.20	27.76	.00	945.00	.00	.00	.00	9983.00	10017.00	.00
*	2.504	1081.46	.00	1083.07	29.03	.00	945.00	.00	.00	.00	9981.00	10019.00	.00
	2.614	1083.70	.00	1084.22	28.41	.00	509.00	.00	.00	.00	9980.00	10020.00	.00
	2.642	1083.70	.00	1084.47	26.03	.00	509.00	.00	.00	.00	9980.00	10020.00	.00
*	2.656	1084.22	.00	1085.75	16.89	.00	509.00	.00	.00	.00	9989.50	10010.50	.00
*	2.672	1085.92	.00	1086.19	24.15	.00	509.00	.00	.00	.00	9987.90	10012.10	.00
	2.794	1086.73	.00	1087.07	23.14	.00	509.00	.00	.00	.00	9988.40	10011.60	.00
	2.804	1086.78	.00	1087.11	52.38	.00	859.00	.00	.00	.00	9968.00	10032.00	.00
*	2.834	1087.08	.00	1087.53	55.39	.00	859.00	.00	.00	.00	9970.00	10030.00	.00
*	2.916	1088.78	.00	1088.95	110.56	7.30	749.49	102.21	.00	.00	9980.00	10039.00	.00
*	3.021	1089.48	.00	1089.59	143.95	75.05	567.81	216.14	.00	.00	9988.00	10023.00	.00
	3.116	1089.94	.00	1090.08	99.70	11.81	677.35	169.84	.00	.00	9980.00	10030.00	.00
*	3.218	1090.88	.00	1091.12	92.21	1.14	812.32	45.54	.00	.00	9975.00	10042.00	.00
	3.317	1092.28	.00	1092.49	88.82	14.17	689.94	154.89	.00	.00	9980.00	10025.00	.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	3.414	1093.33	.00	1093.58	69.40	27.48	696.75	134.77	.00	.00	9982.00	10021.00	.00
	3.507	1094.33	.00	1094.56	74.79	26.59	742.69	42.72	.00	.00	9980.00	10023.00	.00
	3.602	1095.35	.00	1095.55	97.72	18.67	762.09	31.24	.00	.00	9979.00	10031.00	.00
	3.663	1095.63	.00	1095.93	83.66	25.87	735.83	50.30	-9810.00	9810.00	9987.00	10020.00	10054.00
	3.729	1096.53	.00	1096.79	113.84	46.85	705.11	60.05	.00	.00	9980.00	10016.00	.00
	3.839	1097.70	.00	1097.83	430.97	171.49	632.18	8.33	.00	.00	9967.00	10014.00	.00
	3.871	1097.95	.00	1098.04	413.27	222.00	581.09	8.90	.00	.00	9967.00	10015.00	.00
*	3.894	1098.07	.00	1098.10	443.24	385.83	64.03	362.13	.00	.00	9995.00	10005.00	.00
*	3.916	1098.07	.00	1098.10	466.96	192.81	79.96	539.23	.00	.00	9995.00	10005.00	.00
*	3.951	1098.09	.00	1098.19	369.28	20.84	241.35	549.81	.00	.00	9986.00	10008.00	.00
*	3.974	1098.20	.00	1098.36	249.16	22.69	789.31	.00	.00	.00	9970.00	10040.00	.00
	3.978	1098.70	.00	1098.79	412.27	111.32	699.70	.98	.00	.00	9970.00	10040.00	.00
*	4.070	1099.72	.00	1100.10	302.88	235.06	558.70	18.24	.00	.00	9987.00	10016.00	.00
*	4.166	1101.34	.00	1101.40	478.50	461.54	335.82	14.64	.00	.00	9980.00	10018.00	.00
	4.212	1101.72	.00	1101.93	301.39	188.38	623.56	.06	.00	.00	9980.00	10020.00	.00
	4.216	1101.73	.00	1101.94	298.26	192.55	619.45	.00	.00	.00	9980.00	10020.00	.00
	4.268	1102.48	.00	1102.61	443.65	404.25	323.59	84.15	.00	.00	9990.00	10010.00	.00
	4.334	1103.12	.00	1103.19	672.34	402.62	395.60	13.78	.00	.00	9985.00	10030.00	.00
*	4.399	1104.06	.00	1104.32	774.30	1368.75	880.19	98.06	.00	.00	9985.00	10025.00	.00
*	4.454	1105.05	.00	1105.13	995.16	1721.81	365.32	259.87	.00	.00	9985.00	10010.00	.00
	4.465	1105.13	.00	1105.24	1096.96	1450.33	302.64	594.03	.00	.00	9990.00	10010.00	.00
	4.482	1105.32	.00	1105.49	1046.76	1437.74	418.25	491.01	.00	.00	9985.00	10010.00	.00
	4.565	1107.07	.00	1107.16	1324.60	1449.24	329.36	568.40	.00	.00	9975.00	10025.00	.00

1

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= .000 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= .019 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .019 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= .019 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION SECNO=      .077  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .077  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .077  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=      .153  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .153  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .153  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=      .187  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .187  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .187  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=      .203  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .203  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .267  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .267  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .267  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=      .350  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .350  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .350  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=      .530  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .530  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .530  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=      .631  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .938  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.079  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.533  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.337  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     2.454  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.454  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.454  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     2.459  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.459  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.459  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION SECNO=     2.504  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.504  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     2.656  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.656  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.656  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=     2.672  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.834  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.916  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO=      3.021  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      3.218  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      3.894  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      3.916  PROFILE=  1  HYDRAULIC JUMP D.S.

WARNING SECNO=      3.951  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      3.974  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      4.070  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      4.070  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      4.070  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=      4.166  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      4.212  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      4.399  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      4.454  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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THIS RUN EXECUTED 19FEB92 15:39:36

18.H20
Latest version
Approximate Delineation

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**************************************
HEC-2 WATER SURFACE PROFILES

Version   4.6.2;  May 1991
**************************************

T1      WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2      100 - YEAR STORM EVENT     FLOODPLAIN RUN       FILE: 18.H2I
T3      ALONG WEST SIDE OF AT & SF RAILROAD,FROM NORTHERN AV. TO A 1/2 MILE
T4      NORTH OF OLIVE AV. (WASH 18)
T5      DISCHARGES ARE AS DERIVED FROM THE 24-HOUR STORM HEC1 MODEL.
T6

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2        0        0      .005       0        0        0      1092       0

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH     FN     ALLDC     IBW     CHNIM    ITRACE

     -1        0        0        0        0        0        0        0        0        0


VARIABLE CODES FOR SUMMARY PRINTOUT

     38       43        1       53       21       22       54       51        4        8
     42        5       26        0      110

NC     .07      .07     .035       .1       .3
QT       1     2559

                Q = Q AT CP195      (= 2559 CFS)

X1   0.000       12     9965    10030        0        0        0
GR  1092.3     9700     1092     9715     1090     9735   1089.5     9915   1090.3     9965
GR    1089    10000   1090.1    10030   1089.5    10240     1090    10530     1091    10630
GR    1092    11240     1094    11660

QT       1     1770

                Q = Q AT 1I195 + ROUTED DIVERSION FROM SUB. 181 TO SUB. 195
                  = 1482 + 288 = 1770 CFS.

X1   0.104       13     9950    10030      550      550      550
GR  1093.7     9950     1092     9965     1090     9980   1089.6    10000     1090    10015
GR  1092.5    10030   1091.5    10055     1092    10275   1092.1    10375     1092    10475
GR  1093.4    10810     1094    11220     1095    11600
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X1    0.187      12     9970    10030      440      440      440
GR   1096.2    9955     1094     9970     1092     9980     1090     9990   1089.5    10000
GR     1090   10010     1094    10030   1094.5    10040     1094    10050   1094.2    10470
GR     1096   10730     1097    11470

                DIVIDED DLOW IS DUE TO SPLITTING THE FLOW BETWEEN THE CHANNEL
                AND THE OVERBANKS. FLOW IS EFFECTIVE.

X1    0.308      14     9970    10025      635      635      635
GR   1098.5    9950     1098     9960     1096     9970     1094     9985   1092.1    10000
GR     1094   10015     1096    10025     1098    10035   1098.1    10040     1098    10045
GR     1097   10155   1096.2    10315     1098    10950     1099    11410

X1    0.390      13     9965    10035      435      435      435
GR   1099.2    9955     1098     9965     1096     9980     1094     9990   1093.7    10000
GR     1094   10010     1096    10020     1098    10035   1098.9    10050     1098    10240
GR   1097.6   10320     1098    10560     1100    11450

                EXTENDED WSEL IS DUE TO LIMITED GRADE AT THE RAILROAD.
                BREAKOUT FLOWS WILL CONTINUE SOUTH AND THEN EAST IN A DITCH
                EAST OF THE RAILROAD.

X1    0.496      11     9975    10020      560      560      560
GR   1099.8    9955     1098     9975     1096     9990   1095.2    10000     1096    10010
GR     1098   10020     1100    10065   1100.3    10160     1100    10275   1101.2    10970
GR     1102   11630

                EXTENDED WSEL IS DUE TO LIMITED GRADE AT THE RAILROAD.
                BREAKOUT FLOWS WILL CONTINUE SOUTH AND THEN EAST IN A DITCH
                EAST OF THE RAILROAD.

X1    0.592      12     9965    10035      505      505      505
GR   1102.3    9955     1102     9965     1100     9975     1098     9985   1096.8    10000
GR     1098   10010     1100    10020     1102    10035   1102.7    10170   1102.4    10315
GR   1102.8   10485   1103.2    11460

QT       1     634

                Q = 20% ROUTED DIVERSION FROM SUB. 180 TO SUB. 195 + 20% HYDROG.
                    AT SUB. 195 + ROUTED DIVERSION FLOW FROM SUB. 181 TO SUB.195
                  = .2 (1474) + .2 (256)  + 288 =634 CFS.

X1    0.685      13     9975    10020      490      490      490
GR   1104.5    9955     1102     9975     1100     9990   1098.4    10000     1100    10015
GR     1102   10020     1104    10030   1104.4    10125   1104.5    10215   1104.6    10340
GR   1105.7   10510   1105.3    10745     1106    10900
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X1    0.760      10      9970     10030      400      400      400
GR   1106.1    9955      1106      9965     1104     9970     1102     9985     1100     9995
GR   1099.9   10000      1100     10010     1104    10030     1106    10225   1107.6    10970

X1    0.840      10      9970     10035      420      420      420
GR   1107.7    9960      1106      9970     1104     9980     1102     9990   1101.8    10000
GR    1102   10015      1104     10025     1106    10035     1108    10655   1108.5    11020

NC     .03     .03      .013        .1       .3
QT       1     292

              A 10 FT. x 4 FT. CBC  AT OLIVE AV.

              Q = Q AT CP181       (= 292 CFS )

X1    0.928       6      9995     10005      465      465      465
X3       10                                                          1109.5   1109.5
GR   1110.5    9950    1104.3      9995   1104.3    10000   1104.3    10005   1110.9    10075
GR   1111.7   10560

QT       1     292
SC    1.013     0.4       3.0         0        4       10       80      8.1   1104.5    1104.3

              A 5.3 FEET DROP IN INVERT ELEVATION  FROM THE UPSTREAM SEC. DUE
              TO A COLLECTIVE STRUCTURE UPSTREAM OF THE CULVERT.

X1     .943       6      9995     10005       80       80       80
X2                           2               1110.5
X3       10                                                          1110.5   1110.5
BT        3    9950    1110.5               10075   1110.9            10560   1111.7
GR   1110.5    9950    1104.5      9995   1104.5    10000   1104.5    10005   1110.9    10075
GR   1111.7   10560

NC     .05     .07      .035        .3       .5
X1     .948       6      9980     10065       25       25       25
X3                                9970               10040
GR   1110.8    9970      1110      9980   1109.8    10000     1110    10065   1110.5    10745
GR    1111   11100

NC     .07     .10      .045        .1       .3

              DIVIDED DLOW IS DUE TO SPLITTING THE FLOW BETWEEN THE CHANNEL
              AND THE OVERBANKS. FLOW IS EFFECTIVE.

X1    1.047      10      9960     10050      450      550      525
GR   1113.2    9805    1111.7      9830   1113.1     9860   1111.8     9875   1112.4     9890
GR   1111.7    9960    1111.5     10000   1111.7    10050     1112    10175     1113    10690
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QT      1      226

                Q = 80% OF HYDROGRAPH AT SUB. 181    [ = .8 (283) = 226 CFS ]

X1    1.151      10     9955    10050      580      500      550
GR   1115.5    9895     1114     9905   1113.6     9920   1113.9     9955   1113.1    10000
GR   1113.5   10050   1113.7    10230   1113.3    10360     1114    10660     1115    10940

NC     .05     .07     .035       .1       .3
QT      1     142

                Q = 50% OF HYDROGRAPH AT SUB. 181    [ = .5 (283) = 142 CFS ]

X1    1.256      11     9970    10030      555      540      555
GR   1117.2    9970   1115.4    10000   1116.2    10030   1115.4    10050   1116.2    10060
GR   1116.2   10130     1116    10150   1115.7    10215     1116    10325     1118    10715
GR    1119    10880

X1    1.353      11     9970    10030      510      500      510
GR   1118.5    9970     1118     9980   1116.7    10000   1118.2    10030     1118    10050
GR   1117.9   10070     1118    10100   1118.8    10350   1118.6    10550     1120    10920
GR   1121.5   11160

QT      1      28

                Q = 10% OF HYDROGRAPH AT SUB. 181    [ = .1 (283) = 28 CFS ]

X1    1.410       8     9960    10070      280      370      300
GR   1118.8    9950     1118     9960   1117.6    10000     1118    10070     1120    10120
GR    1120   10245     1122    10545   1122.2    10580

X1    1.468       6     9980    10030      300      340      310
GR   1119.5    9970     1118     9980   1117.6    10000     1118    10030     1120    10055
GR   1120.3   10060
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= .100 CEHV= .300
*SECNO .000

Q = Q AT CP195 (= 2559 CFS)

.000	2.22	1091.22	.00	1092.00	1091.31	.09	.00	.00	1090.30
2559.0	640.6	434.2	1484.2	337.6	104.9	810.0	.0	.0	1090.10
.00	1.90	4.14	1.83	.070	.035	.070	.000	1089.00	9722.82
.005019	0.	0.	0.	0	0	6	.00	1040.32	10763.14

*SECNO .104

Q = Q AT 1I195 + ROUTED DIVERSION FROM SUB. 181 TO SUB. 195
= 1482 + 288 = 1770 CFS.

.104	3.67	1093.27	.00	.00	1093.39	.13	2.08	.01	1093.70
1770.0	.0	782.3	987.7	.0	193.0	804.4	14.2	11.8	1092.50
.06	.00	4.05	1.23	.000	.035	.070	.000	1089.60	9953.78
.002658	550.	550.	550.	3	0	0	.00	825.52	10779.30

*SECNO .187
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.187	5.22	1094.72	1094.72	.00	1095.35	.62	1.59	.15	1094.00
1770.0	1.4	1454.3	314.3	1.8	208.4	290.9	21.8	18.9	1094.00
.08	.77	6.98	1.08	.070	.035	.070	.000	1089.50	9965.07
.005231	440.	440.	440.	3	15	0	.00	580.48	10545.55

*SECNO .308

3265 DIVIDED FLOW

DIVIDED DLOW IS DUE TO SPLITTING THE FLOW BETWEEN THE CHANNEL
AND THE OVERBANKS. FLOW IS EFFECTIVE.

.308	5.53	1097.63	.00	.00	1097.99	.36	2.61	.03	1096.00
1770.0	7.0	1181.7	581.2	6.7	203.3	556.2	31.0	29.0	1096.00
.12	1.06	5.81	1.05	.070	.035	.070	.000	1092.10	9961.83
.003324	635.	635.	635.	3	0	0	.00	806.46	10820.51

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .390

.390	5.29	1098.99	.00	.00	1099.21	.22	1.20	.01	1098.00
1770.0	2.5	1125.2	642.2	4.0	241.6	700.3	39.6	38.2	1098.00
.16	.63	4.66	.92	.070	.035	.070	.000	1093.70	9956.83
.002335	435.	435.	435.	2	0	0	.00	1039.42	10996.25

*SECNO .496

3280 CROSS SECTION .50 EXTENDED .86 FEET

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

EXTENDED WSEL IS DUE TO LIMITED GRADE AT THE RAILROAD.
BREAKOUT FLOWS WILL CONTINUE SOUTH AND THEN EAST IN A DITCH
EAST OF THE RAILROAD.

.496	5.46	1100.66	1100.66	.00	1101.29	.63	1.71	.12	1098.00
1770.0	68.1	1383.8	318.1	35.2	192.6	306.6	49.1	49.4	1098.00
.19	1.94	7.18	1.04	.070	.035	.070	.000	1095.20	9955.00
.004168	560.	560.	560.	2	8	0	.00	701.08	10656.08

*SECNO .592

3280 CROSS SECTION .59 EXTENDED .50 FEET

EXTENDED WSEL IS DUE TO LIMITED GRADE AT THE RAILROAD.
BREAKOUT FLOWS WILL CONTINUE SOUTH AND THEN EAST IN A DITCH
EAST OF THE RAILROAD.

.592	6.00	1102.80	1101.76	.00	1103.43	.64	2.14	.00	1102.00
1770.0	6.5	1679.3	84.2	6.5	255.7	128.9	54.4	56.5	1102.00
.21	1.01	6.57	.65	.070	.035	.070	.000	1096.80	9955.00
.004323	505.	505.	505.	2	14	0	.00	528.03	10483.03

*SECNO .685

3301 HV CHANGED MORE THAN HVINS

Q = 20% ROUTED DIVERSION FROM SUB. 180 TO SUB. 195 + 20% HYDROG.

AT SUB. 195 + ROUTED DIVERSION FLOW FROM SUB. 181 TO SUB.195
= .2 (1474) + .2 (256) + 288 =634 CFS.

.685	6.05	1104.45	.00	.00	1104.58	.13	1.10	.05	1102.00
634.0	15.4	602.9	15.7	24.0	200.3	39.4	58.1	60.7	1102.00
.26	.64	3.01	.40	.070	.035	.070	.000	1098.40	9955.40
.000702	490.	490.	490.	2	0	0	.00	214.66	10170.05

*SECNO .760

.760	4.89	1104.79	.00	.00	1104.95	.16	.36	.01	1104.00
634.0	.3	621.6	12.1	.8	193.0	30.2	60.4	62.3	1104.00
.29	.38	3.22	.40	.070	.035	.070	.000	1099.90	9968.03
.001232	400.	400.	400.	2	0	0	.00	138.69	10106.72

*SECNO .840

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .65

.840	3.67	1105.47	.00	.00	1105.75	.28	.77	.04	1106.00
634.0	.0	634.0	.0	.0	149.8	.0	62.2	63.3	1106.00
.32	.00	4.23	.00	.000	.035	.000	.000	1101.80	9972.62
.002962	420.	420.	420.	2	0	0	.00	59.76	10032.38

= .100 CEHV= .300
*SECNO .928

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1109.50 ELREA= 1109.50

A 10 FT. x 4 FT. CBC AT OLIVE AV.

Q = Q AT CP181 (= 292 CFS)

.928	2.97	1107.27	1107.27	.00	1108.77	1.50	1.14	.37	1104.30
292.0	.0	292.0	.0	.0	29.7	.0	63.1	63.6	1104.30
.33	.00	9.83	.00	.000	.013	.000	.000	1104.30	9995.00
.001733	465.	465.	465.	20	15	0	.00	10.00	10005.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	1	.013	.40	3.00	.00	4.00	10.00	80.00	8	1	1104.50	1104.30

CHART 8 - BOX CULVERT WITH FLARED WINGWALLS; NO INLET TOP EDGE BEVEL
SCALE 1 - WINGWALLS FLARED 30 TO 75 DEGREES

*SECNO .943

SPECIAL CULVERT INLET CONTROL
EGIC = 1109.591 EGOC = 1109.511 PCWSE= 1107.270 ELTRD= 1110.500

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.93

IAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1109.59	1109.51	.82	0.	292.	6.619	40.0	1110.50	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1110.50 ELREA= 1110.50

A 5.3 FEET DROP IN INVERT ELEVATION FROM THE UPSTREAM SEC. DUE
TO A COLLECTIVE STRUCTURE UPSTREAM OF THE CULVERT.

.943	4.41	1108.91	.00	.00	1109.59	.68	.82	.00	1104.50
292.0	.0	292.0	.0	.0	44.1	.0	63.2	63.7	1104.50
.34	.00	6.62	.00	.000	.013	.000	.000	1104.50	9995.00
.000463	80.	80.	80.	3	0	0	.00	10.00	10005.00

CCHV= .300 CEHV= .500
*SECNO .948
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

ENCROACHMENT STATIONS= 9970.0 10040.0 TYPE= 1 TARGET= 70.000

.948	.97	1110.77	1110.77	.00	1111.19	.43	.03	.08	1110.00
292.0	7.8	284.2	.0	3.7	53.6	.0	63.2	63.7	100000.00
.34	2.13	5.30	.00	.050	.035	.000	.000	1109.80	9970.40
.018449	25.	25.	25.	20	17	0	.00	69.60	10040.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO 1.047

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.95

DIVIDED DLOW IS DUE TO SPLITTING THE FLOW BETWEEN THE CHANNEL
AND THE OVERBANKS. FLOW IS EFFECTIVE.

1.047	1.29	1112.79	.00	.00	1112.81	.01	1.57	.04	1111.70
292.0	51.1	137.7	103.2	91.2	107.6	281.1	66.5	68.7	1111.70
.51	.56	1.28	.37	.070	.045	.100	.000	1111.50	9811.74
.001184	450.	525.	550.	8	0	0	.00	762.85	10584.64

*SECNO 1.151

WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .31

Q = 80% OF HYDROGRAPH AT SUB. 181 [= .8 (283) = 226 CFS]

1.151	.83	1113.93	.00	.00	1113.96	.03	1.15	.00	1113.90
226.0	4.8	94.6	126.6	8.4	50.9	200.7	70.9	77.5	1113.50
.64	.57	1.86	.63	.070	.045	.100	.000	1113.10	9907.60
.007284	580.	550.	500.	5	0	0	.00	722.63	10630.23

CCHV= .100 CEHV= .300
*SECNO 1.256

Q = 50% OF HYDROGRAPH AT SUB. 181 [= .5 (283) = 142 CFS]

1.256	1.01	1116.41	.00	.00	1116.43	.01	2.47	.00	1117.20
142.0	.0	40.1	101.9	.0	27.1	155.8	73.6	84.7	1116.20
.81	.00	1.48	.65	.000	.035	.070	.000	1115.40	9983.07
.002533	555.	555.	540.	5	0	0	.00	423.03	10406.10

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.353

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .64

1.353	1.56	1118.26	.00	.00	1118.37	.11	1.91	.03	1118.50
142.0	.0	123.6	18.4	.0	43.3	29.6	75.1	88.3	1118.20
.87	.00	2.85	.62	.000	.035	.070	.000	1116.70	9974.75
.006264	510.	510.	500.	4	0	0	.00	207.26	10182.01

*SECNO 1.410

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.11

Q = 10% OF HYDROGRAPH AT SUB. 181 [= .1 (283) = 28 CFS]

1.410	1.07	1118.67	.00	.00	1118.67	.00	.28	.01	1118.00
28.0	.3	27.3	.4	2.8	95.5	5.6	75.8	89.6	1118.00
1.17	.11	.29	.08	.050	.035	.070	.000	1117.60	9951.64
000055	280.	300.	370.	4	0	0	.00	135.07	10086.71

*SECNO 1.468

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .47

1.468	1.09	1118.69	.00	.00	1118.70	.01	.03	.00	1118.00
28.0	.4	27.2	.5	1.6	44.4	3.0	76.3	90.3	1118.00
1.31	.23	.61	.16	.050	.035	.070	.000	1117.60	9975.41
.000243	300.	310.	340.	2	0	0	.00	63.20	10038.61

PROFILE FOR STREAM ALONG WEST SIDE OF AT &

PLOTTED POINTS (BY PRIORITY) E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA

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ELEVATION  1089.     1094.     1099.     1104.     1109.     1114.     1119.     1124.     1129.     1134.
   SECNO   CUMDIS

   .00      0.  I RLWE M  .         .         .         .         .         .         .         .         .
            50.  I  L E M  .         .         .         .         .         .         .         .         .
           100.  I  RLE M  .         .         .         .         .         .         .         .         .
           150.  I   L EM  .         .         .         .         .         .         .         .         .
           200.  I   RLE M .         .         .         .         .         .         .         .         .
           250.  CI  R WEM .         .         .         .         .         .         .         .         .
           300.  CI   RLEM .         .         .         .         .         .         .         .         .
           350.  CI   R EM .         .         .         .         .         .         .         .         .
           400.  CI    RWEM.         .         .         .         .         .         .         .         .
           450.  CI    R EM.         .         .         .         .         .         .         .         .
           500.  CI     REL.         .         .         .         .         .         .         .         .
   .10     550.  CI     R E.         .         .         .         .         .         .         .         .
           600.  CI     R EM         .         .         .         .         .         .         .         .
           650.  CI      RWEM        .         .         .         .         .         .         .         .
           700.  CI      R EM        .         .         .         .         .         .         .         .
           750.  CI      R WEM       .         .         .         .         .         .         .         .
           800.  CI       RWEM       .         .         .         .         .         .         .         .
           850.  CI       RLE M      .         .         .         .         .         .         .         .
           900.  CI       RLWEM      .         .         .         .         .         .         .         .
           950.  CI        LWE M     .         .         .         .         .         .         .         .
   .19    1000.  .I        LW EM     .         .         .         .         .         .         .         .
          1050.  CI        L WE M    .         .         .         .         .         .         .         .
          1100.  C I       .LW EM    .         .         .         .         .         .         .         .
          1150.  C I       .L WEM    .         .         .         .         .         .         .         .
          1200.  C  I      .L WE M   .         .         .         .         .         .         .         .
          1250.  C  I      . L WEM   .         .         .         .         .         .         .         .
          1300.  C  I      . L WE M  .         .         .         .         .         .         .         .
          1350.  C   I     . L  WEM  .         .         .         .         .         .         .         .
          1400.  C   I     .  L WEM  .         .         .         .         .         .         .         .
          1450.  C    I    .  L  E M .         .         .         .         .         .         .         .
          1500.  C    I    .  L  WEM .         .         .         .         .         .         .         .
          1550.  C     I   .  L  WEM .         .         .         .         .         .         .         .
          1600.  C     I   .   L  WEM.         .         .         .         .         .         .         .
   .31    1650.  C     I   .   L  WEM.         .         .         .         .         .         .         .
          1700.  C      I  .   L   EM.         .         .         .         .         .         .         .
          1750.  C      I  .    L  WE.         .         .         .         .         .         .         .
          1800.  C      I  .    L  WE.         .         .         .         .         .         .         .
          1850.  C       I .     L  EM         .         .         .         .         .         .         .
          1900.  C       I .     L  EM         .         .         .         .         .         .         .
          1950.  C       I .      L WE         .         .         .         .         .         .         .
          2000.  C        I.      L WE         .         .         .         .         .         .         .
          2050.  C        I.       L E         .         .         .         .         .         .         .
   .39    2100.  C        I.       L E         .         .         .         .         .         .         .
          2150.  C         I       L WE         .         .         .         .         .         .         .
          2200.  C         I       L .E         .         .         .         .         .         .         .
          2250.  C         I       L .WE        .         .         .         .         .         .         .
          2300.  C         I       L .WE        .         .         .         .         .         .         .
          2350.  C         .I      L .WE        .         .         .         .         .         .         .
          2400.  C         .I      L .MWE       .         .         .         .         .         .         .
          2450.  C         .I      L .MWE       .         .         .         .         .         .         .
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      2500.  C        . I     L .MWE     .         .         .         .         .         .         .
      2550.  C        . I     L .M WE    .         .         .         .         .         .         .
      2600.  C        . I     L .M WE    .         .         .         .         .         .         .
 .50  2650.  .        . I     L . MW E   .         .         .         .         .         .         .
      2700.  .        .  I     L. M WE   .         .         .         .         .         .         .
      2750.  .        .  I      L  MWE   .         .         .         .         .         .         .
      2800.  .        .  I      L  MCWE  .         .         .         .         .         .         .
      2850.  .        .   I     .L  CWE  .         .         .         .         .         .         .
      2900.  .        .   I     . L CW E .         .         .         .         .         .         .
      2950.  .        .   I     .  L CWE .         .         .         .         .         .         .
      3000.  .        .    I    .   LCW E .        .         .         .         .         .         .
      3050.  .        .    I    .   LCMWE .        .         .         .         .         .         .
      3100.  .        .    I    .    CMWE .        .         .         .         .         .         .
 .59  3150.  .        .     I   .     CMWE.        .         .         .         .         .         .
      3200.  C        .     I   .     LMWE.        .         .         .         .         .         .
      3250.  C        .     I   .     LMWE.        .         .         .         .         .         .
      3300.  C        .      I  .     L MWE        .         .         .         .         .         .
      3350.  C        .      I  .     L MWE        .         .         .         .         .         .
      3400.  C        .      I  .     L  WE        .         .         .         .         .         .
      3450.  C        .       I .     L  ME        .         .         .         .         .         .
      3500.  C        .       I .     L   WE       .         .         .         .         .         .
      3550.  C        .       I .     L   WE       .         .         .         .         .         .
      3600.  C        .        I.     L   .E       .         .         .         .         .         .
 .69  3650.  C        .        I.     L   .E       .         .         .         .         .         .
      3700.  C        .        I.      L  .E       .         .         .         .         .         .
      3750.  C        .         I      L  .EM      .         .         .         .         .         .
      3800.  C        .         I       L .EM      .         .         .         .         .         .
      3850.  C        .         I       L .WEM     .         .         .         .         .         .
      3900.  C        .         .I       L.WEM     .         .         .         .         .         .
      3950.  C        .         .I       L.WEM     .         .         .         .         .         .
      4000.  C        .         .I        LWE M    .         .         .         .         .         .
 .76  4050.  C        .         . I       L E M    .         .         .         .         .         .
      4100.  C        .         . I       L E  M   .         .         .         .         .         .
      4150.  C        .         .  I      .LE  M   .         .         .         .         .         .
      4200.  C        .         .  I      .LE  M   .         .         .         .         .         .
      4250.  C        .         .   I     . WE  M  .         .         .         .         .         .
      4300.  C        .         .   I     . WE  M  .         .         .         .         .         .
      4350.  C        .         .    I    .  E  M  .         .         .         .         .         .
      4400.  C        .         .    I    .  E   M .         .         .         .         .         .
 .84  4450.  C        .         .     I   .  WE  M .         .         .         .         .         .
      4500.  C        .         .     I   .  WE   M.         .         .         .         .         .
      4550.  C        .         .      I  .  LWE  M.         .         .         .         .         .
      4600.  C        .         .      I  .  LWE  M.         .         .         .         .         .
      4650.  C        .         .       I .  LW E  M         .         .         .         .         .
      4700.  C        .         .       I . L  W E M         .         .         .         .         .
      4750.  C        .         .        I. L  W E .M        .         .         .         .         .
      4800.  C        .         .        I.L    W E . M      .         .         .         .         .
      4850.  C        .         .         IL    W  E. M      .         .         .         .         .
 .93  4900.  .        .         .         .I     W  E  M     .         .         .         .         .
      4950.  C        .         .         .I      W.E M      .         .         .         .         .
 .94  5000.  C        .         .         .I       WE M      .         .         .         .         .
 .95  5050.  .        .         .         .         . I E    .         .         .         .         .
      5100.  C        .         .         .         . I WE   .         .         .         .         R
      5150.  C        .         .         .         . ILWE   .         .         .         .         R
      5200.  C        .         .         .         .  I E   .         .         .         .         R
      5250.  C        .         .         .         .  I WE  .         .         .         .         R
      5300.  C        .         .         .         .  ILWE  .         .         .         .         R
      5350.  C        .         .         .         .   I E  .         .         .         .         R
      5400.  C        .         .         .         .   I WE .         .         .         .         R
      5450.  C        .         .         .         .   IL E .         .         .         .         R
      5500.  C        .         .         .         .    I E .         .         .         .         R
 1.05 5550.  C        .         .         .         .    I  E.         .         .         .         .
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      5600.  C     .     .     .     .  IL E .     .     .     .     .     .
      5650.  C     .     .     .     .   I EM.     .     .     .     .     .
      5700.  C     .     .     .     .  ILEM.     .     .     .     .     .
      5750.  C     .     .     .     .  ILEM.     .     .     .     .     .
      5800.  C     .     .     .     .  IL EM     .     .     .     .     .
      5850.  C     .     .     .     .   ILEM     .     .     .     .     .
      5900.  C     .     .     .     .   ILE.M     .     .     .     .     .
      5950.  C     .     .     .     .   IRE.M     .     .     .     .     .
      6000.  C     .     .     .     .    IWEM     .     .     .     .     .
      6050.  C     .     .     .     .    ILE M     .     .     .     .     .
1.15  6100.  C     .     .     .     .    IRE M     .     .     .     .     .
      6150.  C     .     .     .     .     IE M     .     .     .     .     .
      6200.  C     .     .     .     .     IRE M     .     .     .     .     .
      6250.  C     .     .     .     .     IRELM     .     .     .     .     .
      6300.  C     .     .     .     .      IRE M     .     .     .     .     .
      6350.  C     .     .     .     .      IRELM     .     .     .     .     .
      6400.  C     .     .     .     .      .IREM     .     .     .     .     .
      6450.  C     .     .     .     .      .IRELM     .     .     .     .     .
      6500.  C     .     .     .     .      . IE L     .     .     .     .     .
      6550.  C     .     .     .     .      . IRELM     .     .     .     .     .
      6600.  C     .     .     .     .      . I E L     .     .     .     .     .
1.26  6650.  C     .     .     .     .      .  IREL     .     .     .     .     .
      6700.  C     .     .     .     .      .  I E L     .     .     .     .     .
      6750.  C     .     .     .     .      .  I REL     .     .     .     .     .
      6800.  C     .     .     .     .      .   I EL     .     .     .     .     .
      6850.  C     .     .     .     .      .   I EL     .     .     .     .     .
      6900.  C     .     .     .     .      .   I REL     .     .     .     .     .
      6950.  C     .     .     .     .      .   I  EL     .     .     .     .     .
      7000.  C     .     .     .     .      .    I WE     .     .     .     .     .
      7050.  C     .     .     .     .      .    I  E     .     .     .     .     .
      7100.  C     .     .     .     .      .    I  EL.     .     .     .     .     .
1.35  7150.  C     .     .     .     .      .    I  RE.     .     .     .     .     .
      7200.  C     .     .     .     .      .     I RE.     .     .     .     .     .
      7250.  C     .     .     .     .      .     I RE.     .     .     .     .     .
      7300.  C     .     .     .     .      .     I RE.     .     .     .     .     .
      7350.  C     .     .     .     .      .      ILE.     .     .     .     .     .
      7400.  C     .     .     .     .      .      ILEM     .     .     .     .     .
1.41  7450.  C     .     .     .     .      .      ILEM     .     .     .     .     .
      7500.  C     .     .     .     .      .      ILEM     .     .     .     .     .
      7550.  C     .     .     .     .      .      ILEM     .     .     .     .     .
      7600.  C     .     .     .     .      .      ILEM     .     .     .     .     .
      7650.  C     .     .     .     .      .      ILE.M     .     .     .     .     .
      7700.  C     .     .     .     .      .      ILE.M     .     .     .     .     .
      7750.  C     .     .     .     .      .      ILE.M     .     .     .     .     .
1.47  7800.  C     .     .     .     .      .      ILE.M     .     .     .     .     .
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THIS RUN EXECUTED 19FEB92 15:40:49

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HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

ALONG WEST SIDE OF AT &

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	.000	2559.00	1091.22	9722.82	9965.00	10030.00	10763.14	.00	1040.32	2.22	1089.00	50.19	4.14
	.104	1770.00	1093.27	9953.78	9950.00	10030.00	10779.30	2.05	825.52	3.67	1089.60	26.58	4.05
*	.187	1770.00	1094.72	9965.07	9970.00	10030.00	10545.55	1.45	580.48	5.22	1089.50	52.31	6.98
	.308	1770.00	1097.63	9961.83	9970.00	10025.00	10820.51	2.91	806.46	5.53	1092.10	33.24	5.81
	.390	1770.00	1098.99	9956.83	9965.00	10035.00	10996.25	1.35	1039.42	5.29	1093.70	23.35	4.66
*	.496	1770.00	1100.66	9955.00	9975.00	10020.00	10656.08	1.67	701.08	5.46	1095.20	41.68	7.18
	.592	1770.00	1102.80	9955.00	9965.00	10035.00	10483.03	2.14	528.03	6.00	1096.80	43.23	6.57
	.685	634.00	1104.45	9955.40	9975.00	10020.00	10170.05	1.65	214.66	6.05	1098.40	7.02	3.01
	.760	634.00	1104.79	9968.03	9970.00	10030.00	10106.72	.35	138.69	4.89	1099.90	12.32	3.22
*	.840	634.00	1105.47	9972.62	9970.00	10035.00	10032.38	.68	59.76	3.67	1101.80	29.62	4.23
*	.928	292.00	1107.27	9995.00	9995.00	10005.00	10005.00	1.79	10.00	2.97	1104.30	17.33	9.83
*	.943	292.00	1108.91	9995.00	9995.00	10005.00	10005.00	1.64	10.00	4.41	1104.50	4.63	6.62
*	.948	292.00	1110.77	9970.40	9980.00	10065.00	10040.00	1.86	69.60	.97	1109.80	184.49	5.30
*	1.047	292.00	1112.79	9811.74	9960.00	10050.00	10584.64	2.03	762.85	1.29	1111.50	11.84	1.28
*	1.151	226.00	1113.93	9907.60	9955.00	10050.00	10630.23	1.14	722.63	.83	1113.10	72.84	1.86
	1.256	142.00	1116.41	9983.07	9970.00	10030.00	10406.10	2.48	423.03	1.01	1115.40	25.33	1.48
	1.353	142.00	1118.26	9974.75	9970.00	10030.00	10182.01	1.85	207.26	1.56	1116.70	62.64	2.85

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
*	1.410	28.00	1118.67	9951.64	9960.00	10070.00	10086.71	.40	135.07	1.07	1117.60	.55	.29
*	1.468	28.00	1118.69	9975.41	9980.00	10030.00	10038.61	.03	63.20	1.09	1117.60	2.43	.61

NG WEST SIDE OF AT &

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	.000	1091.22	-.78	1091.31	1040.32	640.60	434.16	1484.24	.00	.00	9965.00	10030.00	.00
	.104	1093.27	.00	1093.39	825.52	.00	782.25	987.74	.00	.00	9950.00	10030.00	.00
*	.187	1094.72	.00	1095.35	580.48	1.38	1454.33	314.29	.00	.00	9970.00	10030.00	.00
	.308	1097.63	.00	1097.99	806.46	7.04	1181.74	581.22	.00	.00	9970.00	10025.00	.00
	.390	1098.99	.00	1099.21	1039.42	2.54	1125.21	642.25	.00	.00	9965.00	10035.00	.00
*	.496	1100.66	.00	1101.29	701.08	68.08	1383.82	318.10	.00	.00	9975.00	10020.00	.00
	.592	1102.80	.00	1103.43	528.03	6.51	1679.33	84.15	.00	.00	9965.00	10035.00	.00
	.685	1104.45	.00	1104.58	214.66	15.38	602.95	15.67	.00	.00	9975.00	10020.00	.00
	.760	1104.79	.00	1104.95	138.69	.29	621.63	12.08	.00	.00	9970.00	10030.00	.00
*	.840	1105.47	.00	1105.75	59.76	.00	634.00	.00	.00	.00	9970.00	10035.00	.00
*	.928	1107.27	.00	1108.77	10.00	.00	292.00	.00	.00	.00	9995.00	10005.00	.00
*	.943	1108.91	.00	1109.59	10.00	.00	292.00	.00	.00	.00	9995.00	10005.00	.00
*	.948	1110.77	.00	1111.19	69.60	7.84	284.16	.00	70.00	9970.00	9980.00	10065.00	10040.00
*	1.047	1112.79	.00	1112.81	762.85	51.08	137.68	103.24	.00	.00	9960.00	10050.00	.00
*	1.151	1113.93	.00	1113.96	722.63	4.77	94.63	126.59	.00	.00	9955.00	10050.00	.00
	1.256	1116.41	.00	1116.43	423.03	.00	40.07	101.93	.00	.00	9970.00	10030.00	.00
*	1.353	1118.26	.00	1118.37	207.26	.00	123.62	18.38	.00	.00	9970.00	10030.00	.00
*	1.410	1118.67	.00	1118.67	135.07	.29	27.28	.42	.00	.00	9960.00	10070.00	.00
*	1.468	1118.69	.00	1118.70	63.20	.36	27.16	.48	.00	.00	9980.00	10030.00	.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO=      .187  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .187  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .496  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .496  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      .840  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .928  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .928  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .928  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=      .943  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .948  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .948  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .948  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=     1.047  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.151  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.353  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.410  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.468  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
```

THIS RUN EXECUTED 19FEB92 15:49:33

19.H20
Latest Version
Approximate Delineation

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****************************************
HEC-2 WATER SURFACE PROFILES

Version   4.6.2;  May 1991
****************************************

T1      WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2      100 - YEAR STORM EVENT     FLOODPLAIN RUN       FILE: 19.H2I
T3      ALONG THE NORTH SIDE OF AT & SF RAILROAD ,A 1/2 MILE NORTH OF OLIVE AV.,
T4      FROM A 1/2 MILE WEST TO A 1/2 MILE EAST OF LITCHFIELD RD. (WASH 19)
T5      DISCHARGES OF THE FIRST PROFILE ARE AS DERIVED FROM THE 24-HOUR STORM
T6      HEC1 MODEL.
T7      DISCHARGES OF THE SECOND PROFILE ARE THE CAPACTIES WHICH LIMIT THE WSEL
T8      EXTENSION OVER THE RAILROAD TO NO MORE THAN 1.0 FT. AND ARE USED FOR
T9      AN APPROXIMATE FLOODPLAIN DELINEATION.(SEE 1ST C-CARD FOR BREAKOUT FLOW)

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2        0        0      .003       0        0        0      1111       0

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

      1        0        0        0        0        0        0        0        0        0

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     38       43        1       53       21       22       54       51        4        8
     42        5       26        0      110

NC     .07      .07     .035       .1       .3
QT       2     1078      250

                BREAKOUT FLOWS OVER THE RAILROAD,ALONG THE LENGTH OF THE WASH,
                WILL CONTINUE OVERLAND TO THE SOUTHEAST AS SHEET FLOW.

                Q1 = Q AT CP183    (= 1078 CFS)

X1    0.000       6     9970    10030        0        0        0
GR     1112    9350     1110     9800   1108.6     9970   1108.2    10000   1108.4    10030
GR   1108.6   10070

QT       2      797      250
```

Q1 = Q AT 2I183 (= 797 CFS)

X1	0.102	6	9985	10015	540	540	540			
GR	1114	9115	1112	9525	1110	9985	1109.5	10000	1110	10015
GR	1110.4	10030								
X1	0.208	7	9950	10015	560	560	560			
GR	1116	9015	1114	9340	1112	9900	1111.6	9950	1111.3	10000
GR	1112	10015	1112.3	10030						
X1	0.295	7	9950	10020	460	460	460			
GR	1117	9050	1116	9290	1114	9690	1112.7	9950	1112.5	10000
GR	1112.7	10020	1112.9	10040						
NC	.07	.05	.04							
QT	2	1200	500							

Q1 = Q AT CP181A (= 1200 CFS)

X1	0.405	11	9960	10035	580	580	580			
GR	1118	9025	1116	9520	1115.3	9650	1114.2	9740	1114.5	9790
GR	1114.5	9945	1114	9960	1113.4	10000	1113.9	10035	1113.6	10060
GR	1114.4	10095								
QT	2	199	199							

Q1 = 80% (HYDROGRAPH AT CP181A) [= .8 (249) = 199 CFS]

X1	0.502	8	9960	10070	510	510	510			
GR	1120	8950	1118	9490	1117	9670	1116.8	9960	1116.5	10000
GR	1116.9	10070	1116.1	10085	1117.2	10095				
X1	0.581	10	9950	10070	420	420	420			
GR	1120.5	9000	1120	9525	1118.6	9720	1118.9	9790	1118.7	9860
GR	1118.5	9950	1118.4	10000	1118.7	10070	1118.1	10085	1118.9	10095
X1	0.693	7	9960	10040	590	590	590			
GR	1121.5	9190	1120.6	9960	1120.3	10000	1120.6	10040	1120	10075
GR	1119.5	10085	1120.5	10105						

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= .100 CEHV= .300
*SECNO .000
3280 CROSS SECTION .00 EXTENDED 2.05 FEET

BREAKOUT FLOWS OVER THE RAILROAD,ALONG THE LENGTH OF THE WASH,
WILL CONTINUE OVERLAND TO THE SOUTHEAST AS SHEET FLOW.

Q1 = Q AT CP183 (= 1078 CFS)

.000	2.45	1110.65	.00	1111.00	1110.80	.15	.00	.00	1108.60
1078.0	354.7	561.5	161.8	278.5	138.3	86.2	.0	.0	1108.40
.00	1.27	4.06	1.88	.070	.035	.070	.000	1108.20	9652.67
.003004	0.	0.	0.	0	0	6	.00	417.33	10070.00

ECNO .102
3280 CROSS SECTION .10 EXTENDED 1.71 FEET

Q1 = Q AT 2I183 (= 797 CFS)

.102	2.60	1112.10	.00	.00	1112.17	.06	1.36	.01	1110.00
797.0	519.4	238.6	39.0	510.4	70.7	28.6	6.9	5.9	1110.00
.09	1.02	3.37	1.36	.070	.035	.070	.000	1109.50	9503.05
.002015	540.	540.	540.	2	0	0	.00	526.95	10030.00

*SECNO .208
3280 CROSS SECTION .21 EXTENDED 1.09 FEET

.208	2.09	1113.39	.00	.00	1113.49	.10	1.31	.01	1111.60
797.0	355.6	418.6	22.7	349.1	123.0	18.6	14.0	12.6	1112.00
.15	1.02	3.40	1.22	.070	.035	.070	.000	1111.30	9511.34
.002749	560.	560.	560.	2	0	0	.00	518.66	10030.00

*SECNO .295

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3280 CROSS SECTION .29 EXTENDED 1.63 FEET

.295	2.02	1114.52	.00	.00	1114.60	.08	1.11	.00	1112.70
797.0	343.5	407.5	46.0	333.1	134.8	34.5	19.2	17.7	1112.70
.22	1.03	3.02	1.33	.070	.035	.070	.000	1112.50	9584.97
.002118	460.	460.	460.	1	0	0	.00	455.03	10040.00

*SECNO .405
3280 CROSS SECTION .41 EXTENDED 1.41 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.45

Q1 = Q AT CP181A (= 1200 CFS)

.405	2.41	1115.81	.00	.00	1115.88	.08	1.28	.00	1114.00
1200.0	482.5	469.6	247.9	418.1	159.8	114.7	27.2	24.3	1113.90
.29	1.15	2.94	2.16	.070	.040	.050	.000	1113.40	9555.71
.002281	580.	580.	580.	2	0	0	.00	539.29	10095.00

*SECNO .502

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .09

Q1 = 80% (HYDROGRAPH AT CP181A) [= .8 (249) = 199 CFS]

.502	1.07	1117.17	1117.04	.00	1117.22	.05	1.33	.00	1116.80
199.0	61.6	108.5	29.0	80.4	53.5	15.2	32.1	30.2	1116.90
.38	.77	2.03	1.90	.070	.040	.050	.000	1116.10	9639.66
.007766	510.	510.	510.	11	16	0	.00	455.06	10094.71

*SECNO .581
3280 CROSS SECTION .58 EXTENDED .22 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.60

.581	1.02	1119.12	.00	.00	1119.14	.02	1.92	.00	1118.50
199.0	70.9	106.9	21.2	112.8	72.9	16.9	33.8	34.5	1118.70
.48	.63	1.46	1.25	.070	.040	.050	.000	1118.10	9648.10
.003019	420.	420.	420.	4	0	0	.00	446.90	10095.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .693
3280 CROSS SECTION .69 EXTENDED .52 FEET

.693	1.52	1121.02	.00	.00	1121.05	.03	1.91	.00	1120.60
199.0	33.3	68.6	97.0	75.5	45.6	58.3	36.4	40.9	1120.60
.60	.44	1.50	1.66	.070	.040	.050	.000	1119.50	9600.64
.003470	590.	590.	590.	5	0	0	.00	504.36	10105.00

PROFILE FOR STREAM ALONG THE NORTH SIDE OF

PLOTTED POINTS (BY PRIORITY) E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA

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ELEVATION  1108.    1110.    1112.    1114.    1116.    1118.    1120.    1122.    1124.    1126.
   SECNO   CUMDIS

   .00      0.  IRL      . WE     .        .        .        .        .        .        .        .
           50.  CIRL     .  WE    .        .        .        .        .        .        .        .
          100.  CIRLM    .   E    .        .        .        .        .        .        .        .
          150.  C IRLM   .   WE   .        .        .        .        .        .        .        .
          200.  C I RL   .    WE  .        .        .        .        .        .        .        .
          250.  C  I LM  .     E  .        .        .        .        .        .        .        .
          300.  C   IRLM .     WE .        .        .        .        .        .        .        .
          350.  C   I RLM .     E .        .        .        .        .        .        .        .
          400.  C    I L M.      E .       .        .        .        .        .        .        .
          450.  C    I  L M      WE.       .        .        .        .        .        .        .
          500.  C     I L M       E.       .        .        .        .        .        .        .
   .10    550.  C      I L.M       E       .        .        .        .        .        .        .
          600.  C      I  L M      E       .        .        .        .        .        .        .
          650.  C       I LR M     .E      .        .        .        .        .        .        .
          700.  C        I.LR M    .WE     .        .        .        .        .        .        .
          750.  C         I LRM    . E     .        .        .        .        .        .        .
          800.  C         .I L M   . WE    .        .        .        .        .        .        .
          850.  C         .I LR M  .  E    .        .        .        .        .        .        .
          900.  C         . I LR M .   E   .        .        .        .        .        .        .
          950.  C         .  I LR M .  WE  .        .        .        .        .        .        .
         1000.  C         .   IL R M.   E  .        .        .        .        .        .        .
         1050.  C         .    IL RM.   WE .        .        .        .        .        .        .
   .21   1100.  C         .     IL R.M   E .        .        .        .        .        .        .
         1150.  C         .     I LR.M    E .       .        .        .        .        .        .
         1200.  C         .      IL RM    WE .      .        .        .        .        .        .
         1250.  C         .      I LRM     E .      .        .        .        .        .        .
         1300.  C         .       IL.RM    WE.      .        .        .        .        .        .
         1350.  C         .        ILRM     E.      .        .        .        .        .        .
         1400.  C         .        I.LM      E      .        .        .        .        .        .
         1450.  C         .         ILRM     WE     .        .        .        .        .        .
         1500.  C         .         .ILM     .E     .        .        .        .        .        .
         1550.  C         .         .ILM     . E    .        .        .        .        .        .
   .29   1600.  C         .         . ILM    . E    .        .        .        .        .        .
         1650.  C         .         . ILM    . WE   .        .        .        .        .        .
         1700.  C         .         . I LM   .  E   .        .        .        .        .        .
         1750.  C         .         .  ILM   .  WE  .        .        .        .        .        .
         1800.  C         .         .  I LM  .   E  .        .        .        .        .        .
         1850.  C         .         .  I L M .   WE .        .        .        .        .        .
         1900.  C         .         .   I LM .    E .        .        .        .        .        .
         1950.  C         .         .   I L M .    E .       .        .        .        .        .
         2000.  C         .         .    I L M.    E .       .        .        .        .        .
         2050.  C         .         .    I RLM.     E .      .        .        .        .        .
         2100.  C         .         .    I  L M     WE .     .        .        .        .        .
   .41   2150.  C         .         .     I  L.M     E .      .        .        .        .        .
         2200.  C         .         .      I  L M     E.      .        .        .        .        .
         2250.  C         .         .        I.RL M   WE      .        .        .        .        .
         2300.  C         .         .         I  L M   E      .        .        .        .        .
         2350.  C         .         .         .I  L M  .E     .        .        .        .        .
         2400.  C         .         .         .  I  L M .WE   .        .        .        .        .
         2450.  C         .         .         .   I  L M. E   .        .        .        .        .
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     2500.  C     .     .     .  I  L.M E   .     .     .     .     .     .
     2550.  C     .     .     .   I  L MWE  .     .     .     .     .     .
     2600.  C     .     .     .    I .LRME  .     .     .     .     .     .
 .50 2650.  .     .     .     .     I  LCE  .     .     .     .     .     .
     2700.  C     .     .     .     .I  LRE .     .     .     .     .     .
     2750.  C     .     .     .     . I  LRE .     .     .     .     .     .
     2800.  C     .     .     .     .  I  LRWE.     .     .     .     .     .
     2850.  C     .     .     .     .   I  LRWE     .     .     .     .     .
     2900.  C     .     .     .     .    I  LRME    .     .     .     .     .
     2950.  C     .     .     .     .     I LRME    .     .     .     .     .
     3000.  C     .     .     .     .      I LRME   .     .     .     .     .
     3050.  C     .     .     .     .       I.LRME  .     .     .     .     .
 .58 3100.  C     .     .     .     .        I LRME .     .     .     .     .
     3150.  C     .     .     .     .        I LRMWE .     .     .     .     .
     3200.  C     .     .     .     .        .I LRME .     .     .     .     .
     3250.  C     .     .     .     .        .I  LRME .     .     .     .     .
     3300.  C     .     .     .     .        . I  LR E .     .     .     .     .
     3350.  C     .     .     .     .        . I   LR E.     .     .     .     .
     3400.  C     .     .     .     .        .  I   LMWE     .     .     .     .
     3450.  C     .     .     .     .        .   I   L E     .     .     .     .
     3500.  C     .     .     .     .        .   I    L.E    .     .     .     .
     3550.  C     .     .     .     .        .    I    L E   .     .     .     .
     3600.  C     .     .     .     .        .    I    LR E  .     .     .     .
     3650.  C     .     .     .     .        .     I   .L WE .     .     .     .
 .69 3700.  C     .     .     .     .        .      I  . L E .     .     .     .
```

T2
T3

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		3			.003				1111	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15									

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= .100 CEHV= .300
*SECNO .000
3280 CROSS SECTION .00 EXTENDED .89 FEET

BREAKOUT FLOWS OVER THE RAILROAD,ALONG THE LENGTH OF THE WASH,
WILL CONTINUE OVERLAND TO THE SOUTHEAST AS SHEET FLOW.

Q1 = Q AT CP183 (= 1078 CFS)

.000	1.29	1109.49	.00	1111.00	1109.56	.07	.00	.00	1108.60
250.0	32.3	172.9	44.9	47.7	68.2	39.5	.0	.0	1108.40
.00	.68	2.53	1.14	.070	.035	.070	.000	1108.20	9862.31
.003003	0.	0.	0.	0	0	6	.00	207.69	10070.00

*SECNO .102
3280 CROSS SECTION .10 EXTENDED .72 FEET

Q1 = Q AT 2I183 (= 797 CFS)

.102	1.62	1111.12	.00	.00	1111.19	.07	1.63	.00	1110.00
250.0	115.9	119.2	14.9	145.4	41.2	13.9	2.2	3.2	1110.00
.08	.80	2.89	1.08	.070	.035	.070	.000	1109.50	9726.39
.003037	540.	540.	540.	2	0	0	.00	303.61	10030.00

*SECNO .208
3280 CROSS SECTION .21 EXTENDED .36 FEET

.208	1.35	1112.65	.00	.00	1112.71	.06	1.52	.00	1111.60
250.0	70.5	174.5	5.0	103.0	75.4	7.6	4.7	7.1	1112.00
.17	.68	2.31	.66	.070	.035	.070	.000	1111.30	9716.32
.002440	560.	560.	560.	3	0	0	.00	313.68	10030.00

*SECNO .295

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3280 CROSS SECTION .29 EXTENDED .82 FEET

.295	1.22	1113.72	.00	.00	1113.77	.05	1.06	.00	1112.70
250.0	65.8	167.4	16.8	104.3	78.5	18.4	6.7	10.3	1112.70
.25	.63	2.13	.91	.070	.035	.070	.000	1112.50	9745.78
.002167	460.	460.	460.	3	0	0	.00	294.22	10040.00

*SECNO .405
3280 CROSS SECTION .41 EXTENDED .69 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.87

Q1 = Q AT CP181A (= 1200 CFS)

.405	1.69	1115.09	.00	.00	1115.14	.05	1.37	.00	1114.00
500.0	132.8	247.6	119.7	174.3	106.2	71.8	10.4	15.2	1113.90
.34	.76	2.33	1.67	.070	.040	.050	.000	1113.40	9666.94
.002475	580.	580.	580.	2	0	0	.00	428.06	10095.00

*SECNO .502
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

Q1 = 80% (HYDROGRAPH AT CP181A) [= .8 (249) = 199 CFS]

.502	.95	1117.05	1117.05	.00	1117.16	.12	1.95	.02	1116.80
199.0	40.3	121.2	37.5	43.0	40.2	12.3	13.0	20.2	1116.90
.39	.94	3.01	3.05	.070	.040	.050	.000	1116.10	9661.45
.025169	510.	510.	510.	19	11	0	.00	432.16	10093.61

*SECNO .581
3280 CROSS SECTION .58 EXTENDED .29 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.57

.581	1.08	1119.18	.00	.00	1119.20	.02	2.02	.01	1118.50
199.0	75.1	103.8	20.2	134.4	81.4	18.7	14.6	24.5	1118.70
.51	.56	1.27	1.08	.070	.040	.050	.000	1118.10	9638.27
.001974	420.	420.	420.	8	0	0	.00	456.73	10095.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .693
3280 CROSS SECTION .69 EXTENDED .45 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .61

.693	1.45	1120.95	.00	.00	1121.00	.05	1.79	.01	1120.60
199.0	25.5	68.2	105.3	52.8	40.1	53.8	17.2	30.6	1120.60
.61	.48	1.70	1.95	.070	.040	.050	.000	1119.50	9659.33
.005262	590.	590.	590.	6	0	0	.00	445.67	10105.00

PROFILE FOR STREAM

PLOTTED POINTS (BY PRIORITY) E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA

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ELEVATION  1108.    1110.    1112.    1114.    1116.    1118.    1120.    1122.    1124.    1126.
   SECNO   CUMDIS

     .00      0.  IRL   WE .        .        .        .        .        .        .        .        .
             50.  CIRL   WE .        .        .        .        .        .        .        .        .
            100.  CIRLM   E .        .        .        .        .        .        .        .        .
            150.  C IRLM   E.        .        .        .        .        .        .        .        .
            200.  C I RL   WE        .        .        .        .        .        .        .        .
            250.  C  I LM   WE       .        .        .        .        .        .        .        .
            300.  C   IRLM  .E       .        .        .        .        .        .        .        .
            350.  C   I RLM . E      .        .        .        .        .        .        .        .
            400.  C    I L M. WE     .        .        .        .        .        .        .        .
            450.  C    I  L M  WE    .        .        .        .        .        .        .        .
            500.  C     I L M   E    .        .        .        .        .        .        .        .
     .10    550.  C      I L.M   E   .        .        .        .        .        .        .        .
            600.  C      I  L M  WE  .        .        .        .        .        .        .        .
            650.  C       I LR M  E  .        .        .        .        .        .        .        .
            700.  C        I.LR M  E .        .        .        .        .        .        .        .
            750.  C         I LRM  WE .        .        .        .        .        .        .        .
            800.  C         .I L M  E .        .        .        .        .        .        .        .
            850.  C         .I LR M  E.        .        .        .        .        .        .        .
            900.  C         . I LR M WE        .        .        .        .        .        .        .
            950.  C         .  I LR M E        .        .        .        .        .        .        .
           1000.  C         .   IL R M.E       .        .        .        .        .        .        .
           1050.  C         .    IL RM.WE      .        .        .        .        .        .        .
     .21   1100.  C         .     IL R.MWE     .        .        .        .        .        .        .
           1150.  C         .     I LR.M E     .        .        .        .        .        .        .
           1200.  C         .      IL RM WE    .        .        .        .        .        .        .
           1250.  C         .      I LRM  E    .        .        .        .        .        .        .
           1300.  C         .       IL.RM  E   .        .        .        .        .        .        .
           1350.  C         .        ILRM  E   .        .        .        .        .        .        .
           1400.  C         .        I.LM   E  .        .        .        .        .        .        .
           1450.  C         .         ILRM  WE .        .        .        .        .        .        .
           1500.  C         .         .ILM   E .        .        .        .        .        .        .
           1550.  C         .         .ILM   WE.        .        .        .        .        .        .
     .29   1600.  C         .         . ILM   E.        .        .        .        .        .        .
           1650.  C         .         . ILM   E.        .        .        .        .        .        .
           1700.  C         .         . I LM   E.       .        .        .        .        .        .
           1750.  C         .         .  ILM   WE       .        .        .        .        .        .
           1800.  C         .         .  I LM   E       .        .        .        .        .        .
           1850.  C         .         .  I L M  .E      .        .        .        .        .        .
           1900.  C         .         .   I LM  .E      .        .        .        .        .        .
           1950.  C         .         .   I L M . E     .        .        .        .        .        .
           2000.  C         .         .    I L M. WE    .        .        .        .        .        .
           2050.  C         .         .    I RLM.  E    .        .        .        .        .        .
           2100.  C         .         .    I  L M   E   .        .        .        .        .        .
     .41   2150.  C         .         .     I  L.M  WE  .        .        .        .        .        .
           2200.  C         .         .      I  L M  WE .        .        .        .        .        .
           2250.  C         .         .        I.RL M WE .        .        .        .        .        .
           2300.  C         .         .         I  L M WE .       .        .        .        .        .
           2350.  C         .         .         .I  L M WE.       .        .        .        .        .
           2400.  C         .         .         .  I  L MWE       .        .        .        .        .
           2450.  C         .         .         .   I  L MWE      .        .        .        .        .
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     2500.  C     .     .     .  I   L.WE     .     .     .     .     .     .
     2550.  C     .     .     .    I  L WE     .     .     .     .     .     .
     2600.  C     .     .     .     I .LRWE    .     .     .     .     .     .
 .50 2650.  .     .     .     .       I  LWE   .     .     .     .     .     .
     2700.  C     .     .     .       .I  LRE  .     .     .     .     .     .
     2750.  C     .     .     .       . I  LRE .     .     .     .     .     .
     2800.  C     .     .     .       .  I  LRE .     .     .     .     .     .
     2850.  C     .     .     .       .   I  LRWE     .     .     .     .     .
     2900.  C     .     .     .       .    I  LRME    .     .     .     .     .
     2950.  C     .     .     .       .      I LRME   .     .     .     .     .
     3000.  C     .     .     .       .       I LRME  .     .     .     .     .
     3050.  C     .     .     .       .        I.LRMWE .     .     .     .     .
 .58 3100.  C     .     .     .       .         I LRME .     .     .     .     .
     3150.  C     .     .     .       .         I LRM E .     .     .     .     .
     3200.  C     .     .     .       .         .I LRMWE .     .     .     .     .
     3250.  C     .     .     .       .         .I  LRME .     .     .     .     .
     3300.  C     .     .     .       .         . I  LR E .     .     .     .     .
     3350.  C     .     .     .       .         . I   LR E.     .     .     .     .
     3400.  C     .     .     .       .         .  I   LMWE     .     .     .     .
     3450.  C     .     .     .       .         .   I   L E     .     .     .     .
     3500.  C     .     .     .       .         .   I    L.E    .     .     .     .
     3550.  C     .     .     .       .         .    I    L E   .     .     .     .
     3600.  C     .     .     .       .         .    I    LRWE  .     .     .     .
     3650.  C     .     .     .       .         .     I   .L E  .     .     .     .
 .69 3700.  C     .     .     .       .         .      I  . L E .     .     .     .
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THIS RUN EXECUTED 19FEB92 15:50:26

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HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

ALONG THE NORTH SIDE OF

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	.000	1078.00	1110.65	9652.67	9970.00	10030.00	10070.00	.00	417.33	2.45	1108.20	30.04	4.06
	.000	250.00	1109.49	9862.31	9970.00	10030.00	10070.00	.00	207.69	1.29	1108.20	30.03	2.53
	.102	797.00	1112.10	9503.05	9985.00	10015.00	10030.00	1.45	526.95	2.60	1109.50	20.15	3.37
	.102	250.00	1111.12	9726.39	9985.00	10015.00	10030.00	1.64	303.61	1.62	1109.50	30.37	2.89
	.208	797.00	1113.39	9511.34	9950.00	10015.00	10030.00	1.28	518.66	2.09	1111.30	27.49	3.40
	.208	250.00	1112.65	9716.32	9950.00	10015.00	10030.00	1.53	313.68	1.35	1111.30	24.40	2.31
	.295	797.00	1114.52	9584.97	9950.00	10020.00	10040.00	1.13	455.03	2.02	1112.50	21.18	3.02
	.295	250.00	1113.72	9745.78	9950.00	10020.00	10040.00	1.07	294.22	1.22	1112.50	21.67	2.13
*	.405	1200.00	1115.81	9555.71	9960.00	10035.00	10095.00	1.29	539.29	2.41	1113.40	22.81	2.94
*	.405	500.00	1115.09	9666.94	9960.00	10035.00	10095.00	1.37	428.06	1.69	1113.40	24.75	2.33
*	.502	199.00	1117.17	9639.66	9960.00	10070.00	10094.71	1.36	455.06	1.07	1116.10	77.66	2.03
*	.502	199.00	1117.05	9661.45	9960.00	10070.00	10093.61	1.96	432.16	.95	1116.10	251.69	3.01
*	.581	199.00	1119.12	9648.10	9950.00	10070.00	10095.00	1.95	446.90	1.02	1118.10	30.19	1.46
*	.581	199.00	1119.18	9638.27	9950.00	10070.00	10095.00	2.13	456.73	1.08	1118.10	19.74	1.27
	.693	199.00	1121.02	9600.64	9960.00	10040.00	10105.00	1.90	504.36	1.52	1119.50	34.70	1.50
*	.693	199.00	1120.95	9659.33	9960.00	10040.00	10105.00	1.77	445.67	1.45	1119.50	52.62	1.70

NG THE NORTH SIDE OF

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	.000	1110.65	-.35	1110.80	417.33	354.74	561.46	161.80	.00	.00	9970.00	10030.00	.00
	.000	1109.49	-1.51	1109.56	207.69	32.30	172.85	44.85	.00	.00	9970.00	10030.00	.00
	.102	1112.10	.00	1112.17	526.95	519.42	238.58	39.00	.00	.00	9985.00	10015.00	.00
	.102	1111.12	.00	1111.19	303.61	115.86	119.22	14.91	.00	.00	9985.00	10015.00	.00
	.208	1113.39	.00	1113.49	518.66	355.61	418.65	22.74	.00	.00	9950.00	10015.00	.00
	.208	1112.65	.00	1112.71	313.68	70.51	174.51	4.97	.00	.00	9950.00	10015.00	.00
	.295	1114.52	.00	1114.60	455.03	343.47	407.50	46.03	.00	.00	9950.00	10020.00	.00
	.295	1113.72	.00	1113.77	294.22	65.82	167.40	16.78	.00	.00	9950.00	10020.00	.00
*	.405	1115.81	.00	1115.88	539.29	482.50	469.58	247.92	.00	.00	9960.00	10035.00	.00
*	.405	1115.09	.00	1115.14	428.06	132.75	247.59	119.66	.00	.00	9960.00	10035.00	.00
*	.502	1117.17	.00	1117.22	455.06	61.56	108.46	28.98	.00	.00	9960.00	10070.00	.00
*	.502	1117.05	.00	1117.16	432.16	40.25	121.21	37.54	.00	.00	9960.00	10070.00	.00
*	.581	1119.12	.00	1119.14	446.90	70.94	106.85	21.21	.00	.00	9950.00	10070.00	.00
	.581	1119.18	.00	1119.20	456.73	75.06	103.76	20.19	.00	.00	9950.00	10070.00	.00
	.693	1121.02	.00	1121.05	504.36	33.35	68.61	97.05	.00	.00	9960.00	10040.00	.00
*	.693	1120.95	.00	1121.00	445.67	25.52	68.22	105.25	.00	.00	9960.00	10040.00	.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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WARNING SECNO=      .405  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .405  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .502  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=      .502  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .502  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      .581  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .581  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .693  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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THIS RUN EXECUTED 19FEB92 15:56:19

20.H20
Latest Version
Approximate Delineation

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*************************************
HEC-2 WATER SURFACE PROFILES

Version   4.6.2;  May 1991
*************************************
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T1      WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2      100 - YEAR STORM EVENT     FLOODPLAIN RUN       FILE: 20.H2I
T3      ALONG THE WEST SIDE OF AT & ST RAILROAD, FROM A 1/2 MILE WEST OF
T4      LITCHFIELD RD. TO 3/4 MILE NORTH OF CACTUS RD. (WASH 20)
T5      DISCHARGES OF THE FIRST PROFILE ARE AS DERIVED FROM THE 24-HOUR STORM
T6      HEC1 MODEL.
T7      DISCHARGES OF THE SECOND PROFILE ARE THE CAPACTIES WHICH LIMIT THE WSEL
T8      EXTENSION OVER THE RAILROAD TO NO MORE THAN 1.0 FEET AND ARE USED FOR
T9      AN APPROXIMATE FLOODPLAIN DELINEATION.(SEE 1ST C-CARD FOR BREAKOUT FLOW)

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2        0        0     .0030       0        0        0      1110       0

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

      1        0        0        0        0        0        0        0        0        0

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     38       43        1       53       21       22       54       51        4        8
     42        5       26        0      110

NC     .07      .07     .035       .1       .3
QT       2     1078      500


                BREAKOUT FLOWS OVER THE RAILROAD,ALONG THE LENGTH OF THE WASH,
                WILL CONTINUE OVERLAND TO THE SOUTHEAST AS SHEET FLOW.

                Q1 = Q AT CP183       (= 1078 CFS.)

X1    0.000       5     9960    10050        0        0        0
GR   1108.8    9960   1108.1    10000   1108.4    10050     1110    10390     1112    10780

QT       2      896      250

                Q1 = Q AT 1I183 + ROUTED FLOW FROM SUB. 168 TO SUB. 183
                     (= 527 + 369 = 896 CFS.)
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X1    0.087      4      9975     10070      460      410      460
GR     1110   9975    1109.5     10000     1110    10070     1112    10580

X1    0.182      5      9985     10025      500      490      500
GR   1111.7   9985    1111.3     10000   1111.7    10025     1112    10090     1114    10610

QT        2    526       250

                Q1 =20% ROUTED DIVERSION FROM SUB. 167 TO SUB. 183 + 20% OF
                HYDROGRAPH AT SUB. 183 + DIVERTED FLOW FROM SUB. 168 TO SUB. 183
                   =[.2 (527) + .2 (258) + 369 ] = 526 CFS.

X1    0.267      5      9980     10025      450      450      450
GR   1113.3   9980    1112.6     10000     1113    10025     1114    10355     1116    10990

X1    0.339      7      9970     10015      380      380      380
GR   1114.4   9970      1114      9980   1113.4    10000   1113.8    10015     1114    10140
GR     1116  10820      1117     11030

QT        2    515       250

                A CROSS-SECTION AT PEORIA AV.

                Q1 = Q AT CP168        (= 515 CFS.)

      0.396      7      9965     10020      300      300      300
GR   1115.3   9965    1114.5     10000   1115.3    10020   1115.5    10110     1116    10375
GR   1117.3  10605      1118     10855

X1    0.477      5      9970     10045      430      430      430
GR   1115.9   9945    1114.9      9970   1114.2    10000     1116    10045     1118    10870

QT        2    515       250

                Q1 = {[(ROUTED DIVERSION FROM SUB. 151 TO SUB. 168 + HYDROGRAPH
                AT SUB. 168)= Q AT 1I168] + ROUTED FLOW FROM SUB.152 TO SUB.168}
                ={[330]+ 312 }= 642 CFS > {Q AT CP168 = 515 CFS}. USE Q =515 CFS

X1    0.545      6      9980     10030      360      360      360
GR   1116.9   9950      1116      9980   1115.3    10000     1116    10030     1118    10480
GR     1120  10880

X1     .629      8      9980     10030      440      440      440
GR   1118.1   9915      1118      9920   1117.8     9980   1117.3    10000   1117.8    10030
GR     1118  10075      1120     10540     1121    10730

X1    0.705      6      9955     10020      400      400      400
GR   1119.9   9935    1119.1      9955   1118.9    10000   1119.2    10020     1120    10200
GR     1122  10545
```

```
X1    0.790      5     9970    10020      450      450      450
GR     1122   9970   1120.8    10000   1121.3    10020     1122    10200     1124    10560

X1    0.867      5     9970    10020      410      410      410
GR   1123.7   9970   1122.8    10000   1123.5    10020     1124    10160     1126    10545

QT        2    515      250

                Q1 = {ROUTED DIVRSION FROM SUB. 151 TO SUB. SUB.168 + 50% OF
                HYDROGRAPH AT SUB.168 + ROUTED FLOW FROM SUB. 152 TO SUB. 168}
                = {199 +.5 (340) + 312} = 681 CFS > {Q AT CP168 = 515 CFS}.
                USE Q = 515 CFS.

X1    0.949      5     9980    10025      430      430      430
GR   1125.1   9980   1124.6    10000   1125.1    10025     1126    10240     1128    10700

X1    1.028      7     9985    10030      420      420      420
GR   1126.4   9980     1126     9985   1125.6    10000     1126    10010   1126.2    10030
GR     1128  10490     1130    11075

X1    1.114      7     9980    10030      450      450      450
GR   1128.3   9980     1128     9985   1127.4    10000   1127.8    10030     1128    10380
GR     1130  11130     1131    11380

X1    1.208      7     9975    10015      500      500      500
GR   1130.8   9975   1130.4    10000   1130.6    10015   1130.9    10360   1131.8    10940
GR     1132  11050     1133    11230

X1    1.291      9     9980    10020      435      435      435
GR   1132.6   9980     1132     9990   1131.8    10000     1132    10010   1132.3    10020
GR   1132.8  10450     1133    10700     1134    11000   1134.6    11085

QT        2    320      320

                A CROSS-SECTION AT CACTUS RD.

                Q1 = Q AT CP152      (= 320 CFS.)

X1    1.412      9     9980    10020      540      550      640
GR   1134.8   9590     1134     9760   1133.9     9980   1133.8    10000   1133.9    10020
GR     1134  10280     1135    10530     1136    10790   1136.8    11030

X1    1.471      8     9980    10020      310      310      310
GR   1134.5   9760     1134     9775   1133.7     9980   1133.4    10000   1133.7    10020
GR     1134  10160     1136    10745   1137.4    11010

QT        2    228      228
```

Q1 = 80% OF HYDROGRAPH AT SUB. 152 [= .8 (284) = 228 CFS.]

```
X1    1.550      7     9980    10020      420      420      420
GR     1135   9850     1134     9865   1134.7     9980   1134.5    10000   1134.7    10020
GR     1136  10530     1138    11010

X1    1.632     10     9980    10020      430      430      430
GR   1136.8   9900   1135.6     9920   1136.5     9940     1136     9960   1135.9     9980
GR   1135.7  10000   1135.9    10020     1136    10150     1138    10735     1139    10950

X1    1.704     10     9950    10020      380      380      380
GR   1138.3   9940     1138     9950   1137.5     9980     1137    10000   1137.5    10020
GR     1138  10300   1138.1    10320     1138    10360     1140    10760     1141    11075

X1    1.779      5     9965    10020      400      400      400
GR     1140   9965   1138.6    10000   1138.9    10020     1140    10385     1142    10950

QT        2    142      142
```

Q1 = 50% OF HYDROGRAPH AT SUB. 152 [= .5 (284) = 142 CFS.]

```
X1    1.853      7     9970    10020      390      390      390
GR   1142.9   9960     1142     9970   1140.6    10000     1141    10020   1141.4    10350
GR     1142  10460     1144    11120

X1    1.904      7     9960    10065      270      250      270
GR   1145.1   9875     1144     9885     1142     9960   1141.7    10000     1142    10065
GR     1144  10500   1145.8    10910

X1    1.978      6     9975    10020      390      380      390
GR   1147.2   9975     1146    10000   1146.4    10020   1146.8    10300   1146.6    10470
GR   1147.1  10630

X1    2.054      4     9980    10020      400      420      400
GR   1149.4   9980     1148    10000   1148.2    10020   1149.8    10395

X1    2.111      6     9970    10040      290      320      300
GR     1151   9950     1150     9970   1149.5    10000   1149.9    10040     1150    10085
GR     1151  10430
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= .100 CEHV= .300
*SECNO .000
3280 CROSS SECTION .00 EXTENDED 1.48 FEET

BREAKOUT FLOWS OVER THE RAILROAD,ALONG THE LENGTH OF THE WASH,
WILL CONTINUE OVERLAND TO THE SOUTHEAST AS SHEET FLOW.

Q1 = Q AT CP183 (= 1078 CFS.)

.000	2.18	1110.28	.00	1110.00	1110.41	.12	.00	.00	1108.80
1078.0	.0	625.4	452.6	.0	174.9	375.6	.0	.0	1108.40
.00	.00	3.58	1.20	.000	.035	.070	.000	1108.10	9960.00
.002991	0.	0.	0.	0	0	5	.00	484.99	10444.99

*SECNO .087
CROSS SECTION .09 EXTENDED 1.58 FEET

Q1 = Q AT 1I183 + ROUTED FLOW FROM SUB. 168 TO SUB. 183
(= 527 + 369 = 896 CFS.)

.087	2.08	1111.58	.00	.00	1111.70	.12	1.30	.00	1110.00
896.0	.0	586.3	309.7	.0	173.8	317.9	5.1	4.7	1110.00
.05	.00	3.37	.97	.000	.035	.070	.000	1109.50	9975.00
.002886	460.	460.	410.	1	0	0	.00	497.67	10472.67

*SECNO .182
3280 CROSS SECTION .18 EXTENDED 1.73 FEET

.182	2.14	1113.44	.00	.00	1113.59	.15	1.87	.01	1111.70
896.0	.0	356.1	539.9	.0	77.3	370.1	10.4	10.2	1111.70
.10	.00	4.60	1.46	.000	.035	.070	.000	1111.30	9985.00
.005168	500.	500.	490.	3	0	0	.00	477.70	10462.70

*SECNO .267

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3280 CROSS SECTION .27 EXTENDED 1.41 FEET

Q1 =20% ROUTED DIVERSION FROM SUB. 167 TO SUB. 183 + 20% OF
HYDROGRAPH AT SUB. 183 + DIVERTED FLOW FROM SUB. 168 TO SUB. 183
=[.2 (527) + .2 (258) + 369] = 526 CFS.

.267	2.11	1114.71	.00	.00	1114.74	.03	1.14	.01	1113.30
526.0	.0	173.8	352.2	.0	83.1	481.6	15.6	15.8	1113.00
.20	.00	2.09	.73	.000	.035	.070	.000	1112.60	9980.00
.001115	450.	450.	450.	3	0	0	.00	601.73	10581.73

*SECNO .339
3280 CROSS SECTION .34 EXTENDED .85 FEET

.339	1.85	1115.25	.00	.00	1115.28	.03	.54	.00	1114.40
526.0	.0	156.2	369.8	.0	66.4	435.6	20.3	21.0	1113.80
.29	.00	2.35	.85	.000	.035	.070	.000	1113.40	9970.00
.001879	380.	380.	380.	3	0	0	.00	595.79	10565.79

*SECNO .396
3280 CROSS SECTION .40 EXTENDED .86 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .48

A CROSS-SECTION AT PEORIA AV.

Q1 = Q AT CP168 (= 515 CFS.)

.396	1.66	1116.16	1116.07	.00	1116.33	.18	1.01	.04	1115.30
515.0	.0	297.9	217.1	.0	69.1	178.0	22.9	24.6	1115.30
.31	.00	4.31	1.22	.000	.035	.070	.000	1114.50	9965.00
.007763	300.	300.	300.	9	9	0	.00	437.71	10402.71

*SECNO .477
3280 CROSS SECTION .48 EXTENDED 1.23 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.99

.477	2.93	1117.13	.00	.00	1117.18	.05	.84	.01	1114.90
515.0	37.9	363.5	113.6	43.3	169.0	265.0	26.5	29.6	1116.00
.39	.87	2.15	.43	.070	.035	.070	.000	1114.20	9945.00
.000869	430.	430.	430.	4	0	0	.00	567.54	10512.54

*SECNO .545
3280 CROSS SECTION .55 EXTENDED .66 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .68

Q1 = {[(ROUTED DIVERSION FROM SUB. 151 TO SUB. 168 + HYDROGRAPH
AT SUB. 168)= Q AT 1I168] + ROUTED FLOW FROM SUB.152 TO SUB.168}
={[330]+ 312 }= 642 CFS > {Q AT CP168 = 515 CFS}. USE Q =515 CFS

.545	2.26	1117.56	.00	.00	1117.63	.07	.44	.01	1116.00
515.0	32.3	269.4	213.2	33.4	95.7	275.0	30.1	33.7	1116.00
.44	.97	2.82	.78	.070	.035	.070	.000	1115.30	9950.00
.001854	360.	360.	360.	3	0	0	.00	431.75	10381.75

*SECNO .629
3280 CROSS SECTION .63 EXTENDED .77 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .55

.629	1.57	1118.87	1118.61	.00	1119.01	.14	1.35	.02	1117.80
515.0	99.4	262.1	153.5	62.1	65.9	130.9	33.4	37.7	1117.80
.48	1.60	3.98	1.17	.070	.035	.070	.000	1117.30	9915.00
.006089	440.	440.	440.	10	14	0	.00	361.62	10276.62

*SECNO .705
3280 CROSS SECTION .70 EXTENDED .64 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.46

.705	1.64	1120.54	.00	.00	1120.62	.09	1.61	.01	1119.10
515.0	23.6	296.8	194.7	20.7	98.8	193.2	36.1	41.0	1119.20
.54	1.14	3.00	1.01	.070	.035	.070	.000	1118.90	9935.00
.002862	400.	400.	400.	3	0	0	.00	357.40	10292.40

*SECNO .790
3280 CROSS SECTION .79 EXTENDED .48 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .61

.790	1.67	1122.47	.00	.00	1122.63	.16	1.99	.02	1122.00
515.0	.0	256.3	258.7	.0	60.9	169.4	38.9	44.5	1121.30
.58	.00	4.21	1.53	.000	.035	.070	.000	1120.80	9970.00
.007669	450.	450.	450.	2	0	0	.00	315.94	10285.94

*SECNO .867
3280 CROSS SECTION .87 EXTENDED 1.06 FEET

.867	1.97	1124.77	.00	.00	1124.89	.12	2.26	.00	1123.70
515.0	.0	280.0	235.0	.0	77.6	197.4	41.2	47.5	1123.50
.63	.00	3.61	1.19	.000	.035	.070	.000	1122.80	9970.00
.004143	410.	410.	410.	3	0	0	.00	336.56	10306.56

*SECNO .949
3280 CROSS SECTION .95 EXTENDED 1.38 FEET

Q1 = {ROUTED DIVRSION FROM SUB. 151 TO SUB. SUB.168 + 50% OF
HYDROGRAPH AT SUB.168 + ROUTED FLOW FROM SUB. 152 TO SUB. 168}
= {199 +.5 (340) + 312} = 681 CFS > {Q AT CP168 = 515 CFS}.
USE Q = 515 CFS.

.949	1.88	1126.48	.00	.00	1126.58	.11	1.69	.00	1125.10
515.0	.0	257.0	258.0	.0	73.1	224.9	44.1	51.0	1125.10
.68	.00	3.51	1.15	.000	.035	.070	.000	1124.60	9980.00
.003733	430.	430.	430.	4	0	0	.00	369.33	10349.33

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.028
3280 CROSS SECTION 1.03 EXTENDED 1.34 FEET

1.028	2.13	1127.73	.00	.00	1127.81	.07	1.23	.00	1126.00
515.0	8.9	246.7	259.4	7.7	81.1	301.2	47.4	54.9	1126.20
.74	1.17	3.04	.86	.070	.035	.070	.000	1125.60	9980.00
.002342	420.	420.	420.	3	0	0	.00	442.34	10422.34

*SECNO 1.114
3280 CROSS SECTION 1.11 EXTENDED .53 FEET

1.114	1.43	1128.83	.00	.00	1128.86	.03	1.04	.00	1128.30
515.0	.0	126.5	388.5	.0	57.3	455.1	52.1	60.9	1127.80
.84	.00	2.21	.85	.000	.035	.070	.000	1127.40	9980.00
.002289	450.	450.	450.	3	0	0	.00	711.51	10691.51

*SECNO 1.208
3280 CROSS SECTION 1.21 EXTENDED .48 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .35

1.208	.87	1131.27	.00	.00	1131.39	.12	2.51	.03	1130.80
515.0	.0	130.6	384.4	.0	28.5	226.7	56.5	68.6	1130.60
.90	.00	4.58	1.70	.000	.035	.070	.000	1130.40	9975.00
.018550	500.	500.	500.	3	0	0	.00	626.97	10601.97

*SECNO 1.291
3280 CROSS SECTION 1.29 EXTENDED .79 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.99

1.291	1.60	1133.40	.00	.00	1133.42	.03	2.02	.01	1132.60
515.0	.0	122.4	392.6	.0	53.2	507.6	60.5	75.9	1132.30
1.01	.00	2.30	.77	.000	.035	.070	.000	1131.80	9980.00
.002069	435.	435.	435.	6	0	0	.00	837.41	10817.41

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.412

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .61

A CROSS-SECTION AT CACTUS RD.

Q1 = Q AT CP152 (= 320 CFS.)

1.412	.80	1134.60	.00	.00	1134.61	.01	1.19	.00	1133.90
320.0	124.1	49.2	146.6	183.2	30.2	216.3	66.9	86.3	1133.90
1.20	.68	1.63	.68	.070	.035	.070	.000	1133.80	9631.32
.002140	540.	640.	550.	5	0	0	.00	800.08	10431.40

*SECNO 1.471
3280 CROSS SECTION 1.47 EXTENDED .42 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.86

1.471	1.52	1134.92	.00	.00	1134.93	.01	.32	.00	1133.70
320.0	125.8	71.6	122.6	230.5	55.0	275.6	70.4	91.5	1133.70
1.32	.55	1.30	.44	.070	.035	.070	.000	1133.40	9760.00
.000616	310.	310.	310.	3	0	0	.00	670.51	10430.51

*SECNO 1.550
3280 CROSS SECTION 1.55 EXTENDED .33 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .34

Q1 = 80% OF HYDROGRAPH AT SUB. 152 [= .8 (284) = 228 CFS.]

1.550	1.34	1135.34	.00	.00	1135.36	.02	.42	.00	1134.70
228.0	135.1	52.6	40.4	125.8	29.4	79.1	74.2	96.8	1134.70
1.43	1.07	1.79	.51	.070	.035	.070	.000	1134.00	9850.00
.002672	420.	420.	420.	2	0	0	.00	419.11	10269.11

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.632

1.632	1.03	1136.63	1136.32	.00	1136.66	.03	1.30	.00	1135.90
228.0	35.4	73.4	119.3	41.7	33.2	146.7	76.5	101.0	1135.90
1.52	.85	2.21	.81	.070	.035	.070	.000	1135.60	9902.82
.003463	430.	430.	430.	14	11	0	.00	431.71	10334.53

*SECNO 1.704

1.704	1.18	1138.18	.00	.00	1138.23	.05	1.56	.01	1138.00
228.0	.2	120.4	107.4	.6	50.2	132.1	78.2	104.8	1137.50
1.58	.30	2.40	.81	.070	.035	.070	.000	1137.00	9943.94
.004964	380.	380.	380.	2	0	0	.00	452.44	10396.38

*SECNO 1.779

1.779	1.28	1139.88	.00	.00	1139.92	.04	1.69	.00	1140.00
228.0	.0	98.6	129.4	.0	43.5	161.7	80.0	108.6	1138.90
1.66	.00	2.27	.80	.000	.035	.070	.000	1138.60	9967.82
.003643	400.	400.	400.	2	0	0	.00	379.80	10347.61

*SECNO 1.853

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .51

Q1 = 50% OF HYDROGRAPH AT SUB. 152 [= .5 (284) = 142 CFS.]

1.853	.94	1141.54	.00	.00	1141.57	.04	1.65	.00	1142.00
142.0	.0	54.8	87.2	.0	24.3	114.4	81.5	112.1	1141.00
1.74	.00	2.25	.76	.000	.035	.070	.000	1140.60	9979.83
.005513	390.	390.	390.	2	0	0	.00	396.06	10375.89

*SECNO 1.904

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.41

1.904	.84	1142.54	.00	.00	1142.58	.04	1.00	.00	1142.00
142.0	2.5	125.1	14.4	5.4	71.8	31.0	82.3	114.0	1142.00
1.79	.46	1.74	.46	.070	.035	.070	.000	1141.70	9939.97
.002789	270.	270.	250.	4	0	0	.00	241.21	10181.18

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.978
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.978	.83	1146.83	1146.83	.00	1146.91	.08	2.05	.01	1147.20
142.0	.0	64.2	77.8	.0	19.7	93.7	83.3	117.5	1146.40
1.85	.00	3.26	.83	.000	.035	.070	.000	1146.00	9982.76
.013824	390.	390.	380.	20	6	0	.00	560.05	10542.81

*SECNO 2.054

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.15

2.054	1.17	1149.17	.00	.00	1149.20	.03	2.29	.00	1149.40
142.0	.0	64.2	77.8	.0	31.0	108.9	84.5	121.4	1148.20
1.93	.00	2.08	.71	.000	.035	.070	.000	1148.00	9983.37
.002994	400.	400.	420.	5	0	0	.00	262.55	10245.92

O 2.111

2.111	.87	1150.37	.00	.00	1150.44	.07	1.23	.01	1150.00
142.0	.8	110.7	30.6	1.4	46.1	44.3	85.3	123.3	1149.90
1.97	.52	2.40	.69	.070	.035	.070	.000	1149.50	9962.40
.005579	290.	300.	320.	4	0	0	.00	253.75	10216.14

PROFILE FOR STREAM ALONG THE WEST SIDE OF A

PLOTTED POINTS (BY PRIORITY) E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA

ELEVATION	1108.	1113.	1118.	1123.	1128.	1133.	1138.	1143.	1148.	1153.
SECNO	CUMDIS									
.00	0.	IL WE	.	.	.	.	.	.	.	.
	50.	IRL E	.	.	.	.	.	.	.	.
	100.	CIL E	.	.	.	.	.	.	.	.
	150.	CIL E	.	.	.	.	.	.	.	.
	200.	CIL WE	.	.	.	.	.	.	.	.
	250.	C IL E	.	.	.	.	.	.	.	.
	300.	C IL E	.	.	.	.	.	.	.	.
	350.	C IL WE	.	.	.	.	.	.	.	.
	400.	C IL E	.	.	.	.	.	.	.	.
	450.	C IL E	.	.	.	.	.	.	.	.
.09	500.	C IL E	.	.	.	.	.	.	.	.
	550.	C IL WE	.	.	.	.	.	.	.	.
	600.	C I E	.	.	.	.	.	.	.	.
	650.	C IL E	.	.	.	.	.	.	.	.
	700.	C IL WE	.	.	.	.	.	.	.	.
	750.	C IL E	.	.	.	.	.	.	.	.
	800.	C IL E	.	.	.	.	.	.	.	.
	850.	C IL E	.	.	.	.	.	.	.	.
	900.	C IL E	.	.	.	.	.	.	.	.
	950.	C IL WE	.	.	.	.	.	.	.	.
.18	1000.	C IL .E	.	.	.	.	.	.	.	.
	1050.	C IL .E	.	.	.	.	.	.	.	.
	1100.	C IL .E	.	.	.	.	.	.	.	.
	1150.	C IL . E	.	.	.	.	.	.	.	.
	1200.	C IL. E	.	.	.	.	.	.	.	.
	1250.	C IL. E	.	.	.	.	.	.	.	.
	1300.	C IL. WE	.	.	.	.	.	.	.	.
	1350.	C IRL E	.	.	.	.	.	.	.	.
	1400.	C IL E	.	.	.	.	.	.	.	.
.27	1450.	C IL E	.	.	.	.	.	.	.	.
	1500.	C IRL E	.	.	.	.	.	.	.	.
	1550.	C IRL E	.	.	.	.	.	.	.	.
	1600.	C IL E	.	.	.	.	.	.	.	.
	1650.	C IRL E	.	.	.	.	.	.	.	.
	1700.	C IRL E	.	.	.	.	.	.	.	.
	1750.	C IRL E	.	.	.	.	.	.	.	.
.34	1800.	C .I LE	.	.	.	.	.	.	.	.
	1850.	C .IRL E	.	.	.	.	.	.	.	.
	1900.	C .IRL E	.	.	.	.	.	.	.	.
	1950.	C . IRLE	.	.	.	.	.	.	.	.
	2000.	C . IRL E	.	.	.	.	.	.	.	.
	2050.	C . I L E	.	.	.	.	.	.	.	.
.40	2100.	. . IL E	.	.	.	.	.	.	.	.
	2150.	C . ILRWE	.	.	.	.	.	.	.	.
	2200.	C . ILR E	.	.	.	.	.	.	.	.
	2250.	C . ILR E	.	.	.	.	.	.	.	.
	2300.	C . ILR E	.	.	.	.	.	.	.	.
	2350.	C . I LR E	.	.	.	.	.	.	.	.
	2400.	C . I LR WE	.	.	.	.	.	.	.	.
	2450.	C . I LMR E	.	.	.	.	.	.	.	.

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     2500.  C        . I L R E .        .        .        .        .        .        .        .
.48  2550.  C        . I L R E .        .        .        .        .        .        .        .
     2600.  C        .  IL R E .        .        .        .        .        .        .        .
     2650.  C        .  IL R E .        .        .        .        .        .        .        .
     2700.  C        .  I LR WE.        .        .        .        .        .        .        .
     2750.  C        .  I LRM E.        .        .        .        .        .        .        .
     2800.  C        .   ILRM E.        .        .        .        .        .        .        .
     2850.  C        .   ILRM E.        .        .        .        .        .        .        .
.55  2900.  C        .   I L ME.        .        .        .        .        .        .        .
     2950.  C        .    IL ME.        .        .        .        .        .        .        .
     3000.  C        .    I LM E        .        .        .        .        .        .        .
     3050.  C        .     ILM E        .        .        .        .        .        .        .
     3100.  C        .     IL ME        .        .        .        .        .        .        .
     3150.  C        .      ILMWE       .        .        .        .        .        .        .
     3200.  C        .      ILM.E       .        .        .        .        .        .        .
     3250.  C        .       ILME       .        .        .        .        .        .        .
     3300.  C        .       ILMWE      .        .        .        .        .        .        .
.63  3350.  .        .       ILMCE      .        .        .        .        .        .        .
     3400.  C        .        IL E      .        .        .        .        .        .        .
     3450.  C        .        ILMWE     .        .        .        .        .        .        .
     3500.  C        .         IM E     .        .        .        .        .        .        .
     3550.  C        .         ILME     .        .        .        .        .        .        .
     3600.  C        .         ILM E    .        .        .        .        .        .        .
     3650.  C        .         .IRME    .        .        .        .        .        .        .
     3700.  C        .         .ILMWE   .        .        .        .        .        .        .
.70  3750.  C        .         . I ME   .        .        .        .        .        .        .
     3800.  C        .         . ILME   .        .        .        .        .        .        .
     3850.  C        .         . IL ME  .        .        .        .        .        .        .
     3900.  C        .         .  ILME  .        .        .        .        .        .        .
     3950.  C        .         .  IRL E .        .        .        .        .        .        .
     4000.  C        .         .   ILME .        .        .        .        .        .        .
     4050.  C        .         .   IRLWE .       .        .        .        .        .        .
     4100.  C        .         .    I LE .       .        .        .        .        .        .
     4150.  C        .         .    IRLWE.       .        .        .        .        .        .
.79  4200.  C        .         .    IR LE.       .        .        .        .        .        .
     4250.  C        .         .     IRLWE       .        .        .        .        .        .
     4300.  C        .         .     IR LE       .        .        .        .        .        .
     4350.  C        .         .      IRLWE      .        .        .        .        .        .
     4400.  C        .         .      I L.E      .        .        .        .        .        .
     4450.  C        .         .       IRL E     .        .        .        .        .        .
     4500.  C        .         .       I L E     .        .        .        .        .        .
     4550.  C        .         .        IRL E    .        .        .        .        .        .
.87  4600.  C        .         .        I.L WE   .        .        .        .        .        .
     4650.  C        .         .         IRL E   .        .        .        .        .        .
     4700.  C        .         .         I L E   .        .        .        .        .        .
     4750.  C        .         .         .IL  E  .        .        .        .        .        .
     4800.  C        .         .         .IRL E  .        .        .        .        .        .
     4850.  C        .         .         .I L WE .        .        .        .        .        .
     4900.  C        .         .         . IL  E .        .        .        .        .        .
     4950.  C        .         .         . IL  E .        .        .        .        .        .
     5000.  C        .         .         .  IL  E .       .        .        .        .        .
.95  5050.  C        .         .         .  IL  E .       .        .        .        .        .
     5100.  C        .         .         .  IL  E .       .        .        .        .        .
     5150.  C        .         .         .  ILR WE .      .        .        .        .        .
     5200.  C        .         .         .   IL  E .      .        .        .        .        .
     5250.  C        .         .         .   IL  E .      .        .        .        .        .
     5300.  C        .         .         .   ILM E .      .        .        .        .        .
     5350.  C        .         .         .   ILR  E.      .        .        .        .        .
     5400.  C        .         .         .    IL  E.      .        .        .        .        .
1.03 5450.  C        .         .         .    ILM E.      .        .        .        .        .
     5500.  C        .         .         .    ILR  E      .        .        .        .        .
     5550.  C        .         .         .     IL  E      .        .        .        .        .
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      5600. C     .     .     .   ILM E     .     .     .     .     .     .
      5650. C     .     .     .    IL E     .     .     .     .     .     .
      5700. C     .     .     .   ILMWE     .     .     .     .     .     .
      5750. C     .     .     .   IRL.E     .     .     .     .     .     .
      5800. C     .     .     .    ILME     .     .     .     .     .     .
      5850. C     .     .     .    IRLE     .     .     .     .     .     .
 1.11 5900. C     .     .     .     ILWE     .     .     .     .     .     .
      5950. C     .     .     .     IRLE     .     .     .     .     .     .
      6000. C     .     .     .      ILWE     .     .     .     .     .     .
      6050. C     .     .     .      IRLE     .     .     .     .     .     .
      6100. C     .     .     .      .ILWE     .     .     .     .     .     .
      6150. C     .     .     .      . ILE     .     .     .     .     .     .
      6200. C     .     .     .      . ILWE     .     .     .     .     .     .
      6250. C     .     .     .      .  ILE     .     .     .     .     .     .
      6300. C     .     .     .      .  ILWE     .     .     .     .     .     .
      6350. C     .     .     .      .   ILE     .     .     .     .     .     .
 1.21 6400. C     .     .     .      .    IWE     .     .     .     .     .     .
      6450. C     .     .     .      .    ILE     .     .     .     .     .     .
      6500. C     .     .     .      .    ILWE     .     .     .     .     .     .
      6550. C     .     .     .      .     ILE     .     .     .     .     .     .
      6600. C     .     .     .      .     ILE     .     .     .     .     .     .
      6650. C     .     .     .      .     IL E.     .     .     .     .     .
      6700. C     .     .     .      .      ILE.     .     .     .     .     .
      6750. C     .     .     .      .      IL E     .     .     .     .     .
      6800. C     .     .     .      .      IRLE     .     .     .     .     .
 1.29 6850. C     .     .     .      .      IRL.E     .     .     .     .     .
      6900. C     .     .     .      .       IL.E     .     .     .     .     .
      6950. C     .     .     .      .       ILME     .     .     .     .     .
      7000. C     .     .     .      .       IRLE     .     .     .     .     .
      7050. C     .     .     .      .        ILE     .     .     .     .     .
      7100. C     .     .     .      .        ILME     .     .     .     .     .
      7150. C     .     .     .      .        ILME     .     .     .     .     .
      7200. C     .     .     .      .         IME     .     .     .     .     .
      7250. C     .     .     .      .         ILE     .     .     .     .     .
      7300. C     .     .     .      .         ILE     .     .     .     .     .
      7350. C     .     .     .      .         .IE     .     .     .     .     .
      7400. C     .     .     .      .         .I E     .     .     .     .     .
      7450. C     .     .     .      .         .I E     .     .     .     .     .
 1.41 7500. C     .     .     .      .         .ILE     .     .     .     .     .
      7550. C     .     .     .      .         .ILE     .     .     .     .     .
      7600. C     .     .     .      .         .I E     .     .     .     .     .
      7650. C     .     .     .      .         .I E     .     .     .     .     .
      7700. C     .     .     .      .         .I E     .     .     .     .     .
      7750. C     .     .     .      .         .I ME     .     .     .     .     .
 1.47 7800. C     .     .     .      .         .I ME     .     .     .     .     .
      7850. C     .     .     .      .         .I ME     .     .     .     .     .
      7900. C     .     .     .      .         .ILME     .     .     .     .     .
      7950. C     .     .     .      .         .ILME     .     .     .     .     .
      8000. C     .     .     .      .         .ILME     .     .     .     .     .
      8050. C     .     .     .      .         .ILME     .     .     .     .     .
      8100. C     .     .     .      .         .I LE     .     .     .     .     .
      8150. C     .     .     .      .         . ILE     .     .     .     .     .
 1.55 8200. C     .     .     .      .         . ILWE     .     .     .     .     .
      8250. C     .     .     .      .         . ILME     .     .     .     .     .
      8300. C     .     .     .      .         .  ILE     .     .     .     .     .
      8350. C     .     .     .      .         .  ILE     .     .     .     .     .
      8400. C     .     .     .      .         .  ILME     .     .     .     .     .
      8450. C     .     .     .      .         .   ILE     .     .     .     .     .
      8500. C     .     .     .      .         .   ILE     .     .     .     .     .
      8550. C     .     .     .      .         .   IL E     .     .     .     .     .
      8600. C     .     .     .      .         .    I E     .     .     .     .     .
 1.63 8650. .     .     .     .      .         .    ICE     .     .     .     .     .
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      8700.  C     .     .     .     .     .  ILWE .     .     .     .     .
      8750.  C     .     .     .     .     .   ILE .     .     .     .     .
      8800.  C     .     .     .     .     .   ILEM.     .     .     .     .
      8850.  C     .     .     .     .     .   IRLE.     .     .     .     .
      8900.  C     .     .     .     .     .    ILE.     .     .     .     .
      8950.  C     .     .     .     .     .    IRLE     .     .     .     .
1.70  9000.  C     .     .     .     .     .     IRE     .     .     .     .
      9050.  C     .     .     .     .     .     IRLE    .     .     .     .
      9100.  C     .     .     .     .     .      IRE    .     .     .     .
      9150.  C     .     .     .     .     .      IRWE   .     .     .     .
      9200.  C     .     .     .     .     .      IR E   .     .     .     .
      9250.  C     .     .     .     .     .       IREM  .     .     .     .
      9300.  C     .     .     .     .     .       IR E  .     .     .     .
      9350.  C     .     .     .     .     .       .I E  .     .     .     .
1.78  9400.  C     .     .     .     .     .       .IR E .     .     .     .
      9450.  C     .     .     .     .     .       . I EM .     .     .     .
      9500.  C     .     .     .     .     .       . IREL .     .     .     .
      9550.  C     .     .     .     .     .       .  I EM .     .     .     .
      9600.  C     .     .     .     .     .       .  IRELM .     .     .     .
      9650.  C     .     .     .     .     .       .   I E M .     .     .     .
      9700.  C     .     .     .     .     .       .   IRELM .     .     .     .
      9750.  C     .     .     .     .     .       .    I E M.     .     .     .
1.85  9800.  C     .     .     .     .     .       .    IREL M     .     .     .
      9850.  C     .     .     .     .     .       .    IREL M     .     .     .
      9900.  C     .     .     .     .     .       .     IRE .M    .     .     .
      9950.  C     .     .     .     .     .       .     IRE . M   .     .     .
     10000.  C     .     .     .     .     .       .      IE .  M  .     .     .
     10050.  C     .     .     .     .     .       .      ILE.   M .     .     .
1.90 10100.  C     .     .     .     .     .       .      ILE.   M .     .     .
     10150.  C     .     .     .     .     .       .       ILE    M .     .     .
     10200.  C     .     .     .     .     .       .        ILE   M .     .     .
     10250.  C     .     .     .     .     .       .         .IE   M .     .     .
     10300.  C     .     .     .     .     .       .         . IE  M .     .     .
     10350.  C     .     .     .     .     .       .          . IWE M .     .     .
     10400.  C     .     .     .     .     .       .           . IWEM .     .     .
1.98 10450.  .     .     .     .     .     .       .             IWE .     .     .
     10500.  C     .     .     .     .     .       .             IREL.     .     .
     10550.  C     .     .     .     .     .       .              IRE.     .     .
     10600.  C     .     .     .     .     .       .              IREL     .     .
     10650.  C     .     .     .     .     .       .               I E     .     .
     10700.  C     .     .     .     .     .       .               IREL    .     .
     10750.  C     .     .     .     .     .       .                I.EL   .     .
     10800.  C     .     .     .     .     .       .                IR E   .     .
2.05 10850.  C     .     .     .     .     .       .                 I EL  .     .
     10900.  C     .     .     .     .     .       .                 IR E  .     .
     10950.  C     .     .     .     .     .       .                 .I EM .     .
     11000.  C     .     .     .     .     .       .                 .IREM .     .
     11050.  C     .     .     .     .     .       .                 . ILEM .     .
     11100.  C     .     .     .     .     .       .                 . IREM .     .
2.11 11150.  C     .     .     .     .     .       .                  . ILEM .     .
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T2
T3

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		3			.0030				1110	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15									

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= .100 CEHV= .300
*SECNO .000
3280 CROSS SECTION .00 EXTENDED .89 FEET

BREAKOUT FLOWS OVER THE RAILROAD,ALONG THE LENGTH OF THE WASH,
WILL CONTINUE OVERLAND TO THE SOUTHEAST AS SHEET FLOW.

Q1 = Q AT CP183 (= 1078 CFS.)

.000	1.59	1109.69	.00	1110.00	1109.78	.09	.00	.00	1108.80
500.0	.0	345.2	154.8	.0	121.9	177.8	.0	.0	1108.40
.00	.00	2.83	.87	.000	.035	.070	.000	1108.10	9960.00
.003008	0.	0.	0.	0	0	5	.00	364.86	10324.86

*SECNO .087
CROSS SECTION .09 EXTENDED .86 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .65

Q1 = Q AT 1I183 + ROUTED FLOW FROM SUB. 168 TO SUB. 183
(= 527 + 369 = 896 CFS.)

.087	1.36	1110.86	.00	.00	1110.90	.05	1.12	.00	1110.00
250.0	.0	201.8	48.2	.0	105.4	94.2	2.5	3.3	1110.00
.08	.00	1.91	.51	.000	.035	.070	.000	1109.50	9975.00
.001793	460.	460.	410.	2	0	0	.00	314.14	10289.14

*SECNO .182
3280 CROSS SECTION .18 EXTENDED .79 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .44

.182	1.19	1112.49	.00	.00	1112.67	.17	1.73	.04	1111.70
250.0	.0	160.4	89.6	.0	39.7	73.5	4.3	6.4	1111.70
.12	.00	4.04	1.22	.000	.035	.070	.000	1111.30	9985.00
.009364	500.	500.	490.	3	0	0	.00	233.29	10218.29

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .267
3280 CROSS SECTION .27 EXTENDED .84 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.37

Q1 =20% ROUTED DIVERSION FROM SUB. 167 TO SUB. 183 + 20% OF
HYDROGRAPH AT SUB. 183 + DIVERTED FLOW FROM SUB. 168 TO SUB. 183
=[.2 (527) + .2 (258) + 369] = 526 CFS.

.267	1.53	1114.13	.00	.00	1114.16	.03	1.49	.01	1113.30
250.0	.0	114.8	135.2	.0	57.1	213.0	6.2	9.8	1113.00
.22	.00	2.01	.63	.000	.035	.070	.000	1112.60	9980.00
.001669	450.	450.	450.	5	0	0	.00	418.33	10398.33

*SECNO .339
3280 CROSS SECTION .34 EXTENDED .43 FEET

.339	1.42	1114.82	.00	.00	1114.84	.02	.68	.00	1114.40
250.0	.0	89.3	160.7	.0	47.1	231.4	8.6	13.6	1113.80
.31	.00	1.89	.69	.000	.035	.070	.000	1113.40	9970.00
.001896	380.	380.	380.	4	0	0	.00	450.53	10420.53

*SECNO .396
3280 CROSS SECTION .40 EXTENDED .50 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .44

A CROSS-SECTION AT PEORIA AV.

Q1 = Q AT CP168 (= 515 CFS.)

.396	1.30	1115.80	1115.77	.00	1115.98	.19	1.10	.05	1115.30
250.0	.0	193.7	56.3	.0	49.7	60.8	10.0	16.2	1115.30
.34	.00	3.90	.93	.000	.035	.070	.000	1114.50	9965.00
.009760	300.	300.	300.	8	12	0	.00	306.10	10271.10

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .477
3280 CROSS SECTION .48 EXTENDED .76 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.93

.477	2.46	1116.66	.00	.00	1116.69	.03	.69	.02	1114.90
250.0	19.1	208.3	22.6	31.4	133.2	88.9	11.8	19.5	1116.00
.43	.61	1.56	.25	.070	.035	.070	.000	1114.20	9945.00
.000631	430.	430.	430.	5	0	0	.00	370.85	10315.85

*SECNO .545
3280 CROSS SECTION .55 EXTENDED .12 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .55

Q1 = {[(ROUTED DIVERSION FROM SUB. 151 TO SUB. 168 + HYDROGRAPH
AT SUB. 168)= Q AT 1I168] + ROUTED FLOW FROM SUB.152 TO SUB.168}
={[330]+ 312 }= 642 CFS > {Q AT CP168 = 515 CFS}. USE Q =515 CFS

.545	1.72	1117.02	.00	.00	1117.08	.06	.38	.01	1116.00
250.0	11.5	165.3	73.2	17.1	68.5	117.3	13.7	22.3	1116.00
.48	.67	2.41	.62	.070	.035	.070	.000	1115.30	9950.00
.002119	360.	360.	360.	3	0	0	.00	309.72	10259.72

*SECNO .629
3280 CROSS SECTION .63 EXTENDED .39 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .57

.629	1.19	1118.49	1118.32	.00	1118.60	.11	1.51	.01	1117.80
250.0	44.8	154.4	50.8	37.7	47.1	54.7	15.4	25.3	1117.80
.53	1.19	3.28	.93	.070	.035	.070	.000	1117.30	9915.00
.006467	440.	440.	440.	15	14	0	.00	274.29	10189.29

*SECNO .705

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3280 CROSS SECTION .70 EXTENDED .23 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.56

.705	1.23	1120.13	.00	.00	1120.19	.06	1.58	.00	1119.10
250.0	10.1	171.0	68.9	12.6	72.5	97.0	16.9	27.8	1119.20
.59	.80	2.36	.71	.070	.035	.070	.000	1118.90	9935.00
.002668	400.	400.	400.	3	0	0	.00	287.55	10222.55

*SECNO .790
3280 CROSS SECTION .79 EXTENDED .10 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .54

.790	1.30	1122.10	.00	.00	1122.23	.13	2.02	.02	1122.00
250.0	.0	152.3	97.7	.0	42.1	82.4	18.4	30.6	1121.30
.64	.00	3.61	1.19	.000	.035	.070	.000	1120.80	9970.00
.009137	450.	450.	450.	3	0	0	.00	248.48	10218.48

*SECNO .867
3280 CROSS SECTION .87 EXTENDED .68 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.60

.867	1.58	1124.38	.00	.00	1124.46	.08	2.22	.00	1123.70
250.0	.0	162.7	87.3	.0	58.3	101.4	19.8	33.0	1123.50
.69	.00	2.79	.86	.000	.035	.070	.000	1122.80	9970.00
.003581	410.	410.	410.	4	0	0	.00	262.49	10232.49

*SECNO .949
3280 CROSS SECTION .95 EXTENDED .93 FEET

Q1 = {ROUTED DIVRSION FROM SUB. 151 TO SUB. SUB.168 + 50% OF
HYDROGRAPH AT SUB.168 + ROUTED FLOW FROM SUB. 152 TO SUB. 168}
= {199 +.5 (340) + 312} = 681 CFS > {Q AT CP168 = 515 CFS}.
USE Q = 515 CFS.

.949	1.44	1126.04	.00	.00	1126.13	.10	1.67	.00	1125.10
250.0	.0	161.9	88.1	.0	53.2	104.0	21.3	35.6	1125.10
.75	.00	3.04	.85	.000	.035	.070	.000	1124.60	9980.00
.004211	430.	430.	430.	4	0	0	.00	267.64	10247.64

*SECNO 1.028
3280 CROSS SECTION 1.03 EXTENDED .89 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.42

1.028	1.69	1127.29	.00	.00	1127.34	.05	1.21	.00	1126.00
250.0	5.0	145.7	99.2	5.5	61.3	153.1	23.2	38.5	1126.20
.82	.92	2.38	.65	.070	.035	.070	.000	1125.60	9980.00
.002082	420.	420.	420.	3	0	0	.00	329.72	10309.72

*SECNO 1.114
3280 CROSS SECTION 1.11 EXTENDED .16 FEET

1.114	1.06	1128.46	.00	.00	1128.48	.02	1.14	.00	1128.30
250.0	.0	76.7	173.3	.0	38.5	233.5	25.7	43.2	1127.80
.93	.00	1.99	.74	.000	.035	.070	.000	1127.40	9980.00
.003123	450.	450.	450.	4	0	0	.00	570.97	10550.97

*SECNO 1.208
3280 CROSS SECTION 1.21 EXTENDED .34 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .52

1.208	.74	1131.14	.00	.00	1131.20	.06	2.71	.01	1130.80
250.0	.0	73.4	176.6	.0	23.2	154.2	28.3	49.5	1130.60
1.01	.00	3.17	1.15	.000	.035	.070	.000	1130.40	9975.00
.011634	500.	500.	500.	3	0	0	.00	541.07	10516.07

*SECNO 1.291
3280 CROSS SECTION 1.29 EXTENDED .48 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.26

1.291	1.28	1133.08	.00	.00	1133.11	.03	1.90	.00	1132.60
250.0	.0	82.9	167.1	.0	40.8	275.5	30.7	56.0	1132.30
1.12	.00	2.03	.61	.000	.035	.070	.000	1131.80	9980.00
.002271	435.	435.	435.	3	0	0	.00	744.72	10724.72

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.412

A CROSS-SECTION AT CACTUS RD.

Q1 = Q AT CP152 (= 320 CFS.)

1.412	.75	1134.55	.00	.00	1134.57	.02	1.46	.00	1133.90
320.0	123.5	50.5	145.9	166.1	28.2	196.2	35.3	65.6	1133.90
1.29	.74	1.79	.74	.070	.035	.070	.000	1133.80	9641.88
.002828	540.	640.	550.	5	0	0	.00	777.10	10418.98

*SECNO 1.471
3280 CROSS SECTION 1.47 EXTENDED .42 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.13

1.471	1.52	1134.92	.00	.00	1134.93	.01	.36	.00	1133.70
320.0	125.9	71.8	122.4	229.4	54.8	273.5	38.6	70.8	1133.70
1.42	.55	1.31	.45	.070	.035	.070	.000	1133.40	9760.00
.000626	310.	310.	310.	3	0	0	.00	669.04	10429.04

*SECNO 1.550
3280 CROSS SECTION 1.55 EXTENDED .33 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .34

Q1 = 80% OF HYDROGRAPH AT SUB. 152 [= .8 (284) = 228 CFS.]

1.550	1.34	1135.34	.00	.00	1135.36	.02	.43	.00	1134.70
228.0	135.2	52.6	40.2	125.5	29.3	78.5	42.5	76.0	1134.70
1.52	1.08	1.79	.51	.070	.035	.070	.000	1134.00	9850.00
.002699	420.	420.	420.	2	0	0	.00	418.25	10268.25

*SECNO 1.632

1.632	1.03	1136.63	.00	.00	1136.66	.03	1.30	.00	1135.90
228.0	35.4	73.3	119.3	41.8	33.3	147.3	44.7	80.2	1135.90
1.62	.85	2.20	.81	.070	.035	.070	.000	1135.60	9902.79
.003429	430.	430.	430.	4	0	0	.00	432.27	10335.06

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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 1.704
   1.704      1.18   1138.18       .00       .00   1138.23       .05      1.56       .01   1138.00
   228.0       .2     120.6     107.3        .5      50.1     131.6      46.5      84.1   1137.50
    1.68       .30      2.40       .81      .070      .035      .070      .000   1137.00   9943.98
  .005008     380.      380.      380.         2         0         0       .00    452.13  10396.11


*SECNO 1.779
   1.779      1.29   1139.89       .00       .00   1139.93       .04      1.69       .00   1140.00
   228.0        .0      98.5     129.5        .0      43.5     162.1      48.2      87.9   1138.90
    1.76       .00      2.26       .80      .000      .035      .070      .000   1138.60   9967.79
  .003623     400.      400.      400.         2         0         0       .00    380.23  10348.02


*SECNO 1.853

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .50


               Q1 = 50% OF  HYDROGRAPH AT SUB. 152     [= .5 (284) = 142 CFS.]

   1.853       .94   1141.54       .00       .00   1141.57       .04      1.65       .00   1142.00
   142.0        .0      54.9      87.1        .0      24.3     114.2      49.8      91.4   1141.00
    1.84       .00      2.26       .76      .000      .035      .070      .000   1140.60   9979.84
  .005539     390.      390.      390.         2         0         0       .00    395.94  10375.78


*SECNO 1.904

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.41

   1.904       .83   1142.53       .00       .00   1142.58       .04      1.00       .00   1142.00
   142.0       2.5     125.1      14.4       5.4      71.8      31.0      50.5      93.2   1142.00
    1.88       .46      1.74       .46      .070      .035      .070      .000   1141.70   9939.97
  .002789     270.      270.      250.         4         0         0       .00    241.21  10181.18


*SECNO 1.978
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   1.978       .83   1146.83   1146.83       .00   1146.91       .08      2.06       .01   1147.20
   142.0        .0      64.2      77.8        .0      19.7      93.6      51.5      96.7   1146.40
    1.94       .00      3.26       .83      .000      .035      .070      .000   1146.00   9982.76
  .013844     390.      390.      380.        20         6         0       .00    560.01  10542.77
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.054

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.15

2.054	1.17	1149.17	.00	.00	1149.20	.03	2.29	.00	1149.40
142.0	.0	64.2	77.8	.0	31.0	108.9	52.7	100.7	1148.20
2.03	.00	2.07	.71	.000	.035	.070	.000	1148.00	9983.37
.002991	400.	400.	420.	5	0	0	.00	262.61	10245.98

*SECNO 2.111

2.111	.87	1150.37	.00	.00	1150.44	.07	1.23	.01	1150.00
142.0	.8	110.7	30.5	1.4	46.1	44.2	53.5	102.6	1149.90
2.07	.52	2.40	.69	.070	.035	.070	.000	1149.50	9962.41
.005601	290.	300.	320.	4	0	0	.00	253.52	10215.93

PROFILE FOR STREAM

PLOTTED POINTS (BY PRIORITY) E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA

ELEVATION	1108.	1113.	1118.	1123.	1128.	1133.	1138.	1143.	1148.	1153.
SECNO	CUMDIS									
.00	0.	IL E	.	.	.	.	.	.	.	.	.
	50.	IRLWE	.	.	.	.	.	.	.	.	.
	100.	CIL E	.	.	.	.	.	.	.	.	.
	150.	CIL E	.	.	.	.	.	.	.	.	.
	200.	CIL E	.	.	.	.	.	.	.	.	.
	250.	C ILWE	.	.	.	.	.	.	.	.	.
	300.	C IL E	.	.	.	.	.	.	.	.	.
	350.	C IL E	.	.	.	.	.	.	.	.	.
	400.	C IL E	.	.	.	.	.	.	.	.	.
	450.	C ILWE	.	.	.	.	.	.	.	.	.
.09	500.	C IL E	.	.	.	.	.	.	.	.	.
	550.	C IL E	.	.	.	.	.	.	.	.	.
	600.	C I E	.	.	.	.	.	.	.	.	.
	650.	C ILWE	.	.	.	.	.	.	.	.	.
	700.	C IL E	.	.	.	.	.	.	.	.	.
	750.	C ILE	.	.	.	.	.	.	.	.	.
	800.	C ILWE	.	.	.	.	.	.	.	.	.
	850.	C IL E	.	.	.	.	.	.	.	.	.
	900.	C ILE	.	.	.	.	.	.	.	.	.
	950.	C ILWE.	.	.	.	.	.	.	.	.	.
.18	1000.	C IL E.	.	.	.	.	.	.	.	.	.
	1050.	C ILE.	.	.	.	.	.	.	.	.	.
	1100.	C IL E	.	.	.	.	.	.	.	.	.
	1150.	C IL E	.	.	.	.	.	.	.	.	.
	1200.	C ILE	.	.	.	.	.	.	.	.	.
	1250.	C IL.E	.	.	.	.	.	.	.	.	.
	1300.	C IL.E	.	.	.	.	.	.	.	.	.
	1350.	C IRLE	.	.	.	.	.	.	.	.	.
	1400.	C IL E	.	.	.	.	.	.	.	.	.
.27	1450.	C IL E	.	.	.	.	.	.	.	.	.
	1500.	C IRLE	.	.	.	.	.	.	.	.	.
	1550.	C IRLE	.	.	.	.	.	.	.	.	.
	1600.	C IL E	.	.	.	.	.	.	.	.	.
	1650.	C IRLE	.	.	.	.	.	.	.	.	.
	1700.	C IRLE	.	.	.	.	.	.	.	.	.
	1750.	C IRLE	.	.	.	.	.	.	.	.	.
.34	1800.	C .I E	.	.	.	.	.	.	.	.	.
	1850.	C .IRLE	.	.	.	.	.	.	.	.	.
	1900.	C .IRLE	.	.	.	.	.	.	.	.	.
	1950.	C . IRWE	.	.	.	.	.	.	.	.	.
	2000.	C . IRLE	.	.	.	.	.	.	.	.	.
	2050.	C . I LE	.	.	.	.	.	.	.	.	.
.40	2100.	. . ILWE	.	.	.	.	.	.	.	.	.
	2150.	C . ILRE	.	.	.	.	.	.	.	.	.
	2200.	C . ILRE	.	.	.	.	.	.	.	.	.
	2250.	C . ILRE	.	.	.	.	.	.	.	.	.
	2300.	C . ILRE	.	.	.	.	.	.	.	.	.
	2350.	C . I LRWE	.	.	.	.	.	.	.	.	.
	2400.	C . I LR E	.	.	.	.	.	.	.	.	.
	2450.	C . I LMRE	.	.	.	.	.	.	.	.	.

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      2500.  C        . I L RE  .         .         .         .         .         .         .         .         .
 .48  2550.  C        . I L RE  .         .         .         .         .         .         .         .         .
      2600.  C        .  IL RE  .         .         .         .         .         .         .         .         .
      2650.  C        .  IL RE  .         .         .         .         .         .         .         .         .
      2700.  C        .  I LRWE .         .         .         .         .         .         .         .         .
      2750.  C        .  I LRME .         .         .         .         .         .         .         .         .
      2800.  C        .   ILRME .         .         .         .         .         .         .         .         .
      2850.  C        .   ILRME .         .         .         .         .         .         .         .         .
 .55  2900.  C        .   I L E .         .         .         .         .         .         .         .         .
      2950.  C        .    IL E .         .         .         .         .         .         .         .         .
      3000.  C        .    I LME.         .         .         .         .         .         .         .         .
      3050.  C        .     ILME.         .         .         .         .         .         .         .         .
      3100.  C        .     IL E.         .         .         .         .         .         .         .         .
      3150.  C        .      ILME         .         .         .         .         .         .         .         .
      3200.  C        .      ILME         .         .         .         .         .         .         .         .
      3250.  C        .       ILE         .         .         .         .         .         .         .         .
      3300.  C        .       ILME        .         .         .         .         .         .         .         .
 .63  3350.  .        .       ILCE        .         .         .         .         .         .         .         .
      3400.  C        .        ILE        .         .         .         .         .         .         .         .
      3450.  C        .        ILME       .         .         .         .         .         .         .         .
      3500.  C        .         IME       .         .         .         .         .         .         .         .
      3550.  C        .         ILWE      .         .         .         .         .         .         .         .
      3600.  C        .         ILME      .         .         .         .         .         .         .         .
      3650.  C        .         .IRE      .         .         .         .         .         .         .         .
      3700.  C        .         .ILME     .         .         .         .         .         .         .         .
 .70  3750.  C        .         . I E     .         .         .         .         .         .         .         .
      3800.  C        .         . ILWE    .         .         .         .         .         .         .         .
      3850.  C        .         . IL E    .         .         .         .         .         .         .         .
      3900.  C        .         .  ILWE   .         .         .         .         .         .         .         .
      3950.  C        .         .  IRLE   .         .         .         .         .         .         .         .
      4000.  C        .         .   ILE   .         .         .         .         .         .         .         .
      4050.  C        .         .   IRLE  .         .         .         .         .         .         .         .
      4100.  C        .         .    I E  .         .         .         .         .         .         .         .
      4150.  C        .         .    IRLE .         .         .         .         .         .         .         .
 .79  4200.  C        .         .    IR E .         .         .         .         .         .         .         .
      4250.  C        .         .     IRLE.         .         .         .         .         .         .         .
      4300.  C        .         .     IR E.         .         .         .         .         .         .         .
      4350.  C        .         .      IRLE         .         .         .         .         .         .         .
      4400.  C        .         .      I LE         .         .         .         .         .         .         .
      4450.  C        .         .       IRLE        .         .         .         .         .         .         .
      4500.  C        .         .       I LWE       .         .         .         .         .         .         .
      4550.  C        .         .        IRLE       .         .         .         .         .         .         .
 .87  4600.  C        .         .        I.L E      .         .         .         .         .         .         .
      4650.  C        .         .         IRLE      .         .         .         .         .         .         .
      4700.  C        .         .         I LE      .         .         .         .         .         .         .
      4750.  C        .         .         .IL E     .         .         .         .         .         .         .
      4800.  C        .         .         .IRLE     .         .         .         .         .         .         .
      4850.  C        .         .         .I LWE    .         .         .         .         .         .         .
      4900.  C        .         .         . IL E    .         .         .         .         .         .         .
      4950.  C        .         .         . IL E    .         .         .         .         .         .         .
      5000.  C        .         .         .  IL E   .         .         .         .         .         .         .
 .95  5050.  C        .         .         .  IL E   .         .         .         .         .         .         .
      5100.  C        .         .         .  IL E   .         .         .         .         .         .         .
      5150.  C        .         .         .  ILRWE  .         .         .         .         .         .         .
      5200.  C        .         .         .   IL E  .         .         .         .         .         .         .
      5250.  C        .         .         .   IL E  .         .         .         .         .         .         .
      5300.  C        .         .         .   ILMWE .         .         .         .         .         .         .
      5350.  C        .         .         .   ILR E .         .         .         .         .         .         .
      5400.  C        .         .         .    IL E .         .         .         .         .         .         .
1.03  5450.  C        .         .         .    ILME .         .         .         .         .         .         .
      5500.  C        .         .         .    ILR E.         .         .         .         .         .         .
      5550.  C        .         .         .     IL E.         .         .         .         .         .         .
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      5600.  C     .     .     .   ILME.     .     .     .     .     .     .
      5650.  C     .     .     .    ILE.     .     .     .     .     .     .
      5700.  C     .     .     .    ILME     .     .     .     .     .     .
      5750.  C     .     .     .    IRLE     .     .     .     .     .     .
      5800.  C     .     .     .     ILE     .     .     .     .     .     .
      5850.  C     .     .     .     IRWE    .     .     .     .     .     .
1.11  5900.  C     .     .     .      ILE    .     .     .     .     .     .
      5950.  C     .     .     .      IRE    .     .     .     .     .     .
      6000.  C     .     .     .       ILE   .     .     .     .     .     .
      6050.  C     .     .     .       IRE   .     .     .     .     .     .
      6100.  C     .     .     .       .ILE  .     .     .     .     .     .
      6150.  C     .     .     .       . IE  .     .     .     .     .     .
      6200.  C     .     .     .       . ILE .     .     .     .     .     .
      6250.  C     .     .     .       .  IWE .     .     .     .     .     .
      6300.  C     .     .     .       .  ILE .     .     .     .     .     .
      6350.  C     .     .     .       .   ILE .     .     .     .     .     .
1.21  6400.  C     .     .     .       .    IE .     .     .     .     .     .
      6450.  C     .     .     .       .    ILE .     .     .     .     .     .
      6500.  C     .     .     .       .    ILE .     .     .     .     .     .
      6550.  C     .     .     .       .     IWE .     .     .     .     .     .
      6600.  C     .     .     .       .     ILE .     .     .     .     .     .
      6650.  C     .     .     .       .     ILE .     .     .     .     .     .
      6700.  C     .     .     .       .      ILE.     .     .     .     .     .
      6750.  C     .     .     .       .      ILE.     .     .     .     .     .
      6800.  C     .     .     .       .      IRLE     .     .     .     .     .
1.29  6850.  C     .     .     .       .      IRLE     .     .     .     .     .
      6900.  C     .     .     .       .       ILE     .     .     .     .     .
      6950.  C     .     .     .       .       ILE     .     .     .     .     .
      7000.  C     .     .     .       .       IRLE    .     .     .     .     .
      7050.  C     .     .     .       .        ILE    .     .     .     .     .
      7100.  C     .     .     .       .        ILE    .     .     .     .     .
      7150.  C     .     .     .       .        ILE    .     .     .     .     .
      7200.  C     .     .     .       .         IME   .     .     .     .     .
      7250.  C     .     .     .       .         ILE   .     .     .     .     .
      7300.  C     .     .     .       .         ILE   .     .     .     .     .
      7350.  C     .     .     .       .         .IE   .     .     .     .     .
      7400.  C     .     .     .       .         .I E  .     .     .     .     .
      7450.  C     .     .     .       .         .I E  .     .     .     .     .
1.41  7500.  C     .     .     .       .         .ILE  .     .     .     .     .
      7550.  C     .     .     .       .         .ILE  .     .     .     .     .
      7600.  C     .     .     .       .         .I E  .     .     .     .     .
      7650.  C     .     .     .       .         .I E  .     .     .     .     .
      7700.  C     .     .     .       .         .I E  .     .     .     .     .
      7750.  C     .     .     .       .         .I ME .     .     .     .     .
1.47  7800.  C     .     .     .       .         .I ME .     .     .     .     .
      7850.  C     .     .     .       .         .I ME .     .     .     .     .
      7900.  C     .     .     .       .         .ILME .     .     .     .     .
      7950.  C     .     .     .       .         .ILME .     .     .     .     .
      8000.  C     .     .     .       .         .ILME .     .     .     .     .
      8050.  C     .     .     .       .         .ILME .     .     .     .     .
      8100.  C     .     .     .       .         .I LE .     .     .     .     .
      8150.  C     .     .     .       .         . ILE .     .     .     .     .
1.55  8200.  C     .     .     .       .         . ILWE .     .     .     .     .
      8250.  C     .     .     .       .         . ILME .     .     .     .     .
      8300.  C     .     .     .       .         .  ILE .     .     .     .     .
      8350.  C     .     .     .       .         .  ILE .     .     .     .     .
      8400.  C     .     .     .       .         .  ILME .     .     .     .     .
      8450.  C     .     .     .       .         .   ILE .     .     .     .     .
      8500.  C     .     .     .       .         .   ILE .     .     .     .     .
      8550.  C     .     .     .       .         .   IL E .     .     .     .     .
      8600.  C     .     .     .       .         .    I E .     .     .     .     .
1.63  8650.  C     .     .     .       .         .    ILE .     .     .     .     .
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      8700.  C     .     .     .     .     .  ILWE .     .     .     .     .
      8750.  C     .     .     .     .     .   ILE .     .     .     .     .
      8800.  C     .     .     .     .     .   ILEM.     .     .     .     .
      8850.  C     .     .     .     .     .   IRLE.     .     .     .     .
      8900.  C     .     .     .     .     .    ILE.     .     .     .     .
      8950.  C     .     .     .     .     .    IRLE     .     .     .     .
1.70  9000.  C     .     .     .     .     .     IRE     .     .     .     .
      9050.  C     .     .     .     .     .     IRLE    .     .     .     .
      9100.  C     .     .     .     .     .      IRE    .     .     .     .
      9150.  C     .     .     .     .     .      IRWE   .     .     .     .
      9200.  C     .     .     .     .     .      IR E   .     .     .     .
      9250.  C     .     .     .     .     .       IREM  .     .     .     .
      9300.  C     .     .     .     .     .       IR E  .     .     .     .
      9350.  C     .     .     .     .     .       .I E  .     .     .     .
1.78  9400.  C     .     .     .     .     .       .IR E .     .     .     .
      9450.  C     .     .     .     .     .       . I EM .     .     .     .
      9500.  C     .     .     .     .     .       . IRWE .     .     .     .
      9550.  C     .     .     .     .     .       .  I EM .     .     .     .
      9600.  C     .     .     .     .     .       .  IRELM .     .     .     .
      9650.  C     .     .     .     .     .       .   I E M .     .     .     .
      9700.  C     .     .     .     .     .       .   IRELM .     .     .     .
      9750.  C     .     .     .     .     .       .    I E M.     .     .     .
1.85  9800.  C     .     .     .     .     .       .    IREL M     .     .     .
      9850.  C     .     .     .     .     .       .    IREL M     .     .     .
      9900.  C     .     .     .     .     .       .     IRE .M    .     .     .
      9950.  C     .     .     .     .     .       .     IRE . M   .     .     .
     10000.  C     .     .     .     .     .       .      IE .  M  .     .     .
     10050.  C     .     .     .     .     .       .      ILE.   M .     .     .
1.90 10100.  C     .     .     .     .     .       .      ILE.   M .     .     .
     10150.  C     .     .     .     .     .       .       ILE    M .     .     .
     10200.  C     .     .     .     .     .       .        ILE   M .     .     .
     10250.  C     .     .     .     .     .       .         .IE   M .     .     .
     10300.  C     .     .     .     .     .       .         . IE  M .     .     .
     10350.  C     .     .     .     .     .       .         .  IWE M .     .     .
     10400.  C     .     .     .     .     .       .         .   IWEM .     .     .
1.98 10450.  .     .     .     .     .     .       .         .     IWE .     .     .
     10500.  C     .     .     .     .     .       .         .     IREL.     .     .
     10550.  C     .     .     .     .     .       .         .      IRE.     .     .
     10600.  C     .     .     .     .     .       .         .      IREL     .     .
     10650.  C     .     .     .     .     .       .         .       I E     .     .
     10700.  C     .     .     .     .     .       .         .       IREL    .     .
     10750.  C     .     .     .     .     .       .         .        I.EL   .     .
     10800.  C     .     .     .     .     .       .         .        IR E   .     .
2.05 10850.  C     .     .     .     .     .       .         .         I EL  .     .
     10900.  C     .     .     .     .     .       .         .         IR E  .     .
     10950.  C     .     .     .     .     .       .         .         .I EM .     .
     11000.  C     .     .     .     .     .       .         .         .IREM .     .
     11050.  C     .     .     .     .     .       .         .          . ILEM .     .
     11100.  C     .     .     .     .     .       .         .          . IREM .     .
2.11 11150.  C     .     .     .     .     .       .         .           . ILEM .     .
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THIS RUN EXECUTED 19FEB92 16:00:09

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HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

ALONG THE WEST SIDE OF A

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	.000	1078.00	1110.28	9960.00	9960.00	10050.00	10444.99	.00	484.99	2.18	1108.10	29.91	3.58
	.000	500.00	1109.69	9960.00	9960.00	10050.00	10324.86	.00	364.86	1.59	1108.10	30.08	2.83
	.087	896.00	1111.58	9975.00	9975.00	10070.00	10472.67	1.30	497.67	2.08	1109.50	28.86	3.37
*	.087	250.00	1110.86	9975.00	9975.00	10070.00	10289.14	1.16	314.14	1.36	1109.50	17.93	1.91
	.182	896.00	1113.44	9985.00	9985.00	10025.00	10462.70	1.85	477.70	2.14	1111.30	51.68	4.60
*	.182	250.00	1112.49	9985.00	9985.00	10025.00	10218.29	1.64	233.29	1.19	1111.30	93.64	4.04
	.267	526.00	1114.71	9980.00	9980.00	10025.00	10581.73	1.28	601.73	2.11	1112.60	11.15	2.09
*	.267	250.00	1114.13	9980.00	9980.00	10025.00	10398.33	1.64	418.33	1.53	1112.60	16.69	2.01
	.339	526.00	1115.25	9970.00	9970.00	10015.00	10565.79	.54	595.79	1.85	1113.40	18.79	2.35
	.339	250.00	1114.82	9970.00	9970.00	10015.00	10420.53	.68	450.53	1.42	1113.40	18.96	1.89
*	.396	515.00	1116.16	9965.00	9965.00	10020.00	10402.71	.91	437.71	1.66	1114.50	77.63	4.31
*	.396	250.00	1115.80	9965.00	9965.00	10020.00	10271.10	.98	306.10	1.30	1114.50	97.60	3.90
*	.477	515.00	1117.13	9945.00	9970.00	10045.00	10512.54	.98	567.54	2.93	1114.20	8.69	2.15
*	.477	250.00	1116.66	9945.00	9970.00	10045.00	10315.85	.86	370.85	2.46	1114.20	6.31	1.56
*	.545	515.00	1117.56	9950.00	9980.00	10030.00	10381.75	.43	431.75	2.26	1115.30	18.54	2.82
*	.545	250.00	1117.02	9950.00	9980.00	10030.00	10259.72	.36	309.72	1.72	1115.30	21.19	2.41
*	.629	515.00	1118.87	9915.00	9980.00	10030.00	10276.62	1.31	361.62	1.57	1117.30	60.89	3.98
*	.629	250.00	1118.49	9915.00	9980.00	10030.00	10189.29	1.47	274.29	1.19	1117.30	64.67	3.28
*	.705	515.00	1120.54	9935.00	9955.00	10020.00	10292.40	1.67	357.40	1.64	1118.90	28.62	3.00
*	.705	250.00	1120.13	9935.00	9955.00	10020.00	10222.55	1.64	287.55	1.23	1118.90	26.68	2.36
*	.790	515.00	1122.47	9970.00	9970.00	10020.00	10285.94	1.94	315.94	1.67	1120.80	76.69	4.21
	.790	250.00	1122.10	9970.00	9970.00	10020.00	10218.48	1.97	248.48	1.30	1120.80	91.37	3.61

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	.867	515.00	1124.77	9970.00	9970.00	10020.00	10306.56	2.30	336.56	1.97	1122.80	41.43	3.61
*	.867	250.00	1124.38	9970.00	9970.00	10020.00	10232.49	2.28	262.49	1.58	1122.80	35.81	2.79
	.949	515.00	1126.48	9980.00	9980.00	10025.00	10349.33	1.71	369.33	1.88	1124.60	37.33	3.51
	.949	250.00	1126.04	9980.00	9980.00	10025.00	10247.64	1.66	267.64	1.44	1124.60	42.11	3.04
	1.028	515.00	1127.73	9980.00	9985.00	10030.00	10422.34	1.26	442.34	2.13	1125.60	23.42	3.04
*	1.028	250.00	1127.29	9980.00	9985.00	10030.00	10309.72	1.25	329.72	1.69	1125.60	20.82	2.38
	1.114	515.00	1128.83	9980.00	9980.00	10030.00	10691.51	1.09	711.51	1.43	1127.40	22.89	2.21
	1.114	250.00	1128.46	9980.00	9980.00	10030.00	10550.97	1.17	570.97	1.06	1127.40	31.23	1.99
*	1.208	515.00	1131.27	9975.00	9975.00	10015.00	10601.97	2.45	626.97	.87	1130.40	185.50	4.58
*	1.208	250.00	1131.14	9975.00	9975.00	10015.00	10516.07	2.69	541.07	.74	1130.40	116.34	3.17
*	1.291	515.00	1133.40	9980.00	9980.00	10020.00	10817.41	2.12	837.41	1.60	1131.80	20.69	2.30
*	1.291	250.00	1133.08	9980.00	9980.00	10020.00	10724.72	1.94	744.72	1.28	1131.80	22.71	2.03
*	1.412	320.00	1134.60	9631.32	9980.00	10020.00	10431.40	1.20	800.08	.80	1133.80	21.40	1.63
	1.412	320.00	1134.55	9641.88	9980.00	10020.00	10418.98	1.47	777.10	.75	1133.80	28.28	1.79
*	1.471	320.00	1134.92	9760.00	9980.00	10020.00	10430.51	.33	670.51	1.52	1133.40	6.16	1.30
*	1.471	320.00	1134.92	9760.00	9980.00	10020.00	10429.04	.37	669.04	1.52	1133.40	6.26	1.31
	1.550	228.00	1135.34	9850.00	9980.00	10020.00	10269.11	.41	419.11	1.34	1134.00	26.72	1.79
*	1.550	228.00	1135.34	9850.00	9980.00	10020.00	10268.25	.42	418.25	1.34	1134.00	26.99	1.79
	1.632	228.00	1136.63	9902.82	9980.00	10020.00	10334.53	1.30	431.71	1.03	1135.60	34.63	2.21
	1.632	228.00	1136.63	9902.79	9980.00	10020.00	10335.06	1.30	432.27	1.03	1135.60	34.29	2.20
	1.704	228.00	1138.18	9943.94	9950.00	10020.00	10396.38	1.55	452.44	1.18	1137.00	49.64	2.40
	1.704	228.00	1138.18	9943.98	9950.00	10020.00	10396.11	1.55	452.13	1.18	1137.00	50.08	2.40
	1.779	228.00	1139.88	9967.82	9965.00	10020.00	10347.61	1.70	379.80	1.28	1138.60	36.43	2.27
	1.779	228.00	1139.89	9967.79	9965.00	10020.00	10348.02	1.71	380.23	1.29	1138.60	36.23	2.26
*	1.853	142.00	1141.54	9979.83	9970.00	10020.00	10375.89	1.65	396.06	.94	1140.60	55.13	2.25
*	1.853	142.00	1141.54	9979.84	9970.00	10020.00	10375.78	1.65	395.94	.94	1140.60	55.39	2.26
*	1.904	142.00	1142.54	9939.97	9960.00	10065.00	10181.18	1.00	241.21	.84	1141.70	27.89	1.74
*	1.904	142.00	1142.53	9939.97	9960.00	10065.00	10181.18	1.00	241.21	.83	1141.70	27.89	1.74
*	1.978	142.00	1146.83	9982.76	9975.00	10020.00	10542.81	4.29	560.05	.83	1146.00	138.24	3.26
*	1.978	142.00	1146.83	9982.76	9975.00	10020.00	10542.77	4.29	560.01	.83	1146.00	138.44	3.26
*	2.054	142.00	1149.17	9983.37	9980.00	10020.00	10245.92	2.34	262.55	1.17	1148.00	29.94	2.08
*	2.054	142.00	1149.17	9983.37	9980.00	10020.00	10245.98	2.34	262.61	1.17	1148.00	29.91	2.07
	2.111	142.00	1150.37	9962.40	9970.00	10040.00	10216.14	1.20	253.75	.87	1149.50	55.79	2.40
	2.111	142.00	1150.37	9962.41	9970.00	10040.00	10215.93	1.20	253.52	.87	1149.50	56.01	2.40

G THE WEST SIDE OF A

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	.000	1110.28	.28	1110.41	484.99	.00	625.44	452.56	.00	.00	9960.00	10050.00	.00
	.000	1109.69	-.31	1109.78	364.86	.00	345.23	154.77	.00	.00	9960.00	10050.00	.00
	.087	1111.58	.00	1111.70	497.67	.00	586.27	309.73	.00	.00	9975.00	10070.00	.00
*	.087	1110.86	.00	1110.90	314.14	.00	201.81	48.19	.00	.00	9975.00	10070.00	.00
	.182	1113.44	.00	1113.59	477.70	.00	356.10	539.90	.00	.00	9985.00	10025.00	.00
*	.182	1112.49	.00	1112.67	233.29	.00	160.40	89.60	.00	.00	9985.00	10025.00	.00
	.267	1114.71	.00	1114.74	601.73	.00	173.83	352.17	.00	.00	9980.00	10025.00	.00
*	.267	1114.13	.00	1114.16	418.33	.00	114.78	135.21	.00	.00	9980.00	10025.00	.00
	.339	1115.25	.00	1115.28	595.79	.00	156.20	369.80	.00	.00	9970.00	10015.00	.00
	.339	1114.82	.00	1114.84	450.53	.00	89.25	160.75	.00	.00	9970.00	10015.00	.00
*	.396	1116.16	.00	1116.33	437.71	.00	297.89	217.11	.00	.00	9965.00	10020.00	.00
*	.396	1115.80	.00	1115.98	306.10	.00	193.72	56.28	.00	.00	9965.00	10020.00	.00
*	.477	1117.13	.00	1117.18	567.54	37.89	363.54	113.58	.00	.00	9970.00	10045.00	.00
	.477	1116.66	.00	1116.69	370.85	19.11	208.33	22.56	.00	.00	9970.00	10045.00	.00
*	.545	1117.56	.00	1117.63	431.75	32.31	269.45	213.24	.00	.00	9980.00	10030.00	.00
*	.545	1117.02	.00	1117.08	309.72	11.49	165.31	73.21	.00	.00	9980.00	10030.00	.00
*	.629	1118.87	.00	1119.01	361.62	99.39	262.14	153.47	.00	.00	9980.00	10030.00	.00
*	.629	1118.49	.00	1118.60	274.29	44.78	154.38	50.84	.00	.00	9980.00	10030.00	.00
*	.705	1120.54	.00	1120.62	357.40	23.57	296.77	194.66	.00	.00	9955.00	10020.00	.00
*	.705	1120.13	.00	1120.19	287.55	10.09	170.98	68.93	.00	.00	9955.00	10020.00	.00
*	.790	1122.47	.00	1122.63	315.94	.00	256.31	258.69	.00	.00	9970.00	10020.00	.00
*	.790	1122.10	.00	1122.23	248.48	.00	152.27	97.73	.00	.00	9970.00	10020.00	.00
	.867	1124.77	.00	1124.89	336.56	.00	280.03	234.97	.00	.00	9970.00	10020.00	.00
*	.867	1124.38	.00	1124.46	262.49	.00	162.71	87.29	.00	.00	9970.00	10020.00	.00
	.949	1126.48	.00	1126.58	369.33	.00	257.04	257.96	.00	.00	9980.00	10025.00	.00
	.949	1126.04	.00	1126.13	267.64	.00	161.86	88.14	.00	.00	9980.00	10025.00	.00
	1.028	1127.73	.00	1127.81	442.34	8.95	246.66	259.39	.00	.00	9985.00	10030.00	.00
*	1.028	1127.29	.00	1127.34	329.72	5.04	145.74	99.23	.00	.00	9985.00	10030.00	.00
	1.114	1128.83	.00	1128.86	711.51	.00	126.47	388.52	.00	.00	9980.00	10030.00	.00
	1.114	1128.46	.00	1128.48	570.97	.00	76.70	173.30	.00	.00	9980.00	10030.00	.00
	1.208	1131.27	.00	1131.39	626.97	.00	130.58	384.42	.00	.00	9975.00	10015.00	.00
*	1.208	1131.14	.00	1131.20	541.07	.00	73.40	176.60	.00	.00	9975.00	10015.00	.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	1.291	1133.40	.00	1133.42	837.41	.00	122.40	392.60	.00	.00	9980.00	10020.00	.00
*	1.291	1133.08	.00	1133.11	744.72	.00	82.93	167.07	.00	.00	9980.00	10020.00	.00
*	1.412	1134.60	.00	1134.61	800.08	124.14	49.24	146.62	.00	.00	9980.00	10020.00	.00
	1.412	1134.55	.00	1134.57	777.10	123.54	50.54	145.92	.00	.00	9980.00	10020.00	.00
*	1.471	1134.92	.00	1134.93	670.51	125.81	71.63	122.57	.00	.00	9980.00	10020.00	.00
*	1.471	1134.92	.00	1134.93	669.04	125.85	71.78	122.36	.00	.00	9980.00	10020.00	.00
*	1.550	1135.34	.00	1135.36	419.11	135.05	52.55	40.40	.00	.00	9980.00	10020.00	.00
*	1.550	1135.34	.00	1135.36	418.25	135.22	52.55	40.23	.00	.00	9980.00	10020.00	.00
	1.632	1136.63	.00	1136.66	431.71	35.36	73.38	119.26	.00	.00	9980.00	10020.00	.00
	1.632	1136.63	.00	1136.66	432.27	35.38	73.30	119.33	.00	.00	9980.00	10020.00	.00
	1.704	1138.18	.00	1138.23	452.44	.17	120.42	107.41	.00	.00	9950.00	10020.00	.00
	1.704	1138.18	.00	1138.23	452.13	.16	120.57	107.27	.00	.00	9950.00	10020.00	.00
	1.779	1139.88	.00	1139.92	379.80	.00	98.56	129.44	.00	.00	9965.00	10020.00	.00
	1.779	1139.89	.00	1139.93	380.23	.00	98.49	129.51	.00	.00	9965.00	10020.00	.00
*	1.853	1141.54	.00	1141.57	396.06	.00	54.83	87.16	.00	.00	9970.00	10020.00	.00
*	1.853	1141.54	.00	1141.57	395.94	.00	54.89	87.11	.00	.00	9970.00	10020.00	.00
	1.904	1142.54	.00	1142.58	241.21	2.49	125.08	14.43	.00	.00	9960.00	10065.00	.00
*	1.904	1142.53	.00	1142.58	241.21	2.49	125.08	14.43	.00	.00	9960.00	10065.00	.00
*	1.978	1146.83	.00	1146.91	560.05	.00	64.20	77.80	.00	.00	9975.00	10020.00	.00
*	1.978	1146.83	.00	1146.91	560.01	.00	64.23	77.77	.00	.00	9975.00	10020.00	.00
*	2.054	1149.17	.00	1149.20	262.55	.00	64.24	77.76	.00	.00	9980.00	10020.00	.00
*	2.054	1149.17	.00	1149.20	262.61	.00	64.23	77.77	.00	.00	9980.00	10020.00	.00
	2.111	1150.37	.00	1150.44	253.75	.76	110.69	30.55	.00	.00	9970.00	10040.00	.00
	2.111	1150.37	.00	1150.44	253.52	.75	110.73	30.51	.00	.00	9970.00	10040.00	.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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WARNING SECNO=      .087  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .182  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .267  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .396  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .396  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .477  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .477  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .545  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .545  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .629  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .629  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .705  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .705  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .790  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .790  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .867  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.028  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.208  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.208  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.291  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.291  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.412  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.471  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.471  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.550  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.550  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.853  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.853  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.904  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.904  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.978  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.978  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.978  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION SECNO=     1.978  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.978  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.978  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=     2.054  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.054  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
```

THIS RUN EXECUTED 19FEB92 16:11:21

21.1120
Latest Version
W/ Floodway

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************************************
HEC-2 WATER SURFACE PROFILES

Version   4.6.2;  May 1991
************************************

T1      WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2      100 - YEAR STORM EVENT            FLOODPLAIN RUN       FILE: 21.H2I
T3      LITCHFIELD WASH,AT LITCHFIELD DETENTION FACILITY. (WASH 21)
T4
T5      DISCHARGES ARE AS DERIVED FROM THE 24-HOUR STORM HEC1 MODEL.
T6

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2        0        0      .005       0        0        0      1062      0

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

      1        0        0        0        0        0        0        0        0        0


VARIABLE CODES FOR SUMMARY PRINTOUT

    38       43        1       53       21       22       54       51        4        8
    42        5       26        0      110        0      200

NC    .025     .025     .025      .1       .3
QT       2      520      520
ET                       9.1                                                   9983    10017

                CROSS-SECTIONS 0.000 TO 0.496 ARE AS FROM LITCHFIELD DETENTION
                FACILITY PLANS.

                Q = Q AT 1I225            (= 520 CFS)

                MATCH FLOODPLAIN LIMITS (SEC. 0.000 TO SEC. 0.165) TO THE
                STORAGE WSEL FROM THE HEC1 RUN.

X1    0.000        9     9983    10017        0        0        0
GR   1066.5     9965     1066     9967     1062     9983     1059     9995   1058.8    10000
GR     1059    10005     1062    10017     1066    10033   1066.5    10035

NC      .04      .04     .035       .1       .3
ET                       9.1                                                   9879    10788
X1    0.085       13     9950    10050      470      400      450
GR     1070     9815     1068     9835     1066     9860     1062     9885     1060     9895
GR   1059.5     9950     1059    10000   1059.5    10050     1060    10425     1061    10780
GR     1062    10785     1066    10800   1066.5    10805
```

```
NC    .035     .04     .025     .1      .3
ET                     9.1                                          9930    11036
X1    0.165    11      9980     10100   360     430     420
GR    1068     9780    1066     9860    1062    9955    1061    9980    1060    10000
GR    1060.5   10100   1061     10585   1062    11025   1066    11070   1067    11090
GR    1068     11275

NC    .045     .045    .025     .1      .3
QT    2        347     347
ET                     9.1                                          9986    10013

                Q = ABOUT 2/3 Q AT 1I225    [=2/3 (520)  = 347 CFS]

X1    0.238    12      9975.8   10021.4 385     385     385
GR    1072     9520    1071     9710    1070    9790    1069    9870    1067.4  9975.8
GR    1062.6   9995    1062.6   10000   1062.6  10005   1067.4  10021.4 1069    10100
GR    1070     10145   1070.8   10260

ET                     9.1                                          9983    10017
X1    0.319    16      9979.8   10020.6 430     430     430
GR    1076     9335    1074     9490    1072    9640    1071    9770    1070    9835
GR    1069     9935    1068.2   9979.8  1064.4  9995    1064.5  10000   1064.5  10005
GR    1068.4   10020.6 1070     10100   1071    10120   1072    10180   1074    10255
GR    1075.5   10340

                       9.1                                          9972    10017
X1    0.414    17      9984.2   10014.6 500     500     500
GR    1078     9160    1076     9330    1074    9545    1072    9660    1071    9770
GR    1070     9820    1069.2   9984.2  1066.5  9995    1066.5  10000   1066.6  10005
GR    1069     10014.6 1070     10025   1071    10040   1072    10070   1074    10180
GR    1076     10250   1076.9   10290

ET                     9.1                                          9970    10044
X1    0.477    11      9985.8   10012.2 335     335     335
GR    1074     9535    1072     9640    1071    9785    1070.4  9985.8  1068.1  9995
GR    1068.2   10000   1068.2   10005   1070    10012.2 1071    10050   1072    10065
GR    1072.5   10110

ET                     9.1                                          9965    10027
X1    0.496    12      9990     10010   100     100     100
GR    1073     9550    1072     9620    1071    9790    1070.7  9900    1070.8  9940
GR    1071     9990    1068.7   9995    1068.7  10000   1068.7  10005   1071    10010
GR    1072     10055   1072.2   10070

NC    .05      .05     .03      .1      .3
QT    2        260     260
ET                     9.1                                          9960    10025
```

```
                Q = ABOUT 1/2 Q AT 1I225    [= .5 (520) = 260 CFS]

X1    0.597       9     9960    10025      510      550      530
GR     1076    9565     1074     9685     1072     9900   1071.7     9960   1070.5    10000
GR     1072   10025     1072    10070     1074    10165   1074.5    10220

ET                       9.1                                          9970    10030
X1    0.684       9     9970    10030      470      430      460
GR     1078    9375     1076     9545     1074     9735   1072.5     9970     1072    10000
GR   1072.5   10030     1074    10080     1076    10245     1078    10385

ET                       9.1                                          9980    10015
X1    0.775       9     9980    10015      490      470      480
GR     1080    9310     1078     9415     1076     9550     1074     9980   1073.2    10000
GR     1074   10015     1076    10215     1078    10310     1080    10400

QT        2      78       78
ET                       9.1                                          9981    10018

                Q = ABOUT 15% OF Q AT 1I225   [= .15 (520) = 78 CFS]

X1    0.856      10     9980    10020      410      440      430
GR   1078.5    9940     1078     9965     1076     9980     1074     9990   1073.6    10000
GR     1074   10010     1076    10020   1076.7    10035     1078    10190     1080    10235

ET                       9.1                                          9980    10010
X1    0.938       8     9980    10010      410      440      430
GR   1080.2    9940     1078     9960     1076     9980     1074     9990   1073.7    10000
GR     1075   10010     1078    10020   1079.7    10030

ET                       9.1                                          9980    10015
X1    1.019       7     9980    10015      430      420      430
GR   1080.5    9950     1080     9965     1076     9980   1073.8    10000     1076    10015
GR     1080   10020   1080.5    10045

ET                       9.1                                          9985    10010
X1    1.080       6     9985    10010      330      310      320
GR   1080.6    9945     1080     9965     1076     9985   1073.9    10000     1076    10010
GR     1080   10030
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= .100 CEHV= .300
*SECNO .000

CROSS-SECTIONS 0.000 TO 0.496 ARE AS FROM LITCHFIELD DETENTION FACILITY PLANS.

Q = Q AT 1I225 (= 520 CFS)

MATCH FLOODPLAIN LIMITS (SEC. 0.000 TO SEC. 0.165) TO THE STORAGE WSEL FROM THE HEC1 RUN.

.000	3.42	1062.22	.00	1062.00	1062.98	.76	.00	.00	1062.00
520.0	.0	520.0	.0	.1	74.4	.1	.0	.0	1062.00
.00	.04	6.98	.04	.025	.025	.025	.000	1058.80	9982.12
.004999	0.	0.	0.	0	0	5	.00	35.75	10017.88

CCHV= .100 CEHV= .300
*SECNO .085

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 30.14

.085	4.06	1063.06	.00	.00	1063.06	.00	.01	.08	1059.50
520.0	38.3	92.5	389.2	206.1	380.8	2158.8	13.4	4.5	1059.50
.63	.19	.24	.18	.040	.035	.040	.000	1059.00	9878.38
.000006	470.	450.	400.	2	0	0	.00	910.58	10788.97

CCHV= .100 CEHV= .300
*SECNO .165

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .67

.165	3.06	1063.06	.00	.00	1063.06	.00	.00	.00	1061.00
520.0	9.1	136.0	374.9	52.5	332.6	1816.1	37.5	14.3	1060.50
1.08	.17	.41	.21	.035	.025	.040	.000	1060.00	9929.75
.000012	360.	420.	430.	2	0	0	.00	1107.21	11036.96

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO .238

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

Q = ABOUT 2/3 Q AT 1I225 [=2/3 (520) = 347 CFS]

.238	2.46	1065.06	1065.06	.00	1065.90	.85	.01	.25	1067.40
347.0	.0	347.0	.0	.0	47.0	.0	47.4	19.3	1067.40
1.10	.00	7.38	.00	.000	.025	.000	.000	1062.60	9985.17
.008061	385.	385.	385.	20	15	0	.00	28.24	10013.40

*SECNO .319

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.64

.319	3.14	1067.54	.00	.00	1067.93	.40	1.98	.05	1068.20
347.0	.0	347.0	.0	.0	68.8	.0	48.0	19.6	1068.40
1.12	.00	5.05	.00	.000	.025	.000	.000	1064.40	9982.45
.002981	430.	430.	430.	3	0	0	.00	34.70	10017.15

*SECNO .414

.414	2.76	1069.26	.00	.00	1069.84	.58	1.85	.06	1069.20
347.0	.1	346.7	.2	.4	56.7	.4	48.7	20.1	1069.00
1.14	.23	6.12	.59	.045	.025	.045	.000	1066.50	9971.30
.004742	500.	500.	500.	3	0	0	.00	46.04	10017.33

*SECNO .477
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.477	2.75	1070.85	1070.85	.00	1071.29	.44	1.37	.01	1070.40
347.0	24.9	306.8	15.3	34.0	54.1	13.7	49.3	21.1	1070.00
1.16	.73	5.67	1.12	.045	.025	.045	.000	1068.10	9834.88
.003587	335.	335.	335.	2	5	0	.00	209.48	10044.37

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .496

.496	2.69	1071.39	1071.39	.00	1071.63	.24	.31	.02	1071.00
347.0	134.5	210.5	2.0	121.9	42.3	3.4	49.7	21.7	1071.00
1.17	1.10	4.98	.58	.045	.025	.045	.000	1068.70	9724.05
.002766	100.	100.	100.	5	6	0	.00	303.41	10027.46

CCHV= .100 CEHV= .300
*SECNO .597

Q = ABOUT 1/2 Q AT 1I225 [= .5 (520) = 260 CFS]

.597	2.06	1072.56	.00	.00	1072.62	.06	.97	.02	1071.70
260.0	42.7	196.2	21.1	60.0	91.4	33.0	51.8	25.0	1072.00
1.25	.71	2.15	.64	.050	.030	.050	.000	1070.50	9839.32
.001191	510.	530.	550.	2	0	0	.00	257.49	10096.81

*SECNO .684

WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .63

.684	1.36	1073.36	.00	.00	1073.46	.10	.83	.01	1072.50
260.0	53.9	194.7	11.5	57.8	66.5	12.3	53.5	27.6	1072.50
1.30	.93	2.93	.93	.050	.030	.050	.000	1072.00	9835.48
.003043	470.	460.	430.	1	0	0	.00	223.14	10058.62

*SECNO .775

.775	1.67	1074.87	.00	.00	1074.97	.10	1.51	.00	1074.00
260.0	77.9	145.8	36.2	80.6	44.3	37.5	55.1	30.5	1074.00
1.36	.97	3.29	.97	.050	.030	.050	.000	1073.20	9793.82
.003229	490.	480.	470.	3	0	0	.00	307.78	10101.60

*SECNO .856

Q = ABOUT 15% OF Q AT 1I225 [= .15 (520) = 78 CFS]

.856	2.13	1075.72	.00	.00	1075.76	.03	.78	.01	1076.00
78.0	.0	78.0	.0	.0	53.2	.0	56.2	32.2	1076.00
1.44	.00	1.47	.00	.000	.030	.000	.000	1073.60	9981.40
.000551	410.	430.	440.	2	0	0	.00	37.20	10018.60

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .938

.938	2.27	1075.97	.00	.00	1076.01	.04	.25	.00	1076.00
78.0	.0	77.3	.7	.0	47.0	1.6	56.7	32.5	1075.00
1.52	.00	1.64	.44	.000	.030	.050	.000	1073.70	9980.16
.000608	410.	430.	440.	3	0	0	.00	33.07	10013.23

*SECNO 1.019

1.019	2.46	1076.26	.00	.00	1076.30	.04	.29	.00	1076.00
78.0	.0	78.0	.0	.1	47.4	.0	57.1	32.9	1076.00
1.59	.20	1.64	.01	.050	.030	.050	.000	1073.80	9979.04
.000742	430.	430.	420.	2	0	0	.00	36.28	10015.32

*SECNO 1.080

1.080	2.61	1076.51	.00	.00	1076.57	.06	.26	.01	1076.00
78.0	.2	77.5	.2	.6	38.9	.6	57.5	33.1	1076.00
1.63	.36	1.99	.36	.050	.030	.050	.000	1073.90	9982.47
.000917	330.	320.	310.	2	0	0	.00	30.05	10012.53

PROFILE FOR STREAM LITCHFIELD WASH,AT LITCH

PLOTTED POINTS (BY PRIORITY) E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA

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ELEVATION  1059.     1064.     1069.     1074.     1079.     1084.     1089.     1094.     1099.     1104.
   SECNO   CUMDIS

     .00      0.  I     LWE .    M    .         .         .         .         .         .         .         .
             50.  I     LWE .    M    .         .         .         .         .         .         .         .
            100.  I    L WE .    M    .         .         .         .         .         .         .         .
            150.  I    L WE .    M    .         .         .         .         .         .         .         .
            200.  I   L   E .    M    .         .         .         .         .         .         .         .
            250.  I   L   E .    M    .         .         .         .         .         .         .         .
            300.  I  L    E .    M    .         .         .         .         .         .         .         .
            350.  I  L    E .    M    .         .         .         .         .         .         .         .
            400.  I L     WE.    M    .         .         .         .         .         .         .         .
     .09    450.  IL       E.    M    .         .         .         .         .         .         .         .
            500.  CIL      E.     M   .         .         .         .         .         .         .         .
            550.  CIL      E.     M   .         .         .         .         .         .         .         .
            600.  CIL      E.     M   .         .         .         .         .         .         .         .
            650.  CIRL     E.      M  .         .         .         .         .         .         .         .
            700.  C IL     E.      M  .         .         .         .         .         .         .         .
            750.  C IRL    E.       M .         .         .         .         .         .         .         .
            800.  C IRL    E.       M .         .         .         .         .         .         .         .
            850.  C IRL    E.       M .         .         .         .         .         .         .         .
     .17    900.  C IRL    E.       M .         .         .         .         .         .         .         .
            950.  C  I RL  E.        M.         .         .         .         .         .         .         .
           1000.  C   I  RL E         M         .         .         .         .         .         .         .
           1050.  C   I    LWE        .M        .         .         .         .         .         .         .
           1100.  C    I    .E        .M        .         .         .         .         .         .         .
           1150.  C     I   .WEL      . M       .         .         .         .         .         .         .
           1200.  C     I   . WEL     .  M      .         .         .         .         .         .         .
           1250.  C      I  . W E L   .  M      .         .         .         .         .         .         .
     .24   1300.  .       I .  WE  L  .   M     .         .         .         .         .         .         .
           1350.  C       I .  W E L  .    M    .         .         .         .         .         .         .
           1400.  C       I .   WE  L .     M   .         .         .         .         .         .         .
           1450.  C        I.   W E L .      M  .         .         .         .         .         .         .
           1500.  C        I.    WE L .       M .         .         .         .         .         .         .
           1550.  C         I    W EL .        M.         .         .         .         .         .         .
           1600.  C         I     WELR.         .M        .         .         .         .         .         .
           1650.  C         .I     WEL.         . M       .         .         .         .         .         .
     .32   1700.  C         .I     WEL.         .  M      .         .         .         .         .         .
           1750.  C         . I     WE.         .   M     .         .         .         .         .         .
           1800.  C         . I     WE.         .   M     .         .         .         .         .         .
           1850.  C         . I      ER         .   M     .         .         .         .         .         .
           1900.  C         .  I     WE         .    M    .         .         .         .         .         .
           1950.  C         .  I     WE         .    M    .         .         .         .         .         .
           2000.  C         .   I     WE        .    M    .         .         .         .         .         .
           2050.  C         .   I     WE        .    M    .         .         .         .         .         .
           2100.  C         .    I    WE        .     M   .         .         .         .         .         .
           2150.  C         .    I    RWE       .     M   .         .         .         .         .         .
     .41   2200.  C         .    I    RWE       .     M   .         .         .         .         .         .
           2250.  C         .     I   .W E      .    M    .         .         .         .         .         .
           2300.  C         .     I   .RWE      .   M     .         .         .         .         .         .
           2350.  C         .      I  .RWE      . M       .         .         .         .         .         .
           2400.  C         .      I  . LWE     .M        .         .         .         .         .         .
           2450.  C         .       I . RWE     M         .         .         .         .         .         .
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     2500.  C        .      I . RLWE  M .        .        .        .        .        .        .
.48  2550.  .        .       I. RLWE M  .        .        .        .        .        .        .
     2600.  .        .       I.  RLE M  .        .        .        .        .        .        .
.50  2650.  .        .        I   LWEM  .        .        .        .        .        .        .
     2700.  C        .        I    WEM  .        .        .        .        .        .        .
     2750.  C        .        I    LE M .        .        .        .        .        .        .
     2800.  C        .        .I   LE M .        .        .        .        .        .        .
     2850.  C        .        .I   LE  M.        .        .        .        .        .        .
     2900.  C        .        .I   LWE M.        .        .        .        .        .        .
     2950.  C        .        . I  LRE M.        .        .        .        .        .        .
     3000.  C        .        . I  LRE  M        .        .        .        .        .        .
     3050.  C        .        .  I LRE  M        .        .        .        .        .        .
     3100.  C        .        .  I  LE  .M       .        .        .        .        .        .
.60  3150.  C        .        .  I  L E .M       .        .        .        .        .        .
     3200.  C        .        .   I LRE . M      .        .        .        .        .        .
     3250.  C        .        .   I LRE .  M     .        .        .        .        .        .
     3300.  C        .        .   I LRE .   M    .        .        .        .        .        .
     3350.  C        .        .    ILRE .   M    .        .        .        .        .        .
     3400.  C        .        .    I LWE.    M   .        .        .        .        .        .
     3450.  C        .        .    I L E.     M  .        .        .        .        .        .
     3500.  C        .        .     IL E.     M  .        .        .        .        .        .
     3550.  C        .        .     IL E.     M  .        .        .        .        .        .
     3600.  C        .        .     IL E.      M .        .        .        .        .        .
.68  3650.  C        .        .     IL E.      M .        .        .        .        .        .
     3700.  C        .        .      ILWE      M.        .        .        .        .        .
     3750.  C        .        .      IL E      M.        .        .        .        .        .
     3800.  C        .        .      IL E       M        .        .        .        .        .
     3850.  C        .        .      I LWE      M        .        .        .        .        .
     3900.  C        .        .       IL.E      M        .        .        .        .        .
     3950.  C        .        .       IL.E      .M       .        .        .        .        .
     4000.  C        .        .       I LWE     .M       .        .        .        .        .
     4050.  C        .        .       I L E     . M      .        .        .        .        .
.77  4100.  C        .        .        IL E     . M      .        .        .        .        .
     4150.  C        .        .        I.LWE    . M      .        .        .        .        .
     4200.  C        .        .        I.L E    . M      .        .        .        .        .
     4250.  C        .        .        I. LE    .M       .        .        .        .        .
     4300.  C        .        .        I. LE    .M       .        .        .        .        .
     4350.  C        .        .        I.  E    .M       .        .        .        .        .
     4400.  C        .        .        I.  E    M        .        .        .        .        .
     4450.  C        .        .        I.   E   M        .        .        .        .        .
     4500.  C        .        .         I   E   M        .        .        .        .        .
.86  4550.  C        .        .         I   E  M.        .        .        .        .        .
     4600.  C        .        .         I   E   M        .        .        .        .        .
     4650.  C        .        .         I   E   M        .        .        .        .        .
     4700.  C        .        .         I   E   M        .        .        .        .        .
     4750.  C        .        .         I  RE   .M       .        .        .        .        .
     4800.  C        .        .         I  RE   .M       .        .        .        .        .
     4850.  C        .        .         I  RE   .M       .        .        .        .        .
     4900.  C        .        .         I  RE   .M       .        .        .        .        .
.94  4950.  C        .        .         I R E   . M      .        .        .        .        .
     5000.  C        .        .         I  RE   . M      .        .        .        .        .
     5050.  C        .        .         I  RWE  . M      .        .        .        .        .
     5100.  C        .        .         I  RLE  . M      .        .        .        .        .
     5150.  C        .        .         I  RLE  .  M     .        .        .        .        .
     5200.  C        .        .         I   LE  .  M     .        .        .        .        .
     5250.  C        .        .         I   LE  .  M     .        .        .        .        .
     5300.  C        .        .         I   LE  .  M     .        .        .        .        .
     5350.  C        .        .         I   LE  .  M     .        .        .        .        .
1.02 5400.  C        .        .         I   LE  .  M     .        .        .        .        .
     5450.  C        .        .         I   LE  .  M     .        .        .        .        .
     5500.  C        .        .         I   LE  .  M     .        .        .        .        .
     5550.  C        .        .         I   LE  .  M     .        .        .        .        .
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	5600.	C	.	.	I	LE	.	M	.	.	.	.	.	.
	5650.	C	.	.	I	LE	.	M	.	.	.	.	.	.
1.08	5700.	C	.	.	I	LWE	.	M	.	.	.	.	.	.

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     WHITE TANKS / AGUA FRIA AREA DRAINAGE MASTER STUDY
T2   100 - YEAR STORM EVENT          FLOODWAY RUN       FILE: 21.H2I
T3   LITCHFIELD WASH,AT LITCHFIELD DETENTION FACILITY.
T4
T5   DISCHARGES ARE AS DERIVED FROM THE 24-HOUR STORM HEC1 MODEL.
T6

J1  ICHECK   INQ     NINV    IDIR    STRT    METRIC  HVINS   Q       WSEL    FQ

              3                                                    1062.22

J2  NPROF    IPLOT   PRFVS   XSECV   XSECH   FN      ALLDC   IBW     CHNIM   ITRACE

    15               -1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= .100 CEHV= .300
*SECNO .000

3470 ENCROACHMENT STATIONS= 9983.0 10017.0 TYPE= 1 TARGET= 34.000

CROSS-SECTIONS 0.000 TO 0.496 ARE AS FROM LITCHFIELD DETENTION
FACILITY PLANS.

Q = Q AT 1I225 (= 520 CFS)

MATCH FLOODPLAIN LIMITS (SEC. 0.000 TO SEC. 0.165) TO THE
STORAGE WSEL FROM THE HEC1 RUN.

.000	3.42	1062.22	.00	1062.22	1062.98	.76	.00	.00	1062.00
520.0	.0	520.0	.0	.0	74.5	.0	.0	.0	100000.00
.00	.00	6.98	.00	.000	.025	.000	.000	1058.80	9983.00
005077	0.	0.	0.	0	0	0	.00	34.00	10017.00

CCHV= .100 CEHV= .300
*SECNO .085

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 30.37

3470 ENCROACHMENT STATIONS= 9879.0 10788.0 TYPE= 1 TARGET= 909.000

.085	4.06	1063.06	.00	1063.06	1063.06	.00	.01	.08	1059.50
520.0	38.3	92.5	389.2	206.0	380.9	2158.9	13.4	4.5	1059.50
.63	.19	.24	.18	.040	.035	.040	.000	1059.00	9879.00
.000006	470.	450.	400.	2	0	0	.00	909.00	10788.00

CCHV= .100 CEHV= .300
*SECNO .165

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .67

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=     9930.0   11036.0  TYPE=      1  TARGET=     1106.000
     .165      3.06   1063.06       .00   1063.06   1063.07       .00       .00       .00   1061.00
    520.0       9.1     136.0     374.9      52.5     332.6    1816.4      37.5      14.3   1060.50
     1.08       .17       .41       .21      .035      .025      .040      .000   1060.00   9930.00
  .000012      360.      420.      430.         2         0         0       .00   1106.00  11036.00


CCHV=     .100 CEHV=     .300
*SECNO  .238

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9986.0   10013.0  TYPE=      1  TARGET=       27.000

             Q = ABOUT 2/3 Q AT 1I225    [=2/3 (520)  = 347 CFS]

     .238      2.43   1065.03   1065.03   1065.06   1065.91       .88       .01       .26 100000.00
    347.0        .0     347.0        .0        .0      46.2        .0      47.4      19.3 100000.00
     1.10       .00      7.51       .00      .000      .025      .000      .000   1062.60   9986.00
  .008158      385.      385.      385.        20        15         0       .00     27.00  10013.00


*SECNO  .319

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.67


3470 ENCROACHMENT STATIONS=     9983.0   10017.0  TYPE=      1  TARGET=       34.000
     .319      3.13   1067.53       .00   1067.54   1067.93       .40      1.97       .05 100000.00
    347.0        .0     347.0        .0        .0      68.6        .0      48.0      19.6 100000.00
     1.12       .00      5.06       .00      .000      .025      .000      .000   1064.40   9983.00
  .002939      430.      430.      430.         3         0         0       .00     34.00  10017.00


*SECNO  .414

3470 ENCROACHMENT STATIONS=     9972.0   10017.0  TYPE=      1  TARGET=       45.000
     .414      2.75   1069.25       .00   1069.26   1069.84       .59      1.85       .06   1069.20
    347.0        .1     346.7        .2        .3      56.4        .3      48.7      20.0   1069.00
     1.14       .21      6.14       .61      .045      .025      .045      .000   1066.50   9972.95
  .004812      500.      500.      500.         3         0         0       .00     44.05  10017.00
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO  .477

3470 ENCROACHMENT STATIONS=     9970.0   10044.0  TYPE=      1  TARGET=      74.000
     .477      2.72   1070.82   1070.67   1070.85   1071.36       .55      1.52       .00   1070.40
    347.0       7.0     325.1      14.9       6.2      53.1      12.5      49.2      20.5   1070.00
     1.16      1.14      6.12      1.19      .045      .025      .045      .000   1068.10   9970.00
  .004277      335.      335.      335.         3         8         0       .00     72.98  10042.98


*SECNO  .496
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9965.0   10027.0  TYPE=      1  TARGET=      62.000
     .496      2.86   1071.56   1071.56   1071.39   1072.23       .68       .45       .04   1071.00
    347.0      24.4     315.4       7.2      15.1      45.6       6.2      49.4      20.6   1071.00
     1.16      1.61      6.92      1.16      .045      .025      .045      .000   1068.70   9965.00
  .004816      100.      100.      100.        20         8         0       .00     62.00  10027.00


CCHV=     .100 CEHV=     .300
*SECNO  .597

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.95


3470 ENCROACHMENT STATIONS=     9960.0   10025.0  TYPE=      1  TARGET=      65.000

              Q = ABOUT 1/2 Q AT 1I225    [= .5 (520) = 260 CFS]

     .597      2.63   1073.13       .00   1072.56   1073.19       .06       .90       .06   1071.70
    260.0        .0     260.0        .0        .0     128.5        .0      50.6      21.4 100000.00
     1.23       .00      2.02       .00      .000      .030      .000      .000   1070.50   9960.00
  .000710      510.      530.      550.         3         0         0       .00     65.00  10025.00


*SECNO  .684
```

```
 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .51


3470 ENCROACHMENT STATIONS=     9970.0   10030.0  TYPE=      1  TARGET=       60.000
     .684      1.64   1073.64      .00   1073.36   1073.79      .15       .57       .03   1072.50
    260.0       .0     260.0       .0       .0      83.2       .0      51.7      22.1 100000.00
     1.28      .00      3.13      .00      .000      .030      .000      .000   1072.00   9970.00
  .002707     470.      460.     430.         3         0         0       .00     60.00  10030.00


*SECNO  .775

3470 ENCROACHMENT STATIONS=     9980.0   10015.0  TYPE=      1  TARGET=       35.000
     .775      2.03   1075.23      .00   1074.87   1075.55      .33      1.71       .05   1074.00
    260.0       .0     260.0       .0       .0      56.8       .0      52.5      22.6 100000.00
     1.30      .00      4.58      .00      .000      .030      .000      .000   1073.20   9980.00
  .004913     490.      480.     470.         2         0         0       .00     35.00  10015.00


NO  .856

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.41


3470 ENCROACHMENT STATIONS=     9981.0   10018.0  TYPE=      1  TARGET=       37.000

               Q = ABOUT 15% OF Q AT 1I225   [= .15 (520) = 78 CFS]

     .856      2.58   1076.18      .00   1075.72   1076.20      .02       .62       .03 100000.00
    78.0       .0      78.0       .0       .0      70.3       .0      53.1      23.0 100000.00
     1.41      .00      1.11      .00      .000      .030      .000      .000   1073.60   9981.00
  .000224     410.      430.     440.         3         0         0       .00     37.00  10018.00


*SECNO  .938

3470 ENCROACHMENT STATIONS=     9980.0   10010.0  TYPE=      1  TARGET=       30.000
     .938      2.59   1076.29      .00   1075.97   1076.32      .03       .12       .00   1076.00
    78.0       .0      78.0       .0       .0      56.8       .0      53.7      23.3 100000.00
     1.50      .00      1.37      .00      .000      .030      .000      .000   1073.70   9980.00
  .000356     410.      430.     440.         3         0         0       .00     30.00  10010.00
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.019

3470 ENCROACHMENT STATIONS= 9980.0 10015.0 TYPE= 1 TARGET= 35.000

1.019	2.67	1076.47	.00	1076.26	1076.50	.03	.18	.00	1076.00
78.0	.0	78.0	.0	.0	54.9	.0	54.3	23.6	100000.00
1.58	.00	1.42	.00	.000	.030	.000	.000	1073.80	9980.00
.000473	430.	430.	420.	2	0	0	.00	35.00	10015.00

*SECNO 1.080

3470 ENCROACHMENT STATIONS= 9985.0 10010.0 TYPE= 1 TARGET= 25.000

1.080	2.74	1076.64	.00	1076.51	1076.69	.05	.19	.01	1076.00
78.0	.0	78.0	.0	.0	42.3	.0	54.6	23.8	100000.00
1.63	.00	1.85	.00	.000	.030	.000	.000	1073.90	9985.00
.000750	330.	320.	310.	2	0	0	.00	25.00	10010.00

THIS RUN EXECUTED 19FEB92 16:12:34

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LITCHFIELD WASH,AT LITCH

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	.000	520.00	1062.22	9982.12	9983.00	10017.00	10017.88	.00	35.75	3.42	1058.80	49.99	6.98
	.000	520.00	1062.22	9983.00	9983.00	10017.00	10017.00	.00	34.00	3.42	1058.80	50.77	6.98
*	.085	520.00	1063.06	9878.38	9950.00	10050.00	10788.97	.84	910.58	4.06	1059.00	.06	.24
*	.085	520.00	1063.06	9879.00	9950.00	10050.00	10788.00	.84	909.00	4.06	1059.00	.06	.24
	.165	520.00	1063.06	9929.75	9980.00	10100.00	11036.96	.00	1107.21	3.06	1060.00	.12	.41
*	.165	520.00	1063.06	9930.00	9980.00	10100.00	11036.00	.00	1106.00	3.06	1060.00	.12	.41
*	.238	347.00	1065.06	9985.17	9975.80	10021.40	10013.40	2.00	28.24	2.46	1062.60	80.61	7.38
*	.238	347.00	1065.03	9986.00	9975.80	10021.40	10013.00	1.97	27.00	2.43	1062.60	81.58	7.51
*	.319	347.00	1067.54	9982.45	9979.80	10020.60	10017.15	2.48	34.70	3.14	1064.40	29.81	5.05
*	.319	347.00	1067.53	9983.00	9979.80	10020.60	10017.00	2.50	34.00	3.13	1064.40	29.39	5.06
	.414	347.00	1069.26	9971.30	9984.20	10014.60	10017.33	1.73	46.04	2.76	1066.50	47.42	6.12
	.414	347.00	1069.25	9972.95	9984.20	10014.60	10017.00	1.72	44.05	2.75	1066.50	48.12	6.14
*	.477	347.00	1070.85	9834.88	9985.80	10012.20	10044.37	1.59	209.48	2.75	1068.10	35.87	5.67
	.477	347.00	1070.82	9970.00	9985.80	10012.20	10042.98	1.56	72.98	2.72	1068.10	42.77	6.12
	.496	347.00	1071.39	9724.05	9990.00	10010.00	10027.46	.54	303.41	2.69	1068.70	27.66	4.98
*	.496	347.00	1071.56	9965.00	9990.00	10010.00	10027.00	.74	62.00	2.86	1068.70	48.16	6.92
	.597	260.00	1072.56	9839.32	9960.00	10025.00	10096.81	1.17	257.49	2.06	1070.50	11.91	2.15
*	.597	260.00	1073.13	9960.00	9960.00	10025.00	10025.00	1.57	65.00	2.63	1070.50	7.10	2.02
*	.684	260.00	1073.36	9835.48	9970.00	10030.00	10058.62	.80	223.14	1.36	1072.00	30.43	2.93
*	.684	260.00	1073.64	9970.00	9970.00	10030.00	10030.00	.51	60.00	1.64	1072.00	27.07	3.13
	.775	260.00	1074.87	9793.82	9980.00	10015.00	10101.60	1.51	307.78	1.67	1073.20	32.29	3.29
	.775	260.00	1075.23	9980.00	9980.00	10015.00	10015.00	1.59	35.00	2.03	1073.20	49.13	4.58

	SECNO	Q	CWSEL	SSTA	STCHL	STCHR	ENDST	DIFWSX	TOPWID	DEPTH	ELMIN	10*KS	VCH
	.856	78.00	1075.72	9981.40	9980.00	10020.00	10018.60	.86	37.20	2.13	1073.60	5.51	1.47
*	.856	78.00	1076.18	9981.00	9980.00	10020.00	10018.00	.95	37.00	2.58	1073.60	2.24	1.11
	.938	78.00	1075.97	9980.16	9980.00	10010.00	10013.23	.24	33.07	2.27	1073.70	6.08	1.64
	.938	78.00	1076.29	9980.00	9980.00	10010.00	10010.00	.11	30.00	2.59	1073.70	3.56	1.37
	1.019	78.00	1076.26	9979.04	9980.00	10015.00	10015.32	.29	36.28	2.46	1073.80	7.42	1.64
	1.019	78.00	1076.47	9980.00	9980.00	10015.00	10015.00	.17	35.00	2.67	1073.80	4.73	1.42
	1.080	78.00	1076.51	9982.47	9985.00	10010.00	10012.53	.25	30.05	2.61	1073.90	9.17	1.99
	1.080	78.00	1076.64	9985.00	9985.00	10010.00	10010.00	.17	25.00	2.74	1073.90	7.50	1.85

HFIELD WASH,AT LITCH

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	.000	1062.22	.22	1062.98	35.75	.00	519.99	.00	.00	.00	9983.00	10017.00	.00
	.000	1062.22	.00	1062.98	34.00	.00	520.00	.00	34.00	9983.00	9983.00	10017.00	10017.00
*	.085	1063.06	.00	1063.06	910.58	38.28	92.52	389.21	.00	.00	9950.00	10050.00	.00
*	.085	1063.06	.00	1063.06	909.00	38.28	92.51	389.20	909.00	9879.00	9950.00	10050.00	10788.00
*	.165	1063.06	.00	1063.06	1107.21	9.10	136.04	374.87	.00	.00	9980.00	10100.00	.00
*	.165	1063.06	.00	1063.07	1106.00	9.10	136.02	374.88	1106.00	9930.00	9980.00	10100.00	11036.00
*	.238	1065.06	.00	1065.90	28.24	.00	347.00	.00	.00	.00	9975.80	10021.40	.00
*	.238	1065.03	-.03	1065.91	27.00	.00	347.00	.00	27.00	9986.00	9975.80	10021.40	10013.00
*	.319	1067.54	.00	1067.93	34.70	.00	347.00	.00	.00	.00	9979.80	10020.60	.00
*	.319	1067.53	.00	1067.93	34.00	.00	347.00	.00	34.00	9983.00	9979.80	10020.60	10017.00
	.414	1069.26	.00	1069.84	46.04	.09	346.70	.21	.00	.00	9984.20	10014.60	.00
	.414	1069.25	-.01	1069.84	44.05	.06	346.73	.20	45.00	9972.00	9984.20	10014.60	10017.00
*	.477	1070.85	.00	1071.29	209.48	24.93	306.77	15.31	.00	.00	9985.80	10012.20	.00
	.477	1070.82	-.04	1071.36	72.98	7.02	325.11	14.87	74.00	9970.00	9985.80	10012.20	10044.00
	.496	1071.39	.00	1071.63	303.41	134.51	210.52	1.97	.00	.00	9990.00	10010.00	.00
*	.496	1071.56	.17	1072.23	62.00	24.37	315.38	7.25	62.00	9965.00	9990.00	10010.00	10027.00
	.597	1072.56	.00	1072.62	257.49	42.70	196.16	21.14	.00	.00	9960.00	10025.00	.00
*	.597	1073.13	.57	1073.19	65.00	.00	260.00	.00	65.00	9960.00	9960.00	10025.00	10025.00
*	.684	1073.36	.00	1073.46	223.14	53.88	194.66	11.46	.00	.00	9970.00	10030.00	.00
*	.684	1073.64	.28	1073.79	60.00	.00	260.00	.00	60.00	9970.00	9970.00	10030.00	10030.00
	.775	1074.87	.00	1074.97	307.78	77.91	145.85	36.24	.00	.00	9980.00	10015.00	.00
	.775	1075.23	.36	1075.55	35.00	.00	260.00	.00	35.00	9980.00	9980.00	10015.00	10015.00
	.856	1075.72	.00	1075.76	37.20	.00	78.00	.00	.00	.00	9980.00	10020.00	.00
*	.856	1076.18	.46	1076.20	37.00	.00	78.00	.00	37.00	9981.00	9980.00	10020.00	10018.00
	.938	1075.97	.00	1076.01	33.07	.00	77.31	.69	.00	.00	9980.00	10010.00	.00
	.938	1076.29	.33	1076.32	30.00	.00	78.00	.00	30.00	9980.00	9980.00	10010.00	10010.00
	1.019	1076.26	.00	1076.30	36.28	.02	77.97	.00	.00	.00	9980.00	10015.00	.00
	1.019	1076.47	.21	1076.50	35.00	.00	78.00	.00	35.00	9980.00	9980.00	10015.00	10015.00
	1.080	1076.51	.00	1076.57	30.05	.23	77.55	.23	.00	.00	9985.00	10010.00	.00
	1.080	1076.64	.14	1076.69	25.00	.00	78.00	.00	25.00	9985.00	9985.00	10010.00	10010.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
WARNING SECNO=      .085  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .085  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .165  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .165  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .238  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .238  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .238  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=      .238  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .238  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .238  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=      .319  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .319  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .477  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .477  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .496  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .496  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .496  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=      .597  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .684  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .684  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .856  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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FLOODWAY DATA, LITCHFIELD WASH,AT LITCH
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
.000	34.	74.	7.0	1062.2	1062.2	.0
.085	909.	2746.	.2	1063.1	1063.1	.0
.165	1106.	2202.	.2	1063.1	1063.1	.0
.238	27.	46.	7.5	1065.1	1065.1	.0
.319	34.	69.	5.1	1067.5	1067.5	.0
.414	44.	57.	6.1	1069.3	1069.3	.0
.477	73.	72.	4.8	1070.9	1070.9	.0
.496	62.	67.	5.2	1071.6	1071.4	.2
.597	65.	128.	2.0	1073.2	1072.6	.6
.684	60.	83.	3.1	1073.7	1073.4	.3
.775	35.	57.	4.6	1075.3	1074.9	.4
.856	37.	70.	1.1	1076.2	1075.7	.5
.938	30.	57.	1.4	1076.3	1076.0	.3
1.019	35.	55.	1.4	1076.5	1076.3	.2
1.080	25.	42.	1.8	1076.6	1076.5	.1

The WLB Group Inc. WLB

COMPUTATION DATA SHEET

Subject WHITE TANKS/AGUA FRIA ADMS - APPROXIMATE DELINEATION ON REEMS ROAD. Prepared by JSE Date 2-19-92

NORTHERN AVENUE TO OLIVE AVENUE

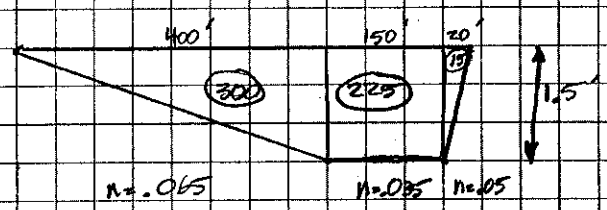
DISCHARGE = ROUTED FLOW FROM DI 193 TO CP 193 = 2255 CFS.

THIS DISCHARGE IS GREATER THAN CAPCITY OF REEMS, THEREFORE APPROXIMATE FLOODPLAIN IS BASED ON TOP OF LEFT BANK ELEVATION AND PROJECTED WEST TO SAME ELEVATION.

OLIVE AVENUE TO PEORIA AVENUE

USE DISCHARGE OF ROUTED FLOW R165 = 3090 cfs

Check Capacity of Typical Cross Section.



$S = .0044\ ft/ft$

$A = 540\ ft^2$

$Q = \frac{1.49}{n} A R^{2/3} S^{1/2}$

$Q_1 = \frac{1.49}{.065} 300 \left(\frac{300}{400}\right)^{2/3} (.0044)^{1/2} + Q_2 = \frac{1.49}{.035} 225 \left(\frac{225}{150}\right)^{2/3} (.0044)^{1/2} + Q_3 = \frac{1.49}{.05} 15 \left(\frac{15}{20}\right)^{2/3} (.0044)^{1/2}$

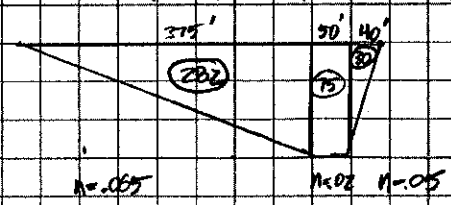
$Q_T = 376 + 832 + 25 = 1233\ cfs < 3090\ cfs$

∴ Use Top of Left Bank Projected West to Same Elevation for Approximate Delineation.

PEORIA AVENUE TO CACTUS ROAD

USE DISCHARGE OF ROUTED FLOW R146 = 1423 cfs

CHECK CAPACITY OF TYPICAL CROSS SECTION



$S = .0067\ ft/ft$

$A = 387\ ft^2$

(cont.)

Form 209

The WLB Group Inc. WLB

COMPUTATION DATA SHEET

Subject REEMS ROAD APPROXIMATE DELINEATION Prepared by JSE Date 2-19-92

Cont. From Last Page

$$Q_1 = \frac{1.49}{.065}(282)\left(\frac{282}{375}\right)^{2/3}(.0067)^{1/2} + Q_2 = \frac{1.49}{.02}75\left(\frac{75}{50}\right)^{2/3}.0067^{1/2} + Q_3 = \frac{1.49}{.05}30\left(\frac{30}{40}\right)^{2/3}(.0067)^{1/2}$$

$$Q_T = 438 + 599 + 60 = 1097\text{cfs} < 1423\text{ cfs}$$

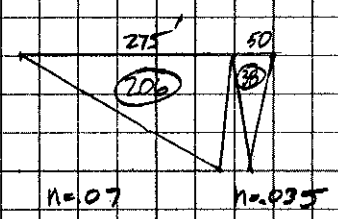
∴ Use Top of Left Bank Elevation Projected West to Same Elevation for Approximate Delineation.

CACTUS ROAD TO WADDELL ROAD

USE DISCHARGE FROM ROUTED FLOW R133 = 273 cfs

Check Capacity From Typical Cross Section

$S = .0067\ ft/ft$
$A = 244\ ft^2$



$$Q_1 = \frac{1.49}{.07}(206)\left(\frac{206}{275}\right)^{2/3}(.0067)^{1/2} + Q_2 = \frac{1.49}{.035}(38)\left(\frac{38}{50}\right)^{2/3}(.0067)^{1/2}$$

$$Q_T = 296 + 110 = 406\text{ cfs} > 273\text{ cfs}$$

This is very close so we will still use Top of Left Bank elevation projected west to same elevation for Approximate Delineation

Form 209

The WLB Group Inc. WLB

COMPUTATION DATA SHEET

Subject REEMS ROAD APPROXIMATE DELINEATION Prepared by JSE Date 2-19-92

WADDELL ROAD TO GREENWAY ROAD

USE DISCHARGE = Q AT R122 = 308 cfs

CAPACITY CHECK

THIS CROSS SECTION IS VERY SIMILAR TO THE ONE BETWEEN CACTUS ROAD AND WADDELL ROAD WHICH HAD A CAPACITY OF 406 cfs > 308 cfs.

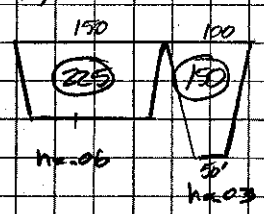
AGAIN THIS IS VERY CLOSE SO TOP OF LEFT BANK ELEVATION PROJECTED WEST TO SAME ELEVATION WILL BE UTILIZED FOR THE APPROXIMATE DELINEATION.

GREENWAY ROAD TO BELL ROAD

USE DISCHARGE = Q AT R115 = 2541 cfs

CHECK CAPACITY

S = .004 ft/ft
A = 375 ft²



$$Q_1 = \frac{1.49}{.06}(225)\left(\frac{225}{150}\right)^{2/3}(.004)^{1/2} + Q_2 = \frac{1.49}{.03}150\left(\frac{150}{100}\right)^{2/3}(.004)^{1/2}$$

$$Q_T = 463 + 617\text{ cfs} = 1080\text{ cfs} < 2541\text{ cfs}$$

∴ USE TOP OF LEFT BANK PROJECTED WEST TO SAME ELEVATION FOR APPROXIMATE DELINEATION.

Form 209

The WLB Group Inc. WLB

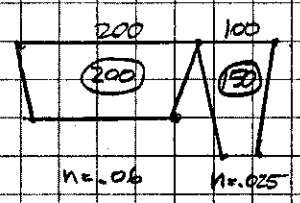
COMPUTATION DATA SHEET

Subject REEMS ROAD APPROXIMATE DELINEATION Prepared by JSE Date 2-19-92

BELL ROAD TO UNION HILLS DRIVE

USE DISCHARGE = Q AT R108 = 1123 cfs

CHECK CAPACITY



S = .0050 ft/ft
A = 350 ft²

$$Q_1 = \frac{1.49}{.06}(200)(1)^{2/3}(.005)^{1/2} + Q_2 = \frac{1.49}{.025}(150)(1.5)^{2/3}(.005)^{1/2}$$

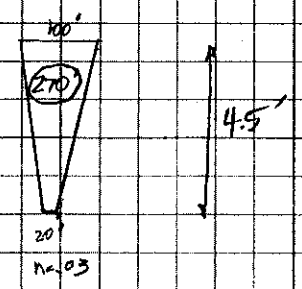
$$Q_T = 351 + 828 = 1180 \text{ cfs} > 1123 \text{ cfs}$$

∴ SINCE THIS IS ALMOST THE SAME USE TOP OF LEFT BANK ELEVATION PROJECTED WEST TO APPROXIMATELY THE SAME ELEVATION FOR APPROXIMATE DELINEATION.

UNION HILLS DRIVE TO BEARDSLEY ROAD

USE AVERAGE DISCHARGE BETWEEN CP108 AND CP103 = (1158 + 267)/2 = 712 cfs

CHECK CAPACITY



S = .005 ft/ft
A = 270 ft²

$$Q = \frac{1.49}{.03}(270)(2.7)^{2/3}(.005)^{1/2} = 1838 \text{ cfs} > 712 \text{ cfs}$$

STILL USE TOP OF LEFT BANK ELEVATION PROJECTED WEST FOR APPROXIMATE DELINEATION.

Form 209

4A2 to 4A3

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION
June 4, 1991

PROGRAM INPUT DATA:

DESCRIPTION	VALUE
Flow Rate (cubic feet per second).....	36.0
Channel Bottom Slope (feet per foot).....	0.0083
Manning's Roughness Coefficient (n-value).....	0.0300
Channel Side Slope - Left Side (horizontal/vertical)....	75.00
Channel Side Slope - Right Side (horizontal/vertical)...	5.00
Channel Bottom Width (feet).....	20.0

PROGRAM RESULTS:

DESCRIPTION	VALUE
Normal Depth (feet).....	0.46
Flow Velocity (feet per second).....	2.06
Froude Number (Flow is Sub-Critical).....	0.654
Velocity Head (feet).....	0.07
Energy Head (feet).....	0.52
Cross-Sectional Area of Flow (square feet).....	17.45
Top Width of Flow (feet).....	56.49

TRAPEZOIDAL CHANNEL ANALYSIS COMPUTER PROGRAM, Version 1.1 (c) 1986 Dodson & Associates, Inc., 7015 W. Tidwell, #107, Houston, TX 77092 (713) 895-8322. A manual with equations & flow chart is available.

41A To 41-1 (Average Flow from Sub 41-1)
&
41-1 To 41-2 (Flow Over Top of Dike)

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION
June 4, 1991

PROGRAM INPUT DATA:

DESCRIPTION	VALUE
Flow Rate (cubic feet per second).....	103.0
Channel Bottom Slope (feet per foot).....	0.0083
Manning's Roughness Coefficient (n-value).....	0.0300
Channel Side Slope - Left Side (horizontal/vertical)....	75.00
Channel Side Slope - Right Side (horizontal/vertical)...	5.00
Channel Bottom Width (feet).....	20.0

PROGRAM RESULTS:

DESCRIPTION	VALUE
Normal Depth (feet).....	0.75
Flow Velocity (feet per second).....	2.73
Froude Number (Flow is Sub-Critical).....	0.701
Velocity Head (feet).....	0.12
Energy Head (feet).....	0.87
Cross-Sectional Area of Flow (square feet).....	37.77
Top Width of Flow (feet).....	80.27

TRAPEZOIDAL CHANNEL ANALYSIS COMPUTER PROGRAM, Version 1.1 (c) 1986
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(713) 895-8322. A manual with equations & flow chart is available.

41 TO 43-1

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION
June 5, 1991

PROGRAM INPUT DATA:

DESCRIPTION	VALUE
Flow Rate (cubic feet per second).....	484.0
Channel Bottom Slope (feet per foot).....	0.0133
Manning's Roughness Coefficient (n-value).....	0.0400
Channel Side Slope - Left Side (horizontal/vertical)....	100.00
Channel Side Slope - Right Side (horizontal/vertical)...	3.00
Channel Bottom Width (feet).....	50.0

PROGRAM RESULTS:

DESCRIPTION	VALUE
Normal Depth (feet).....	1.20
Flow Velocity (feet per second).....	3.60
Froude Number (Flow is Sub-Critical).....	0.722
Velocity Head (feet).....	0.20
Energy Head (feet).....	1.40
Cross-Sectional Area of Flow (square feet).....	134.33
Top Width of Flow (feet).....	173.70

TRAPEZOIDAL CHANNEL ANALYSIS COMPUTER PROGRAM, Version 1.1 (c) 1986
Dodson & Associates, Inc., 7015 W. Tidwell, #107, Houston, TX 77092
(713) 895-8322. A manual with equations & flow chart is available.

41A2 to 41A3

TRAPEZOIDAL CHANNEL ANALYSIS
STANDARD STEP WATER SURFACE PROFILE
June 11, 1991

PROGRAM INPUT DATA:

DESCRIPTION	VALUE
Flow Rate (cubic feet per second).....	36.0
Channel Bottom Slope (feet per foot).....	0.0068
Manning's Roughness Coefficient (n-value).....	0.0300
Channel Side Slope - Left Side (horizontal/vertical)....	75.00
Channel Side Slope - Right Side (horizontal/vertical)...	5.00
Channel Bottom Width (feet).....	20.0
Channel Flow-Line Elevation at Starting Station (feet)..	1130.20
Water Surface Elevation at Starting Station (feet).....	1131.64
Starting Channel Station (feet).....	0.00

PROGRAM RESULTS:

DESCRIPTION	VALUE
Normal Depth (feet).....	0.48
Critical Depth (feet).....	0.36

Station (ft)	Flowline (ft)	WS Elev. (ft)	Depth (ft)	Flow Area (sq ft)	Vel (fps)	Velocity Head(ft)	EGL Slope (ft/ft)
0.0	1130.20	1131.64	1.44	111.74	0.32	0.002	0.000055
50.0	1130.54	1131.64	1.10	70.79	0.51	0.004	0.000186
100.0	1130.88	1131.66	0.78	40.06	0.90	0.013	0.000864
200.0	1131.56	1132.03	0.47	18.25	1.97	0.060	0.007551
300.0	1132.24	1132.73	0.49	19.29	1.87	0.054	0.006318
400.0	1132.92	1133.39	0.47	18.48	1.95	0.059	0.007098
500.0	1133.60	1134.08	0.48	18.97	1.90	0.056	0.006608
600.0	1134.28	1134.76	0.48	18.66	1.93	0.058	0.006920

TRAPEZOIDAL CHANNEL ANALYSIS COMPUTER PROGRAM, Version 1.1 (c) 1986
Dodson & Associates, Inc., 7015 W. Tidwell, #107, Houston, TX 77092
(713) 895-8322. A manual with equations & flow chart is available.

4A to 41-1

TRAPEZOIDAL CHANNEL ANALYSIS
STANDARD STEP WATER SURFACE PROFILE
June 11, 1991

PROGRAM INPUT DATA:

DESCRIPTION	VALUE
Flow Rate (cubic feet per second).....	103.0
Channel Bottom Slope (feet per foot).....	0.0081
Manning's Roughness Coefficient (n-value).....	0.0300
Channel Side Slope - Left Side (horizontal/vertical)....	75.00
Channel Side Slope - Right Side (horizontal/vertical)...	5.00
Channel Bottom Width (feet).....	20.0
Channel Flow-Line Elevation at Starting Station (feet)..	1099.00
Water Surface Elevation at Starting Station (feet).....	1101.00
Starting Channel Station (feet).....	0.00

PROGRAM RESULTS:

DESCRIPTION	VALUE
Normal Depth (feet).....	0.76
Critical Depth (feet).....	0.63

Station (ft)	Flowline (ft)	WS Elev. (ft)	Depth (ft)	Flow Area (sq ft)	Vel (fps)	Velocity Head(ft)	EGL Slope (ft/ft)
0.0	1099.00	1101.00	2.00	200.00	0.51	0.004	0.000094
50.0	1099.40	1101.00	1.60	134.28	0.77	0.009	0.000273
100.0	1099.81	1101.02	1.21	82.90	1.24	0.024	0.000996
150.0	1100.21	1101.10	0.89	49.32	2.09	0.068	0.004031
200.0	1100.62	1101.37	0.75	37.31	2.76	0.118	0.008569
300.0	1101.43	1102.19	0.76	38.63	2.67	0.110	0.007799
350.0	1101.83	1102.59	0.76	37.91	2.72	0.115	0.008210
500.0	1103.05	1103.81	0.76	38.43	2.68	0.112	0.008126
600.0	1103.86	1104.62	0.76	38.13	2.70	0.113	0.008082
700.0	1104.67	1105.43	0.76	38.08	2.70	0.114	0.008110
800.0	1105.48	1106.24	0.76	38.11	2.70	0.113	0.008092
900.0	1106.29	1107.05	0.76	38.09	2.70	0.114	0.008106
1000.0	1107.10	1107.86	0.76	38.11	2.70	0.113	0.008098
1100.0	1107.91	1108.67	0.76	38.10	2.70	0.114	0.008100
1200.0	1108.72	1109.48	0.76	38.10	2.70	0.113	0.008099
1300.0	1109.53	1110.29	0.76	38.10	2.70	0.113	0.008100
1400.0	1110.34	1111.10	0.76	38.10	2.70	0.113	0.008101
1500.0	1111.15	1111.91	0.76	38.10	2.70	0.113	0.008099
1600.0	1111.96	1112.72	0.76	38.10	2.70	0.113	0.008099

TRAPEZOIDAL CHANNEL ANALYSIS COMPUTER PROGRAM, Version 1.1 (c) 1986
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(713) 895-8322. A manual with equations & flow chart is available.

41-1 to 41-2

TRAPEZOIDAL CHANNEL ANALYSIS
STANDARD STEP WATER SURFACE PROFILE
June 11, 1991

PROGRAM INPUT DATA:

DESCRIPTION	VALUE
Flow Rate (cubic feet per second).....	103.0
Channel Bottom Slope (feet per foot).....	0.0068
Manning's Roughness Coefficient (n-value).....	0.0300
Channel Side Slope - Left Side (horizontal/vertical)....	75.00
Channel Side Slope - Right Side (horizontal/vertical)...	5.00
Channel Bottom Width (feet).....	20.0
Channel Flow-Line Elevation at Starting Station (feet)..	1115.10
Water Surface Elevation at Starting Station (feet).....	1116.11
Starting Channel Station (feet).....	0.00

PROGRAM RESULTS:

DESCRIPTION	VALUE
Normal Depth (feet).....	0.79
Critical Depth (feet).....	0.63

Station (ft)	Flowline (ft)	WS Elev. (ft)	Depth (ft)	Flow Area (sq ft)	Vel (fps)	Velocity Head(ft)	EGL Slope (ft/ft)
0.0	1115.10	1116.11	1.01	61.00	1.69	0.044	0.002273
100.0	1115.78	1116.55	0.77	38.74	2.66	0.110	0.007745
200.0	1116.46	1117.26	0.80	41.83	2.46	0.094	0.006292
300.0	1117.14	1117.92	0.78	40.09	2.57	0.103	0.007059
400.0	1117.82	1118.61	0.79	40.95	2.52	0.098	0.006665
500.0	1118.50	1119.29	0.79	40.49	2.54	0.100	0.006869
600.0	1119.18	1119.97	0.79	40.72	2.53	0.099	0.006762
700.0	1119.86	1120.65	0.79	40.60	2.54	0.100	0.006820
800.0	1120.54	1121.33	0.79	40.67	2.53	0.100	0.006789
900.0	1121.22	1122.01	0.79	40.63	2.54	0.100	0.006805
1000.0	1121.90	1122.69	0.79	40.65	2.53	0.100	0.006798
1100.0	1122.58	1123.37	0.79	40.64	2.53	0.100	0.006802
1200.0	1123.26	1124.05	0.79	40.65	2.53	0.100	0.006799
1300.0	1123.94	1124.73	0.79	40.64	2.53	0.100	0.006801
1400.0	1124.62	1125.41	0.79	40.65	2.53	0.100	0.006801
1500.0	1125.30	1126.09	0.79	40.64	2.53	0.100	0.006799

TRAPEZOIDAL CHANNEL ANALYSIS COMPUTER PROGRAM, Version 1.1 (c) 1986 Dodson & Associates, Inc., 7015 W. Tidwell, #107, Houston, TX 77092 (713) 895-8322. A manual with equations & flow chart is available.

41 to 43-1

TRAPEZOIDAL CHANNEL ANALYSIS
STANDARD STEP WATER SURFACE PROFILE
June 11, 1991

PROGRAM INPUT DATA:

DESCRIPTION	VALUE
Flow Rate (cubic feet per second).....	484.0
Channel Bottom Slope (feet per foot).....	0.0017
Manning's Roughness Coefficient (n-value).....	0.0300
Channel Side Slope - Left Side (horizontal/vertical)....	75.00
Channel Side Slope - Right Side (horizontal/vertical)...	5.00
Channel Bottom Width (feet).....	20.0
Channel Flow-Line Elevation at Starting Station (feet)..	1093.20
Water Surface Elevation at Starting Station (feet).....	1095.30
Starting Channel Station (feet).....	0.00

PROGRAM RESULTS:

DESCRIPTION	VALUE
Normal Depth (feet).....	2.08
Critical Depth (feet).....	1.33

Station (ft)	Flowline (ft)	WS Elev. (ft)	Depth (ft)	Flow Area (sq ft)	Vel (fps)	Velocity Head(ft)	EGL Slope (ft/ft)
0.0	1093.20	1095.30	2.10	218.40	2.22	0.076	0.001642
50.0	1093.28	1095.38	2.10	217.84	2.22	0.077	0.001653
100.0	1093.37	1095.46	2.09	217.39	2.23	0.077	0.001662
200.0	1093.54	1095.63	2.09	216.73	2.23	0.077	0.001675
300.0	1093.71	1095.80	2.09	216.31	2.24	0.078	0.001684
400.0	1093.88	1095.97	2.09	216.05	2.24	0.078	0.001690
500.0	1094.05	1096.14	2.09	215.88	2.24	0.078	0.001693
600.0	1094.22	1096.31	2.09	215.77	2.24	0.078	0.001696
700.0	1094.39	1096.48	2.09	215.71	2.24	0.078	0.001697
800.0	1094.56	1096.65	2.09	215.66	2.24	0.078	0.001698
900.0	1094.73	1096.82	2.09	215.64	2.24	0.078	0.001698
1000.0	1094.90	1096.99	2.09	215.62	2.24	0.078	0.001699

TRAPEZOIDAL CHANNEL ANALYSIS COMPUTER PROGRAM, Version 1.1 (c) 1986
Dodson & Associates, Inc., 7015 W. Tidwell, #107, Houston, TX 77092
(713) 895-8322. A manual with equations & flow chart is available.

896,000
ZONE A
ZONE AE
WSEL 1100.10
WSEL 1101.77
WSEL 1094.27
WSEL 1093.5
WSEL 1093.10
WSEL 1073.89
There is substantial split flow here and a HEC-2 analysis will be performed downstream
Tuthill Bar

The WLB Group Inc. WLB

COMPUTATION DATA SHEET

Subject WHITE TANKS ADMS Prepared by JSE Date 9-25-91

APPROXIMATE FLOODPLAIN AND PONDING AREA DOCUMENTATION FOR AREA ALONG NORTH SIDE OF INTERSTATE 10 BETWEEN CITRUS ROAD AND PERRYVILLE ROAD.

DISCHARGES FOR NORMAL DEPTH CALCULATIONS WERE COMPUTED FROM HEC-1 MODEL RESULTS AT PERTINENT POINTS OF CONCENTRATIONS AND WERE THEN PRORATED UPSTREAM TO A DEFINITE SEPERATION OF WATERSHED AREAS OR THE NEXT UPSTREAM POINT OF CONCENTRATION.

CP 275 = 136 CFS
(≈1600 Feet East of Perryville Road)

≈ 800' Feet East of Perryville Road = CP275/2 = 136/2 = 68 CFS

≈ 400' Feet East of Perryville Road = CP275/4 = 136/4 = 34 CFS

CP 276 = 186 CFS
(≈ 2640 Feet East of Perryville Road)

≈ 2200 Feet East of Perryville Road = CP276/2 = 93 CFS

≈ 1800 Feet East of Perryville Road = CP276/4 = 46 CFS

CP 277 = 1/6 SUB 277 + REMAINDER FLOW AT CP 276
(CITRUS ROAD) 1/6 570 + 98 = 193 CFS

≈ 1320 Feet West of Citrus Road = 193+98/2 = 145 CFS

≈ 2400 Feet West of Citrus Road = 98 CFS

- Ponding Water Surface Elevations Were Taken From THE HEC-1 Computer Model And Normal Depth Calculations Were Used to Delineate Approximate Floodplains And Were Then Connected Between the Known Ponding WSEL'S.
- Approximate Channel Configuration Data Was Taken From 1" = 400 scale Topographic Mapping.

Form 209

CP 275 (≅1600 East of Perryville Road)

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

Flow Rate (cubic feet per second)	136
Channel Bottom Slope (feet per foot)	.0055
Manning's Roughness Coefficient (n-value)	.04
Channel Side Slope - Left Side (horizontal/vertical)	100
Channel Side Slope - Right Side (horizontal/vertical)	4
Channel Bottom Width (feet)	40

*** RESULTS ***

NORMAL DEPTH (FEET)	0.86
Flow Velocity (feet per second)	1.88
Froude Number	0.441
Velocity Head (feet)	0.05
Energy Head (feet)	0.91
Cross-Sectional Area of Flow (square feet)	72.52
Top Width of Flow (feet)	129.17

≅ 800 Feet East of Perryville Road

(Enter): Repeat, (R)eport, or (Esc): End

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

Flow Rate (cubic feet per second)	68
Channel Bottom Slope (feet per foot)	.0055
Manning's Roughness Coefficient (n-value)	0.040
Channel Side Slope - Left Side (horizontal/vertical)	100
Channel Side Slope - Right Side (horizontal/vertical)	4
Channel Bottom Width (feet)	40

*** RESULTS ***

NORMAL DEPTH (FEET)	0.61
Flow Velocity (feet per second)	1.55
Froude Number	0.420
Velocity Head (feet)	0.04
Energy Head (feet)	0.65
Cross-Sectional Area of Flow (square feet)	43.81
Top Width of Flow (feet)	103.50

(Enter): Repeat, (R)eport, or (Esc): End

≅ 200 Feet East of Perryville Road

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

Flow Rate (cubic feet per second)	34
Channel Bottom Slope (feet per foot)	.0055
Manning's Roughness Coefficient (n-value)	.04
Channel Side Slope - Left Side (horizontal/vertical)	100
Channel Side Slope - Right Side (horizontal/vertical)	20
Channel Bottom Width (feet)	100

*** RESULTS ***

NORMAL DEPTH (FEET)	0.27
Flow Velocity (feet per second)	1.07
Froude Number	0.384
Velocity Head (feet)	0.02
Energy Head (feet)	0.29
Cross-Sectional Area of Flow (square feet)	31.88
Top Width of Flow (feet)	132.86

(Enter): Repeat, (R)eport, or (Esc): End

CP 276 (≅ 2640 Feet East of Perryville Road)

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

Flow Rate (cubic feet per second)	186
Channel Bottom Slope (feet per foot)	.005
Manning's Roughness Coefficient (n-value)	0.040
Channel Side Slope - Left Side (horizontal/vertical)	100
Channel Side Slope - Right Side (horizontal/vertical)	10
Channel Bottom Width (feet)	40

*** RESULTS ***

NORMAL DEPTH (FEET)	1.00
Flow Velocity (feet per second)	1.94
Froude Number	0.430
Velocity Head (feet)	0.06
Energy Head (feet)	1.06
Cross-Sectional Area of Flow (square feet)	95.70
Top Width of Flow (feet)	150.51

≅ 2200 Feet East of Perryville Road

(Enter): Repeat, (R)eport, or (Esc): End

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

Flow Rate (cubic feet per second)	93
Channel Bottom Slope (feet per foot)	.005
Manning's Roughness Coefficient (n-value)	0.040
Channel Side Slope - Left Side (horizontal/vertical)	100
Channel Side Slope - Right Side (horizontal/vertical)	10
Channel Bottom Width (feet)	40

*** RESULTS ***

NORMAL DEPTH (FEET)	0.72
Flow Velocity (feet per second)	1.62
Froude Number	0.410
Velocity Head (feet)	0.04
Energy Head (feet)	0.76
Cross-Sectional Area of Flow (square feet)	57.56
Top Width of Flow (feet)	119.42

(Enter): Repeat, (R)eport, or (Esc): End

≡ 1800 Feet East of Perryville Road

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

Flow Rate (cubic feet per second)	46
Channel Bottom Slope (feet per foot)	.005
Manning's Roughness Coefficient (n-value)	0.040
Channel Side Slope - Left Side (horizontal/vertical)	100
Channel Side Slope - Right Side (horizontal/vertical)	100
Channel Bottom Width (feet)	40

*** RESULTS ***

NORMAL DEPTH (FEET)	0.46
Flow Velocity (feet per second)	1.17
Froude Number	0.378
Velocity Head (feet)	0.02
Energy Head (feet)	0.48
Cross-Sectional Area of Flow (square feet)	39.23
Top Width of Flow (feet)	131.50

(Enter): Repeat, (R)eport, or (Esc): End

CP 277 (Portion of the Total Q at Citrus Road)

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

Flow Rate (cubic feet per second)	193
Channel Bottom Slope (feet per foot)	.0043
Manning's Roughness Coefficient (n-value)	0.040
Channel Side Slope - Left Side (horizontal/vertical)	100
Channel Side Slope - Right Side (horizontal/vertical)	10
Channel Bottom Width (feet)	100

*** RESULTS ***

NORMAL DEPTH (FEET)	0.78
Flow Velocity (feet per second)	1.73
Froude Number	0.395
Velocity Head (feet)	0.05
Energy Head (feet)	0.83
Cross-Sectional Area of Flow (square feet)	111.29
Top Width of Flow (feet)	185.70

≅ 1320 Feet West of Citrus Road

(Enter): Repeat, (R)eport, or (Esc): End

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

Flow Rate (cubic feet per second)	145
Channel Bottom Slope (feet per foot)	.0043
Manning's Roughness Coefficient (n-value)	0.040
Channel Side Slope - Left Side (horizontal/vertical)	10
Channel Side Slope - Right Side (horizontal/vertical)	10
Channel Bottom Width (feet)	30

*** RESULTS ***

NORMAL DEPTH (FEET)	1.35
Flow Velocity (feet per second)	2.48
Froude Number	0.431
Velocity Head (feet)	0.10
Energy Head (feet)	1.44
Cross-Sectional Area of Flow (square feet)	58.53
Top Width of Flow (feet)	56.93

(Enter): Repeat, (R)eport, or (Esc): End

≡ 2400 Feet West of Citrus Road

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

Flow Rate (cubic feet per second)	98
Channel Bottom Slope (feet per foot)	.0043
Manning's Roughness Coefficient (n-value)	0.040
Channel Side Slope - Left Side (horizontal/vertical)	75
Channel Side Slope - Right Side (horizontal/vertical)	7.5
Channel Bottom Width (feet)	30

*** RESULTS ***

NORMAL DEPTH (FEET)	0.88
Flow Velocity (feet per second)	1.67
Froude Number	0.391
Velocity Head (feet)	0.04
Energy Head (feet)	0.93
Cross-Sectional Area of Flow (square feet)	58.51
Top Width of Flow (feet)	102.74

(Enter): Repeat, (R)eport, or (Esc): End

The WLB Group Inc. WLB

COMPUTATION DATA SHEET

Subject WHITE TANKS / AGUA FRIA ADMS Prepared by JSE Date 10-1-91

APPROXIMATE FLOODPLAIN AND PONDING AREA DOCUMENTATION FOR AREA ALONG NORTH SIDE OF INTERSTATE 10 BETWEEN COTTON LANE AND CITRUS ROAD.

DISCHARGES FOR NORMAL DEPTH CALCULATIONS WERE TAKEN FROM HEC-1 HYDROLOGY RESULTS AT PERTINENT POINTS OF CONCENTRATION AND WERE THEN PRORATED UPSTREAM TO THE NEXT CONCENTRATION POINT.

CONCENTRATION POINT	DISCHARGE	PONDING WSEL
CP 279 D ≈ 500' East of Citrus Road	33 CFS	1023.59'
CP 279 C ≈ 1300' East of Citrus Road	78 CFS	1021.39'
CP 279 B ≈ 2100' East of Citrus Road	47 CFS	1020.09'
CP 279 A ≈ 1360' West of Cotton Lane	88 CFS	1015.68'
CP 279 Just West of Cotton Lane	79 CFS	1015.15'

- Ponding Water Surface Elevations Were Taken From the HEC-1 Computer Model for the White Tanks/Agua Fria ADMS and Normal Depth Calculations Were Used to Delineate Approximate Floodplains and Then They Were Connected Into Known Ponding WSEL's.

- Approx. Channel Configuration Data Was Taken From 1" = 400' Topographic Mapping.

Form 209

CP279D - Approx. 500' East of Citrus Road

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

Flow Rate (cubic feet per second)	33
Channel Bottom Slope (feet per foot)	.0016
Manning's Roughness Coefficient (n-value)	0.040
Channel Side Slope - Left Side (horizontal/vertical)	100
Channel Side Slope - Right Side (horizontal/vertical)	15
Channel Bottom Width (feet)	10

*** RESULTS ***

NORMAL DEPTH (FEET)	0.75
Flow Velocity (feet per second)	0.83
Froude Number	0.227
Velocity Head (feet)	0.01
Energy Head (feet)	0.76
Cross-Sectional Area of Flow (square feet)	39.89
Top Width of Flow (feet)	96.31

<Enter>: Repeat, <R>eport, or <Esc>: End

CP279C - Approx. 1300' East of Citrus Road

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

Flow Rate (cubic feet per second)	78
Channel Bottom Slope (feet per foot)	.0016
Manning's Roughness Coefficient (n-value)	0.040
Channel Side Slope - Left Side (horizontal/vertical)	100
Channel Side Slope - Right Side (horizontal/vertical)	12
Channel Bottom Width (feet)	50

*** RESULTS ***

NORMAL DEPTH (FEET)	0.82
Flow Velocity (feet per second)	1.00
Froude Number	0.237
Velocity Head (feet)	0.02
Energy Head (feet)	0.83
Cross-Sectional Area of Flow (square feet)	78.01
Top Width of Flow (feet)	141.33

<Enter>: Repeat, <R>eport, or <Esc>: End

CP279B - Approx. 2100' East of Citrus Road

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

Flow Rate (cubic feet per second)	47
Channel Bottom Slope (feet per foot)	.0028
Manning's Roughness Coefficient (n-value)	0.040
Channel Side Slope - Left Side (horizontal/vertical)	100
Channel Side Slope - Right Side (horizontal/vertical)	10
Channel Bottom Width (feet)	50

*** RESULTS ***

NORMAL DEPTH (FEET)	0.55
Flow Velocity (feet per second)	1.06
Froude Number	0.297
Velocity Head (feet)	0.02
Energy Head (feet)	0.57
Cross-Sectional Area of Flow (square feet)	44.16
Top Width of Flow (feet)	110.52

<Enter>: Repeat, <R>eport, or <Esc>: End

CP279A – Approx 1350' West of Cotton Lane

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

Flow Rate (cubic feet per second)	88
Channel Bottom Slope (feet per foot)	.0032
Manning's Roughness Coefficient (n-value)	0.040
Channel Side Slope - Left Side (horizontal/vertical)	100
Channel Side Slope - Right Side (horizontal/vertical)	15
Channel Bottom Width (feet)	50

*** RESULTS ***

NORMAL DEPTH (FEET)	0.73
Flow Velocity (feet per second)	1.32
Froude Number	0.330
Velocity Head (feet)	0.03
Energy Head (feet)	0.75
Cross-Sectional Area of Flow (square feet)	66.58
Top Width of Flow (feet)	133.47

<Enter>: Repeat, <R>eport, or <Esc>: End

CP 279 - Just West of Cotton Lane

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

Flow Rate (cubic feet per second)	79
Channel Bottom Slope (feet per foot)	.0036
Manning's Roughness Coefficient (n-value)	0.040
Channel Side Slope - Left Side (horizontal/vertical)	100
Channel Side Slope - Right Side (horizontal/vertical)	7
Channel Bottom Width (feet)	50

*** RESULTS ***

NORMAL DEPTH (FEET)	0.68
Flow Velocity (feet per second)	1.36
Froude Number	0.347
Velocity Head (feet)	0.03
Energy Head (feet)	0.70
Cross-Sectional Area of Flow (square feet)	58.18
Top Width of Flow (feet)	122.27

<Enter>: Repeat, <R>eport, or <Esc>: End

The WLB Group Inc. WLB

COMPUTATION DATA SHEET

Subject WHITE TANKS / AGUA FRIA ADMS Prepared by JSE Date 10-2-91

APPROXIMATE FLOODPLAIN AND PONDING AREA DELINEATIONS FOR AREA ALONG NORTH SIDE of I-10 BETWEEN BULLARD WASH AND ESTRELLA PARKWAY.

DISCHARGES FOR NORMAL DEPTH CALCULATIONS WERE TAKEN FROM HEC-1 HYDROLOGY RESULTS AT PERTINENT CONCENTRATION POINTS.

CONCENTRATION POINT	DISCHARGE	PONDING WSEL
D285	733 cfs	994.09'
REMAINDER FLOW FROM REEMS ROAD TO BULLARD WASH.		(AT BULLARD WASH)

- Ponding WSEL for Bullard Wash Was Taken From the HEC-1 Hydrology Computer Model for White Tanks / Agua Fria ADMS and HEC-2 model for Bullard Wash to confirm WSEL. Normal Depth Calculations Were Used to Delineate Approximate Floodplain and Then Connected into Bullard Wash Delineation.

- Approximate Channel Configuration Data Was Taken From 1" = 400' Topographic Mapping.

Form 209

D285 - Remainder Flow at CP285 Flows East to Bullard Wash
Along McDowell Road.

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

Flow Rate (cubic feet per second)	733
Channel Bottom Slope (feet per foot)	.008
Manning's Roughness Coefficient (n-value)	0.040
Channel Side Slope - Left Side (horizontal/vertical)	100
Channel Side Slope - Right Side (horizontal/vertical)	100
Channel Bottom Width (feet)	100

*** RESULTS ***

NORMAL DEPTH (FEET)	1.19
Flow Velocity (feet per second)	2.80
Froude Number	0.561
Velocity Head (feet)	0.12
Energy Head (feet)	1.32
Cross-Sectional Area of Flow (square feet)	262.06
Top Width of Flow (feet)	338.85

<Enter>: Repeat, <R>eport, or <Esc>: End

The WLB Group Inc. WLB

COMPUTATION DATA SHEET

Subject WHITE TANKS / AGUA FRIA ADMS Prepared by JSE Date 10-2-91

DOCUMENTATION FOR PONDING WSEL'S ALONG THE NORTH SIDE OF INTERSTATE 10 BETWEEN BULLARD AVE. AND DYSART ROAD.

Check Assumption of HEC-1 Ponding WSEL in Sub 287D by computing Backwater Analysis through 48" Storm Drain Outlet Pipe Into Agua Fria River.

100-YR WSEL in Agua Fria River at Van Buren Street = 970.7'

Outlet Invert in Agua Fria River = 965.0'

$S_{upstream}$ = .0033% for 724'

then S = .00063% for 4890'

$Q_{48in\ pipe}$ = 68 CFS from HEC-1 Run

$V = \frac{68}{12.57} = 5.41$ ft/sec

n = .012
A = 12.57
P = 12.57
R = 1

Entrance Loss K = .5
Exit Loss K = 1.0
90° Bend Loss = 1.0
45° Bend Loss = .5
Total = 3.0 $\frac{V^2}{64.4}$

Check Backwater

$$Q = \frac{1.49}{n} A R^{2/3} S_F^{1/2}$$

$$S_F = \left(\frac{nQ}{1.49 A R^{2/3}}\right)^2 = \left(\frac{.012 \quad 68}{1.49(12.57)}\right)^2 = .001898\ \%$$

$$H_L = (.001898 \times 5614) + 3.0 \frac{5.41^2}{64.4}$$

Total = H_L = 10.65 + 1.36 = 12.01 Ft

WSEL Agua Fria = 970.7 + 12.01 = 982.71'

Since 4 - Interstate 10 Detention Basins are in Series, Assume WSEL of Downstream Basin is Controlling WSEL for all Basins even Though Timing is Slightly Different For Peaks in Each Basin.

Ponding WSEL = 982.71'

Form 209

The WLB Group Inc. WLB

COMPUTATION DATA SHEET

Subject WHITE TANKS / AGUA FRIA ADMS Prepared by JSE Date 10-2-91

APPROXIMATE FLOODPLAIN AND PONDING AREA DOCUMENTATION FOR AREA ALONG NORTH SIDE OF INTERSTATE 10 BETWEEN REEMS ROAD AND SARIVAL AVENUE.

DISCHARGES FOR NORMAL DEPTH CALCULATIONS WERE TAKEN FROM HEC-1 HYDROLOGY RESULTS AT PERTINENT CONCENTRATION POINTS.

CONCENTRATION POINT	DISCHARGE	PONDING WS.EL.
CP 285B ≈ 2550' EAST OF SARIVAL AVE.	229 CFS	1009.07'
CP 285A ≈ 1150' WEST OF REEMS ROAD	85 CFS	1006.58'
CP285 JUST WEST OF REEMS ROAD	1007 CFS	1003.61

- Ponding Water Surface Elevations Were Taken From the HEC-1 Computer Model for the White Tanks / Agua Fria ADMS and Normal Depth Calculations Were Used to Delineate Approximate Floodplains and Then They Were Connected Into Known Ponding WSEL's.

- Approximate Channel Configuration Data Was Taken From " = 400' Topographic Mapping.

Form 209

CP285B – Approx 2550' East of Sarival Avenue

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION
October 2, 1991

PROGRAM INPUT DATA:

DESCRIPTION	VALUE
Flow Rate (cubic feet per second).....	229.0
Channel Bottom Slope (feet per foot).....	0.0033
Manning's Roughness Coefficient (n-value).....	0.0400
Channel Side Slope - Left Side (horizontal/vertical)....	15.00
Channel Side Slope - Right Side (horizontal/vertical)...	100.00
Channel Bottom Width (feet).....	50.0

PROGRAM RESULTS:

DESCRIPTION	VALUE
Normal Depth (feet).....	1.14
Flow Velocity (feet per second).....	1.73
Froude Number (Flow is Sub-Critical).....	0.356
Velocity Head (feet).....	0.05
Energy Head (feet).....	1.19
Cross-Sectional Area of Flow (square feet).....	132.55
Top Width of Flow (feet).....	181.62

TRAPEZOIDAL CHANNEL ANALYSIS COMPUTER PROGRAM, Version 1.1 (c) 1986
Dodson & Associates, Inc., 7015 W. Tidwell, #107, Houston, TX 77092
(713) 895-8322. A manual with equations & flow chart is available.

CP285A - Approx 1150' West of Reems Road

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION
October 2, 1991

PROGRAM INPUT DATA:

DESCRIPTION	VALUE
Flow Rate (cubic feet per second).....	85.0
Channel Bottom Slope (feet per foot).....	0.0013
Manning's Roughness Coefficient (n-value).....	0.0400
Channel Side Slope - Left Side (horizontal/vertical)....	15.00
Channel Side Slope - Right Side (horizontal/vertical)...	100.00
Channel Bottom Width (feet).....	50.0

PROGRAM RESULTS:

DESCRIPTION	VALUE
Normal Depth (feet).....	0.89
Flow Velocity (feet per second).....	0.94
Froude Number (Flow is Sub-Critical).....	0.216
Velocity Head (feet).....	0.01
Energy Head (feet).....	0.90
Cross-Sectional Area of Flow (square feet).....	90.08
Top Width of Flow (feet).....	152.37

TRAPEZOIDAL CHANNEL ANALYSIS COMPUTER PROGRAM, Version 1.1 (c) 1986
Dodson & Associates, Inc., 7015 W. Tidwell, #107, Houston, TX 77092
(713) 895-8322. A manual with equations & flow chart is available.

CP285 – Just West of Reems Road

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION
October 2, 1991

PROGRAM INPUT DATA:

DESCRIPTION	VALUE
Flow Rate (cubic feet per second).....	1007.0
Channel Bottom Slope (feet per foot).....	0.0020
Manning's Roughness Coefficient (n-value).....	0.0400
Channel Side Slope - Left Side (horizontal/vertical)....	15.00
Channel Side Slope - Right Side (horizontal/vertical)...	100.00
Channel Bottom Width (feet).....	200.0

PROGRAM RESULTS:

DESCRIPTION	VALUE
Normal Depth (feet).....	1.71
Flow Velocity (feet per second).....	1.97
Froude Number (Flow is Sub-Critical).....	0.305
Velocity Head (feet).....	0.06
Energy Head (feet).....	1.77
Cross-Sectional Area of Flow (square feet).....	511.94
Top Width of Flow (feet).....	397.17

TRAPEZOIDAL CHANNEL ANALYSIS COMPUTER PROGRAM, Version 1.1 (c) 1986
Dodson & Associates, Inc., 7015 W. Tidwell, #107, Houston, TX 77092
(713) 895-8322. A manual with equations & flow chart is available.

The WLB Group Inc. WLB

COMPUTATION DATA SHEET

Subject WHITE TANKS / AGUA FRIA ADMS Prepared by JSE Date Oct 8, 1991

DOCUMENTATION FOR APPROXIMATE FLOODPLAIN DELINEATION BEHIND THE SOUTHERN PACIFIC RAILROAD BETWEEN DEAN ROAD AND AIRPORT ROAD.

DISCHARGES FOR NORMAL DEPTH CALCULATIONS WERE TAKEN FROM HEC-1 HYDROLOGY RESULTS AT PERTINENT CONCENTRATION POINTS.

CONCENTRATION POINT	DISCHARGE	PONDING WSEL
R339 ROUTED FLOW FROM CP339 TO CP349	1260 CFS	895.06'

- Approximate Channel Configuration Data Was Taken From 1" = 400' Topographic Mapping.

Form 209

Between Dean Road and Airport Road

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION
October 6, 1991

PROGRAM INPUT DATA:

DESCRIPTION	VALUE
Flow Rate (cubic feet per second).....	1260.0
Channel Bottom Slope (feet per foot).....	0.0021
Manning's Roughness Coefficient (n-value).....	0.050(
Channel Side Slope - Left Side (horizontal/vertical)....	4.00
Channel Side Slope - Right Side (horizontal/vertical)...	100.00
Channel Bottom Width (feet).....	20.0

PROGRAM RESULTS:

DESCRIPTION	VALUE
Normal Depth (feet).....	3.31
Flow Velocity (feet per second).....	1.98
Froude Number (Flow is Sub-Critical).....	0.263
Velocity Head (feet).....	0.06
Energy Head (feet).....	3.38
Cross-Sectional Area of Flow (square feet).....	637.73
Top Width of Flow (feet).....	364.76

TRAPEZOIDAL CHANNEL ANALYSIS COMPUTER PROGRAM, Version 1.1 (c) 1986
Dodson & Associates, Inc., 7015 W. Tidwell, #107, Houston, TX 77092
(713) 895-8322. A manual with equations & flow chart is available.

The WLB Group Inc. WLB

COMPUTATION DATA SHEET

Subject WHITE TANKS / AGUA FRIA ADMS Prepared by JSE Date 10-4-91

DOCUMENTATION FOR APPROXIMATE FLOODPLAIN DELINEATION BEHIND SOUTHERN PACIFIC RAILROAD BETWEEN CITRUS ROAD AND COTTON LANE.

DISCHARGES FOR NORMAL DEPTH CALCULATIONS WERE TAKEN FROM HEC-1 HYDROLOGY RESULTS AT PERTINENT CONCENTRATION POINTS.

CONCENTRATION POINT	DISCHARGE	PONDING W.S.E.
D346B FLOW FROM CP 346B TO CP 359	956 CFS	901.91'

- Approximate Channel Configuration Data Was Taken From 1" = 400' Topographic Mapping.

Form 209

Between Citrus Road and Cotton Lane

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION
October 6, 1991

PROGRAM INPUT DATA:

DESCRIPTION	VALUE
Flow Rate (cubic feet per second).....	956.0
Channel Bottom Slope (feet per foot).....	0.0040
Manning's Roughness Coefficient (n-value).....	0.0500
Channel Side Slope - Left Side (horizontal/vertical)....	4.00
Channel Side Slope - Right Side (horizontal/vertical)...	100.00
Channel Bottom Width (feet).....	100.0

PROGRAM RESULTS:

DESCRIPTION	VALUE
Normal Depth (feet).....	2.03
Flow Velocity (feet per second).....	2.29
Froude Number (Flow is Sub-Critical).....	0.348
Velocity Head (feet).....	0.08
Energy Head (feet).....	2.11
Cross-Sectional Area of Flow (square feet).....	417.95
Top Width of Flow (feet).....	311.34

TRAPEZOIDAL CHANNEL ANALYSIS COMPUTER PROGRAM, Version 1.1 (c) 1986
Dodson & Associates, Inc., 7015 W. Tidwell, #107, Houston, TX 77092
(713) 895-8322. A manual with equations & flow chart is available.

The WLB Group Inc. WLB

COMPUTATION DATA SHEET

Subject WHITE TANKS / AGUA FRIA ADMS Prepared by JSE Date 10-28-91

DOCUMENTATION FOR APPROXIMATE DELINEATIONS SOUTH OF BREAKOUTS ALONG DYSART DRAIN.

- BREAKOUT EAST OF LITCHFIELD ROAD ON SOUTH SIDE OF DYSART DRAIN

$Q = 600$ CFS ASSUME APPROXIMATE 1.5 FT. DEPTH IN FLOODED AREA

- AT EXPANSION RATE OF 4:1, AVERAGE FLOODPLAIN WIDTH EQUALS 1000 Feet

Check Assumption.

$L = 1000$ $A = 1000 \times 1.5 = 1500\ ft^2$ $W_p = 1250$

$R = \frac{1500}{1000} = 1.5$ $S = .0003$ ft/ft

$n = .08$

$$Q = \frac{1.49}{.08}(1500)(1.5)^{2/3}(.0003)^{1/2}$$

$Q = 634$ cfs $\cong 600$ cfs This is Very Close And Assumption Seems Reasonable.

∴ Zone A Based on 4:1 Expansion Rate From Top of the South Side of Dysart Drain (Where Flow Breaks out) to 100-Year Ponding Water Surface Elevation.

Form 209

The WLB Group Inc. WLB

COMPUTATION DATA SHEET

Subject WHITE TANKS/AGUA FRIA ADMS Prepared by JSE Date 10-28-91

- FLOWS THROUGH LUKE AFB FROM LITCHFIELD ROAD TO THE WEST.

$Q = 534$ CFS

Avg Depth = 1.0 Ft
Avg Width = 1600 Ft
$n = .12$ (Dense Buildings)

$$Q = \frac{1.49}{.12} 1600 (1)^{2/3} (.00077)^{1/2} = 551 \text{ cfs}$$

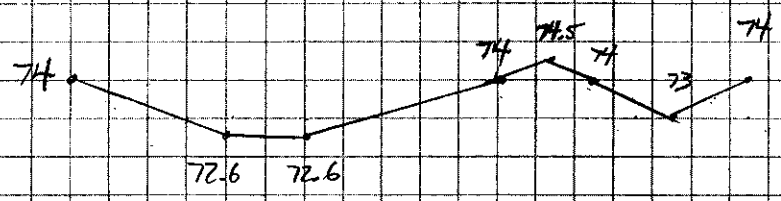
Very Close

∴ Zone A with Avg Width = 1600 ft and Avg Depth = 1.0 ft Gives Approximate Limit of Flood plain.

- BREAKOUT ≈ 2600' WEST OF LITCHFIELD ROAD ON DYSART DRAIN

Typical Cross Section

Ability to Handle 2050 cfs.



Check Capacity at 1074 $A = 1110 \text{ ft}^2$ $W_p = 1500$ $R_H = .74$ $n = .03$
$S = .005$

$$Q = \frac{1.49}{.03} 1110 (.74)^{2/3} (.005)^{1/2}$$

$Q = 3189$ cfs > 2050 cfs OK Place Approximate Floodplain at Edges of Cross Section.

Form 209

The WLB Group Inc. WLB

COMPUTATION DATA SHEET

Subject WHITE TANKS / AGUA FRIA ADMS Prepared by JBE Date 10-5-91

ASSUMPTIONS FOR PONDING WSEL BEHIND THE AIRLINE CANAL

- Ponding WSEL's were taken as the nearest whole foot Elevations above the top of the Highest Point on the airline canal as shown on 1"=400' Topograpic Mapping. This corresponds closely to previous FIRM is this area, however is changed slightly because of more definitive mapping.

Note: After the Colter Road Channel has been completed, the opportunity may exist to remove or reduce some of the ponding area limits. This should be explored when acutual channel construction has been completed.

Form 209

The WLB Group Inc. WLB

COMPUTATION DATA SHEET

Subject Approximate Delineation for Breakout Over Estrella Parkway From Bullard Wash Along Buckeye Canal Prepared by JSE Date 5-2-92

Documentation for Approximate Delineation Along Buckeye Canal From Estrella Parkway to West of Sarival Avenue.

This delineation was made based upon the breakouts over Estrella Parkway to the west. The Bullard Wash HEC-2 analysis documents WSEL extensions in the right overbank.

This is a very flat agricultural area with no defined channels. The approximate delineation was assumed to extend from Buckeye Canal north to State Route 85 and then east to a defined ponding area between Sarival Avenue and Cotton Lane. Here the delineations are matched together.

Normal Depth calculations were not performed as the 1"=400', 2 foot interval topographic was utilized along with engineering judgement to define the limits of this approximate delineation. Refer to the Floodplain Maps.

Form 209